PUERTA DEL SOL

AGENDA

MADRID DIGITAL CAPITAL SCEWC 2026

MADRID DIGITAL CAPITAL

DAY →	TUESDAY 3RD	WEDNESDAY 4TH	THURSDAY 5TH
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10:00	**Circular AI: AI-Powered Waste Characterisation and Robotic Inspections in Industrial Environments** Madrid is driving innovation in waste management through two cutting-edge solutions: SIREMA, an autonomous AI-powered robot that patrols and monitors critical areas in Los Cantiles in real time, and an intelligent waste characterisation system that improves traceability and optimises operational decision-making. Technology at the service of the circular economy and municipal digital transformation.
10:30	**Data as the Energy That Improves Traffic Flow and Mobility** Madrid is driving a new approach to urban mobility management in which data becomes a strategic asset for optimizing how the city operates. By integrating and intelligently analyzing information from traffic cameras, traffic signal systems, sensors, road infrastructure and mobility management platforms, the city gains a real-time view of traffic conditions that enables it to anticipate incidents, dynamically adapt traffic regulation, support operational decision-making and improve mobility for residents and visitors. This capability transforms data into a genuine source of energy for safer, smoother and more sustainable traffic flow, maximizing the performance of existing infrastructure and contributing to a more efficient, connected and livable city.
10:45	**Madrid on SAP Cloud: AI Agents reshaping Citizen Services** Having unified its tax, HR, and finance systems on SAP Cloud, the City of Madrid has launched nine AI initiatives to improve taxpayer services, strengthen public spending oversight, and better support its municipal workforce.
11:00	**EUGENIA 5G: Teleassistance and Emergency Medical Response** EUGENIA implements private 5G coverage in the M-30 tunnels to improve SAMUR's medical response in emergencies. The project equips ambulances with 5G connectivity, high-resolution cameras for teleassistance, and a simultaneous translation service.
11:15	**Digital Skills for All: Inclusion and Skills for a City Without Digital Divides** Madrid is evolving its inclusion policies towards a personalised and accessible digital training model, which is geared towards achieving full digital citizenship. The responsible use of AI will make it possible to detect gaps, recommend itineraries and adapt content, reinforcing human support.
11:30	**Digital Services Observatory: Indicators for Managing Municipal Digital Services** A corporate analytics and monitoring dashboard for municipal digital services, designed to provide a comprehensive overview of the usage, performance, quality and impact of electronic channels connecting the City Council with citizens and businesses. Its aim is to transform day-to-day digital activity into actionable insights for decision-making, enabling the Council to measure how citizens use e-services, identify opportunities for improvement and assess progress in municipal digital transformation.
11:45	**EME5GENCIAS Madrid: 5G Communications for Mission-Critical Operations** A Next Generation project aimed at validating the capabilities of a 5G network built entirely on public operator infrastructure as a mission-critical communications network.
14:00 15:00	**BREAK**
15:00	**Mercamadrid Autonomous Shuttle (SAE Level 4+): AI-Powered Advanced Sensing for Connected and Autonomous Passenger Transport at Mercamadrid** Following the completion of the first phase of digitalising Madrid City Council's tax services, a new stage is beginning with a system designed to incorporate artificial intelligence capabilities. This application of AI builds on the data generated during the initial phase, which focused on data governance and improving data quality. This foundation now makes it possible to apply advanced AI techniques to develop a new generation of more efficient, personalised and proactive municipal tax services.
15:15	**Smart EMT: From Operational Data to an Intelligent Urban Mobility Experience** EMT is committed to efficient, sustainable, connected and people-centred mobility through a digital ecosystem that connects infrastructure, fleets and citizens. To drive this transformation, the municipal company is developing a data ecosystem based on data governance, advanced analytics, data sharing and artificial intelligence. This enables information to be transformed into better decisions, new services and a smarter mobility experience for citizens.
15:30	**The intelligent city advantage: Data, AI and the race for urban competitiveness** The competitive advantage of cities is changing. Economic strength and physical infrastructure still matter, but a city's ability to generate, govern and use data is becoming critical to how it anticipates risk, attracts investment and creates a better quality of life. At the launch of Arup's second Competitive Cities Redefined report, Will Cavendish, Global Lead for Digital Services, will explore how data and AI are becoming part of the essential infrastructure of competitive cities. From modelling future climate and infrastructure pressures to testing development choices before they are built, digital systems can help cities plan more confidently, decarbonise more rapidly and make stronger investment decisions. But the winning model will not be AI alone. It will be human and artificial intelligence working together, combining technology with engineering knowledge, local insight and collaboration to deliver better urban outcomes.
15:45	**Sueña Madrid: A Digital-Native Plan – The Strategic City Simulator** Madrid introduces a new paradigm in urban planning by combining policy drafting with the analytical power of geospatial intelligence. In line with the requirements of transparency, open governance, and sustainability set out by the LIDER Law, Madrid relies on the Strategic City Simulator—a predictive framework designed for ex-ante evaluation of the socioeconomic, environmental, and infrastructure impacts of urban planning instruments. Powered by a fully auditable and traceable public data infrastructure, the tool transforms urban indicators into real-time actionable insights, driving a dynamic, interoperable, and evidence-based city model to build the future of Madrid.
16:00	**Progress, impact and results of the Madrid Digital Capital strategy** The session presents the evolution of "Madrid Digital Capital: progress, impact and results": a leap from the digitalisation already implemented towards more connected, predictive and automated capabilities. The execution of the Digital Transformation Strategy is carried out through the Digital Transformation Centre, encouraging the creation of collaboration and cooperation environments, promoting the implementation of state-of-the-art technologies and seeking synergies to achieve the fulfilment of the objectives of the Strategy and involving all municipal areas and the entire technological ecosystem of the city. The advance focuses on interoperability, responsible use of data, scalability and a measurable impact on the quality of service.
