

NATIFLife Newsletter

N.3
September 2019



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

 **Interreg**
Italia-Malta












Fondo Europeo di Sviluppo Regionale
European Regional Development Fund

Review Meeting, Info day, Training and Hands on Activities in Catania



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It has been a great experience.

I'm talking about the strategic meeting held in the last June. A three day event, with a real mix of knowledge transfer, dissemination, outreach activities towards the general audience.

It has been astonishing feeling the interest of so many students and people attending the NATIFLife workshop. Upscale speakers have introduced the meaning of Assistive Technology and real needs of end-users, primarily the elderly.

A great participation of entities belonging to the NATIFLife network has been recorded. They have been involved also in training and hands-on activities, held at the Pilot Demo Site in Adrano, where the first release of the NATIFLife Platform has been demonstrated.

I would personally thank all attendees to the event, with particular regards to entities belonging to the NATIFLife Network, Project Partners and the General Audience. It was so amazing to see growing potential synergies between above actors!

We are now approaching the peculiar phase of the project, where results achieved by research activities will be integrated with standard approaches, to develop reliable and suitable solutions of Assistive Technology. A challenging task, sustained by a well motivated team, willing to pursue effective answers to the real need of improving the life quality of frail people!

The project coordinator

Prof. Bruno Andò

DIEEI-University of Catania, Italy

A real need of a growing society!

The ageing of the population is one of the most significant phenomena of the 21st century, which has important and far-reaching consequences for all sectors of society as an increase in the costs for social spending and services related to the aging of the population on an increasingly smaller share of working age people.

With reference to the member countries of the European Union, Eurostat data show how in the decade 2007-2017 the share of over-65 people, compared to the total population, increased by an average of 2.4% for EU countries and represented 19% of EU population in 2017. The percentage of people aged 80 or over is expected to more than double by 2080, accounting for 13% of the total population. The relationship between the number of people over 65 and the number of people of working age (15-64) will increase from 21.6% in 2016 to 51.2% in 2070. The same study estimates that the total cost of ageing related services in EU, is expected to rise from 1.7% of GDP in 2016, to 26.7% in 2070. The most significant contribution to the increase in age-related expenses, according to forecasts, will come precisely from the costs related to health care and long-term care.

The progressive demographic aging represents a series of challenges also in terms of quality of life for the elderly. In fact, one of the main social challenges concerns the possibility of guaranteeing everyone to be able to age with dignity and in safety, with a satisfactory quality of life,. This idea is the basis of the concept of "**Active Aging**", as defined by the World Health Organization: "*Active aging is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age*". According to this definition, Active Ageing results from the combination of autonomy, independence, quality of life. The ability to take care of oneself, to carry out common **Activities of Daily Living (ADL)** independently, to have a socially active life and to stay healthy for as long as possible, are aspects that are gaining more and more importance among the elderly population.

The ability to perform ADLs is used to assess the functional status of people recovering from injuries or affected by chronic diseases or disabilities, and even of elderly. Thus, monitoring ADLs of elderly people can be helpful in improving their quality of life and be beneficial to their caregivers.

In this context, technology can play a strategic role to guarantee the elderly with the possibility to live, as long as possible, an autonomous, independent and healthy life in their own environments, contributing to the improvement of the safety and decentralizing part of the social-assistance activities from healthcare facilities to the users' residences. This represents an enabling step towards implementation of new social assistance models.

According to the definition provided by the WHO, assistive devices and technologies are those whose primary purpose is to maintain or improve an individual's functioning and independence to facilitate participation and to enhance overall well-being. They can also help prevent impairments and secondary health conditions.

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
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PARAGON
EUROPE



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

2nd REVIEW MEETING

The **second project review meeting** has been held at the Department of Electric Electronic and Information Engineering (DIEEI) of the University of Catania on June 4th 2019.

During the meeting, all the project partners have reported on the state and progresses of the activities, issues, deviations from the original projects and contingency strategies.



Hand on Activity for Project partners

Hands on Activities reserved to the project partners have been held at the neuropsychomotor rehabilitation center “J. F. Kennedy” in Adrano (Catania) in the afternoon of June 4th 2019. The site, made available by Helios srl, hosts the Pilot Demo Site.





