sustAGE

credits: FCA Group

#2 Newsletter sustAGE
Smart environments for person-centered sustainable work and well-being

Coordinator Message

sustAGE has completed its first year. Actions collaboratively taken by consortium members have established the use case scenarios, the strategy and metrics for the evaluation of the foreseen prototypes, and the project's dissemination and exploitation strategy.

As part of analyzing the needs and challenges regarding OSH and well-being for older workers, a data collection activity was conducted with 47 and 30 participants from the two end-user organisations. The data collected will enable the Consortium to better understand the individual physical, cognitive-emotional, and social factors that are related with the process of ageing, the influence of work-related factors affecting mental abilities or stress management and the specific working processes within the end-user organisations, including tasks, roles and responsibilities, current working practices as well as task and role interdependencies. A combination of psychometric methods such as cognitive tests, questionnaires and short interviews were employed in order to assess these factors and enable the compilation of a broad and informative pool of respective context-sensitive recommendation aspects.

In parallel, special emphasis was put on the development and deployment of the sustAGE Minimum Viable Product (MVP), amounting to the effective integration of the sustAGE components into a simple, yet substantial integrated prototype with minimum functionality that showcases the potential of the proposed solution. As part of the MVP use case scenarios, a core set of key micro-moments were selected that rely on basic measurements and user suteractions that support capturing system workflows and interactions among the different components. Apart from demonstrating a basic set of capabilities, the sustAGE MVP will also be used to obtain user feedback early enough so as to facilitate any required adjustments prior to the release of the first integrated prototype.

The Consortium has also met with the project's invited External Advisory Board (EAB), comprised of experts in the fields of computer vision, ergonomics, occupational safety & health, and transport & logistics, who provided valuable feedback in core aspects of the project towards the successful accomplishment of its vision and goals.

The importance of maintaining the older worker´s mind and brain healthy

Several mental abilities that depend on the prefrontal cortex and the medial temporal lobe-hippocampus complex, including processing speed, working memory (updating, maintenance and inhibition), and long-term episodic memory decline with aging. Thus, these are inherently linked with difficulties at work for older workers and limitations in the performance of the instrumental activities of daily living.

Professor Solelad Ballesteros Jimenez by UNED, explains how game-based cognitive training is part of the sustAGE solution and how physical exercise keeps older workers fit and healthy.

Read more →

Liaison with other H2020 Research Projects

During its first year sustAGE has already made its first steps of collaboration with other research projects specially projects funded under the same call (H2020-EU.3.1.4.2 - Individual awareness and empowerment for self-management of health) on workability of older adults. Specifically, liason with the EU Projects **SmartWork**, **WorkingAge**, **SeeFar**, **CO-ADAPT**, **BIONIC** and **AgeingatWork** was initiated and future actions aim at exploiting bridges of collaboration across different levels, such as knowledge exchange and joint workshop organization.

Furthermore, in collaboration with **SMART BEAR H2020 Project** the book chapter *"Biosensors and Internet of Things in smart healthcare applications: challenges and opportunities"* was published in **Elservier Book "Wearable and Implantable Medical Devices- Applications and Challenges"**. The work that has been conducted in the sustAGE project with regards to the selection of IoT devices for sensing of physiological and other behavioural data of humans for interventions related to occupational health was also presented to the wider Consortium of the SMART BEAR project during a focused meeting on Requirements & Platform Design of SMART BEAR, which took place in Athens in December 2019.

Latest Blog Articles by Partners

Integration of the sustAGE system.

The sustAGE platform brings together an IoT ecosystem which is deployed in industrial environments, specifically in manufacturing (indoors) and ports (outdoors) and a set of software components that aim to increase productivity and wellness of ageing employees by monitoring their activities and state considering spatio-temporal aspects.

written by AEGIS

Read more →

Generating recommendations for optimizing health, safety and well-being of the aging workforce.

Using technology for promoting sustainable aging. The occupational landscape in EU changes rapidly in the face both of the advancing aging of the workforce population and the 4th industrial (digital) revolution.

written by IfADo

Read more →

Play hard, work better.

