

24th EuroFM Research Symposium 2025, 1-2 December 2025 at NTNU (Høgskoleringen 5, 7034 Trondheim, Norway)

Day 1	Workplace Research. Chair Vitalija Danivska	Facility Management Research. Chair Riikka Kyrö
	Session 1a Indoor Environmental Quality. Chair Susanne Colenberg	Session 2a Social Sustainability. Chair Savis Gohari
11.30-13.00	<p><u>Colenberg, Susanne, Purcell, K. & Jylhä, T.</u> <i>Participatory Research in FM: A Review of the Walkthrough Interview Method</i></p> <p>Background and aim. Walkthrough interviews are a participatory method for studying people-place relationships. As such, they could engage users and offer rich information about the perceived identity and functionality of spaces, explaining their utilization. However, this method seems to have been applied mainly in outdoor environments and for studying social issues rather than places. This paper explores its potential to facility management (FM) as a method for user-centred development and evaluation of indoor spaces.</p> <p>Methods and data. In this literature review, ten peer-reviewed methodological papers on walkthrough interviews in multiple disciplines were analysed to identify approaches and practices relevant to research on indoor spaces. We analysed the discussed strengths, limitations, ethical considerations, and the reported practical details of the walkthrough interview method, synthesizing them into a participatory research framework for FM.</p> <p>Results. Key benefits of walkthrough interviews include richer data, spontaneous and reliable feedback, insights into sensory experiences and everyday routines, and access to specific user groups and settings. The method's flexibility allows for different interview setups catering different research objectives. Challenges include participant and bystander privacy, physical capabilities of participants, recording multiple data types on the move, and the complex data analysis.</p> <p>Originality. This paper advances FM knowledge by outlining existing approaches to this contextual and participatory research method and discussing its value to FM research by synthesizing methodological and ethical considerations when applied indoors.</p> <p>Practical implications. The paper offers guidelines for conducting walkthrough interviews in buildings for understanding occupants' needs and creating inclusive spaces.</p>	<p><u>Støre-Valen, Marit, Falk, I. & Hagen, T.</u> <i>How Can Circular Office Renovation Contribute to Social Sustainability? A Norwegian Case Study</i></p> <p>Background and aim. Social sustainability and circular principles in office renovation are increasingly relevant for reducing costs and increasing social value. While circular strategies often emphasize resource efficiency, this study focuses on the social impact, particularly on the tenant's well-being and the influence of tenant involvement in renovation processes.</p> <p>Methods and data. The study combines a brief literature review with a comparative case study of two office buildings in Trondheim, Norway. Semi-structured, in-depth interviews were conducted with the property owner and five tenants. Analysis used stepwise-deductive inductive (SDI) method for coding and a framework, called Integrated Social Sustainability Assessment (ISSA), originally developed for urban communities and neighbourhoods, justified and tested to measure social sustainability of the tenants at a building scale.</p> <p>Results. The findings show that circular renovation practices and participatory design process enhance workplace flexibility and strengthen social values of tenants. Collaboration between property owners and tenants emerges as a critical factor in promoting circular principles and inclusive design, creating both social and economic value. The ISSA Building tool provided valuable insight identifying gaps between owner and tenant perspective on social sustainability.</p> <p>Practical implications. The study offers guidance for property owners on how to foster social sustainability in office renovation projects. Mapping social sustainability is highlighted as a practical means of identifying improvement areas.</p>
11.30-13.00	<p><u>Zijlstra, Emma, Lechner, S.C.M., & Mobach, M.P.</u> <i>Exploring the Theory of Supportive Design from Patient Perspective</i></p> <p>Background and aim. Many patients experience anxiety during hospitalization. Hospital environments can support patients with the mitigation of anxiety. The aim of this study was to gain a better understanding of which design elements are capable of effecting sense of control, social support, and positive distraction, and gain more understanding of the mediating variables of anxiety-reducing effects of the physical inpatient room design.</p> <p>Methods and data. A qualitative study was conducted to further this theory. Data of this study were collected as part of a larger online survey. In this questionnaire, 539 participants filled in open-ended questions regarding their experiences and thoughts of the inpatient room design. Direct content analysis was conducted to analyse the data.</p> <p>Findings. Findings suggest that the supportive role of design goes beyond sense of control, positive distraction, and social support, and that the role of a pleasant atmosphere should be included. Moreover, findings suggest that the theory of supportive design may benefit from further description and refinement with related concepts from environmental psychology.</p> <p>Originality. This study emphasizes the importance of better understanding the spatially-induced psychological mechanism and thus increasing the impact of the hospital environment on its users.</p> <p>Practical implications. The findings allow hospitals to better understand patient experience in single-bed inpatient rooms and to make better-informed decisions.</p>	<p><u>Lundgren, Rebecka</u> <i>Assessing Social Sustainability in Buildings: Mapping Value-Chain Actors Across the Lifecycle</i></p> <p>Background and aim. Buildings are complex due to their long lifespans, numerous components, and diverse value chain actors. Recognized as a distinct stakeholder category within the social lifecycle assessment framework, these actors play a crucial role in evaluating buildings' social performance. Mapping value chain actors across the building lifecycle is essential for such assessments, yet remains underexplored. This study addresses this gap by systematically identifying and mapping key actors in existing research.</p> <p>Methods and data. A scoping study is conducted to systematically map the value chain actors involved in the lifecycle of a building. The study adopts a methodical approach incorporating searches across the academic database Scopus. Its primary objective is to identify and characterize the key value chain actors and their roles within the building lifecycle.</p> <p>Results. Findings indicate that the existing literature on value chain actors in the building lifecycle is highly fragmented. Actors are often confined to specific phases of the building lifecycle, rather than encompassing the entire process. This study has synthesized and produced a comprehensive mapping of value chain actors as represented in the extant literature.</p> <p>Originality. Value chain actors in the building lifecycle are systematically mapped, focusing on the social dimension of sustainability and applying the social lifecycle framework to a complex and underrepresented area of study.</p> <p>Practical implications. Mapping of value chain actors across the building lifecycle can enable better collaboration, informed decisions, and more socially responsible practices in building management and construction.</p>

11.30-
 13.00

Poutanen, Jenni, Enlund, E. & Järventausta, H. *Reconciling University's Strategic Workspace Goals: How End-Users Influence the Resulting Design.*

Background and aim. This article examines the implementation of a university's strategic workspace goals through participatory design processes. It evaluates the goals and the university-level participatory approach and compares several unit-level participatory processes within a single building project. The study aims to identify the influence of end-user communities on the participatory design process, their engagement, and the alignment of outcomes with the strategic goals.

