

**INNOVATIVE  
TECHNOLOGIES IN  
THE MICE SECTOR:  
DIGITAL  
PLATFORMS,  
HYBRID FORMATS  
AND ARTIFICIAL  
INTELLIGENCE IN  
EVENT  
MANAGEMENT**

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*The article examines the role of innovative technologies in the development of the modern MICE sector and substantiates the importance of digital platforms, hybrid participation formats, and artificial intelligence in event management. It is determined that the contemporary business events industry operates under conditions of deep digital transformation affecting all stages of event creation, delivery, and support. Traditional event organization models based mainly on offline interaction no longer fully meet market demands for format flexibility, audience expansion, personalization, communication speed, and data-based decision-making.*

*Based on the analysis of recent sources and bibliometric visualization of thematic clusters, three main dimensions of technological renewal in the MICE sector are identified: innovations and digital restructuring of event architecture, the development of hybrid and virtual participation formats, and AI-based solutions in event management. It is shown that digital transformation manifests itself through the spread of 3D visualization, virtual tours, online booking, venue-related digital services, engagement analytics, and personalized participation pathways.*

*The study proves that the hybrid format operates according to the logic of «one event – two experiences», creating equally valuable participation trajectories for onsite and remote audiences. The importance of interactive platforms, virtual site inspections, on-demand content, and AR/VR solutions for increasing flexibility and resilience of the event business is substantiated. It is determined that artificial intelligence enables personalization of participant experience, communication automation, service support, audience behavior forecasting, resource optimization, and the formation of a data-driven management model. It is concluded that innovative technologies in the MICE sector should be considered a strategic managerial resource that influences competitiveness, resilience, and the quality of modern business events.*

**Key words:** MICE sector, digital transformation, digital platforms, hybrid events, artificial intelligence, event management.

**Fig.: 2. Ref.: 20.**

**ІННОВАЦІЙНІ ТЕХНОЛОГІЇ В МІСЕ-СФЕРІ: ЦИФРОВІ ПЛАТФОРМИ,  
ГІБРИДНІ ФОРМАТИ ТА ШТУЧНИЙ ІНТЕЛЕКТ В УПРАВЛІННІ  
ПОДІЯМИ**

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INNOVATIVE TECHNOLOGIES IN THE MICE SECTOR: DIGITAL PLATFORMS, HYBRID FORMATS AND ARTIFICIAL INTELLIGENCE IN EVENT MANAGEMENT © 2026 by BRINCEL Petr is licensed under CC BY 4.0

У статті досліджено роль інноваційних технологій у розвитку сучасного сектору MICE та обґрунтовує значення цифрових платформ, гібридних форматів участі й штучного інтелекту в управлінні подієвими заходами. Визначено, що сучасна індустрія ділових подій функціонує в умовах глибокої цифрової трансформації, яка охоплює всі етапи створення, реалізації та супроводу заходів. Традиційні моделі організації подій, що переважно ґрунтуються на офлайн-взаємодії, більше не повною мірою відповідають вимогам ринку щодо гнучкості форматів, розширення аудиторії, персоналізації, швидкості комунікації та ухвалення управлінських рішень на основі даних.

На основі аналізу сучасних наукових джерел та бібліометричної візуалізації тематичних кластерів виокремлено три ключові напрями технологічного оновлення сектору MICE: інновації та цифрову трансформацію архітектури подієвих заходів, розвиток гібридних і віртуальних форматів участі, а також впровадження рішень на основі штучного інтелекту в управлінні подієвими заходами. Показано, що цифрова трансформація проявляється через поширення 3D-візуалізації, віртуальних турів, онлайн-бронювання, цифрових сервісів для управління локаціями проведення заходів, аналітики залученості учасників та персоналізованих траєкторій участі.

