



European Digital Innovation Hub Madrid Region



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Plan de Recuperación,
Transformación
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EOI Escuela de
organización
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EDIH-MADRID REGION

EUROPEAN DIGITAL INNOVATION HUB – MADRID REGION

D 6.1 REPORT SERVICES PROVIDED DURING THE FIRST YEARS. WP6

Task 1.2

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Executive Summary

This document describes the procedures to evaluate and report the quality of the services provided by EDIH MADRID REGION within the project during the first period of 18 months of the project, helping project managers and stakeholders assess performance and make informed decisions for future project implementation. This deliverable is addressed to Work Package 6 (WP6) focussing on providing digitalization support services specifically tailored for the public sector in the Madrid region. The primary aim is to enhance the digital capabilities of public sector entities, improving their efficiency, service delivery, and overall operational effectiveness.

There is a mistake on the name of this deliverable as it should be named by the timeline that will be analyze: 18 months, and not the first year.

Introduction

The EDIH MADRID REGION project aims to establish a European Digital Innovation Hub (EDIH) in the Madrid region, targeting the digitization of both the public sector and small to medium-sized enterprises (SMEs).

The primary objectives of the project of EDIH MADRID REGION include:

- Accelerating the digital transformation of SMEs and public sector organizations in the Madrid region.
- Providing comprehensive support services, including digital maturity assessments, skill and training services, and support for accessing financing for digital transformation.
- Facilitating the integration and adaptation of advanced digital technologies to improve operational efficiencies and business models.

The project encompasses several key sectors, specifically:

- SMEs in the service sector
- Industrial SMEs focusing on Industry 4.0
- Regional and municipal public administrations
- Mobility and transport sectors

The project commenced on December 1, 2022, and is set to run for 36 months. This timeline includes various phases of implementation, monitoring, and evaluation to ensure the project meets its objectives and delivers tangible benefits to its stakeholders; in this deliverable, we will analyze the services provided during the first 18 months of the project (50% timeline of the project) and the achievements and problems found specifically to WP5: SMEs in the service sector

The EDIH MADRID REGION project places a significant emphasis on the digital transformation of Regional and municipal public administrations, particularly through the adoption of comprehensive digital maturity and assessment services on providing digitalization support services specifically tailored for the public sector in the Madrid region. The primary aim is to enhance the digital capabilities of public sector entities, improving their efficiency, service delivery, and overall operational effectiveness.

Objectives Enhanced Digital Capabilities: improving digital maturity and capabilities within the public sector.

- **Efficient Service Delivery:** More efficient and effective public service delivery through the adoption of digital technologies.
- **Skilled Workforce:** A well-trained public sector workforce proficient in utilizing digital tools and technologies.
- **Successful Implementation of Digital Solutions:** Effective and successful implementation of tested digital solutions.
- **Secured Funding:** Better access to financial resources necessary for digital transformation projects.

Partners Involved in WP6

1. **Comunidad de Madrid (CM)** as lead beneficiary, contributes to an overall coordination of WP6 activities, ensuring alignment with regional digital strategies and public sector needs.
2. **Fundación para el Conocimiento madrmasd (MADRIMASD)** provides methodological support and quality control for digital transformation services, ensuring consistency and effectiveness.
3. **Universidad Carlos III de Madrid (UC3M)** offers academic expertise and advanced digital tools for digital maturity assessments and testing services.
4. **Entidad de Gestión de Derechos de los Productores Audiovisuales (EGEDA)** coordinates educational and digital content resources, supporting digital transformation in public sector education and communication.
5. **Asociación de Empresarios del Henares (AEDHE):** provides business support and digital maturity assessments for public sector entities, leveraging their extensive knowledge of local needs
6. **Hewlett-Packard Servicios España (HPE)** supplies high-performance computing resources and technical expertise, facilitating advanced digital assessments and solutions.

This report evaluates the effectiveness and efficiency of the services delivered in WP 6.

