Coordination Action in R&D in Accessible and Assistive ICT

Grant Agreement: 248582

CARDIAC

Coordination Action in R&D in Accessible and Assistive ICT

FP7-Coordination Action

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D-6.3, V2: 3rd Bi-annual Progress Report

Period covered: 01.03.2011-31.08.2011

Start date of Project: 01.03.2010

Duration: 36 months

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Date of preparation: 15th of February 2012

Declaration by the scientific representative of the project coordinator

I, as scientific representative of the coordinator of this project and in line with the obligations
as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate) [8]:
  ☒ has fully achieved its objectives and technical goals for the period;
  ☐ has achieved most of its objectives and technical goals for the period with relatively minor deviations.
  ☐ has failed to achieve critical objectives and/or is not at all on schedule.
- The public website, if applicable
  ☒ is up to date
  ☐ is not up to date
- To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 3.4) and if applicable with the certificate on financial statement.
- All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and Sees, have declared to have verified their legal status. Any changes have been reported under section 3.2.3 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name of scientific representative of the Coordinator: Patrick Roe.....

Date:15/ 02/ 2012

For most of the projects, the signature of this declaration could be done directly via the IT reporting tool through an adapted IT mechanism.

[8] If either of these boxes below is ticked, the report should reflect these and any remedial actions taken.

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Executive Summary

The major aim of the Coordination Action is to improve the overall success of Challenge 7 ICT 2009 7.2 'Accessible and Assistive ICT' by drafting a research agenda roadmap highlighting research priorities that will favour eAccessibility.

The main achievement of the third six-month period of the project has been to prepare, organize and run the second SDDP event in San Sebastian, Spain, with the Triggering Question "What type of research is missing that could facilitate development of inclusive HCI?". This event, which was the main milestone of the period, achieved its aim of gathering a broad range of relevant stakeholders to generate an influence map on research relating to user interaction. Three remote structuring sessions were held after the meeting in San Sebastian in order to complete the structuring and ensuing influence map.

A summary report of this event is provided in this deliverable (section 2.3). A full report of the findings and influence map will be provided in the next period (Month 20) in Deliverable D2.2.

Following the recommendations of the reviewers at the first evaluation meeting, the influence map from the first SDDP event in Pafos has been split into two influence maps, reflecting the separate issues of *accessible* ICT and *assistive* ICT. An initial analysis of this separation is reported in the advanced preliminary version of deliverable D1.2 (originally due in month 24).

The expected result of the project is a report containing a series of recommendations and research agenda roadmaps that indicate the short, medium and long term research priorities in the field of accessible and assistive ICT products and services, including recommendations to support the technology transfer process in these research areas.

Further information can be found at: www.cardiac-eu.org

List of Partners

No	Name	Short name	Country
1	**ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE**	EPFL	Switzerland
2	**CENTRAL REMEDIAL CLINIC**	CRC	Ireland
3	**Cyprus Neuroscience and Technology Institute**	CNTI	Cyprus
4	**UNIVERSIDAD DEL PAIS VASCO**	UPV/EHU	Spain
5	**CONSIGLIO NAZIONALE DELLE RICERCHE**	CNR	Italy
6	**EVANGELISCHE STIFTUNG VOLMARSTEIN**	FTB	Germany
7	**JOHN GILL TECHNOLOGY Ltd**	JTG	United Kingdom
8	**STICHTING SMART HOMES**	SMH	Netherlands
9	**UNIVERSITETET I OSLO**	UIO	Norway
10	**TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY.**	IIT	Israel
11	**FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS**	ICS-FORTH	Greece
12	**UNIVERSIDAD DE SEVILLA**	USE	Spain
13	**FACULDADE DE MOTRICIDADE HUMANA**	FMH	Portugal

Section 1: Project objectives and major achievements

1.1 Overall project objectives

The overall aim of this coordination action is to play a role in helping increase the amount of products and services available on the market in the field of accessible and assistive ICT.

The core objective of the project is to advise the European Commission as to where to direct research funding in the short, medium and more distant future within the context of ICT for independent living, inclusion and governance.

This is to be achieved through a series of interactive events known as Structured Dialogic Design Process (SDDP), where influence maps are to be drawn up in consultation with all the relevant stakeholders.

1.2 Objectives for the third 6-month period

The two main objectives for the period have been to:

- take account of and react to the recommendations made by the reviewers at the first annual review.
- ensure the main milestone of the period was successfully achieved, namely the preparation, organization and running of the second SDDP event in San Sebastian.

1.3 Main achievements and work performed in third period

The main achievement has been to prepare, organise and run the second SDDP interactive event in order to draw up the second of the CARDIAC influence maps.

1.4 Summary of deliverables and Milestones for third period

Apart from this progress report (D6.3), there are in all two other deliverables to be reviewed at this interim review:

- Deliverable 3.1 entitled "Report with background material needed to support the SDDP-2 Meeting" which is the report distributed to the participants of the SDDP-2 event that contains the background information to create a common platform amongst attendees.
- an advanced preliminary version of Deliverable D1.2 “Production of Accessible and Assistive ICT Systems and Materials” (due in month 24), as requested by the reviewers at the first annual review.

As a reminder Deliverable D5.2 ”Passing it on – Technology Transfer for Assistive and Accessible information and Communications Systems”, which was originally due in this period (M15) was completed ahead of schedule and reviewed at the first annual review.

The only milestone for this period is the second SDDP interactive event that was held in San Sebastian Spain, between the 28th-29th of June 2011.

1.5 Problems and corrective actions

There have been no problems or corrective action to report.

1.6 Response to recommendations from reviewers

REC-1. In terms of the deliverables submitted, the consortium should prepare a report on the lessons learned in applying their chosen methodology including weaknesses and strengths.

Response: a report on lessons learned is included as an appendix to this report (Appendix 2) as requested.

REC-2. Raw data related to SDDP-1, as well as further critical uptake issues should be re-analysed in light of recommendations contained in the review report and, in particular, with *assistive* and *accessible* ICT viewed as separate elements as well as sharing commonalities.

Response: the *assistive* ICT and *accessible* ICT aspects have been viewed as separate elements (as well as sharing commonalities) and two separate influence maps have been generated, as requested. This is reported in the advance preliminary version of Deliverable D1.2.

REC-3. The consortium should take stock of their current position in the planned work to ensure that the future objectives will be effective in meeting the planned outcomes.

Response: the strengths and weaknesses of the methodology have been discussed and analysed and are reported in Appendix 1 of this progress report. A more detailed workplan for WP1 has been drawn up to ensure the planned outcomes can be met (reported in the resubmitted version of D6.2). The consortium has held discussions as to what should be the overall vision and form of the final CARDIAC roadmaps and a first example of how these are to be drawn up from the raw data collected can be seen in the advance preliminary draft of Deliverable 1.2 (section 5).

REC-4. The consortium should make explicit how the objectives – as well as the tasks of the work packages – will be achieved and how they will be reported.

Response: a more detailed workplan for WP1, with details of where each task will be reported was included as an appendix to D.6.2. A more detailed workplan for WP1 is included in this report along with similar details for WPs 3 and 4 (sections 2.1, 2.3 and 2.4).

REC-5. The SDDP-2 event should take place but with:

I. Proceedings and actions redefined to reflect the recommendations contained in this review report.

II. Consideration for the human as well as the machine side of the "Human-machine interactions" and the interdisciplinary characteristics of this field.

III. Inclusion of ICT accessibility as well as assistive ICT as specified by the DoW.

IV. Production of background material including state-of-the art information and challenges that encompass the technology side as well as the human side.

Response: The SDDP-2 has taken place as scheduled in San Sebastian on June 28th-29th, 2011. All the recommendations have been taken into consideration, for example, the triggering question was sufficiently focused so as to narrow the scope of the responses (point I); experts from human factors field were included (point II); both assistive ICT and accessible ICT have been included in the background material (deliverable D1.3) and in the Triggering Question (points III and IV).