Дослідження доводить, що гібридний формат функціонує за логікою «одна подія – два формати досвіду», створюючи рівноцінні траєкторії участі як для очної, так і для дистанційної аудиторії. Обґрунтовано важливість інтерактивних платформ, віртуальних інспекцій локацій, контенту з відкладеним доступом (on-demand content), а також рішень на основі доповненої та віртуальної реальності (AR/VR) для підвищення гнучкості та стійкості подієвого бізнесу. Визначено, що штучний інтелект забезпечує персоналізацію досвіду учасників, автоматизацію комунікацій, сервісну підтримку, прогнозування поведінки аудиторії, оптимізацію ресурсів і формування моделі управління, заснованої на даних (data-driven management). Зроблено висновок, що інноваційні технології у секторі MICE доцільно розглядати як стратегічний управлінський ресурс, який впливає на конкурентоспроможність, стійкість та якість сучасних ділових заходів.

**Ключові слова:** сектор MICE, цифрова трансформація, цифрові платформи, гібридні заходи, штучний інтелект, управління подієвими заходами.

**Рис.: 2. Літ.: 20.**

**Formulation of the problem.** The modern MICE sector is developing under conditions of profound digital transformation, which covers all stages of organizing, conducting and supporting business events. Traditional event management models, based mainly on offline interaction, no longer fully meet new market requirements related to format flexibility, audience expansion, personalization, rapid communication and the use of data for decision-making. Under these conditions, digital platforms, hybrid participation formats and artificial intelligence tools are gaining particular importance, as they are changing approaches to designing MICE products, interacting with participants and evaluating event performance.

The relevance of the study is determined by the fact that hybrid events, immersive digital environments, AI services, automated transcription, interaction analytics and personalized solutions are gradually moving from the category of auxiliary tools to the category of strategic factors influencing the competitiveness of event organizers, venue providers and hospitality enterprises. This means that innovative technologies in the MICE sector should be considered not merely as a technical supplement, but as a full-fledged managerial resource.

In both academic and applied dimensions, there remains a need to systematize modern technological solutions in the MICE sector, clarify their functional role, and assess their impact on event management. Of particular importance is the



organizational innovation, and qualitative research, emphasizing the importance of the managerial dimension in the implementation of digital solutions. A separate cluster containing the terms COVID-19, pandemic, telehealth, and internet reflects the impact of post-pandemic changes on the spread of remote and hybrid formats of interaction.

Within the innovation and technology-oriented cluster (red cluster), it is appropriate to synthesize studies in which event technologies are regarded as the basis for the transition of the MICE sector to a new digital model. In particular, Hur et al. associate the development of event technology with the transition to MICE 5.0, where human-centricity, resilience, and technological adaptability become key priorities [1]. J. Chen et al. emphasize that technological innovations are increasingly examined not merely as tools for broadcasting or technical support, but as factors that enhance participant engagement and shape the event experience [2, p. 185]. C. Dragin-Jensen et al. complement this approach by interpreting innovation in the event industry as a mechanism of resilience and adaptation under conditions of uncertainty [3, p. 390].

The second cluster, associated with hybrid, virtual, and immersive formats (blue cluster), provides a theoretical basis for analysing digital platforms as event environments. R. Yung et al. proposed a typology of virtual events, emphasizing the importance of social presence, the degree of environmental virtuality, and the spatial location of participants [4]. In the context of the MICE sector, this is particularly important, since hybridity is no longer limited to the broadcasting of an offline event, but involves a distinct event architecture based on the principle of «one event – two experiences», with different interaction scenarios for onsite and online audiences.

The third cluster can be interpreted as organizational and managerial (green cluster), as it encompasses organization and management, organizational innovation, data-driven practices, and AI adoption. C. Lam and R. Law emphasize that digital transformation in the hotel sector requires not only technological modernization, but also changes in processes, culture, mindset, and managerial approaches [5, p. 62]. O. Troisi et al. further develop this logic through the concept of data-driven innovation in hospitality ecosystems, highlighting the role of strategy and data in value creation [6, p. 251].

