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Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities

DISSEMINATION AND COMMUNITY BUILDING STRATEGY

Deliverable D5.3

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Partners:



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EXECUTIVE SUMMARY

In this document the overall dissemination strategy and plan for the INSENSION project, including the identification of stakeholders and individual and common dissemination activities is provided. The current version of this report contains general guidelines to be used by the project consortium while disseminating information about the project activities and its results.

Two versions of the D5.3 Dissemination and community building strategy will be prepared. This first one serves as the general guidelines, second will be the final strategy.

The INSENSION project has planned a number of activities leading to appropriate visibility of the project works and especially its results. These are targeted primarily at the very specific community around the provision of care and assistance to people with profound and multiple learning disabilities. This includes the disabled persons themselves and their caregivers, professionals involved into providing services to them as well as scientists conducting research in the area of assistive technologies, information and communication technologies, computer-human interactions, profound and multiple learning disabilities, and enterprises involved into production and distribution of assistive technologies. The project hence employs special measures aimed at precise reach out to this community, utilizing long-time relations and vast experience of project partners.

These measures are implemented at the global (understood as European Union and beyond) and local (relating to specific partner's country) levels. Nevertheless, the main goals of the dissemination and community are complemented with each partner's specific activities and plans. The consortium partners will aimed to diversification of dissemination strategies (website, leaflets, forum, videos) and organization of public events (conferences, seminars and workshops).

TABLE OF CONTENTS

| | |
|--|----|
| EXECUTIVE SUMMARY | 3 |
| Table of contents | 4 |
| 1 Introduction | 5 |
| 2 Dissemination plan | 6 |
| 2.1 Promotional identification of the project | 6 |
| 2.2 Source of funding dissemination obligations | 6 |
| 2.3 General dissemination strategy | 6 |
| 3 Dissemination tools | 8 |
| 3.1 The global community building platform | 8 |
| 3.2 Project promotional materials | 9 |
| 3.3 Presentation of results at exhibitions and conferences | 15 |
| 3.4 Use of EC opportunities for networking and dissemination | 16 |
| 3.5 Publishing scientific results in renowned journals | 16 |
| 3.6 Utilizing social networking opportunities | 17 |
| 3.7 Online videos | 18 |
| 3.8 Workshops and seminars | 18 |
| 3.9 Own dissemination plan of project partners | 19 |
| 3.10 Target goals for final dissemination and community plan | 21 |
| 4 Monitoring dissemination impact | 22 |
| 5 Identification of stakeholders | 23 |
| 5.1 Dissemination within the academic community | 23 |
| 5.2 Dissemination within the industry sector | 24 |
| 5.3 Dissemination within the interest-group community | 24 |
| 5.4 Identification and characterisation of stakeholders | 25 |
| 6 Summary of the communication plan | 27 |
| 7 List of acronyms | 29 |

1 INTRODUCTION

According to the Article 29 – Dissemination of results – open access – visibility of European Union (EU) funding of Grant Agreement, the consortium of INSESION is obliged to disseminate the results of project by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium). This does not change the obligation to protect results, the confidentiality and security obligations or the obligations to protect personal data, all of which still apply. The consortium must ensure open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results.

Regarding the digital research data generated in the action, the consortium is obliged to:

- deposit in a research data repository of Global Community Building Platform and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user — the following:
 - the data, including associated metadata, needed to validate the results presented in scientific publications as soon as possible;
 - other data, including associated metadata, as specified and within the deadlines laid down in D.6.3 Data Management Plan;
- provide information — via the repository — about tools and instruments at the disposal and necessary for validating the results (and — where possible — provide the tools and instruments themselves).

Moreover, the consortium must promote the action and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner. This does not change the dissemination obligations, the confidentiality or security obligations, all of which still apply.

The aim of consortium partners is to promote and empower the dissemination, transfer, assessment and adoption of the project results to the target audience and stakeholders. This will be done with the use of a variety of tools, which are as follows:

- Project website;
- Project leaflets and other promotional materials;
- Social media,
- Online videos;
- Workshops and seminars;
- Exhibitions;
- Scientific publications;
- Partners' networks.

2 DISSEMINATION PLAN

2.1 PROMOTIONAL IDENTIFICATION OF THE PROJECT

All dissemination activities of the project shall be performed with the use of specially designed promotional identification, similar to a marketing brand. This identification includes:

- The project logo;
- The project colors;
- Templates for project dissemination materials, including overhead presentation templates, document/report templates, letterhead, leaflet template, poster template.

These shall be used by project partners for all dissemination activities, unless that activity limits the possibility of using any of the identification elements (such as for example in scientific papers).

2.2 SOURCE OF FUNDING DISSEMINATION OBLIGATIONS

Resulting from the obligations agreed with the European Commission in the Grant Agreement, each dissemination activity for the project shall contain clear reference to the source of project funding. This shall include the European Union flag accompanied by the following text: "This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 780819." The EU flag can be omitted where specific dissemination tool does not create a possibility to use it (such as in scientific papers).

2.3 GENERAL DISSEMINATION STRATEGY

In this point (table 1) a general plan for disseminating INSENSI N results has been presented. Table 1 has been divided into target audiences, dissemination goals (consortium activities and their objectives) and tools used to reach out to interested bodies.

Table 1. General dissemination strategy in INSENSI N

| Target audience | Dissemination goal | Tools to be used |
|--------------------|---|--|
| Academic community | Reaching researchers and scientists who deal with the subject of PMLD, creation of repository of knowledge in this field, later use of INSENSI N results and collection of scientific data (in open research repository), next common working in topics related to the project, re-usage of scientific data from the INSENSI N project, publishing scientific publications (accessibility and interoperability of data) | Project website (the global community building platform – Global PMLD Atlas for registered users), project promotional materials (in the first stage), presentation of results at exhibitions and conferences, publishing scientific results in renowned journals, scientific social media, online video, workshops and seminars |

| | | |
|--------------------------|--|--|
| Industry sector | Reaching to organisations and companies involved in using or producing related technologies that could contribute to or benefit from the project's objectives, commercialization of project results | Project website (the global community building platform), project promotional materials, presentation of results at sectorial exhibitions and conferences, public and social media, online video, workshops and seminars |
| Interest-group community | Interest of end-users' community including persons with disabilities, their families and support groups, educators, other organisations working for/with people with PMLD to fulfil the needs and requirements of people with PMLD and their caregivers and to develop the INSESION platform in these environments | Project website (the global community building platform), project promotional materials, presentation of results at sectorial exhibitions and conferences, online video, public and social media, workshops and seminars |
| General public | General information about the project, its activities and the tackled challenge | Project website (the global community building platform), project promotional materials, online video, public and social media |

