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

Coordinator Message

The crossing of the second project year was marked with a number of different activities related to evaluation, analysis, development and integration. Due to the COVID-19 outbreak in February 2020, the social distancing measures and access restrictions to pilot sites and work environments that followed the consortium re-defined the work and communication practices. It further intensified à distance collaboration to resolve challenges, proceed with the technical developments and system integration according to the project timeline towards the release of the 1st integrated prototype for evaluation at the end of 2020.

Midst of COVID-19, the first Cycle concluded in summer 2020 with the MVP evaluation focusing on validating of sensor measurements, communication and basic interaction aspects of the system, key aspects of system usability, integration of basic system functionalities, allowing to verify the functionality and synchronization of the system components based on predefined scenarios. Moreover, the usability of the serious games for cognitive training was assessed, thus resolving usability problems at an early stage before any further developments of mini-games are considered. The MVP evaluation provided answers to a number of different questions, including which are the main usability constraints, which changes or upgrades are essential and for what purpose.

The initial list of recommendation-based interventions of the first Cycle was extended through a bottom-up analysis of OSH and well-being aspects directly derived through data collected from the end-users, existing scientific knowledge and through highly interdisciplinary work to align those outcomes with system measurements and micro-moments. In parallel, the specifications of mental training guided the development and implementation on four additional cognitive games. Technical developments brought extended functionalities in the system both for sensor measurements, low-and high-level system components.

Finally, arising from the fact that sustAGE system has been designed as a tool to support improvements in health, safety and wellbeing in the workplace and outside it has been further considered to exploit and enhance certain functionalities to assist in the implementation of safety procedures required in times of pandemic emergency. These aspects have been addressed for the case of the CRF pilot in the concerted paper on the role of AI technologies in working through COVID-19 and its aftermath. **Read more →**

Liaison with other H2020 Research Projects

sustAGE happily joined forces and contributed with other EUprojects to present our project and hosted by **CO-ADAPT**, **Ageing@Work** and **WorkingAge** project e-Newsletters.

Furthermore sustAGE has liaised with the EU funded **FET TIMESTORM** project, led by FORTH, aiming to extend relevant research results on the notion of time perception as part of developed module of Temporal Reasoning, as one of the strategic technologies on which the sustAGE solution is based.

Also sustAGE had a meeting with Fraunhofer Portugal, partner of the project **OPERATOR**, where coordinators presented the projects aiming to exploit further synergies and the organization of a joint workshop was also discussed.

Recent Publicity on Media

Discover the 2nd video of sustAGE about " Monitoring Techiques"

Latest Blog Articles by Partners

written by **IfADo**

A conceptual framework for OSH risks and challenges for well-being of older employees

sustAGE acknowledges the tight relationship between working conditions and general well-being and stands for a holistic approach to safety and health that strives to exploit the interplay of work-related and personal resources for meeting the demands of the workplace. **Read more →**

written by **IMA**

## The importance of involving final users to develop games for training cognitive skills.

The user-centered design method is typically used to understand how to realize meaningful game-based experiences for health purposes, as well as rehabilitation or training. **Read more →**

written by **FCA**

The enhancement of human capital beyond the age: the right balance in managing resources within an organization

Several changes will affect the work of the future in respect of today work world. Workforce ageingis one of the most evident change that will act in the next few years. **Read more →**
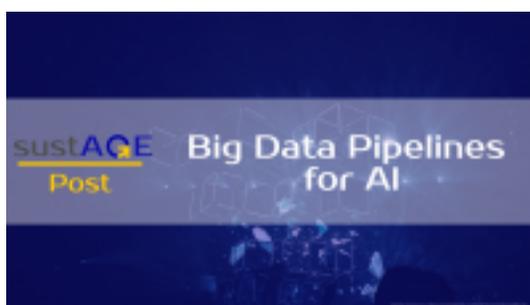
written by **SAG**

Big Data Pipelines for AI

Data is one of the most fundamental parts in sustAGE with respect to the data analytics. The sustAGE Data Processing pipeline follows best practice implementing Big Data Pipeline for data processing. **Read more →**

written by **FORTH**

Time-series data forecasting in sustAGE

Time-series is data collected at different points in time to capture information about a change that is happening. Internet of things (IoT), smart cities and the digitalization of healthcare are among the main contributors to the recent increase of the production of time-series data. **Read more →**

Heraklion Port uses "sustAGE" technology-Evaluation of the Minimum Viable Prototype (MVP)

Workplace safety and good working conditions are areas of first priority for the management of the Heraklion Port Authority (HPA). **Read more →**

written by HPA

The science behind training older workers with video games: An intervention based on the ACT-R architecture

