

# PrimeLife dissemination report V2

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## Abstract

PrimeLife's second project year has resulted in several public reports and a plurality of dissemination activities of the consortium. This report presents the project's dissemination and exploitation activities during the second project year. It describes the target groups relevant for PrimeLife, and it documents the exploitation and dissemination strategies and actions designed to reach these target groups.

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This document is an updated version of the “PrimeLife dissemination report V1” which had been partly written and co-edited by Maren Raguse (formerly ULD).

# List of acronyms

APDCM	La Agencia de Protección de Datos de la Comunidad de Madrid
API	Application programming interface
AVANTSSAR	Automated Validation of Trust and Security of Service-oriented Architectures
BEUC	The European Consumer's Organisation
CA	Consortium Agreement, California
CEN	European Committee for Standardization
CERP	Cluster of European RFID Projects
CNIL	Commission Nationale de l'Informatique et des Libertés
D	Deliverable
Daidalos II	Designing Advanced network Interfaces for the Delivery and Administration of Location Independent, optimised personal Services
DBSec	Database security (conference)
DPA	Data Protection Authority
EC	European Commission
eGovernment	electronic government / digital government
EnCoRe	Ensuring Consent and Revocation
ENISA	European Network and Information Security Agency
EPTA	European Parliamentary Technology Assessment Association
ESORICS	European Symposium on Research in Computer Security
ETICA	Ethical Issues of Emerging ICT Applications
ETSI	European Telecommunications Standards Institute
EU	European Union
EuroPriSe	European Privacy Seal
FIDIS	Future of Identity in the Information Society
FP7	Framework Programme 7
GA	Grant Agreement
H	Heartbeat
HCI	Human-Computer Interaction
ICDCS	International Conference on Distributed Computing Systems
ICT	Information and Communication Technology
Idemix	IBM Identity Mixer
IdM	Identity Management

IEC	International Electrotechnical Commission
IFIP	International Federation for Information Processing
IGF	UN-Internet Governance Forum
IoT	Internet of Things
IP	Intellectual Property
IPCA	Intellectual Property consortium agreement
IPR	Intellectual Property Right
ISO	International Organisation for Standardisation
IST	Information Society Technologies
IT	Information Technology
ITU	International Telecommunication Union
JTC1	Joint technical committee 1
MOBIO	Mobile Biometry
MozPET	Mozilla Privacy Enhancement Technologies
NESSI	Networked European Software & Services Initiative
NGO	Non-governmental organisation
OASIS	Organisation for the Advancement of Structured Information Standards
OSIS	Open-Source Identity System
OMTP	Open Mobile Terminal Platform
PhD	philosophiæ doctor (doctor of philosophy)
PET	Privacy-Enhancing Technology
PICOS	Privacy and Identity Management for Community Services
PLCA	PrimeLife Consortium Agreement
PLING	Policy Language Interest Group
PR	Public Relation
PRIME	Privacy and Identity Management for Europe
PrivacyOS	Privacy Open Space
R&D	Research & Development
RESERVOIR	Resources and Services Virtualization without Barriers
SAS	Statistical Analysis Software
SC	Subcommittee
SME	Small and medium-sized enterprises
SNS	Social Network Services
SOA	Service Oriented Architecture
SRN	Strategic Research Agenda
STORK	Secure idenTity acrOss boRders linked

SVN	Subversion
SWIFT	Secure Widespread Identities for Federated Telecommunications
TAM	Tivoli Access Manager
TAS3	Trusted Architecture for Securely Shared Services
TFIM	Tivoli Federated Identity Manager
TU	Technische Universität
UK	United Kingdom
USA	United States of America
V	Version
VID	Virtual Identity
W3C	World Wide Web Consortium
WA	Washington
WG	Working Group
WP	Work Package
XACML	eXtensible Access Control Markup Language

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# Chapter *1*

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## Introduction

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Within the PrimeLife Dissemination Report the partners report on their activities to publicise their research findings and knowledge generated within the project (foreground) during the recent project period. The partners further state their plans to exploit the generated knowledge and by which means they might have taken up on the exploitation activities already.

This interim PrimeLife Dissemination Report V2 provides a picture of the activities undertaken during the second project year. It updates the “PrimeLife Dissemination Report V1” (H3.1.1). A final version covering all dissemination activities throughout the projects lifetime will be published at the end of the project (V3, H3.1.3).

This document consists of four sections:

- Results to be disseminated
- Exploitable results
- Publishable results

This chapter introduces PrimeLife’s project objectives, target audiences and the dissemination strategy to reach the identified audiences. A central role in the dissemination activities is played by the project’s web site where publishable results are available for download: <http://www.primelife.eu/>

### 1.1 PrimeLife project objectives

The overall objective in PrimeLife is to help enable individuals to retain control over their personal information. The PrimeLife predecessor project PRIME already identified several emerging challenges in the field of identity management and provides first solutions by means of user-centric identity management systems. While these were sufficient in traditional server-client style transactions, PrimeLife addresses challenges to privacy and identity management induced by the fundamental changes to the internet as they currently occur. These changes comprise inter alia the change to a more community-based focus with interactions happening between applications such as virtual communities and web 2.0 technologies. Individuals want to retain and protect their privacy and control over personal data irrespective of their activities. But contributing to these collaborative internet services may cause a life long trail of personal data.

PrimeLife tackles these challenges by working towards the following goals:

- Providing and supporting privacy throughout our lives, taking into account new ways of interacting an emerging Internet application services;
- Advancing the state of the art in the area of mechanisms supporting Privacy and Identity Management;
- Making privacy real, largely disseminating its results through collaborative and educational activities, standardisation and Open Source initiatives.

The PrimeLife Consortium has set up an effective and efficient management that drives the project towards meeting these objectives. The partners formed six activities consisting of multi-disciplinary research teams which will focus on the following specific objectives all aiming at making sustainable privacy, trust and identity management a reality as illustrated in Figure 1 below:

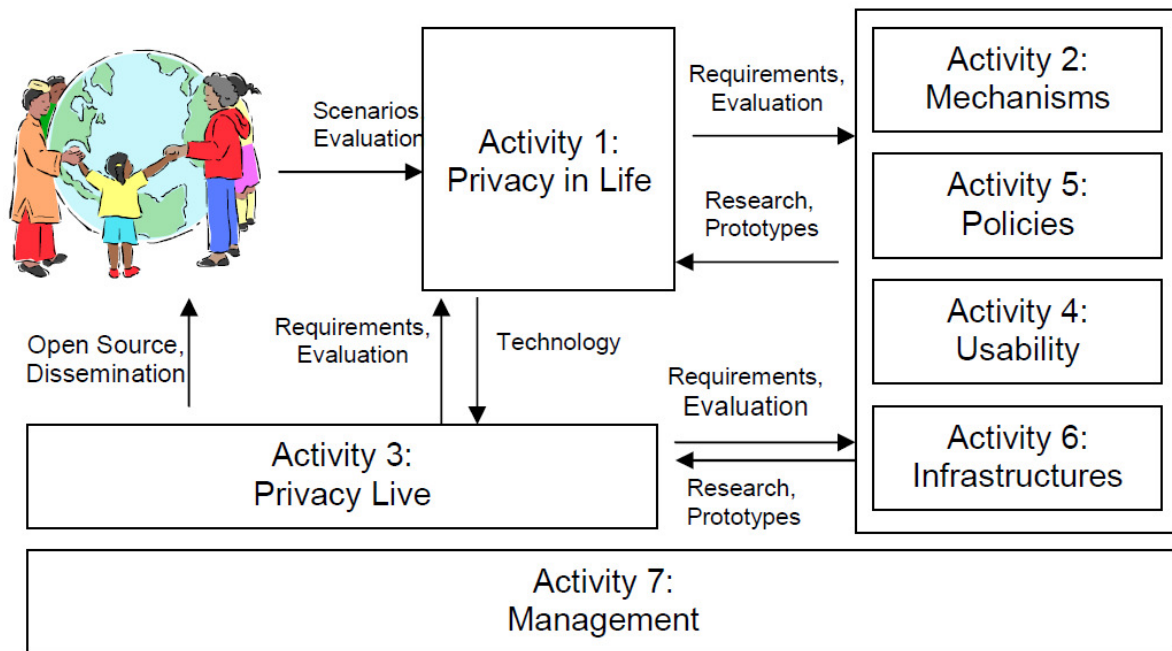


Figure 1 Interconnection of Activity 3 within PrimeLife

To reach the goal of providing and supporting **privacy throughout our lives** PrimeLife performs research addressing the following challenges:

- Sustaining privacy and identity management from birth to death.
- Providing user-centric and dynamically-configurable control over personal data in data-intensive' interactions that characterise many of the virtual communities and collaborative applications.
- Adapt the PRIME concepts developed for privacy-enhancing identity management in bi- or trilateral settings to new multilateral technological and business settings.

Privacy can not be provided for our scenarios with today's privacy technologies. PrimeLife will therefore perform the basic and applied technological research that is required to make privacy throughout life a reality. Important technology areas that PrimeLife covers are:

- **Tools:** The emerging Internet needs to be built on scalable and usable privacy technology components. Examples include privacy-enhancing cryptography, trust establishment mechanisms, as well as novel data protection and access control mechanisms for new types of user-contributed data.
- **Human Computer Interaction:** Privacy will not be used unless it is usable. We will show how to make privacy technologies understandable and thus usable by all groups of citizens.

- **Policies:** In order to provide configurable privacy spheres, it is important to build privacy policy support into all mechanisms. These policies can then be used to configure technology to meet the regulatory, cultural, and individual requirements.
- **Infrastructure:** Many building blocks need privacy-aware infrastructure to function properly. We will show how to provide scalability and privacy.

Finally, the project aims at capitalising on PrimeLife results and making them available on a large scale to other research projects as well as to the community at large. To this end, PrimeLife:

- Attempts to commit suitable results to **Open Source** initiatives,
- engages in **standardisation bodies**, and
- provides **educational material**.

Reaching the objectives requires extensive dissemination activities. PrimeLife pursues this goal by its dissemination strategy as described within the following section.

## 1.2 PrimeLife use and dissemination strategy

In accordance with PrimeLife’s long-term goal to protect privacy of individuals over their whole lifespan, dissemination of the project’s findings takes a central role. Reflecting its importance the consortium devotes Activity 3 “Privacy Live – Transferring results into practice” to this goal. PrimeLife puts strong effort on dissemination activities based on this PR strategy identifying the target audiences. Activity 3 coordinates the dissemination of results, set up the public web site and organises central outreach activities (like press releases, representation of PrimeLife at key events, organisation of public workshops). In addition, and as one of the foundations of our outreach strategy, each partner is responsible and encouraged to publish individual results in-line with the project’s work plan.