REC-6. For the analysis phase after each SDDP event, increase the visibility of external stakeholder involvement including electronic communication, for example by using – Wikibooks.

Response: the content collected before and after the events is to be fully documented in the SDDP reports (Deliverables D2.2 and D2.3).

REC-7. Following each SDDP event, a report should be submitted identifying the weaknesses and strengths in the application of the chosen methodology.

Response: This report is included as an appendix to this report (Appendix 1) as requested.

REC-8. For each future SDDP event a pre-wiki (pre-SDDP event) phase should be incorporated into the methodology for initiating contact between partners and external stakeholders.

Response: a Wikispace was set up for this purpose at (http://userinteraction-sdd-cardiac.wikispaces.com/) and the full list of contributions is to be published and reported in deliverable D2.2 (Month 20).

Section 2: Workpackage progress for the year

2.1 WP1 Technology Transfer – How to achieve accessibility

Following the recommendations of the reviewers, and in particular Recommendation 2, the SDDP1 influence map has been separated into two strands so as to reflect both the *assistive* and *accessible* ICT dimensions. All the participants of the SDDP-1 event were asked to clarify whether their ideas/mechanisms were in response to the *assistive* and/or *accessible* ICT dimensions of the Triggering Question. From the responses received, it was apparent that a majority of the participants had been responding more to the accessible ICT element of the question than the assistive ICT element. The figures show that, out of the 34 mechanisms in the original influence map, 32 are contained in the accessible ICT influence map and 21 are included in the assistive ICT influence map (details in deliverable D1.2).

The analysis will now also be split into two strands to reflect this separation and a full analysis will be made for both dimensions. An initial analysis for one of the mechanism clusters of the *accessible* ICT dimension is provided in the advance preliminary draft of Deliverable D1.2. The analysis of the *assistive* ICT aspect will be carried out over the next period.

Overall goal of WP1

The **overall goal of Work Package 1 "Technology Transfer – How to achieve accessibility"** is to study market factors and economic requirements relating to the development of accessible and assistive ICT products and systems by designers and manufacturers, helping them to incorporate the necessary features at a reasonable cost, whilst dealing with the unavoidable complexity of the industrial value chain and remaining profitable.

Technology transfer is the process of sharing of skills, knowledge, technologies, methods of manufacturing, samples of manufacturing and facilities among governments and other institutions to ensure that scientific and technological developments are accessible to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services.

Objectives of WP1 (and related tasks)

- To identify the **main factors** that influence how accessible and assistive ICT products are sold to consumers, in complex supply markets. (**T1.1**)
- To study **organisational means and procedures** – intra and inter – ICT developing companies and other related organisations to achieve accessibility of their products and services, including the analysis of industrial practice and the description of best practice. (**T1.1**)
- To study the advancements in **solutions for supporting developers** in embedding generalised accessibility support within mainstream ICT-based products and services. (**T1.2**)
- To identify the **existing supports for manufacturers or designers** in bringing a proposed product or service, successfully to market. (**T1.5**)
- To propose a **short/medium/long term set of objectives** for the development and application of systems and services supporting accessibility as well as for the implementation of accessibility supporting means in and between companies/ organisations. (**T1.5**)
- To create a **road-map** that supports future EU research and industry alike in ensuring better uptake of technology, knowledge and skills. (**T1.5**)

Deliverables of WP1 (and contributing tasks)

- **D1.1** Report with background material needed to support the SDDP-1 meeting. **(T1.1)** [month 8 - done]
- **D1.2 – Advanced Draft** Production of accessible and assistive ICT systems & materials. **(T1.1/T1.4)** [month 20 - done]
- **D1.2** Production of accessible and assistive ICT systems & materials. **(T1.1/T1.4)** [month 24] – D1.2 aims primarily at the industrial and research community. It will help manufacturers, researchers and designers to take a broad look at the production of Accessible and Assistive ICT systems and materials. It will outline factors for success based on the analysis

of previous work and on examples of best practice. It will also contain a directory of useful support for Accessible and Assistive ICT developers interested in successful technology transfer.

- **Draft Umbrella Report** combining intermediate outcomes of WP1 and WP3 [review 2012]
- **D1.3** Available systems and services supporting developers to achieve accessibility. **(T1.2/T1.5)** [month 36] – D1.3 will describe available systems and services supporting developers to achieve accessibility; identifying research and development areas which could benefit from such systems and services; identifying gaps in available systems/services, and needs and requirements for closing those gaps; suggesting tasks for R&D in the area of accessibility supporting systems/services/methodologies.

Tasks of WP1 (and related deliverables)

T1.3 – Formulate **triggering question** for WP2 / SDDP-1 – [done]

T1.1 – Analyse **technology transfer in accessible/assistive ICT**

Study organisational and procedural processes

-> **D1.1** (background material for SDDP-1) – [done]

-> T5.2 / **D5.2** (Public report on TT) – [done in WP5]

-> **D1.2 – Advanced Draft** including **Draft roadmap** – [done]

-> **D1.2** (analysis of processes and success criteria) – [month 24]

T1.4 – Analyse the **Smart Living** area

-> **D1.2** – [month 24]

T1.2 – Study of **guidelines, standards, solutions, models, …**

-> **D1.3** – [month 36]

T1.5 – Identification of **existing technology transfer supports**

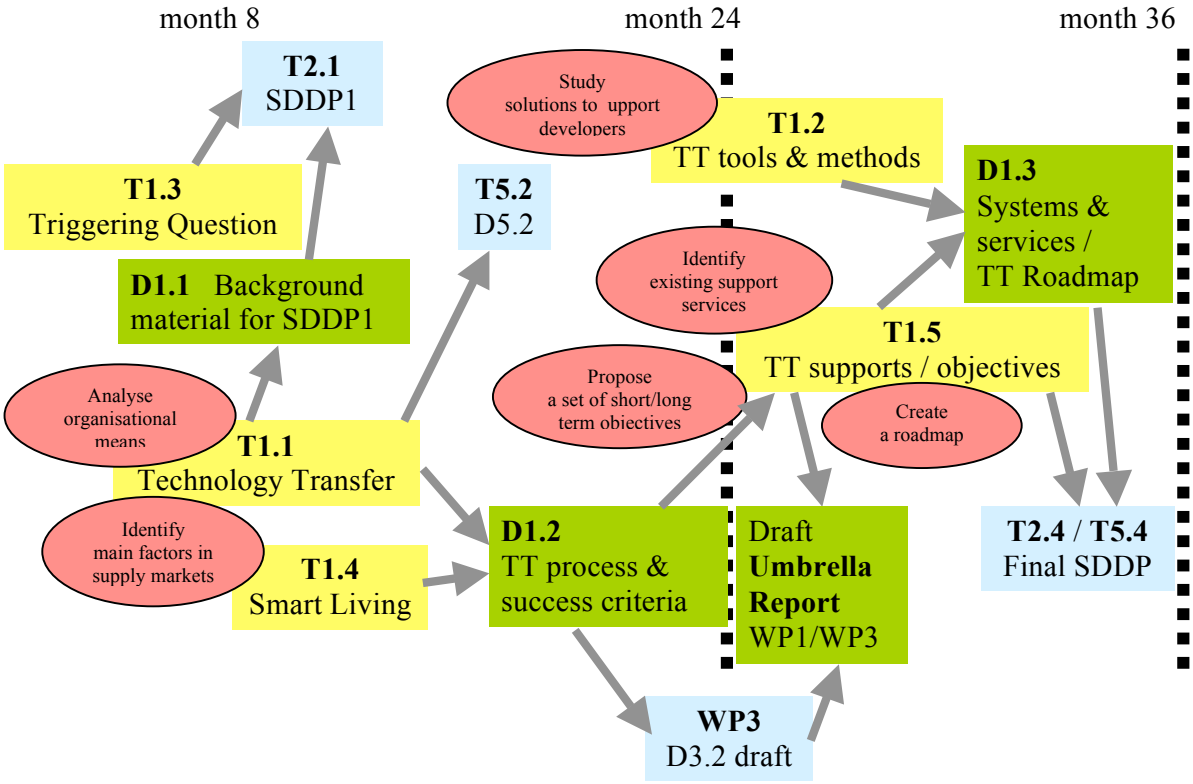
short, medium & long-term objectives / **roadmap**

