IDE Project

Deliverable 9.1: Dissemination Plan

30/07/2015

AIDE

Adaptive Multimodal Interfaces to Assist Disabled People in Daily Activities

Project number: 645322

Start of the project (duration): February 1st, 2015 (36 months)

Research and Innovation Action

HORIZON 2020 Programme

LEIT Pilar KET ICT

Revision: V1.0

Project co-funded by the European Commission within the Horizon 2020 Programme (2014-2020)	
Dissemination Level	
PU Public	**X**
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)	

List of reviewers

Issue	Date	Implemented by	Control of Changes
v.0.1	16/07/2015	UMH	Deliverable redaction
v.0.2	29/07/2015	UMH	Inclusion of the Urgency Notification Period after being approved by the EMB
V1.0	30/07/2015	UMH	Final version approval

Indicate any document related to this deliverable (report, website, ppt etc) and give file name

DOCUMENT NAMES

QUALITY ASSURANCE PLAN
DATA MANAGEMENT PLAN
EXPLOITATION PLAN
ETHICAL GUIDELINES

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This deliverable has two main purposes:

a) To describe in detail the dissemination strategy of AIDE.
b) To compile and report the dissemination activities executed during the lifecycle of the project.

With this aim, the contents of the deliverable have been divided into 5 sections:

1. Introduction
   A brief description of the deliverable.
2. Dissemination Strategy and Goals
   An overview of the strategy to be followed to disseminate the results and actions of the AIDE project. This section describes the objectives of the dissemination strategy, the policies related to dissemination and IP protection (according to the Grant Agreement) and the division of dissemination tasks between the consortium partners.
3. Dissemination Target Groups
   This section describes the audience target of the AIDE dissemination strategy.
4. Dissemination Activities, Materials and Methodologies
   The different channels and activities that are part of the AIDE dissemination strategy are described here. This section also features the logotypes of the project and the European Commission to be included in the AIDE documents as well as the dissemination materials that have been developed for the dissemination and promotion activities.
5. Indicators
   A detailed list of indicators to measure the accomplishment of the dissemination strategy objectives and the impact of the proposed activities is described here. This section compiles also the guidelines for the periodic evaluation of the dissemination strategy and the continuous improvement strategy, as stated on the Quality Assurance Plan (D2.4)

1. INTRODUCTION

Dissemination of the results is envisioned as a priority by the AIDE consortium. AIDE partners are well aware about the opportunity arising from a well-designed Communication and Dissemination Strategy, and so it has become a key element of the AIDE strategic objectives.

The Exploitation and Dissemination Committee (EDC), composed by four members of the Executive Board (EB), is the AIDE board in charge of preparing the Dissemination Plan (DP) and the Exploitation Plan (EP) to show the potential developed by the project and the possible exploitation routes of results. The EDC will be responsible for monitoring the implications of AIDE achievements in terms of knowledge dissemination and further industrialization and/or commercialization of results. Due to the specific requirements and tasks of this board, the EDC has been designed including members from the next four beneficiary entities of the AIDE consortium:

BENEFICIARY ENTITY	PERSON IN CHARGE
ZED	Teófilo Redondo
BJ Adaptaciones	María Peña
UMH	Nicolás García-Aracil
UCBM	Loredana Zollo

This deliverable describes the Dissemination Plan to be developed during the life of the AIDE project. This is therefore an evolving document that will be frequently updated to include the results of the dissemination activities, the evaluation of the dissemination strategy and the actions taken to improve it.

This document is also a guide for the members of the AIDE project, helping them to identify the different audiences of the different methodologies and dissemination actions, as well as providing them with tools to collect, structure and present the results of the AIDE project.

Finally this deliverable, in conjunction with the AIDE Quality Assurance Plan (QAP, D2.4) will provide a set of indicators and guidelines to evaluate the dissemination strategy, stating those responsible of each activity and how to address deviation of the proposed objectives as a part of the continuous improvement process implemented in the AIDE project.

2. DISSEMINATION STRATEGY AND GOALS

As described in the introduction, dissemination activities are an important aspect of the AIDE project. The consortium as a whole is concerned about the importance of translating to the society the results of the public investments made on scientific research and the fundamental role of dissemination to maximize the return on the received investment.

The European Commission has stated recently that dissemination of scientific research results should be one of the defining principles for Europe's research landscape. Therefore, a special effort will be made during AIDE project to disseminate as much as possible the gained knowledge. On the other hand, the protection of any technologies developed by partners is fundamental for the successful exploitation of project outcomes. The AIDE consortium will always give priority to the protection over dissemination to ensure the exploitation of project results. In the following sections, AIDE dissemination and exploitation strategy to maximize project impact will be presented.

A set of simple recommendations provided by the EC to engage with the public will be the basis of this Dissemination Plan:

- Focus on communicating results rather than process.
- Be interactive. Listening and adapting the message regularly according to the response obtained from the audience and to the expected/obtained results of the activity (see **Section 5: Indicators** and **Quality Assurance Plan** for a description of the continuous improvement approach of the project).
- Activities should be selective and targeted to maximize impact. Avoid communicating on matters with little or no interest to the outside world.
- Particular emphasis will be put on "going local", using partner's contacts, contacting local press…
- Tailor communication to different audiences by responding to the issues that matter locally
- Position the project research within a broader socio-economic and policy context, so that it could be easier to explain the results and their relevance to policymakers and citizens.