Activity 3 “Privacy Live” has a central role in the project dissemination activities and is well incorporated in the network of other activities. Activity 1 aims at a life-long protection of privacy in the emerging collaborative internet. The activity researches and defines the requirements as an input for the research activities. Activities 2, 4, 5 and 6 are building the actual privacy technologies. This includes basic research as well as applied research constructing privacy tools, privacy policies and privacy-enabled infrastructures. Activity 3 aims at the exploitation of the results. It provides the research findings for the real world. The activity transfers PrimeLife’s research results into open source, standards and actual products that will enable privacy protection in future technologies. The project expects that by doing so, we will discover some gaps and requirements which Activity 3 will feed back to the relevant work packages.

An overview of the information flow and the incorporation of the work packages on dissemination, of which Activity 3 consists, is given in Figure 2:

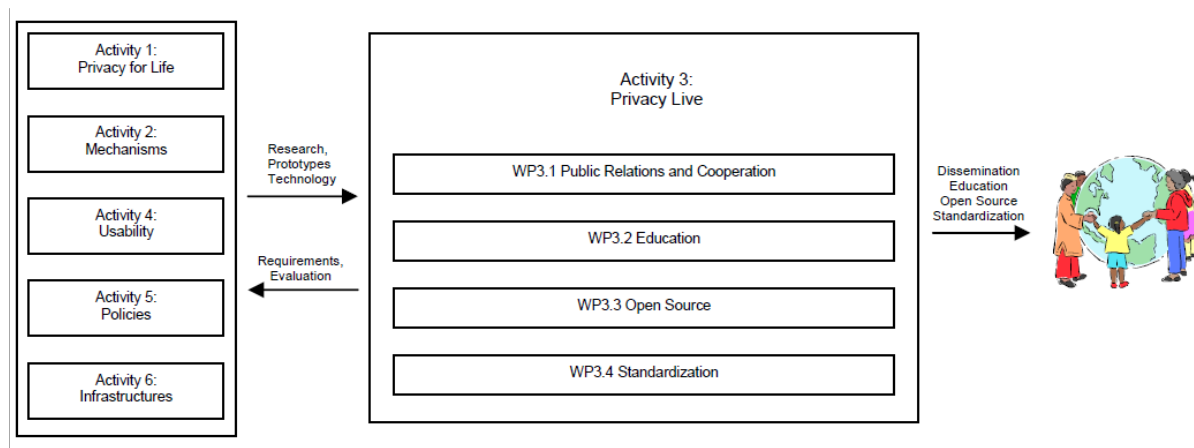


Figure 2: Activity 3 and dependencies

PrimeLife raises the privacy awareness of the general public and provides a platform for education on concrete ideas on privacy protection by means of organizing summer schools, a book publication and lectures. As the book on the PrimeLife research results (D3.2.1) intends to summarize the project's findings it is consequently scheduled for the end of the project (month 36). The book will be available for the project's closing event.

PrimeLife partners engage actively in educating students and the general public (see also section 2.1.1 below). Current developments, arising challenges and the solutions user centric identity management and the underlying technologies may provide had been topic at a variety of lectures and talks held by PrimeLife partners.

## 1.2.1 Exploitation directions

Research results will be exploited, wherever possible, for creating value within all project partners' organisations. The following exploitation activities are pursued:

- *Open Source Software*: The consortium encourages the use of research results including the developed prototypes as the basis for products which are released via an Open Source licence. This is reflected in a separate Work Package (WP3.3). For more details see section 2.1.4 below.
- *Commercialised products or services*: The industry partners may pick up project results to build on top own products or service offerings.
- *Think tank*: The PrimeLife partners make use of the project as a think tank on privacy and privacy technologies with a direct influence on their business (strategies, consensus building, standards, etc.).
- *Scientific publications*: In particular partners from research and academia exploit the project's results via elaborating scientific publications.
- *Educational material*: PrimeLife supports the preparation of high-quality educational material (courses, text books, etc.) and their use in teaching and raising awareness. At present several academic partners and ULD use PrimeLife foreground for lectures at universities.
- *Projects*: PrimeLife is expected to give rise to new research projects, and running projects may profit from PrimeLife's results in the area of privacy. PrimeLife keeps close contact with several EC-funded and national projects. Research findings are exchanged on conferences, by personal contact between researchers. Due regard is held to the recent deliverables and publications of other projects.
- *Standardisation*: The project aims to influence standardisation initiatives. To this end, it reaches out to relevant communities as part of Work Package 3.4, and offers appropriate results for standardisation. (see section 2.1.3 below).

The following key results are object of further exploitation. Please refer to section 2.2 below for further detail on the awaited results.

- Mechanisms
- Requirements
- Scenarios
- PrimeLife Demonstrators and Prototypes
- Assurance Methods
- Mock-Ups
- HCI Guidance
- Evaluation of PrimeLife Demonstrators and Prototypes
- Policies
- Infrastructure
- Dissemination Materials

Due to the variety of different partners the aimed use of PrimeLife's results varies, e.g. the industry partners pursue other goals than the academic partners, NGOs or privacy protection authorities.

## 1.2.2 Motivations and goals

When the predecessor project PRIME started in March 2004, the PRIME partner's motivation for extensive dissemination activities was that many people had not been aware that their privacy is at stake in many situations and even if they were, they had not been able to protect themselves. This has gradually changed. Due to several scandals concerning the loss and fraudulent exploitation of personal data in different European countries the awareness for privacy related issues seemingly was raised. Besides occurrences in the private sector such as inappropriate collection and transfer of data by employers or customer data by businesses, also incidents in the public sector and draft bills e.g. referring to Data Retention or the transfer of passenger name records in third states lead to extensive coverage of privacy related topics in the general press. Newspapers also reported about ways and possibilities to protect ones privacy and the need of identity management.

However, deeper knowledge as well as effective, transparent and easy-to-use tools for identity management are currently missing and the perception of privacy issues varies considerably between member states and age groups.

## 1.2.3 Target audience

The success of PrimeLife and beyond in the area of privacy and identity management primarily relies on the capacity of its participating experts to establish credibility, to interact and exchange information about the vision of PrimeLife, its approach, progress and results. In order to support the project's objectives, the identification of the key actors and the creation of a wider permanent community of stakeholders are crucial. The following stakeholders have been identified and addressed while disseminating material:

- *Individuals*, who are end users and/or data subjects (so-called uses, i.e. persons about whom personal data are processed) of Information and Communication Technology (ICT) systems and applications. Users can for instance perform the roles of community members, employees, service subscribers, citizens, authors, customers, or clients within PrimeLife application areas. Users should be educated about the use of personal data and the deployment of PrimeLife applications. Therefore the usability of PrimeLife tools is an important precondition for allowing users to utilise them.
- *Media / Journalists*, especially those specialised in information and communication technology should help to spread information about the PrimeLife project and its results to the public and to special interest groups (e.g., readers of technical papers or relevant scientific journals).
- *User and consumer associations* at national and European level like the European Consumer's Association (BEUC). Also the co-operation with user and consumer associations will be helpful to elicit user's requirements for PrimeLife-based solutions. In addition they could be helpful in advertising privacy seals and other methods of privacy assurance, increasing both awareness and visibility concerning PETs in products.
- *Education staff*, curricular policy makers, and educational associations and institutions to use e.g., PrimeLife educational material in schools, universities and other teaching environments.
- *Policy makers and parliamentarians*, nationally and at European level. They are representatives of the citizens as potential users and data subjects PrimeLife should protect their privacy interests and rights. They also have the possibility to promote PrimeLife-based solutions by for example creating legal rules for the obligatory deployment of privacy threat analyses, privacy audits and privacy-enhancing technologies and by facilitating this by budgetary allocation realising inter alia the public authorities to first hand purchase products, which have been awarded a privacy seal.
- *Privacy commissioners and Data Protection Authorities* in the EU member states and subsequently the Art. 29 Data Protection Working Party. They should be informed about PrimeLife and because of that they should use their influence to promote the large deployment of PrimeLife-based solutions in governmental and in commercial organisations.

- *IT security organisations*, especially the European Network and Information Security Agency (ENISA), which aims at ensuring a high and effective level of network and information security within the European Union.
- *Research communities* (governmental and commercial) and other projects, e.g., in FP7, dealing with privacy issues, technology assessment organisations at national and European level, like European Parliamentary Technology Assessment Association (EPTA). They should be stimulated to co-operate with PrimeLife partners in a scientific discussion and research on privacy-enhancing IdM.
- *Organisations that use information systems and process personal data*, like banks, insurance companies, credit card companies, toll collection companies, network operators, service providers, providers of central components for communities, advertisers, governmental authorities and providers of infrastructures. They perform the role of the data controllers (i.e. the entities that are responsible for the processing of personal data of users and uses), and as such they have to strictly follow data protection legislation. Privacy-enhancing IdM can assist such organisations in guaranteeing law compliance.
- *Standardisation organisations* at national and international level, like European Committee for Standardisation (CEN), World Wide Web Consortium (W3C), International Organisation for Standardisation (ISO), the Organisation for the Advancement of Structured Information Standards (OASIS) and the International Telecommunication Union (ITU), all working on identity management. Their cooperation will be important for the transfer of PrimeLife results into standardisation to ensure interoperability with existing systems and concepts.
- *System developers, system designers, suppliers of ICT products and services* should be motivated to see PETs as a business enabler and to integrate PrimeLife concepts and solutions into their systems and products. Thereby they can help to trigger persuasive deployment of privacy-enhancing IdM solutions.
- *Business and industry associations, employer associations and trade unions* on a national and European level; their support is also needed for a broad deployment of PrimeLife-based solutions within organisations. They have to be well informed about the opportunities that PrimeLife can provide both from a business and a user perspective.
- *Law enforcement authorities* at national level and international bodies like Eurojust, Europol and Interpol. Their representatives should participate in discussions with PrimeLife Partners and advise them about legitimate law enforcement interests that have to be supported by PrimeLife-based solutions and that are in an appropriate balance with the privacy rights of users and uses. In particular circumstances under which anonymity should be revoked in order to prosecute criminals have to be well defined and agreed upon.

A cross-section of these stakeholders participates in the PrimeLife Reference Group.

An overview of the audiences addressed by PrimeLife's past dissemination activities is given in Figure 3. Compared to project year 1 PrimeLife partners doubled their dissemination activities leading to an increased transfer of foreground towards all target audiences. During project year 2 a focus had been set on disseminating knowledge towards the scientific community. Seemingly this is due to the fact, that most final results that could be disseminated towards stakeholders in industry and public bodies will be expected during project year 3. However, collaboration with other EC projects and conveying results towards industry were focal points during the second year already.