-> **Draft Umbrella Report of WP1 and WP3** – [review 2012]

-> T2.4 / T5.4 / **D2.4** – [Final SDDP workshop]

-> **D1.3** – [month 36]

Figure 1: Relations and dependencies between objectives – tasks – deliverables of WP1 and other WPs



Contributing tasks to Deliverable D1.2

The **first task, T1.1**, of this Workpackage is to analyse the success or failure of the transfer of technology in the area of ICT and assistive technology. Even some of the more successful research proposals and R&D in this area have not had the expected impact. It is important to analyse why this is the case and what new approaches could be used to improve the transfer process. Defining criteria for success and analysing indicative factors on a continuum of success/failure are the focus of this work.

Furthermore a detailed study of organisational and procedural processes – intra and inter – that ICT development companies and other related organisations exploit to achieve accessibility of their products and services is conducted in conjunction with an analysis and description of best practice examples. The outcome of this work provides the basis for defining a best practice methodology for successful technology transfer. The core outcomes of this work forms the content for Deliverable D1.2.

The **fourth task T1.4** will involve the analysis of "sample areas" within the Assistive and Accessible ICT fields, specifically that of 'Smart living'. A thorough review of the development that lead to current market ready Smart Home Technology available in the European market place, with a view to defining the successes and failures of achieving technology transfer. The results of this work will be presented in D1.2.

Contributing tasks to Deliverable D1.3

The **second task, T1.2,** will involve conducting a state-of-the art study about solutions (methods, models, guidelines, standards, tools, ...) that support developers of mainstream ICT-based products and services to realise accessibility of such systems. Review of the advancements in the field of virtual environments and user modelling will be presented as an exemplar for this analysis. – The study will mainly be done as a desktop research.

The **fifth task, T1.5,** will involve the identification and mapping of existing technology transfer supports, institutional and commercial available throughout the EU as well as the definition of a common set of short, medium and long-term objectives for the development and application of systems and services supporting accessibility.

There are no deviations to report in WP1 from Annex I of the DoW.

Note as a reminder: As mentioned in the previous progress report (D6.2), There is an error in the Table "List of Deliverables" on page 15 of the DoW: The partner responsible for D1.2 should be partner 2 and the partner responsible for Deliverable D1.3 should be partner 6 (they have currently been switched the wrong way round).

2.2 WP2 Road-mapping

The main activity of WP2 during this period has been to support WP3 in preparing for the second road-mapping event and to run the actual event itself, which was held in San Sebastian, Spain on the 28th-29th of June 2011 (Task 2.2).

The work has included participating in the Knowledge Management Team (KMT) discussions and setting up a CARDIAC Wikispace for gathering input from the stakeholders ahead of the SDDP meeting (http://userinteraction-sdd-cardiac.wikispaces.com/).

This second SDDP meeting was the milestone event of this period of the project. The WP2 leader, partner CNTI, supported WP3 in all activities linked to the preparation and running of the interactive SDDP-2 event in San Sebastian. WP2 was also responsible for setting up the CARDIAC Wikispace through which the consultation with the stakeholders and participants was conducted before, during and after the event (see next section 2.3 for more details). After the SDDP event itself, WP2 set up and ran three remote sessions using the Elluminate software. These three remote sessions served to complete the phase exploring the links and influences between the various ideas/mechanisms. A full report on these sessions along with the results and ensuing influence map will be included in deliverable D2.2 "Influence map on inclusive HCI research and development priorities for WP3" due in Month 20. An example of an influence map can be seen in Deliverable D1.2 (page 54).

No work has yet been undertaken under task T2.3 (year 3 of the project).

There are no deviations to report in WP2 from Annex I of the DoW.

2.3 WP3 Inclusive Human-Machine Interaction

The main effort in WP3 during this period was focused on Task 3.4, namely on

preparations for the second SDDP event that was held in San Sebastian on the 28th-29th of June 2011. A wide range of relevant stakeholders and potential participants were identified, contacted and invited to participate in this event, which was the only main milestone of the period.

The preparatory work included all the practical organisation of the June 2011 meeting in San Sebastian (both the consortium meeting and the SDDP event). An information package, containing all the practical details and schedule for the event was prepared and distributed to all the potential participants.

A report with all the necessary background information was drafted and distributed to the participants and is submitted for this review as Deliverable D3.1 "Report with background material needed to support the SDDP-2 meeting" due in Month 15 (Partner responsible: UPV-EHU).

The following Triggering Question was formulated "What type of research is missing that could facilitate development of inclusive HCI?" and a new Wikispace was set up to collect responses and relay information to the participants ahead of the meeting (http://userinteraction-sdd-cardiac.wikispaces.com/). More than seventy ideas/responses were collected ahead of the meeting and the participants were then given an additional opportunity to submit ideas during the first day of the meeting in San Sebastian.

Every effort was made to ensure all relevant stakeholders, including experts in human factors, were represented at this second SDDP interactive event. In all 21 participants attended the event with eight of the experts coming from outside of the consortium. A full list of the participants along with a brief CV is given in Deliverable 3.1 (pages 65-67). As a reminder, the ideal number of participants for a SDDP meting is between 20-25, so the number of participants in San Sebastian was within this range. A full report of this event will be given in Deliverable D2.2 (Month 20).

WP3. Deliverables:

The D3.1 "Report with background material needed to support the SDDP-2 Meeting" was used for the preparation of SDDP-2 meeting. It principally contains a survey of Design for All and Assistive Technologies in the Human-Computer Interaction domain, an introduction to the SDDP methodology and practical information about the meeting. It was intended to create a common platform to orientate and facilitate the discussions of the invited experts.

A detailed analysis of the results of the SDDP-2 and its interpretation will be included in the Deliverable D2.2 "Influence map on inclusive HCI research and development priorities" (Month 20) together with the raw data from SDDP2 (prepared by WP2). WP3 will collaborate in the analysis and interpretation of the SDDP-2 results.

The conclusions of SDDP-2 will be extensively used to define a common set of short, medium and long-term objectives for inclusive HCI that will be the core of the Deliverable D3.2 on "Trends on inclusive user interface design" (Month36).

There are no deviations to report in WP3 from Annex I of the DoW.

The block diagram in figure 2 below shows the relationship between the various tasks and deliverables in Workpackage 3.

