

Welcome to the January 2020 WorkingAge Newsletter!

This is our first edition of the WorkingAge Newsletter, a running project funded by the European Commission under Horizon 2020 programme, the EU Framework Programme for Research and Innovation. We would like to introduce you to the project and its partners and share the latest project news. We will also take a look at some of the exciting things we have coming up in the next few months.

Want to know more? Keep up to date on all project news @Workingage_EU and sign up for the Newsletter so you never miss out.

Questions? Contact info@workingage.eu

Coordinator Message

While writing these lines, France has been living strikes for over a month. One of the main initiators for these protests was the proposed increase of retirement age. It is news that reflects how society is changing and underlines the manifest need to focus on working conditions of our more senior colleagues. With the French, citizens of all European countries are facing, in one way or the other, the challenge of a longer professionally active life.

WorkingAge tightly collaborates with a representative group of elder employees to study measures that help for them to improve their well-being in general, and specifically at work. Personalised guidance is a key part of this; all people are different! WorkingAge listens to users in order to get to know their diverse needs,

and subsequently applies state-of-the-art deep learning technology for adapting the WorkingAge guidance to each personality.

In one year on the way in the WorkingAge project, after dozens of meetings, the consortium has grown into a tight team. The diverse expertise it integrates is enabling the creation of important knowledge. This knowledge is joined into a very powerful tool that can actually help the senior European workforce and the companies they work for, to shape their relationship of which both will benefit greatly.

WorkingAge is working very hard and well on track to help society adapting to these current changes. Yes, we might even contribute in preventing a strike!

Happy newsletter reading!

Marteyn van Gasteren

ITCL Institute of Technology

WorkingAge Project Coordinator

About WorkingAge

WorkingAge is a European project which WorkingAge involves combining technology with empathy, to create well-being experiences for people over 50 years to make sense and adapt the work environments to a world that is constantly changing.

The WorkingAge project aims at making a step forward in technology for new working environment possibilities. The project's objectives have been structured in different fields as follows:











QUALITY OF LIFE DIGITAL SERVICES ANI SOLUTIONS SMAR I WORKING ENVIRONMENT USER CENTRIC DESIGN OTHERS

Create a database of different human conditions and its relation with the working environment and the risks and challenges at different working settings and environments.

Develop five innovative algorithms for evaluation of stress and strain, infer other user's emotional state and determine a set of four relevant interactive mechanisms, considering user centred design.

Developing an extended and iterative interactive software design methodology to incorporate the measurement of user states at work, considering relevant ethical and security issues.

The integration of the system will be proven in working environments in three different countries, validating the system created in by providing health supervision and alerts for the target populations.

Develop new software licences for interaction platforms (gesture based; voice based; gaze based, image based), and a specific business model to encouraging new investments in the field of age-related health.

LEARN MORE

WorkingAge partners

WorwingAge consortium is formed by the balanced collaboration of international level entities represented by Universities, small and medium enterprises, research and innovation centres, big enterprises and industries and Associations, twelve expert organisations from across 6 countries.

























LEARN MORE

Latest project news

3rd International Symposium on Human Mental Workload: Models and Applications | Rome, Italy | November, 2019

WorkingAge was presented at the 3rd International Symposium on Human Mental Workload: Models and Applications, held in Rome at Sapienza University last November 2019.



<u>Learn more</u>

Visit to GRUPO ANTOLIN | Valladolid, Spain | September, 2019

WorkingAge's partners were visiting Grupo Antolín's factory in Valladolid in September, to explore their different sites. iob their characteristics and challenges regarding workers over 50.



1st Consortium Meeting | Athens, Greece | 9-10 July 2019

WorkingAge partners met in July in Athenas, Greece, for the first face-to-face Consortium meeting. This followed a successful kick-off meeting in Burgos (Spain) in February 2019. Hosted by Exodus (Exus branch), partners shared their progress so far, exposed the challenges ahead and plan for the next phases of the WorkingAge project.



Learn more

BrainSigns awarded as Italian excellence | Rome, Italy | June, 2019

BrainSigns received last June two awards as Italian excellence for the category Research and Training in the Camera dei Deputati. Prof. Fabio Babiloni, Founder and Chief Scientific Officer of BrainSigns, has been awarded for being distinguished in the research and international scientific dissemination activities of neuromarketing.



Learn more

WORKINGAGE starts up walking! | Burgos, Spain | February, 2019

'Working Age' project start meeting was held in Burgos at the ITCL offices, the project coordinator, on 05th and 06th of February, 2019. For this occasion, about thirty people, including partners and collaborators, met to define the steps to follow and initiate cooperation lines between the different partners to advance the project.



