

NATIFLife Newsletter

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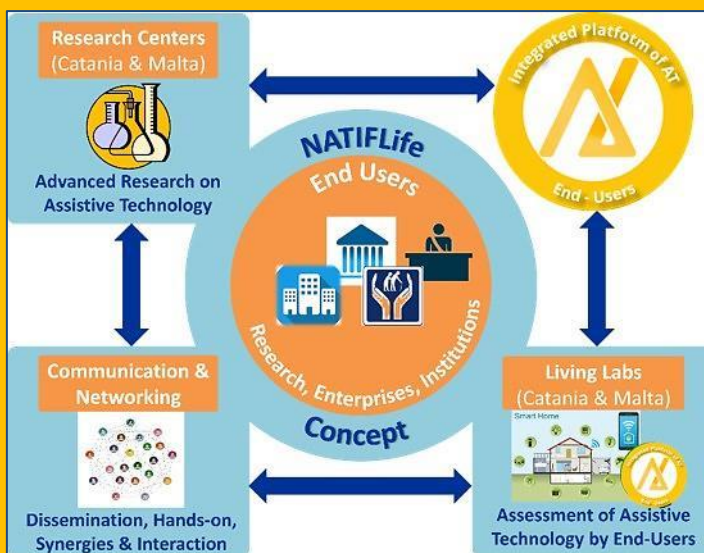
A Network of Assistive Technology for an
Independent and Functional Life
<https://natiflife-project.eu/>

Interreg
Italia-Malta
NATIFLife












Fondo Europeo di Sviluppo Regionale
European Regional Development Fund

The NATIFLife Project



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A Network of Assistive Technology for an Independent and Functional Life, this is the extended name of the **NATIFLife** project, funded in 2018 under the PC-Interreg Italia-Malta program.

Under the common challenge of the two Regions tackled by the project, which is to provide effective technological solutions to the growing needs of independency and autonomy of elderly and people with impairments, the NATIFLife Project aims to define a **new infrastructure** to develop valuable solutions in the field of **Assistive Technology (AT)** for **elderly willing to live autonomously**.

Autonomy by Safety! This is the trick and this is the main focus of the NATIFLife project.

Relying on a very well structured and complementary consortium made by two research centers, two social partners and three ICT SMEs, the project aims at improving the life quality of elderly and people with minor mobility impairments (e.g. at risk of fall) by addressing needs of living autonomously their domestic environments.

Creating best conditions for contamination, exchanging information and good practices, increasing visibility for the enterprises, implementing Transfer of Knowledge (ToK) in AT, and much more important meeting user-needs with technology offer, are mandatory targets of the NATIFLife project. To such aim, a strong Networking activity is foreseen during - and hoply after - the project to promote interactions among stakeholders interested in assistive technologies (associations, companies, R&D centers, public institutions) at a cross-border level. The NATIFLife Informative Portal represents a strategic virtual space for networking at a cross-border level, where stakeholders can meet, contaminate, benefit from services created at the project level.

High skilled Researchers will be strongly involved to develop breakthrough innovations in the field. Two research Lab will be reinforced one at the DIEEI of the University of Catania and one at DCCE of the University of Malta, with equipment providing new development capability in the design, realization and characterization of assistive technology.

Two joint Living Labs are going to be realized in Catania and Malta by fostering a strong link between user needs and technology offers. Living Labs are strategic environments where new solutions can be though by involving end-users, which will be the real tester of innovation and its acceptability.

Basically, NATIFLife is an explosive mix of ingredients, to build up a new concept of Assistive Technology made of Research, Networking and a strong involvement of End-Users.

The project coordinator

Prof. Bruno Andò , DIEEI-University of Catania, Italy

Assistive Technology (AT) is a term with a very broad meaning that groups all those devices, objects, hardware and software solutions, intended for people with disabilities and/or elders, and whose purpose is to improve the performance of all those daily activities that otherwise they would be very difficult or even impossible to them, with consequent benefits on their independence, well-being, social inclusion and quality of life in general.