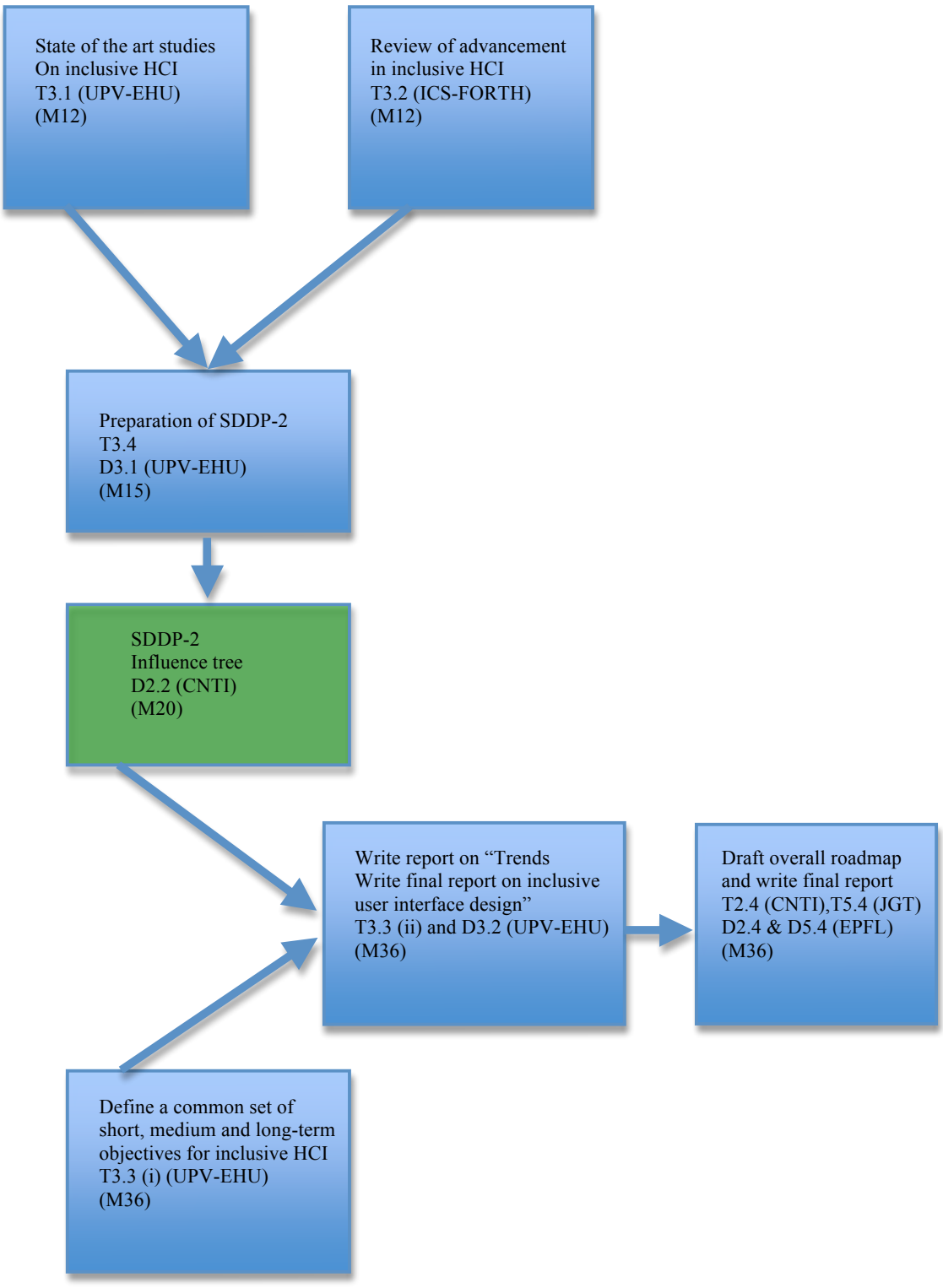


Figure 2: WP3 Workplan

2.4 WP4 Network-based Applications

Initial work has continued on the state-of-the art study (task T4.1) and initial preparations have been made for the third road-mapping event to be held during the third year of the project (task T4.2).

Preparations for the third road-mapping event to be held between the 29th - 31tt of May 2012 in Florence will become more intensive during the next period. A Knowledge Management Team (KMT3) was set up at the kick-off meeting in March 2010. The role of this management team will be to identify and consult with the relevant stakeholders, define the Triggering Question for the road-mapping event and invite all the participants.

Initial work has begun work on task T4.3 dealing with an analysis (at the conceptual level) of the possible impact of the suggested research activities in ensuring Accessible and Assistive content and support in the eLearning environment. The Learning Management Systems being surveyed include Blackboard/WebCT (almost completed), LAMS – open source, popular, eLearning standard oriented, advanced pedagogic support (under development), Moodle – open source and freeware, widely used, eLearning support (to be done) DotLRN – open source and freeware, popular, standard oriented, advanced pedagogic support (to be done) and ATutor – specially concerned with accessibility related issues (to be done). A request to run an additional remote SDDP related to this specific topic was made to partner 2 (CNTI). This will be possible and a date is to be fixed. The results of this work are to be synchronised with the rest of WP4 tasks and the SDDP3 in particular (partner responsible: ATS-US).

WP4. Deliverables:

The D4.1 "Report with background material needed to support the SDDP-3 Meeting" (Month 24) will be used for the preparation of SDDP-3 meeting on the theme of "Network-based applications and services", in Florence, Italy in May 29-31 2012. The aim of this deliverable will be to create a common platform to orientate and facilitate the discussions of the invited experts.

A detailed analysis of the results of the SDDP-3 and its interpretation will be included in the Deliverable D2.3 "Influence map for eInclusion research and development priorities for WP4" (Month 29) together with the raw data from SDDP-3 (prepared by WP2). WP4 will collaborate in the analysis and interpretation of the SDDP-3 results.

The conclusions of SDDP-3 will be extensively used to define a common set of short, medium and long-term objectives eInclusion that will be the core of the Deliverable D4.2 on "Report identifying research and development areas and activities, suggesting how inclusion could be achieved and describe the foreseeable benefits" (Month36).

There are no deviations to report in WP4 from Annex I of the DoW.

The block diagram in figure 3 below shows the relationship between the various tasks and deliverables in Workpackage 4.