The other identified clusters (yellow, purple, and partly orange clusters) should be considered as the peripheral bibliometric context of the study. They are concentrated mainly around medical and scientific terms, including conference paper, clinical trial, drug therapy, treatment outcome, and diagnostic imaging, which can be explained by the active use of conferences and digital platforms in the medical and pharmaceutical fields. Thus, these clusters confirm the cross-sectoral nature of the sample; however, they do not constitute the substantive core of the literature review on MICE management.

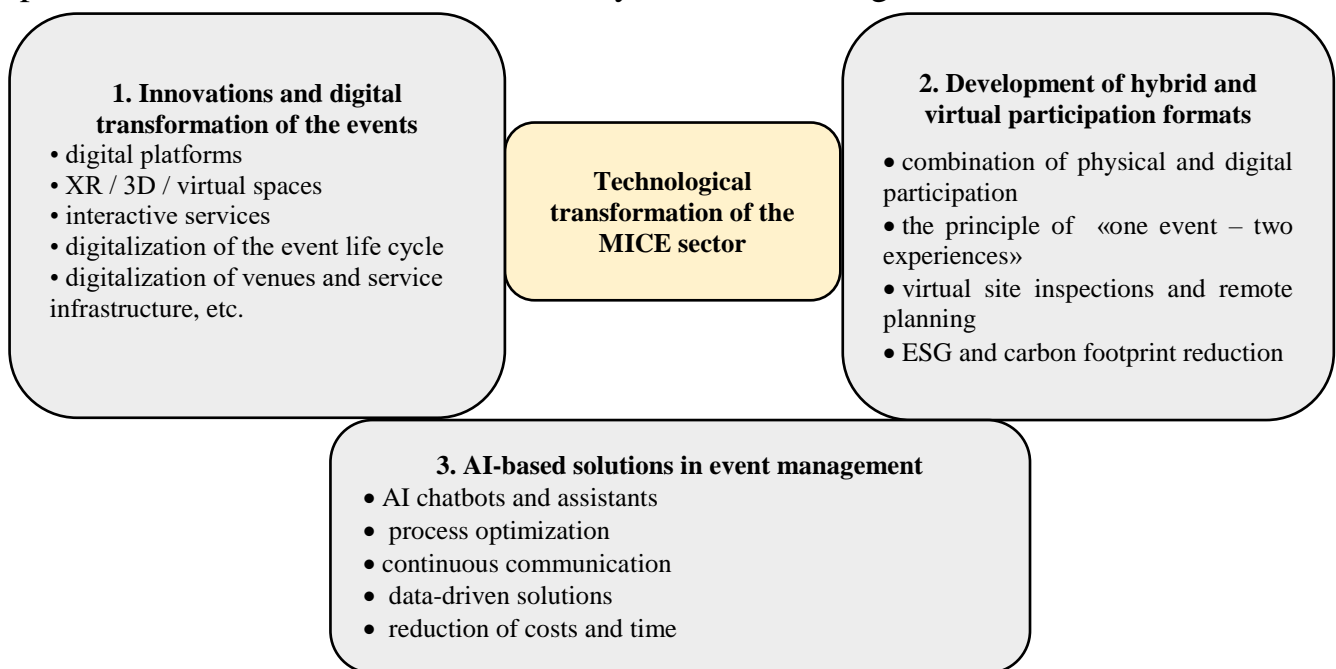
**Formulation of the goals of the article.** The aim of the article is to examine the role of innovative technologies in the development of the MICE sector and to substantiate the importance of digital platforms, hybrid formats, and artificial intelligence in contemporary event management.

**Presentation of the main research material.** In the current environment, the

MICE sector is increasingly transforming from a traditional segment of business tourism into a complex digitally integrated system that combines event management, communication technologies, data analytics, and interaction platforms. Researchers emphasize that the development of event studies can no longer be considered without taking into account the influence of digital technologies, social media, platform-based solutions, and new models of participant engagement. In this context, the MICE sector appears not merely as a set of meetings, conferences, exhibitions, and business events, but as a dynamic space for creating professional experience, knowledge, and network-based interaction [7].

