



APRIL 2024 | VOL. 4

HumanTech News

HUMANTECH'S PROGRESS + UPDATES ON TECH,
SAFETY AND SUSTAINABILITY IN CONSTRUCTION

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- #Tech4EUconstruction Cluster: new additions to the cluster and latest updates
- Inspiring Resources

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Hi!

Have you missed us? 😊

Honestly, the first months of 2024 have been non-stop at HumanTech.

Here's a brief glimpse into our latest activities:

We started the year by reaching an important milestone: successfully completing our **Midterm Review Meeting**. It was hosted by Implenia in Zurich and allowed us to showcase our scientific excellence and innovative solutions — aiming to advance digitalisation in construction, enabling a safer, greener and more efficient EU construction industry for its workers — to European Commission representatives.

We celebrated our first **Robotic Integration Hackathon** at ACCIONA's facilities in Madrid. It was our first time integrating some of our technologies into single systems. On the one hand, a **mobile robotic platform** to help construction workers build walls by handing over bricks. On the other, a **robotic arm** to fill concrete joints with elastic material. It was truly exciting to see our technologies in action and a great example of how we are building the future of construction.

We have taken part in the **European Robotics Forum 2024**, one of Europe's most influential events for the robotics and AI community. In particular, we organised a workshop on **"AI and Robotics in Construction"** in collaboration with our sister projects, the EU-funded BEEYONDERS and RoBétArmé, for the second year in a row, which attracted a huge audience.

We recently held our third **Executive Board Meeting**, hosted by STAM in Genova. We reviewed our progress over the last period, conducted workshops and demonstrations of our pilots and technologies, and established our next steps to continue advancing towards our goals.

We have published new **interviews** with members of our HumanTech team and participated in numerous **conferences** to share our advancements in human-centred technologies for construction. Also, we have celebrated **workshops**, such as one organised by the European Builders Confederation (EBC) for experts in the National Committee for Women in Craft Industries (CNFA) —, which supports the advancement of gender diversity and the needs of women in the French construction sector.

To top it all off, we have welcomed five new members into our **Tech4EUconstruction cluster**, through which we are accelerating the digital and green transformation in construction.

As mentioned earlier, a truly hectic past few months!

We are thrilled with our progress so far and excited for what lies ahead.

Make sure to follow us on our social channels and, if you haven't already, [subscribe to this newsletter](#) to stay updated.

[Check out our latest updates](#)

Now, let's dive into our updates, insightful stories, opportunities, resources and inspiration on construction innovation. Enjoy!

HumanTech Stories



Tech4EUconstruction cluster at the European Robotics Forum

Watch the interview we did in Rimini at the last edition of the European Robotics Forum with our coordinator, [Jason Rambach](#), and the coordinators of our sister projects, [Dimitris Giakoumis](#) and [Antonio Alonso Cepeda](#), from RoBétArmé and BEEYONDERS.

They reflect on the successful outcome of the workshop we jointly organised, the importance of the cluster for our projects and the opportunity it offers us to collaborate and advance AI and robotics in construction.

During the event, we also took the chance to interview our colleagues [Patricia Helen Rosen](#) and [Sascha Wischniewski](#) from the [Federal Institute for Occupational Safety and Health](#) (BAuA) about our user evaluation work. Keep an eye out for more videos coming soon!

Discover the HumanTech work: Wearable technologies for construction

We have just launched the 'Discover the HumanTech Work' series, in which we will explore the work packages (WPs) that make up HumanTech with the team members who lead them. We have started by publishing our WP4, wearable technologies for construction, led by Bruno Walter Mirbach, Senior Researcher at the Department of Augmented Vision at the [German Research Center for Artificial Intelligence](#) (DFKI).

We celebrate our 3rd Executive Board Meeting in Genova

Over two days, we delved into our latest developments, conducted insightful pilot workshops, showcased demos of our cutting-edge technologies, and agreed on our next strategic steps to continue progressing towards achieving our goals.

HumanTech's first Robotic Integration Hackathon in Madrid

Different partners involved in our work on Construction Robotics and Human-Robot Collaboration gathered at ACCIONA's facilities to test and integrate some of the technologies we are developing and will use in our pilots. *To learn more, stay tuned to our channels to watch the interviews we conducted with some of our colleagues at the hackathon.

HumanTech Mid-Term Review Meeting: Consolidating our innovations to drive digitalisation in construction

Representatives from our 21 partner organisations gathered in Zurich to comprehensively review our progress since we started working in June 2022, conduct demonstrations and align our priorities to further our mission.

Lining up next steps in our remote-controlled demolition pilot


The team involved in our remote-controlled demolition pilot met in Kaiserslautern to discuss solutions and next steps. In particular, partners [Kajima](#), [DFKI](#) and [RICOH](#) visited our colleagues at [RPTU Kaiserslautern-Landau](#).

