



SONATA
Situation aware Orchestration
of AdapTive Architecture

NEWSLETTER # 4

MAY 2026



Welcome to the 4th SONATA Newsletter!

Over the past months, the project has continued advancing its research and dissemination activities across Europe, strengthening the dialogue between academia, industry, and stakeholders on the future of adaptive and human-centric workplaces. This edition highlights recent scientific publications, international conferences, consortium activities, and updates from the Orchestration, and Socio-Cultural Tracks. From experimental studies and field evaluations to international dissemination events and workshops, SONATA continues to explore how adaptive architectural technologies can enhance wellbeing in shared office environments.

Read on for all this, and more, below.

Follow SONATA and Learn More About Our Work

If you would like to stay up to date with SONATA's latest developments, visit our [website](#) and follow our social media channels on [Instagram](#) and [Bluesky](#). Our [YouTube](#) channel is now host to the full "Meet The Partners" miniseries, in which our consortium members introduced themselves and their work as part of SONATA, so visit the site to catch up if you missed it!

Understanding the socio-cultural dimension of adaptive workplaces

In Newsletter #3, we shared the article “***The role of anthropology in SONATA***”, developed with partners from IRI UL – Institute for Innovation and Development of the University of Ljubljana. The article explains how ethnographic research contributes to ensuring that adaptive workplace technologies remain human-centred and responsive to real organisational practices.

In January 2026, we initiated the fourth SONATA study track, complementing our research in the Situational, Orchestration, and Field tracks, which are already in full swing. The Socio-Cultural Track will explore how individual characteristics and workplace cultures influence the perception, acceptance, and negotiation of adaptive solutions in shared office environments. Moving beyond purely technical performance, the study will investigate how factors such as, for example, age, stress levels, light sensitivity, work modality, and organisational norms shape users' responses to dynamic environmental conditions.

The research will be implemented in two Living Labs located at the University of Perugia and RWTH Aachen University, where participants will interact with adaptive lighting systems and other selected architectural solutions through short co-design study cycles. By comparing results across different socio-cultural contexts, SONATA aims to better understand how adaptive technologies can support fairness, usability, and wellbeing in shared workplaces. The outcomes will contribute to evidence-based recommendations for designing adaptive office environments that respond not only to environmental conditions, but also to social dynamics and organisational practices.

The work carried out within the Socio-Cultural Track represents an important step toward integrating human-centred perspectives into the evaluation framework of adaptive architecture, supporting the development of future guidelines for inclusive and responsive workplace design.

SONATA presented at the Society for Applied Anthropology Annual Meeting 2026

In March 2026, the SONATA project was also presented at the Society for Applied Anthropology (SfAA) Annual Meeting in Albuquerque, USA. SfAA is a well-established international conference dedicated to applied and practicing anthropology and provides an important forum for exploring how anthropological research informs practice, policy, and social change.

Dr Sara Arko (IRI UL) participated in the conference as both a presenter and cochair. She presented the paper “Anthropology at Work: Collaborating on the Future of Adaptive Offices,” co-authored with Anja Pogladič (IRI UL), Stien Poncelet, Alex Binh Vinh Duc Nguyen, and Andrew Vande Moere (KU Leuven). The presentation introduced SONATA to an international audience and reflected on the role of anthropology within an interdisciplinary European research and innovation project. It highlighted how ethnographic research can contribute to understanding shared office environments and how anthropology can support more reflexive technology development. In addition, Dr Arko served as co-chair of an open session on the future of work, contributing to wider exchange on emerging work and workplace transformations, particularly those linked to AI, automation, and robotisation. Participation in the conference provided an opportunity to present SONATA’s work to an international audience, connect with fellow applied and practicing anthropologists, and place the project in broader discussions on work, technology, and innovation.



