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Project Info

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URL: <http://www.aal-persona.org/>
Leader: Vodafone Omnitel



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Note

All issues of the Newsletter can also be downloaded from the project website:

<http://www.aal-persona.org/>

Editorial

Dear Readers,

We have now finished the second year of PERSONA. We are moving to the final implementation phase where the pilot systems will be launched.

The PERSONA Platform is composed of a Middleware and a set of components that act as a base to allow all the services to communicate and interact. The architecture of the Middleware and the Platform development are completed and we are close to finalizing the development of the services.

The delivery plan for the pilots has been decided, and the set of services that will be installed has been defined with the involvement of the end users and stake-holders in the three pilot sites in Spain, Denmark and Italy. Moreover, the Living Lab in Valencia has been completed; this will be the testing site where all the services of PERSONA will be installed and tested by real users and external experts in order to gather feedback and advice to improve PERSONA services. In the following months, we will be also setting up some showrooms in Spain, Denmark and Italy to support dissemination activities towards institutions, enterprises and media.

Another step towards the realization of the project is the defining of the business plan and the strategy for making PERSONA economically profitable. The PERSONA Consortium started the discussion about the IPRs and the software licensing method, taking in consideration the distribution of most of the components under an Open Source license. A final decision will be made in the following months.

As a final note we are proud to have received a very positive result from the Second Project Review, this encourages us to continue in the same direction!

PERSONA Project team

www.aal-persona.org



User experience and AAL Service Creation

The PERSONA project takes into account the User Vision within the PERSONA development process. The vision of PERSONA is that users live within the Ambient Assisted Living (AAL) Environment where they receive and enjoy meaningful and personalised services rendered through the enabled AAL Spaces: home, neighbourhood and village/town. "Meaningful" because AAL services provide a total end-user experience by having them embedded in people's daily life. That is, in, around, and out of the home, supporting people's exploration of their own boundaries in relation to their social needs, wishes for autonomy, security and mobility.

The current version of the services has been defined using a methodology that involved not only experts in the field of ageing and technology, but also took into account users' perceptions, expectations and needs. The gathering of user requirements carried out in the project supports the combination of pilot sites' needs (regarding the organizational aspects of the sites) and users' needs (the needs of the users at the pilot sites). This was done using different methods, such as mock-up evaluations, usage scenarios, use cases, Volere, etc...

The results from this process were used as an input for the PERSONA services description. After this first feedback, the next step was the assessment of this work in order to enrich the service portfolio by gathering evaluation feedback from all the stakeholders (end users, external experts and internal technical and business partners), so as to take into consideration the different perspectives.

Consequently, the PERSONA project has developed 19 different services based on AAL that can be classified in four different categories:

"Promotion of Social Integration". The aim of these services is to alleviate loneliness and

isolation among elderly people by providing ICT media, supporting the need of belonging & experience exchange, which helps create friendships, social contact and opportunities for participating in community activities. The core of the "Social Integration" services is the "Neighbourhood Virtual Community" (NVC) environment, which provides an intuitive medium for communication and sharing between the PERSONA user and third parties.

"Supporting Daily Activities". These services aim at providing elderly people with the means of overcoming those emerging difficulties with the use of a semi-automatic system that will complement their abilities to face the different types of daily activities (i.e. showering, cooking, remembering appointments, shopping, following medical prescriptions, etc). These are managed directly from the home of the user complying with their responsibilities and empowering these people with their self-determination. This goal will be achieved by means of an intelligent software, the "Daily Life Manager"(DLM), that will implement a workflow that will guide the elderly person all day long, advising her or him on what their daily activities are and when they are to be done.

"Feeling Safe and Protected". These services are aimed at creating a non-invasive environment in which the person feels safe and protected, by detecting in advance the occurrence of dangerous situations, and providing ways to alert third parties when the risk has been detected and identified. It is also important that in situations in which the risk is external, the person is guided and informed by the system about the risk and the implications of possible damages. These services are based on the use of sensors; the monitoring of user behaviour in order to detect abnormal patterns or compliance deviations using artificial intelligence techniques, and the support of third parties able to respond to emergencies such as relatives.

