



MobiNexus

Collaborating for Innovative Mobility

D3.1 MobiNexus Platform with Integrated AI Powered Smart Engine

M6 – Feb 2026



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3	UPC Future Mobility Research Hub (UPC)	ES
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Abbreviations

- AI - Artificial Intelligence
- ALLEA - All European Academies
- CA - Consortium Agreement
- CSA - Coordination and Support Action
- CUS - Coventry University Services
- SCMIP – Stakeholder Chain Map Intelligent Platform
- ICT – Information and Communication Technologies
- API – Application Programming Interface
- UI – User Interface
- DB – Database
- AI – Artificial Intelligence
- RAG – Retrieval-Augmented Generation
- ANN – Approximate Nearest Neighbor
- LLM – Large Language Model DMP - Data Management Plan
- DPIA - Data Protection Impact Assessment
- EEN - Enterprise Europe Network
- EBN - European Business and Innovation Centre Network
- EC - European Commission
- EISMEA - European Innovation Council and SMEs Executive Agency
- FAIR - Findability, Accessibility, Interoperability, and Reuse (Data principles)
- GA - Grant Agreement
- GDPR - General Data Protection Regulation
- HE - Horizon Europe
- ICMF - Innovation Center of the Faculty of Mechanical Engineering of Belgrade University



- IASP - International Association of Science Parks
- KER - Key Exploitable Result
- KPI - Key Performance Indicator
- MIN - Mobility Innovation Network
- MOBY X - MOBY X Software Limited
- QAP - Quality Assurance Plan
- SCCs - Standard Contractual Clauses
- SLA - Service Level Agreement
- UI - User Interface
- UPC - UPC Future Mobility Research Hub
- STEP RI - Science and Technology Park of the University of Rijeka
- WP - Work Package



Executive Summary

The MobiNexus platform provides an intelligent digital environment designed to support collaboration, knowledge management, and information exchange within the mobility and innovation ecosystem. At the core of the platform is an integrated Artificial Intelligence engine that enables automated content processing, intelligent data retrieval, and enhanced decision support for registered users in fostering processes, which are part of the Mobility Triple Revolution. MobiNexus combines information acquisition from predefined external sources with structured content contributed by platform members. The AI engine is included to support analysis, classification, and organisation of collected data, improving relevance, searchability, and contextual understanding of available information. This approach enables users to access up-to-date, domain-specific knowledge efficiently.

The platform implements controlled access mechanisms that ensure advanced services, analytical tools, and collaboration features are available exclusively to registered Platform members. Visitors attempting to access restricted functionalities are redirected to the registration process. Designed with scalability and modularity in mind, MobiNexus supports the integration of intelligent recommendations with AI-driven knowledge services. By combining automated data acquisition with AI-based processing and user-generated content, the platform enhances situational awareness, supports collaboration, and strengthens innovation capacity across the network.

1. Introduction

Europe's mobility and transport sector is undergoing a significant transformation driven by digitalisation, electrification, automation and the green transition. Mobility, recognised as one of Europe's key industrial ecosystems, plays a decisive role in achieving the European Union's 2050 climate neutrality objectives while safeguarding competitiveness, resilience and societal well-being. However, fragmented innovation landscapes, uneven regional capacities, and persistent gaps between research excellence and market deployment continue to limit the full realisation of Europe's mobility potential. Partial relation between academia, research organisations, industry and innovation support intermediaries reduces the efficiency of knowledge transfer and slows the commercialisation of advanced solutions. This structural fragmentation contributes to disparities in innovation performance between EU Member States and regions, thereby constraining Europe's collective ability to deliver inclusive, sustainable and intelligent mobility systems at scale. Addressing these challenges requires more than incremental improvements; it demands systemic coordination supported by intelligent digital infrastructure. The MobiNexus initiative emerges as a strategic response to this need, fostering structured collaboration between industry, academia, research bodies and policymakers to accelerate sustainable urban mobility transformation. At its core lies the concept of the "triple mobility revolution," defined by the convergence of shared mobility models, transport electrification and autonomous vehicle technologies. Together, these dynamics redefine



mobility as an interconnected, service-oriented ecosystem rather than a collection of isolated assets.