WorkingAge deliverables published | Available for download now

Several public deliverables are available for download from the website. Check out our analysis of the user and data requirements reflecting the theoretical background of strain analysis and the planned measurement, the user case context and the WA requirements. In the analysis of available and suitable sensors and technologies, we have collected detailed descriptions of the sensors and systems for collecting user's subjectivity, behavioural and neurophysiological activity during the next In-Lab and In-Company tests.



Download Now

Other project highlights

Milestones | #1 and #2 achieved | Well done team!

WorkingAge partners have had an industrious first year of the project, reaching the first four project milestones with the kick-off meeting, the agreement on the dissemination and communication plan, the data management plan and the intervention protocol defined. We also launch of the website, with the social media and visual identity. Well done team!

Blogs | Feature blogs from WorkingAge partners

May, 2019. WORKINGAGE starts up walking!

January, 2020. Work hard, meet frequently

Events | Raising the WorkingAge profile

WorkingAge visibility has been increased with the partners' participation in international events, including:

 3rd International Symposium on Human Mental Workload: Models and Applications, held in Rome at Sapienza University, in November 2019.
 RWTH Aachen University, BrainSigns and ITCL were collaborating and presenting the project.

Coming up next

A busy few months lie ahead for the WorkingAge team as we look forward to a number of upcoming events and dissemination opportunities:

- GfA Spring Convention 2020 (16th-18th March 2020, in Berlin, Germany). Submitted an abstract for a concept papers focused mainly on the DSS creation and development. The title is: "Reasoning, learning and providing interventions in Smart Working Environment for all Ages".
 RTWH will be chairing a WorkingAge session at the conference, which will be title as "Future of Work Smart Digital Assistance for Tomorrow's Workplace". Additionally, there will be a presentation about the WorkingAge project within the session. BrainSigns will be attending too. http://www.gesellschaft-fuer-arbeitswissenschaft-gfa.htm
- Annual EENA conference (1 3 Apr, in Riga, Latvia) Our partner from EENA
 will be there presenting the project to other people that might be there
 and would be interested to find out more about WorkingAge.
 https://eenaconference.org
- 30th European Safety and Reliability Conference (ESREL 2020) (21st-26th June 2020, in Venice, Italy) Submitted an abstract. The title is: "WorkingAge: Providing Occupational Safety through Pervasive Sensing and DataDriven Behavior Modeling". http://www.esrel2020-psam15.org/
- 11th International Conference on Applied Human Factors and Ergonomics (AHFE 2020) (16th-20th July 2020, in San Diego, USA) RTWH will submitted an abstract. The title is: "Smart Digital Assistance Devices for the Support of Machine Operation Processes at Future Production Workplaces". https://ahfe2020.org/
- AAL Forum, (26th-28th October, 2020, in Nice, FR) INTRAS will assist http://www.aal-europe.eu/aal-forum-2020-in-nice/
- 5th international Conference "Certamente" 2020 (12th February 2020, in Milan, Italy BrainSigns will be there! https://certamente.biz/en/
- 42nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, in Montreal, Canada (20th - 24th July)
 BrainSigns will be there! https://embc.embs.org/2020/
- 3rd International Neuroergonomics Conference 2020 (8th 11th September 2020, in Munich, Germany) BrainSigns will be there! https://www.neuroergonomicsconference.um.ifi.lmu.de/

Synergies with other EU projects

WorkingAge have already established contact with several European project funded under Horizon 2020 Research and Innovation Programme.

SmartWork

Smart Age-Friendly Living & Working Environments

SmartWork is supporting active and healthy ageing at work for older office workers, through a suite of smart services, building a Worker-Centric Al System for work ability sustainability. In other words, keeping ageing people working for longer by supporting them with unobtrusive sensing and monitoring of their health, behaviour, cognitive and emotional status, and responding to their needs. The SmartWork services and modules for on-the-fly work flexibility also empower the employer with Al decision support tools for efficient task completion and work team optimisation through flexible practices. Carers will be able to monitor the health status of the workers they care for.

www.smartworkproject.eu

See Far

Smart glasses for multifacEted visual loss mitigation and chronic disEase prevention indicator for healthier, saFer, and more productive workplAce foR ageing population

See Far is a digitally enabled adaptive solution supporting ageing workforce with vision deficiencies, an age-related condition, to remain actively involved in professional life, helping them to sustain and renew their work and personal life-related skills and support an independent active and healthy lifestyle.