"Mobility". These services address the fact that elderly people have problems when they leave their homes because they are not confident about



the things they may find outside and are afraid about how to manage in risky situations. PERSONA proposes a solution for supporting the user when leaving the house to do any activity in the neighbourhood or in town called "PERSONAL OUT-DOOR MANAGER": It is based on the use of a wearable device for the user and the existence of public shared devices in the neighbourhood and town.

Currently, the AAL services portfolio is being finalised in order to initiate its deployment in the pilot sites for everyday use in a real environment. A user evaluation strategy has been put into place combining techniques such as "think aloud", scenario walkthroughs and usability questionnaires. Impact measurements will also be made with references to the initially identified user requirements. Qualitative and quantitative parameters to be measured have been defined, as well as the procedures and tools to measure them, with the aim to document and demonstrate the benefits of AAL services to the end-users. In order to reach that goal, universally accepted methods to evaluate the functional disabilities of elderly and disabled people are used in order to have a scientifically approved approach to the user assessment. It is expected that the pilot tests with real users will start in October.

The technical approach of PERSONA

With 21 multi-disciplinary partners from industry and academia, the PERSONA project aims at providing an open and scalable technological platform that facilitates the development and deployment of a broad range of services in the field of Ambient-Assisted Living (AAL).

AAL is the concept that groups the set of technological solutions, named AAL Services, targeting the extension of the time that elderly and disabled people live independently in their preferred environment.

AAL Services provide personalized continuity of care and assistance, dynamically adapted to the individual needs and circumstances of the users throughout their lives.

The development and prototyping of example AAL services on top of the envisioned platform is the main objective of the project, with the goal to address the need for social integration and belonging, independence in daily life activities, security and safety at home and outdoors, and mobility.

In the next sections, we will take a look into the techniques and architecture of the PERSONA project, starting from the basics services requirements.

The requirements for a Service Platform in AAL Spaces

Normally, platform is understood as a framework on which applications (in this case AAL services) may run. The framework may be very specific and tied to certain hardware and operating system or more open by abstracting those levels based on a more generalized runtime environment, such as Java. Apart from the runtime environment, the platform may readily provide services that perform various common functions in order to avoid duplicating efforts.

The more general technical requirements of the PERSONA platform can be summarized as follows:

- guarantee a high-level of flexibility in the distribution of functionalities and facilitate the integration of arbitrary numbers of sensors, actuators, control units, appliances, and applications into the system
- support ad-hoc networking to enable components to immediately act as a node in the networking infrastructure
- support different communication patterns



- provide service discovery and binding mechanisms
- support service chaining
- provide mechanisms for event aggregation
- support for parallel processing of events while detecting and resolving conflicts
- provide for service composition and orchestration
- facilitate the explicit user interaction with the system and supporting multimodality in an ensemble of devices distributed at different locations
- support personalization and context-awareness in all layers of the system and adaptability in the presentation layers
- hide the complexity of utilizing services from the users accessing them
- provide for identity management, privacy-awareness, and QoS-awareness
- follow a modular design to better support distribution and extensibility of the system, higher maintainability / dependability, and greater possibility for reusing existing and composing new functionality
- stability and diagnosis, efficiency and performance, and completeness and simplicity of the API

component, as a sensor, an appliance / a consumer electronic device, a controller, an actuator, or a full-scaled computing device like a PC. As shown in figure 1, we call the gluing software facilitating the integration of, and the collaboration among the nodes through support for seamless connectivity and enabling interoperability the middleware that each node must bind in order to play a role in the ensemble, i.e. utilize and/or offer functionality.