3 DISSEMINATION TOOLS

3.1 THE GLOBAL COMMUNITY BUILDING PLATFORM

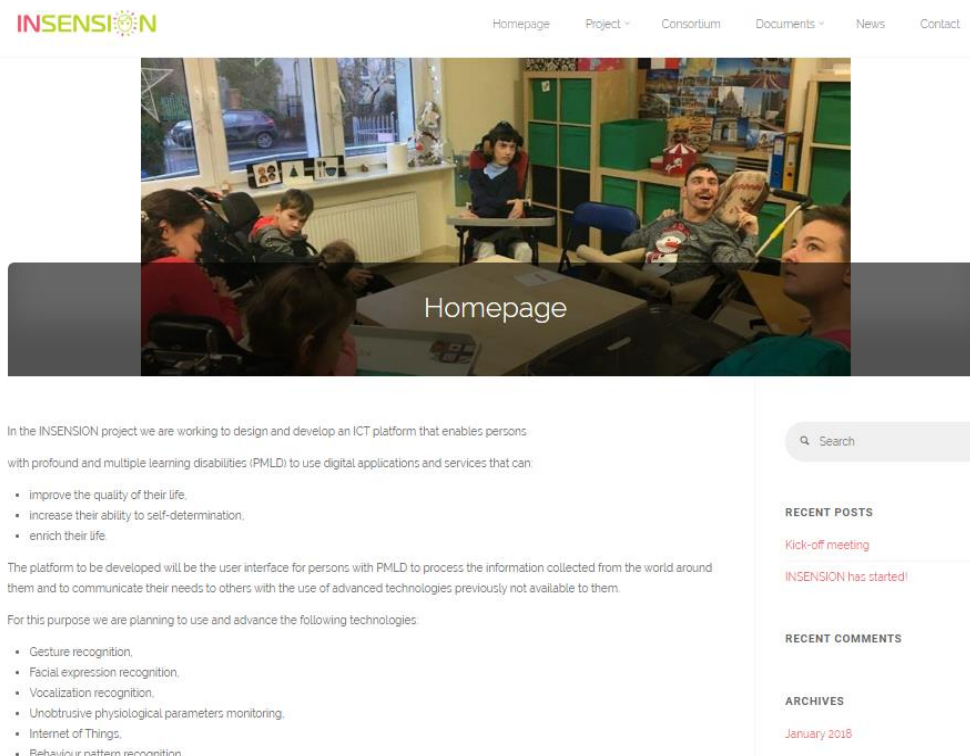
The Global Community Building Platform (GCBP) is an advanced project website, consisting of two major parts:

- a traditional project website (launched in the first month of the project execution), enabling to publish information on ongoing project activities and disseminate other material such as public deliverables of the project;
- an online repository (the so called Global PMLD Atlas) of comprehensive information on the target population of the project.

The former element of the GCBP provides general information about the project. It includes also the information about project work plan, user involvement, consortium, public documents created within the INSENSION project, news and contact data.

The Global PLMD Atlas, on the other hand, is thought as a knowledge repository available to the community concerned with supporting individuals with PMLD and/or with studying these particular types of disability. This knowledge repository is created in response to neglecting of population with people with PMLD from intensive research until today. Therefore, the Global PMLD Atlas provides a user interface to a repository which contains a comprehensive collection of information on the target group. Registered researchers can add pseudonymized data from people with PMLD using an online data form. In exchange, they get access to the whole of the collected database for their own research studies. While one of the important goals of creating the Atlas is to collect first ever information repository on people with PMLD, it can also act as a good tool linking the community concerned with studying and supporting this type of disability with each other.

The GCBP is available at the following internet address: www.insension.eu.



3.2 PROJECT PROMOTIONAL MATERIALS

One of the dissemination strategy of the project results is preparing and propagate the project promotional materials in the form of leaflets, roll-up banner, folders on documents, poster, factsheets and others. All promotional materials, the templates of presentations, reports, documents, letter sheets etc. are designed including the project identity, the project logotype and providing information about EU funding. These materials offer general but compelling information about the project and invite further exploration through the project webpage. The main aim of these materials is to reach different audiences to inform about the INSENSI N project and engage general public, and finally key stakeholders. All promotional materials are produced in English as the common language of all partners.

First part of promotional materials is supplied at the end of M6 (D5.2 Project promotional materials). Other promotional materials will be maintained during the lifetime of the project in the scope of WP5. First designed promotional materials are presented below.

Project leaflet template (first and second page) – size A4



Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities





In the INSENSI N project we are working to design and develop an ICT platform that enables persons with profound and multiple learning disabilities (PMLD) to use digital applications and services that can:

- improve the quality of their life,
- increase their ability to self-determination,
- enrich their life

The platform to be developed will be the user interface for persons with PMLD to process the information collected from the world around them and to communicate their needs to others with the use of advanced technologies previously not available to them.

For this purpose we are planning to use and advance the following technologies:

- gesture recognition,
- facial expression recognition,
- vocalization recognition,
- unobtrusive physiological parameters monitoring,
- Internet of Things,
- behaviour pattern recognition

PARTNERS:



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 780819.










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What is PMLD?

PMLD stands for profound and multiple learning disabilities and is characterized by a profound intellectual disability in combination with other impairments like physical or sensory impairments. People with PMLD often communicate on a pre-symbolic level and use unconventional behavioural signals like specific body movements or vocalizations to express their needs. The number of those interaction partners who are able of accurately perceiving and interpreting the specific and highly individual behaviour signals is limited in the most cases.

How can INSENSION help?