In other words, **AT allows people with impairments and disabilities living healthier, more independent and more dignified lives, thus encouraging them to a more active social life.** Moreover, AT may help in containing costs related to health and support services, long-term care and the work of caregivers.

The range of disabilities includes, but is not limited to: mobility impairment and disabilities, cognitive disabilities, blindness and low vision, deafness and hard of hearing, autism spectrum disorders, dementia, communication disorders, diabetes and stroke, any gradual functional decline.

Assistive Technology counts on a bunch of enabling ICT technology, ranging from electronics and sensors to computer science, to develop reliable solutions, with a high degree of acceptability, improving the life quality of frail people.

Examples of AT devices includes devices to support sensory deficits (hearing aids, communication aids, screen readers, screen magnifier, speech input, etc.), motor deficit (wheelchairs, walkers, prostheses, etc.), therapeutic and monitoring devices (i.e. sensorised footwear to prevent complications of the diabetic foot).

The World Health Organization has estimated that “with an ageing global population and a rise in non-communicable diseases, more than 2 billion people will need at least 1 assistive product by 2030, with many older people needing 2 or more”.



The **NATIFLife** Project aims to define a **new infrastructure** to develop valuable solutions in the field of **Assistive Technology**.

The general objective of the project is **to improve the quality of life of elderly and people with minor mobility impairments (e.g. at risk of fall)**, addressing their needs of **living autonomously** their domestic environments.

Specific objectives are:



Communication and networking activities

Communication to End-Users, Public Audience and Enterprises: **info days**.

Networking activities: exchange of competences, ToK, Demand/Offer exercise, **Hands on Training** for Enterprises.



Developing a flexible integrated platform for assistive technologies

The **integrated platform** of Assistive Technology will be compliant with traditional and innovative solutions.



Strengthening of 2 research centers

The **two research centers** will be complementary reinforced to perform disruptive research in the field **two research centers** of AT and to become **a reference for Enterprises**.



The realization of two Living Labs in Sicily and Malta

The **two Living Labs** will allow design and testing innovative Assistive Technology by End-Users; implementing dissemination and training on AT.