Research has shown that serious video games might be useful tools to maintain the abilities that decline in the elders, as they integrate effortful cognitive tasks into a fun and engaging video game. **Read more →**

written by UNED

The sustAGE Outdoor and Indoor Positioning

The sustAGE system will function in real environments inside and outside of the workplace. For that reason, an open challenge is the person's localization in the workplace due to the tasks of productivity & safety in high precision real-time manner. **Read more →**

written by AUTH

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. **Read more →**

written by UNED

Powering machines with AI to revolutionise HCI

Our team aims to explore the use of automatically inferred linguistic and paralinguistic information in the development of a dialog management system able to customise the interaction to the current emotional state of the user. **Read more →**

written by UAU

Participation of sustAGE at events & conferences

sustAGE: Sustainable work, well being and productivity

18 December 2020

WCM R&I of CRF is involved as partner and end-user in the sustAGE project, that is a research project funded by the European Commission under the Horizon 2020 program, focused on the issues of sustainable work and active ageing. The activity aims to develop and validate an intelligent solution «person» oriented, with the purpose of optimizing safety, health and well-being at work.

[Find out more →]

UN International Day of Older Persons

8 October 2020

The International Day of Older Persons is an opportunity to highlight the important contributions that older people make to society and raise awareness of the opportunities and challenges of ageing in today's world .In honor of this day, sustAGE partner Software AG has published an article.

[Find out more →]

Germany's first "Digitaltag"

24 June 2020

Following the slogan "*turn your smartphone into an IoT device*", all interested participants were invited to immerse themselves in the world of the Internet of Things at Software AG, Under the section of most recent research prototypes the sustAGE project was referenced.

[Find out more →]

sustAGE at the Digital Health Society Virtual Summit 2020

6 November 2020

sustAGE participated with Assoc. Prof. Iraklis Varlamis, collaborator of Foundation for Research and Technology – Hellas (FORTH) as a panelist in the Digital Health Society Virtual Summit. In the panel with the topic "Benefits and risks of AI for health and wellbeing in the workplace", which was promoted by the SmartWork EU project he presented the main concept of sustAGE.

[Find out more →]

Digital News - Blog of Software AG

13 July 2020

A long healthy life is a valuable asset. Modern technology can contribute to maintaining our health in old age. Sensor data make the work of employees +55 easier. sustAGE partner, Software AG are commited to developing suitable solutions.

[Find out more →]

Automation & Testing Fair(A&T 2020)

17 February 2020

Dr. Rossella Monferino and Ing. Massimo Di Pardo from FCA, presented sustAGE via a roll-up poster and the official video at the Automation & Testing Fair in Turin, held in Turin from 12 to 14 February 2020.

[Find out more →]

Past Meetings

Technical Meeting, 4 November 2020, Remotely

In an effort to help our partners with arrangements and changes in work schedules and for safety reasons, sustAGE's technical meetings temporarily switched to remote via supporting technologies which helps follow steadily its timeline.

Find out more →

Virtual Plenary Meeting, 1-3 July 2020, Remotely

Due to the COVID-19 restrictions the 4th Plenary Meeting of sustAGE was held virtually spanning across three days from the 1st to the 3rd of July.

Find out more →

Recent Publications

New scientific publications of the sustAGE project have been released. Join our open repository at ZENODO community and share scientific results.

- Trials - Effects of multidomain versus singledomain training on executive control and memory in older adults: study protocol for a randomized controlled trial
- ECCV2020 - A Consistently Fast and Globally Optimal Solution to the Perspective-n-Point Problem
- ISPRS2020 XXIV Congress - Pose estimation of a moving camera with low cost, Multi-GNSS devices
- INTERSPEECH 2020 -An Investigation of Cross-Cultural Semi-Supervised Learning for Continuous Affect Recognition
- MuSe 2020 Challenge and Workshop: Multimodal Sentiment Analysis, Emotion-target Engagement and Trustworthiness Detection in Real-life Media: Emotional Car Reviews in-the-wild
- FG 2020 -A Curriculum Learning Approach for Pain Intensity Recognition from Facial Expressions
- FG 2020 - Latent-Based Adversarial Neural Networks for Facial Affect Estimations
- Multidomain Training in Healthy Older Adults Revisited: A Three- Level Meta-Analysis
- T´ai Chi to improving brain and cognition (R)
- Games for Health - Effects of Non-action Video Games on Measures of Attention and Working Memory in Young Adults (R)

Read more →

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European Union's Horizon 2020