Methods and data. The study investigates material from campus development project at a Finnish case university. The findings are derived through an inductive process of qualitative content analysis. The material comprises project documentation and 13 semi-structured interviews with various stakeholders, including management and designers.

Results. The university's strategic campus development incorporated both business- and cost-driven approaches, with financial saving emerging as priority. Despite formal participation strategies, early-stage decisions led to a predominantly solution-driven implementation. Unit-level participatory processes varied markedly in end-user involvement, resulting in inconsistent integration of strategic goals with end-user perspectives. These finding underscore limitations in the university-level spatial change process.

Originality. Participatory processes in academic workplace transformation remain underexplored. This study contributed by comparing university- and unit-level participatory approaches, revealing variations in change management, spatial planning, and user involvement.

Practical implications. The results support improved end-user engagement in university development processes by emphasising the importance of early-stage involvement in goals setting and the need for adequate human resources to facilitate participatory processes.

Prabowo, Bintang. *Community-based Facility Management in an Urban Experiment Area: Case Svartlamon *BEST PAPER CANDIDATE**

Background and aim. This study examines how Community-based Facility Management (CbFM) supports socially sustainable placemaking in urban experiment areas. Focusing on the Five Self-Built Houses in Svartlamon, Trondheim, it explores how grassroots management of infrastructure and shared spaces fosters resilience, belonging, and stewardship, and what this implies for Urban FM.

Methods and data. A qualitative case study approach was used, combining document and literature review, field observations, and semi-structured interviews with residents, architects, and municipal stakeholders. Data were analyzed thematically, with a focus on governance structures, maintenance practices, community relationships, and institutional tensions.

Results. The findings show that CbFM in Svartlamon enables decentralized governance, collective infrastructure care, and strong social cohesion. Residents engage in horizontal decision-making and share responsibility for building upkeep and communal spaces. The study also reveals tensions between community autonomy and formal regulatory systems, highlighting the need for more adaptive policy frameworks in experimental urban areas.

Originality. This paper operationalizes CbFM as Urban FM in a legally designated urban experiment (Svartlamon), identifying three transferable mechanisms (resident-led maintenance, horizontal co-governance, and negotiated regulatory flexibility) that link community practice to urban-scale resilience and infrastructure stewardship.

Practical implications. The study offers FM professionals, urban planners, and policymakers' new perspectives on enabling CbFM through concrete measures such as formalising co-maintenance protocols (task rotation, tool libraries, small-repair budgets); adopting performance-based permitting to legitimise material reuse/DIY; and using a non-profit housing foundation as asset custodian for low-rent, resident-stewarded stock in experimental districts.

 11.30-
 13.00

Brink, Henk W., Krijnen, W.P., Loomans, M.G.L.C., Mobach, M.P. & Kort, H.S.M. *The Impact of Lighting and Indoor Air Quality Conditions on Students' Comfort and Performance on Higher Education: A 2x2 Factorial Design Approach* *BEST PAPER CANDIDATE*

Background and aim. To improve the indoor environmental quality (IEQ) in schools, the Dutch government issued a program of requirements (PoR) "Fresh Schools". This study aims to determine the effect of adopting class A (high IEQ) or B (moderate IEQ) of this PoR on students' comfort and performance. Requirements for indoor air quality (IAQ), indicated by CO₂ concentration, and lighting conditions, defined by horizontal illuminance (HI) at the desktop, were systematically examined.

Methods and data. In a classroom where specific IEQ conditions were established and monitored, students' perceived comfort and performance were measured using questionnaires. Furthermore, students' cognitive performance was assessed with the Stroop test and their short-term academic performance was measured with a content-related test. Data from 83 students resulting in 285 responses were analyzed using linear mixed model. These responses were distributed across four combinations of moderate and high IAQ and HI levels.

Results. The results indicated that high IAQ levels did not significantly enhance students' perceived IAQ and performance, compared to moderate levels. In contrast, high HI levels did contribute significantly to students' perceived lighting comfort (PLC) and students' cognitive performance, when compared with moderate HI levels. The interaction between the two factors investigated was significant, indicating that the effect of HI levels on outcome variable PLC depends on the level of IAQ.

Originality. The study was performed during a regular academic course which suggests a high ecological validity of the observed effects.

Practical or societal implications. Building-services engineers, designers, and facility managers can use these findings when seeking to design appropriate learning environments for future generations.

Zinoski, Mihajlo, Dalipi, V., Djidrova, M. & Fazliu, V. *The Management of Mix Use Buildings: Case Skopje*

Background and aim. Foreign and domestic investors have a strong interest to invest in complex mixed-use commercial facilities in Skopje. This study researches the problem of analysis and estimation of tenant and lessor capacities from the perspective of facilities management. These specifics are highly related to counselling in the initial and pre-development project phase where previously carefully conducted analysis of input data is essential for successful facility management.

Methods and data. The study explores the multidisciplinary approach of integrated socioeconomical aspects, commodity super flow, investment in mixed-use buildings and the hybridization between residential and commercial real estate. A case study of three locations in Skopje: Cevahir Mall, East Gate Mall and Diamond Mall, offers comprehensive analysis from the observation. Descriptive survey methods are used in the management of complex facilities to realize the demand for a "product" in the market. Through observational trials this exploratory study examines the importance of facility management in the process of designing mix used hybrid buildings.

Originality. To explore the aspects of management of mixed-use buildings, this research intends to conclude the points that make it successful. Considering the existing knowledge of this research problem, initial research is conducted on a newly identified phenomenon of mixed-use structures that shape the social and urban landscape.

Practical and societal implications. The results of this paper aim to offer a plausible method to comprise all facility management services along with comprehensive administrative support and technical facility maintenance. The research is conducted by collaboration between real estate managers and academic researchers.