Project PARTNERS



UNIVERSITÀ
degli STUDI
di CATANIA



L-Università
ta' Malta



Comune di
Catania



SALUPO
Innovation Technology

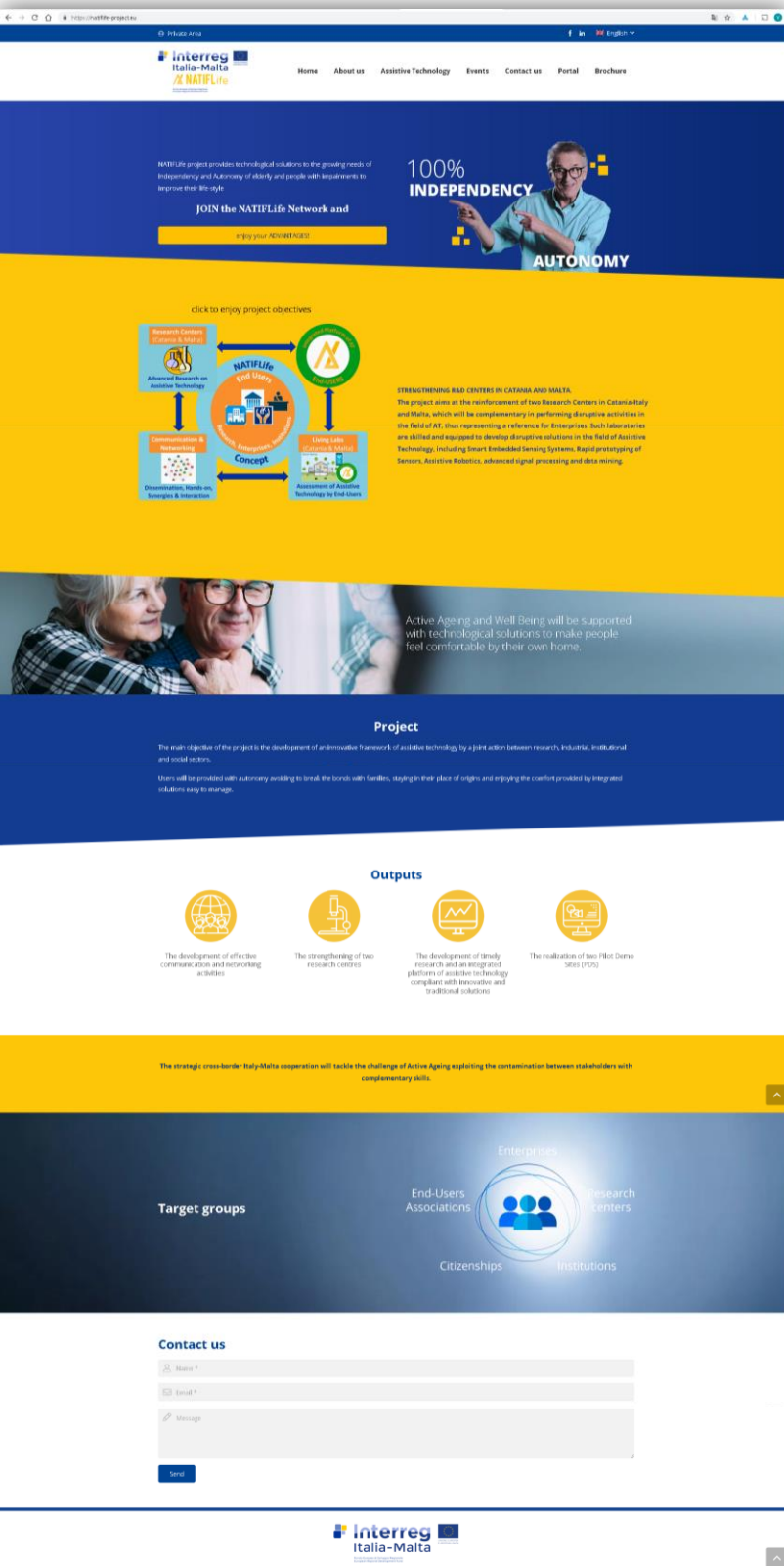
C.T.A. HELIOS



PARAGON
EUROPE



Active Ageing and Well Being will be supported with technological solutions to make people feel comfortable by their own home.



THE PROJECT WEBSITE

The project website provides main information about the target of the project, its outputs and the targeted groups.

Moreover it aims to promote the awareness of the assistive technologies among the end-users associations, the citizens, the institutions, the enterprises and research centers.

The project website is available at:

www.natiflife-project.eu

Come visit us!

Find us on:



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linkedin.com/groups/8680941

THE PROJECT LEAFLET

JOIN the NATIFLife Network and enjoy your ADVANTAGES!

www.natiflife-project.eu

Novel services will be available for entities belonging to the NATIFLife Network:

NETWORKING

- Increasing Visibility, exchange of Best Practice among Stakeholders, Demand/ Offer of Needs/Technology.
- Developing Joint Research on innovative AT, also through the participation to research projects.

TRAINING AND HANDS ON SESSIONS ON ASSISTIVE TECHNOLOGY

- Training and Hands On Sessions on Assistive Technology and User Centered Design.

SHARING R&D LABS FACILITIES

- Sharing facilities and equipments to develop joint activities of industrial interest: Rapid Prototyping of wearable and flexible sensors, Smart Sensing Embedded Systems, Robotic platforms.

EXPLOITING LIVING LABS

- Assessment of Assistive Technologies by End-Users involvement.

The NATIFLife Project

The NATIFLife project aims at developing an innovative framework of assistive technology to provide elders with autonomy, thus enabling de-hospitalization, staying in places of origin and avoiding to break the bonds with families. The strategic cross-border Italy-Malta cooperation will tackle the challenge of Active Ageing exploiting the contamination between stakeholders with complementary skills: enterprise, research centres, institutions, users. The development of high technological assistive solutions can determine a redesign of private and public services.

NATIFLife

A Network of Assistive Technology for an Independent and Functional Life

Bringing Assistive Technology to End-Users.