The tendency towards the technological transformation of the MICE sector is also confirmed by industry indicators. According to ICCA, in 2023, more than 10,000 international meetings were recorded in the global association meetings industry, almost 1,200 more than in 2022, which indicates the active recovery and structural renewal of the business events market. In the exhibition segment, according to UFI statistics, Europe in 2023 covered 2,008 exhibitions with a total area of 21.3 million m<sup>2</sup> and total attendance of 49.9 million people [8], while hybrid events were already included separately in the official statistics. In addition, the American Express Global Business Travel forecast shows that 66% of meetings and events professionals expected budget growth in 2025 [9], indicating not only a recovery in demand but also increased investment in new formats, digital platforms, and technological solutions for event management.

A synthesis of the above approaches and industry trends makes it possible to consider the technological transformation of the MICE sector in three interrelated dimensions: first, as the innovative and digital restructuring of event architecture; second, as the development of hybrid and virtual participation formats; and third, as the implementation of AI-based solutions grounded in data, automation, and personalization. These dimensions are systematized in Fig. 2.



**Fig. 2. Three dimensions of the technological transformation of the MICE sector**

*Source: author's own elaboration*

As shown in Fig. 2, the technological transformation of the MICE sector involves not only the use of individual digital tools, but also a change in the logic of designing, implementing, and evaluating events.

This three-dimensional logic makes it possible to comprehensively assess the changes taking place in the modern MICE sector and to structure the subsequent presentation of the main research material.

The initial and fundamental dimension of this transformation is innovation and the digital restructuring of the events, as these processes shape the new architecture of the MICE product and create the basis for the further development of hybrid formats and AI-based solutions.

Among the key manifestations of the innovative transformation of the modern MICE sector, the digitalization of planning, presentation, and sales processes for event products occupies a particularly important place. The post-pandemic development of group meetings has been accompanied by the active introduction of new technologies into the industry, including generative AI and 3D solutions. 3D technologies are already being used to provide immersive virtual tours of hotels, enabling event organizers to visualize how a particular space can implement the concept of an event even before it takes place.

An equally important manifestation of digital transformation is the change in the approaches to booking and communication with planners. As a result of the rapid digitalization of the hospitality industry, organizers increasingly seek to bypass the lengthy RFP process when booking simple or small meetings. In response, hotels have begun to introduce direct online booking options, which significantly simplify the procedure and save time for both the client and the venue. According to industry data, 85% of planners are more likely to choose a hotel or venue for simple meetings if it offers online booking, compared with 52% in 2022 [10]. This indicates that digital transformation in the MICE sector is changing not only the technical toolkit of events, but also the very mechanism of access to the event product, making it faster, more flexible, and more customer-oriented.

This transformation can also be explained by the growing demand for authentic and immersive experiences, as well as by changes in the profile of event participants themselves. In particular, millennials, who accounted for 35% of the U.S. workforce in 2016, also represent the largest group of potential meeting attendees. At the same time, according to Social Tables, they are 62% more likely to travel than Generation Z, highly value digital interaction and personalization, and tend to prefer experiences over material goods [11]. This means that the innovativeness of a modern MICE event is increasingly measured not only by its technological equipment, but also by the ability of the venue to create an emotionally engaging, personalized, and socially attractive experience.

In this context, innovation in MICE may be implemented through the combination of diverse spaces, local identity, and experience-oriented event design. This involves the use not only of traditional conference centers, but also of museums, galleries, theatres, local gastronomic spaces, natural locations, and urban public environments, which together form a multidimensional event product. It is noteworthy that, according to a survey of almost 9,000 event attendees conducted by

the International Association of Exhibitions and Events, 78% of respondents indicated the destination as one of the main factors influencing their decision to attend an event. While 80% would be willing to return to a business-event destination for leisure purposes provided they had a positive experience. This gives grounds to argue that the innovative transformation of events in the modern MICE sector encompasses not only the digitalization of processes, but also a strategic rethinking of the venue as a platform for authentic, personalized, and spatially multilayered experiences.