2.1. OBLIGATION TO DISSEMINATE RESULTS

According to the Article 29 of the GA, the results generated during the project **must** be disseminated as soon as possible, unless it goes against the legitimate interests of the beneficiaries. Dissemination of the results to the public will be performed through the appropriate means (other than those resulting from protecting or exploiting the results), including scientific publications (in any medium).

This obligation has been assumed by the AIDE consortium, as reflected in the Quality Policy described in the QAP:

- *All non-confidential project results shall be published via appropriate channels/media in a timely manner.*
- *Major activities shall be planned and recorded, including all dissemination activities.*

2.2. DISCLOSING OF RESULTS AND IP PROTECTION ISSUES

The protection of any technologies developed by the AIDE consortium partners is fundamental for the successful exploitation of project outcomes. The management of the generated knowledge will be performed according to the rules established Grant Agreement (GA) and in the Consortium Agreement (CA). GA and CA will be used as the IPR reference document.

The obligation to disseminate the results of the project will always be subjected to the obligation to protect results, the confidentiality, security obligations and personal data protection obligations described in the Articles 27, 36, 37 and 39 of the GA, all of which apply preferably to the obligation to disseminate results.

If a beneficiary intends not to protect its results, it may need to formally notify the *Commission* before dissemination takes place.

NOTIFICATION PROCEDURE

A beneficiary that intends to disseminate its results must give advance notice to the other beneficiaries of at least 45 days, together with sufficient information on the results it will disseminate.

Any other beneficiary may object within 30 days of receiving notification, if their legitimate interests in relation to the results or background would be significantly harmed. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.

URGENCY NOTIFICATION PROCEDURE

The notification of any dissemination action according to the previously disclosed notification procedure (which is included in the GA) will be mandatory.

For exceptional cases where this period could exceed the deadlines for a dissemination action, the Management Board has approved an Urgency Notification Procedure that shortens notification and objection periods as follows:

- Notification period: At least 20 days before the publication date.
- Objection period: 15 days after receiving the notification.

In order to apply to this Urgency Procedure, the partner responsible of the dissemination action shall communicate it to the Exploitation and Dissemination Committee.

2.3. TASKS OF THE PROJECT TEAM MEMBERS

The AIDE consortium, composed by industrial and academic partners with high expertise EU-funded projects, has defined the dissemination of the project results as a transversal task of the project. In this sense, the dissemination guidelines defined in this document affect to all the aspects of the project, being therefore not only responsibility of the Exploitation and Dissemination Committee, but also of every consortium partner.

The consortium as a whole will closely collaborate in the dissemination activities described in this document in order to raise awareness, build a brand image and a significant community around the AIDE brand.

The exploitation and dissemination activities in AIDE Project will be mainly tailored to develop an ecosystem of stakeholders to allow the proper marketing of the Project results. The EDC will be the board in charge of coordinating exploitation and dissemination activities to avoid conflicts of interest and maximize the outcomes of those activities.

Even when all the consortium partners will have to collaborate in the communication activities, the EDC has nominated a responsible for each task, ensuring a fair distribution of the work load between the partners.

The main foreseen communication activities are detailed in the list below. The responsible for each activity was designated in the first meeting of the committee (month 6):

- Maintenance of the Web Page **(UMH)**
- Workshop organization **(UCBM)**
- Congress and Symposia communications **(All Partners)**
- Fairs and specialised events assistance and representation **(BJ/ZED)**
- Communications with strategic audience sectors (policy makers, physicians, caregivers, patients and relatives…) **(BJ/ZED/CEDAR)**
- Elaboration of contents for the newsletter **(All Partners, Coordinator: UMH)**
- Facebook account management **(All Partners, Coordinator: BJ)**
- Twitter account management **(All Partners, Coordinator: BJ)**

- LinkedIn account management **(All Partners, Coordinator: ZED)**
- YouTube/Vimeo account management **(All Partners, Coordinator: ZED)**
- Dissemination Material Design **(UMH, ZED)**
- Scientific publications **(UCBM)**
- Relationships with the media **(All Partners)**

3. DISSEMINATION TARGET GROUPS

An analysis of the target groups of audience of the Dissemination Plan has been performed. The following main target groups and key actors have been identified, including not only the final end-users to adopt or apply the results of the project, but also those that could be interested on the evolution and advances of the project itself:

1. General Public
2. Professional and Patient communities in the Healthcare sector
3. Public sector players (such as public administration, organizations, municipal authorities, etc.)
4. Healthcare Industry and SMEs
5. Public And Private R&D communities (academic and private researchers, public research bodies, companies in the healthcare value chain, specially start-up companies) with a focus on European stakeholders
6. Other EU funded projects and initiatives
7. Robotics and Healthcare Hardware and Software user communities
8. Robotics and Healthcare Hardware and Software Working Groups
9. Government bodies and institutions (local and regional authorities, ministries of European countries, European Commission, UNESCO) and more specifically their research departments
10. Policy and decision makers (including the EC) at the EU and International levels
11. Other stakeholders active in the different layers of Robotic Rehabilitation and Healthcare e.g. standardization, trust & security experts, etc.
12. Journalists and Media

Attending at their level of specialization and area of interest, the target audience of the AIDE project can be divided into four categories:

- Professionals of the robotics field, with a high level of technical background and interests focused on the technical advances
- Patients and healthcare professionals, with medium/low level of technical background and a main interest on the advantages provided by the end product to the end user

- Government bodies, policy makers and industrial sectors, with a medium/high level of technical background and a main focus on the maturity level of the end product, marketability, legal and ethical issues…
- General public and media, with variable technical background and a wide informational/educational interest that encompasses all the previous areas

In order to maximize the diffusion of the results the dissemination plan will be implemented at two strategic levels:

- Each partner organization will get in charge of developing the dissemination plan at a regional level on his respective state
- The consortium as a whole will tailor and develop the dissemination activities at an International level, with a primary focus on the EU region.