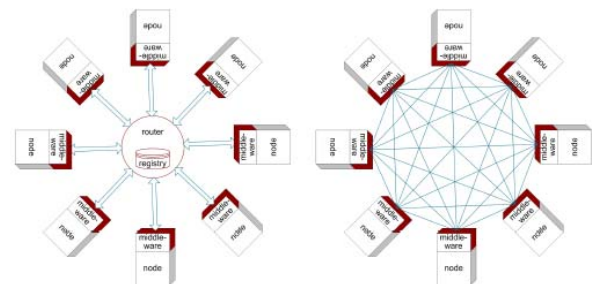


Figure 1 - An ensemble of networked nodes arranged whether with infrastructure (left) or ad-hoc (right)

The Interoperability Framework

According to the SODAPOP model, for the specification of a system it would be sufficient to a) determine the set of its communication buses, b) specify the ontology, protocol, and strategy for each bus, and c) identify the set of components that connect to them.

With this understanding of the striven reference architecture, it would be possible to limit the specification in its second step to the specification of an upper ontology shared in the corresponding class of systems and in its third step to the identification of only those components that are shared among all of the instances of the corresponding class of systems as mandatory or recommended components. To be compliant with such a reference-architecture, a concrete system realizing concrete use cases must then employ the shared specifications, enhance the ontology on each bus according to its needs and add components that are needed for the realization of its use cases.

The PERSONA Architectural Design

The Abstract Physical Architecture

A vision of ambient intelligence is that distributed functionality embedded in appliances, controllers, actuators and sensors should be utilized seamlessly and made available to the human users based on natural interaction paradigms. This leads immediately to the intuitive conclusion that an AAL space is an open distributed system that can be modelled as a dynamic ensemble of networked nodes, where each of the nodes may be such a networking enabled physical



PERSONA has also decided to abstract all functionality and consequently to provide a set of four communication buses, namely the context, input, output, and service buses. Referring to the SODAPOP model that provides an event-based class of buses and a call-based one, we defined the first three buses event-based and the service bus call-based.

that capture some event in the real world, either by sensing or by capturing explicit user intervention, why not merge them into one bus. Also here we have a preference for separating the two buses in order to have a more modular approach in the development of the bus ontologies, protocols and strategies. Factual concerns for doing so are twofold: explicit user interaction in Aml environments necessitates a special treatment because it happens in an openly distributed I/O handling environment with possibility of merging several modalities while following the user, e.g. from one room to the next one. Additionally, user input in contrast to sensory data may follow in the context of a dialog.

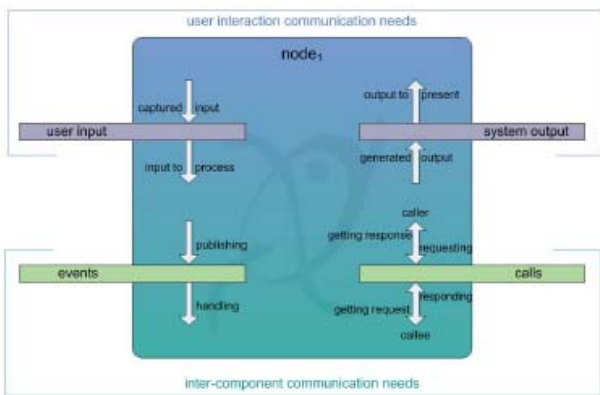


Figure 2 - The PERSONA set of communication buses responsible for brokering four rough types of messages

Components must be linked with the middleware that realizes the four buses and instances of the middleware can find each other and collaborate, resulting in virtually connected communication buses over all of the participating nodes and components. That is, through the cooperation of different instances of the middleware, local pieces of the same bus will find each other and so will be able to cooperate with each other based on strategies specific to each bus. This way, the middleware can hide the physical distribution of functionality within the ensemble.