Effectiveness refers to the extent to which the services delivered achieve the intended outcomes and goals. For the EDIH MADRID REGION project, effectiveness can be measured through several key indicators: Digital transformation success, skill development, innovation and growth (impact on competitiveness (enable the PSO to better compete in the market)

Efficiency relates to the resources used to deliver the services and the speed and cost-effectiveness of the delivery process. Key factors include resources utilization (human, technological resources to deliver high quality services); timelines (delivery of the services with the planned timelines); services delivery processes (by reducing bureaucracy and improving speed); scalability (ability to scale services to accommodate more services without increasing costs or time)

By achieving these objectives, WP6 aims to significantly enhance the digital transformation of the public sector in the Madrid region, leading to improved efficiency, better service delivery, and a more modern and capable public administration.

Description of services provided WP6

The following services have been provided:

- **Test before invest,**

146 DMAs have been carried out to public services:

- 133 are Town Councils of towns with less than 20,000 inhabitants. For the City Councils, personal interviews have been carried out with each one to carry out the DMA and identify their needs.
- 6 to health services training center
- 4 to educational training centers, schools
- 1 to public transport service
- 1 to a rehabilitation center.

One test before invest to the Ministry of Defence's Directorate General of Armament and Matériel for an application of AI for the inspection of electronic material to to universities, health training centres, high school institutes.

- **Training services**

A total of 30 training activities have been conducted in universities, institutes, and health services with the following contents

- Cloud Services: 77 attendees
- Communication network: 18 attendees
- Artificial Intelligence & Decision support : 3 attendees
- Big Data: 27 attendees

Service Delivery Analysis

The services provided are designed to empower municipalities with innovative tools and solutions, enabling them to enhance their efficiency, optimize operations, and better serve their communities. These offerings encompass a wide range of technological, strategic, and operational support tailored to address the unique needs and challenges faced by local governments.

From digital transformation initiatives and data-driven decision-making tools to citizen engagement platforms and smart city solutions, the services aim to foster sustainable development and modernize public administration. Each service is delivered with a focus on quality, scalability, and alignment with the overarching goals of improving public service delivery and promoting innovation across municipalities and other public sector companies.

List of Services to Public Sector

1- Chatbot for Web Municipalities

An AI-powered chatbot designed specifically for municipal websites to enhance citizen engagement and streamline public services. This intelligent virtual assistant provides 24/7

support, answering frequently asked questions, guiding users to relevant resources, and assisting with common tasks such as appointment scheduling, service requests, or document submissions.

The chatbot is customizable to reflect the municipality's specific services and policies, ensuring accurate and relevant information for users. By automating routine inquiries, it reduces the workload on municipal staff and improves the efficiency of public service delivery, offering a seamless, user-friendly experience for residents.

2- Email Security and Vulnerability Study

This service involves conducting a comprehensive assessment of the City Council's email security and exposure levels. The study aims to identify vulnerabilities, evaluate potential risks, and assess the level of awareness and training among municipal employees regarding cybersecurity threats. These threats include phishing attacks, ransomware, trojans, and data theft. The findings will help implement targeted strategies to strengthen email security and enhance staff preparedness to mitigate risks effectively.

3- Creation of Accessible Digital Content Using NFC and QR Chips

This service focuses on the development of audiovisual digital content to promote an accessible municipality. By integrating Near Field Communication (NFC) and Quick Response (QR) chips, municipalities can offer interactive and inclusive content that improves access to information and services for all citizens, including those with disabilities. This initiative underscores the commitment to fostering an inclusive community through innovative technology.

4- Development of an AI-Powered Virtual Assistant

This service entails creating a virtual assistant equipped with Artificial Intelligence to provide location-specific information. Hosted on a tablet, the virtual assistant supports both text and voice interactions, offering an intuitive and user-friendly way for citizens and visitors to access essential information about municipal services and locations. This solution enhances the accessibility and efficiency of public information delivery.

5- Cybersecurity Audit of Municipal Websites

This study evaluates the cybersecurity status of municipal websites across the region. The assessment aims to identify vulnerabilities, propose specific recommendations for improvement, and develop actionable policies to enhance the cybersecurity posture of each City Council. By addressing potential risks proactively, this service ensures the safety and reliability of digital resources for municipalities and their residents.