An important manifestation of this transformation is the digitalization of the hotel environment itself and its service infrastructure, which directly affects the quality of the event product. Guests increasingly expect technologically equipped spaces in which business and communication functions are combined with the comfort of hotel services. Key innovations include smart controls, tablet-based control, keyless entry, concierge video chat, smart TVs, RFID technology, wireless charging, and other digital solutions that shape a new standard of hotel experience. From the perspective of the MICE sector, this means that a venue can no longer be regarded merely as a physical location for holding an event. It is increasingly becoming a technologically enriched platform where the quality of the event also depends on the level of digital convenience, service speed, and the integration of the space with the needs of the modern participant.

Particular attention should be paid to the transition towards analytical, data-driven event management. Modern meeting venues should not only use technologies, but also systematically measure event performance through digital metrics. Such indicators include the number of event app downloads, event starts, check-ins, average usage, bookmarks, detail views, scheduled items, and notes taken.

Another important dimension of the innovative transformation of events is attention to micro-details as part of designing a holistic participant experience. Successful coordination of group meetings goes beyond logistics and involves the creation of an immersive experience in which room setup, audiovisual equipment, temperature control, atmosphere, personalized requests, and the rapid resolution of technical issues all matter. In modern MICE management, this means that innovation lies not only in the introduction of new technologies as such, but also in the ability to integrate them into a seamless event scenario, where comfort, personalization, spatial aesthetics, and service responsiveness together form a new standard of event quality [12].

The innovative transformation of events is increasingly associated with the personalization of the participant experience. Modern event technologies make it possible not only to organize an event, but also to adapt it to the interests, behaviour, and expectations of specific attendees. This includes recommending relevant sessions, offering networking opportunities, designing individualized participation pathways, and using algorithms that help better align event content with the audience profile. In this model, an event ceases to be a standardized product for all participants and increasingly acquires the characteristics of a personalized service, where digital tools support flexibility, relevance, and a higher level of engagement.

Another important direction of digital transformation is the shift towards data-

driven event management. The use of technology is no longer limited to registration or communication with the participants, but extends to the collection, consolidation, and analytical use of event-related data. This is why engagement-scoring tools, digital indicators of participation, session attendance, booth activity, length of stay, interest in content, and other parameters are gaining particular importance, as they allow for a more accurate assessment of event performance [13].

Another important trend is that event innovations are increasingly moving towards immersive and phygital formats, in which digital and physical experiences are integrated into a single system of interaction. This includes VR meeting rooms, AR product demonstrations, interactive livestreams, AI-based personalization, branded event apps, virtual business card exchange, wellness zones, and other tools that enhance the participation experience and make it more dynamic.

In this model, the value of an event is determined not only by the content of the programme, but also by how effectively the organizer combines technological solutions, experience-oriented design, and opportunities for active participation. This provides grounds for considering innovation and the digital transformation of events as one of the key directions in the evolution of the modern MICE sector [14].

In summary, it should be noted that the digital transformation of events is regarded as a long-term norm of industry development rather than a temporary response to crisis circumstances. The new reality requires hoteliers, event organizers, and future industry professionals to have practical knowledge of technological solutions, cybersecurity, artificial intelligence, mobile tools, social media, and digital learning platforms. In this sense, innovation in the MICE sector is strategic in nature, as it is related not only to equipment, but also to staff competencies, readiness for the continuous renewal of tools, and the ability to integrate technologies into all stages of event creation. Therefore, digital transformation is becoming one of the key foundations of the competitiveness of a modern venue and an important factor in the further evolution of the business events industry.

Innovation and digital transformation of events in the MICE sector involve not only the modernization of technological tools, but also a deeper change in the logic of creating, promoting, and perceiving the event product. This transformation is most clearly manifested in the development of hybrid and virtual formats, which combine physical and digital participation and form new models of interaction among organizers, venues, and participants.