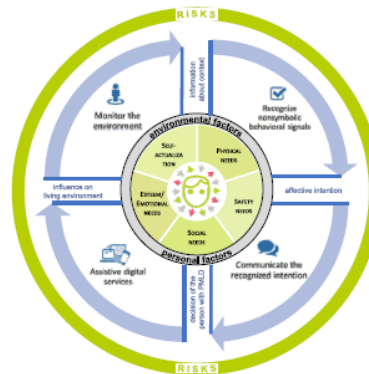
The INSENSION system will empower people with PMLD to do things previously unavailable to them through controlling their living environment.

We want to shift the point of decision from many caregivers supporting the person with PMLD to this very person. This will be done through advancing known technologies from several areas of computing such as affective computing, artificial intelligent and internet of things, which appropriately used and integrated create an opportunity for an assistive technology of a new kind.

Contact: POZNAŃ SUPERCOMPUTING AND NETWORKING CENTER, Jana Pawła II 10, 61-139 Poznań, Poland, e-mail: insension@insension.eu

Specific objectives of the INSENSION project are

- to design, develop and validate the ecological method for the sampling of non-symbolic behaviour signals of people with PMLD
- to develop the technology to recognize the relevant nonsym-bolic behaviour signals of people with PMLD
- to develop methods to recognize and act upon the user's 'intent' based on the behaviour signals
- to build an ICT-based interaction platform capable of perso-nalized detection of the behaviour signals to provide servi-ces to people with PMLD
- to develop a number of services as examples of the developed solution's application use cases
- to validate the developed platform in real-life scenarios
- to develop business models for practical exploitation of the platform



Project poster template – size A0



Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities



HOW CAN INSENSION HELP?

The INSENSION system will empower people with PMLD from different life stages to do things previously unavailable to them through controlling their living environment.

We want to shift the point of decision from many caregivers supporting the person with PMLD to this very person. This will be done through advancing known technologies from several areas of computing such as affective computing, artificial intelligence and Internet of Things, which appropriately used and integrated create an opportunity for an assistive technology of a new kind.



Project duration: January 2018 – December 2020

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OBJECTIVES

In the INSENSION project we are working to design and develop an ICT platform that enables persons with profound and multiple learning disabilities (PMLD) to use digital applications and services that can:

- improve the quality of their life
- increase their ability to self-determination
- enrich their life

CHARACTERISTICS OF THE TARGET GROUP

PMLD stands for profound and multiple learning disabilities and is characterized by a profound intellectual disability in combination with other impairments like physical or sensory impairments. People with PMLD often communicate on a pre-symbolic level and use unconventional behavioural signals like specific body movements or vocalizations to express their needs. The number of those interaction partners who are able of accurately perceiving and interpreting the specific and highly individual behaviour signals is limited in the most cases.



THE INSENSION PLATFORM

The platform to be developed will be the user interface for persons with PMLD to process the information collected from the world around them and to communicate their needs to others with the use of advanced technologies previously not available to them.

For this purpose, we are planning to use and advance monitoring and recognition technologies enabling to identify meaningful gestures, facial expressions, vocalizations and physiological parameters. In addition to these technologies, a paper-based assessment gathering data concerning the following areas:

- challenging behaviour
- pain
- preverbal communication mod
- pleasure
- displeasure/distress



PARTNERS



Project rollup banner – size 85x196 cm





Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities

Project coordinator: Poznań Supercomputing and Networking Center, ul. Jana Pawła II 10, 61-139 Poznań, Poland, e mail: insension@insension.eu

Project document folder – size A4



Project report template (six pages) – size A4

www.insension.eu

Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities

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Version/revision: x.xx

Delivery date:

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| Version | Date | Name, organization |
|---------|------|--------------------|
| 1.0 | | |

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Deliverable Dxx

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Partners:

2

EXECUTIVE SUMMARY

This document....

3

TABLE OF CONTENTS

| | |
|------------------------|---|
| EXECUTIVE SUMMARY..... | 3 |
| Table of contents..... | 4 |
| 1 Introduction..... | 5 |
| 2 Chapter title..... | 5 |
| 2.1 Section 1..... | 5 |
| 2.2 Section 2..... | 5 |
| 3 Chapter title..... | 5 |
| 3.1 Section 1..... | 5 |
| 3.2 Section 2..... | 6 |

4

1 INTRODUCTION

The goal of this

2 CHAPTER TITLE

Paragraph.....

2.1 SECTION 1

Paragraph.....

Paragraph.....

2.2 SECTION 2

Paragraph.....

3 CHAPTER TITLE

3.1 SECTION 1

Paragraph..... Figure 1. Present example figure

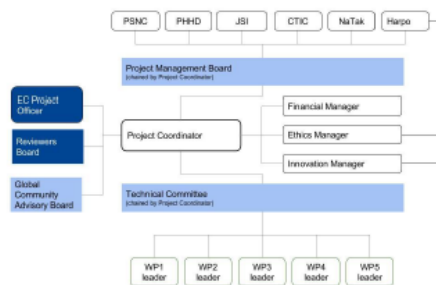


Figure 1 Example figure

5

3.2 SECTION 2

Paragraph... Table 1 present example table

Table 1 Example table

| Caption 1 | Caption 2 | Caption 3 |
|-----------|-----------|-----------|
| Text... | Text... | Text... |
| Text... | Text... | Text... |
| Text... | Text... | Text... |
| Text... | Text... | Text... |

6



Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities

Project coordinator: Poznań Supercomputing and Networking Center, ul. Jana Pawła II 10, 61-139 Poznań, Poland, e mail: insension@insension.eu

Project letterhead template – size A4



Project presentation template – sizes 4x3, 16x9, 16x10



Project logotype



All INSENSI promotional materials are available at the following address:
www.insension.eu/promotional-materials.

3.3 PRESENTATION OF RESULTS AT EXHIBITIONS AND CONFERENCES

These exhibitions and conferences in question relate to the renowned events in the field of intellectual disabilities and assistive technologies. Participation in exhibitions will be either project-centric - i.e. presentation of the entire consortium in a separate booth - or particular partner organisation-centric. In the latter case, specific project achievements will be presented in the partner organisation's booth.