Please note that for each dissemination event multiple choices were possible as some of the dissemination activities addressed several audiences. For example the PrimeLife summer school primarily targets students, the academic community and research personnel. But dissemination to and discussion with other EC projects and stakeholders from the industry were essential part of the agenda.

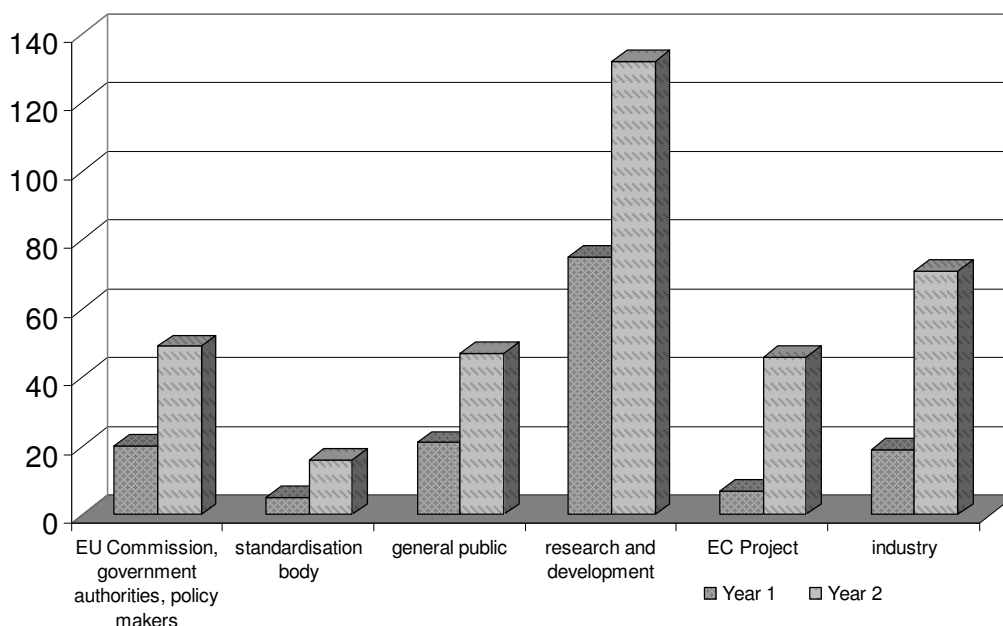


Figure 3 Type of audience addressed during project years 1 and 2

#### 1.2.4 Reaching the target audiences

PrimeLife is using standard dissemination channels for scientific results, such as articles in journals, papers at conferences and demonstrations at fairs, as well as making use of new ways to disseminate results, e.g., directly to users in communities or by providing Open Source software (see section 2.1.4). In recognition of the overall importance of the dissemination strategy the consortium chose the approach considered the most effective by combining multiple media pathways, each selected for its suitability to the needs and resources of the particular target audiences concerned. Two major categories of dissemination channels are addressed: Permanent channels and PrimeLife-specific channels.

Permanent channels exist independently from the project and comprise

- Media
- Public events
- Technical publications
- Partners own channels

PrimeLife specific channels consist of

- PrimeLife's website
- Networking activities
- Summer Schools
- Standardisation workshops
- Workshops for journalists
- Cooperation workshops
- PrimeLife's internal website

The PrimeLife workshop series enables the partners to disseminate results to a well-defined target group of interested experts in the specific section of PrimeLife's research activity.

To disseminate their results most effectively the partners are choosing the dissemination channels that fit best to the target groups which have been addressed by the partners in a long history of research networking. Taking a geographical dimension into account the general public is usually addressed by national dissemination. The following table gives an overview of suitable communication channels for reaching different target audiences.

Communication channels		Target audiences						
		Potential users and customers	Organisations and third parties	Media	Standardisation committees	Research community	PrimeLife Partners	European Commission
Permanent	Media	√	√	√	√	√	√	√
	Public events	√	√	√		√	√	√
	Partners' own channels	√	√	√	√	√	√	
	Technical publications			√	√	√	√	√
Specific	Public web site	√	√	√	√	√	√	√
	Networking activities					√		
	PrimeLife-specific events	√	√	√		√	√	√
	Internal web site						√	

Table 1: Communication channels to reach target audiences

### 1.2.5 Workshop series

Within the project runtime, PrimeLife plans to organise five different kinds of workshops which were partially held already:

- Workshops for the PrimeLife Reference Group to get feedback on results achieved by PrimeLife results so far (“Reference Group Meetings”);
- Summer Schools for researchers and students to teach about state-of-the-art and new results and trends on privacy-enhancing identity management;
- Standardisation Workshops addressing standardisation initiatives;
- Workshops for journalists to explain PrimeLife’s results and position the project in the identity management landscape;
- Cooperation Workshops for related projects, interested developers or other parties who can discuss their own needs for PET modules and pick up PrimeLife’s results to improve their own concepts and IT systems.

The workshops function as interaction means with relevant stakeholders grouped by their main interest. Per workshop the appropriate PrimeLife partners were asked to present recent project results and to elicit the desired feedback on currently open research questions.

From the experience within PRIME the partners have learned that other EC funded projects as well as national projects have a great demand for knowledge and experience on privacy legislation and privacy technology. To meet these demands which PrimeLife foresees also for the future, the project has already held and will organise further “Cooperation Workshops” where mainly specific questions of interested projects were and should be discussed. By this means, PET concepts developed within PRIME or PrimeLife can be tailored according to the needs of the other projects and be used in their specifications



and applications. Further information with regard to workshop series as mentioned above is available in sections 2.1.5 et seq.).

The following consortia of projects or project proposals have through a Letter of Intent expressed their interest in such collaboration: BIPS, CAPA, Daidalos, DESIRE, FIDIS, GeoPKDD, Liberate, PEACE, PEGASO, PETweb, Sevecom, SMILE and VESUV.

# Chapter 2

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## Results to be disseminated

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### 2.1 Dissemination of Foreground

A major goal and focus of PrimeLife work is on making privacy “live”. An entire Activity (3) is dedicated to transferring the project results into practice by making them widely available. In order to achieve this objective, PrimeLife presents solutions to protect and maintain one’s private sphere and raise awareness concerning privacy and identity management in Web 2.0 applications, and throughout an individual’s whole life.

In this chapter an overview on PrimeLife dissemination activities is given, thus refining the project’s dissemination strategy being introduced in section 1.2. The following section describes dissemination to the public, while the second section concentrates on the research community. The third section shows PrimeLife’s outreach to standardisation bodies and initiatives and the fourth section deals with PrimeLife and open source. The fifth section gives an overview on different workshops that were held within the project runtime so far.

#### 2.1.1 Dissemination to the public

One of the project objectives is to raise awareness for privacy and identity management issues and possible solutions. Therefore disseminating PrimeLife’s results to the public is considered very important by all consortium members. The following table shows the selected dissemination efforts to the general public made during the past project’s lifetime.

Table 2 Dissemination to the general public (see next page)

<b>Date</b>	<b>Dissemination Activity</b>	<b>Type of audience</b>	<b>Countries addressed</b>	<b>Partner involved</b>
	<b>Web site</b>			
Project start, May 2008	Project web site: www.primelife.eu	general public	All	ULD / W3C / all
	<b>Press releases / Press coverage / Interviews</b>			
Project start, 27 May 2008	Press release “European Union launches 16 Million Euro R&D Project on Privacy and Identity Management”	general public	All	ULD / all
March 2009	Interview with Marit Hansen: “Informationen bei Datenschutzvorfällen: Ja, bitte!”, in: DANA 1/2009, Bonn, Germany.	general public	Germany	ULD
16 March 2009	Interview with Marit Hansen, “Große Mehrheit sorgt sich um Privatsphäre im Netz”; press publication, Germany.	general public	Germany	ULD
25 March 2009	Interview with Marit Hansen: “Großbritannien will soziale Netze überwachen”, press publication.	general public	Germany	ULD
8 April 2009	Interview with Jan Schallaböck: “Demokratie und Datenschutz auf Facebook & Co”, published at futurezone.orf.at	general public	German language area	ULD
8 May 2009	Interview with Marit Hansen: “Twitter: Private Daten auf dem Präsentierteller”; press publication.	general public	Germany	ULD
23 May 2009	Interview with Marit Hansen: “Social Networks speichern gelöschte Fotos”; press publication.	general public	Germany	ULD
25 May 2009	Interview with Marit Hansen: “Social Network Seiten – Hindernis beim Bewerbungsvorgang?”; press publication.	general public	Germany	ULD
6 June 2009	Interview with Marit Hansen: “British Telecom - Rückzug aus Spion-Werbesystem”; press publication.	general public	Germany	ULD
14 July 2009	Interview with Marit Hansen: “Datenschutz für Facebook-User unerwartet wichtig”; press publication.	general public	Germany	ULD
16 July 2009	Interview with Marit Hansen; “Social-Network-Seiten sind wahre Fundgruben für Phisher”; press publication.	general public	Germany	ULD
25 July 2009	Interview with Marit Hansen: “Europäische Bankdaten bleiben im Visier der US-Fahnder”; press publication.	general public	Germany	ULD

<b>Date</b>	<b>Dissemination Activity</b>	<b>Type of audience</b>	<b>Countries addressed</b>	<b>Partner involved</b>
14 August 2009	Interview with Marit Hansen; “Tatort Internet: Polizei will 2000 Cyber-Cops”; press publication.	general public	Germany	ULD
October 2009	Interview with Marit Hansen: “Die Kriminalpolizei rät 3&4, Leitartikel”; press publication, pressto gmbh - agentur für medienkommunikation.  Published as „Anonymität ist verführerisch“ in "Die Kriminalpolizei rät ..." p. 22-28.	general public	Germany	ULD
December 2009	Press coverage: PrimeLife was elected “Project of the month” by the NGO-website Gov2u. <a href="http://www.gov2u.org/">http://www.gov2u.org/</a>	general public	International	3rd party
20 January 2010	Press coverage on PrimeLife’s Prototype “clique” in Nederlands Dagblad, two articles, one on the front page	general public	Netherlands	TILT
30 January 2010	Interview with Bibi van den Berg on the release of PrimeLife's Social Network software clique; press publication by Ernst-Jan Hamel: “Tilburg bouwt privacyvriendelijk sociaal netwerk”,	general public	Netherlands	TILT
30 January 2010	Press coverage on PrimeLife Prototype “clique” at Nu.nl.	general public	Netherlands	TILT
1 February 2010	Radio coverage, Radio 1 interview on “Lunch!” about PrimeLife’s prototype “clique”.	general public	Netherlands	TILT
18 February 2010	Interview with Marit Hansen on the service PleaseRobMe.com and general issues of online security and web 2.0.	general public	Germany	ULD
26. February 2010	Interview with Marit Hansen on Social Networks for the Bayrische Rundfunk	general public	Germany	ULD
	<b>Flyers / Leaflets / Posters / Presentation Slides / Exhibition / Consultation</b>			
March / April 2008	Participating in exhibition at The Future of Internet Conference, Bled, Slovenia	general public, other projects	All	IBM
June 2008	PrimeLife Presentation	general public	All	ULD, all
February 2009	Project flyer	general public	All	ULD, all
28 January 2009	Participating in symposium on Social Network Services organized by DPA of Rhineland-Palatinate and Second channel of German television broadcasting ) on the occasion of the European Data Protection Day 2009	high school students	Germany	ULD