16:15	**Madrid 360 Service Line: Personalized, Connected and Intelligent Public Service** This session presents the next evolution of Madrid Line (Línea Madrid): a step forward from an already established digital service model toward more connected, predictive, and automated capabilities. In 2024, Línea Madrid handled more than 6 million citizen interactions through the 010 telephone service, its 26 in-person service offices, and digital channels, while madrid.es recorded more than 18 million visits. As part of its ongoing transformation, AI-powered agents are being progressively integrated, and self-service channels are being further strengthened. Línea Madrid is a well-established and highly regarded service that enables and simplifies comprehensive, end-to-end support for citizens' needs while maintaining high standards of quality and efficiency. This next phase focuses on interoperability, the responsible use of data, scalability, and measurable improvements in both service quality and citizen satisfaction, ensuring that public services become increasingly accessible, responsive, and effective.
16:30	**Madrid Digital Twin: use cases transforming public services** Madrid Digital Twin enables a new approach to city management through an open, interoperable platform integrating urban data, artificial intelligence and simulation. Through use cases spanning infrastructure, mobility, emergency response, energy and the environment, it supports more efficient, data-driven municipal operations. Distinctive capabilities such as City Studio, KM.0 (Madrid City Playground) and the Synthetic Data Engine accelerate the exploration, experimentation and validation of urban solutions. A federated ecosystem of digital twins that connects information, anticipates future scenarios and turns data into better decisions and public services.
16:45	**5G+ Connected Mobility: Madrid in Motion** 5G+ technology offers high data transmission capacity, ultra-low latency and high reliability, which are essential for supporting communication between large numbers of simultaneously connected vehicles and ensuring the safety and performance of communications between connected vehicles and the surrounding infrastructure.
17:15	**Data as the City's Most Valuable Asset: Sueña Madrid - A Digital-Native Plan** Data has become one of the most valuable assets for the management and transformation of cities. This project demonstrates how Madrid is building a digital-native vision in which information from multiple urban domains is integrated, connected and leveraged to generate knowledge, anticipate needs and support strategic decision-making. The initiative places data at the core of urban planning, enabling a deeper understanding of how the city operates, identifying opportunities for improvement, assessing the impact of public policies and designing more effective and sustainable interventions. Through this approach, Madrid showcases how the use of high-quality, accessible and interconnected data can become the driving force behind a smarter, more efficient and future-ready city.

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10:00	**PLADA: platform, community and AI for Madrid's data** A data platform needs technology, shared rules, and people capable of transforming information into knowledge. This session presents how the Madrid City Council brings these elements together in PLADA and how it is expanding it with artificial intelligence. After reviewing the platform's evolution and the role of its community, the presentation details the stakeholders joining the platform and the progress toward an open architecture.	
10:30	**Telco data for urban digital twin: Telco data as energy for a real-time city digital twin** Aggregated and anonymized telecommunications data provides the digital twin with a dynamic view of urban activity. This data, combined with municipal information and AI, will allow for near real-time estimation of mobility and traffic flow. This initiative aims to securely, anonymize, and govern the incorporation of data generated by telecommunications networks as a new strategic infrastructure for urban management. Its objective is to transform information derived from mobile activity and digital connectivity into a source of knowledge that feeds the Digital Twin of Madrid.	
10:45	**The M-30: much more than an urban motorway. A pioneering and strategic infrastructure committed to safety, innovation and sustainability.** Today's society is undergoing an unprecedented transformation. Mobility habits are changing at an unprecedented pace; today's technologies will be history tomorrow; and environmental challenges are no longer just empty rhetoric. Madrid Calle 30, the company responsible for the management, operation, conservation, and maintenance of the M-30 ring road, as well as the access roads to the Spanish capital, is fully aware of this level of demand. The growth of large urban centers and metropolitan areas requires imaginative, efficient, intelligent, and green solutions. Before spring, Madrid will become the first city in the world with a unique ring road, the M-30, featuring three vertical gardens with a total green area exceeding 6,800 m².	
11:00	**Mobilities for EU: from data lake to data space** Datalake connects the Mobilities4EU project's ecosystem of companies with the project's data space: energy and mobility. It acts as a platform for managing the smart urban space of Mercamadrid, a consortium of 29 companies and organizations, facilitating data governance, transformation, and publication. It also offers key indicators and operational dashboards for project monitoring. This advancement focuses on interoperability, responsible data use, scalability, and a measurable impact on service quality.	
11:15	**Cities now need open standards: results of AIOTI+FIWARE+OMA GIS for irrigation in public spaces.** The Special Interest Group (SIG) has focused its efforts on the public irrigation use case, starting with a prioritization of requirements and needs that are subsequently translated into a selection of standardized OMA data objects. These objects are then linked to Smart Data Models, enabling the digital twins to provide high-quality, validated information obtained from both direct measurements and inferred values.	
11:30	**City Intelligence Lab: Collaboration with Academia for a smart city** A collaboration between the City Council and the Polytechnic University of Madrid (UPM) to develop and test innovative solutions based on data, artificial intelligence, and urban analytics. The initiative aims to translate academic knowledge into municipal management, improving decision-making and contributing to a more efficient, sustainable, and people-centered city.	