We chose two separate I/O buses due to the following concerns: In addition to a special timeout handling that comes into play when the user is expected to react to a system output, the fact that the communication between the user and the system is handled by components that bridge the gap between the virtual world of the system and the real world of the user have to be considered. Hence, on both sides of the I/O buses there are virtual components that in case of the input bus are responsible for either capturing user input or processing it in the context of a dialog. Similarly, the components attached to the output bus generate the system output on one side, and present it to the user on the other side. Additionally, the strategy for dispatching a captured user input posted to the input bus to input processing components interested in that input can be designed in a specific way that differs from the output bus strategy.

The communication buses reflect the loose connections needed in a dynamic environment and represent, in a modular way, the need for interface/ontology definitions, protocol specifications for communication, and strategies for “dispatching incoming messages” to an appropriate (set of) receiver(s). A component simply registers to some buses by specifying the role(s) it is going to play on each of them. Possible roles for a registering component on an event bus are publisher and subscriber; possible roles on the service bus are caller (or service client) and callee (or service provider).

Another discussion point is that if both the input bus and the context bus are event-based buses

The Middleware

The middleware is composed of a set of OSGi bundles organized in three logical layers:



- The lowest layer, the abstract connection layer (ACL), is responsible for the peer-to-peer connectivity between instances of the middleware. Different discovery and message transfer protocols, such as UPnP, R-OSGi or Bluetooth, have been used to provide competing solutions that realize an exported interface called P2PConnector. Listeners can register to such connectors for discovering peers with a predefined interface. A bridging solution over all available protocols guarantees the overall coherence of nodes within an ensemble.
- The Sodapop Layer implements the peer and listener interfaces from ACL and registers as the local peer to all connectors found. It introduces the concepts of bus (either event-based or call-based), bus strategy and message along with an interface for message serialization.
- The PERSONA-specific layer implements the input, output, context, and service buses with their distributed strategies according to the Sodapop protocol, using an RDF serializer for the exchange of messages among peers.

PERSONA platform services is determined by not only relying on the specific use cases from the PERSONA scenarios but also checking such results against the platform services in other solutions, like Amigo, ASK-IT, EMBASSI, and RUNES. However, it showed very quickly that this should not be set equal to the set of all functions that are shared somehow but the number of the related components must be kept manageable towards the definition of a basic configuration for AAL spaces. Hence, even borderline cases such as contact lists and personal calendars whose services are widely shared at least in private AAL spaces are considered as pluggable components in PERSONA. The criteria for considering a component as an integral part of all AAL spaces were therefore twofold: a) the component does something towards producing aggregated added value, and / or b) it plays a complementary role for the function of the middleware. This way, we came up with the following set of components:

- The Dialog Manager is an application-independent component that handles the system-wide dialogs and hides the complexity of utilizing the application services from the user. Another important task for the Dialog Manager could be the provision of a mechanism for associating service calls with situations as means for providing a configurable management of the reactivity of an Aml environment. For this purpose, the Dialog Manager may rely on a configurable repository of rules schematically in the form of “situation → action” (abbreviated as “s[i]→a[j]”). Then, it must subscribe to the context bus for all situations s[i], for which it has an associated action a[j] in its repository. The association “s[i]→[j]” is the heart of controlling system behaviour and hence it will be very advantageous to store it in a central configurable repository.
- The Context History Entrepôt (CHE) gathers the history of all context events in a central repository not only to fill the gap caused by context publishers that provide no query interface, but also to provide a

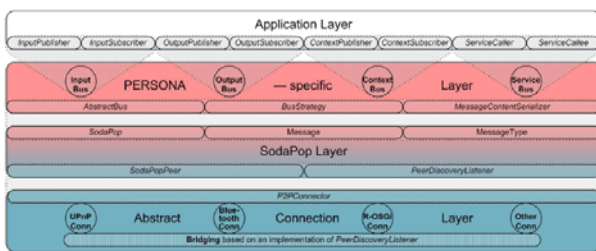


Figure 3 - The internal architecture of the PERSONA middleware

The PERSONA Platform Services

A reference-architecture may specify a set of mandatory/recommended components shared in the whole class of systems complying with that architecture. As discussed earlier, the set of the



fallback solution for those that cannot maintain the whole history of data provided by them. Additionally, it guarantees the essential support to reasoners that perform statistical analysis and need context stored over time. As a singleton component, the CHE takes care of logging every context event that is published in the context bus by specifying a “pass-all” filter when subscribing to the bus. In order to have the growth of the repository under control, the CHE also implements a deletion policy based on the likeliness of the data to be needed further on.