Current market dynamics indicate substantial growth in the global event industry: according to Research Dive, its value may increase from USD 863.2 billion in 2021 to USD 2,972.4 billion by 2031 [15]. One of the key factors driving this transformation has been the establishment of the hybrid format as a sustainable model of event organization. Skift Meetings, referring to EventMB research, notes that 67% of respondents agree that the hybrid format represents the future of the events industry. This model expands the opportunities for engaging the «digital generation» — young professionals who naturally embrace remote interaction, digital platforms, and hybrid office culture.

However, the successful implementation of the concept of «one event – two experiences» directly depends on the readiness of physical venues to meet

technological challenges. The experience of chain hotels, such as DoubleTree and Embassy Suites by Hilton, shows that not only Wi-Fi bandwidth is critically important, but also the availability of the specialized service packages, such as Hybrid Meeting Packages. These include preconfigured rooms for video conferencing, compatible high-definition audiovisual equipment, and the mandatory presence of qualified on-site IT support staff, which helps to minimize risks during live broadcasts.

An important aspect of the transformation of the MICE sector is the rethinking of the architecture and logistics of event spaces. The integration of large-scale technological equipment for broadcasting often requires changes in functional planning, which may reduce the physical capacity of meeting rooms. An interesting innovative solution is the differentiation of spaces according to lighting conditions: areas with natural light, traditionally attractive for live meetings, may create obstacles to high-quality video recording. Therefore, they are increasingly allocated for informal networking or «happy hours», while hotels offer isolated studio-style rooms for the main hybrid sessions.

For effective coordination with organizers at the planning stage, virtual site inspections have become an essential tool. The use of immersive sales technologies, such as TrueTour by Visiting Media, makes it possible to guide clients through 3D spaces and 360° panoramas, providing a complete understanding of the physical location without the need for an in-person visit, which is particularly important for international cooperation.

Ultimately, responsibility for audience engagement in the hybrid format is now shared between content managers and the hotel team. Organizers must recognize that creating an «atmosphere of presence» for virtual participants, who face numerous distractions at home, requires flawless technical synchronization and creative catering solutions. Each successful event in this format becomes a foundation for future bookings; therefore, documenting results through case studies and visual reports on social media is an integral part of MICE service marketing.

The flexibility of hotel groups in implementing immersive platforms and their ability to adapt quickly not only ensure business survival under conditions of uncertainty, but also shape a new image of the industry, in which technological integration becomes synonymous with hospitality [16].

An important component of the success of hybrid events is the implementation of interactive digital tools that stimulate the engagement of virtual audiences on an equal footing with offline participants. The use of instant polling systems, live chats, virtual networking zones, and gamification makes it possible to maintain the attention of remote delegates and ensure full-fledged feedback. More advanced solutions include elements of augmented reality (AR) and virtual reality (VR), which can transfer digital participants into a virtual replica of the physical hall, thereby enhancing the sense of presence.

Alongside technical equipment, hotels are also changing the logic of service delivery: staff receive specialized training to work with digital platforms and resolve technical failures in real time. This transforms standard hotel service into comprehensive technological support for the event.

Economic efficiency and safety have become the main drivers behind the consolidation of these formats in the MICE sector. Hybrid events enable organizers to significantly expand audience reach without increasing logistics and accommodation costs for all the participants, while also offering flexible pricing models depending on the type of access to content. Particular attention is paid to cybersecurity and the protection of personal data of virtual delegates through the implementation of encryption protocols and multi-level authentication on event platforms.

Thus, the hybridization of events not only expands the geographical boundaries of business meetings, but also creates a new ecosystem of interaction, in which the technological resilience of a venue becomes as critical a competitive advantage as its physical location or level of comfort [17].

The modern concept of hybridization is based on the principle of «one event – two experiences». This means that organizers no longer regard virtual broadcasting as an addition to a physical event, but instead create two parallel and equally valuable participation trajectories. In order to overcome the «digital barrier», a strategy of divided moderation is introduced: the presence of a separate virtual host enables remote audiences to feel like active participants rather than merely viewers. This approach minimizes the sense of isolation and ensures inclusiveness, with content adapted to the specific mode of perception: concise sessions for online participants and extended interactive formats for the in-person audience.