6- Pilot Test of a Rehabilitation and Training Solution Using Social Robotics and AI

This functional pilot project tests a solution that integrates assistive social robotics and Artificial Intelligence for rehabilitation and training purposes. The initiative explores innovative ways to support individuals in need of rehabilitation, offering personalized and interactive training experiences. By leveraging cutting-edge technologies, this service aims to improve the quality of life and foster greater independence for users.

7- On-street automated parking in regulated zones: Connected car technology, implementable via software or through a device connected to the vehicle (dongle), to efficiently manage parking in regulated areas.

8- Digital auditorium for audiovisual content and streaming events: A platform for disseminating content and organizing online events, facilitating communication and citizen engagement.

- 9- **Training in digitalization and creating learning experiences in corporate environments:** Training programs to develop and digitalize learning experiences in corporate settings, enhancing employees' digital competencies.
- 10- **Support for businesses within the European Single Market:** Assistance to take advantage of opportunities provided by the European Single Market, facilitating cross-border collaboration and expansion.
- 11- **Digitalization roadmap:** Development of a personalized strategic plan recommending how to effectively approach the digitalization process.
- 12- **Incident control for public transport infrastructure:** SaaS platform for monitoring and managing incidents in public transport infrastructure, improving operational efficiency.
- 13- **Personalized advice for strategic business decision-making:** Specialized consultancy to support strategic decision-making, optimizing business performance and competitiveness.
- 14- **Electric bike subscription:** Subscription system for electric fleets allowing companies to provide sustainable vehicles to their employees, promoting eco-friendly mobility.
- 15- **Support for applying for funding for innovative projects:** Assistance in preparing and submitting applications for funding for innovative projects, facilitating access to financial resources.
- 16- **Measurement of mobility patterns and healthy habits, with incentives:** A tool to encourage sustainable habits among employees and stakeholders, using technology to monitor and promote healthy practices.
- 17- **Access to EU funding programs:** Guidance to identify and apply for European Union funding programs, supporting the development and growth of local projects.
- 18- **Implementation of open data platforms:** Support in setting up and managing open data platforms to promote transparency and facilitate access to public information.
- 19- **Digitalization of administrative processes:** Services to streamline and automate administrative workflows, enhancing efficiency and reducing manual tasks.
- 20- **Smart city solutions:** Deployment of technological tools and platforms to transform municipalities into smart cities, improving urban management and citizen services.
- 21- **Cybersecurity audits and consulting:** Comprehensive evaluation of IT systems to identify vulnerabilities and recommend measures to enhance cybersecurity in public administration.
- 22- **Advanced data analytics for decision-making:** Implementation of analytics tools to process and interpret large datasets, enabling informed decision-making in public policies.
- 23- **Training in green and digital transformation:** Capacity-building programs focused on combining sustainability initiatives with digital technologies for holistic development.
- 24- **Cloud adoption for public administration:** Guidance and technical support to migrate systems and services to cloud platforms, improving scalability and accessibility.
- 25- **IoT integration for public services:** Solutions to integrate Internet of Things (IoT) devices into public infrastructure, enabling smarter and more efficient service delivery.