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Interreg Italia-Malta
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MAKING EUROPEAN
REGIONAL DEVELOPMENT

The NATIFLIFE Concept



The NATIFLIFE Objectives



Communication and networking

The NATIFLife Network enables Contamination at the Cross-Border Level between Stakeholders in Assistive Technology (Association, Private/ Public Sector, R&D), to increase Visibility, exchange Best Practice, facilitate Needs/Technology-Demand/ Offer.



Platform of Assistive Technologies

The development of an integrated platform of assistive technology compliant with traditional and innovative solutions, will improve of the life quality of elderly and people with mobility impairments.



Two research centers

The Two Research Centers, in Catania and Malta, will be complementary reinforced to perform disruptive research in the field of assistive technologies and to become a reference for enterprises.



Two Pilot Demo Sites

The Two PDS are located in Catania and Malta to develop and test innovative assistive technology by End-Users.



UNIVERSITÀ degli STUDI di CATANIA



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VITECO
Learning Solutions



PARAGON EUROPE



SALUPO
Assistive Technology



HELIOS S.r.l.
Comunità Impresaria Assistita

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The first release of the NATIFLife project.

 from www.natiflife-project.eu

PARTICIPATION TO PUBLIC EVENTS

The NATIFLife project and the related activities was presented by the Department of Electrical, Electronic and Computer Engineering (DIEEI) of the University of Catania and the Faculty of ICT of the University of Malta at the "Walk of Life 2018" held in Catania and the "European Researchers' Night" both in Catania and Malta.

• Walk of Life 2018 in Catania

FONDAZIONE CATANIA | Piazza Università
13 e 14 APRILE 2018
Festa di Primavera
15 APRILE 2018
Comminiamo per LAVITA

Grazie per il sostegno!

CAMMINIAMO PER LA VITA - FESTA DI PRIMAVERA

Festa di Primavera 2018, 13-14-15 aprile torna l'evento di fondazione Telethon a Catania. Giunta alla sua VII annata la centralissima Piazza Università con concerti, esibizioni sportive e artistiche fino alla celebre "Passeggiata per la vita", che la mattina di domenica 15 darà la possibilità ai cittadini di riscoprire non soltanto la bellezza del centro storico, ma di testimoniare, indossando la tradizionale maglietta Telethon, solidarietà al lavoro che Fondazione svolge da oltre 27 anni promuovendo la ricerca come unica soluzione per rispondere alle patologie genetiche ancora poco conosciute dalla medicina.

Sostieni anche tu la Fondazione Telethon, con un contributo di 5 euro puoi ricevere la maglietta ufficiale 2018. Tutte le info sul sito www.telethoncatania.it e alla pagina facebook @Telethoncatania



• European Researchers' Night 2018 in Catania



6 ANZIANI AUTONOMI: NATIFLIFE - Il progetto NATIFLife affronta la sfida di fornire soluzioni tecnologiche efficaci alla sempre maggiore richiesta di autonomia degli anziani e delle persone con disabilità. Verranno presentate nuove soluzioni sensoriali e robotiche a sostegno dell'autonomia degli anziani. A cura di: B.Andò. Orario: 16:00-22:00.

• European Researchers' Night 2018 in Malta



PRESS CAMPAIGN

A first press campaign on main local and regional newspapers and online magazines has been set up by the University of Catania through its Communication and press office, to disseminate the NATIFLife project and its objectives among citizens.



SCIENTIFIC DISSEMINATION

- ForItAAL 2018 in Lecce



foritaal

Ambient Assisted Living
9th Forum Italiano – 2-4 Luglio 2018, Lecce

The DIEEI of the University of Catania has presented the project at the 9th edition of the ForItAAL, the Italian Forum for Ambient Assistant Living, held in Lecce (Italy), from 2 to 4 July 2018.