The evolution of formats has also led to the emergence of new standards of duty of care and a radical transformation of venue-side logistics. An important innovative step has been the use of mobile applications to synchronize networking: they allow participants in the hall and those joining from behind a computer screen to communicate effectively, schedule joint meetings, and participate in gamified activities in real time. This creates a holistic event ecosystem regardless of the geographical location of delegates. Leading solutions such as Whova, a platform recognized for high levels of community engagement, Swapcard and Brella, as well as comprehensive ecosystems such as Bizzabo and Cvent Attendee Hub, provide seamless integration of physical and digital spaces. A special place in this list is occupied by netMEET, an immersive meta-platform that transforms standard online viewing into a full-fledged 3D experience. Through the use of personalized avatars, spatial audio, and virtual locations, netMEET enables remote participants not merely to observe, but to «physically» interact with exhibitors and colleagues in virtual halls, bringing the digital experience as close as possible to real event attendance.

The hybrid model acts as a kind of insurance policy: in the event of unforeseen restrictions or lockdowns, an event can be immediately transformed into a fully virtual format without losing its audience or sponsorship contracts. Moreover, the digital component makes it possible to collect in-depth analytics on participant behaviour, offer on-demand content for different time zones, and significantly reduce the event's carbon footprint by optimizing international travel. Thus, innovative formats not only expand audience reach, but also make business events more environmentally responsible, flexible, and financially viable under conditions of global uncertainty [18].

The contemporary landscape of hybrid events is constantly evolving,

demonstrating flexibility in the choice of formats depending on a company's budget and scale. Many organizers are shifting towards smaller in-person meetings followed by the distribution of recordings to virtual audiences, or using simplified communication tools, such as teleconferencing, instead of complex video systems when budgets are limited.

At the same time, demand for hotel conference rooms is increasing among companies located in office centres above hotels, as the return of employees to offices creates a need for spaces designed for meaningful networking. In this context, the ability of hotel managers to remain flexible, continuously improve their technical infrastructure, and adapt room layouts to changing market needs becomes a decisive factor in the resilience of the MICE industry in the post-pandemic recovery period [19].

In 2025, hybrid events finally evolved from a forced solution into the «gold standard» of corporate communication, with the focus shifting from simple broadcasting to the creation of a hyper-personalized participant experience. A key innovation trend is the use of artificial intelligence to build individual participation pathways, from smart networking recommendations and matchmaking to the automatic generation of personalized agendas based on delegates' professional interests. Modern platforms, including Envoku and updated Bizzabo ecosystems, enable real-time sentiment analysis and allow content, interaction formats, or even the atmosphere of the venue to be adapted to audience reactions.

Another important direction is the development of immersive learning hubs, where traditional lectures are increasingly replaced by interactive workshops using AR and VR elements. Spatial audio, 3D visualization, and collaborative digital environments allow remote participants to move beyond the role of passive observers and engage in idea-generation activities together with onsite delegates. At the same time, the growing focus on wellness has led to the emergence of digital wellness zones within platforms, helping online participants reduce digital fatigue and maintain concentration.

Strategic management of hybrid formats is also closely linked to sustainability and green digitalization. Hybrid events are increasingly viewed as an ESG tool, as they allow organizers to expand audience reach without increasing the carbon footprint. Paperless solutions, NFC digital badges, and AI-optimized logistics help save resources while providing deeper analytics, from venue heat maps to knowledge retention indicators. Thus, the focus of innovation has shifted from how to conduct an event online to how to make the experience more meaningful, ethical, and valuable for every participant [13].

Digitalization initially transformed the event industry at the level of tools and channels of interaction by enabling the development of online communication, process automation, and the use of digital platforms. The next stage was the hybridization of events, which integrated physical and virtual spaces into a single event ecosystem. The logical continuation of this evolution is the implementation of AI-based solutions, marking a transition from digitalization to the intellectualization of event management.