The identification and selection of possible targets (conferences, exhibitions) for dissemination will be primarily done collaboratively by all participants in the very early stages of the project. However, the partners have already identified the following as suitable fora for their dissemination activities. The table 2 summarizes potential conferences and events as a dissemination activities in the INSENSI project.

Table 2. Potential dissemination conferences and events

| Type | Event | Impact | Additional information |
|-------------------------------|---|---|--|
| Industry/ research | Assistive Technology Industry Association (ATIA) conferences | International, number of participants: 2 500+ | 30.01-02.02.2019, Orlando, Florida (USA): https://www.atia.org/conference/ |
| Academic/ industry/ research | American Association on Intellectual and Development Disabilities (AAIDD) conferences | International, number of participants: hundreds | 24-27.06.2019, St. Paul, Minnesota (USA): https://aaidd.org/education/annual-conference |
| Academic/ industry/ research | Annual International Technology and Persons with Disabilities (CSUN) conferences | International, number of participants: hundreds | 11-15.03.2019, Anaheim, California (USA): http://www.csun.edu/cod/conference/2018/sessions/index.php/ |
| Academic/ industry/ research | International Conference on Computers Helping People with Special Needs (ICCHP) | International, number of participants: hundreds | 2020, Linz (Austria): http://www.icchp.org/ |
| Academic/ research/ end users | Annual conference on intellectual disabilities organized by Na Tak Association in partnership | International, number of participants: | 09-10.11.2018, Poznań, Poland: http://www.natak.pl/konferen |

| | | | |
|--|---------------------|----------|--|
| | with Harpo and PSNC | hundreds | cja/aktualnosci.html |
|--|---------------------|----------|--|

Completed and confirmed dissemination events (at the moment on writing this document) is presented in the table 3.

Table 3. Completed and confirmed dissemination events

| Type | Event | Impact | Additional information |
|--------------------|--|--|---|
| Industry/ research | International Electrotechnical Commission IEC TC 100 (Audio, video and multimedia equipment and systems) workshop 2018 | International, number of participants: tens | 22-25.05.2018, Brussels (Belgium): http://tc100.iec.ch/about/meetings/meetings.htm |
| Academic/ research | European Network on Psychoeducational Assessment, Intervention and Rehabilitation (ENPAIR) – First Network Meeting and Conference “From Assessment to Rehabilitation” 2018 | International, number of participants: 50-60 | 04-05.07.2018, Leiden (the Netherlands): https://www.enpair.org/activities/conferences |

3.4 USE OF EC OPPORTUNITIES FOR NETWORKING AND DISSEMINATION

The consortium will pursue knowledge dissemination and maximum networking with other ongoing related activities by making maximum use of the EC supported dissemination mechanisms, such as publication of project information on the official sites of the EC, and participation in EC events and activities.

Moreover, the partners will participate in EC Conferences and the clustering meetings organized per thematic areas and in exhibitions with down-scaled demonstrators.

3.5 PUBLISHING SCIENTIFIC RESULTS IN RENOWNED JOURNALS

It is expected that the INSENSI project produces significant scientific results. Publication of those is planned in renowned scientific journals. Due to scope of the current project, it is foreseen that the primary target journals will be those publishing content related to ubiquitous/pervasive computing and intellectual disability studies. Some of the target journals to be considered for the publication of project results are listed in the table 4 below.

Table 4. Potential journals and their Impact Factor (IF) to publish scientific results

| Journal | IF | Additional information |
|---|-------|---|
| <i>Ubiquitous / pervasive computing</i> | | |
| Ubiquitous / pervasive computing | 3.250 | https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=7756 |

| | | |
|---|-------|---|
| Personal and Ubiquitous Computing | 2.395 | https://link.springer.com/journal/779 |
| Pervasive and Mobile Computing | 2.349 | https://www.journals.elsevier.com/pervasive-and-mobile-computing |
| Journal of Ambient Intelligence and Humanized Computing | 1.588 | https://www.springer.com/engineering/computational+intelligence+and+complexity/journal/12652 |
| <i>Intellectual disability studies</i> | | |
| Journal of Applied Research in Intellectual Disabilities | 2.112 | https://onlinelibrary.wiley.com/journal/14683148 |
| Journal of Intellectual Disability Research | 1.990 | https://onlinelibrary.wiley.com/journal/13652788 |
| American Journal on Intellectual and Developmental Disabilities | 1.667 | http://aiddjournals.org/?code=aamr-site |
| Intellectual and Developmental Disabilities | 1.625 | http://aiddjournals.org/loi/mere |

It must be noted that individual project results may be subject of consideration for publication in journals covering other disciplines, such as for example human-computer interaction or artificial intelligence. So far the consortium partners submitted the papers to the following journals, listed in table 5.

Table 5. Scientific papers submitted so far to the journals

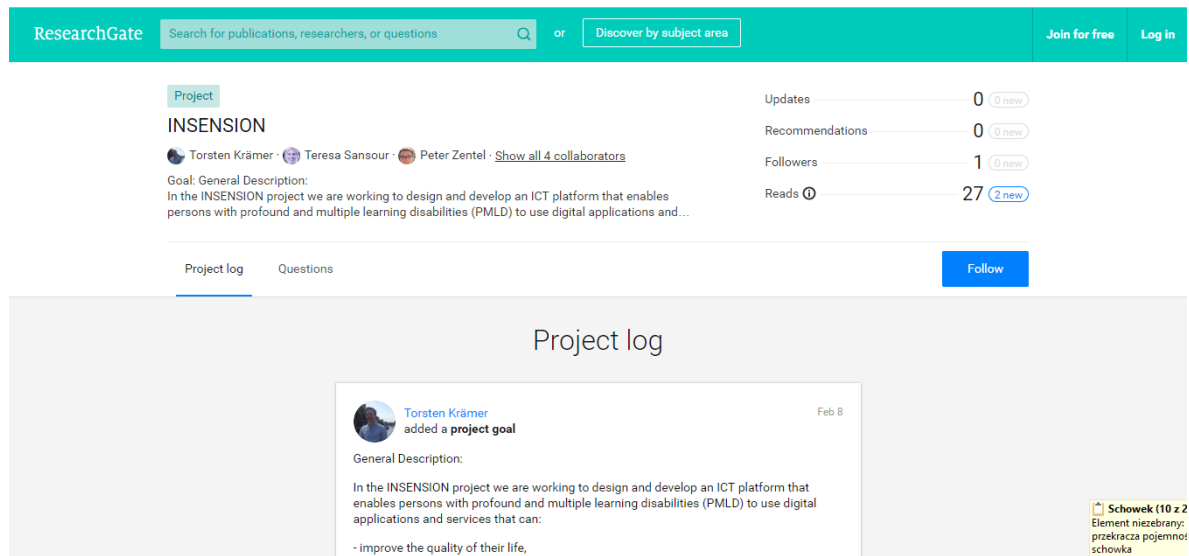
| Journal | Details of the article | Additional information |
|--|---|--|
| Proceedings of the 21 st International Multiconference Information Society – IS2018; volume B – Cognitive Science | Cigale, M., Luštrek, M., Gams, M., Krämer, T., Engelhardt, M., Zentel, P., “The Quest for Understanding: Helping People with PIMD to Communicate with their Caregivers” | Accepted for publication; https://is.ijs.si/archive/proceedings/2017/ |
| Journal on Technology & Persons with Disabilities | Engelhardt, M., Gluszak, B., Kosiedowski, M., Krämer, T., Urbanski, J., “Global Atlas of People with Profound Intellectual and Multiple Disabilities” | Submitted (waiting for acceptance); http://scholarworks.csun.edu/handle/10211.3/125007 |