- 26- **Citizen engagement platforms:** Development of digital platforms to enhance communication and interaction between local governments and citizens.
- 27- **AI-powered chatbots for public services:** Implementation of AI-driven chatbots to assist citizens with inquiries and provide faster service response times.
- 28- **Municipal energy efficiency solutions:** Technological initiatives to monitor and optimize energy usage in public buildings and infrastructure.
- 29- **Digital twin creation for urban planning:** Development of digital replicas of cities or municipalities to simulate and plan urban development projects
- 30- **Blockchain for public administration:** Solutions to implement blockchain technology for secure and transparent management of public records and processes.
- 31- **Digital skills assessment for public employees:** Tools and methodologies to evaluate the digital competencies of municipal employees and identify areas for improvement.
- 32- **Public procurement digitalization:** Services to digitize and optimize procurement processes, enhancing efficiency and transparency in public contracts.
- 33- **Disaster recovery and business continuity plans:** Development of robust strategies to ensure public services remain operational during and after emergencies or disruptions.
- 34- **GIS (Geographic Information System) solutions:** Implementation of GIS tools to improve territorial planning and management, aiding municipalities in decision-making processes.
- 35- **Sustainability tracking and reporting platforms:** Creation of digital platforms to monitor and report on sustainability initiatives and environmental impact.
- 36- **Integration of 5G technologies:** Support for deploying 5G infrastructure to enhance connectivity and enable advanced digital services in municipalities.
- 37- **Digital identity and e-government solutions:** Implementation of secure digital identity systems and platforms to facilitate online access to public services for citizens.
- 38- **Predictive maintenance for public infrastructure:** Application of advanced analytics and IoT to predict and prevent failures in public facilities and infrastructure.
- 39- **Smart lighting systems for municipalities:** Deployment of energy-efficient and intelligent lighting solutions to reduce costs and improve urban infrastructure.
- 40- **Digital health monitoring systems:** Tools to support public health management, including monitoring health trends and optimizing healthcare delivery in local communities.
- 41- **CRM implementation consulting:** Expert advice to implement a Customer Relationship Management system effectively.
- 42- **Carpooling service for public and private organizations:** Shared mobility solutions for municipalities, universities, and businesses.

How services have been offered and implemented

A comprehensive series of interviews were conducted across all municipalities within the Community of Madrid, aimed at identifying and documenting the specific needs and priorities of each locality. This effort included providing direct assistance to municipal representatives in completing the Digital Maturity Assessment (DMA), ensuring that the collected data accurately reflected their current state of digitalization. The findings from these interviews were systematically cross-referenced with our detailed service matrix and subsequently aligned with the digitalization percentages outlined in the DMA. This rigorous methodology allowed for a nuanced analysis of the region's digital readiness and helped identify critical areas requiring intervention to drive digital transformation.

The interviews themselves were carried out by two highly qualified specialists in digitalization, whose technical expertise and professional approach were pivotal to the success of this initiative. Their involvement not only guaranteed the precision and thoroughness of the data collection process but also facilitated meaningful discussions with municipal representatives. These discussions provided valuable insights into the challenges and opportunities faced by each municipality, enabling the formulation of tailored strategies that address their unique needs while aligning with broader digital transformation objectives. This structured and collaborative approach underscores a commitment to fostering inclusive and effective digital development across the Community of Madrid.

How Services They Have Been Offered

For the upcoming period, seven meetings have been scheduled, strategically organized by geographic regions across the Community of Madrid. All municipalities will be invited to participate in these sessions, which aim to present the common services that will be offered as part of the digitalization initiative.

Additionally, these meetings will serve as a platform to individually present the action plan tailored to each municipality, as well as to share the results of their respective Digital Maturity Assessments (DMA). This personalized approach ensures that each municipality gains a clear understanding of the specific strategies and resources available to them.

Moreover, these sessions will provide an opportunity to collect valuable feedback on the proposed services, fostering a collaborative dialogue between the municipalities and the organizing body. This feedback will be instrumental in refining the services and ensuring that they align closely with the unique needs and expectations of the municipalities, thereby driving a more effective and inclusive digital transformation process throughout the region.

Communication and centralization of contact

Communication with the municipalities has been carried out in a structured manner and in multiple stages, ensuring a transparent, inclusive, and efficient approach. In the initial phase, formal emails were sent to municipal representatives, explaining the purpose, scope, and planned actions of the project. These emails included key information about the objectives of the Digital Maturity Assessment (DMA) and the expected benefits of their participation.

Subsequently, personalized phone calls were made to the representatives of each municipality to address any questions, emphasize the importance of their involvement, and coordinate in-person interviews. During this stage, a close and tailored approach was prioritized to ensure clear and effective communication suited to the specific characteristics of each locality.