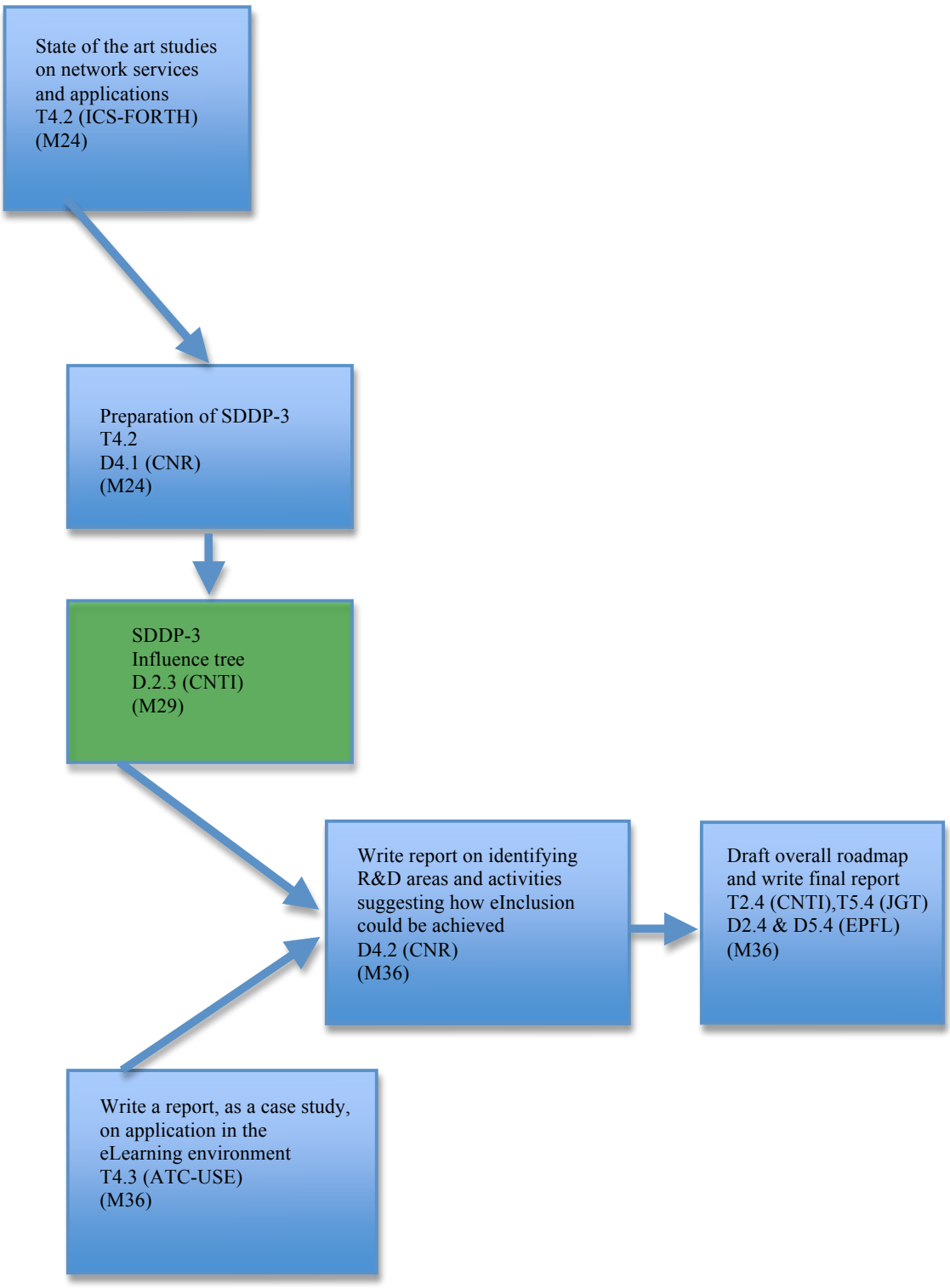


Figure 3: WP4 Workplan

2.5 WP5 Dissemination

The project Website has been updated and the remarks of the reviewers have been taken into account. For example, the introduction has been redrafted in a more concise way and the photograph of a person with disabilities as an illustration of technology transfer has been removed. Information regarding the second SDDP event in San Sebastian was also added during this period. The sections on related ICT projects and standards have been updated (T5.1).

As a reminder, the report based on the work carried out in WP1 entitled "Passing it on – Technology Transfer for Assistive and Accessible information and Communications Systems" has been written and circulated, three months ahead of schedule (Deliverable D5.2 due in Month 15, Task 5.2).

An article written by the CARDIAC Partners entitled "Towards a technology transfer roadmap from the Coordination Action in Accessible and Assistive ICT (CARDIAC)" was published in the special issue of AAATE Journal "Technology and Disability", special edition: Twenty Years of innovation in the European Assistive Technology and Inclusion Sector: A critical Review, Volume 23, Number 3, 2011, ISSN 1055-4181.

No work has been carried out in tasks T5.3 and T5.4 during this period.

The following major eAccessibility/AT events were attended by at least one member of the consortium during the second six-month period (task T5.5):

- Workshop on ICT for Inclusion in Cambodia, on 7th of April 2011, where John Gill will made a presentation on behalf of CARDIAC; (see also http://eurosoutheastasia-ict.org/2011/01/24/agenda-seacoop-cooperation-forum-on-ict-for-inclusion/).
- Workshop on eAccessibility and Assistive Technology, on 20-21 June 2011, organised by the ICT for Inclusion Unit of the European Commission in Brussels, attended by Patrick Roe.
- HCI International 2011, 14th International Conference on Human-Computer Interaction in Orlando Florida, USA, 9-14 July 2011, where Yiannis Laouris presented a paper on the SDDP methodology.
- AAATE Conference "Everyday technology for Independence and Care" in Maastricht, The Netherlands, 31 August -2 September 2011, where Yiannis Laouris presented a paper on behalf of CARDIAC.

The events identified for the next 6-month period include:

- AAL Forum 2011 in Lecce, Italy, 26-28 September 2011.
- eChallenges e-2011 Conference in Florence, Italy, 26-28 October 2011.
- European Seating Symposium, incorporating Assistive Technology, Dublin 7-10 November 2011
- Final AEGIS Workshop in Brussels, Accessibility Reaching Everywhere, 29-30 November 2011, where Patrick Roe will be representing CARDIAC.

Furthermore, an invitation has been received to organise a joint seminar with the recently formed CEN working group looking into standards and the prioritisation of standards in the field of user interfaces. This will be an opportunity to feed in some of the initial results from the SDDP2 influence tree into the process. The British Standardisation Institute (BSI) is to provide the venue.

There are no deviations to report in WP5 from Annex I of the DoW.

2.6 WP6 Project management during the first year

Consortium management tasks and achievements

The main management tasks over this period of the project have been concentrated on ensuring the partners took into account the recommendations from the reviewers at the first annual review, so that the deliverables D2.1 and D6.2 could be resubmitted as requested. Efforts have also been focused on ensuring that the main milestone of the period was achieved (the second SDDP event) and that all the deliverables are ready for the interim review in October/November 2011.

Problems which have occurred and how they were solved or envisaged solutions

John Gill was taken seriously ill on the last day of the SDDP event in San Sebastian. The latest news is that John is expected to make a full recovery and no action has been taken.

Changes in the consortium

There have been no changes to the consortium.

List of project meetings, dates and venues

The third CARDIAC Meeting was held on the 27th of June 2011 in San Sebastian, Spain, ahead of the second 2-day road-mapping event held on the 28th-29th of June 2011.

The fourth CARDIAC Meeting is scheduled for the 28th – 29th of May 2012 in Florence, Italy, ahead of the third two and half day road-mapping event to be held on the 29th-31st of May 2012.

Project planning and status

The main tasks over the next period, to which much of the attention of the partners will be focused over the coming months, will be the preparation of the third SDDP road-mapping event to be held in Florence, Italy on the theme of "Network-based applications" and the drafting of the final versions of deliverables D1.2 and D2.2.

The preparation of the SDDP event is under the responsibility WP4, partner CNR, with the event itself being run by partner CNTI, the leader of WP2 (Road-mapping WP).

Impact of possible deviations from the planned milestones and deliverables

There have been no deviations in the planned deliverables and milestones.

Any changes to the legal status of any of the beneficiaries

There have been no changes to the legal status of any of the beneficiaries.

Development of the Project website, if applicable

The project website has been developed according to plan and has continued to be updated. This is an essential tool for the visibility of the project as well as a means to

communicate future deliverables and results.

Other tools used by the partners to coordinate the work include, standard email exchange, the management Skype calls, Illuminate software and teleconference calls.

Special Advisory Board

Contact has been maintained with the seven current members of the Special Advisory Board:

- Dr. Ricardo Baeza-Yates, Head of Yahoo! Research, Barcelona,
- Prof. Zhengjie Liu, Director of he Sino-European, Usability Center (SEUC) Dalian Maritime University,
- Prof. Thijs Soede, Zuyd University, Centre of Research Technology in Care.
- Dr. Gregg Vanderheiden, TRACE Center, University of Wisconsin
- Peter Korn, SUN
- Chiara Giovannini, ANEC
- Hiroshi Kawamura, Chairperson of DAISY consortium

All the members were invited to participate in the second SDDP event in San Sebastian and Gregg Vanderheiden was able to participate via videophone. This experience was positive and showed that such remote participation is possible in practice with the distant person able to make a meaningful contribution on an almost equal footing to the other participants.

Thijs Soede was instrumental in inviting the consortium to contribute an article to the AAATE Journal (Association for the Advancement of Assistive technology in Europe.

Over the next six-month consultation is to begin concerning the next SDDP event on network-based systems.