In the modern MICE sector, artificial intelligence should be considered a

strategic mechanism for transforming event management. It enables not only the automation of individual operations, but also the design of events based on data, forecasts, and personalized interaction scenarios. AI is becoming a tool for improving service quality, optimizing processes, and adapting to the expectations of digitally oriented participants.

One of the key areas of AI application is the personalization of the participant experience. AI systems can analyze users' preferences, behavioral patterns, and previous interactions, generating individual recommendations regarding the programme, sessions, speakers, exhibitors, and business contacts. As a result, an event acquires the features of a targeted service, increasing its relevance and value for each delegate.

AI also plays an important role in continuous communication and service support. AI chatbots and virtual assistants provide rapid responses, multilingual communication, round-the-clock support, and reduced staff workload, which is particularly relevant for large international and hybrid events.

In addition, AI enhances the operational efficiency of MICE management by helping to forecast participant flows, optimize schedules, manage room occupancy, coordinate staff, and improve pricing for tickets, participation packages, and related services. Thus, artificial intelligence increases the accuracy of managerial decisions, reduces time and resource losses, and, at the same time, does not replace the human factor but redirects staff towards more complex communication and service-related tasks [20].

**Conclusions.** The study has shown that the technological transformation of the modern MICE sector is systemic in nature and involves not only the implementation of individual digital tools, but also a change in the very logic of designing, organizing, and evaluating events. Digital platforms, hybrid participation formats, and AI-based solutions are shaping a new model of event management, in which the personalization of participant experience, the integration of interaction channels, the use of data for decision-making, and operational flexibility become key priorities.

It has been established that the innovative restructuring of the MICE sector is manifested primarily in the digitalization of the event life cycle, including planning, booking, communication, presentation, service support, and analytics. The use of 3D visualization, virtual tours, event apps, venue-related digital services, and tools for assessing audience engagement indicates a transition from the traditional model of an event as a localized activity to a model of a digitally integrated event experience.

It has been substantiated that hybrid and virtual formats are no longer a temporary response to crisis-related restrictions, but have become a sustainable standard for organizing business events. Their essence lies in the formation of two equally valuable participation trajectories – physical and digital – which requires a high level of technological readiness of the venue, interactive platforms, immersive solutions, separate moderation, and high-quality support for remote audiences. In this context, the principle of «one event – two experiences» becomes an important condition for the competitiveness of the MICE product.

It has been demonstrated that artificial intelligence in modern MICE management should be regarded as a strategic mechanism for the intellectualization

of event management. Its role is reflected in the personalization of participation, intelligent matchmaking, automation of service support, forecasting of audience behaviour, and optimization of schedules, resources, and staff workload. Thus, AI shifts event management from the digital support of individual processes to a data-driven model of event design, coordination, and evaluation.

Therefore, innovative technologies in the MICE sector act not only as a means of technical modernization, but also as a strategic resource for enhancing competitiveness, resilience, inclusiveness, safety, and the quality of the event experience. Further research should focus on the empirical assessment of the impact of specific digital platforms and AI tools on participant engagement, the economic performance of events, service quality, and the transformation of staff competencies in the MICE industry.

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**ENERGY  
POTENTIAL OF  
AGROBIOMASS AND  
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SOURCE OF  
ENERGY  
INDEPENDENCE OF  
AGRICULTURAL  
ENTERPRISES AND  
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*The study is devoted to an overview of the energy potential of agrobiomass in general and agrowaste in particular as the sources of energy independence for agricultural enterprises and communities. It is substantiated that in the conditions of increasing costs of traditional energy resources, instability of energy supply and the need to increase the level of energy security in Ukraine, the effective use of local biomass for the production of biofuels and energy is of particular relevance. The experience and forecasts of the use of various types of biomass for the production of biofuels in leading countries of the world are studied. It is determined that the greatest potential for the production of biofuels is provided by by-products of crop production, organic waste from livestock farming, waste from the processing industry and energy crops. It is proven that the*



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