11:45	**Cross-cutting Projects Madrid Digital Capital: by everyone and for everyone** This session presents the next step in the evolution of "Transformative Cross-Cutting Projects": a further step from the already established digitalization towards more connected, predictive, and automated capabilities. These are high-impact transformative projects, driven by their cross-cutting nature, by the Digital Office and the IAM (Municipal Institute of Women) with the participation of Digital Delegates and technical and business managers from municipal and city services in their design and implementation. This progress focuses on interoperability, responsible data use, scalability, and a measurable impact on service quality.	
14:00 15:00	**BREAK**	
15:00	**Urban Intelligence Spaces: laboratories in real and interconnected spaces for an adaptive city - Co-design and Co-creation Workshops** The strategy's implementation involves an Interpretation Center, a City Operating System, and hyperconnected, hyperautomated, and interoperable urban environments that integrate IoT sensors, real-time data processing and analysis, and ensure interoperability, responsible data use, and scalability. This will optimize services and improve the quality of life and well-being of people and the environment. The goal is to transfer knowledge so that municipal departments and conservation companies can gain experience with integrating technologies and information sharing.	
15:15	**Twin of Twins: the rule of the twin of twins** The governance of a Twin of Twins will coordinate sectoral models under common rules of identity, semantics, quality, security, and traceability, allowing the different twins to interoperate and produce coherent simulations. It is the natural evolution of the Digital Twin concept toward a federated city model, where multiple specialized digital twins are coordinated under a common framework of governance, interoperability, and knowledge management. The idea stems from an increasingly evident reality: a city like Madrid cannot be effectively represented by a single monolithic model. Urban complexity demands the coexistence of multiple sectoral digital twins, each specialized in a specific area, but capable of sharing data, context, and analysis in a coordinated manner. The Twin of Twins acts as the integrating layer that connects these digital ecosystems to provide a coherent view of the entire city.	
15:30		**Madrid Data Governance: data governance to activate AI and smart city services** Data governance is advancing as a foundation for smart cities and trustworthy AI. Madrid is promoting a common framework for quality, cataloging, lineage, interoperability, security, and access. Data governance allows municipal information to become a strategic asset for the city. Its goal is to ensure that data is reliable, shared, secure, interoperable, and reusable, creating the necessary conditions to drive artificial intelligence, smart services, and evidence-based decision-making. In a digital city, data is the raw material of innovation. However, its value depends not only on the quantity of information available, but also on the ability to manage it coherently, securely, and in alignment with public objectives. Madrid Data Governance provides precisely that framework of trust.
15:45		**DigitalLab Eurocities: Sharing and reflection by European cities on the incorporation of technology** The Cities Roundtable is designed as a space for cooperation and exchange among European cities to explore how technology can contribute to building a Human Adaptive City, capable of responding in real time to people's needs. Through this Eurocities Digital Lab, led by Madrid, experiences, approaches, and best practices will be shared to promote more adaptive, people-centered city models supported by the strategic use of technology.
16:00		**Parks that Think: Intelligent Management of Green Areas in Madrid** Green spaces play a fundamental role in urban quality of life, adaptation to climate change, and the creation of healthier and more livable environments. This project demonstrates how Madrid is incorporating interoperable IoT technologies, artificial intelligence, and digital twin models to transform the management of parks, gardens, and green corridors. Through the continuous collection of environmental and operational data, progress is being made toward obtaining a real-time view of the condition of green spaces, optimizing resource use, anticipating maintenance needs, and improving action planning. The combination of connected sensors, predictive analytics, and information integrated into a digital twin will enable more efficient, sustainable, and resilient management, promoting biodiversity, reducing resource consumption, and offering higher-quality spaces for the enjoyment of citizens and visitors.
16:15		**MAIDV - Software development methodology guided by Artificial Intelligence** The Madrid City Council presents MAIDV, its methodology for transforming development with artificial intelligence under human direction and supervision. The session will demonstrate how it connects business knowledge and regulations with specifications, tests, and code, through short work cycles and verifiable, testable results.
16:30		**AI Platform (MAIA): Trusted Artificial Intelligence** Discover how the MAIA platform helps City Hall departments incorporate generative artificial intelligence. Through the platform, we offer a comprehensive service that ranges from consulting and support to project execution and supervision, as well as cloud infrastructure support, driving the modernization and efficiency of public services for citizens.
16:45		**5GMADnet: 5G Infrastructure for Technological Validation and Urban Innovation** This initiative, developed through a collaboration between the Madrid City Council and the Higher Technical School of Telecommunications Engineering (ETSIT) of the Polytechnic University of Madrid (UPM), aims to promote research, experimentation, and validation of advanced connectivity technologies. Through the 5GMADnet network, the project facilitates the development of innovative use cases in areas such as smart mobility, urban services, the Internet of Things (IoT), and artificial intelligence. It also contributes to positioning Madrid as a leading city in the adoption of future 5G and 6G networks, with the goal of improving citizens' quality of life and driving the city's digital transformation.
17:00		**Protecting the Connected City** Cities are increasingly dependent on interconnected systems. Critical infrastructure, sensor networks, urban data platforms, and digital public services now underpin mobility, water, energy, public safety, and the relationship between citizens and government. This transformation brings significant benefits, but it also turns the city into a complex attack surface, where cybersecurity incidents can have physical consequences, generate cascading effects, and erode trust. This session presents the work of the cybersecurity working group linked to Madrid LIC, focused on strengthening the protection of urban infrastructure, digital platforms, sensor networks, and connected services. The specific security challenges of smart cities will be analyzed, from the heterogeneity of IoT devices and legacy operational technologies to identity management, cryptography challenges, secure communications, and governance fragmentation. Furthermore, the necessary collaboration and innovation strategies to address these challenges will be presented, including the definition of testbeds for communications and implementations, secure device testing, ensuring good security practices from the design phases, public-private and academic partnerships, and the organization of outreach and awareness events. The goal is to build resilient, secure, and reliable digital environments for both the government and the public.