Sara Arko at Society for Applied Anthropology (SfAA) Annual Meeting in Albuquerque, USA

SONATA presented at CIRIAF International congress 2026

On April 9–10, 2026, the SONATA project was presented at the CIRIAF International Conference hosted by the University of Perugia, where new research insights on occupant-centred indoor environmental perception were presented.

During the conference, Agnese Chiucchiù (PhD student at University of Perugia & Evaltech) presented “***The role of personality in multi domain environmental perception and occupant-centric approach***” highlighting findings on how personality traits influence the way occupants perceive indoor environments, particularly in relation to thermal sensation and the interpretation of soundscapes, from natural sounds to anthropogenic noise. These findings contribute to a better understanding of individual variability in comfort perception and support the development of more inclusive, human-centred adaptive building solutions, within the development of SONATA towards healthier and more responsive workplaces.



CIRIAF International Conference hosted by the University of Perugia



Agnese Chiucchiù presenting at CIRIAF International Conference

SONATA at SAIE LAB Perugia: adaptive comfort for existing and hisotric buildings

On April 22, 2026, the SONATA project was presented at SAIE Lab held in Perugia, part of a national technical initiative that brings together researchers, professionals, and stakeholders from the construction sector to discuss innovative solutions for the rehabilitation, seismic safety, and energy retrofitting of existing buildings.

During the event, Dr. Benedetta Pioppi (Evaltech, R&D of Valeri Engineering and Management Srl) presented on behalf of the GBC Italia Umbria Chapter, highlighting the importance of comfort in the retrofit of historic buildings and, in particular, the relevance of contextual effects within modern multi-domain comfort theories.

More specifically, after presenting the project, she emphasized how SONATA's work is translated and exploited into the development of Pilot Credits related to wellbeing, also within GBC Italia protocols and, in particular, the GBC Historic Building rating system.



Benedetta Pioppi presenting at SAIE LAB

Participation in initiatives such as SAIE Lab strengthens the connection between SONATA research and the construction and technology sectors, supporting the development of healthier, more adaptive, and usercentred indoor environments also in heritage and retrofit contexts.

SONATA presented at "Multidomain Comfort and Intelligent Control" at Università degli studi di Perugia

During the event "Multidomain Comfort and Intelligent Control", held on May 7th, 2026, at the CIRIAF building of the Engineering Department of the University of Perugia, engineers, academic experts, industry stakeholders, and HVAC professionals gathered to discuss innovative approaches to comfort, ranging from multidomain and personalised comfort to human-centred building design. During the initiative, the SONATA project was presented, highlighting the importance of integrating adaptive technologies into workspace architecture to enhance not only thermal and environmental comfort, but also occupants' health and wellbeing. The programme also featured a round table discussion, providing a valuable opportunity to exchange perspectives on the integration of intelligent building management, energy efficiency, comfort, and health. The event concluded with a visit to the living labs, equipped also thanks to SONATA, further strengthening the project's visibility and contributing to its communication and dissemination activities.



Presenting Multidomain Comfort and Intelligent Control at Università degli studi di Perugia

SONATA at Eurotherm seminar in Lleda - Spain

During the Eurotherm Seminar #119, “Contribution of Thermal Energy Storage towards Decarbonization”, held from May 13th to 15th, 2026, and organized by the GREiA Research Group at the University of Lleida (Spain), the SONATA project was presented within “Europe’s Corner: workshop on EU-funded research”, among the European Union-funded initiatives showcased during the event. In particular, Dr. Benedetta Pioppi from EValtech (R&D of Valeri engineering and management srl) presented SONATA in the “Building Applications” session, highlighting the project’s objectives and its contribution to the design and development of future-proof buildings: adaptive, smart, and human-centric. The University of Perugia, represented by Prof. Anna Laura Pisello, also contributed to the seminar, supporting the dissemination and visibility of SONATA within the international research community.