3.6 UTILIZING SOCIAL NETWORKING OPPORTUNITIES

The Internet dissemination channels will reach beyond the global community building platform (the project’s website). The partners will integrate access to the most popular social networking sites in order to increase public awareness and disseminate the project results through all possible information channels.

Account created so far in social media:

Research Gate



The screenshot shows the ResearchGate project page for INSENSION. The header includes the ResearchGate logo, a search bar, and buttons for 'Join for free' and 'Log in'. The project details section shows the project name 'INSENSION', collaborators 'Torsten Krämer', 'Teresa Sansour', and 'Peter Zentel', and a 'Show all 4 collaborators' link. The goal description states: 'In the INSENSION project we are working to design and develop an ICT platform that enables persons with profound and multiple learning disabilities (PMLD) to use digital applications and...'. The project statistics show 0 updates, 0 recommendations, 1 follower, and 27 reads. The project log section shows a post by Torsten Krämer dated Feb 8, stating 'added a project goal'. The general description of the project is: 'In the INSENSION project we are working to design and develop an ICT platform that enables persons with profound and multiple learning disabilities (PMLD) to use digital applications and services that can: - improve the quality of their life,'. A small notification in the bottom right corner says 'Schowek (10 z 2 Element niezebrany: przekracza pojemno: schowka'.

3.7 ONLINE VIDEOS

At the end of M12 the consortium partners will prepare the project video promoting the INSENSION platform (it will be a part of D5.4 Project video). Diversification of various forms of dissemination activities will minimize the risk of ineffective dissemination strategy.

Preparation of audio-video materials used to showcase the concept, technologies and the system developed by the project will be additional dissemination contribution. PSNC is going to use their in-house Platon Science HD TV service, which comes with the infrastructure of a professional recording and production studio, as well as an audiovisual platform able to stream the material online (<http://tv.pionier.net.pl>). The infrastructure of the Platon TV service is characterized together with the professional TV studio infrastructure, country-wide Internet TV platform and a professional video production team experienced in creation of online multimedia material for dissemination of R+D results. The produced videos can be made available not only on the project pages, but also used as eye-catching background videos for project booths during events.

3.8 WORKSHOPS AND SEMINARS

Participants will be involved in a number of project activities: collecting requirements on the INSENSION platform by providing data and audio/video samples, participation to workshops to share their views and knowledge and participation to pilot trial to validate the platform.

First, a series of focus group workshops (at least 3) will be organized in order to define the application use cases (within WP1). The use cases will help in identifying what digital services and applications would be of greatest interest to people with PMLD, including any that is related to helping them to communicate with other people, and how they could interact with the services using the INSENSION platform. The participants to the workshops will be caregivers, parents, therapists etc. of people with PMLD. This will be input to WP4 that will design and develop example digital services for the pilot trial. The participants will be recruited through the care organization participating to project consortium. The focus group workshops will be first opportunity to share the project perspective, objectives and discover foreseen application scenarios for the developed solution with the caregivers. This will help to select the demonstration application uses cases

(WP1). Participants to the workshops will be and provided with information sheet and verbally briefed on the project, its nature and scope, benefits and risks of participation and their right to withdrawal of data and consent at any time.

The other workshops and seminars will be also organized during the project. For example Na Tak Association is the main organizer of the annual conference on intellectual disability. This conference, mainly addressed at practitioners, features two days full of theoretical discussions and workshop sessions. Whereas Harpo runs regular promotional activities, like taking part in international exhibitions, conferences, seminars, organizing presentations and workshops for persons with different disabilities and their caregivers - potential users of the platform to be developed. More details about this own activities are presented in the point 2.9 Own dissemination plan of project partners.

3.9 OWN DISSEMINATION PLAN OF PROJECT PARTNERS

In addition to the project level activities aimed at the global communities related to supporting people with PMLD, the consortium partners also assumed other activities, as important and possible for each of them. These are listed in the table 6 below.