17:15		**City Intelligence Lab - Permanent Data and AI Group** Within the Madrid City Intelligence Laboratory, the Permanent Working Group on Data and AI conceives and develops innovative proposals for the scalable processing and analysis of large, heterogeneous datasets from Smart Urban Spaces. This data is used in advanced monitoring and decision-making systems, such as the Digital Twin (Twin of Twins), addressing various challenges such as ensuring system interoperability, verifying the quality and reliability of the data obtained, enabling data analysis in the presence of failures (such as lost data), and researching advanced methods and algorithms for information retrieval and AI in federated environments, prioritizing energy efficiency and sustainability.

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10:00	**Madrid City Council Cybersecurity Center. Security in Madrid is paramount** The digital transformation of a major city requires cybersecurity to keep pace with innovation. The Madrid City Council's Cybersecurity Center is the key to protecting the systems, services, and data that underpin municipal activity and the delivery of public services to citizens. This presentation will demonstrate how Madrid is strengthening its digital resilience through advanced monitoring, prevention, and response capabilities against threats, ensuring the continuity of essential services, protecting information, and fostering trust in an increasingly connected administration. It's a comprehensive strategy that makes security an enabler of digital transformation and the smart city.
10:30	**AI Cyber Defense in the SOC: AI agents for detection and response** The Madrid City Council's Security Operations Center (SOC) is using AI agents connected to its security tools to classify incidents, investigate indicators of compromise, and automatically propose responses. IndraMind Cybersecurity will present the architecture, how the AI's performance is measured and improved, the results in response times, and the lessons learned.
10:45	**CORe: the activity of the Municipal Police in a connected, intelligent and real-time way** Digitization of the municipal function and redesign of end-to-end processes in a digital key for the use and improvement of the efficiency of security devices, considering the integration of multiple sources of information and the advanced processing of data and images from an Integrated Coordination and Control Center (CORe).
11:00	**From AIOps to agentic AI in the Madrid City Council** The digital transformation of the Madrid City Council relies on a managed digital infrastructure service, provided by NTT Data, which has evolved according to the principles of Platform Model, Cloud First, Automation, Infrastructure as Code, and AI First. This evolution has mirrored the shift in the model of the Madrid City Council's Autonomous IT Agency, which has moved from providing end-to-end technology services to enabling the digital transformation of government departments. This paper reviews this journey and the principles that underpin it, and presents the next step in the evolution of the AIOps model: the integration of agentic AI into the operation and observability of the platforms. It also addresses the AI platform's governance model, ensuring quality standards, and adapting operational processes.
11:15	**Cybersecurity for a Smart Capital: Zero Trust Architecture for Critical Services in Madrid** The CCMAD, powered by Palo Alto Networks technologies, protects Madrid's critical digital services using artificial intelligence and advanced prevention, detection, and response capabilities. This approach verifies and limits every access to what is necessary, comprehensively protecting users, devices, applications, and data, and strengthening the cyber resilience of an increasingly connected capital city.
13:00	**BREAK**

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10:00	**Connected City Hall: Intelligent Corporate Management on SAP S/4HANA** An SAP S/4HANA-based solution designed to optimize the integration of Madrid City Council's financial and human resources management systems, enhance application mobility, and enable a paperless administration. The platform supports services for more than 3.5 million citizens and approximately 30,000 municipal employees, providing a modern, efficient and fully integrated digital foundation for the management and operation of the municipal administration.		
10:15	**The Digital Last Mile of the Municipal Population Register** Municipal Register services are now 100% digital, providing a seamless and user-centric experience for newcomers to Madrid, residents relocating within the city, foreign citizens renewing their residency, and individuals updating their personal details. Through fully digital workflows and automated data exchange between public administrations, citizens are freed from unnecessary administrative tasks. The evolution continues with the integration of AI-powered agents to assist citizens throughout the registration and service delivery process.		
10:30	**Intelligent Management of Taxpayer Services** A managed service driving the transformation of Madrid's Tax Agency across three key areas: putting taxpayers at the centre, simplifying back-office processes and treating data as a strategic asset. The integration of AI agents aims to maximise revenue potential and enhance the taxpayer experience across digital services.		
10:45	**Madrid City Council's Digital Talent School: Building a Workforce Shaped by Industry Demand** The presentation will showcase Madrid City Council's Digital Talent School as a training model designed around the talent needs of businesses. It will explore how close collaboration with the private sector helps identify the most in-demand skills and align training programmes with real employment opportunities. A strong commitment to connecting innovation, education, and employability, helping to bridge the gap between available talent and the evolving recruitment needs of the digital economy.		
11:00	**Madrid Resilience Tech: Technology for Natural Hazard Safety and Emergency Management** A strategic initiative aimed at establishing Madrid as an international benchmark in the application of advanced technologies for risk analysis, assessment and anticipation, as well as emergency management related to natural hazards.		
11:15	**MAIDV in Practice: Artificial Intelligence Applied to the Development of Municipal Services** The session will showcase the application of MAIDV at Madrid City Council through real-world experiences in the development of municipal services. It will explore the functional definition, development, and validation of software using AI agents under human supervision, sharing the results, challenges, and lessons learned from the work carried out.		