Benedetta Pioppi presenting at Eurotherm Seminar #119



B.Pioppi, A.L. Pisello, C. Fabiani at Eurotherm Seminar #119

SONATA at Key Energy 2026 in Rimini

On March 5th, 2026, the SONATA project was presented at Key Energy 2026 in Rimini within the panel “EPBD and renovation of existing buildings: efficiency and environmental quality as key objectives”, where the partners GBC Italia and Evaltech (R&D of Valeri Engineering and Management) highlighted the importance of a human-centric approach, not only for energy efficiency, but also for improving environmental quality and occupants’ health in workplace environments.

In particular, Dr. Benedetta Pioppi provided an overall overview of the project, presenting its objectives and main dimensions (socio-cultural track, orchestration track, situational track, and dissemination track). The presentation then focused on the potential exploitation of the project results, which is currently under development.

Dr. Denis Faraku, on behalf of GBC Italia, highlighted how SONATA is contributing to the integration of new Pilot Credits within the protocols developed by GBC Italia, strengthening the link between research, innovation, and building sustainability certification schemes.

The panel, organized by GBC Italia, offered an important opportunity to discuss how adaptive technologies can support the transition towards healthier, smarter, and more user-centred buildings across Europe.



Denis Faraku presenting at Key Energy 2026



Benedetta Pioppi presenting at Key Energy 2026

SONATA consortium meeting #7 online

The 7th SONATA Consortium Meeting, held online on May 7th, 8th, and 13th, represented an important opportunity for project partners to exchange updates on ongoing activities and coordinate the next project steps. During the meetings, the preliminary results of the Field, Orchestration and Socio-cultural Tracks were presented together with updates on WPs progress.

Partners were actively involved in a series of exchanges and discussions through thematic workshops, ranging from the field track workshop and the orchestration track workshop to the exploitation workshop. Among these, particular emphasis was placed on the Task Connection Collection Workshop, aimed at strengthening collaboration and improving the flow of information among the different units involved in the consortium. Special attention was also devoted to the “Wellbeing Hypothesis Workshop” and to the Cost-Benefit Analysis tool developed within the project. During the meeting, partners also discussed the upcoming operational steps, with a particular focus on the organisation of the Field Track (ESAT) visit that will take place in the coming months in Leuven. These activities will integrate qualitative analyses, including surveys and interviews with occupants, with quantitative data collected through the sensor-based architecture implemented in the monitored environments, supporting an integrated assessment of wellbeing and the performance of the adaptive spaces developed within the SONATA project.



Move from generic exploitation actions to concrete customer-focused adoption strategies for SONATA KERs.

What We Will Do Today:

- Review key exploitation concepts and definitions
- Identify the broadest market for each SONATA KER using the **Market Definition Canvas**
- **Segment** each market into groups with similar needs and objectives
- Develop tailored Unique Value Propositions for each segment using the **Value Proposition Canvas**

SONATA
Funded by the European Union

Participants:

- Benedetta Puggi-Esteban
- Agnese Chiosso
- Ariana Gattuso Chabot
- Alan Sakh-Vish-Dur-Nigayem
- Andrew Wondt-Moon
- Arko, Sara
- Barbara Gotti-Exploitation
- Caterina Cordella-Maintenance
- Christa-Lotte Anna Christen
- David Prochaska
- Dimitri Luffaro-Louis
- Elisa Ste... (non-verified)
- Man Hoopmann
- Maria Giulia Proietti
- Pascal van Dorp
- Pia-Alexandra Brunsen

New Publication from SONATA in Building and Environment Journal

Read the latest scientific paper from SONATA project in Building and Environment Journal, titled "***The Role of Personality in Multi-Domain Environmental Perception: An Occupant-Centric Approach***" authored by Agnese Chiucchiù, Veronica Martins Gnecco, Ilaria Pigliautile, and Anna Laura Pisello, and published in February 2026.