<b>Date</b>	<b>Dissemination Activity</b>	<b>Type of audience</b>	<b>Countries addressed</b>	<b>Partner involved</b>
March annually	CeBIT exhibition in Hanover, Germany	general public, IT specialists	Germany	ULD
3 April 2009	Jan Schallaböck: "A Netiquette for Social Networks", Joint presentation at Re-Publica 2009 and 2nd European Privacy Open Space (together with Ralf Bendrath, and Prof. Hendrik Speck) in Berlin.	general public	Europe	ULD
23 September 2009	Rannenberg, Kai: "Privacy in a world of ambient and personalized ICT Services", talk at "The Net will not forget", European conference on ICT and Privacy, Copenhagen, Denmark.	general public	Europe	GUF
15 September 2009	Marit Hansen: "Der gläserne Bürger", talk at Soroptimist Kiel, Kiel, Germany.	general public	Germany	ULD
3 October 2009	Benjamin Kellermann: "Datenschutzfreundliche Terminplanung", presentation at the Datenspuren 2009, Dresden, Germany.	general public	Germany	TUD
16 November 2009	Katalin Storf: "Datenschutz in Social Networks und Online Spielen", Mediatage Nord, Kiel, Germany.	general public	Germany	ULD
20 November 2009	Identity Management; Kolloquium "15 Jahre kommerzielles Internet in Dresden", IBH IT-Service GmbH, Dresden, Germany.	general public	Germany	TUD
30 December 2009	Benjamin Kellermann: "Privacy-Enhanced Event Scheduling", presentation at the 26C3, Berlin, Germany.	general public	Europe	TUD
9 February 2010	Marit Hansen, Holger Brocks: presentations at Safer Internet Day 2010, Ahrensburg, Germany.	general public	Germany	ULD
9 February 2010	Holger Brocks: "Datenschutz im Internet: Informationsabend" press coverage and presentation on the occasion of the Safer Internet Day 2010, Altenholz, Germany.	high school students, parents	Germany	ULD
<b>Lectures / Teaching</b>				
16 April 2009	Ronald Leenes: "Privacy & identity in sociale netwerken", Introductiecollege UvT, talking to students and parents.	students, parents	National	TILT
12 October 2009	Isabelle Oomen, Lecture about privacy and social network sites at the University of Amsterdam for master students Philosophy.	university students	National	TILT
November 2009	Slim Trablesi: "Security and Privacy Research", lecture at Ecole Nationale d'Ingenieurs de Tunis (ENIT)	university students	National	SAP

<b>Date</b>	<b>Dissemination Activity</b>	<b>Type of audience</b>	<b>Countries addressed</b>	<b>Partner involved</b>
2 December 2009	Maren Raguse: “Identitätsmanagement Privacy4Life”, lecture at University of Applied Science Kiel.	university students	Germany	ULD
5 December 2009	Ulrich König, Harald Zwingelberg: Coaching for High School student's project on “Web 2.0 - social networks” at Berufliche Schule Wirtschaft Kiel. The students produced a 80 min. presentation including a film, a theatre play and a talk on the topic.	high school students	Germany	ULD
15 December 2009	Magali Seguran: “Security and Privacy Research”, lecture at Jean Moulin University Lyon	university students	France	SAP
2009	Kai Rannenber, Several Teaching Lessons at GUF on PrimeLife related topics	university students	Germany	GUF
14 January 2010	Harald Zwingelberg: “Identity Management in Social Networks”, lecture at Wirtschaftsakademie Schleswig-Holstein, Kiel, Germany	university students	Germany	ULD
4 February 2010	Harald Zwingelberg: “Identity management and lifelong privacy”, lecture at Wirtschaftsakademie Schleswig-Holstein, Kiel, Germany	university students	Germany	ULD
18 February 2010	Interview with Marit Hansen on PleaseRobMe.com and general issues of online security and web 2.0.	general public	Germany	ULD

## 2.1.2 Dissemination to research

PrimeLife is a research project and therefore addresses with many of its research work and deliverables the research community, also inviting readers to discussion. The importance of PrimeLife research becomes evident when studying the existing research report of Activity 2, referenced D2.2.1 (First report on mechanisms), the first year’s research report of Activity 4, referenced D4.1.1 (HCI Research Report – Version 1), and D5.2.1 (First research report on research on next generation policies). This research is continued in Activity 2, D2.3.1 (Second report on mechanisms), the second year’s research report of Activity 4, referred D4.1.3 (HCI Pattern Collection – Version 2) and within Activity 5 in D5.2.2 (Second report on research on next generation policies).

PrimeLife is designing and implementing demonstrators and prototypes to understand and address privacy issues in emerging real-life scenarios (see also section 2.1.4). Legal and technical requirements are elaborated to facilitate privacy-enhancing identity management solutions.

This prototyping is supported by research Work Packages which elaborate on mechanisms for the prototypes, general underlying research questions, and the infrastructure perspective such that they meet the requirements from a legal, social, economic, and application point of view.

PrimeLife has eight of these research Work Packages:

- WP2.1 is concerned with cryptographic mechanisms,
- WP2.2 works on mechanisms supporting privacy and trust,

- WP2.3 deals with privacy of data,
- WP2.4 researches access control for the protection of user-generated content,
- WP4.1 is about UI representation of privacy-enhancing IdM concepts,
- WP4.2 works on trust and assurance HCI,
- WP4.3 is concerned with user interfaces for policy display and administration,
- WP5.2 focuses on research on next generation policies.

For the first project year, 22 scientific publications were produced by the research Work Packages of Activity 2 (cf. D2.1.1 First Report on Mechanisms). By the time of publication of this report the D2.3.1 (Second Report on Mechanisms) will give an overview on the 32 scientific publications and conference contributions Activity 2 has contributed to the community throughout the second project year. The Report on Mechanisms lists these scientific publications including abstracts, thus providing a thorough overview on the work that has been done.

### 2.1.3 Standardisation

Standardisation efforts in PrimeLife have widened their scope. At the beginning, we mainly target the International Standardisation Organisation (ISO), the UN-Internet Governance Forum (IGF) and the World Wide Web Consortium (W3C). We are now participating and actively driving the PRIMCluster group, a group of other EU IST FP7 projects with similar standardisation targets. Furthermore, the decision for XACML as the main target language of the project put a new and strong focus on the cooperation with OASIS that was already successfully started.

ISO/IEC JTC 1/SC 27/WG 5 is currently working on a number of standards relating to PrimeLife activities. To the May meeting of ISO/IEC JTC1/SC27 in Beijing PrimeLife prepared and presented comments on and input to primarily the 6th WD of (24760) “A framework for identity management”. During the meeting an employee of one of the PrimeLife partners was appointed co-editor of this standard.

To the ISO/IEC JTC1/SC27 November meeting in Seattle further comments and input to the CD (24760) “A framework for identity management” was prepared and presented. Besides the comments presented PrimeLife also took active part in the discussions, the adHoc groups and the other work carried out during the meetings. PrimeLife partners GUF, KAU, GD and ULD participated in the ISO/IEC JTC 1/SC 27/WG 5 meetings in Beijing May 2009 and Seattle November 2009. The work will now concentrate on analysing and commenting standards for the upcoming ISO/IEC JTC1/SC27 meeting in April 2010.

W3C continued the dialogue with relevant stakeholders in the area of policy language via the PLING Working Group. PLING was mainly instrumental in organizing the W3C Workshop on Access Control Application Scenarios<sup>1</sup>. The Workshop was chaired by the chair of OASIS TC XACML, Hal Lockhart from Oracle in Boston. The Workshop gathered people from research and industry together to discuss new uses and potential shortcomings in access control. As XACML is a language widely used, most papers and input to the workshop was referring to it. But the discussion weren't strictly limited to XACML. There was some focus on using XACML to implement privacy friendly identities management, but the variety of use cases and papers submitted let to a more general discussion. As a result, the Workshop identified extension points for XACML. Via PLING and PRIMCluster, we will continue to organize the feedback into OASIS TC XACML of works going on in PrimeLife, TAS3, SWIFT and PICOS. It has to be noted that the cooperation with NESSI and the people around cloud computing, Software and Services did not work. Despite promises, nobody from the SOA/Cloud/SAS community sent a position paper or attended the Workshop.

There were large discussions with the W3C Geolocation Working Group about privacy requirements for the use of geodata on the web via the geolocation API. This has let to an improvement of the privacy and security considerations in the W3C Working Draft, but it is not satisfactory yet. Further work is expected on the deliverables of the W3C Device API Working Group. At the same time, PLING was used as a platform to coordinate and give input to the Mozilla project on privacy interfaces and requirements. At

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<sup>1</sup> <http://www.w3.org/2009/policy-ws/>

meeting at the W3C Technical Plenary in Santa Clara was used to reach out to OpenID and the Social Networking Community. Review of privacy requirements for the Report of the Social Networking Incubator Group (XG) are pending.

## 2.1.4 PrimeLife and Open Source

The aim of PrimeLife is to make Privacy Real, which requires supporting and triggering a broad uptake of privacy-enhancing solutions for IdM developed by PrimeLife. To achieve broad acceptance and roll-out of PrimeLife results, the project aims at ensuring that the community at large adopts privacy technologies. One of the means towards this goal is PrimeLife's contribution of results to the community as open source. PrimeLife has already produced a number of smaller components that are currently being released to the public via [www.primelife.eu](http://www.primelife.eu). Apart from that, PrimeLife also maintains and has extended the results from the PRIME project.

As stated in Deliverable D3.4.2/H3.3.2, there are several Open Source projects to which PrimeLife is related. PrimeLife does not have the resources to integrate its results into specific projects. Still, PrimeLife has contacts with a number of these projects PrimeLife and presented them our results. In a number of cases PrimeLife results are based on Open Source projects, i.e., we have extended these with privacy-enhancing mechanisms (e.g., Elgg and phpBB). Also here we are in contact with these projects and are offering them these extensions. For further details we refer to [www.primelife.eu](http://www.primelife.eu) and D3.4.2/H3.3.2.