11:30	**Beyond AI: Transforming Public Services Through People, Processes and Governance** The transformation of public services goes far beyond the adoption of new technologies. It requires redesigning processes, putting people at the centre, and establishing a governance framework that enables change to be driven in a coordinated, responsible and sustainable way. The session will present Madrid's approach to moving towards a simpler, more integrated, proactive and inclusive public administration. It will explore how process standardisation, data management, the development of new capabilities and the involvement of public sector employees are essential elements of this transformation. Technology, including artificial intelligence, acts as an enabler in support of these objectives. True success is measured by the ability to generate public value and deliver better services to citizens.		
11:45	**Madrid Smart Process Management** The Madrid City Council's Smart Process Management Platform is designed as a common environment for the design, execution, monitoring, automation, and continuous improvement of municipal processes and procedures. Its purpose is to enable the transition from an organization built around isolated applications and administrative procedures to a process-driven administration, where municipal departments work in an integrated manner, share information seamlessly, and deliver more agile, simple, and efficient services to citizens, businesses, and public employees. The platform serves as the operational backbone of the organization, connecting people, systems, data, and artificial intelligence to support end-to-end process management, enhance operational efficiency, and accelerate digital transformation across the City Council.		
14:00 15:00	**BREAK**		
15:00	**Madrid Digital Transformation Center. Enablers for the Execution of the Digital Transformation Strategy** The Madrid Digital Transformation Center serves as the governance, coordination, and acceleration hub of the Madrid Capital Digital strategy, driving digital transformation across the entire municipal organization. The Center brings together government departments, autonomous agencies, and technology partners to transform innovative initiatives and pilot projects into scalable, reusable corporate capabilities that deliver tangible impact on public services, operational efficiency, and citizen experience.		
15:15	**Madrid, a Digital and Sustainable Capital and the INFOCITI Project by Red.es: Assessing the progress of digital transformation and its impact on the Sustainable Development Goals (SDGs)** Red.es has carried out the INFOCITI Project, an initiative aimed at assessing the level of digital transformation achieved by cities and territories across Spain, as well as the impact of digitalization on competitiveness, sustainability, and quality of life. The project involved the participation of 65 cities nationwide. This presentation focuses on the case of the City of Madrid, providing a comprehensive overview of its digital evolution and offering valuable context for understanding the various initiatives and actions implemented in the field of smart city development and urban innovation.		
15:30		**RPA and AI Agents: Transforming Madrid City Council's Electronic Registry** Madrid City Council's Registry was one of the first processes to be automated using robotic process automation (RPA). What began as a single automation has evolved into four, with the recent integration of AI to automatically assign registry entries that were previously handled manually. With 48 registry offices, some processing more than 1,000 entries per day, this change has represented a significant organisational and training challenge. In just one year, staff have moved from performing manual tasks to supervising and managing automated processes powered by RPA and AI, significantly transforming their roles.	
15:45		**Intelligent Traffic Lights. A Practical Application of AI. Traffic Signals that Learn and Adapt** Madrid has implemented various artificial intelligence systems to adapt traffic signal control to the needs of all urban road users. This technology improves road safety and optimizes traffic flow, enabling new mobility solutions for emergency services, large-scale events, roadworks, or any situation where cyclists or pedestrians need to be prioritized.	
16:00		**Scaling Urban Innovation: Building Collaborative Ecosystems for Impact** Cities face increasingly complex challenges that cannot be solved by a single organization alone. Scaling urban innovation requires building strong collaborative ecosystems that bring together public administrations, universities, research centers, companies, startups, and civil society organizations. This session will explore how these partnerships can accelerate experimentation, foster knowledge sharing, reduce risks, and transform pilot projects into solutions that deliver tangible benefits for citizens. Drawing on the experience of the Madrid City Council, the presentation will examine collaboration models that support the adoption of emerging technologies and the creation of sustainable public value.	
16:15		**Open Standards for Smart Cities: methodology for interoperability and semantic continuity from raw data from sensors to digital twin: AIOTI + FIWARE + OMA SIG.** The Special Interest Group (SIG), established at the initiative of the Digital Office with OMA and AIOTI as key enablers, is developing a needs-driven methodology that starts from the city's requirements and, based on these specifications, publishes a curated selection of standards capable of addressing that demand. This approach ensures semantic continuity of data models all the way from low-level device models to the digital twin, with Smart Data Models acting as the central axis. This shifts the paradigm: cities and their digital twins now demand consistent, standards-based information and long-term solutions that protect their investments.	
16:30		**Smart Tunnels: Connected Safety, Monitoring, Planning and Operations** In recent years, Madrid's urban tunnels have undergone a significant technological and operational transformation, strengthening both safety and infrastructure maintenance. Artificial Intelligence, advanced communication systems and cybersecurity capabilities, together with a dedicated team of highly qualified professionals, ensure an effective response to any type of incident and position Madrid as a benchmark in urban tunnel management.	
16:45		**Mobile Coverage and Capacity Indoors and Outdoors** The evolution of 5G connectivity in Madrid requires a mobile connectivity infrastructure capable of meeting demand wherever people and urban activity are concentrated. The aim is to ensure high-quality communications and deliver an enhanced connectivity experience for citizens and users through solutions such as small cells, which boost capacity in high-traffic outdoor areas, and multi-operator DAS (Distributed Antenna Systems) with dedicated capacity, which enhance connectivity inside buildings. Together, these complementary solutions, supported by collaboration between public authorities, operators and property owners, contribute to a more connected Madrid, ready to support the next generation of 5G-enabled digital services.	