A Network of Assistive Technology for an Independent and Functional Life

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PARAGON EUROPE

Info Day
Assistive Technology for the Independent Living
June 5th, 2019
University of Catania, Italy
Via S. Sofia 64, Aula Magna, Building 14



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European Regional Development Fund




The **NATIFLife** project aims at creating a **new framework** for the development of valuable and innovative solutions in the field of **Assistive Technology** to improve the life quality and autonomy of elderly.



15.00 **Registration**

15.30 **Welcome message**
B. Andò, project coordinator - institutional representatives

15.50 **Assistive Technologies for the Independent Living**
P. Siciliano, Italian Cluster SmartLiving

16.40 Coffee Break

17.10 **The NATIFLife Project**
B. Andò, University of Catania

Reinforced Labs and Research Activity
C. De Bono, Univ. of Malta - V. Marletta, Univ. of Catania

Pilot Demo Sites: a form of Living Labs
G. Travaglianti, Helios - L. Trevisan, Paragon Europe

Integrated Platform of Assistive Technology
S. Salupo, Salupo s.a.s. - L. Porcaro, Viteco s.r.l.

The strategic role of End-Users
G. Delfa, Social Policy Service, Municipality of Catania

18.20 **Round Table "The impact of Ass. Tech on the Society"**

Research on Assistive Technology
B. Andò, University of Catania

The Italian Cluster on Smart Living
P. Siciliano, Italian Cluster SmartLiving

Psychological involvement of Technology for Autonomy and Rehabilitation
S. Di Nuovo, Italian Association of Psychology

The point of view of Social Service
A. Blandi, Consorzio Zenit

19.00 **Conclusive Remarks**

www.natiflife-project.eu



1st INFO DAY

The 1st Info day aimed at the communication of the project targets and activities to the public audience has been held at the DIEEI of the University of Catania on June 5th 2019.





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Info Day, Training & Hand On Activities Assistive Technology for the Independent Living

June 5-6, 2019

Info day - June 5, 2019

University of Catania, Via S. Sofia, 64, Aula Magna Ingegneria

- 15.00 **Registration**
- 15.30 **Welcome message**
B. Andò, project coordinator - institutional representatives
- 15.50 **Assistive Technologies for the Independent Living**
P. Siciliano, Italian Cluster SmartLiving
- 16.40 Coffee Break
- 17.10 **The NATIFLife Project**
B. Andò, University of Catania
- Reinforced Labs and Research Activity**
C. De Bono, Univ. of Malta - V. Marletta, Univ. of Catania
- Pilot Demo Sites: a form of Living Labs**
G. Travaglianti, Helios - L. Trevisan, Paragon Europe
- Integrated Platform of Assistive Technology**
S. Salupo, Salupo s.a.s. - L. Porcaro, Viteco s.r.l.
- The strategic role of End-Users**
G. Delfa, Social Policy Service, Municipality of Catania
- 18.20 **Round Table "The impact of Ass. Tech on the Society"**
- Research on Assistive Technology**
B. Andò, University of Catania
- The Italian Cluster on Smart Living**
P. Siciliano, Italian Cluster SmartLiving
- Psychological involvement of Technology for Autonomy and Rehabilitation**
S. Di Nuovo, Italian Association of Psychology
- The point of view of Social Service**
A. Blandi, Consorzio Zenit
- 19.00 **Conclusive Remarks**
- 20.30 **Social Dinner**



The **NATIFLife** project aims at creating a **new framework** for the development of valuable and innovative solutions in the field of **Assistive Technology** to improve the life quality and autonomy of elderly.