- Forum Nazionale delle Misure in Padova

The DIEEI of the University of Catania has presented the project at the 2nd edition of the National Forum on Measurements, held in Padua (Italy), from 17 to 19 September 2018 by a paper titled:

UN FRAMEWORK DI TECNOLOGIA ASSISTIVA A SUPPORTO DELL'AUTONOMIA DEGLI ANZIANI E DELLE PERSONE CON DISABILITÀ: IL PROGETTO NATIFLIFE

MISURE 2018

associazione italiana
gme
gruppo misure
elettriche ed elettroniche

MT
Gruppo Nazionale

II FORUM NAZIONALE DELLE MISURE

Università degli Studi di Padova

Via VIII Febbraio, 2

17 - 19 settembre 2018



NETWORKING ACTIVITIES are aimed at:

-  Sustaining contacts between stakeholders interested in assistive technologies (associations, companies, R&D, public administrations) at a cross-border level.
-  Creating best conditions for contamination: to exchange information and good practices, to increase visibility for the enterprises, to implement Transfer of Knowledge in assistive technology, to meet user-needs with technology offer, to generate new research projects.
-  Facilitate Demand/Offer of Needs/Technologies mechanism by the dedicated Informative Portal (<https://network.natiflife-project.eu/>).
-  Fostering interaction between Researchers, Enterprises and End-Users by Hands-on Activities.

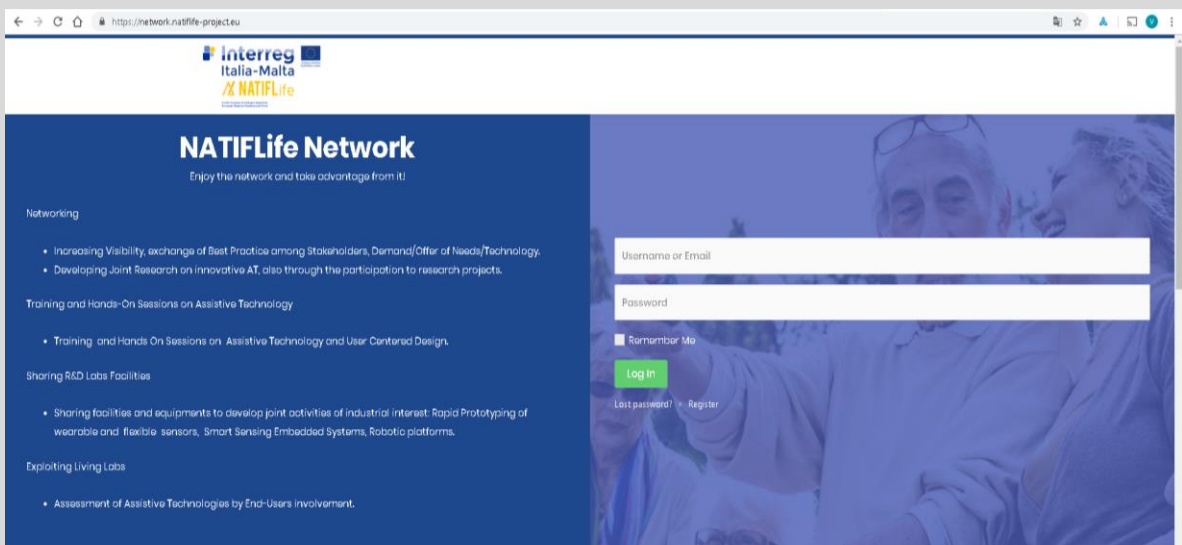
Opportunities

- Increasing Visibility.
- Exchange of Best Practice among Stakeholders.
- Demand/Offer of Needs/Technology.
- Developing Joint Research on innovative Assistive Technology, also through the participation to research projects.



How to join the network?