Day 1	Session 1b Campus and Academic Workplaces. Chair Carmel Lindkvist	Session 2b Future Proofing. Chair Nipuni Sumanarathna
14.00- 15.30	<p><u>Bjørkeng Størdal, Kjersti, Lindkvist, C. & Nenonen, S. Managing Facilities on University Campus – What's Strategy Got to Do with It?</u></p> <p>Background and Aim. University campuses serve as dynamic environments for work, study, teaching, and research within multidisciplinary communities. This paper aims to identify the challenges and prospects for facilities management (FM) in university settings.</p> <p>Methods and Data. This viewpoint paper is grounded in two platforms. First, it draws on the authors' experiences in reviewing recent research on FM in academic environments. Second, it incorporates insights from one author's practical involvement in Norway's largest campus development program at NTNU. This combination of theoretical and practical perspectives highlights emerging trends and suggests directions for future research.</p> <p>Results. The academic landscape is undergoing significant changes, characterized by evolving pedagogical approaches, enhanced equality in student-teacher relationships, and the emergence of new workspaces for staff. These developments necessitate a shift in FM from merely managing physical buildings to facilitating adaptive practices. We present three essential viewpoints for modern FM: 1) Negotiating the Unknown: adapting to new working methods embraced by students and staff, 2) Balancing Social Connectivity and Privacy: fostering social interactions while respecting privacy, and 3) Strategic Tool for Change: aligning with organizational strategies to support institutional transformation.</p> <p>Originality. This paper uniquely emphasizes the interplay between FM and the academic environment, contrasting with traditional research that often treats urban or organizational contexts as separate entities.</p> <p>Practical Implications. The identified themes assist campus facilities managers in recognizing cultural aspects tied to academic heritage and its ongoing transformation within universities. This understanding is vital for effectively navigating the complexities of contemporary campus environments.</p>	<p><u>Boonstra, J., Vermaas, Jeane & Mobach, M.P. Greening Campuses for a Sustainable Future: Enhancing Awareness through Living Labs</u></p> <p>Background and aim. Developing green campuses anticipates to contemporary environmental and health challenges by enhancing biodiversity with green spaces and promoting well-being through outdoor education and active pathways. Inspired by The UN Sustainable Development Goals (SDGs), this paper highlights living lab examples from two Dutch university campuses (A and B) in order to explore effects of campus greening and related awareness change for students, enhancing future campus management practices.</p> <p>Methods. In a living lab students conduct action research and experiment in the campus environment with micro interventions in an iterative process. This involves participatory planning sessions, where students from different studies engage in outdoor activities and study the effects of changes in green space on campus. In living labs, campus management, greening experts, and campus users (e.g., students, employees, entrepreneurs, and visitors) are involved.</p> <p>Results. Students experience the health and well-being benefits of green outdoor spaces and foster greater social cohesion. Students learn about climate action through the impact of greenery on biodiversity and climate adaptation. This increases awareness on sustainable development.</p> <p>Originality. Through co-creation in living labs with experts, stakeholders and student participation, we develop the sustainable campus of the future that anticipate real-life challenges.</p> <p>Practical implications. This explorative research offers practical strategies for greening campuses, enhancing well-being, fostering community, create awareness on climate action and advancing awareness among students and campus management about sustainability.</p>
14.00- 15.30	<p><u>Nenonen, S., Joensuu, P. & Kaisto, L. New Ways to Classify Research Environments in Universities</u></p> <p>Background and aim. University research environments encompass research and development (R&D) laboratories, as well as collaborative initiatives and joint ventures that extend beyond traditional lab settings. The research landscape on campus can be quite dispersed. This paper examines different methods for grouping and categorizing academic research environments.</p> <p>Methods and data. To gather data for preliminary understanding of the diversity of research environments, a series of focus group workshops were conducted with researchers from different universities. The research design employs an empirically grounded typology method, which aims to organize complex constructs and propose a preliminary typology.</p> <p>Results. The typology of labs provides a framework to illustrate the spectrum and mutual positioning of research environments. Four typologies were identified: Research labs are the special research environments, teaching labs are the multi-use basic facilities, open labs represent the movable on-field research facilities, and the living labs are real-world environments for co-creation.</p> <p>Originality. The paper aims to shed light to the elements which can be further developed to support inter and transdisciplinary research.</p> <p>Practical implications. The widening of research environments from lab-based solutions to broader contexts enhances the understanding of the research environment's scope for various collaborative activities that occur within or between disciplines and among different stakeholders. The presented typology offers an opportunity to use the mapping to comprehend different parameters and profiles of labs both for users and managers of the research facilities.</p>	<p><u>Pascale, Federica & Jones, K. Challenges and Opportunities in Applying Participatory Backcasting for Climate-Resilient Hospital Estates</u></p> <p>Background and aim. The National Health Service in England is committed to achieving net-zero emissions by 2040, while also adapting to the impacts of climate change. However, long-standing barriers stem from estate management, financial constraints, and organisational development, which limit innovation among hospital Estate and Facilities Management (EFM) professionals. Adopting a Participatory Backcasting (PB) approach can help by realigning maintenance plans with future goals. This paper explores the use of PB in a project focused on climate change mitigation and adaptation through improved estate asset management.</p> <p>Methods and data. This paper presents the results of the two workshops involving a multidisciplinary team of 14 participants. The workshops aimed to translate a holistic vision of the future sustainable and climate-resilient hospital estates in 2050 into specific performance criteria for an existing hospital estate in terms of SMART objectives and KPIs.</p> <p>Results. When PB is applied to the existing hospital estate, issues related to EFM's role in leadership, lack of strategic planning, decisions driven by funding availability, and a focus on immediate tasks make it difficult for participants to disentangle themselves from daily challenges and consider long-term objectives. Additionally, the lack of centrally developed guidelines for SMART objectives and KPIs associated with the greening agenda creates barriers to identifying performance criteria for the existing estate.</p> <p>Practical implications. Applying PB with EFM professionals may require new methodological enquiries to co-create effective data collection activities that consider the power dynamics within trusts and meet stakeholders' knowledge and expectations.</p>