Previous to the development of any dissemination activity, an analysis of the target audience, theirs interest and level of specialization will be made to elaborate specific strategies using targeted messages, means and language.

4. DISSEMINATION ACTIVITIES, MATERIALS AND METHODOLOGIES

4.1. DISSEMINATION MATERIALS

4.1.1. INFORMATION ON EU FUNDING

According to the Article 29 of the GA, unless the Commission requests or agrees otherwise or unless it is impossible, any dissemination of results (in any form, including electronic) must:

a) display the EU emblem and
b) include the following text:
"This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 645322".

Any dissemination of results must indicate that it reflects only the author's view and that the Commission is not responsible for any use that may be made of the information it contains.

Figure 1. Information on EU Funding and EU Emblem

4.1.2. LOGOS

The logo of the project (Figure 2) will be used in every document, communication, website, deliverable and prototype produced in the frame of the project to provide a well-defined graphical identity to the dissemination materials and for better reaching the target audience. The H2020 and the EU emblem will be displayed together with the AIDE logo, giving to the EU emblem appropriate prominence. The logotypes will be available in a private repository accessible to all the members of the project.

AIDE LOGOS

Figure 2. AIDE Logos

4.1.3. PROMOTIONAL MATERIAL

Promotional materials are a key part of the dissemination tasks as they contribute to increase the awareness about the project and maximize the impact of the dissemination actions. The use of these materials in conjunction with the promotion at the website will suppose a great increase on the visibility of the project itself as well as of the activities of the project.

The promotional materials designed for the AIDE project are especially relevant because they provide the information on EU funding, according with the Grant Agreement. It is strongly encouraged for the partners to make use of them in any dissemination activity related to the project to maximize the visibility of the EU funding information and raise the awareness on H2020.

This section shows a draft of the different promotional materials that have been designed to promote the project, especially during the assistance/organization to workshops, congresses, conferences, media appearances, etc. With the exception of the Project Presentation, the promotional materials produced for the AIDE project have been designed to be used in printed version and disseminated at external events where the project has to be represented.

All the dissemination and communication materials will be publicly available through the website and on the project internal collaboration space:

- Roll-up banner and Project business cards Concept of a standard project exhibition booth
- Project Factsheet
- Video trailer
- PowerPoint Corporate presentation
- PowerPoint templates.

A first version of the project trailer has been uploaded on Vimeo. The following dissemination materials are only drafts proposals, so they can be adapted for its use in a concrete activity.

PROJECT FLYERS, ROLL-UP, POSTERS

Promotional flyers will be created and distributed in events where the AIDE communication forms part of a scheduled program. Figure 3 shows the front of the AIDE flyer. The back of the flyer will be used to state the name and type of dissemination activity, the person in charge of it, his/her affiliation and the scheduled time of the event.

Figure 3. Front of the AIDE project promotional flyer

Considering the variety of events where the project will have to be represented, a generic Roll-up (Figure 4) has been designed to make visible the image of the project and the logotypes of the partner organizations and the EU funding acknowledgement. This concept will evolve to the design of a stand if the project would have to be represented in a fair. In that case, it is also envisioned to develop posters representing the key aspects of the project.