## 2.1.5 PrimeLife Workshop Series

As stated above, (section 1.2.5), PrimeLife plans to organise five different kinds of workshops which were partially already held:

- Workshops for the PrimeLife Reference Group to get feedback on results achieved by PrimeLife results so far (“Reference Group Meetings”);
- Summer Schools for researchers and students to teach about state-of-the-art and new results and trends on privacy-enhancing identity management;
- Standardisation Workshops addressing standardisation initiatives;
- Workshops for journalists to explain PrimeLife’s results and position the project in the identity management landscape;
- Cooperation Workshops for related projects, interested developers or other parties who can discuss their own needs for PET modules and pick up PrimeLife’s results to improve their own concepts and IT systems.

### 2.1.5.1 PrimeLife Reference Group Meetings

The PrimeLife project established an external expert panel, the Reference Group, which consists of representatives of relevant stakeholders: consumer organisations, data protection authorities, industry, academia, NGOs, and EC authorities. The PrimeLife Reference Group has been established to receive early review of project results and collect feedback from experts before a wider audience will be addressed. However, the goal of the workshops with the Reference Group is to receive their comments and advise on currently open research questions in the project. By means of this approach quality assurance for past work, as well as guidance for future steps will be sought by the consortium. Two meetings of the Reference Group are planned within the projects lifetime. There might also be resources for a third Reference Group Meeting. Besides these meetings communication will commence directly between the project’s researchers and relevant experts.

#### **The Reference Group**

The Reference Group currently consists of 26 members – the group is dynamic and some new members get invited throughout the project lifetime.



## **First Reference Group Meeting, held in Frankfurt March 2009**

The First Reference Group Meeting will was held from 23 to 24 March 2009 in Frankfurt, Germany. PrimeLife partners, mainly Work Package and Activity leaders used the opportunity to gain expert feedback on results and ongoing research in PrimeLife. The Reference Group members got a detailed impression into work ongoing in PrimeLife. The two day meeting has been organized in six sessions. These sessions were opened by a presentation held by the activity and work package leaders giving the Reference Group a thorough overview of the planned work, achieved results and open research questions. Following the presentations, open discussions allowed collecting comments and advice from the external experts. Each day has been concluded with a short wrap up session.

The overall feedback of the Reference Group was very positive towards the existing results presented and the research directions taken by the project. The Group pointed the researchers of the project to open issues and proposed approaches for solutions yet to be verified. Also the importance of further dissemination to specific interest groups such as open source communities was highlighted.

The meeting was attended by 14 experts. From the project's side, all activities were represented by the activity leader or a proxy. Other participants were work package leaders within PrimeLife presenting on their specific area of research or were responsible for the logistical and financial organisation of the Reference Group meeting.

The venue at Frankfurt was kindly organized and provided by the PrimeLife partner Goethe University Frankfurt (GUF) on the University's "Campus Westend" which was formerly built as the representative seat and administrative centre of the IG Farben. The meeting room "Paris" is located in the newly build House of Finance.

A social event was conducted in the evening at the Café Siesmayer providing further possibilities for exchange between Reference Group members and PrimeLife's researchers in a less formal setting. Lunch was provided on both meeting days in the Restaurant Sturm und Drang which is conveniently located on the universities campus. Catering for breaks had been available in a separated lobby of the meeting room allowing continuing and intensifying discussions.

## **Agenda of the first Reference Group Meeting**

**Welcome**, introduction of PrimeLife

### **First session: HCI and Trust**

- Policy management in HCI
- Trust evaluation
- Discussion

### **Second session: Policies, Standards and Open Source**

- Policy language
- Policy enforcement
- Policies and service composition
- Open Source approach
- Standardisation
- Outreach and networking
- Discussion

### **Third session: Trusted content and privacy for life**

- Linkage and data aggregation over lifetime
- Revocation of identities
- Delegation
- Trust and nomadic devices
- Discussion

### **Fourth session: Social Network services**

- Legal aspects
- Social aspects
- Discussion

**Fifth session: Mechanisms**

- Mechanisms supporting user's privacy and trust
- Access control for the protection of user-generated data
- Privacy of data
- Discussion

**Sixth session: Infrastructure**

- Trusted infrastructure elements
- Service composition
- Discussion

The meeting was chaired by Marit Hansen (ULD) who is responsible activity leader for the dissemination work package. The Feedback of the Reference Group with regard to the sessions is in detail presented in the report "D3.1.4 Summary of Reference Group Feedback".

**Second Reference Group Meeting, to be held in Frankfurt March 2010**

The Second PrimeLife Reference Group Meeting will be held in Frankfurt, 29 to 30 March. PrimeLife partners may once more use the opportunity to gain expert feedback on results and ongoing research in PrimeLife. The meeting is taking place at the PrimeLife partner Goethe University Frankfurt (GUF) on the University's "Campus Westend" as the last meeting had already.

**2.1.5.2 PrimeLife/IFIP Summer School 2009**

During the runtime of the project PrimeLife will organise two summer schools. Task 3.2.1 is lead by Karlstad University who has comprehensive experience in organising summer schools for PRIME and FIDIS jointly with IFIP (International Federation for Information Processing). IFIP is an ideal cooperation partner, as like PrimeLife, it also takes a holistic approach to technology and supports interdisciplinary exchange. Besides, it can as the umbrella organisation of national computer societies help to address the broader international IFIP and research community.

From 7th-11th September 2009, PrimeLife WP 3.2 held an International Summer School in cooperation with IFIP working groups 9.2 (Computer and Social Accountability), 9.6/11.7 (IT Misuse and the Law), 11.4 (Network Security) and 11.6 (Identity Management) in Nice/France with SAP Research as the local organiser.

The theme of the PrimeLife/IFIP Summer School 2009 was on privacy and identity management for emerging Internet applications throughout a person's life.

The aim of the Summer School is to encourage young academic and industry entrants to the privacy and identity management world to share their own ideas and to build up a collegial relationship with others, and in particularly disseminate research results from PrimeLife and related projects to young PhD students and industry entrants.

The school is interactive in character, and is composed of both, keynote lectures and seminars, tutorials and workshops with PhD student presentations. Keynote presentations by senior PrimeLife researchers and researchers from related projects were invited and were given in the morning sessions. The keynotes provided for an excellent platform for disseminating PrimeLife thinking. Keynote speakers came inter alia from the industry sector (IBM, Microsoft, GD, Symantec), research (Institute Eurecom), universities (Dresden, Leuven, Tilburg, London) and data protection authorities (CNIL). Besides students the keynote speakers were regular part of the audience and many of them joined the whole week, encouraging deeper

discussions with students and junior researchers. Other EC-funded projects presented results and discussed open research questions - both of the PrimeLife and their own projects. The EC-funded projects PICOS, Turbine, Safebook and TAS3 were represented as well as the British EnCore project. In respect to the geographic origin the participants came from 11 EC-countries including some of the rather recent member states (Czech Republic, Slovakia, Slovenia) as well as four non-EC-countries (Brazil, India, Norway and Switzerland).

In the afternoons, there were parallel workshops, in which PhD students can present their work and discuss it with other PhD students and senior researchers. Abstracts for workshop presentations by PhD students were solicited by a Call for Contributions that was circulated in December 2008. Contributions were selected based on an extended abstract review by a Summer School Programme Committee.

Accepted short versions of papers were made available to all participants in the Summer School Pre-Proceedings. After the summer School, authors had the opportunity to submit their final full papers (which address include questions and aspects raised during the Summer School) for publication in the Summer School Proceedings published by the official IFIP publisher Springer. The papers to be included in the Final Proceedings published by Springer in spring/summer 2010 will again be reviewed and selected by the Summer School Programme Committee.

The following persons from PrimeLife and IFIP were involved in the Summer School's organisational and programme committee work

General Chair:

Michele Bezzi (SAP Research/France)

Programme Committee Co-Chairs:

Penny Duquenoey (Middlesex University/ UK, IFIP WG 9.2 chair)

Simone Fischer-Hübner (Karlstad University/ Sweden, IFIP WG11.6 vice chair)

Marit Hansen (Independent Centre for Privacy Protection Schleswig-Holstein, Kiel/ Germany)

Programme Committee:

Jan Camenisch (IBM Research/ Switzerland, IFIP WP 11.4 chair)

Mark Gasson (University of Reading/ UK)

Hans Hedbom (Karlstad University/ Sweden)

Tom Keenan (University of Calgary/ Canada)

Dogan Kesdogan (Siegen University/ Germany)

Kai Kimppa (University of Turku/ Finland)

Eleni Kosta (KU Leuven/ Belgium)

Ronald Leenes (Tilburg University/ Netherlands)

Elisabeth de Leeuw (Ordina/ Netherlands, IFIP WG 11.6 chair)

Marc van Lieshout (Joint Research Centre/ Spain)

Javier Lopez (University of Malaga/ Spain)

Vaclav Matyas (Masaryk University, Brno/ Czech Republic)

Martin Meints (Independent Centre for Privacy Protection Schleswig-Holstein, Kiel/ Germany)

Gregroy Neven (IBM Research/Switzerland)

Jean-Christophe Pazzaglia (SAP Research/France)

Uli Pinsdorf (Europäisches Microsoft Innovations Center GmbH (EMIC)/ Germany)

Andreas Pfitzmann (TU Dresden/ Germany)

Charles Raab (University of Edinburgh/ UK)  
Kai Rannenberg (Goethe University Frankfurt/ Germany, IFIP TC11 chair)  
Pierangela Samarati (Università degli Studi di Milano/Italy)  
Dieter Sommer (IBM Research/ Switzerland)  
Sandra Steinbrecher (TU Dresden/ Germany)  
Morton Swimmer (John Jay College of Criminal Justice, CUNY/ USA)  
Jozef Vyskoc (VaF/ Slovakia)  
Rigo Wenning (W3C/ France)  
Diane Whitehouse (The Castlegate Consultancy/ UK)

Organising Committee Chair:

Jean-Christophe Pazzaglia (SAP Research/ France)

### **2.1.5.3 PrimeLife/IFIP Summer School 2010**

After the success of the 2009 PrimeLife/IFIP Summer School, PrimeLife and IFIP (International Federation for Information Processing, Working Groups 9.2, 9.6/11.7, 11.4, 11.6) will continue their joint cooperation. This year they will hold an International Summer School on the topic of Privacy and Identity Management for Emerging Internet Applications throughout a Person's Life.

This year's Summer School will be held in Helsingborg in Southern Sweden, 2-6 August 2010.