14.00- 15.30	<p><u>Mäenpää, Kirsi & Nenonen, S.</u> <i>Supporting Sharing in the University Library</i></p> <p>Background and aim. Sharing is the essence of libraries. Finnish academic libraries offer resources, facilities, and services to all citizens. This study explores the sharing culture in co-produced services related to learning environments and how different organisational structures support or hinder the sharing-based services in academic libraries.</p> <p>Methods and data. Interviews were used to explore how library staff experienced the sharing of library spaces and learning environments, the co-production of library services, and the collaborative development of shared practices. The interviews explore what encourages sharing and collaboration, and how structures act as barriers. All interviewees were asked the same, open-ended questions, with the opportunity to expand their ideas about the sharing in libraries. Qualitative data was analysed by using thematic analysis to identify sharing patterns, principles, and shared services. In addition, the data was categorised based on the governance models and the role of facilities management.</p> <p>Results. Our findings show how the library staff sees sharing; that is, how different governance models and sharing network relationships with partners affect the success of the ways that the service is organised.</p> <p>Originality. Academic libraries and new learning spaces are a novel focus especially in the context of facilities management.</p> <p>Practical implications. Guidelines for core and support library services and their role in transforming the culture of sharing is of value for campus facilities management.</p>	<p><u>Falkstedt, Annika, Lundgren, R. & Kyrö, R.</u> <i>Harnessing Temporality to Promote Circularity in the Real Estate Sector</i></p> <p>Background and aim. Economic, demographic, and other societal fluctuations leave many buildings vacant due to locational obsolescence. Maximizing the use of existing buildings would foster a shift toward circularity and resource efficiency. This paper explores two lesser known, creative circular strategies for asset and facility management.</p> <p>Methods and data. Employing futures studies, we imagine two circular futures: 1) relocating buildings has become standard practice 2) all vacant facilities are efficiently used, even during transitional times. We organize two backcasting workshops to explore which political, economic, social, technological, and environmental developments need to take place for the futures to realize.</p> <p>Results. Our findings identify necessary actions toward the two circular futures to sustain our planet's finite resources. Suggested actions range from adjusting lifecycle assessment and real estate valuation practices to creating mediator and advisory roles and related business models. Educating young professionals on these practices is also seen necessary for the transition.</p> <p>Originality. Engaging in futures studies in facility management research is still rather uncommon. Further, temporality as a circular strategy to tackle locational obsolescence is underexplored.</p> <p>Practical implications. This study contributes to the emerging bodies of knowledge of both circular FM and future awareness in FM. We offer insights for policy makers, educators and facility management professionals as they undergo the transition towards circular practices.</p>
14.00- 15.30	<p><u>Poutanen, Jenni & Nenonen, S.</u> <i>Groups, Identity and Academic Workplaces</i></p> <p>Background and aim. This paper examines the team and community perspectives in academic workplaces to illuminate hybrid work practices and their spatial implications. Recent literature has indicated that hybrid working has impacted teams and communities, influencing social connections and a sense of belonging.</p> <p>Methods and data. The study examines two case universities and consists of three stages. First, the different team or community levels were identified based on open-ended survey responses, followed by semi-structured interviews with supervisors in University A. Secondly, the identified levels were tested at University B. The results were formulated incrementally through a qualitative content analysis process.</p> <p>Results. The findings illustrate four team behaviour patterns and categories, each with different implications for on-site workplace spatial practices. The results indicate that team leaders, research and teaching practices, group cohesion, collaboration, and bonding needs and preferences all influence work manners and locations. Formal and informal collaboration are also key determinants.</p> <p>Originality. Academic work is typically considered from an individual perspective. This study focuses on the team-level use of space and hybrid work arrangements.</p> <p>Practical implications. The results benefit the design and development of work environments by showcasing spatial requirements for on-campus activities that foster social connection, bonding and a sense of belonging.</p>	<p><u>Sumanarathna, Nipuni, Dahanayake, K.C. & Adhikari, A.</u> <i>Do AI Applications Compromise Ethics and Integrity in Facilities Management? Insights from the United Kingdom</i></p> <p>Background and aim. AI applications are increasingly being utilised in facilities management (FM) for functions such as operational management, energy management and maintenance management. However, a larger part of the industry would rather use contemporary methods due to ethical and integrity concerns associated with AI applications. Hence, this study attempts to answer the question: Do AI applications compromise ethics and integrity in FM?</p> <p>Methods. This is a qualitative study. As the research method, in-depth interviews are selected. FM professionals possessing relevant knowledge and experience in the UK have been chosen as experts. Thematic analysis has been adopted to analyse data. As this is ongoing research, preliminary findings obtained from the interview series are presented in this paper.</p> <p>Results. Findings reveal that ethics and integrity can be compromised if the required security measures are not implemented within the systems and strategies in FM organisations. A framework has been developed to explain ethical AI adoption in FM, recommending alignment with GDPR and ISO standards.</p> <p>Originality. Although several studies have been carried out exploring the use of AI applications in FM functions and have identified the issue of compromised ethics and integrity, only a few studies have focused on FM organisations and discussed FM-specific solutions. Hence, this study addresses a substantial research gap in FM.</p> <p>Practical or social implications. This study will motivate FM professionals to adopt AI applications with confidence and contribute to sustainable transformation in FM.</p>