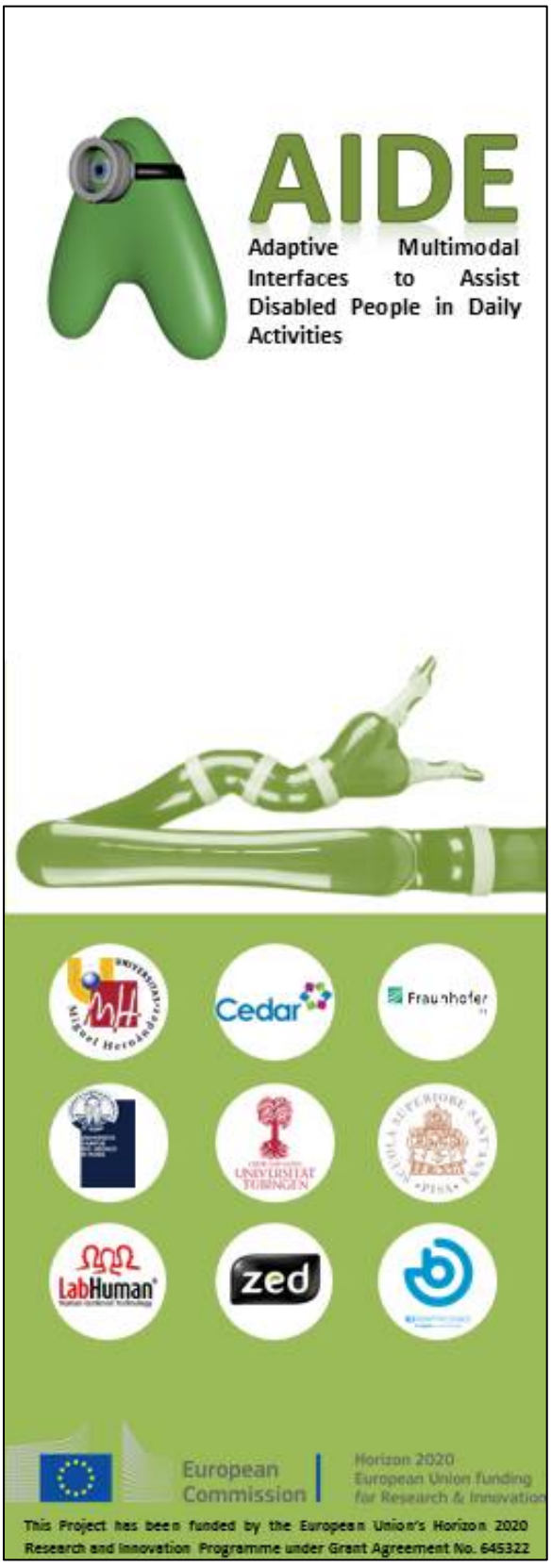


Figure 4. AIDE project promotional Roll-up

PROJECT FACTSHEET

Figure 5. AIDE project Factsheet

The project factsheet has been prepared as a promotional material intended to be distributed at congresses, conferences, workshops and other oral communications where it could be interesting to offer a background about the project to the public prior the communication. The front of the leaflet contains the EU funding acknowlegment, the logos of the partners and the logo of the project (Figure 5). The back of the leaflet contains the description of the background of the project, its objectives and the expected impact on the society.

PROJECT VIDEO TRAILER

A trailer of the project has been prepared as a presentation and it has been made available on the website homepage and on the Vimeo channel of the project. The video (Figure 6) is accompained by a brief description of the project to serve as an introduction for those arriving for the fisrt time to the website of AIDE.

Figure 6. Promotional video of AIDE at the main page of the project's website.

PROJECT PRESENTATION

A presentation describing the project objectives, the work-plan and the consortium members will be available for the general public in the project website. This presentation will be available in PDF and PowerPoint format. The Figure 7 shows the first and last slides of the presentation.

Figure 7. First and last slides of the presentation.

POWERPOINT TEMPLATES

To keep a well-defined graphical identity in the project presentations, a PowerPoint template has been produced and made available internally for the partners of the project through the internal collaboration space. This template will include the first and last slides presented on the Figure 7 (modified if necessary to adapt the presentation to the communication activity) and a general slide template, showed in Figure 8

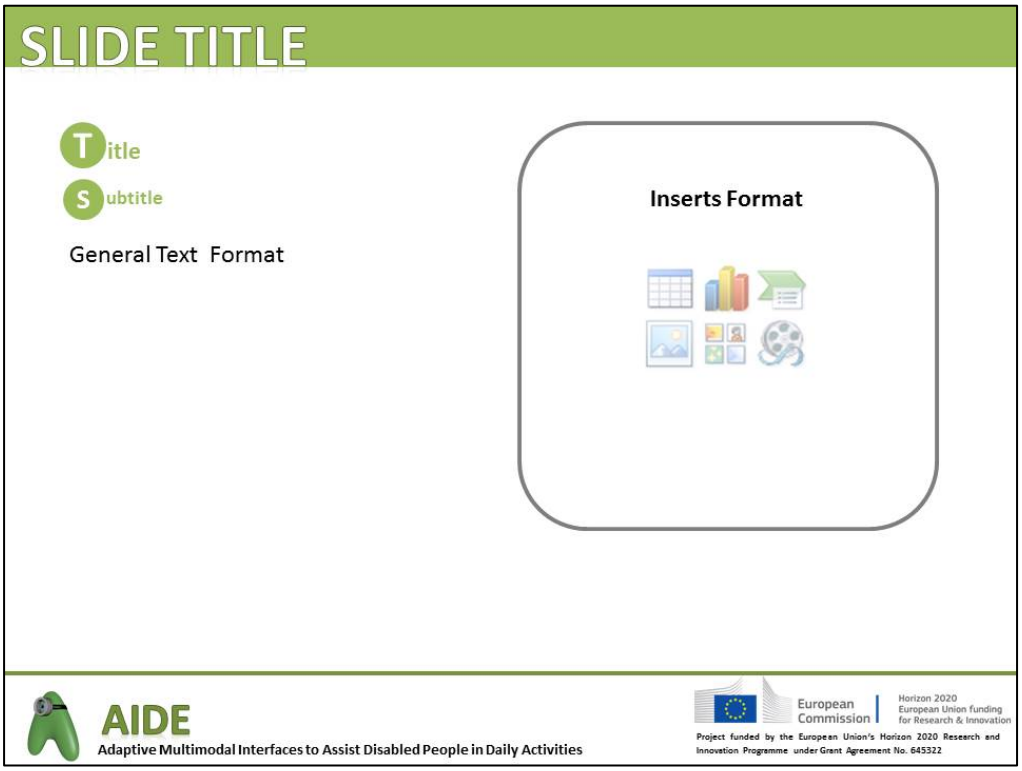


Figure 8. Template for a slide of a PowerPoint presentation.

4.2. DISSEMINATION METHODOLOGY AND ACTIVITIES

4.2.1. GENERAL METHODOLOGY

Based on the continuous improvement approach described in the QAP, the AIDE consortium has developed an approach to design, execute and evaluate the dissemination strategy of the project. This strategy is summarized in the table below:

Planning	Development of a strategic plan for the dissemination activity, based mainly on the target audience and the expected outcomes.
Corporative Image	Create a brand image for the project (logo and templates for the dissemination materials) and publicize it properly in all the dissemination actions.
Promotion	Design of promotional materials (both for online and physical distribution)
Distribution	Ensure the appropriate distribution (in terms of channels and promotional materials) of the information related to the dissemination activities to maximize their impact
Representation	In general, the partners will try to ensure a proper representation of the project in the key specialized and generalist activities such as congresses, workshops, international meetings, patient or medical associations meetings…
Evaluation	Description of indicators to evaluate and monitor each activity once executed
Implementation	Modification of the dissemination strategies based on the results of the previous evaluation step

The appropriate dissemination methodology will vary depending on the dissemination activity and the target audience. Sometimes, many methodologies could be combined to maximize the effect of the dissemination activity. Each activity will be carefully planned and only those methodologies that could add value, help to increase the target audience, the impact of the activity, etc… will be implemented. The table below shows a list of examples of methodologies that can be used either to enable interpersonal dialogue (two-way communication) or to disseminate the advances of the project and increase its share of voice in a massive way (one-way communication).