Visit the **NATIFLife Network Portal** at: <https://network.natiflife-project.eu>

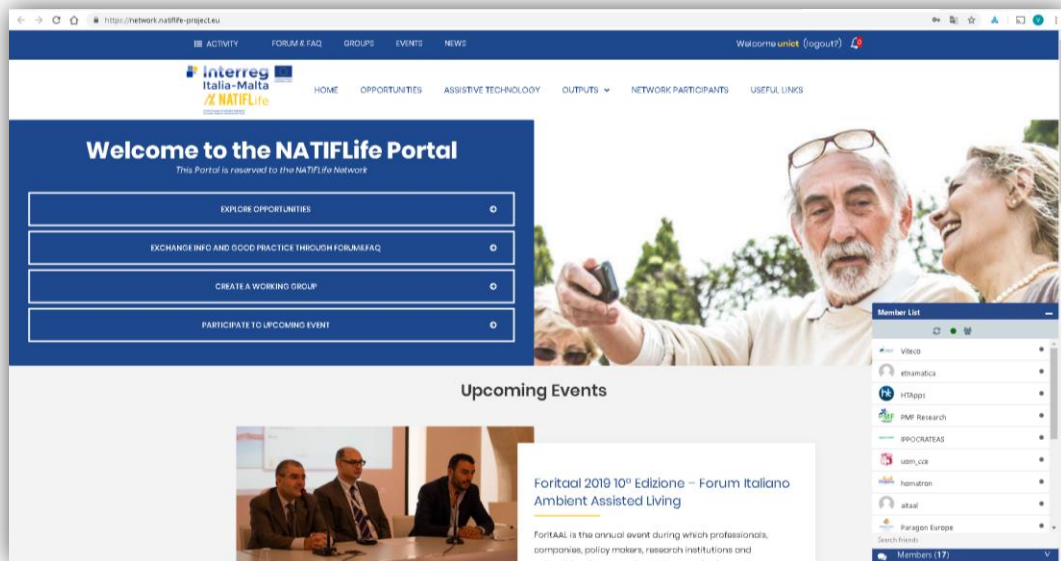


IMPLEMENTED NETWORKING ACTIVITIES

All the partners have immediately started to start an intense networking activity relying on their networks of contacts also at international level. The joint effort of all the partners has made it possible to achieve the following objectives:



A first version of the Informative Portal has been released. It is available at: <https://network.natiflife-project.eu/>.



The recruitment of Entities for the NATIFLife informative portal has been started. A number of companies and organizations has joined the network. The activity is still ongoing.







Started actions to raise awareness in European networks engaged in Ambient Assisted Living and Assisted Technologies:

- Ambient Assisted Living Network in Brussels.
- Meeting with EIT Health where project was reported.
- Meeting with Minister of Health, Dr. Chris Fearn to discuss project and its implications.

Research activities are aimed to develop innovative solutions to assist elderly and people with minor mobility impairments during daily activities.

In particular, activities in the following areas are ongoing:

-  Assistive Domotics to assist user performing daily activities
-  User status assessment by advanced wearable devices
-  User habits monitoring through the observation of geriatric indicators
-  Increasing user-caregiver interaction by novel user interfaces

Standard and innovative solutions will be integrated into a **flexible platform of Assistive Technology**, compliant with traditional and innovative IOT solutions, which is aimed to improve Life Quality of Elderly at Home.

To cope with the above objectives, the two Research Centers in Catania-Italy (DIEEI – University of Catania) and Malta (DCCE – University of Malta) will be reinforced with specific instrumentation in order to perform complementary disruptive activities in the field of AT, including smart embedded sensing systems, rapid prototyping of sensors, assistive robotics, advanced signal processing and data mining.

The two laboratories will be able to provide services to third parts entities thus representing a reference for Enterprises.

In particular the research center in Catania will be reinforced with equipment providing new development capabilities in the design, realization and characterization of flexible and wearable sensors as well as smart multi-sensor systems:

- Inkjet printer for the rapid prototyping of flexible and wearable sensor and flexible electronics.
- CNC Milling Machine for the rapid prototyping of PCB and micro-patterning materials.
- Design & Test Workstation.
- Embedded Sensing Platforms.
- Mobile Terminals for Development & Test.





The research center in Malta will be reinforced with equipment providing new development capabilities in the design, realization and characterization of video/image based systems and body sensors for user monitoring:

- Camera plus depth system for indoor localization.
- Computer machines.
- Body sensor networks.
- Wireless Sensor Nodes, IoT devices, Mobile devices
- Patients self-monitoring sensor kits.