Table 6. Dissemination plan of each project partner

| Involved partners | Planned dissemination activities | Target audience |
|-------------------|--|---|
| All | All partners will work collaboratively in disseminating the project's results by preparing and submitting technical papers to international scientific journals of high impact factor. Preference will be given to open access publications. The consortium is planning to end up with at least 5 open access publications. | Scientific community |
| PSNC | Additional PSNC dissemination contribution will be the preparation of audio-video materials used to showcase the concept, technologies and the system developed by the project. To produce the videos, PSNC – will use their in-house Platon Science HD TV service, which comes with the infrastructure of a professional recording and production studio, as well as an audiovisual platform able to stream the material online (http://tv.pionier.net.pl). The produced videos can be made available not only on the project pages, but also used as eye-catching background videos for project booths during events. | Scientific community, health-related companies, educators |
| PHHD | The primary channel of dissemination for this academic partner will be scientific publications of various kinds, ranging from peer-reviewed journal publications to conference and workshop articles. As a higher education organization, PHHD will also disseminate the findings of the project within its special education courses and training directed at special education students and teachers. | Scientific community, special education professionals and students, educators |
| JSI | In addition to the general scientific dissemination, JSI is heavily involved in various national activities related to the smart specialization initiative, through which it has established contacts with many stakeholders in the e-health domain who will be interested to learn | Scientific community, health-related companies, |

| | | |
|--------|---|--|
| | about the INSENSIION project. They are also organizing the Information Society multiconference, an annual international event comprising conferences on both health and education, where they will present INSENSIION results. | educators |
| CTIC | <p>CTIC's wide activity and experience in the application of technologies to tackle social challenges (health, ageing, social exclusion, etc.) has positioned the organization among the main key actors at European level involved in the eHealth sector. This will allow the Centre to disseminate project objectives and outputs, to key stakeholders in Communities of reference in the health sector, to raise the potential and market penetration for assuring a well-scoped product design, mainly:</p> <p>THE EUROPEAN INNOVATION PARTNERSHIP ON ACTIVE AND HEALTHY AGEING (EIP-on-AHA) (https://ec.europa.eu/eip/ageing/home_en):</p> <ul style="list-style-type: none"> CTIC is member of the EIP-on-AHA, where it is coordinating two Action Groups within "C2-Development of interoperable independent living solutions, including guidelines for business models" and "D4-Innovation for Age-friendly buildings, cities & environments" groups (https://ec.europa.eu/eip/ageing/actiongroup_en). CTIC is also an active member of the ASTURIAS REFERENCE SITE (http://www.scale-aha.eu/rs2016-results.html), contributing with its knowledge and experience in the field. Repository of innovative practices, which is the basis for the European scaling up strategy of the EIP-on-AHA (https://ec.europa.eu/eip/ageing/repository_en) <p>· THE EUROPEAN ALLIANCE FOR INNOVATION (EAI):</p> <ul style="list-style-type: none"> CTIC is member of the EAI, which includes the Wellbeing community (SIB-WellB) (http://eai.eu/sib/wellbeing) <p>· VIVARIUM – REGIONAL HEALTH SCIENCES BUSINESS INCUBATOR in Asturias coordinated by CTIC, through the "Oviedo Emprrende" project, funded by Oviedo City Council (http://oviedoemprrende.es/espacios/vivero/)</p> | Key stakeholders in communities of reference in the health sector |
| Na Tak | <p>Na Tak Association is the main organizer of the annual conference on intellectual disability. This conference, mainly addressed at practitioners, features two days full of theoretical discussions and workshop sessions. It attract currently a few hundred specialists from all over Poland.</p> <p>Na Tak will use its network relations with other non-governmental organizations (NGO) to disseminate information and results of the project. This includes specific communication channel maintained by the NGO community. Na Tak also undertakes various other promotional</p> | End-users with disabilities and their caregivers, care professionals, non-governmental organizations |

| | | |
|-------|--|---|
| | activities and has experience in working with such dissemination channels as for example social media. It launches creative PR campaigns, aiming to attract individuals and enterprises to support the NGO mission. | |
| HARPO | Harpo runs regular promotional activities, like taking part in international exhibitions, conferences, seminars, organizing presentations and workshops for persons with different disabilities and their caregivers - potential users of the platform to be developed. The platform integrated with novel Assistive Technology (AT) and Augmentative and Alternative Communication (AAC) solutions will be presented at these events as an important part of the company's R&D activity results. Harpo will also use its well established contacts network with Polish associations of persons with different disabilities to promote project results. Harpo will inform the public on the project realization and outcomes by publishing articles on open web-portals promoting innovative science & technology activities and on web-portals used by persons with disabilities or their caregivers. | Assistive Technology market players, end-users with disabilities and their caregivers |

3.10 TARGET GOALS FOR FINAL DISSEMINATION AND COMMUNITY PLAN

The table 7 collects the target goals of dissemination and community building strategy, which the consortium partners are going to achieve at the end of INSESION project.

Table 7. Target goals of dissemination and community building strategy

| No. | Dissemination and community activity | Target goal |
|-----|--|--|
| 1 | Launching the global community building platform | At least 150 target end users registered within the platform |
| 2 | Presentation of results at exhibitions and conferences | Presentation of project results at 5+ globally renowned events |
| 3 | Use of EC opportunities for networking and dissemination | Participation to at least 1 EC organized per project year |
| 4 | Utilizing social networking opportunities | 500 followers on social networking media |

4 MONITORING DISSEMINATION IMPACT

In addition to the goals listed in the introductory summary of key elements of the dissemination plan (point 2.10 Target goals for final dissemination and community plan), the consortium partners also aim to define a number of supporting indicators allowing them to assess the impact of dissemination activities. For assessing the impact, performance indicators are defined in this Dissemination and Community Building Strategy and monitored throughout the project, using the base located in the BOX repository, in WP5. These include, though might not be limited to, such indicators as follows, collected in the table 8.

Table 8. Main indicators to monitor of dissemination impact

| No. | Indicator | Frequency of monitoring |
|-----|---|-------------------------|
| 1 | Number of project conferences/workshops/events organized | Once a year |
| 2 | Number of overall participants in organized conferences/ workshops/ events | Once a year |
| 3 | Number of contributions to relevant conferences, exhibitions and events | Once a year |
| 4 | Number of scientific papers submitted (including: different audiences reached, volume produced, volume sent, feedback received, index of scientific publications) | Once a year |
| 5 | Number of online articles published including press releases | Once a year |
| 6 | Number of visitors to the project website | Once a year |
| 7 | Number of followers on social media | Once a year |
| 8 | Number of brochures disseminated | Once a year |

5 IDENTIFICATION OF STAKEHOLDERS

The research and development of the project is conducted within the inclusive design paradigm, with individual with PMLD and their caregivers directly participating in the R+D process throughout the whole duration of the project. This process links a highly interdisciplinary team of experts of ICT specialists and researchers and practitioners of disability studies and care, with due participation of an assistive technology industry representatives. WP5 aims to build relations with external stakeholders and gather feedback. The project results will be adopted to the target audience and stakeholders.

