ASHVIN's Newsletter #5

March 2023

We are happy to get to get back to you with fresh updates from the ASHVIN project!
Since last November, we have many new results to be shared which all contribute to digitising and boosting the European Construction Industry.

Discovering the ASHVIN Platform!

In the coming months, we will offer an opportunity to external construction projects to use their data to benefit from the ASHVIN digital twin platform (at TRL6) for FREE.

To inform our external stakeholders about this opportunity, we hosted an open technical webinar showcasing the ASHVIN digital twin system, two use cases about a vibration sensor system for concrete and crane from our two demonstration sites as well as benefits of it for construction site managers.

Watch the recorded webinar

Digital Birth of Bridge Load Testing

The ASHVIN use cases demonstrate the ASHVIN toolkit usage possibilities in 10 different locations in Europe. The demonstration site #1 "Bridges for High Speed railways in Spain" creates a digital twin of railways bridges during a load test episode, which serves to keep better track of its maintenance and to take better informed decisions.

Visualise the Demo Site #1

Smart Buildings Future Technologies
**We were featured in this Brochure!**

The ASHVIN team is proud to be one of the selected innovation projects driving the European construction industry's digitalisation, presented in the Smart Buildings Future technologies brochure.

European Commission, and it gives a landscape of the Key Exploitable Outcomes from EU Projects in the smart building sector.

Find out more

CAMPAIGNS
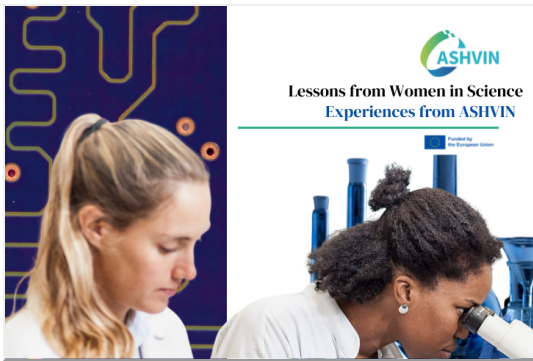
Women in Science
Meet the women behind ASHVIN

In February, we celebrated the International Day of Women and Girls in Science by raising awareness about the importance of promoting gender, age balance and other equality issues in European innovation and research projects. In ASHVIN, we are proud of them our involved women researchers, and therefore we raised a campaign with some of their statements, lessons and messages.
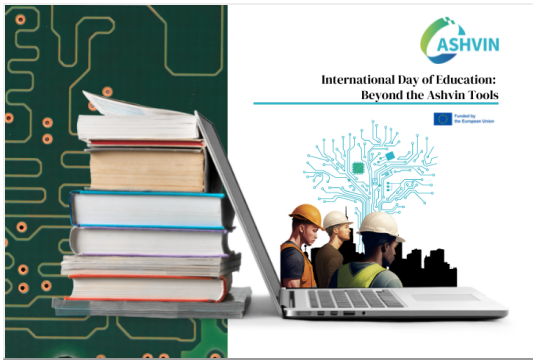
International Day of Education
How are we empowering stakeholders?

This year kick started the European Year of Skills adopted by the European Commission to focus on empowering workers on green and digital transitions. At ASHVIN, we have taken the opportunity to celebrate the International Day of Education and this European initiative presenting beyond our #ASHVINTools and how we are upskilling stakeholders in the construction sector.

Advisory Board Engagement
Towards the future construction industry

Our advisory board gathers six internationally renamed experts in the field of digitalisation of the construction industry. In November – December 2022, three experts met us to follow up on our technical progress. With their feedback, we aim to
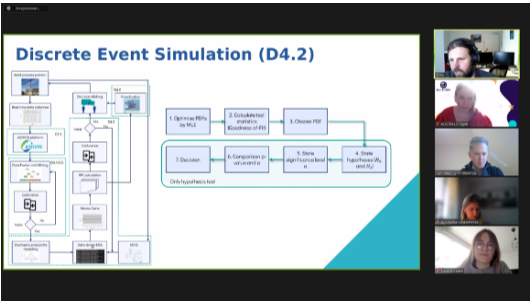
the dissemination of our solutions and refining the exploitation plan.