One-way communication	**Two-way communication**
- Scientific publications - Newspapers and magazines - Press releases - Newsletters - Manuals - Brochures, booklets, flyers - Letters - Radio, Television - Video - Posters - Banners - Social Media - Website - Policy briefs	- Dialogues, face-to-face conversation - Group discussions - Conferences - Brokerage events - School visits - Round tables - Exhibitions - Meetings - Workshops - Open days - Demonstrations and prototypes - Telephone calls - E-mail information (question and answer) - Social Media, Internet debate
Characteristics	
Potentially large audience Uses the credibility of the mass media	Smaller audience, lower costs, more effort Interactive, good for acquiring input Flexible (easy to change tone, strategy and content)

These methodologies are not exclusive and its combination will be considered to maximize the impact of each dissemination activity. For example, considering a conference of an AIDE member during an international meeting, previous diffusion to that activity could be offered in the project website, through the communication agencies of each partner institution, in the AIDE newsletter, social media… project

brochures and flyers could be brought to the meeting and, if possible, the members of the project could participate in round tables, workshops, etc. and try to arrange personal meetings with key players of the sector (policy makers, collaborators, industry members…). Finally, a report of the activity could be published again in the project website, newsletter, social media…

As explained in the previous section, the strategy, methodologies and allocation of resources will be carefully planned with sufficient time to implement properly the adopted measures.

4.2.2. DISSEMINATION ACTIVITIES

Dissemination activities can be split on internal and external dissemination of information about the project, including goals, achievements and data resulting from the experimental research. Internal dissemination is essential in this project for sharing knowledge within the consortium and favouring the creation of a community among partners. External dissemination is intended to make available the information on the project to the general society and to the scientific community.

AIDE WEBSITE

During the first six months of the project, the AIDE project website has been created and the initial contents have been uploaded. This website is under constant development and updated on a day-to-day basis with news and event announcements related to the ICT field.

All the consortium members contribute actively to the maintenance and constant updating of the website. Apart from volunteer contributions with external news, event announcements, etc., the partners will made an especial effort to publish in the website any piece of new related to the AIDE project. When the news makes reference to future events where the project is going to be represented, the information will be published with sufficient anticipation and shared through the project's social networks to increase their dissemination.

The main structure of the website consists of the following elements, which can be accessed by tabs placed on the top of the site (Figure 9):

- Main page which provides the overview of the project, events iCalendar, Twitter add-on and RSS channel link
- Consortium description
- Management Structure

- Scientific Structure and Work Packages description: this section shows the content of each Work Package and its distribution between the different phases of development of the project.
- Deliverables and Publications: The scientific publications related to the project and the Deliverables submitted to the European Commission will be cited here. Links to the open access publications will also be provided in this section
- Events: This section will show the different events organized in the frame of the project or those where the consortium partners assist to in representation of the project.
- Media Centre: All the materials that can be made publicly available will be placed in this section, or at least a link to the public repository where they are placed.

Figure 9 Website Banner and Menu Bar

Statistics on the number of visits will be made on a monthly base to better measure the impact of the dissemination activities in the visibility of the project.

SOCIAL NETWORKS

Project related social networks will be available by August 2015. Namely, the social networks that have been chosen to develop the project presence are Twitter, LinkedIn, Facebook and YouTube/Vimeo.

From the creation of these channels, their impact will be evaluated by number of people joined to the LinkedIn group, the number of followers of the Twitter account number of people liking the Facebook page of the project and the number of visits to the videos uploaded at the AIDE YouTube/Vimeo channels. These data will be used to be compared with the proposed indicators for these activities (see Section 5).

MASS MEDIA

As described in *Section 2: DISSEMINATION STRATEGY AND GOALS*, the AIDE partners are well aware about the importance of communicating the results of the project to the society. Undoubtedly, Mass Media (including TV and radio channels, printed and online press, blogs, podcasts…) are the most powerful tool to reach a wider sector of

audience and to keep citizens informed about the objectives and results of the project.

The AIDE consortium will take advantage of being based in three different European States (Figure 10) to get in touch with mass media of their respective countries. This way, reaching national and local media, will be easier to reach the local public in their native language. For appearances in mass media of international impact, English will be the employed language.

Figure 10. Geographical location of the AIDE consortium partners

Each partner will manage independently their relationships with the local press. However, **it is strongly recommended to inform the Coordinator about any future appearance in media with enough time to discuss the topics to disseminate and avoid communicating non-disclosable information**.

Also, **each media appearance shall be communicated and enough graphic materials shall be provided by the responsible of the activity to be registered and evaluated at the Dissemination Plan**. A link or a summary of each media appearance will be also published at the AIDE website. A list of Media appearances can be found in Annex II.