There are multiple different audiences that are relevant for INSENSI. The challenge lies in developing communication and dissemination modes that are engaging and which attract the attentions of various stakeholders and afford the project a broad outreach for optimal impact. The success of a dissemination plan, therefore, relies on identifying appropriate methods of communication and sharing contents tailor-made to suit each of the identified audiences. That in turn demands that we have a good knowledge of the audiences that the consortium partners intend to reach. That is why, for this plan, three major target audiences have been defined:

- academic community,
- industry sector,
- interest-group community.

Each audience is composed of different stakeholders. Concerning the academic community, the partners include researchers from different fields associated with technical institutes and universities working on different topics related to the project (assistive technology, ICT, computer-human interaction, disability, PMLD...). In the industry sector one can consider organisations involved in using or producing related technologies that could contribute to or benefit from the project's objectives (assistive technology, software engineering, sensors...). In a wide perspective, the interest group community includes persons with PMLD, their family members and support groups, educators and their organisations, other organisations working for and with people with PMLD, the general public, and policy / decision makers.

5.1 DISSEMINATION WITHIN THE ACADEMIC COMMUNITY

One of the major impacts of INSENSI is the promotion of European scientific and technological leadership in the area of assistive technology. This will be achieved through a determined and varied dissemination of project results to the scientific community.

The partners aim at scientific publications in relevant high-ranked peer-reviewed scientific journals. Whenever possible, open access to publications will be sought, either by publishing in open-access journals or by choosing the open-access option for the specific articles in traditional subscription journals. In addition, open access to results and publications via universities' institutional repositories will be ensured.

Other journals may also be used as and when appropriate. INSENSI academic and industrial partners are active internationally, with extensive numbers of publications in their respective fields. They will build on their experiences and extend the reach of the INSENSI results through their related publications. Partners will also regularly give presentations in scholarly and popular scientific events. Other relevant national and international conferences will also be targeted. Through active networking with stakeholders INSENSI strives to validate and showcase its platform.

5.2 DISSEMINATION WITHIN THE INDUSTRY SECTOR

The consortium partners, through their production and research activities related to different areas of expertise, have direct contact with different stakeholders from the industry sector. This is an opportunity to identify and involve this type of stakeholders, also to get to know new industrial organisations, and to identify the most important venues in which project results and related information could be disseminated.

The aim of INSENSION is to help to further grow the Assistive Technologies market. The demographic trends related both, to the ageing of societies and to the growing number of people with disabilities, are reflected in the growing demand for Assistive Technologies and fast development of the AT industry. In 2009 there were almost 40.000 assistive products in the EU, registered at the European Assistive Technology Information Network (EASTIN) database¹. Currently the EASTIN database shows that there are 56.206 assistive products available in the EU. Among them there are 8.449 products classified under the ISO code 22 “Assistive products for communication and information” (defined by the ISO 9999:2011 standard). This group of products is of particular interest in the project context as it comprises devices for helping a person to receive, send, produce and process information in different forms; included are, e.g., devices for seeing, hearing, reading, writing, telephoning, signalling and alarming, and information technology. The EASTIN statistics show 1.805 companies active on the European market in the area of Assistive products for communication and information (ISO 22 class).

The project aims to both:

- create a new holistic assistive technology enabling to support people with PMLD and to
- create new opportunities for developing new assistive technologies thanks to the open application programming interface enabling integration of various existing and new services applications for the use of people with PMLD. It must be noted here that both these topics are will be thoroughly investigated in business models elaborated in WP5.

The industrial partners of the INSENSION project combine the gained knowledge with their infrastructures and skills to transform the developed platform into the final product and market it. They have already shown interest in developing the outcome of the project to be used by the target users worldwide. Harpo has more than 30 years of experience in this market, serving people with special needs, also in technology transfer and successfully taking new products to the market from concept to full commercial exploitation. Detailed market studies will be performed and distribution models analyzed and recommended. As a result the full recommended business models will be specified. Inclusion of an experienced industry partner active on the market of assistive technologies for people with disabilities ensures that the INSENSION consortium exploits this unique opportunity of a new market creation to its potential. Moreover, JSI will consider exploiting some of the developed technologies through licensing agreements with industrial partners.

5.3 DISSEMINATION WITHIN THE INTEREST-GROUP COMMUNITY

INSENSION will follow a variety of means to communicate the project concept and results to a wider public. It is designed to be in continuous contact and exchange with social and political actors at large. Social networking sites will enhance dissemination towards the general public. Furthermore, continued search for potential audiences and channels of communication will pursue to strengthen the dissemination plan and to orientate its expansion.

¹ EC (2009). Analysing and federating the European assistive technology ICT industry, Europe's Information Society; http://ec.europa.eu/information_society/newsroom/cf/document.cfm?action=display&doc_id=606

It must be noted here that the consortium partners have already received an interest from globally renowned organizations that are working for the benefit of people with disabilities. They have stated that such a solution as the one proposed within the INSENSION project is of great importance to the global community engaged into supporting people with profound disabilities. The ambition of consortium is indeed to have a global impact, and change the lives of people with PMLD not only in European Union, but also in other parts of the world. That is why the partners include within the project activities aimed at understanding the global needs concerning the topic of the project as well as activities aimed at disseminating the results of the project (and especially any future products that can be created based on them) to this global community.

To enable a global scale innovation the consortium is going to create Global Community Advisory Board, under the auspices of the AAIDD, the oldest and largest interdisciplinary organization in the world in the field of intellectual and developmental disabilities with global impact, measured among others through the scientific impact of the publications (such as for example scientific journals). The Global Community Advisory Board will be a body of renowned experts in the field recruiting from European Union and other parts of the world (such as for example USA and Asia/Pacific). This body, a part of project's management strategy, will monitor the project works and advise on directions, with a special focus given to the potential of innovation in assistance provided to people with PMLD. This will help to adequately build business models. The external Global Community Advisory Board will provide external advice on the long-term strategy of the project as well as on the worldwide impact of the project itself. This board will be composed of at least three international experts concerned about intellectual and developmental disabilities, including representatives suggested by the AAIDD.