GATHERING

Rogier Jongeling (Pl...   Leonie Braun

Athina Tsanousa (CE...   Hartmann, Timo, Pro...   Marios (CERTH)   Burkhard Krenn   Zoran Rebić

Successful Review with the European Commission

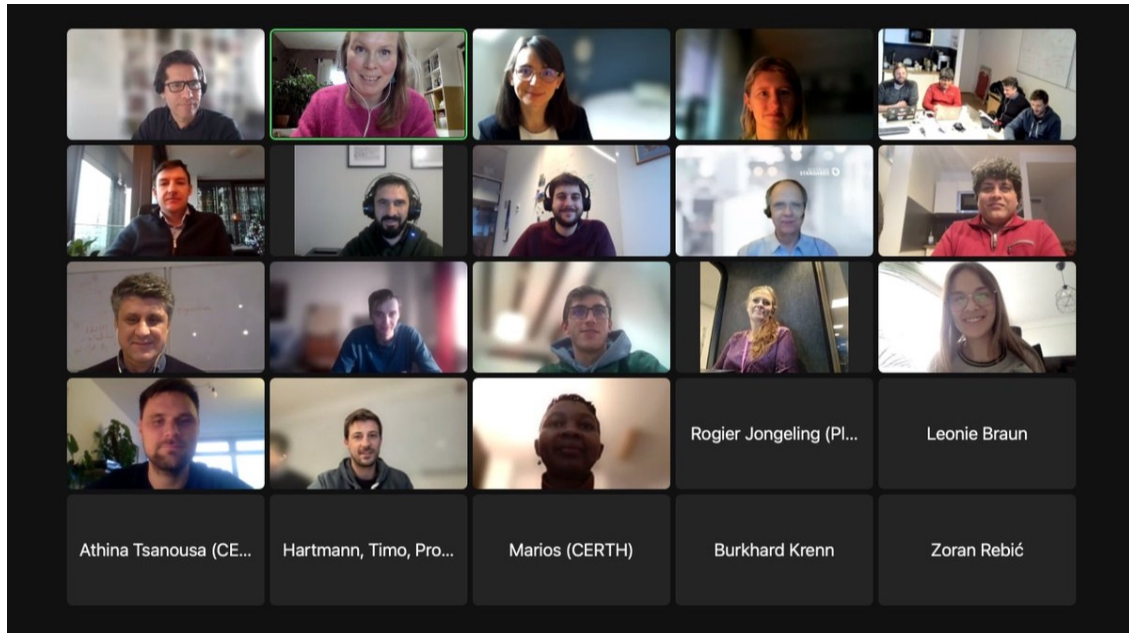Last December 2022, we gathered remotely to present the project results to the European Commission, funding the project for three years. The 2nd project year was a tremendous technical milestone for us; our ASHVIN digital twin toolkit, comprising 10 smart building tools, was developed. Also, all 10 tools were deployed at the ten demonstration sites to gather construction data. Victoria Leroy, a Project Adviser at the European Health and Digital Executive Agency (HADEA) and an external expert in the digitalisation of the construction industry, gave us constructive feedback and recommendations to head this 3rd year.

Learn more about the 2nd review

5th General Assembly Meeting in Greece

We started 2023 with our 5th Consortium Meeting hosted by our partner, CERTH, in Thessaloniki, Greece. The ASHVIN team gathered for two days to monitor the status of the work and discuss the next steps in developing, demonstrating and disseminating the ASHVIN system. The discussions focused on the following aspects specified in the session on the ASHVIN Research and Innovation Strategy for Year Project 3.

Read more about our work plan

WORKSHOPS
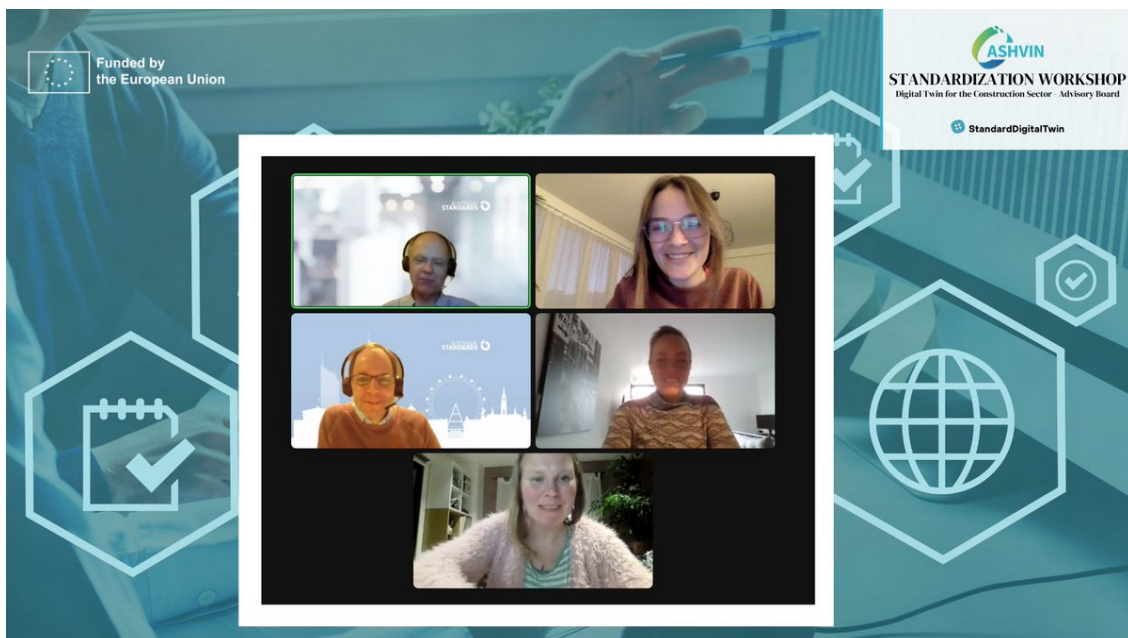
Standardisation Workshop with Advisory Board