17:00		**Madrid AI 2030: responsible and useful artificial intelligence** Madrid Artificial Intelligence is an initiative by the City Council to promote the responsible use of AI in improving municipal services. The project fosters more efficient and personalized public management, while ensuring transparency, ethics, and data protection at all times. It aligns with the principles and compliance requirements of the European Union's Artificial Intelligence Act, guaranteeing an artificial intelligence that is reliable, secure, and human-centric.	
17:15		**AI Tax: Efficient, Personalised and Proactive Tax Services** Following the completion of the first phase of digitalising Madrid City Council's tax services, a new stage is beginning with a system designed to incorporate Artificial Intelligence capabilities. This application of AI builds on the data generated during the initial phase, which focused on data governance and improving data quality. This foundation now makes it possible to apply advanced AI techniques to develop a new generation of municipal tax services that are more efficient, personalised and proactive.	

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10:00	**Madrid: From Digital Twin to Agent City | The Madrid Geoportal as a fundamental pillar for the construction of an urban, collective, safe and governed intelligence** The Madrid City Council's Geoportal is the ecosystem that integrates, visualizes, and distributes geospatial data to improve urban management. It allows for the analysis of the territory through interactive maps and advanced tools, supporting more efficient decisions in mobility, the environment, and public services. It promotes transparency and citizen participation with up-to-date city data and allows all City Council departments to access this information quickly and easily. Building on the Madrid City Council's Geoportal, Esri and AWS present their vision for implementing an Agentic City platform to improve Madrid.
10:15	**MiNT Madrid Inteligente: the operational platform of the smart city** A technological platform supporting urban public services that allows for the management of elements within the city of Madrid, integrating maintenance activities, citizen incidents, and municipal inspections, as well as monitoring service levels and major municipal service contracts. It is continuously evolving to promote transparency and efficiency in the City Council's work.
10:30	**Service Galleries: The invisible infrastructure that makes the city smart** The arcades are essential infrastructure for the city's functioning. Systems integration, centralized monitoring, artificial intelligence, and the digitalization of maintenance enable progress toward a smarter, safer, and more efficient management model, connecting technology and people to improve responsiveness, optimize resources, and ensure the safety and operability of this urban infrastructure.
10:45	**Smart Urban Spaces: Madrid in real time, hyperconnected and intelligent urban spaces** Smart Urban Spaces transform areas of the city into hyperconnected environments for experimentation and operation. IoT, edge computing, advanced connectivity, data, and AI enable the monitoring of conditions and the automation of responses. They are the reliable source of information that interoperably feeds the digital twin. The devices are tested in the laboratory and constitute a reference catalog for the entire City Council. Specific examples of devices are provided.
11:00	**Technology at the service of public lighting: service, safety and intelligence** Artificial intelligence is transforming public lighting into a more attentive, efficient, and proactive service. By analyzing data from luminaires, sensors, energy consumption, and citizen reports, it helps detect anomalies, anticipate potential failures, and prioritize repairs. This allows maintenance teams to better plan their routes, respond more quickly, and make the most of every intervention. The technology also enables the identification of consumption patterns and supports decisions to improve energy efficiency, always taking into account the specific needs of each area. With reliable information, connected systems, and human oversight, every action can be recorded and evaluated. The result is a better-lit city, with well-managed resources and a service that accompanies people every night.
11:15	**Madrid Digital Twin: a city that understands, learns and improves** Madrid Digital Twin is building a new urban intelligence infrastructure based on an open, interoperable, and federated digital twin architecture. By integrating geospatial information, municipal data, semantic models, artificial intelligence, and advanced simulation, it connects systems and transforms data into knowledge to improve city management. This session will present the principles of this architecture and its practical application to the digital twin of the subsurface, one of the most relevant use cases. This digital twin integrates information on tunnels, service galleries, and underground infrastructure to facilitate their analysis, planning, and management. It exemplifies how Madrid is moving toward becoming a more connected, intelligent, efficient, and resilient city.
11:30	**Madrid Digital Twin: a city captured, modeled and recognized by AI** Madrid is moving towards an increasingly accurate, comprehensive, and up-to-date digital representation of the city. This presentation will demonstrate how observing the territory from different perspectives and using various technologies (aerial photography, mobile mapping, traditional surveying, etc.), cartographic production, and artificial intelligence combine to transform urban reality into useful knowledge. It will explore the model the City Council is using to build a new way of understanding Madrid and to support planning, municipal management, and decision-making, serving as the foundation for its Digital Twin.
11:45	**Digital Brain of the City: visualize, understand, anticipate and decide** The City Brain is evolving into an intelligent layer capable of integrating data, events, and models from multiple municipal platforms. Through advanced analytics, AI, and agent orchestration, it will transform urban signals into coordinated recommendations and responses. This is the evolution toward an integrated urban knowledge platform that provides a unified, dynamic, and contextualized view of the city. Its mission is to support public management, strategic planning, and decision-making by giving city officials a deep, real-time understanding of how the city functions. It is not a system that replaces human decision-making, but rather a platform that gathers, analyzes, and contextualizes information to help public managers make better, faster, and more informed decisions.
14:00 15:00	**BREAK**
15:00	**Madrid Innovation: how a city drives innovation** The Madrid City Council supports startups, companies, universities, and research centers to foster innovation in the city and improve the lives of its residents. It provides spaces and services, connects ecosystem stakeholders, offers funding, opens the city to test solutions in real-world conditions, and helps scale successful projects. This talk explains this model and shares the results and lessons learned, which are useful for other cities.