A special one-day stream within the Summer School, to which abstracts/papers can be submitted directly, will be organized by the EU FP7 project ETICA on privacy and related ethical issues arising from emerging information and communication technologies. Apart from that, the structure and scope of the 2010 Summer School will be very similar to the one of the 2009 Summer School. In particular, the school will again be interactive in character, and is composed of both, keynote lectures and seminars, tutorials and workshop with PhD student presentations. Abstracts for workshop presentations by PhD students are solicited by a Call for Contributions that is circulated in January/February 2010. Contributions will be selected based on an extended abstract review by the Programme Committee, consisting of senior IFIP and PrimeLife project members.

Accepted short versions of papers are published in the Summer School Pre-proceedings. After the Summer School, participants and keynotes can submit their final papers for the Final Summer School Proceedings to be published by Springer in 2011. These papers will be again reviewed by the Programme Committee.

The 2010 Summer School will be chaired by the following persons from PrimeLife and IFIP:

General Chair:

Simone Fischer-Hübner (Karlstad University / Sweden)

Programme Committee Co-Chairs:

Penny Duquenoy (Middlesex University / UK)

Marit Hansen (Unabhängiges Landeszentrum für Datenschutz Schleswig-Holstein, Kiel / Germany)

Ronald Leenes (Tilburg University / Netherlands)

The call for papers has been published in February 2010. The Summer School Web sites are available at:

<http://www.it.kau.se/IFIP-summerschool/>

#### **2.1.5.4 PrimeLife Book (Book on Research Results)**

At the end of the PrimeLife project, the PrimeLife book will contain the main research results from the PrimeLife Activities. It will address primarily researchers. In addition to fundamental research it will contain description of best practice solutions.

The PrimeLife book will be edited with the help of all activity leaders, who will be responsible for filling parts dedicated to their activities with material presenting the main Activity research results.

The suggested structure for the PrimeLife book is the following:

- Introduction (basic definitions, setting the scene), 25 pages
- Part 1: Privacy in Life (Activity 1 papers), 60 pages
- Part 2: Privacy Mechanisms (Activity 2 papers), 80 pages
- Part 3: Usability (Activity 4 papers), 60 pages
- Part 4: Policies (Activity 5 papers), 60 pages
- Part 5: Infrastructures (Activity 6 papers), 60 pages
- Privacy Live – Transferring results into practice (Standardisation, Open Source, best practice solutions), 30 pages

Book chapters will be reviewed by a review board consisting of members of the PrimeLife project and the PrimeLife Reference Group.

Currently a publishing contract is elaborated with Springer, Business and Economics, Heidelberg, with whom the publishers of the FIDIS book already had good experiences.

#### **2.1.5.5 Standardisation Workshop**

The PRIME project already influenced standardisation in W3C and ISO. Three successful standardisation workshops had been held in 2006, 2007 and 2009. PrimeLife benefits from the PRIME partner's experience and will continue the efforts by organizing workshops and meetings on standardisation.

W3C organized a W3C Workshop on the Future of Social Networking<sup>2</sup> and Privacy was an important aspect of the discussion. PrimeLife partners TILT and W3C contributed Position papers: Privacy and Social Network Sites: Follow the Money!<sup>3</sup> from TILT and Semantic enhancements for social networks<sup>4</sup> from W3C. The Workshop Report<sup>5</sup> contains directions clearly influenced by the PrimeLife project. As a result of the W3C Workshop on the Future of Social Networking there is an initiative about creating a W3C Incubator Group for Social Networking. The ongoing effort for organisation can be followed on public-social-web-talk@w3.org<sup>6</sup>. PrimeLife will further contribute to this effort as social networks are one of the core use cases of PrimeLife.

W3C furthermore organized a W3C Workshop on Access Control Application Scenarios, see 2.1.3 above. People from research and industry discussed new uses and potential shortcomings in access control. As XACML is a language widely used, most papers and input to the workshop was referring to it. But the discussions were not strictly limited to XACML. There was some focus on using XACML to implement privacy friendly identities management, but the variety of use cases and paper submitted let to a more general discussion. As a result, the workshop identified extension points for XACML that are further

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<sup>2</sup> <http://www.w3.org/2008/09/msnws/>

<sup>3</sup> <http://www.w3.org/2008/09/msnws/papers/tilt.pdf>

<sup>4</sup> <http://www.w3.org/2008/09/msnws/papers/policy-ih-rw.html>

<sup>5</sup> <http://www.w3.org/2008/09/msnws/report>

<sup>6</sup> <http://lists.w3.org/Archives/Public/public-social-web-talk/>

detailed in the Workshop Report<sup>7</sup> that also contains directions clearly influenced by the PrimeLife project. This first workshop on standardisation issues focused on the following core-activities:

- Thorough discussion on the status of policy languages from different perspectives
- Several Examples for applications were elaborated
- Further research areas identified.

Further activities are planned for the upcoming project years. The close interaction with the Policy Language Interest Group will be continued.

The PrimeLife project envisions holding a standardisation workshop during the final project year. For details on the ongoing dissemination efforts by PrimeLife to standardisation bodies see 2.1.3 above.

### **2.1.5.6 Workshops for journalists**

Within year 3 of the project, PrimeLife plans to hold a workshop for journalists to explain the project's result and position the project in the identity management landscape. As the content that can be presented is heavily depending on the project's results this workshop is planned to be held at the end of the project.

### **2.1.5.7 Cooperation Workshops with related projects**

PrimeLife plans to and has made use of the possibilities to network and disseminate results which are offered by the European Commission, e.g., by regularly attending conferences such as e-Challenges or the IST events. PrimeLife plans to contribute to the ICT event in September 2010 with several participants disseminating the project's research findings at this large and Europe's most visible forum for ICT research.

EC-funded projects approached PrimeLife to get consulting on specific questions regarding privacy and identity management. PrimeLife Partners have attended workshops of SWIFT, Daidalos II, TAS3, PrivacyOS, FIDIS, PICOS, NESSI, and Think-Trust to exchange knowledge and offer differing perspectives.

In addition various PrimeLife Partners have been actively taking part in workshops and working groups from ENISA, e.g., on reputation systems, social networks and privacy issues in the Ad-hoc Working Group "Privacy and Technology".

PrimeLife has been in contact with several European research projects, evaluating the possibility of holding joint workshops and discussing overlapping research topics. In addition, PrimeLife seeks to assist other European projects in assuring privacy-enhancing identity management and other privacy enhancing techniques are considered and focused on. Projects and initiatives PrimeLife is in contact with include:

- Daidalos II (Designing Advanced network Interfaces for the Delivery and Administration of Location Independent, optimised personal Services),
- SWIFT (Secure Widespread Identities for Federated Telecommunications),
- TAS3 (Trusted Architecture for Securely Shared Services),
- PICOS (Privacy and Identity Management for Community Services),
- MOBIO (Mobile Biometry),
- CERP (Cluster of European RFID Projects),
- NESSI (Networked European Software & Services Initiative),
- Think-Trust,
- PrivacyOS (Privacy Open Space),
- EuroPriSe (European Privacy Seal),
- EnCoRe (Ensuring Consent and Revocation)
- RESERVOIR (Resources and Services Virtualization without Barriers)
- STORK

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<sup>7</sup> <http://www.w3.org/2009/policy-ws/report.html>

PrimeLife attended the first Open Space conference of the **EU funded project PrivacyOS** in Strasbourg from 13 to 15 October 2008 and discussed with participants about actual privacy issues. Within the third PrivacyOS Conference 26 and 27 October 2009 in Vienna, PrimeLife was also represented and got feedback on current work on privacy policies and usability. PrivacyOS is a European project aimed at bringing together industry, SMEs, government agencies, academia and civil society to foster development of privacy infrastructures for Europe. Within the Open Space approach all participants are invited to bring topics to the agenda. It leaves room for spontaneous creation of new workshops during the conference which reflects the dynamics of the discussion among participants. The general objectives of PrivacyOS are to create a long-term collaboration in the thematic network and establish collective interfaces with other EU projects. Other projects present at the conference which followed a workshop-style were TAS3, SWIFT, EuroPriSe and EnCoRe. PrimeLife partners IBM, ULD, W3C and GUF participated in the conference.

A joint workshop was carried out with the **projects Daidalos II and SWIFT** on 23 October 2008 at the facilities of IBM Research Labs in Zurich. The workshop aimed at discussing a concept developed by Daidalos II for explicitly managing privacy, the so-called Virtual Identity (VID) concept. In addition PrimeLife partners IBM and ULD made a high-level assessment based on an overview of DAIDALOS II obtained in this workshop with respect to privacy.

PrimeLife organized a **cluster event of FP7 projects** together with the Commission as a joint workshop on 25 February 2009 in Brussels. The workshop comprised concrete technical discussions in the areas of overlapping interests of the projects, specifically identity management architecture, technologies and trust models, policies and Service Oriented Architectures. Projects joining this workshop were PICOS, TAS3, and SWIFT. PrimeLife partners IBM, EMIC, ULD and GUF participated in this workshop.

PrimeLife organised a **session at the ICT event 2008 in Lyon** on 27 November 2008 titled “Privacy Meets ICT Practice”. The session was headed by PrimeLife Project Coordinator Dieter Sommer from IBM Zurich Labs and aimed at bringing together research projects with privacy challenges and other stakeholders. Presentations were given by representatives from the projects SWIFT, TAS3, CONSEQUENCE, and PrimeLife. PrimeLife partners IBM, TILT, G&D, EMIC, CURE, ULD, GUF, KUL, SAP, and GEIE ERCIM participated in the session, not all of them taking an active role.

PrimeLife and the EC have co-organized the **second PRIMCLUSTER workshop** to bring together the projects SWIFT, PrimeLife, and TAS3 in October 2009. This time, the focus of the discussions was the joint interest in policy languages, also in the light of an upcoming standardization event on policies organized by PrimeLife. The meeting has taken place in Brussels, hosted by the European Commission. The third PRIMCLUSTER workshop with participation of PrimeLife is already in preparation for May 6th, 2010 and will be held in Brussels. Topics will include network-level and application-level identity management and their relation.

PrimeLife has co-organized a **session with projects MASTER and TAS3** on November 23, 2009 in Stockholm, co-located with Service Wave conference of November 23-27. The session was open to the public and titled “Identity Management in SOAs”. PrimeLife partner IBM has been involved in the organization of the session, partner GUF has attended the session.

On December 10 and 11, a **workshop with STORK and PrimeLife** has been held in Zurich, organized by PrimeLife partner IBM. The workshop has tackled privacy in STORK’s eID interoperability framework. The inventors of the two prominent anonymous credential systems of today, Jan Camenisch and Stefan Brands, have attended the workshop. Concrete next steps for further collaboration have been envisioned, including proposals from the side of PrimeLife on how to bring stronger privacy to STORK.