Day 2	Workplace Research. Chair Vitalija Danivska	Facility Management Research. Chair Riikka Kyrö
	Session 1c Inclusive Workplaces. Chair Mark Mobach <p>11.30-13.00</p> <p><u>Mars, Saskia J.M.</u>, Spekreijse, M.F. & Mobach, M.P. <i>A Meaningful and Vibrant Work Environment</i></p> <p>Background and aim. Research highlights that poor workspace variety, poor zoning, and limited personalization can reduce comfort, privacy, and focus in hybrid environments. This study aims to anticipate these challenges and to develop and evaluate participatory design interventions for user-centred, efficient workplaces.</p> <p>Methods and data. This study adopted qualitative techniques, and was structured around a case study at an office in the Netherlands. The work environment was studied through needs assessments with interviews. Design interventions were subsequently explored in participatory focus groups, utilizing 3D scale models and 2D visualizations to facilitate collaborative input. Finally, these interventions were evaluated with end-users to determine their effectiveness in enhancing the hybrid work environment, focusing on comfort, functionality, and engagement.</p> <p>Results. The study revealed a lack in workplace diversity which compromised comfort and privacy. Additionally, the absence of clear zoning disrupted focused work and reduced workplace efficiency. There was also a lack of elements that foster personalization, identity, and positive experience, making the work environment less inviting and less inspiring for employees.</p> <p>Originality. By presenting solutions in direct interaction with users, valuable insights for facility management (FM) were gained into the supposed effectiveness of interventions in office design, organizational needs, and individual preferences.</p> <p>Practical implications. The use of 3D scale models and 2D visualizations can help FM to enhance the integration of organizational needs and user experiences, while simultaneously fostering employee engagement and a sense of ownership.</p>	Session 2c Management and Maintenance. Chair Nora Johanne Klungseth <p>11.30-13.00</p> <p><u>Markussen, E. H.</u> & <u>Salaj Temeljotov, Alenka</u> <i>Unlocking Rehabilitation Potential: Financial Incentives and Social Motivation in the Norwegian Context</i></p> <p>Background and aim. The building industry is a major source of energy use and greenhouse gas emissions in Norway, making rehabilitation a key measure to achieve climate targets. While rehabilitation offers clear environmental benefits, uncertainty remains about whether current subsidy schemes sufficiently incentivize large commercial projects and how heritage rehabilitation contributes to pride and social value within organizations and communities.</p> <p>Methods and data. The study applies a qualitative design based on twelve semi-structured interviews with thirteen decision-makers in Norwegian real estate companies. Participants were selected for their direct experience with rehabilitation projects. The interviews were written out, organized around both predefined and emerging themes, and analyzed to find recurring patterns and insights.</p> <p>Results. Current subsidy schemes are perceived as inadequate due to low support levels, lack of transparency, and high administrative costs. Participants suggested improvements such as direct subsidies, tax-related incentives, and simplified application processes, stressing the need to include small-scale property owners. At the same time, strong social outcomes from heritage rehabilitation were reported, including organizational pride, community belonging, and reputational value, even when projects were financially unprofitable.</p> <p>Originality. The study highlights how economic and social factors jointly influence rehabilitation decisions, showing that weak subsidies limit socially beneficial projects, while pride and legitimacy can motivate actors to rehabilitate despite financial losses.</p> <p>Practical implications. Findings highlight the need for predictable incentives and greater emphasis on social sustainability to advance rehabilitation and climate goals.</p>
	<p><u>Franssila, Heliä</u>. <i>Community, Belonging, Hybrid Work – Does Working at the Office Help?</i></p> <p>Background and aim. The amount of remote work in Finnish governmental organizations continues to be on a high level after the pandemic. In this paper following research questions are considered: 1) Does the sense of community and belonging in hybrid work differ between those who mainly work remotely and those who work in the office more? 2) Does the sense of community and belonging in hybrid work differ between those employees whose office is a co-working environment and those whose office is used only by a single organization?</p> <p>Methods and data. Data for the study was collected via personnel survey (n=1696) in Finnish governmental organizations between December 2023 and March 2025.</p> <p>Results. Those who work only limited amount of their working time in the office had more positive experiences of sense of community and connectedness than those who work at the office more. There was minor differences in the experiences between those employees, whose office was shared co-working office and those whose office was used only by single organization.</p> <p>Originality. This paper presents results from one of the first studies of hybrid work practices after pandemic and first study of a co-working environment fully shared with several organizations.</p> <p>Practical implications. Largely office-based work is not needed to maintain high sense of community and belonging in knowledge work.</p>	<p><u>Hamida, Mohammad B.</u>, Hassanain, M.A., Alamoudi, A. & Al-Hammad, A. <i>From Identification to Practitioners' Assessment: Factors Influencing Corporate Real Estate Management Performance in Saudi Arabia</i></p> <p>Background and aim. The performance of corporate real estate management (CREM) is a complex process involving the alignment of different resources and activities, meaning that it is influenced by different factors. Knowledge about these factors and their significance in practice remains under-researched. This paper aims to identify and assess the factors influencing the performance of CREM.</p> <p>Methods and data. An integrative approach of theory and practice was followed. First, the factors influencing the performance of CREM were inductively identified through a literature study. Second, a questionnaire was developed and conducted to deductively test the significance of the identified factors from the perspective of 33 CRE practitioners in the Eastern Province of Saudi Arabia, using the relative importance index as an assessment indicator.</p> <p>Results. The literature study identified 33 factors and categorized them into four groups, namely: managerial affairs; physical and spatial aspects; economic and financial aspects; and the real estate market. The questionnaire results indicate that the availability of management plan(s) and strategy of the business, availability of a plan for facilities planning and management, the structural integrity of the properties, and the occupancy (supply and demand) indicators have been perceived as the most influential factors.</p> <p>Originality. The paper contributes to bridging the gap between the theory and practice of CREM by defining the factors influencing the process, followed by empirical evidence of their significance.</p> <p>Practical implications. The results provide CRE practitioners with a knowledge base to enhance CREM.</p>