- A general-purpose context reasoner called the Situation Reasoner that uses the database of the CHE and infers new contextual info using the logical power of the RDF query language SPARQL. It stores “situation queries” persistently and indexes them based on context events that must trigger its evaluation. It provides two services on the service bus, one for accepting new situation queries and the other for dropping them. These services are also used by a graphically interactive tool for administrators in order to facilitate the introduction of new relevant situations to the system by providing an overview of existing context providers, allowing drag-and-drop interaction using artifacts for accessible context elements, catching logical errors made by the user, and generating the appropriate SPARQL query string, to name a few of its features.
- Services may exist only at a meta-level in terms of “composite” services made from combining really-existing “atomic” services. The Service Orchestrator (SO) is the component in charge of interpreting the metadata describing a composite service and performing the instructions within it. These descriptions are added / removed / modified by a GUI for system administrators. The SO registers the composite services to the bus like any other service callee would do so for its

atomic services. This way, whenever a composite service is called on the service bus, the bus will find the SO as the only object that “implements” that service; hence the SO implements the callee interface for handling service requests. At this stage, the SO starts to execute the corresponding composite service by calling the sub-services through its capabilities as a caller until it finishes and then returns the results to the bus that will forward them to the original caller. Summarizing the admin tool aspect so far, it is worth to mention that three repositories must be kept configurable for administrators of AAL spaces: a) the database of the Situation Reasoner regarding “conditions → situation” rules, b) the database of the Dialog Manager regarding “s[i]→[j]” associations, and c) the database of the SO regarding composite services.

- In order to guarantee the adaptability of an AAL space to the wishes and preferences of its users, it is essential that a special-purpose component is foreseen for the management of the profiles and the provision of needed shared mechanisms. We call this component the Profiling Component.
- The middleware must control the access to services with the help of a component that we call the Privacy-aware Identity & Security Manager (PISM) that is also supposed to act as a service provider. The main responsibilities of the PISM are: a) management of the entities’ identities and credentials, b) management of permissions for accessing “hosted” services, c) providing authentication services, and d) providing a tunable mechanism for deciding on the disclosure of private data.
- In order to facilitate remote access to AAL spaces and, the other way around, to support AAL spaces in notifying an absent native user, as well as to enable the

bridging between AAL spaces and, furthermore, to provide a possibility for external service providers to advertise their services to the occupants of AAL spaces, we suggest to employ a special-purpose component called the AALSpace Gateway. The gateway provides access to the hosted services in the AAL space under a fixed URL. For this purpose, it must act within the AAL space as input publisher and output subscriber so that in case of incoming remote access and after authentication, the remote user can start a dialog with the smart home to access info and services for which he or she has the required access rights.

Figure 4 incorporates the above components into the logical interoperability framework of PERSONA summarizing the discussions so far.

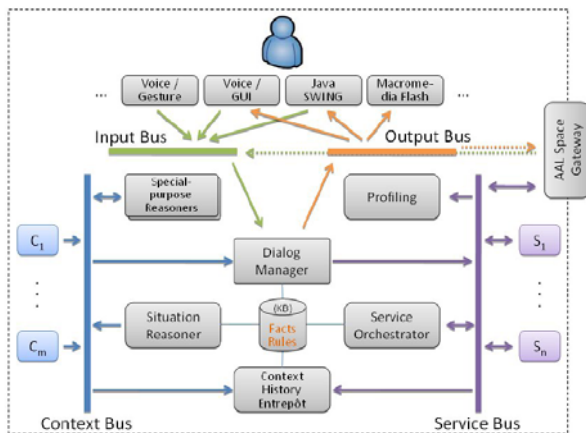


Figure 4 - The PERSONA reference-architecture for AAL spaces

The Ontological Modelling

Apart from the abstract classes InputPublisher, InputSubscriber, ..., and Service-Callee, the interfaces facilitating interoperability in PERSONA are specified in terms of ontological concepts and their counterparts in the Java world. This has been possible, because the APIs are defined in a way that the actual information is exchanged as the content of SODAPOP messages.