To enable such transformation, MobiNexus builds upon the foundations of the Mobility Innovation Network (MIN), originally established under the INNO-MOB project to interconnect mobility innovation actors across Europe. The original rationale for MIN responded to the fragmentation of mobility clusters, which were often confined within national or regional boundaries. INNO-MOB sought to revitalise dormant super-clusters and broaden stakeholder participation by aligning regional and national strategies under a shared pan-European umbrella. Through intelligent mapping, digital matchmaking functionalities and a collaborative portal environment, MIN connected SMEs, investors, universities, research centres and public authorities, thereby strengthening cross-border knowledge exchange. The Stakeholder Chain Map Intelligent Platform provided the technical backbone for mapping actors and visualising relationships, supporting the application of the Collective Innovation Deployment Development Support Model to align assets, integrate services and pilot collaborative actions.

While MIN successfully established a baseline digital environment for mobility ecosystem interconnection, the accelerating complexity of technological transitions creates the need for further improvement. Thus, the logical next step in the empowerment of MIN involves the integration of AI, leading to the development of the new form known as MobiNexus platform as its enhanced outcome, representing in this way a strategic leap toward intelligent ecosystem orchestration.

Having this in mind, this report presents the concept and specific solutions of AI integration with the existing INNO-MOB platform transformation. Unlike generic AI solutions, the improved MIN smart engine is tailored specifically to the transport and mobility domain. Its AI model is hosted on dedicated infrastructure and trained using curated datasets composed of publicly available documents, reports, policy frameworks and platform-specific information related to transport and mobility. The RAG based training process is designed in iterative and adaptive manner rather than static. Periodic retraining and updates incorporate new data, regulatory changes and technological developments, ensuring that the system remains aligned with the evolving mobility landscape. In this way, deployment of the AI-powered smart engine within the MobiNexus platform transforms the digital environment from a passive information repository into an active innovation facilitator. The integration process ensures interoperability with existing digital MIN infrastructures while expanding functionality through communication tool, intelligent search mechanism and personalised recommendation system incorporated in matchmaking engine. The platform thus becomes capable of proactively identifying collaboration opportunities, suggesting relevant partners, highlighting funding possibilities and guiding users through complex regulatory or technical landscapes. In this sense, AI serves not only as a support tool but as an orchestrator of ecosystem intelligence.

By analysing stakeholder data from the original MIN platform and complementary networks, this kind of improved solution allows stakeholders to better understand their position within the broader mobility ecosystem.



As a further added value, the improved MobiNexus platform, also integrates a comprehensive competence-building dimension. A structured skills-needs analysis identifies key competencies required in the rapidly evolving mobility sector, including strategic thinking, entrepreneurial orientation, innovation management, digital literacy, sustainability awareness and regulatory understanding. Stakeholder engagement workshops facilitate collaborative prioritisation of critical skills gaps, ensuring alignment between industry demands and academic training provision.

Hence, the report will also present two new features: the integration of user-centric and societal perspectives into the innovation process. Sustainable mobility solutions must respond to citizen expectations, behavioural patterns and equity considerations. To this end, MobiNexus incorporates the MobiNexus User-Centric Lab designed to gather citizen insights through structured methodology. These insights will ensure that innovation outputs are not only efficient and scalable but also socially inclusive and contextually responsive. This will be also used in the MobiNexus Entrepreneurship Academy that will deliver targeted training programmes in accessible online formats, maximising inclusivity across regions. Evaluation mechanisms measure learning outcomes and inform iterative improvement, reinforcing the adaptive character of the platform.

This report shows holistic and multi-dimensional nature of such AI empowered MIN platform, this improvement, rather than functioning as a static project deliverable, enables the AI-enhanced MobiNexus platform to operate as an evolving infrastructure capable of supporting sustained innovation across heterogeneous European regions.