11.30- 13.00	<p>Tuzcuoğlu, Deniz, Appel-Meulenbroek, R. Borgers, A. Arentze, T. & Sungur, A. Two Types of Hybrid Workers: How Preferences Relate To Personal Characteristics, Living Conditions, and Workplace Satisfaction *BEST PAPER CANDIDATE*</p> <p>Background and aim. In hybrid working, employees have the flexibility to choose between working from home or at the office. While previous studies have examined workplace preferences for hybrid working, less is known about whether distinct preference groups of employees can be identified and how these groups relate to individual characteristics, living conditions and current workplace satisfaction.</p> <p>Methods and data. This study conducted a discrete choice experiment with 1,258 employees from the Municipality of Amsterdam. Latent class analysis was applied to examine distinct workplace preferences among employees.</p> <p>Results. This study reveals two distinct types of hybrid workers, home- and office-preferring. It shows that gender does not play a significant role, while age, education level, living conditions, and satisfaction with current home and office workplaces predict to which of these classes a worker is most likely to belong.</p> <p>Originality. This study provides novel insights by identifying two distinct hybrid workplace preference classes linked to their personal characteristics, living conditions, and workplace satisfaction levels.</p> <p>Practical implications. Employees over the age of 55, with lower levels of education, living with children (and with a partner), and dissatisfied with their current office but satisfied with their home-workplace, show a strong preference for working from home. In contrast, younger employees with higher levels of education, living alone, satisfied with their office environment, and dissatisfied with the home workplace tend to prefer working at the office. These findings provide insights in preferences for office- and home-workplace settings, which can guide workplace designers to better support hybrid work.</p>	<p>Lien, J., Fosså, A. & Almås, Anders-Johan. Barriers and Success Factors of Condition-Based Maintenance for Sustainable Facility Management in the Public Sector</p> <p>Background and aim. Condition-based maintenance is defined as a method that optimizes the utilization of resources for building upkeep by basing interventions on the actual condition of buildings, rather than relying solely on predetermined intervals as is the case with time-based maintenance. The management of public buildings and infrastructure requires significant allocation of state funds. Sustainable maintenance is therefore crucial. This study focuses on how public property managers operationalize condition-based maintenance (CBM) through strategies, processes, products and activities and points to barriers and success factors for sustainable maintenance.</p> <p>Methods and data. The research examines three large public property managers in Norway using document studies and interviews. 10 semi-structured interviews are conducted with informants at strategic, tactical, and operational levels within the organizations.</p> <p>Results. The findings highlight the importance of long-term maintenance plans, predictable budgets, and adapting strategies to specific building needs. The study identifies criteria for how condition-based maintenance can lead to more sustainable, targeted, and cost-effective property management if proper structures and processes are in place at the operative, tactical, and strategic levels.</p> <p>Originality. The novelty of this paper lies in its focus on condition-based maintenance within the public sector. This study connects management levels and maintenance strategies by examining condition information and its communication value.</p> <p>Practical implications. The research has several practical and societal implications for facility management in the public sector, as improved resource allocation, enhanced decision-making, better communication and collaboration, sustainable practices, standard implementation, increased awareness, organizational improvement in long-term planning.</p>
11.30- 13.00	<p>Jelić, Andrea, Kinnaer, J., Denys, H., Nguyen, P., Lackovicova, M., Saelens, D. & Heylighen, A. Environmental Crafting at Work: Learning from Autistic Individuals in Diverse Contexts</p> <p>Background and aim. Despite their skills and motivation to work, autistic individuals often struggle to find suitable employment. The physical workplace poses specific challenges that have not been fully explored. We investigate how autistic people manage their working conditions by engaging in diverse forms of environmental crafting.</p> <p>Methods and data. We adopt a participatory research approach, collaborating with the autism community (autistic people, their allies, autism researchers) in all research phases. We employ qualitative methods including secondary analysis of reports on building visits with autistic user/experts, semi-structured interviews and/or photovoice with autistic individuals in various workplace contexts (office, home office, school, university buildings).</p> <p>Results. Autistic people manage their working conditions in diverse ways, engaging in (1) approach-resources crafting by creating comfortable places to work, for themselves and others, (2) approach-demands crafting by addressing hindering indoor environmental discomfort, and (3) avoidance-demands crafting by avoiding spaces and preparing to minimize unpredictability. The ways in which autistic people manage the workplace show resourcefulness and deliberate effort in using, appropriating, and adapting the work environment to meet their needs.</p> <p>Originality. Our findings provide a more nuanced view on the different forms of environmental crafting—not only mitigation of environmental demands but also strategies used by autistic individuals to enhance environmental resources. We highlight the importance of considering autistic people's agency and their contribution to workplace accommodations.</p> <p>Practical implications. Understanding how autistic individuals manage their workplace in diverse contexts aims to support them and may help different stakeholders in the workplace to address autistic people's needs.</p>	<p>Tanrıvermis, H., Keskin, E. & Demirkaya, Salih. Exploring FM Practices in Urban Transformation Areas Towards Effective Management Models: Four Case Studies in Türkiye</p> <p>Background and aim. Facility management (FM) in urban transformation zones remains underrepresented in global research and is regarded as an emerging practice in Türkiye. This investigation aims to analyse FM practices in specific urban transformation cases, emphasising the legal, economic, and technical dimensions; identifying challenges related to management; and evaluating user satisfaction, as well as potential management models, through participatory field studies.</p> <p>Methods and Data. A survey involving 1,254 residents across four urban transformation zones was conducted. The data were analysed utilising statistical techniques, primarily chi-square tests. This approach was selected to encapsulate a diverse range of household experiences and ensure representativeness across the case study areas.</p> <p>Results. The study employs a participatory approach to fieldwork, analysis, and reporting, with the objective of informing policy development and enhancing awareness of FM in regions experiencing urban transformation. The findings indicate regional variations: whilst 96.9% of participants favour professional management firms, areas with higher ownership densities tend to rely more heavily on condominium-based management models. Principal challenges include understaffing (33.3%), inadequate maintenance (29.1%), and communication barriers (20.8%).</p> <p>Originality. This study contributes to the investigation of the relationship between user satisfaction, sustainability in urban transformation areas, and the preservation of the economic value of collective buildings and their management models.</p> <p>Practical and societal Implications. Developing an effective management model in urban transformation areas is expected to enhance resident satisfaction and mitigate management-related issues. The findings may also be applicable to other cases, providing a transferable framework for enhancing FM practices.</p>