In order to overcome the complexity of an open distributed system and still enable extensible interoperability, PERSONA has adopted / provided three elementary tools: a) the knowledge representation technologies of the Semantic Web consisting of RDF and OWL, b) an upper ontology with appropriate programming support consisting of those concepts that all users of the middleware must know, and c) a general conceptual solution with certain shared tools for integrating thin devices and embedded sensors and transforming the tapped data into an appropriate ontological representation. Using this framework, two end points that share the same ontological concepts can achieve the needed level of interoperability without the need for the middleware to know those concrete concepts. Still, the middleware is able to adopt ontological reasoning, to some extent, in its brokerage function. The class ManagedIndividual is the root of all ontology classes that register to the middleware. This way, each instance of the middleware will have a repository of ontological classes that are relevant for the local members of its buses. The repository provides a mapping between class URIs and their Java representation and enables the middleware to infer hierarchical relationships between the registered classes and check class memberships at Java level.

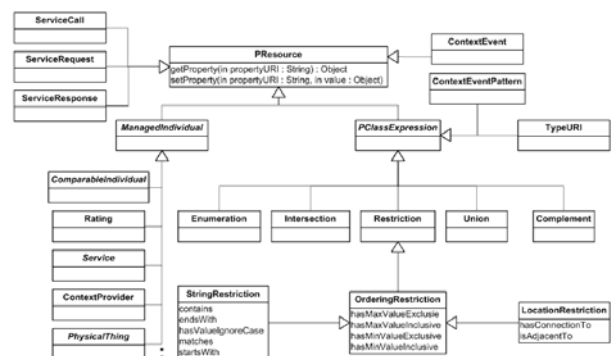


Figure 5 - The Java class hierarchy used and exported by the PERSONA middleware for handling ontological resources

Highlights of the Business Model

The main goal of the business model team is to create a business strategy for the technologies and know how that derives from the PERSONA project. As a basis for the creation of the business strategy we decided to follow the framework of the business model approach provided by Osterwalder and colleagues (2005). They state:

“A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value the company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams”

(Osterwalder/Pigneur/Tucci, 2005)

We found that the proposed model is useful for the definition of our Business Strategy.

The basic idea of our Business Strategy is to create a virtual company, we named PERSONA Ltd. The PERSONA Ltd. integrates all necessary competencies, to build up and install the technology (i.e. PERSONA Platform and PERSONA Middleware) and to create and provide the PERSONA services.

The portfolio of the PERSONA Ltd. allows to address a wide range of different possible customers. We decided to analyze four different customers in details:

- Software companies
- Construction companies
- Health insurances
- Public administrations

Our approach is classical B2B, which is for a small company like PERSONA Ltd. probably easier to realize than a pure end customer oriented business strategy.

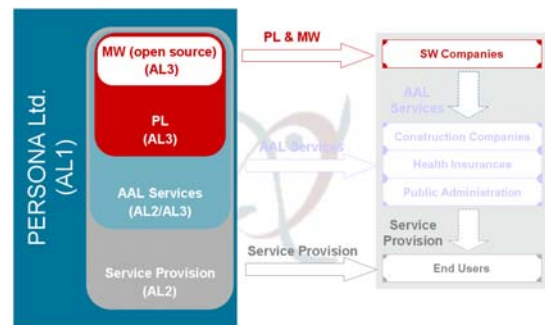


Figure 6 - PERSONA Ltd. – structure and customers

In the last months we invested effort to better understand the customers needs and figure out which and how PERSONA Ltd. could create value for them. The most promising added value of PERSONA consists of the development and deployment of PERSONA services. Those services are a combination of HW+SW, including side services and supporting technology.