SCIENTIFIC PUBLICATIONS

According to the Article 29.2 of the Grant Agreement: *"Each beneficiary must ensure open access (free of charge online access for any user) to all peer- reviewed scientific publications relating to its results.*

In order to accomplish with this obligation, the AIDE consortium will publish the results of the project only in open access peer-reviewed scientific publications of high impact factor. As soon as possible, the publications, as well as the bibliographic metadata and the data and metadata associated to the experimental results will be deposited in a public repository and made public in online network (See Deliverable 1.6: Data Management Plan). Namely, open access publications and non-confidential data files will be stored in **Zenodo** (http://zenodo.org/collection/user-aide), and automatically published in **OpenAire** and in the AIDE website.

The ambition of project consortium is to publish **10 journal papers per year** using open access option provided by the scientific publisher. UMH, SSSA, UCBM, UPV, EKUT and ZED have allocated a budget for this purpose. Without doubt, some journal papers will be published one year after the end of the runtime of the project due to the inherent delay of scientific publications. The AIDE consortium expects contributions in a number of research topics and specific journals have been identified for each research topic a priori, such as:

- **Multimodal Interfaces**: Journal on Multimodal User Interfaces (Springer), Human–Computer Interaction (Taylor & Francis), International Journal of Human-Computer Studies (Elsevier), IEEE Transactions on Human-Machine Systems (previous title IEEE Transactions on Systems Man and Cybernetics Part CE Applications and Reviews, IEEE)

- **Assistive Technologies:** Assistive Technology (Taylor & Francis), Disability and Health Journal (Elsevier)

- **Robotics and Control:** Journal of Robotics Research (Sage Pub), IEEE Transactions on Robotics (IEEE), IEEE Robotics and Automation Magazine (IEEE)

- **Neural aspects of Biomedical engineering:** Plos One (PLOS), Journal of Neuroengineering and Rehabilitation (BioMed Central), Journal of Neural Engineering (IOPScience), IEEE Trans. Neural Systems and Rehab. Engineering (IEEE)

- **Artificial Intelligence and Learning:** Expert Systems with Applications (Elsevier), Machine Learning (Springer), Artificial Intelligence in Medicine (Elsevier), Computer Methods and Programs in Biomedicine (Elsevier)

- **Sensors, actuators and control:** Sensors (MDPI), Mechatronics (Elsevier), IEEE/ASME Transactions on Mechatronics (IEEE)

ANNEX I shows a list of the scientific publications produced in the frame of the project.

TALKS, PROJECT PRESENTATIONS, SEMINARS

The dissemination of the results between the scientific community is a key aspect of the AIDE dissemination strategy.

Academic dissemination comprises not only publishing in scientific journals, but also in specialized press releases, conference articles and also participating and/or organizing talks, seminars, workshops and conferences (focusing on international conferences in the relevant field).

INVITED TALKS/SEMINARS

With the aim of disseminating the knowledge generated during the project between the scientific community, the AIDE partners will try to participate in talks, seminars… in a wide range of institutions, ranging from academic, to industrial, medical, and government-related institutions.

A secondary objective of these dissemination activities will be to increase the contact network of the AIDE consortium between the scientific community and other key communities such as policy-makers, industry, healthcare professionals…

ANNEX II shows a list of the invited talks/seminars given in the frame of the project.

WORKSHOPS

Within its dissemination strategy, the AIDE consortium foresees the organization of workshops of international character. Such workshops will have a strong interdisciplinary character and will cover all facets of the AIDE project, including programming, robotics, neuro-rehabilitation, etc.

Each workshop will have different sessions, each focused on a topic. Sessions will be conducted by an international guest that will have the support of those members of the consortium specialized in that particular subject. The workshop attendants could submit their own projects (in poster or conference format) with the aim of promoting the exchange of knowledge and scientific debate.

ANNEX III shows a list of the AIDE-organized workshops.

CONFERENCES/FAIRS

In order to provide a forum for discussion of project knowledge with other leading research groups in the fields covered by the AIDE project, special sessions will be organized by consortium partners within the related international conferences. It is

intended to establish dedicated sessions with talks that are of interest to researchers from academia and developers from the industry.

All the programmed activities will be collected and published in advance on the project website.

ANNEX IV shows a list of the AIDE participation in conferences/fairs.

PHD THESES

During the AIDE project much room was left to young researchers, and in particular at least 8 new PhD positions and 8 new post-doc positions will be opened by the partners for talented and motivated young researchers. Therefore, it is expected that 7 or 8 PhD Theses will be defended during the runtime of the project or one year after the end of the runtime of the project.

OFFICIAL EU DISSEMINATION CHANNELS

The employment of the official EU dissemination portals to disseminate and promote the activities of the AIDE project between the research and business community is an important part of the AIDE dissemination strategy. Accomplishment of important milestones, key publications or any other relevant news will be submitted to CORDIS (http://cordis.europa.eu/home_es.html), CORDIS WIRE (https://cordis.europa.eu/wire/) and RESEARCH*EU MAGAZINES (http://cordis.europa.eu/research-eu/home_en.html).

The Consortium will also try to get published on other official (http://ec.europa.eu/research/infocentre/all_headlines_en.cfm) or unofficial EU dissemination channels like HORIZON2020: PORTALS (http://horizon2020projects.com/publications/).

The AIDE consortium will contact the Project Officer previously to perform any dissemination activity in an EU supported channel.

ANNEX V shows a list of the AIDE publications in EU supported channels.