During the in-person interviews, specialized technicians engaged in open dialogue with municipal representatives, providing a detailed explanation of the data collection process and analysis methodology. They also shared project updates and highlighted the benefits of the proposed services tailored to each

municipality's needs.

Finally, digital channels such as virtual meetings and informational bulletins were used to maintain continuous communication about preliminary results and the next phases of the project. This multi-channel strategy has ensured a high level of engagement and facilitated ongoing interaction between the municipalities and the organizing team.

The communication has been centralized by the Community of Madrid, acting as the entity responsible for Work Package 6 (WP6). This centralization ensures a streamlined and efficient flow of information between all stakeholders, facilitating coordinated actions and minimizing redundancies.

As the lead for WP6, the Community of Madrid has taken on the role of coordinating all communication efforts, ensuring that municipalities are kept informed about the project's objectives, progress, and available services. This centralized approach allows for consistent messaging and fosters a unified understanding of the project's goals across the region, enabling a more cohesive and effective implementation of the initiative.

Additionally, this centralization has enabled the establishment of a single point of contact for municipalities, simplifying their engagement with the project and ensuring their queries and concerns are addressed promptly and effectively. By consolidating communication under one responsible entity, the Community of Madrid has been able to maintain a high level of transparency and accountability, ensuring that all stakeholders are aligned and informed throughout the process.

This strategy not only enhances the efficiency of the project's execution but also strengthens trust and collaboration among municipalities, EDIH partners, and other stakeholders, ultimately contributing to the success of the digital transformation efforts across the Community of Madrid.

Best practices and Continuous Improvement

During the first phase of the project, significant efforts were devoted to laying the groundwork for service provision in the subsequent period. These efforts included:

- Establishing clear guidelines and frameworks for the delivery of services.
- Conducting comprehensive needs assessments to align services with the unique requirements of municipalities.
- Strengthening communication channels to ensure effective stakeholder engagement and collaboration.

The foundation established during this period has generated positive expectations for the implementation of digital solutions in the municipalities of the Community of Madrid and other public entities. This structured approach is expected to facilitate the seamless integration of innovative technologies, promoting the modernization of public administration and enhancing service delivery to citizens.

Building on the findings of the report, the following recommendations are proposed:

- Maintain a continuous feedback loop with municipalities to ensure services remain aligned with their evolving needs.
- Invest in training and capacity-building initiatives to maximize the impact of digital solutions.
- Focus on scalability and sustainability to expand the reach of services to additional public entities.

The insights and outcomes documented in this report serve as a roadmap for future phases, emphasizing the critical role of quality services in achieving the long-term goals of digital transformation and innovation within public administration.

To date, only training services have been carried out, but many DMAs have been carried out, which has

made it possible to identify needs to offer new training and TBI services that are being organized for implementation in a short period of time.

Conclusions

The first 18 months of the EDIH Madrid Region project have successfully laid the groundwork for driving digital transformation across municipalities and public sector entities in the Community of Madrid. Through a structured and targeted approach, the project has made significant progress in identifying the digital maturity levels of these entities and addressing their specific needs.

The implementation of Digital Maturity Assessments (DMAs) has been pivotal in tailoring services such as cybersecurity audits, training programs, and AI-powered solutions to align with municipal requirements. These efforts have not only improved operational efficiency but have also fostered innovation and modernization within public administration.

The collaborative engagement between municipalities and project partners has strengthened trust and ensured a shared commitment to achieving long-term digitalization goals. By establishing clear guidelines and leveraging feedback mechanisms, the project has maintained a focus on continuous improvement, ensuring that services remain relevant and impactful.

As the project transitions into its next phase, there is a strong foundation to build upon, with high expectations for the integration of innovative technologies. Planned initiatives, including further training, pilot projects, and scaled implementation of solutions, are set to enhance public service delivery and drive sustainable development across the region.

Overall, the EDIH Madrid Region project exemplifies the importance of quality, scalability, and collaboration in achieving successful digital transformation, setting a benchmark for similar initiatives in the future.