	1P	1P	1P	1P	1P	1P	1P	1P	1P	2P	2P	2P	2P	2P
	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	1	2	3	4	5	6	7	8	9	1	2	3	4	5
Denmark														
Germany														
France														
Italy														

1P3: Emergency and risk management
 2P1: Home access control **1P4: Help when outside**
 2P4: Long term behaviour analyzer for early risks detection
1P1: Personal Health Management 1P6: Nutritional advisor
 1P2: Agenda and reminders 2P3: Outdoor activity monitor
1P8: Automatic management of the environment for Comfort & Security

Figure 7 - PERSONA Services and customers interest

We performed a match between customers and PERSONA services to identify their interests. As figure 7 illustrates our different customers have different interests, but there are some services, like



Emergency Risk Management or Personal Health Management, which are of common interest for more than one customer. From an implementation point of view we would recommend to further develop and finalize those highly relevant services to be ready for a market entry at the end of the project.

From business team point of view the PERSONA Ltd. is considered as an appropriate instrument to bring PERSONA services and technology to the market. We would like to encourage PERSONA partners to identify individual deployment possibilities.

Contact and further information for business model: Peter Rumm, FutureCamp Holding GmbH, Munich. (peter.rumm@future-camp.de).

PERSONA contributes to environmental and social standards

The 21 partners of European funded IP project PERSONA decided to set their consortium meetings carbon neutral. They do this by compensating their emissions caused, mainly through the travel activities.

About the CO₂ Reduction Projects:



The compensation is made by investing money in two climate protection projects in Germany and Turkey.

In the German project we support Schmack Biogas, where methane emissions caused by manure are made ecologically and economically viable by bundling a multitude of decentral biogas plants collecting the manure. The biogas fuels a combined heat and power unit, which produces heat and electricity. This programmatic project was the first of its kind worldwide and helps to reduce

the overall CH₄ emissions from manure in Germany. More information are available under http://www.futurecamp-climate.de/files/ver_schmack_biogas_e.pdf.

The second project is the Yuntdag Wind Power Project in Turkey. This project helps to reduce the overall greenhouse gas emissions from power generation in Turkey. It stimulates the wind power industry there and creates local employment. The project demonstrates the viability of privately financed wind power projects and thus the project contributes to the sustainable development of the Turkish power generation system. More information about the Yuntdag project can be found at:



http://www.futurecamp-climate.de/files/ver_overview_projects_turkey_e.pdf.

The certificates, which are bought from the PERSONA partners are paid by each partner themselves and are not financed from the project budget. After buying the certificates they are taken off the market, so that they are no longer part of the trading system and contribute to real reduction of CO₂.

About the CO₂ Emissions:

In the course of PERSONA the following emissions have been produced so far:

- 2007: 90t CO₂e (3 meetings)
- 2008: 110t CO₂e (3 meetings)
- 2009: 36t CO₂e (1 meeting so far)

The main amount of emissions are caused by travelling, thereof 89% of planes. In average 0,9 t CO₂e per participant per meeting has been produced. To act sustainable one person should



not emit more than 2.5 t CO₂e per year! In average, Western Europeans cause about 10 t CO₂e per person per year.

More information: Dominik Glock & Margit Spoettle, FutureCamp Holding GmbH, (mdominik.glock@future-camp.de; margit.spoettle@future-camp.de).



Forthcoming events

XII Latin American Congress of Internet and Information Society. 2009, 6th – 10th October, just online.

Mundo Internet Just Online is the widespread congress about Internet, Telecommunications and Information Society in Spain. It involves innovation and experience, and is without doubt the best event to let people know about you and position itself at the market.