5. INDICATORS

According to the continuous improvement approach described in the **Quality Assurance Plan,** the outcomes of every dissemination action will be evaluated to modify/adapt the strategy (message, language, audience, materials, channels…) according to the results. Every dissemination activity will be carefully planned and its results will be reported and evaluated in order to achieve the continuous quality improvement goal proposed in the **Quality Assurance Plan**.

To do so, a set of indicators has been established to define the expected results of each dissemination action. These indicators can make reference to a whole set of activities (e.g., the number of communication in international conferences per year) or to a concrete activity (impact of a communication in an international conference).

Once finished, any dissemination activity shall be appropriately described by the responsible of the activity in a written report. Those reports will be submitted to the EDC for its evaluation. The EDC will take the necessary actions to modify/adapt each dissemination strategy according to the previously obtained results. The EDC will also register each dissemination activity in the Dissemination plan and in the list of accomplished indicators.

QUALITY INDICATORS OF SCIENTIFIC DISSEMINATION

No.	Dissemination Activity	Way to measure	Dissemination achieved Runtime of the Project	Dissemination achieved One year after the end of the experiment
1	***Journal on Multimodal User Interfaces***	***Nº of Papers***	***2 Published***	***0***
2	***Plos One***	***Nº of Papers***	***2 Published***	***2 Published***
3	***Disability and Health Journal***	***Nº of Papers***	***1 Published***	***2 Published***
4	***Sensors***	***Nº of Papers***	***3 Published***	***0***

5	***Expert Systems with Applications***	***Nº of Papers***	***1 Published***	***2 Published***
6	***Journal of Neuroengineering and Rehabilitation***	***Nº of Papers***	***2 Published***	***2 Published***
7	***Assistive Technology***	***Nº of Papers***	***1 Published***	***1 Submitted***
8	***IEEE Robotics and Automation Magazine***	***Nº of Papers***	***0***	***1***
9	***Artificial Intelligence in Medicine***	***Nº of Papers***	***1 Published***	***2 Published***
10	***Computer Methods and Programs in Biomedicine***	***Nº of Papers***	***2 Published***	***2 Published***
11	***International Journal of HumanEComputer Studies***	***Nº of Papers***	***1 Published***	***0***
12	***Book Springer, Biosystems & Biorobotics Series***	***Number***	***0***	***1***
13	***Conferences***	***Nº of Papers***	***28***	***10***
14	***Conferences-Organization Workshops-Special Sessions***	***Number***	***6***	***2***
15	***New PhD theses***	***Number***	***5***	***3***

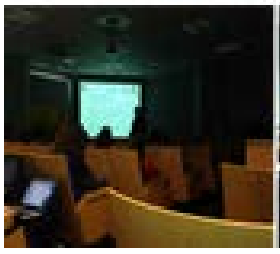
ANNEX I SCIENTIFIC PUBLICATIONS

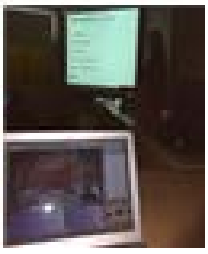
TITLE	**Supervised and Dynamic Neuro-Fuzzy Systems to Classify Physiological Responses in Robot-Assisted Neurorehabilitation.**
AUTHORS	Lledó LD, Badesa FJ, Almonacid M, Cano-Izquierdo JM, Sabater-Navarro JM, Fernández E, Garcia-Aracil, N.
MAGAZINE	PLoS ONE
VOLUME	10(5)
PAGES	e0127777
YEAR	2015
IMPACT FACTOR	2013 / 2014 Impact Factor 3.534; 2015 Impact Factor Available summer 2015

ANNEX II MASS MEDIA APPEARANCES

ANNEX III AIDE ORGANIZED WORKSHOPS

1. WORKSHOP "ASSISTIVE TECHNOLOGIES AND NEURO-REHABILITATION





ANNEX IV AIDE PARTICIPATION IN CONFERENCES/FAIRS

ANNEX V AIDE PUBLICATIONS IN EU SUPPORTED CHANNELS

1. PANEUROPEAN NETWORKS HORIZON 2020: PROJECTS

PROFILE PROFILE

The gift of assistance

Navigating everyday life is something most people take for granted, but there are those who need assistance with basic tasks. The AIDE project works to bring independence to people with disabilities

Around 80 million people in the EU, a sixth of its population, have a disability. They are often hindered from full social and economic participation by various barriers related to physical, psychological and social factors. Moreover, poverty rates amongst people with disabilities are 70% higher than average.[1] Over 30% of people above the age of 75 are impaired to some extent, and over 20% are severely impaired. The percentage of people with disabilities is set to rise as the EU population ages.

According to Article 9 of the United Nations Convention on the Rights of Persons with Disabilities signed by the European Commission in 2010,[2] 'accessibility' is a basic right for all persons with disabilities. The purpose of accessibility is to enable persons with disabilities to live independently and to participate in all aspects of life.

Nowadays, the recent trends in assistive technology for supporting activities of daily living (ADL), mobility, communication and so on are based on the integration of the capabilities of the user and the assistive technologies.[3] The improvement of the interaction and co-operation between user and assistive technologies can be split into three main areas: 1) improvements of the assistive devices, such as mechanical parts, electronic parts, etc.; 2) improvements of the user technology interface; and 3) improved shared control between the user and assistive technology.