5.4 IDENTIFICATION AND CHARACTERISATION OF STAKEHOLDERS

The dissemination and community strategy will remain in continued development, with the understanding that interaction between partners, academic peers, industry and end users enriches the project results, hence the ambition to expand the project's network and to extend out outreach. This permanent process of collective construction will reinforce the project's socio-economic impact, stakeholder engagement, and overall sustainability beyond the project's lifetime.

Throughout the project's lifetime, the timely identification and characterisation of these stakeholders will contribute to the dissemination plan but also to the stakeholder engagement activities developed within the WP5. The stakeholder's characterisation tool (table 9) will be used by all project's partners to report basic information from different persons and organisations that are or should be a part of the project's network. This base is located in the BOX repository, in WP5.

Table 9. Stakeholder characterisation tool

| Stakeholder (Name of organisation) | Type of stakeholder (Academic community, industry sector or interest-group community) | Contact information (E-mail, telephone, webpage) | High / low interest in the INSENSION project (Score from 1 to 4, being 1 the lowest and 4 the highest interest) | High / low influence of the stakeholder in the field (Score from 1 to 4, being 1 the lowest and 4 the highest influence) |
|---|--|---|--|---|
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To assure unified criteria in the use of this tool (table 9), the field “Type of stakeholder” refers to the 3 main target audiences described in this section and summarised in the table 10. This field is very important as the name of organisation might not be enough to identify the group to which a stakeholder belongs.

Table 10. Summary of target audiences

| Target audience | Examples |
|--------------------------|--|
| Academic community | Researchers from different fields associated with technical institutes and universities working in different topics related to the project (AT, Information and Communication Technologies - ICT, computer-human interaction, disability, PMLD, ...) |
| Industry sector | Organisations involved in using or producing related technologies that could contribute to or benefit from the project’s objectives (AT, software engineering, sensors, ...) |
| Interest-group community | The end-users’ community included persons with disabilities, their family members and support groups, educators and their organisations, other organisations working for and with people with PMLD, general public and policy/decision makers |

6 SUMMARY OF THE COMMUNICATION PLAN

Whenever possible, research results will be communicated to raise external awareness within the targeted user, scientific and policy maker communities. The communication will guide and prepare potential users for the benefits and potential of the expected outcomes of the project. The objectives of partners' dissemination approach at this level are to raise awareness within the communities of persons with PMLD and their caretakers in Europe and beyond, who might benefit from the outcomes of the project and to demonstrate to the public authorities and policy makers the benefits of implementing AT and the feasibility to develop commercial products. In order for the dissemination to be effective, an integrated approach will be necessary, combining templates, guidelines and approval processes on one hand with a communication platform, publication and event participation and release plans on the other.

A website and other promotional materials (e.g. flyers and brochures) will be maintained during the lifetime of the project in the scope of WP5. The project website (i.e. the global community building platform) will reflect the state of the art in accessible web design and will be implemented in accordance to the effective accessibility guidelines (WCAG 2.0) to make the information provided accessible for all people interested in the project. It will be used as a dissemination tool with the following contents:

- Up-to-date news about the progress of the project,
- Information about the presence of the project in conferences, fairs, exhibitions, etc.,
- Subscription to project newsletter,
- Download of public deliverables,
- Download of publications related to the project whenever feasible.

There will be different strategies and activities at different levels, which have their own objectives for the dissemination activities to ensure and establish:

1. Dissemination within the consortium – Internal Communication:

- Clarify responsibilities between the coordinator, the different management bodies and the consortium has been established,
- Install a functional and a secure knowledge management system through the implementation of the Knowledge and Communication Platform to allow easy and efficient information transfer between partners.

2. The end user and policy makers sector:

- Enhance the contacts with the community concerned (persons with PMLD and their caretakers, special need education units, NGOs acting for the benefit of persons with PMLD, etc.),
- Establish contacts within the main target sector (AT),
- Participate in the main international conferences, fairs and events related to Ambient Assisted Living, in particular to AAC technologies and organize the conference by Na Tak Association at national level,
- Distribute the project newsletter,

- Provide an exploitation plan based on market analysis for the industrial partners within the project (D5.5 at the end of project, M36).

3. The scientific community and higher education:

- Identify the right scientific papers to disseminate the results,
- Identify the right conferences and seminars,
- Distribute the project newsletter to the scientific community,
- Plan and conduct joint meetings with suitable projects to promote collaboration both with other H2020 projects and other European and national projects,
- Provide open access to the results through Open Access Infrastructure for Research in Europe (OpenAIRE) repositories.

4. The society at large:

- Identify other stakeholders who would benefit from the knowledge acquired within the project, for example through local authorities, and regional governments,
- Established correct communication with the identified stakeholders,
- Inform the public about H2020 in general and the project in particular.

7 LIST OF ACRONYMS

| | | |
|--------------------------|---|---|
| EU | - | European Union |
| PMLD | - | Profound and Multiple Learning Disabilities |
| EC | - | European Commission |
| ATIA | - | Assistive Technology Industry Association |
| AAIDD | - | American Association on Intellectual and Development Disabilities |
| CSUN | - | Annual International Technology and Persons with Disabilities |
| ICCHP | - | International Conference on Computers Helping People with Special Needs |
| IEC | - | International Electrotechnical Commission |
| ENPAIR Rehabilitation | - | European Network on Psychoeducational Assessment, Intervention and Rehabilitation |
| IF | - | Impact Factor |
| PSNC | - | Instytut Chemii Bioorganicznej Polskiej Akademii Nauk (Poland) |
| PHHD | - | Padagogische Hochschule Heidelberg (Germany) |
| JSI | - | Institut Josef Stefan (Slovenia) |
| CTIC | - | Fundacion Ctic Centro Tecnológico Para El Desarrollo En Asturias De Las Tecnologías De La Información (Spain) |
| Na Tak | - | Stowarzyszenie Na Tak (Poland) |
| HARPO | - | Harpo Sp. z o.o. (Poland) |
| NGO | - | Non-governmental organizations |
| AT | - | Assistive Technology |
| AAC | - | Augmentative and Alternative Communication |
| EASTIN | - | European Assistive Technology Information Network |
| ICT | - | Information and Communication Technologies |