In February, we hosted a workshop for the Advisory Board members on standardisation. Salla Eckhardt was present at the standardisation workshop and from Austrian Standards, Karl Grün and Stefan Wagmeister hosted the session presenting our research to identify the standardisation needs related to the deployment of the digital twin in the construction sector.

Exploitation Workshop with sister projects

In February, we hosted an exploitation workshop, gathering four sister projects; ASHVIN, COGITO, BIMprove and BIM2Twin. The session's objective has been to discuss the challenges, intellectual property rights, tricks and plans to take results far and wide, targeting our stakeholders.

Find out the conclusions of the workshop

TECH-UPDATES

ASHVIN Demonstrators - Videos and News

We continue working on our 10 demonstrators from 3 areas of construction all over Europe. Our solution uses digital twin technologies to boost construction site management, making it more efficient while reducing costs, more productive while using all gathered data and safer while anticipating risks.

Watch our videos and learn more here
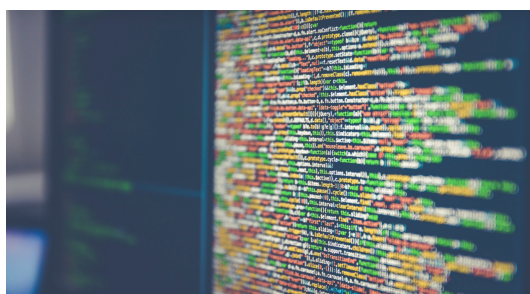
In January, **Timo Hartmann** coordinator of the ASHVIN project and professor at the Technical University of Berlin, co-authored a peer-reviewed article entitled "Detecting anomalies and de-noising monitoring data from sensors: A smart data approach" that was published in the scientific peer-reviewed journal "Advanced Engineering Informatics", Volume 55.

Learn more here

Along with the concept of the **IoT-driven digital twin platform**, ASHVIN introduces a digital twin toolbox that extends existing ICT methods and innovations from low technology readiness levels to proven technical solutions at the system or the sub-system level. All developed innovations are built upon the **ASHVIN digital twin platform** and are linked to digital twin data.

Watch our tutorials and learn more here

EVENTS

We met Burcin Becerik-Gerber

Burcin Becerik-Gerber is a department chair at the University of Southern California working in digital twins. In February, she visited the lab of partner Universitat Politècnica de Catalunya (UPC). Associate Professor **Rolando Chacon** and his team presented her the ASHVIN system.

ASHVIN at the 29th International Conference on Multimedia Modelling in Norway

In January 2023, CERTH participated in the 29th International Conference on Multimedia Modeling (MMM2023) organised in Bergen, Norway. CERTH showcased their research related to ASHVIN in a presentation and a poster entitled "Conference publication: Low-light image enhancement based on U-Net and Haas". 150 conference participants followed the session.

Learn more about the event and publication

ASHVIN at the Winter Simulation Conference in Singapore

Last December, Manuel Jungmann from TUB, one of the leading technical partners in the ASHVIN project, presented the project's research at the Winter Simulation Conference WSC2022 in Singapore. Within the event's scope, Jungmann presented a scientific paper entitled "Real-time duration extraction of crane works for data-driven discrete event simulation" related to the work carried out within the WP4 "Control and real-time simulation in construction" of the ASHVIN project.

SISTER PROJECTS NEWS

Upcoming event

Milestones

Next 15th of March, join the workshop organised by HumanTech, a project aimed at creating a safer and greener construction industry, during the European Robotics Forum 2023 — the most influential event of the robotics community in Europe. The workshop will feature representatives from HumanTech and its sister projects BEEYONDERS and RoBétArmé, who will share and debate lessons from the sector.

The Reincarnate Horizon EU project has the launch version of the Circular Potential Information Model Platform #CPIMReincarnate! The platform provides the centralisation of all necessary information and data needed to evaluate elements at all systemic levels of a building for the avoidance of construction waste and the best reuse of it.

Register now!

Read more!

By joining their community **here**, you can ask to see the launch version in a demo video!

Coming up next!

In the coming months, along with the technical development, we will be working on new scientific publications in varied academic conferences and peer-reviewed journals. Also, we get ready to market the ASHVIN system to an increasing number of end-users!

Stay tuned!

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