Training and Hands On Activity for the NATIFLife Network

June 6, 2019

Centro di Riabilitazione Neuropsicomotoria "J. F. Kennedy"

Contrada Naviccia, 95031 Adrano CT

- 9.30 **Embedded multisensors systems for the development of Assistive Domotics**
B. Andò, DIEEI, University of Catania
- 10.30 **Assistive Robotics**
G. Muscato, DIEEI, University of Catania
- 11.00 Coffee Break
- 11.30 **The integrated NATIFLife platform of AT**
S. Salupo, Salupo s.a.s. - L. Porcaro, Viteco s.r.l.
- 12.30 **Conclusive Remarks**
- 13.00 Lunch
- 14.30 **Hands On Activities for the NATIFLife Network**
- 16.00 **Brain storming**

www.natiflife-project.eu

Training and Hands-on Activity for the NATIFLIFE Network

The project partners and the members of the network participated to training sessions and hands-on activities held on June 6th at the neuropsychomotor rehabilitation center “J. F. Kennedy” in Adrano (Catania), which hosts the Pilto Demo Site (PDS). Participants have gained training on technical aspects and had the possibility to test the solutions under developing.



PRESS CAMPAIGN

Catania, tecnologie assistive per anziani e disabili: ad Ingegneria la presentazione del progetto internazionale NatifLife

Il progetto sarà presentato domani alle 15 nell'aula magna dell'edificio per la Ingegneria

Università, ad Ingegneria la presentazione del progetto internazionale NatifLife

Forare soluzioni tecnologiche efficaci per rispondere alle sempre maggiori richieste di autonomia degli anziani e delle persone con disabilità



Tecnologie assistenziali per anziani e disabili oggi a Ingegneria si presenta il progetto

Fornire soluzioni tecnologiche efficaci per rispondere alla sempre maggiore richiesta di autonomia degli anziani e delle persone con disabilità. Questa la finalità del progetto internazionale "A network of assistive technology for an independent and functional life" (NatifLife) finanziato nell'ambito del programma Interreg Italia-Malta 2014-2020 (terzo nella graduatoria generale di merito). Il progetto, coordinato dal prof. Bruno Andò (Dier) e realizzato con i ricercatori etnei ed dell'Università di Malta, sarà presentato oggi alle 15 nell'aula magna dell'Edificio per la Didattica di Ingegneria.

Dopo l'intervento introduttivo del prof. Andò, si farà il punto sullo stato delle attività svolte dai gruppi di ricerca di sensori e robotica del Dier e dai ricercatori maltesi. Saranno inoltre presentati il Living Lab e sarà dato spazio alla presentazione del network NatifLife, finalizzato a integrare competenze sulle tecnologie assistive implementando un processo di osmosi sinergico tra gli stakeholder di settore. In programma anche la relazione di Pietro Scialoja sul tema "Assistive technologies for the independent living". A conclusione dei lavori si svolgerà la tavola rotonda "L'impatto delle tecnologie assistive sulla società".

LA SICILIA

Gio 05/06/2019

Dieci: Tecnologie assistive per anziani e disabili "NatifLife"

Ad Ingegneria la presentazione del progetto internazionale



Sicilia Report

LA SICILIA

GIOVEDÌ 13 GIUGNO 2019

OMNIBUS

Tecnologie assistive per migliorare la vita

Sovvere i bisogni di disabilitati e anziani per la sicurezza. Questo è il tema del progetto internazionale NatifLife, che si svolgerà a Catania il 5 giugno. Il progetto è finanziato dal programma Interreg Italia-Malta 2014-2020. Il progetto è coordinato dal prof. Bruno Andò (Dier) dell'Università di Catania e realizzato con i ricercatori etnei ed dell'Università di Malta. Il progetto è finalizzato a integrare competenze sulle tecnologie assistive implementando un processo di osmosi sinergico tra gli stakeholder di settore. In programma anche la relazione di Pietro Scialoja sul tema "Assistive technologies for the independent living". A conclusione dei lavori si svolgerà la tavola rotonda "L'impatto delle tecnologie assistive sulla società".



The Info day dedicated to the NATIFLIFE project was reported on a local television news service. The video is available on <https://youtu.be/iPikl6Dt37s> and www.tvadrano.com



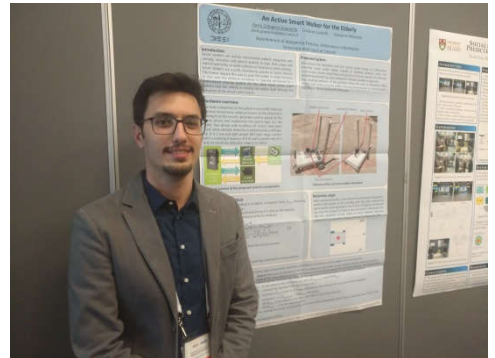

SCIENTIFIC DISSEMINATION

• IEEE ICRA 2019

2019 IEEE
International Conference on
Robotics and Automation
May 20-24, 2019 Montreal, Canada



The paper titled “An Active Smart Walker for the Elderly” has been presented as a poster by the DIEEI of the University of Catania at the 2019 IEEE **International Conference on Robotics and Automation (ICRA)** held in Montreal (Canada), in May 20-24, 2019.