15:15	**Cities now need open standards: results of AIOTI+FIWARE+OMA GIS for irrigation in public spaces** The Special Interest Group (SIG) has focused its efforts on the public irrigation use case, starting with a prioritization of requirements and needs that are subsequently translated into a selection of standardized OMA data objects. These objects are then linked to Smart Data Models, enabling the digital twins to provide high-quality, validated information obtained from both direct measurements and inferred values.
15:45	**URBAN-IA MADRID - From reactive urbanism to predictive, measurable and evidence-based planning** An urban innovation initiative that combines Big Data, Artificial Intelligence, thermal simulation, computer vision, and digital twins to anticipate the impact of extreme heat and optimize bioclimatic interventions before implementation. The project unites the technological capabilities of the Madrid Big Data & AI Cluster with the urban, construction, and regulatory expertise of MWCC. Its objective is to transform urban data into more precise decisions to improve climate resilience, energy efficiency, and the livability of public spaces.
16:00	**Energy-to-Mobility: From Passive Consumer to the Digital Orchestration of Energy Resources and Operations** The challenge is no longer just electrifying buses. It is about orchestrating energy, storage, renewable generation, charging and fleet operations as a single system. EMT is evolving from an energy consumer into an active energy manager across all its mobility services.
16:30	**Urban Tech Sovereignty: Open ecosystems for an autonomous and resilient city** Technological sovereignty in urban spaces demands open, interoperable, and governed architectures that guarantee control over critical data, infrastructure, and algorithms. The evolution toward hybrid cloud, edge computing, and open standards strengthens autonomy and resilience.
16:45	**Technology for Social Services in the Age of AI** Technology projects in the Social Policies, Family and Equality Area based on AI. Impact of AI on the conception, development and implementation of technological solutions. Ethical and practical considerations.
17:00	**GovTech4All (with Lisbon Council): driving open technological innovation and collaboration in the European ecosystem** Madrid has a well-established GovTech program, designed to connect the challenges of public administration with startups and innovative stakeholders to drive the development and adoption of technological solutions. Through its participation in GovTech4All, in collaboration with the Lisbon Council, Madrid is reinforcing this commitment through European cooperation, experimentation, and the validation of innovative solutions, thus facilitating their application and scaling within the public sector.
17:15	**Geoportal: A living reflection of the city** Geoportal is the leading geospatial platform for accessing constantly updated urban information, reflecting Madrid's ongoing evolution through continuously expanding data, maps, and digital services. The project promotes the rapid integration of new datasets and functionalities, ensuring that citizens, businesses, and public administrators have an increasingly accurate, comprehensive, and up-to-date view of the city to support decision-making, transparency, and the development of innovative services.

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MADRID DIGITAL CAPITAL SCEWC 2026

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10:00	**City Council Always Connected: Multi-network resilience for critical organizational communications** It strengthens the continuity of Madrid City Council's communications in emergencies, guaranteeing voice and data even in extreme scenarios. It combines satellite, 5G, and SD-WAN technologies to protect connectivity for critical offices and senior management, anticipating the evolution towards direct satellite-to-device (D2C) networks, along with the strengthening of Telefónica's network exchanges.
10:15	**Madrid, an administration without limits. Connectivity at the service of the city** It has transformed the way the City Council works, strengthening multi-operator connectivity, improving security and response capacity with 6,000 new mobile devices for the Municipal Police, and preparing for upcoming challenges such as Smart Data and urban intelligence. A project of the Madrid City Council, in collaboration with Orange, that promotes a modern, mobile, and efficient administration.
10:30	**Salta's next stage: AI to support access to employment** The planned evolution of Salta will incorporate artificial intelligence assistants to facilitate access to employment services and offer more personalized support to citizens, businesses, and technical staff. It will simplify registration through conversations and CV reading, create and adapt resumes, prepare for interviews, conduct skills self-assessments, and receive recommendations for career goals, training, and job offers. Businesses will have access to assistance in posting vacancies, consulting anonymized profiles, and identifying available grants and programs. Technical staff will receive support in analyzing indicators and preparing reports. The assistants can initially be used internally and, after validation and adjustment, integrated into public portals, with professional oversight and data protection measures.
10:45	**MADRIDdbp (Digital Building Permit): innovation, data and applied intelligence** MADRIDdbp is moving towards a digital licensing process based on BIM models, structured data, and automated validation of urban planning requirements. The platform integrates interoperability, computable rules, and advanced analytics to reduce processing times and improve traceability in municipal management.
11:00	**Madrid Line: assisted, predictive and omnichannel citizen service** Línea Madrid uses Artificial Intelligence to strengthen its high quality standards, as it seeks to improve with this technology the suitability of the information required by citizens, the quality control of interactions, the performance of specific procedures and the massive exploitation of the data provided by the more than 11 million services provided annually.
11:15	**Salta: a connected digital ecosystem for employment in Madrid** Salta, the platform of the Madrid Employment Agency, integrates career guidance, job placement, and training in a digital environment that connects citizens, businesses, and partner organizations, including municipal schools. It allows users to assess their skills, define personalized employability improvement plans, access training, and participate in selection processes. Its portals and management tools facilitate registration for activities, the management of job offers and applications, and coordination between professionals and organizations. Unified information and dashboards ensure continuity of service, track the services provided, and connect talent development with the needs of businesses.