The study explores how interactions between thermal and acoustic conditions shape occupants' responses to indoor environments, demonstrating that even small temperature variations can significantly affect how soundscapes are perceived. Results show that personality traits play a key role in this process: participants with higher emotional stability showed greater appreciation for natural sound. By highlighting the importance of cross-domain interactions and individual variability, the research supports the development of occupant-centric comfort models capable of improving both wellbeing and energy performance in adaptive buildings, within the framework of SONATA, in order to contribute to the overall objective of designing workplace environments that can dynamically respond to users' needs and behavioural diversity.

DOI: <https://doi.org/10.1016/j.buildenv.2025.114140>

READ THE LATEST PUBLICATION FROM SONATA

Some updates from Orchestration Track

After finishing the data collection of the first and second experimental study at the Aachen Workplace Simulation laboratory, which focused on investigating the adaptive architectural elements' individual and orchestrated effects on human wellbeing in a single user-context, we are currently preparing the third and final experimental study in our laboratory which will take place this year.

This last experimental study will investigate the effects of the adaptive architectural elements on human wellbeing indicators in a multi-user experimental setting.

SONATA launches Field Track #1 evaluation activities



On April 1st, the SONATA consortium officially kicked off the Field Track 1 (FT1) evaluation study with a dedicated workshop held at the FT1 pilot site, marking an important milestone in the project's user-centred research activities.

The session was led by the Intelligent Place Laboratory, with the participation of project coordinator Architectural Engineering: Education and Research (KU Leuven). During the workshop, participants were introduced to the SONATA Human–Building Interaction interface, designed to support intuitive interaction with adaptive office environments and allow users to directly engage with building control functionalities. Through this hands-on session, participants explored how adaptive workplace technologies respond to user needs in real time, contributing valuable feedback on usability, comfort, and interaction dynamics.

The FT1 evaluation study represents a key step in understanding how occupants experience adaptive architectural solutions in everyday working conditions, supporting SONATA's broader objective of developing healthier, more responsive, and user-oriented office environments.



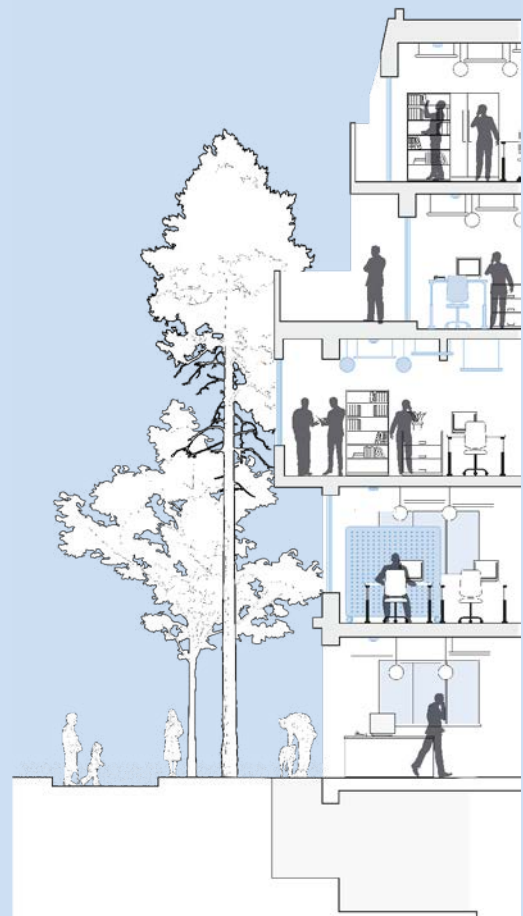
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Thank you for reading!

We hope you enjoyed reading the latest news from SONATA. Our next edition will be released in the summer, with all the updates on the ongoing Situational and Orchestration Track studies in our Living Labs at Uniklinik RWTH Aachen and The University of Perugia, and our Field Track study at the ESAT real-world open-plan office, at KU Leuven.

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Our Team

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How to get involved

Participate in surveys, workshops, interviews, events.



www.sonata-horizon.eu



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