Deliverables and milestones tables

Table 1: Deliverables

Del. no.	Deliverable name	Version	WP no.	Lead beneficiary	Nature	Dissemination level[9]	Delivery date from Annex I	Actual / Forecast delivery date dd/mm/yyyy	Status Not submitted/ Submitted	Contractual Yes/No	Comments
D3.1	Report with background material needed to support SDDP-2 meeting	1	WP3	4	R	PU	15	10/06/2011 31/05/2011	Submitted	yes	
D1.2	Production of Accessble and Assistive ICT system and materials	1	WP1	2	R	PU	24	07/10/2011 30/04/2012	Submitted	yes	Preliminary version
D6.3	3rd bi-annual Progress Report	1	WP6	1	R	PU	18	07/10/2011 31/10/2011	Submitted	yes	

[9] **PU** = Public
PP = Restricted to other programme participants (including the Commission Services).
RE = Restricted to a group specified by the consortium (including the Commission Services).
CO = Confidential, only for members of the consortium (including the Commission Services).
Make sure that you are using the correct following label when your project has classified deliverables.
EU restricted = Classified with the mention of the classification level restricted "EU Restricted"
EU confidential = Classified with the mention of the classification level confidential " EU

Table 2: Milestones								
Milestone no.	Milestone name	WP no.	Lead beneficiary	Delivery date from Annex I dd/mm/yyyy	Achieved Yes/No	Actual / Forecast achievement date dd/mm/yyyy	Status Not submitted/ Submitted	Comments
MS3	2nd SDPP Meeting	WP2 WP3	3	31/08/2011	Yes	30/06/2011 31/08/2011	Submitted	

Explanation of the use of resources

Person-Month Status Table

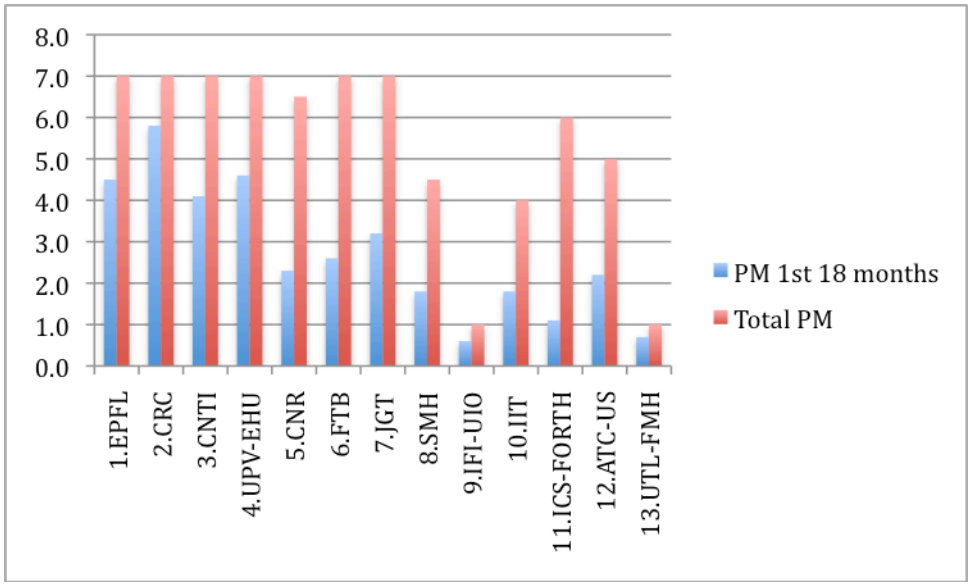
CONTRACT N°: 248582		Partner - Person-month per Workpackage														
ACRONYM: CARDIAC																
PERIOD: 01.03.2011 - 31.08.2011		TOTALS	Coord. EPFL	P2 CRC	P3 CNTI	P4 UPV-EHU	P5 CNR	P6 FTB	P7 JGT	P8 SMH	P9 IFI-UIO	P10 IIT	P11 ICS-FORTH	P12 ATC-US	P13 UTL-FMH	
Workpackage 1: Title	Actual (previous Periods):	6.0		4				1.0				1.0				
	Actual (this Period):	2.4		1				0.9				0.5				
Technology Transfer - how to	Actual (total)	8.4		5				1.9				1.5				
achieve accessibility	Planned (total):	7.5		4				2.0				1.5				
Workpackage 2: Title	Actual (previous Periods):	8.3	1.5	0.6	2.4	0.3	0.3	0.5	0.6	0.5	0.3	0.3	0.2	0.4	0.4	
	Actual (this Period):	5.7	1.0	0.2	1.7	0.4	0.3	0.2	0.3	0.3	0.3		0.4	0.3	0.3	
Road-mapping	Actual (total)	14.0	2.5	0.8	4.1	0.7	0.6	0.7	0.9	0.8	0.6	0.3	0.6	0.7	0.7	
	Planned (total):	13.8	2.0	0.8	4.0	0.7	0.6	0.7	0.9	0.8	0.7	0.6	0.6	0.7	0.7	
Workpackage 3: Title	Actual (previous Periods):	2.5				1.4	0.5			0.6						
	Actual (this Period):	4.2				2.5	0.3			0.4			1.0			
Inclusive Human-machine interaction	Actual (total)	5.7				3.9	0.8			1.0						
	Planned (total):	6.5				3.5	0.5			1.5			1.0			
Workpackage 4: Title	Actual (previous Periods):	1.9					0.9						0.5	0.5		
	Actual (this Period):	1.0												1.0		
Network-based Applications	Actual (total)	2.9					0.9						0.5	1.5		
	Planned (total):	3.0					1.0						0.5	1.5		
Workpackage 5: Title	Actual (previous Periods):	2.3	0.5						1.8							
	Actual (this Period):	0.5							0.5							
Dissemination	Actual (total)	2.8	0.5						2.3							
	Planned (total):	2.8	0.5						2.3							
Workpackage 6: Title	Actual (previous Periods):	1.0	1.0													
	Actual (this Period):	0.5	0.5													
Management	Actual (total)	1.5	1.5													
	Planned (total):	1.5	1.5													
Total Project Person-month	Actual (previous Periods):	22.0	3.0	4.6	2.4	1.7	1.7	1.5	2.4	1.1	0.3	1.3	0.7	0.9	0.4	
	Actual (this Period):	14.3	1.5	1.2	1.7	2.9	0.6	1.1	0.8	0.7	0.3	0.5	1.4	1.3	0.3	
	Actual (total)	35.3	4.5	5.8	4.1	4.6	2.3	2.6	3.2	1.8	0.6	1.8	1.1	2.2	0.7	
	Planned (total):	35.1	4.0	4.8	4.0	4.2	2.1	2.7	3.2	2.3	0.7	2.1	2.1	2.2	0.7	

The person months indicated in the table for this first period are closely in line with the planned person months.

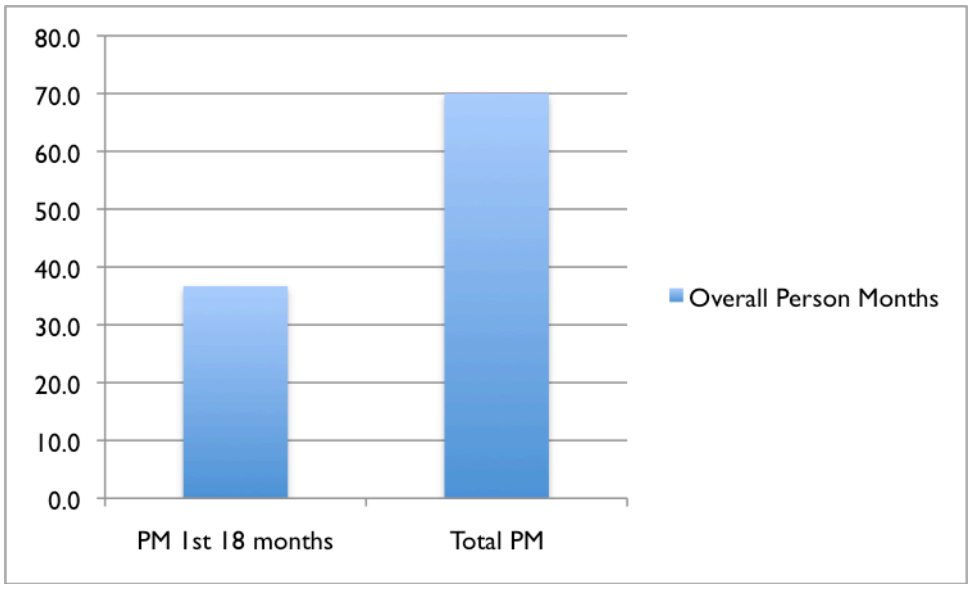
There are no major deviations to report during this period.