Day 2	Session 1d Campus and Academic Workplaces II. Chair Sivi Nenonen	Session 2d Services and Assets. Chair Alenka Temeljotov Salaj
14.00- 15.30	<p><u>Güneş, Sinan</u> & Keskin, E. <i>Assessing the Role of Workplace Experience in Advancing Social Sustainability in Universities</i></p> <p>Background and aim. University campuses are key environments where academic and administrative staff work, interact, and engage with institutional culture. Facility management services play a direct role in shaping employees' quality of life and workplace experience. This study aims to identify and prioritise key criteria for improving workplace experience to support social sustainability in university settings.</p> <p>Methods and data. A mixed-method approach was employed in this study. First, a literature review was conducted to identify the factors that influence workplace experience and employee well-being. Then, these factors were evaluated and prioritised using the Analytic Hierarchy Process (AHP) method based on survey data collected from academic and administrative staff.</p> <p>Results. The results reveal that workplace-related factors such as inclusive policies, occupational health and safety, accessibility, and a sense of belonging play a crucial role in advancing social sustainability at universities. The AHP analysis identified and ranked the most critical areas requiring strategic attention.</p> <p>Originality. This study makes a unique contribution to the literature by focusing specifically on university employees and addressing workplace-related issues, including discrimination, the integration of foreign staff, and institutional belonging. Its novelty lies in the use of a structured prioritisation method (AHP) to systematically link workplace experience to social sustainability goals.</p> <p>Practical and Social Implications. This study provides actionable insights for university leaders and facility managers. Enhancing the workplace experience can lead to increased employee satisfaction, stronger institutional identity, and improved organisational performance in higher education institutions.</p>	<p><u>Redlein, Alexander</u> & Stopajnik, Eva. <i>The Impact of COVID-19 on Employment and Turnover in the Outsourced Facility Service Sector in the EU</i></p> <p>Background and aim. The influence of COVID-19 on employment and turnover of the Facility Services (FS) Sector is unclear. Most studies about the pandemic and FS rather concentrate on hygiene concepts and infection control. This study closes that gap by answering the research question: How has the coronavirus pandemic affected employment and turnover in the outsourced Facility Services industry in the EU?</p> <p>Methods and data. The European norm EN 15221-4 lists which services are considered FS. Eurostat lists data on employment, turnover, and other economic indicators for detailed industry sectors. The list of the European norm was compared to the list of Eurostat, and the industries that are FS were selected. Those services were then grouped to typical and general FS. Combined, they are FS in total. They are compared to other economic sectors to have a benchmark.</p> <p>Results. Results show that employment and turnover in FS decreased less than the rest of economy in 2020. In Italy and Spain, there were even more employees (but not more turnover) in FS in 2020. Employment and turnover mainly decreased in event-catering and food service activities, while other building and industrial cleaning activities increased. Landscape and private security activities increased.</p> <p>Practical implications. The study showed that although many offices were closed, the FS Sector was more stable than the rest of economy. Furthermore, the FS industry was a key sector during the pandemic due to necessary hygienic measures. Therefore, the FS sector deserves recognition. This highlights the significance of the FS sector.</p>
14.00- 15.30	<p><u>Sandström, Niclas</u>, Nieminen, J. & Nenonen, S. <i>Duelling Dialogue: Pairwise Comparison in Academic Workplace Management and Change</i></p> <p>Background and aim. Having constructive dialogue between users and facilities management in workplace changes is elementary. This study explores the use of a pairwise comparison method in combination with participatory item generation in an academic workplace change. The aim was to identify and prioritise key aspects of the working environment that influence Faculty members' daily experiences and to enhance decision-making for Faculty and Facilities Management.</p> <p>Methods and data. The study was conducted among a university Faculty of ~400 people. First, the workplace attributes were defined in 4 workshops and analysed qualitatively. Then the main themes were turned into simple sentences (N=33) describing the main content, excluding repetition. Then, a digital pairwise comparison method was used to make structured comparisons of the attributes through prioritization.</p> <p>Results. The findings highlight important workplace factors affecting satisfaction, efficiency and attractiveness of the campus environment, including spatial arrangements such as security, indoor environment attributes and opportunities for informal interaction.</p> <p>Originality. This study demonstrates the value of combining participatory item generation with pairwise comparison as a novel approach to workplace analysis in academic settings.</p> <p>Practical implications. The methodology enhances user engagement using transparent prioritisation of workplace attributes providing a structured flexible decision support tool for facilities management. Future research should explore the scalability of this method. The method with transparent prioritisation engages users in workplace changes.</p>	<p><u>Abolmasoomi, Mostafa</u>, Groen, B. H. & Borghuis, S. <i>Beyond the cleaning: Exploring the value parameters of repositioning cleaning staff from back-office to front-office service roles</i></p> <p>Background and aim. While recent trends in facility management emphasize value creation over mere cost savings, the strategic potential of operational roles, such as cleaners, remains underexplored. Inspired by Vos et al. (2019) and the author's professional experience, this study investigates how repositioning cleaning staff to more interactive, visible roles can foster value for building users. This interaction may activate untapped capacities, adding value for client organizations while also improving working conditions and recognition for cleaners.</p> <p>Methods and data. An exploratory qualitative design was adopted. Eleven semi-structured interviews were conducted with senior FM, contract, and HR managers across various Dutch industries. Interviewees reflected on the potential impact of repositioned cleaners on FM/CREM value parameters (Jensen & Van der Voort, 2017), supported by AI-generated visuals to ensure consistent understanding.</p> <p>Results. Findings indicate that repositioning cleaners as front-service staff can create added value across key FM parameters, most notably in building user satisfaction, risk management and safety, health, corporate social responsibility, organizational image and cost.</p> <p>Originality. This study contributes to the growing discourse on the strategic role of FREM in enhancing organizational value beyond traditional practices.</p> <p>Practical implications. By repositioning cleaning staff as front-service employees, organizations can unlock new avenues for value creation—aligning operations with broader strategic goals while also empowering cleaners and addressing key challenges faced by this workforce.</p>