How to prevent employees' cognitive decline trough serious games. Age itself is not a modifiable health factor, but it is vital to target modifiable individual factors that affect ageing workers productivity, and build on them in order to prolong a sustainable working life.

written by IMA

Read more →

Data Processing and AI in Human-Centred Manufacturing

Modern manufacturing- and shop-floor systems are equipped with sensors that constantly monitor production relevant KPIs by collecting huge amounts of data.

written by SAG

Read more →

Human-Centerd Manufacturing

The manufacturing industry is going through a period of significant change, due to the massive introduction of new information and communication technologies (ICT) in the factory. In the industrial environment, this change is referred as a fourth revolution, identified with the name of "Industry 4.0".

written by CRF

Read more →

Participation of sustAGE at events & conferences

Convention on Digital Opportunities

13-14 November 2019

CDO Aachen is a national conference with exhibitions and interesting impulse talks which target digital value in companies. The sustAGE concept and preliminary results have been presented by SAG.

Find out more →

2nd Hellenic Conference on Occupational Health & Safety

18-19 November 2019

The vision of sustAGE and the technological innovations that the project brings for smart workplaces and sustainable working life were presented by project coordinator Dr. Maria Pateraki, FORTH.

Find out more →

The Gerontological Society of America (GSA) 2019

13-17 November 2019

"Is combined training more effective than single domain training. A randomised controlled trial with older adults.", a poster presented via sustAGE partner UNED.

Find out more →

Annual meeting of the Scientific Advisory Board of IfADo

18-19 November 2019

The objective was to provide a general overview of the scope, activities, prospective process of sustAGE by IfADo.
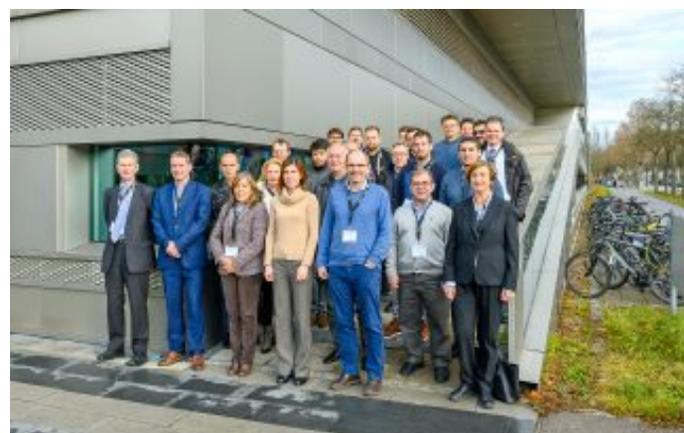
Find out more →

Past Meetings

External Advisory Board Meeting, 26-29 November 2019, Augsburg, Germany

The 3rd Pleanry meeting of sustAGE took place at Augsburg, Germany. The Consortium also met the External Advisory Board (EAB), which comprises of experts in the fields of computer vision, ergonomics, occupational safety & health, and transport & logistics.

Find out more →

Technical Meeting, 5-7 November 2019, Melfi, Italy

As part of the development of the MVP for the sustAGE project the technical partners met at the Manufacturing Campus of the FCA Group (Fiat Chrysler Automobiles Group) in Melfi, Italy.

Find out more →

Technical Meeting, 23-25 July 2019, Heraklion, Greece

The first technical meeting of sustAGE took place at the Port of Heraklion in Crete, Greece. During the first day of the meeting, the participants visited the Commercial Port's Free Zone during a vessel unloading operation.

Find out more →

Recent Publications

New scientific publications of the sustAGE project have been released:

- Elsevier Book Chapter: " Wearable and Implantable Medical Devices"
- 14th IEEE International Conference on Automatic Face and Gesture Recognition (FG2019) - Performance Analysis of Unimodal and Multimodal Models in Valence-Based Empathy Recognition
- ACM Multimedia 2019 - AVEC 2019 Workshop and Challenge: State-of-Mind, Detecting Depression with AI, and Cross-Cultural Affect Recognition
- INTERSPEECH 2019 - Attention-enhanced Connectionist Temporal Classification for Discrete Speech Emotion Recognition
- INTERSPEECH 2019 - A Hierarchical Attention Network-Based Approach for Depression Detection from Transcribed Clinical Interviews
- INTERSPEECH 2019 - Continuous Emotion Recognition in Speech – Do We Need Recurrence?
- GSA2019 – Annual Scientific Meeting Gerontological Society of America – Innovation in Aging
- Frontiers in Robotics and AI - Synchronisation in Interpersonal Speech
- Games for Health Effects of Non-action Video Games on Measures of Attention and Working Memory in Young Adults

Read more →

Dissemination Material

Download Printable material of sustAGE FactSheet and TriFold Brochure.

Download here

Recent Publicity on Media

sustAGE gain publicity over its first year.

View more in detail of each social channel and watch the introductory video.

Stay in Touch! Get Social and
Share sustAGE News

European Union's Horizon 2020