Person months

Graph 1 below shows the person months per partner for the first 18 months as compared to the overall allocation of person months and graph 4 shows the total amount of person months of the project during the first 18 months as compared to the overall allocation of 70 person months.



Graph 1. Person months per partner during the first year of the project as compared overall allocation.



Graph 2. Overall person months of all the partners during the first year as compared to overall allocation.

There are no major deviations to report during the eighteen months of the project.

Section 3: Conclusions

The project has progressed much as expected over the past 6 months according to the DoW, whilst the partners have tried to adjust to the recommendations made by the reviewers during the first annual review and take stock of their current position.

The main milestone in the form of the second SDDP event in San Sebastian, was achieved on time with a requisite number of participants from a broad spectrum of relevant stakeholders. An influence map has been generated from the SDDP-2 event and subsequent remote sessions and will be fully reported on over the next reporting periods (Deliverable D2.2, month 20 and Deliverable D3.2 Month 36).

The adjustments have included a reflection on the strengths and weaknesses and lessons learned from the first two SDDP events (reported in Appendices I and II of this report). A further adjustment has been the splitting in two of the influence map from the first SDDP in Cyprus to reflect the *accessible* ICT and *assistive* ICT elements. The structure of D1.2 has been changed to reflect these two strands. An initial analysis of the *accessible* ICT dimension for one of the mechanism clusters is given in the advance preliminary draft of D1.2 (section 5). This is very much seen as a first step of the analysis of *accessible* ICT influence map on the way towards generating a technology transfer roadmap where all the mechanisms of the influence map will be analysed. The analysis of the *assistive* ICT dimension will be analysed over the next reporting period.

Appendix 1: Strengths and Weaknesses of SDDP Methodology

Introduction

This appendix sets out to take an objective look at the main strengths and weaknesses of the SDDP methodology. The content reflects on feedback gathered from the consortium partners, the external participants and from previous experience of running SDDP events.

The aim of this review is to outline the possibilities and limitations of the SDDP methodology whilst taking stock of the current position of the project in relation to the expected outcomes. It is also a means to better understand where this methodology can be best applied.

Strengths

Structuring process

The structuring process is one of the core strengths of the methodology. Many workshops include 'Round-table' discussion or 'break-out' sessions in an attempt to gather the collective wisdom of the participants. This is always hard to achieve and it is even harder to extract a list of actions/recommendations from what are often random and unstructured exchanges. The strength of this methodology is that it explores the links between the different factors in a structured and methodological way that leads to an influence map that could otherwise not be drawn up intuitively by the participants.

Sense of ownership and engagement

Even if a group of experts have shared a platform and participated together in a round-table discussion, there is little sense of common ownership of the ensuing list of actions, steps or recommendations. The participants will often leave without any sense of ownership of the findings or any sense of engagement or motivation to act upon the findings. One of the strengths of the SDDP methodology is that it does give the participants a sense of ownership. This sense of ownership and engagement comes from the 'shared journey' and the fact that the methodology provides all participants with an opportunity to submit ideas and see them appear in the influence map during the structuring phase.

Meaningful exchange of ideas

Assuming that the dialogue has been properly prepared and invitees cover the whole spectrum of players who should have a say in what is being discussed, the methodology allows meaningful exchange and contributions from a wide range of stakeholders. This is one of the reasons that this methodology was selected, as it was deemed vital that a wide range of stakeholders from a variety of interdisciplinary fields be brought together for a meaningful exchange and gathering of collective wisdom that could lead to an influence map where all points of view and approaches could be taken into account.

Original and enriching process

Assuming you have been able to assemble a broad spectrum of relevant stakeholders the methodology is an original and enriching way of gathering the collective wisdom both in terms of the context in which the knowledge is gathered, exchanged, debated and discussed and in terms of the learning experience for the participants. Much of the richness

of the process lies in the discussions themselves and this 'collective learning process' is observed throughout clarification and structuring sessions. If, for example, ideas were gathered solely through interviews you would not get the same degree of cross-fertilisation of ideas and joint learning experience. Through its originality and the methodology also has the potential to throw up some unexpected and new approaches.

Democratic process where all voices can be heard

The facilitators have to rise to the challenge of balancing the need for maintaining a very democratic environment in which all ideas are welcome with the requirement for a strict process with time constraints. Assuming the facilitators manage to strike this balance, this environment allows for a very democratic process to unfold where all voices can be heard and new perspectives explored. One feature of this democracy in action is, for example, that participants often change their minds and votes during the structuring/debating phase, once they have heard a particular argument from a different perspective.

No ideas get lost

An additional strength of the method is that no idea gets lost. All contributions are well documented and in this way ideas can have evolve through out the process. Through this documentation, all interesting elements can in the end be part of the final roadmap even if they did not receive enough votes and make it through to the structuring phase and ensuing influence map.

Weaknesses and limitations

The three main weaknesses and limitations, as identified and expressed by the participants, relate to the risk of obtaining a wide diversity of responses, the possible overlap and duplication of responses and the risk of not being able to reach all relevant stakeholders.

Diversity of responses

The freedom to formulate contributions in one's own words may lead to a great diversity of responses. This diversity is of course deliberately sought through having a wide range of different stakeholders with different perspectives but this diversity can lead to greater challenges during the subsequent voting and structuring phases, especially if the Triggering Question is not appropriately formulated. This underlines the importance of drafting a suitable Triggering Question and sufficiently briefing the participants so that there is a common understanding of the issue at hand.

Duplication of responses

Again, the freedom to formulate contributions in one's own words may lead to participants formulating responses which might overlap, be exactly the same or might 'contain' each other. This is not necessarily a problem, but if the similarity or overlap is not identified, it may lead to a split in the votes and neither of the ideas making it into the influence map. There could therefore be a risk of important factors being omitted should this risk not be properly addressed.

Risk of not reaching all the relevant stakeholders

This risk of not reaching all relevant stakeholders was identified by the consortium partners ahead of the SDDP meetings, during a risk analysis exercise carried out in 2010 (as

reported in the internal deliverable "A virtual Structured Dialogic Design[SM] co-laboratory to identify obstacles and threats anticipated by the CARDIAC consortium that could compromise the quality of the three upcoming structured dialogues"). The methodology does rely on having all the concerned stakeholders represented and this can be a limitation.

Conclusions

As with any process, the SDDP methodology is not perfect and has weaknesses and limitations of which the consortium partners are well aware. However, the risks and constraints can be addressed (some additional steps are described in the 'Lessons learned' section, Appendix 2) and the benefits and potential outcomes far outweigh the risks and limitations as long as the latter are appropriately addressed.

Appendix II: Lessons learned from SDDP events

Introduction

In response to of the recommendations of the reviewers (REC-1) this section presents the lessons learned from the first two SDDP events and will include feedback from activities leading up to the event (preparation phase through CARDIAC Wikispaces) as well as activities following the events (remote sessions through Elluminate software).