13:00	**BREAK**

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12:00	**OPENING** **Álvaro González López** Delegate for Housing Policy Madrid City Council
12:20	**Madrid Digital Capital 2030: Next Steps Towards the City of the Future** Madrid Digital Capital 2030 is the update of the strategic roadmap designed to consolidate Madrid as one of the world's most innovative, connected, sustainable, and people-centered cities. The initiative sets out a comprehensive vision for digital transformation that combines technology, data, public innovation, and collaboration with the business ecosystem to improve citizens' quality of life and strengthen the city's competitiveness. More than a technology program, Madrid Digital Capital 2030 is a city-wide project that drives Madrid's evolution towards a smart, resilient, and sustainable urban model, capable of addressing the social, economic, and environmental challenges of the coming decade. By fostering innovation, digital inclusion, and data-driven governance, it aims to create a more efficient, adaptable, and citizen-focused city, prepared for the opportunities and challenges of the future.
13:00	**Transforming Urban Mobility: Data, Citizen Experience & AI** EMT Madrid promotes sustainability, operational efficiency and an improved citizen experience. Its strategic initiatives and innovative partnerships position EMT as a leader in shaping the future of public transport in Madrid. This includes incorporating and leveraging artificial intelligence and new data analytics capabilities, always ensuring responsible data use, scalable solutions and measurable impact.
13:20	**Agentic City: Artificial Intelligence as Madrid's Driving Force** The session presents the next stage of Agentic City: Artificial Intelligence as Madrid's Driving Force: a leap forward from existing digitalisation towards more connected, predictive and automated capabilities.

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12:00	**Southeast Greenway. Technology that transforms the city** The A-5 highway will be buried to create a large green pedestrian and cycling corridor that reconnects neighborhoods, reduces environmental impact, and transforms public space for the benefit of people. Disruptive technologies such as Gemelo, IoT, and AI will be used in its design and implementation.
12:20	**Madrid, an economy in transformation: innovation, business and opportunities** Digital transformation is redefining economic activity, business models, and the labor market in major cities. Madrid is approaching this process with a vision that understands technology not as an end in itself, but as a tool to boost productivity, strengthen competitiveness, and generate new opportunities. In this session, Óscar Romera will discuss how the Madrid City Council contributes to this transformation through its policies on economic development, industrial and commercial modernization, entrepreneurship, attracting investment and talent, and providing job training. This reflects a commitment to an innovative and open economy, where technological progress reaches the entire productive sector and translates into growth, well-being, and social cohesion.
12:40	**What talent does a Smart City need?** Smart cities need advanced technology, but above all, they need people capable of imagining, leading, and managing change. The future of smart cities is a matter of talent. The transformation facing public administrations demands a new profile for public employees. What skills do they need? How can they be attracted and developed within the public sector? How can the talent required by the cities of the future be fostered? This presentation will analyze how the Madrid City Council, through Madrid Talento, is promoting a model for attracting, selecting, and developing professionals capable of driving digital transformation. Because the intelligence of a Smart City lies not only in the technology, but also in the people who make it valuable for citizens and businesses.
13:00	**Madrid dreams: simulating the city of tomorrow today** It is an urban foresight and public innovation initiative that allows for imagining, modeling, and evaluating different futures for the city through the use of data, artificial intelligence, advanced simulation, and digital twins. Its purpose is to help Madrid anticipate the major challenges of the coming decades and design better decisions before implementing them in the real world. The central idea is simple: if we can simulate how the city will function tomorrow, we can make better decisions today.
13:20	**Mercamadrid: a smart urban space to develop mobility solutions for the European Union** It is an urban and technological innovation initiative that leverages Mercamadrid's logistical, energy, and digital capabilities to transform it into a large-scale testing ground for advanced solutions in sustainable mobility, energy transition, and smart data management. The project aims to transform Mercamadrid into a real-world environment where companies, startups, universities, technology centers, and public administrations can design, validate, and scale technologies applicable both to the Mercamadrid site itself and to the city of Madrid as a whole.
13:40	**Ibero-American cities in the AI era: experiences and lessons learned from local governments** Within the framework of the Union of Ibero-American Capital Cities (UCCI), a forum was held among 15 Ibero-American capital cities to share experiences, initiatives, and lessons learned regarding the use of artificial intelligence in local government. This exchange identified common challenges, best practices, and different approaches to harnessing the potential of AI to create more efficient, inclusive, and citizen-focused cities, reinforcing the value of collaboration and learning among cities.

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11:50	**The Regulatory Framework for AI in Public Administration. Special Reference to Tax Administration** The adoption of artificial intelligence (AI) in public administrations is disruptive not only from a technological perspective but also from a regulatory standpoint. Principles such as transparency, explainability, and human oversight must be properly regulated to avoid creating legal uncertainties that could hinder or delay projects involving the use of AI.
12:10	**Madrid DBP: Smart urban planning licenses based on BIM and data** The Madrid City Council's automated licensing platform, based on BIM models and data, allows for the automatic validation of regulatory compliance for building projects. This tool makes the process faster and more transparent.
12:30	**Smart social services: connected, people-centered care. PALOMA, the technology that listens, supports, and connects** This session presents the next evolution of "Smart Social Services: Connected and People-Centered Care": a leap from existing digitalization to more connected, predictive, and automated capabilities. With the integration of new, accessible, and easy-to-use technologies, all older adults can benefit from advanced services tailored to their individual needs while maintaining their connection to the community, both at home and in the community.
12:50	**Madrid Digital Economy Observatory: data to anticipate the economy of the future** The Economic Observatory of the City of Madrid is the municipal digital platform for the analysis and monitoring of the Madrid economy, responsible for monitoring economic activity, preparing socio-economic reports and providing strategic information for decision-making based on public and private evidence.
13:10	**CLOSING**