Living Labs: a way to assess technologies by involving end-users

Two Living Labs are being realized in Catania and Malta which will allow for User Centered Design and Testing of traditional and innovative Assistive Systems by End-Users involvement, as well as implementing dissemination and training activities.

Main solutions installed in the PDS will be related to:

-  **Assistive Domotics** (*facilitating and assisting the user in Daily Activities*)
-  **User status assessment**
-  **User habits monitoring**
-  **User-caregiver interaction**

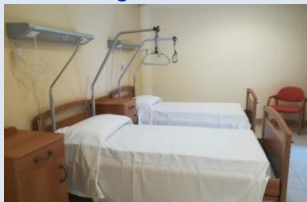
The Italian Pilot Demo Site is being to be realized in the Helios srl site located in Adrano (CT)



The Helios srl site



The sitting room in the PDS



The bedroom in the PDS



The kitchen in the PDS

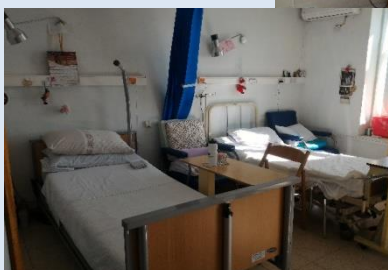


The bathroom in the PDS

The Italian Pilot Demo Site is being to be realized in the Sir Paul Boffa Hospital located in Floriana (Malta)



The Boffa Hospital



The bedroom in the PDS



The kitchen in the PDS

The sitting room in the PDS

Project Kickoff Meeting, Catania, June 25-26 2018

The project kickoff meeting has been held in Catania at the Department of Electric Electronic and Computer Science Engineering of the University of Catania. During the first of the two days long meeting, the partners have discussed about the activities to be implemented in each of the working packages and administrative management and hints. The second day, the partners has visited the Psychomotor Rehabilitation Center "J.F.K." in Adrano (CT) site of the Helios srl, where the PDS is being to be realized.



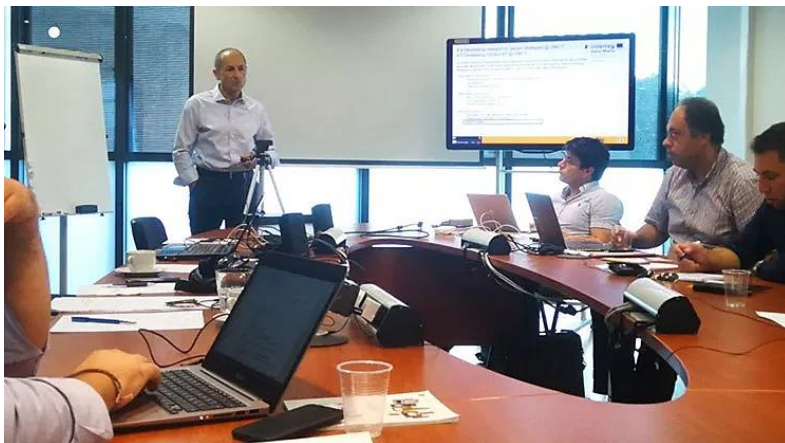
A moment of the debate during the kickoff meeting at the headquarters of the Psychomotor Rehabilitation Center "J.F.K." in Adrano (CT) site of the Helios srl, where the PDS is beinf to be realized. Guest (in the middle) is the Mayor of Adrano, Angelo D'agate.

First Review Meeting, Malta, October 24-25 2018

During the 1st review meeting, both the Scientific Steering Committee (SSC) and the Project Management Committee (PMC) meet to report and analyse both the Project's scientific and management activities. The following points have been discussed:

- Activities deviation from the original project.
- Contingency strategies and conflict resolution.
- Intellectual Property Rights.
- Project output exploitation plan.
- Project objectives assessment.
- Project outputs assessment.

All the partners of the project have interviened presenting the activities performed for each WP. The second day of Rewiew Meeting was held at the "Sir Paul Boffa Hospital", in Sqaq Harper, Il-Furjana, Malta, the structure that will host the Maltese PDS.



A moment of the PMC meeting at the Faculty of ICT Building of the University of Malta in Msida.

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