This solution is a low cost, an unobtrusive solution which ensures the creation of an adaptive smart working and living environment since it contributes to the four key elements of it: physical health, ergonomics/environment, technology and management practices. It consists of two components, the See Far smart glasses and the See Far mobile application.

See Far aims to:

- Examine how different dimensions of visual deficiencies of ageing population affects and is affected by "technological acceleration", "acceleration of the pace of life", and "acceleration of society as a whole";
- Perform the necessary economic and social analysis for reforming public health systems through See Far adaptation in daily practice;

- Integrate science, technology and engineering with Social Sciences and Humanities disciplines by developing a solution empowering well-being of people, as they age.

The See Far consortium consists of 12 partners from Spain, Italy, Greece, Bulgaria and Denmark.

https://www.see-far.eu/

CO-ADAPT

Adaptive Environments and Conversational Agent Based approaches for Healthy Ageing and Work Ability

CO-ADAPT proposes a framework that provides principles for a two-way adaptation in support of ageing citizens.

- 1) Human Adaptation Support: CO-ADAPT empowers ageing citizen to adapt to changed conditions through a personalised Artificial Intelligence (AI) conversational agent providing comprehensive change support based on language and physiological analytics.
- 2) Work Systems Adaptations: CO-ADAPT defines three types of smart adaptations in work systems with different level of technology sophistication to age thresholds in smart shift scheduling tools, to individual capabilities considering cognitive workload in assembly stations, adaptations to work tasks in contextually recommending people, documents and applications for cognitive augmentation.

The evaluation approach is focussed on quantifying economic benefits in terms of improved work ability. It includes a comparative trial of the Human Adaptation Support, the personalised conversational agent application, in north and south Europe for investigating cultural applicability. The Work Systems Adaptations are trialled in real environments with an extensive pilot for the smart shift scheduling tools in Finland (N=20 000), and more focused trials with sophisticated prototypes for the assembly station adaptations in Italy and contextual entity recommender in Finland.

The consortium consists of 10 partners both academics and SMEs from 3 different countries Finland, Italy and Belgium. Full list of partners

Please feel free to follow us and stay connected.

https://coadapt-project.eu/

BIONIC

Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments

BIONIC aims to develop a holistic, unobtrusive, autonomous and privacy preserving platform for real-time risk alerting and continuous coaching, enabling the design of workplace interventions adapted to the needs and fitness levels of specific ageing workforce. Gamification strategies adapted to the needs and wishes of the elderly workers will ensure optimal engagement for prevention and self-management of musculoskeletal health in any working/living environment.

www.bionic-h2020.eu

AgeingatWork



Smart, Personalized and Adaptive ICT Solutions for Active, Healthy and Productive Ageing with enhanced Workability

Ageing@Work is a Horizon 2020 project aiming to develop a platform of advanced, personalized and adaptive ICT tools to help ageing workers of the modern industry to maintain productivity and workability for longer, while achieving a balance between work and personal life. These tools will help tailoring the workplace to the evolving needs and specificities of the ageing workers, both in terms of ergonomics and in terms of work processes and task assignments. Moreover, the platform will support the ageing worker's active and healthy ageing at work and at home, focusing on workability, physical and mental health support, flexible management of work and quality of life support.

Want to know more? Visit https://ageingatwork-project.eu/ www.ageingatwork-project.eu

sustAGE



sustAGE aims to develop a person-centered smart solution capitalizing on a number of state-of-the-art technologies in IoT, machine learning, recommender systems, temporal reasoning and data analytics to support the older workforce in two critical industry domains, manufacturing and transportation and logistics. The system will exploit unobtrusive low-cost devices such as smartphones, smartwatches, environmental sensors and cameras in designated areas in the workplace, to monitor user states, actions and interactions with the physical environment. Considering information-rich user micro-moments sustAGE builds a personalized recommendation framework to support older adults in carrying out their

work tasks, improve their cognitive abilities and increase productivity, health and wellbeing both at work and outside though a holistic approach. The pilots and system validation will take place at the CRF World Class Manufacturing (WCM) Research and Innovation Center in Melfi (Italy) involving assembly line workers and at the commercial terminal of the Heraklion Port Authority (Greece) with port workers supporting the cargo operations.

https://www.sustage.eu/

PROJECT CONTACT

PROJECT COORDINATOR - Marteyn Van Gasteren (ITCL) marteyn.vangasteren@itcl.es

SCIENTIFIC COORDINATOR – Julia Czerniak (RWTH Aachen University) j.czerniak@iaw.rwth-aachen.de



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826232