Fig. 1 Example of an AIDE multimodal perception system conceived for users without functional control of the arm and/or hand and unable to speak (due to a speech disorder or aphasia). In this group of users, the multimodal interface could be composed of a hybrid brain-machine interface system to send commands to the high level control of a robot, a wearable eye-tracking system (glasses) to interact with the eyes' control software, a commercial wearable device for physiological signals' monitoring, and RGB depth cameras to sense and understand the environment and context in automatically recognise the necessary abilities for different activities of daily living

The AIDE project has the ambition to strongly contribute to the improvement of the user technology interface by developing and testing a revolutionary modular and adaptive multimodal interface customisable to the individual needs of people with disabilities. It will, furthermore, focus on the development of a totally new shared control paradigm for assistive devices that integrates information from the identification of residual abilities, behaviours, emotional state and intentions of the user on one hand, and analysis of the environment and context factors on the other.

Consortium

The AIDE consortium consists of nine groups from four different countries (Italy, Spain, the United Kingdom and Germany):

- Five universities: Miguel Hernández University of Elche, Scuola Superiori Sant'Anna, Università Campus Bio-Medico di Roma, Universidad Politécnica de Valencia, and Eberhard Karls Universität Tübingen;
- One research and development centre: Fraunhofer-Institut für Produktionstechnik und Automatisierung;
- One large industrial partner: ZED Worldwide S.A.;
- One SME: Bit Abacteamers; and
- One non-profit organisation working with disabled people: the Cedar Foundation.

The AIDE project co-ordinator is Professor Nicolas Garcia Aracil, who leads the Rehabilitation and Assistive Robotic Unit of the Biomedical Neuroengineering group at Miguel Hernández University of Elche and has already participated in other Seventh Framework Programme projects.

Concept and approach

The World Health Organization (2002) introduced the International Classification Of Functioning (ICF),[4] Disability And Health to specify changes in body function and experiences of potential and alert of the AIDE system. This classification allows evaluating what potential end users could achieve in a standard environment (level of capacity) and compares it with what they actually do in their usual environment (level of performance). Like the ICF, the AIDE concept focuses on health and functioning rather than on disability, synthesising the key elements and understanding derived from a medical and social model of disability.

The AIDE concept goes beyond the current state-of-the-art in using a novel modular multimodal perception system to customise an adaptive multimodal interface towards disabled people's needs (Fig. 1). The multimodal interface will analyse and extract relevant information from the identification of residual abilities, behaviours, the emotional state and intentions of the user, as well as from analysis of the environment and context factors. Finally, the human-machine co-operative system will be designed in accordance with specific user needs. A series of applications for the AIDE system have been identified across several domains in which disabled people could greatly benefit:

1. Communication: The main objective is to improve the communication of severely disabled people for social autonomy. The user will be assisted in communicating with her/his relatives and friends. Communication will be provided by using standard internet services such as email, Skype, WhatsApp and standard social networks (i.e. Facebook and Twitter), the developed system will provide support for web browsing, as well.
2. Home automation: The goal is to allow severely disabled people to interact with the devices present in their smart home environments. In short, the user will be supported by an AIDE multimodal interaction system in daily activities, including turning lights, radio and television on/off, answering or initiating telephone calls, locking or unlocking a door, closing or opening drapes, changing environmental settings, and in medical emergency situations;
3. Wearable robots: for assisting in ADL: the aim here is to adaptively and dynamically modify the level of assistance provided by the intelligent robotic exoskeleton in accordance with specific user needs (Fig. 2); and
4. Entertainment: Severely impaired people have reported that participation in normal entertainment activities, e.g. playing a computer game or watching a movie, is an important need. Thus, a main objective is to support the user in playing computer games, expressing his/her feelings, playing music, and/or engaging in painting, and so on.

Fig. 2 NEBIAS-Lex system hanging from an external support which only has a weight-compensation system. The final aim of the AIDE project is to shift such support from the arrangement depicted here and installed in the wheelchair structure

Impact

The AIDE project wants to spur a breakthrough in multimodal human-machine interaction technologies for empowering people with disabilities to participate in society, by adopting a multidisciplinary team of experts in multimodal interfaces, robotics, human sciences, computer science and neuroscience to carry out an in-depth investigation into modular, customisable and adaptive multimodal interfaces as a paradigm of 'assisting as needed', adapting the multimodal interface to the residual capabilities of the disabled persons, safeguarding self-perception, movement control and first-hand interaction.

Moreover, AIDE has the ambition of strengthening European industrial innovation capacity and competitiveness in the worldwide market of assistive ICT and assistive wearable robotics, developing a novel, adaptive, multimodal interface to break the 'bottleneck' of the seamless and efficient use of highly sophisticated and powerful assistive devices, including the current and future wearable robotic exoskeletons.

Social impact

AIDE primarily aims to practically deliver and evaluate a revolutionary modular and adaptive multimodal interface that is customisable so as to enable people with acquired brain injury, multiple sclerosis, and spinal cord injury to fully participate in society.

The disabilities outlined above have significant adverse socioeconomic impact for individuals but also society as a whole. These disabilities place restrictions on an individual's ability to participate in mainstream roles and specifically to engage in gainful work. Disabled people make up a growing percentage (between 12-16%) of the working-age population, but rates of employment remain low. AIDE will support participants to access resources and tools that may also improve their employability options.

References

1. European Commission (2013). People with disabilities have equal rights. *[illegible]*
2. United Nations. Convention on the Rights of Persons with Disabilities and Optional Protocol.
3. Cowan R.E., Fregly B.J., Boninger M.L., Chan L., Rodgers M.M., Reinkensmeyer D.J. (2012). Recent trends in assistive technology for mobility. *Journal of NeuroEngineering and Rehabilitation* 9:20.
4. World Health Organization (2002). Towards a common language for functioning, disability and health. Available at *[illegible]*. Accessed 15 April 2014.

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