Positive Feedback

Contributions to the CARDIAC Wikispace

The CARDIAC Wikispaces have been a useful tool to prepare the SDDP meetings, explain the process, discuss and collect initial responses to the Triggering Question and gather further clarifications after the meetings. For the first SDDP in Pafos, 156 contributions were received overall via the CARDIAC Wikispace in the 'About your TQ', 'Generation' and 'Follow-up' sections. The contributions came from 18 different participants, 6 of whom were outside of the project and overall there have been 1,774 viewings (http://cyprus-virtual-sdd-cardiac.wikispaces.com/). For the second SDDP in San Sebastian, 193 contributions were received ahead of the meeting (with 73 of them being direct responses to the Triggering Question). The contributions came from 16 different participants, five of whom did not attend the meeting. Overall there have been 1,829 viewings of the contributions (http://userinteraction-sdd-cardiac.wikispaces.com/).

Despite the number of contributions, it should nevertheless be pointed out that not all participants submitted responses to the Wikispaces ahead of the meetings. In fairness to all participants and in order to give as equal a chance as possible to all contributors, an additional opportunity was given to all participants to submit their responses at the start of the SDDP meetings. There is obviously a delicate balance to be struck between consulting with the stakeholders ahead of the meeting and ensuring that all participants can contribute on an equal footing.

Another lesson learnt is how important it is to inform all participants as to how to contribute to the Wikispaces. Detailed instructions have to be circulated and it often helps to reinforce these instructions orally.

Sense of enthusiasm and inclusion

At both SDDP events, the participants expressed great enthusiasm for the methodology, despite in some cases, quite a heavy dose of scepticism before the event. This is not an unusual reaction and no amount of descriptions, presentations and forewarnings can actually replace the experience itself. Another reaction and feedback received from the participants was their sense and pleasure at being included in a group of experts exploring shared areas of interest. Much attention was directed by the consortium partners at ensuring the external experts were included on an as equal footing as possible as compared to the consortium partners. From the feedback received, this has been the case for the first two SDDP events and the sense of ownership and engagement referred to in the "Strengths and Weaknesses" section was apparent.

Remote participation via videophone

The question had been raised as to whether remote participation would be possible at such an event. The first time the consortium attempted this experiment was at the second SDDP event in San Sebastian where Gregg Vanderheidden of the Trace Center was able to participate via videophone. This experience showed that it is possible for someone to participate remotely at such an event and thus able to make a valuable contribution to the process. It also showed the degree of commitment of Gregg Vanderheidden as an external expert to the consortium, especially when you take into account the time zone difference (Gregg had to get up at 3.30 in the morning US time in order to participate). The experiment also highlighted the importance of having a sufficient number of microphones in the room so that the remote participant can hear all the interventions. Placing the screen with the picture of the remote participant helped create the impression of a "presence" and enabled Gregg to participate on an almost equal footing.

Remote structuring sessions

After both SDDP events, remote sessions have been set up in order to complete the structuring phase. These remote sessions were run with the Elluminate software where it is possible to show the computer screen of the facilitator, make comments by text, vote on the questions posed and speak via microphone (one speaker at a time). These sessions ran very smoothly and the Elluminate software has proved to be very useful and efficient tool in this respect. In sum, remote participation is useful in the following contexts: (1) to include one or two people who cannot participate physically; (2) as an opportunity to follow up and build more on the ideas structured during the face-to-face meeting; (3) when participants are already sufficiently familiar with both the SDDP methodology and the virtual communications technologies.

Practical issues

Importance of having a sufficiently focused Triggering Question

The importance of having a sufficiently focused Triggering Question was highlighted before and after the Pafos meeting. Concerns were aired before the meeting via the Cardiac Wikispace and following recommendations from the reviewers the *assistive ICT* and *accessible ICT* dimensions of the Triggering question were separated. Subsequent analysis showed that most participants were responding to the Accessible ICT dimension and not necessarily to the Assistive ICT aspect. **Action taken**: Due care was taken when drafting the Triggering Question for the second SDDP event in San Sebastian.

Length of the SDDP event

A fine balance has to be struck between the time required to carry out the SDDP process and the realistic time you can ask external experts to attend such a meeting. The first SDDP meeting in Pafos was scheduled over 3 days (including a Saturday) and it proved a challenge to find experts able to spend 3 days plus a day for travelling. The second SDDP event was scheduled over two days. This helped reduce the time away from work for the external participants but put severe time constraints on completing the process within the two days. **Action taken**: the third SDDP event is to be scheduled over two and a half days. This is seen as the best compromise between these two constraints.

Funding of travel costs for external participants

In a small number of cases, there has been an issue regarding the funding of travel costs for external participants, particularly as all invitees have to cover their own expenses for these meetings. This has been the case in particular for SMEs and people travelling from outside Europe. It could be wise in the future to allocate a separate budget for this purpose.

Concerns

Ahead of the first SDDP meeting the consortium carried out a risk analysis using the SDDP methodology to identify the major threats to running the SDDP events and achieving the expected outcomes. As reported in the internal deliverable "A virtual Structured Dialogic Design[SM] co-laboratory to identify obstacles and threats anticipated by the CARDIAC consortium that could compromise the quality of the three upcoming structured dialogues", the main threats identified fell within four clusters: failure to attract sufficient suitable participants representing the wide spectrum of stakeholders, lack of understanding of SDDP methodology, problems with the meeting itself and quality and use of the outcomes. The first three identified challenges have been addressed through the effort made to reach all relevant stakeholders, through informing all participants about the subject area and the SDDP methodology itself (Deliverables D1.1 and D3.1) and through appropriate practical planning of the two events. It is still to early to make a final assessment of the quality of outcomes (fourth identified threat). However, by ensuring that the three first issues were properly addressed everything possible has been done to ensure the milestones were reached in the best possible circumstances.

The threes main concerns that have emerged during the first two SDDPs are:

1. The fact that some participants may suggest ideas that are not related to the Triggering Question, but because of the rules of the processes they cannot be filtered out. In some cases, such contributions may take a lot of valuable time and even in some cases make it to the influence map.

2. Ideas that are either very similar, or one is "included" in the other, may split the votes. This may result in neither idea being structured because very often time limitations do not allow the participants to consider ideas, which received a small number of votes. Even if they are considered, they appear a lot later in the processes, simply because the ideas that received more votes are structured first.

3. Ideas may be difficult to understand in the first stage of the process because the author formulated them in a way that is difficult to comprehend. Because of the Law of Authenticity, the facilitator has no other option but to "protect" the author in his/her decision to formulate the idea in any way s/he wants, and ask the others to consider the meaning and not the title in their evaluations. However, a bad formulation of the title may at times lead to the rejection of a good idea, simply because its vagueness limits the options of the participants in considering its influences towards other ideas.

Action proposed: these three concerns have been given careful consideration by the international SDD team. As a result, in the next SDDP, there will be a slight modification in the process. Following the "Clarifications" phase the suggestion is to introduce a phase during which participants will be allowed to:

1. Report ideas that are not understandable to them because of formulation issues

2. Nominate ideas for deletion on the grounds that they are not relevant to the Triggering Question

3. Suggest deletion or merging of ideas based on the grounds that they are exactly the same

During this new phase, all nominations for (a) better formulation, (b) deletion as irrelevant and (c) merging, will be taken in advance. This will ensure that all concerns be expressed and recorded and avoid the situation where time limitation forces the processes to continue while participants still have concerns, which they were not allowed to share.

The addition of this new phase imposes a slight change during the Clarifications phase. Currently, it is during that clarifications phases that participants come up with concerns regarding formulation, similarity and irrelevance. In the revised format, the Facilitator will allow limited time for expressing these views and whenever no consensus is reached, s/he will ask the participants to await the next phase for expressing their continuing concern.

During the Nomination phase, there will be limited discussion. When 2/3 of the participants demand deletion of an idea, merging, or better formulation, the authors involved will have to take the necessary actions.

Conclusions

There have been a wide variety of lessons learned from the organisation and running of the first two SDDP events. This is an ongoing 'living' process and appropriate corrective actions have either been implemented or proposed where pertinent issues and concerns have been raised.