2019 IEEE
INTERNATIONAL SYMPOSIUM ON
M&N Measurements
and Networking
Catania, Italy - July 8-10, 2019

• IEEE M&N 2019

The DIEEI of the University of Catania and the University of Malta have presented the papers titled “**NATIFLife – A Smart Sensor Network for Assistive Domotics**” and “**An RGB-D based Framework for Ambient Assisted Living Applications**” as oral presentations in the Special Session on “Sensor Networks and Sensing Systems for Assistive Technology” of the IEEE International Symposium on Measurements and Networking, IEEE M&N 2019, held in Catania (Italy) in July 8-10, 2019. Matthew Sacco (Univ. of Malta) received the Best Paper Award for Young Authors.



SCIENTIFIC DISSEMINATION

- Forum Nazionale delle Misure - GMEE 2019



The **NATIFLife** project will be disseminated by the researchers of the DIEEI of the University of Catania at the **3rd Italian Forum on Measurements (GMEE)**, held in Perugia (Italy) in September 12-14, 2019.

- Convegno UNEBA

“L'invecchiamento: sfide e opportunità per la società di domani”

Rimini, mercoledì 25 e giovedì 26 settembre 2019

www.uneba.org/convegno-anziani-rimini

The researchers of the DIEEI of the University of Catania were invited as speakers to the conference organized and promoted by the UNEBA. The **NATIFLife** project will be disseminated during the talk. The project objectives, the networking activities, the technological challenges and the PDS will be presented to testify our commitment to support and improve the quality of life of elderly people living independently.

Next upcoming events

2nd Info Day , Training Sessions & Hands on Activities

The 2nd **Info Day** and the **Training Sessions** and **Hand on Activities** will take place at the University of Malta and at the Boffa Hospital in Malta, on November 7- 8, 2019.

The event intends to replicate the event held in Catania in June on the Maltese side.

The main target is to promote the assistive technologies for the independent living and the objectives of the NATIFLife project through dedicated talks and a round table in which experts will intervene in a vibrant arena including partners, end-users, associations, caregivers, network partners, experts, institutional representatives.

Project Meetings - 3rd Review Meeting

The **third project review meeting** will be held in Malta on November 7 – 8 , 2019. Partners will also be engaged in **Hands On activities** and **Training Activities** for the participants to network.

NATIFLife Network

Join the network at <https://network.natiflife-project.eu> and take the following advantages!



-  **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 and User Centered Design.**
-  **Sharing R&D Labs Facilities**
Sharing facilities and equipment 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.

Join the groups that best fits your interests:

- **The NATIFLife Network:** for all the participants to the network
- **Researchers & Technicians:** dedicated to whom is interested in the technical aspects of the assistive technologies, both traditional and innovative, being developed within the project.

NEWS FROM THE NETWORK

The partners and the participants to the NATIFLife network meet during the events dedicated to the Training and Hands on Activities held in Catania on June 6th and at the Gala Dinner held on June 5th. During the dinner a representative of each participant to the network presented the enterprises, their competencies, the interest in the activities of the project and how they can contribute and/or benefit.



The number of network participants is now 25.

Depth cameras installation and settings at the PDS in Adrano

Depth cameras have been installed in July in the living room of the PDS in Adrano (Catania) by the researchers of the University of Malta.

Cameras will be used for the sake of user-environment interaction monitoring.



Join the NATIFLife Network!

Explore your own advantages

www.natiflife-project.eu



Join the NATIFLife Network on the social



<https://www.facebook.com/NATIFLifeProject/>



<https://www.linkedin.com/groups/8680941>

For information contact us at: **info@natiflife-project.eu**