14.00- 15.30	<p><u>Pilhjerta, Pinja & Airo, K.</u> <i>Hybrid learning challenges educational institutions: Corporate real estate strategies to address the opportunities of digitalisation</i></p> <p>Background and aim. The current postdigital era highlights the importance of ICT as an integral component of physical learning spaces. Accordingly, this study aims to identify key corporate real estate (CRE) strategies for educational institutions implementing hybrid learning from a facility management (FM) perspective.</p> <p>Methods and data. The study is based on three case organisations, incorporating 12 semi-structured interviews with top and middle managers from Finnish educational institutions.</p> <p>Results. The research found eight hybrid learning related CRE strategies. According to these strategies, hybrid learning supports coordinated use of space, offers opportunities for sharing space with stakeholders, enables sustainable utilisation of existing space, diversifies ways of participation, increases the need for campus space in online lecturing as well as studying and provides space for a broad volume of users. Through these interdependent CRE strategies, the operational value of the space can be increased, thus enhancing its future security.</p> <p>Originality. This exploratory research investigates CRE strategies in hybrid learning environment.</p> <p>Practical implications. The study sheds light on the role of physical campuses as home bases for digitalisation. With the shareability of hybrid learning, an educational institution has potential for versatile social impacts beyond internal use.</p>	<p><u>Vos, Martijn C., Wynia, M., Ram-Wirtz, U., Brouwer, R. & Mobach, M. P.</u> <i>The Added Value of Task Shifting: FM and the Nurse Join Forces</i></p> <p>Background and aim. In the Dutch healthcare sector, staff shortages coinciding with an increased care demand due to an aging population, have become a pressing issue. In many hospitals, staff work part-time, workloads and absenteeism are growing, and staff are leaving. The Dutch facility management (FM) sector faces a similar problem, caused by a growing unwillingness to perform physically demanding jobs like cleaning. FM can contribute to the solution of these developments. In this context, effects of task shifting for FM in healthcare were studied in a field experiment.</p> <p>Methods and data. In a field experiment, we examined how the transfer of non-core healthcare-related tasks from nursing to service employees was perceived by nurses (N=108) and service employees (N=57), through questionnaires in a Dutch hospital.</p> <p>Results. Shifting non-core healthcare-related tasks to service employees had a positive effect on nurse's and service employee's work experience.</p> <p>Originality. This study demonstrated that task shifting from nursing to FM can contribute to experiences of both nurses and service employees.</p> <p>Practical and societal implications. This study showed that better alignment between tasks of FM and healthcare professionals can contribute to staff shortages. Service employees can support nurses by taking over basic care tasks such as feeding, washing, and performing nursing checks, while also enabling more meaningful interpersonal contact. In this way, efficiency can be increased, and the quality of care for patients and hospital staff can be improved.</p>
14.00- 15.30	<p><u>de Jong - van der Hilst, Marlies & Mobach, M. P.</u> <i>Disability Inclusion at Dutch Campuses: Responsibilities for Facility Management and Implications for Society</i></p> <p>Background and Aim. Facility management (FM) is pivotal in creating spaces and services that foster equitable and cohesive societies. A role that becomes even more critical as one in four adults in the European Union is disabled, with 52% experiencing discrimination (Eurostat, 2025). Despite the EU's 2007 ratification of the United Nations Convention of Rights of Persons with Disabilities (CRPD), local initiatives have yielded disappointing results, causing the "medical model" for disability inclusion to prevail and the anticipated "social model" to await its turn. The aim of this paper is to identify how FM can drive a transformation from the medical to the social model, by applying a hospitality perspective.</p> <p>Methods and Data. This paper integrates personal viewpoints with literature to identify key challenges. By taking the case of Higher Education (HE) on Dutch campuses as a reflection of a diverse society, the hitherto invisible impact of hospitality on inclusion becomes apparent.</p> <p>Aspirations. The discussion on the role of FM within disability inclusion is progressing slowly, as research on the topic remains limited. This paper exemplifies the impact of FM and seeks to inspire FM-professionals to adopt hospitality-driven approaches towards disability inclusion.</p> <p>Originality. Researching inclusion from a hospitality perspective offers a new perspective on inclusion and enriches FM, strengthening the importance of the field while actively contributing to positive societal change.</p> <p>Practical Implications. This paper fosters awareness among future facility managers and designers to prioritise and embed inclusion into their practices, giving FM the opportunity to strengthen its field and positively impact society.</p>	<p><u>Demirkaya, Salih & Tanrıvermiş, H.</u> <i>Post-pandemic Office Market in the Ankara Province of Türkiye</i></p> <p>Background and Aim. The COVID-19 pandemic marked a period of some of the most substantial transformations in office use in recent years. This study aims to describe the post-pandemic office market in Ankara Province, Türkiye. More specifically, the study analyses pandemic-induced changes in spatial deployment, identifies emerging spatial requirements, and assesses these factors from the perspectives of office employees and facility managers.</p> <p>Methods and Data. A comprehensive survey was carried out in the key commercial centres of Ankara, including Kızılay, Ulus, Mustafa Kemal Neighbourhood, and Çukurambar Neighbourhood, which serve as central business districts. Responses were obtained from more than 1,000 participants. The collected data were analysed using quantitative methodologies to evaluate changes in spatial utilisation patterns during and after the COVID-19 pandemic.</p> <p>Results. In line with the effects of the COVID-19 Pandemic, the findings indicate that spatial changes in office use have been identified. This study revealed that projects involving social facilities, security, technical infrastructure, and green building practices are likely to be proposed for Ankara in the future.</p> <p>Originality. This research offers a significant perspective on the evolution of the office market during and following the COVID-19 pandemic. Its primary strength resides in its large sample size, which encompasses a broad spectrum of viewpoints and expectations. We assert that this distinction sets our study apart from existing scholarly work.</p> <p>Practical and Societal Implications. By identifying key parameters that influence office space utilisation in Ankara Province, our study provides essential insights for designing and developing new offices, renovating existing ones, and ensuring user expectations are met in future developments.</p>

Day 2	Facility Management Research. Chair Riikka Kyrö Session 2x Video Session	
10.00- 11.00	<p><i>O'Hara, Ronan, Wanigarathna, N. & Jones, K. Public Sector Asset Management in the Context of a Just Transition – Guidance from Professional Bodies in the United Kingdom</i></p> <p>Background and Aim. The Intergovernmental Panel on Climate Change (IPCC) has stated a just transition will "ensure no people, workers, places, sectors, countries or regions are left behind" in decarbonisation. The paper aims to understand if professional bodies issue practitioner guidance that recognises a link between the climate crisis, decarbonising the built environment and a just transition.</p> <p>Methods and Data. The paper presents qualitative and quantitative insights from publicly available guidance for public sector professionals working in the United Kingdom (UK) built environment. Qualitative Content Analysis (QCA) was applied to literature sampled from 21 professional bodies.</p> <p>Results. A sample of 45 publicly available guidance documents indicate the phrase 'just transition' appears only 27 times compared to words like 'climate' and 'carbon' which appear 5,499 and 1,842 times respectively. The results suggest an opportunity exists for practitioner guidance to communicate the concept of a just transition more clearly and visibly in relation to the climate crisis and decarbonisation.</p> <p>Originality. The paper evidences the opportunity for professional bodies in the UK to establish and communicate professional practice guidance that takes account of a just transition, it will however be of interest to professionals and academics outside of the UK.</p> <p>Practical Implications. The paper supports facilities (asset) management professionals, and their professional bodies, to reflect on a just transition in the context of the professions and professional practice.</p>	<p><i>Truong, T.T.L & Wills-Stroh, Nadine Smart Gardening Technologies for Promoting Sustainable FM - A Literature Review</i></p> <p>Background and Aim. Since 25% of global CO₂ emissions from real estate occur during the use phase of existing buildings, sustainable living and operation and maintenance (FM) concepts are required. While research focuses on environmental materials and economic FM, there is a lack of research on the social dimensions of sustainability – such as health, well-being, community engagement, or user satisfaction. This study explores the potential of smart gardening technologies (SGTs) to enhance the sustainability of existing residential buildings through FM, focusing particularly on social sustainability, while also considering the alignment with the 17 UN Sustainable Development Goals.</p> <p>Methods and Data. In this study, a structured literature review is conducted. First, a quantitative analysis using a point-scoring system assessed the relevance of SGT-related literature across the 17 SDGs. Next, a qualitative analysis of the highest-rated literature identified is conducted to identify the impact on environmental, economic, and social dimensions of sustainability using specific criteria for existing residential buildings.</p> <p>Results. The results show that SGT can support sustainability in residential housing by facilitating self-sufficiency (e.g. food production), reducing environmental impact, and increasing social interaction through shared green spaces. Key implementation factors include technological requirements, user acceptance, and integration into existing infrastructures.</p> <p>Originality. The study highlights the role of SGT in supporting socially sustainable FM and contributes to bridging the gap between smart technologies and the human-centered aspects of sustainability.</p> <p>Practical and Societal Implications. The results demonstrate how SGT can support socially responsible FM practices, increase resident engagement, and align facility strategies with SDGs related to health, food security, and community well-being.</p>