HumanTech events

In the last few months, we have participated in numerous events worldwide. From the [“Educational Innovation in Building”](#) (CINIE) and the [“Technological Innovation in Building”](#) (CITE) events in Spain to the [“Human Factors Society”](#) (GfA), [“European Construction and sustainable built environment Technology Platform”](#) (ECTP) and [“Winter Conference on Applications of Computer Vision”](#) (WACV) conferences in Germany, Belgium and Hawaii

HumanTech Events



 **14 May 2024, Dublin: Construction Health and Safety Summit 2024**. Our colleague [Patricia Helen Rosen](#) (BAuA) will participate in this event, which is dedicated to sharing updates on innovation and improvements in health and safety and fostering new ways of thinking about the built environment.

Meet the #HumanTechTeam

“Have confidence in your abilities, stay curious and committed to lifelong learning, recognise challenges as a natural part of your career and become a role model for other women aspiring to enter STEM.”

ANDREA SERRANO CAMPO

Innovation Engineer at ACCIONA



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☀️ Get inspired by the latest stories from our HumanTech team:

- [Andrea Serrano Campo](#), innovation engineer at ACCIONA: “The advancement of digitalisation in construction, which HumanTech focuses on, can significantly contribute to making it more inclusive for women.”
- [Joana Goerg](#), Master’s student at RPTU Kaiserslautern-Landau and intern at [SINTEF](#): “I am fascinated by working in such an international company with

such modern approaches. I hope I can continue to think ahead and implement new ideas!”



 Watch our latest interviews:

- [HumanTech is bringing AI to construction](#) | **Jason Rambach**, HumanTech’s Project Coordinator, Senior Researcher and Team Leader in Spatial Sensing and Machine Perception at DFKI.
- [Human-centred new and emerging technologies can improve worker's health and safety](#) | **Patricia Rosen**, Human Factors and Ergonomics scientist at BAuA.
- [Developing learning materials to skill construction workers](#) | **Gloria Callinan and Martin Breen**, working at the Technological University of the Shannon (TUS).
- [The HumanTech technologies will boost the digitalisation of construction](#) | **Gabor Sziebig**, Research Manager at SINTEF.
- [The impact of the HumanTech technologies in creating a greener construction](#) / [HumanTechPilots: What will they consist of?](#) | **Patrick Roth**, Project Manager of New Business Models & Innovation at Implenla.

Tech4EUconstruction



We have welcomed five groundbreaking EU-funded projects working on AI and robotics in construction to our cluster: [REINCARNATE](#), [RECONMATIC](#), [InCUBE](#), [BIM2TWIN](#) and [HERON](#).

Together with them and our sister projects, we are on a mission to address the main challenges facing the European construction sector and stimulate the EU's sovereignty in the industry.

[Learn more about our cluster](#)

[Human-centric innovation and skills for safety in construction](#) | Read the article about HumanTech and BEEYONDERS published by [BUILD UP](#), the European portal for energy efficiency and renewable energy in buildings. Discover how our wearables, exoskeletons, and AI are redefining industry standards, fostering efficiency and well-being.

BIM2TWIN · [Webinar Series](#) | It offers technical and specific insights into the project's different work packages dealing with the Digital Building Twin platform, its applications and testing on specific demonstration sites where physical building renovation or construction is happening. The next and last webinar will tackle developed procedures and a software prototype for **optimising construction planning** according to lean principles. It will take place on Monday, **8 April, at 11:00**. [Register here](#).

BEEYONDERS · [Meet our Tech #3 – Unveiling BEEYONDERS innovations: additive manufacturing](#) | This update highlights BEEYONDERS' role in advancing additive manufacturing technology, particularly emphasising its applications in the marine construction sector. Also, it analyses the contribution of its partners in the

design of a new type of caisson with a surface that can accommodate marine biodiversity.

RoBétArmé · Read [“Human-Robot Collaborative Construction System for Shotcrete Digitization and Automation through Advanced Perception, Cognition, Mobility, and Additive Manufacturing Skills”](#), an article released on the Open Research Europe platform.

To finish, one last recommendation



[The Robot Podcast, hosted by Fran Scott](#)

🎙️ How are robots changing the world for the better? This podcast explores the opportunities robots are creating on different areas.

Thanks for reading,
The HumanTech Team

[Get in touch](#)

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WHO ARE WE?

The HumanTech Team

HumanTech is a Horizon Europe-funded project carried out by 21 partners from 10 countries with expertise in robotics, wearables, artificial intelligence and extended reality.



Zürcher Hochschule
für Angewandte Wissenschaften



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