Gregory Neven from IBM Research - Zurich represented PrimeLife at the “**International Workshop on Policies for the Future Internet**” that was held in Pisa, Italy, on February 5th, 2010. The workshop was meant to bring together a number of scientific presentations from various EU projects that have to deal with policy languages. Other EU projects represented at the meeting were TAS3, PICOS, Consequence, AVANTSSAR, Secure Change, and MASTER. Gregory presented recent PrimeLife work on privacy

extensions to XACML and SAML, which caused interesting and lively discussions on the card-based access control.

PrimeLife is represented by the project partner K.U.Leuven in the **Cluster of European Research Projects – CERP - on the Internet of Things**. Within the scope of this involvement, K.U.Leuven participated in the 8th meeting of the cluster, in May 2009, which resulted in the plan to write a Strategic Research Agenda on the Internet of things. A first version of the document, the CERP-IoT Strategic Research Agenda “Fall 2009” was produced in Q3 2009, with K.U.Leuven an active member of the Core editor team;

- P. Guillemin,
- P. Friess,
- O. Vermesan,
- M. Harrison,
- H. Vogt,
- K. Konstantinos,
- M. Tomasella,
- S. Gusmeroli,
- K. Wouters,
- S. Haller,

“Internet of Things - Strategic Research Roadmap”, 50p, IoT Cluster of European Research Projects, 15 September 2009, [http://ec.europa.eu/information\\_society/policy/rfid/documents/in\\_cerp.pdf](http://ec.europa.eu/information_society/policy/rfid/documents/in_cerp.pdf) . This piece of work has and will be presented to a multitude of players, active in IoT, and in Q1 2010, a new CERP-IoT SRA position paper will be generated, based on the comments on this work, in order to prepare the SRA Fall 2010 version. Moreover, the cluster is also preparing Clusterbook, which includes the SRA Fall 2009, one-pagers on all the projects involved in the Cluster and some related papers. The next cluster meeting is foreseen in June 2010. New projects of FP7 Call 5 will have joined the Cluster, and a new impulse will be given to it, focussing amongst others on sustained dissemination and more international cooperation.

## 2.2 Exploitable knowledge

This section lists global results from the PrimeLife project. Each result is briefly described in terms of its main purpose, its content, its benefits, and its potential use. The names of all deliverables containing the described work are given.

### 2.2.1 Mechanisms

*Purpose and content:* This result aims at a broad adoption of privacy-enhancing and trust-enabling mechanisms and drives research in the field of cryptography, trust management, privacy of data, and access control for the protection of user-generated content.

*Benefits and use:* This result will be research findings advancing the state of the art of current technologies and solutions. Proof-of-concept prototypes implementing novel techniques will also be developed, therefore producing tools that can be used by other activities.

*Availability:* After project year 1 this result is available in the form of one deliverable, referenced D2.1.1 (First report on mechanisms), and four heartbeats, referenced H2.1.1 (First Report on cryptographic mechanisms), H2.2.1 (First report on user’s supporting mechanisms), H2.3.1 (First report on data protection mechanisms), and H2.4.1 (First report on access control mechanisms), and numerous research articles which are pointed to on the project web site.

After project year 2 this result is available in form of D2.3.1 (Second report on mechanisms) as well as the heartbeats H2.1.2 (Second report on cryptographic mechanisms), H2.2.2 (Second report on user’s supporting mechanisms), H2.3.2 (Second report on data protection mechanisms), and H2.4.2 (Second report on access control mechanisms).



## 2.2.2 Requirements

*Purpose and content:* Requirements have been elaborated for different Work Packages and tasks within PrimeLife. Especially for two demonstrators in Activity 1 and the policy language in Activity 5, legal, technical and where suitable also social requirements have been worked out. These requirements will be refined by means of collaborative activities within the Work Packages. They aim at guiding the project throughout its lifetime and at delivering valuable input at development stage of the prototypes.

*Benefits and use:* The requirements at this stage of the project are mostly internal documents which are summarised in a final public version within project year 2. Currently the Activity 1 material is designed for project-internal discussion and for driving the prototype development and the tasks accompanying this development. The draft requirements for next generation policies have been published in order to fuel discussion at the Policy Language Interest Group (PLING) which is headed by PrimeLife partner GEIE ERCIM.

The final requirement documents will discuss Privacy4Life, and Trusted Content, Social Network Services as well as Policies and will be useful for everybody interested in privacy-enhancing IdM regarding these topics.

*Availability:* After project year 1 this result is available in the form of three heartbeats, referenced H1.1.1 (Scenario analysis, use case selection, requirements), H1.3.2 (Draft of: Requirements and concepts for privacy-enhancing daily life), and H5.1.1 (Draft requirements for next generation policies). The latter is public and can be downloaded from the public web site.

After project year 2 this result is available in form of H1.1.5 (Update on scenario analysis, use case selection, requirements) and H1.3.5 (Requirements and concepts for identity management throughout life). The latter heartbeat is public and can be downloaded from the public web site.

## 2.2.3 Scenarios

*Purpose and content:* Scenarios are used in different Activities of the PrimeLife project to exemplify the problem space the project tackles in the respective Work Package and task. From the scenarios requirements are derived which in Activity 1 prepare the design of the prototype and demonstrators and in Activity 5 prepare the development of the PrimeLife policy language.

*Benefits and use:* The scenarios use our Activity 4 personas and put them in real-life situations which bridge the requirements and prototype development. They contain a thorough, however not exhaustive overview of problems in IdM that PrimeLife aims to solve.

*Availability:* After project year 1 scenarios are available in four heartbeats, referenced H5.1.1 (Draft requirements for next generation policies), H1.1.1 (Scenario analysis, use case selection, requirements), H1.3.1 (Draft of: Analysis of privacy and identity management throughout life), and H6.1.2 (Report on identity management scenarios, mechanisms and protocols).

After project year 2 scenarios are available in the heartbeats H1.1.5 (update on scenario analysis, use case selection, requirements) and H1.3.6 (Prototype of a selected realised scenarios or meta-scenario to show the interplay between scenarios).

## 2.2.4 PrimeLife Demonstrators and Prototypes

*Purpose and content:* Demonstrators and prototypes are developed in order to drive the project (yearly “Focal Prototypes”) and to supply privacy-enabled identity management for the whole life of people. A focus lies on trusted content, the Privacy4Life aspect and selective access control in social network services. Yearly demonstrators or prototypes illustrate privacy protection for selected scenarios. Different versions will be developed through the project’s lifetime and as the technology is matured during several cycles of formative evaluation. The solutions will be subjected to small-scale, supervised trials with end users. The non-focal prototypes will be internal results, the demonstrators and the prototypes will be public

results. As one specific example, the PrimeLife project partner TILT has started a social network site “clique” as Focal Prototype for year 2 (for details on clique see below).

*Benefits and use:* The prototypes show the functionality of IdM technology. They aim to validate the project results and provide evidence that these results are suitable for exploitation from a legal, usability, and technical point of view.

*Availability:* After project year 1 this result is available in the form of one public deliverable, referenced D1.1.2 (First trustworthy Wiki/blog prototype), and one internal heartbeat, referenced H1.2.1 (Collaborative Workspace prototype).

After project year 2 this result is available in form of the internal heartbeats H1.1.4 (Report on experiments and evaluation results of the non-focal prototype) and H1.2.6 (Development of privacy-enhancing access-control web-based service and application of that service in Social Network prototype).

### **PrimeLife Social Network Prototype “Clique”**

As one specific example, the PrimeLife project partner TILT has started a social network site called Clique as Focal Prototype for year 2. TILT is investigating privacy and security issues in existing social network sites, such as Facebook and Hyves. To contribute to a safer Internet TILT has built its own, privacy-friendly social network site called Clique. This site is now accessible via PrimeLife. Social network sites are a recent but very popular medium for self-expression and social connection on the internet. However, in existing social network sites such as Facebook, LinkedIn, MySpace and Hyves it is often difficult for users to protect their privacy. Research shows that the design of these sites makes users believe that they are engaging in social interaction with others in a (relatively) private environment – after all, one posts information and content on a personal profile page and connects with a list of ‘friends’ who may have access to this information. However, more often than not users are unaware of the fact that much of what they communicate in social network sites is accessible to a much wider audience, and can oftentimes even be found outside these networks using search engines such as Google. This means that information that was intended for a specific audience (e.g. pictures from a party) become available to individuals outside that audience (e.g. one’s future employer).

What is new in Clique?

- You can create different sub-pages (called ‘faces’) within your profile and make information accessible to different audiences. For instance, you can create a ‘work’ page, a ‘hobby’ page and a ‘private’ page – one for professional information, one for information about your hobbies (one or multiple) and one containing more private information. ‘Friends’ can then be added to each of these separate domains. This means that colleagues don’t see your personal information, your tennis friends don’t see your professional information etc.
- When you post content or personal information on your profile page, you can assign which people may view this information: for instance, your best friends can see your holiday pictures, but your mom cannot, etc.
- Each time you put information online, the site will give you feedback on who has access to this information. This makes you more aware of who sees what you write and do in your profile, and should help protect you from displaying too much or the wrong kind of information.

There's no need to 'unfriend' contacts you're no longer in touch with. If you haven't been in touch with someone for, say, a year or two via Clique, the contact will slowly fade away. Clique has been featured in the Dutch press in late January 2010. By 7th of February 2010 over 420 pseudonyms were registered with the service. The prototype is available to the public under the web-address <http://clique.primelife.eu/>.

## **2.2.5 HCI Research Reports**

*Purpose and content:* The pattern collection summarizes the HCI knowledge gathered in PrimeLife. Patterns describe context and usage of certain best-practice UI design solutions.

*Benefits and use:* PET developers & manufacturers can use them to design user-interfaces which are usable. They provide descriptive solutions for implementers.

*Availability:* The HCI Pattern Collection will be available online. Furthermore D4.1.3 (HCI Pattern Collection Version 2) gives an update and overview after year 2.

## 2.2.6 Mock-Ups and HCI Guidance

*Purpose and content:* The HCI Research Reports summarize the results of the HCI research conducted in PrimeLife. It contains the results of usability tests, mock-up sessions, and assurance research.

*Benefits and use:* The HCI research reports give insight into the mental model of end-users when it comes to PETs.

*Availability:* The results are summarised in the User Evaluation Reports D4.1.1 and D4.1.5. D4.1.3 (HCI Pattern Collection Version 2) gives an update after year 2.