At Mundo Internet Just Online, gets together the main Companies and Institutions of the sector, come in contact with the technologies state and decide the role that Internet, Telecommunications and the Information Society will have in his companies in next years.

Mundo Internet Just Online attracts buyers of all sectors; manufacturers, who look for in the net new business's opportunities, big companies who see in Internet useful solutions to improve their communications and efficiency, banks who develop new channels.

The success of Mundo Internet Just Online it is due to a community of professionals and companies of the sector that present in each edition papers, products and experiences at the highest level that contribute innovation and quality to the Congress. Mundo Internet it has consolidated as one of the essential appointments of the sector.

Please find more information at:
<http://mundointernet.es/>

Assisted Living (AAL) - FORUM '09 Vienna: Innovative ICT Solutions for Older Persons – A New Understanding 2009, 29th September - 1st October Hofburg (Vienna), Austria

From 29 September to 1 October 2009 the first AAL FORUM will take place in the Vienna Hofburg. This kick-off event of the international conference series of the Ambient Assisted Living - Joint Programmes (AAL-JP) will serve as an information and discussion platform for stakeholders, scientists and users. The thematic priorities of the AAL FORUM 09 will be national and European AAL activities, R&D projects and economic aspects of the joint programmes, the third AAL call for proposals as well as key questions of AAL-JP.

An exhibition accompanying the conference will provide institutions, companies and projects with the opportunity to present their services and products in the field of 'active and independent ageing'. A hands-on area invites visitors to try out interactive games for the elderly. Ambient Assisted Living means life in a supportive environment. The central theme of the exhibition shall be the technical design of the home through ICT to promote independence of the elderly as well as communication with the social environment.

The AAL FORUM 09 Vienna will host an estimated 800 to 1000 experts. 150 end-users will be guided through the exhibition.



OASIS 1st International Conference 2009, November 4th – 5th, Florence, Italy.

How to support holistically the independent living and mobility of the elderly across Europe? How to connect services for the elderly in an one-stop-shop fashion and interrelate/ integrate them? What are the elderly and their families/ carers primary needs, concerns and expectations from the technologies and services arising? These, and much more, are to be presented in Florence, in the OASIS 1st International Conference.

OASIS is a Large Scale Integrating Project – partially funded by the European Commission (FP7-ICT 215754) - with the aim to develop an open and innovative reference architecture, based upon ontologies and semantic services, that will allow plug and play and cost-effective interconnection of existing and newly developed services in all domains required for the independent and autonomous living of older people and their enhanced Quality of Life.

The aim of the OASIS 1st International Conference is to serve as a forum to present current and future work as well as to exchange ideas in the field of Independent Living and Autonomous Mobility of the elderly.

BIOSTEC 2010, III International Joint Conference on Biomedical Engineering Systems and Technologies. 2010, 20th – 23rd January, Valencia, Spain.

The purpose of the 3rd International Joint Conference on Biomedical Engineering Systems and Technologies is to bring together researchers and practitioners, including engineers, biologists, health professionals and informatics/computer scientists, interested in both theoretical advances and applications of information systems, artificial intelligence, signal processing, electronics and other engineering tools in knowledge areas related to biology and medicine.

BIOSTEC is composed of four co-located conferences, each specialized in at least one of the aforementioned main knowledge areas.

In conjunction with the 3rd International Joint Conference on Biomedical Engineering Systems and Technologies, takes place the Second International Workshop on Open Source in European Health Care: Crossing the Borders - OSEHC 2010.

After the very successful First International Workshop on Open Source in European Health Care: The Time is Ripe - OSEHC 2009 this second edition of the workshop calls especially for proposals out of the area of AAL. But as the subtitle "Crossing the borders" suggests, we are interested in FLOSS applications out of all areas of health care and related fields like biomedicine and would like to stimulate the exchange of knowledge, experience and hopefully software modules between different fields of research and different applications. Furthermore we welcome contributions and ideas that focus on collaboration between projects and application in the area described above.

Visit our website: www.aal-persona.org

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