## 2.2.7 Evaluation of PrimeLife Demonstrators and Prototypes

*Purpose and content:* The evaluation reports the assessment of PrimeLife demonstrators and prototypes at different levels of prototype maturity. The evaluation is performed from the legal, social, and user viewpoints. It is based on the requirements expressed for the development and provides input to the elicitation of these requirements during the next iteration.

*Benefits and use:* Steady evaluation is necessary in the iterative process of design and implementation to improve the concepts and prototypes of Activity 1 and to ensure the compliance with the elaborated requirements.

*Availability:* After project year 1 this result is available in the form of two internal heartbeats, referenced H1.1.2 (Report on experiments and evaluation results of the first Wiki/blog prototype), and H1.2.4 (Report on experiments with the Collaborative Workspace prototype).

After project year 2 this result is available within heartbeat H1.1.4 (Report on experiments and evaluation results of the non-focal prototype) and later on in H1.2.7 (Report on evaluation results of the Collaborative Workspace prototype).

## 2.2.8 Policies

*Purpose and content:* This result aims at designing security and privacy policy systems for PrimeLife. Legal and formalisation requirements have been analysed and research into new policy mechanisms is part of this result. The development and implementation of a versatile PrimeLife policy language is envisioned.

*Benefits and use:* This PrimeLife researches the relationship between data handling, access control, and trust policies. The automated negotiation, reasoning, composition, and enforcement of these three will be enabled by the PrimeLife policy language.

*Availability:* After project year 1 this result is available in the form of one public deliverable, referenced D5.2.1 (First research report on next generation policies), and one public heartbeat, referenced H5.1.1 (Draft requirements for next generation policies).

After project year 2 the result is available in the public deliverable D5.2.2 (Second research report on research on next generation policies) and heartbeat H5.2.2 (Report on research on legal policy mechanisms).

## 2.2.9 Infrastructure

*Purpose and content:* PrimeLife Infrastructure results investigate the infrastructural layer without regard to specific applications (these are examined by Activity 1) but with regard to cross-cutting requirements

applying to many identified scenarios. These results thus aim at establishing the basis for the widespread deployment of privacy-enhancing mechanisms and identity management. It will identify gaps in infrastructure aspects of identity management and describe a solution that can be rolled out successfully. Touching points with existing systems will also be examined.

*Benefits and use:* PrimeLife Infrastructure results are elaborated in order to enhance the existing infrastructure with privacy-enhancing features. IdM solutions and privacy concepts are being aligned. Infrastructure results consider economic relevance and success of the identified solution.

*Availability:* After project year 1 this result is available in the form of one public deliverable, referenced D6.2.1 (Infrastructure for Trusted Content), and three internal heartbeats, referenced H6.2.1 (Report on card-based Web-services), H6.1.1 (Report on identity management scenarios, mechanisms and protocols), and H6.3.1 (Requirements for privacy-enhancing/compliant SOAs).

After project year 2 this result is available in D6.1.1 (Infrastructure for Privacy-enabled Communities).

## 2.2.10 Dissemination Materials

*Purpose and content:* This result aims at raising the visibility of the project and at ensuring dissemination and exploitation of project goals and results. Promotion material already available after project year 1 includes press releases, a flyer, a project presentation, persona posters, articles, and news messages on the project website. In the second project year a newsletter for the Reference Group and a brochure was created. PrimeLife dissemination material introduces the problem space addressed by the PrimeLife project, and describes from various angles the project vision, approach, expected results and benefits, and status of the project consortium. Promotion material also includes mock-ups, and demonstrators.

*Benefits and use:* This material is designed for non-specialists. Eligible for broad distribution in the context of dissemination of the project results, it prepares and facilitates exploitation of results.

*Availability:* This result is available in the form of one deliverable, referenced D3.1.2 (project presentation). The parts of this result have been and will be elaborated in the course of the project. Year 1 and 2 results are made available from the project public web site, and at workshops, and conferences in which the project partners participated. So far one press release has been produced. In addition, a project presentation has been prepared and presented to interested audiences such as during a NESSI meeting, the 1<sup>st</sup> PrivacyOS Conference or in a condensed version at the PrimeLife ICT Event 2008 session. Furthermore, D3.1.4 summarises the Reference Group and Peer feedback within the project so far.

## 2.2.11 Website

*Purpose and content:* The PrimeLife public web site represents a major source for raising broad and prompt visibility of the project vision, activities, results, and the membership of the PrimeLife consortium. It provides a means to immediately inform interested audiences on progress achieved as well as events and links related to the project, to establish contacts with interested parties, and to publish project key results.

*Benefits and use:* The PrimeLife public web site serves as a library of PrimeLife public information – including deliverables, public heartbeats, press releases, news concerning the project and relevant activities of the partners. From the second year on also papers, lectures, and presentations will be accessible by interested parties.

*Availability:* This result is available in the form of the deliverable D3.1.1 (Public Website). The public web site is located at <http://www.primelife.eu/>. It was launched in May 2008 and will be maintained as long as deemed necessary for dissemination and exploitation of results. The website is regularly updated during the project's runtime.

## 2.2.12 Standardisation

*Purpose and content:* To achieve interoperability to other systems and to feed PrimeLife vision of privacy-enhancing IdM into standardisation schemes input to open standards are an important result of PrimeLife. Therefore PrimeLife is monitoring relevant standardisation activities, and the results elaborated in PrimeLife are communicated to standardisation bodies where appropriate.

*Benefits and use:* PrimeLife partners who are members of standardisation bodies (GUF, KUL, ULD, W3C) can use the generated documents to put forward the standardisation supporting PrimeLife and its objectives.

*Availability:* After project year 1 this result is available in the form of the joint deliverable D3.3.1/D3.4.1 (First Report on Standardisation and Interoperability - Overview and Analysis of Open Source Initiatives).

After project year 2 this result is available in form of the heartbeat H3.3.2 (Overview and Analysis of Open Sources Initiatives). For more information cf. section 2.1.3.

## 2.2.13 Open Source

*Purpose and content:* To ensure that the privacy community at large adopts privacy concepts and results produced by PrimeLife the project monitors and works with the relevant Open Source communities.

*Benefits and use:* PrimeLife considers putting project results public under a suitable open source licence to ensure broad discussion and uptake of results developed in PrimeLife.

*Availability:* After project year 1 this result is available in the form of the joint deliverable D3.3.1/D3.4.1 (First Report on Standardisation and Interoperability - Overview and Analysis of Open Source Initiatives).

After project year 2 this result is available in form of the heartbeat H3.3.2 (Overview and Analysis of Open Source Initiatives) and as H3.3.1 (First Contribution to Open Source). For more information cf. section 2.1.4.

# Chapter 3

## Publishable Results

This section provides a publishable overview of exploitable results PrimeLife has generated by February 2010. Downloads of most of PrimeLife's public documents are available on PrimeLife's website: <http://www.primelife.eu/deliverables>

Our open source results are available from multiple Web sites; see the upcoming open source section of our Web site for details and links.

Table 3 Publishable Results, years 1 and 2

Identifier	Name	Date	Status
D1.1.1	Analysis of existing identity-related web protocols	August 2008	published
D1.1.2	First trustworthy wiki/blog prototype	November 2008	published
D1.2.1	Privacy-enabled Communities	February 2010	to be published soon
H1.2.1	Collaborative Workspace prototype (M6, TUD, P, RE)	August 2009	being published
D1.2.2	Privacy-enabled Communities Demonstrator	February 2010	to be published soon
H1.2.5	Requirements and concepts for privacy enhancing access control in social networks and collaborative workspaces	November 2008	published
H1.3.2	Draft of: Requirements and concepts for privacy-enhancing daily life	February 2009	published
H1.3.3	Analysis of Privacy and Identity Management throughout Life	June 2009	published
H1.3.5	Requirements and concepts for identity management throughout life	November 2009	published
H1.3.6	Prototype of a selected realised scenario's or a meta-scenario to show the interplay between scenarios	February 2010	to be published soon
D2.1.1	First report on mechanisms	February 2009	published
H2.1.2	Second report on cryptographic mechanisms	January 2010	to be published as part of D2.3.1
H2.2.1	First report on user's supporting mechanisms	February 2009	published as part of D2.1.1
H2.2.2	Second report on user's supporting mechanisms	January 2010	to be published as part of D2.3.1
D2.3.1	Second report on mechanisms	February 2010	to be published soon
H2.3.1	First report on data protection mechanisms	February 2009	published as part of D2.1.1

<b>Identifier</b>	<b>Name</b>	<b>Date</b>	<b>Status</b>
H2.3.2	Second report on data protection mechanisms	January 2010	to be published as part of D2.3.2
H2.4.1	First report on access control mechanisms	February 2009	published as part of D2.1.1
H2.4.2	Second report on access control mechanisms	January 2010	to be published as part of D2.3.1
D3.1.1	Public website	March 2008	published
H3.1.1	PrimeLife dissemination report V1	February 2009	published
H3.1.2	PrimeLife dissemination report V2	February 2010	to be published soon
D3.1.2	Project presentation	June 2008	published
H3.2.1	Summer School	June 2009	conducted
D3.3.1	Overview and Analysis of Open Source Initiatives	May 2008	published
H3.3.2	Overview and Analysis of Open Source Initiatives	August 2009	being published as part of D3.4.2
H3.3.1	First Contribution to Open Source	February 2009	published
H3.3.3	Second Contribution to Open Source	February 2010	to be published soon
D3.4.1	First Report on Standardisation and Interoperability	May 2008	published
H3.4.1	First Workshop on Standardisation and Interoperability	October 2009	published
D3.4.2	Second Report on Standardisation and Interoperability	February 2010	to be published soon
D4.1.1	HCI Research Report – Version 1	February 2009	published
D4.1.3	HCI Pattern Collection - Version 2	February 2010	to be published soon
D4.3.1	UI prototypes: Policy administration and presentation Version 1	June 2009	published
H4.1.2	HCI Pattern Collection – Version 1	February 2009	submitted
D5.1.1	Final requirements and state-of-the-art for next generation policies	August 2009	published
H5.1.1	Draft requirements for next generation policies	December 2008	published
D5.2.1	First research report on next generation policies	February 2009	published
D5.2.2	Second research report on next generation policies	February 2010	to be published soon
D6.1.1	Infrastructure for Privacy-enabled Communities	August 2009	published
H6.1.2	Report: Generalised gap analysis & migration paths	February 2010	to be published soon
D6.2.1	Infrastructure for Trusted Content	August 2008	published
H6.3.1	Requirements for privacy-enhancing Service-oriented architectures	February 2009	published
D7.1.3	Y1 publishable summary	February 2009	available
D7.1.6	Y2 publishable summary	February 2010	to be published soon