2. The MIN platform – initial features

The MIN platform, developed within the INNO-MOB project, was designed as an innovative web-based solution with the aim to support collaboration and innovation in the mobility sector. Conceived as a central hub, it connects diverse stakeholders - including SMEs, startups, universities and public authorities - through an intuitive interface and integrated digital services. Users can access regulatory guidance, open data resources and matchmaking tools that facilitate partnerships and knowledge exchange. By promoting inclusivity and accessibility, MIN strengthens cooperation across the mobility ecosystem and supports the development of forward-looking initiatives. At its core, the Platform is powered by the Stakeholder Chain Map Intelligent Platform (SCMIP), which provides a structured overview of the mobility innovation landscape. Through this integrated system, users can navigate available services, identify relevant actors and engage in targeted matchmaking activities. The platform also hosts best practices and case studies, encouraging shared learning and continuous improvement while helping reduce fragmentation within the sector. Operating as both a knowledge base and a collaboration environment, the Platform offered publicly accessible information on mobility trends and resources, like related Worldwide News, Services, Best Practices, as well the option for an user to register and join to MIN. Registered members gain access to advanced functionalities, including the Actor Map for stakeholder visualisation, a Matchmaking Facility

connecting innovation seekers with support providers, and a Communication Facility enabling structured exchanges.

3. MobiNexus Platform - AI empowered MIN

3.1 Introducing Retrieval-Augmented Generation (RAG) architecture

The adoption of AI technologies represents a significant step forward in the evolution of MIN services enabling them to leverage the full potential to create connections and foster collaborative communities. In this sense, the integration of Retrieval-Augmented Generation (RAG)-based artificial intelligence architecture significantly enhances the structural and functional capacity of the MIN platform by combining generative language capabilities with real-time retrieval of domain-specific data.

Generally, Retrieval-Augmented Generation (RAG) is best described as an AI architecture that combines two technological components:

- Information retrieval systems (which search and extract relevant documents or data from a knowledge base), and
- Generative language models (which synthesise responses using the retrieved information).

From a methodological perspective, it can also be viewed as a design strategy for improving factual accuracy and domain specificity in AI applications. By grounding responses in verified, platform-hosted and curated mobility datasets, RAG reduces informational ambiguity and increases the contextual accuracy of user interactions. Thus the RAG is chosen to transform the MIN from a static knowledge repository into an intelligent, query-responsive hybrid environment capable of delivering evidence-based insights that should be tailored to stakeholder needs. The most important reason why the RAG architecture is chosen to be the base for smart MIN update is its capability to enable updating of the knowledge base without requiring complete model retraining (Fig. 1).

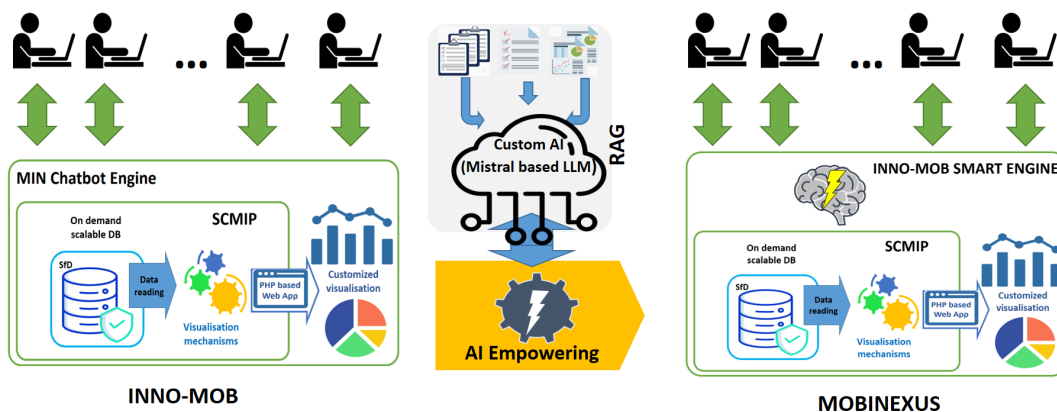


Figure 1 MobiNexus platform: RAG enhancement of MIN

As a result, MIN's ecosystem mapping, matchmaking and decision-support functionalities become more reliable, scalable and strategically valuable for mobility innovation actors.

3.2 The MobiNexus RAG Concept

RAG systems combine the strengths of large language models (LLMs) with the precision of vector-based retrieval systems. This hybrid approach allows the system to dynamically retrieve relevant information from the RAG MIN knowledge base and use it to generate contextually appropriate responses. In the context of a matchmaking platform, RAG can be applied in three primary ways: improving matchmaking through semantic analysis of participant descriptions, enhancing the accessibility and utility of a MIN services repositories, and providing chat assistance for MIN members. Each of these applications addresses a specific technical implementation challenge within the platform. Having this in mind, the RAG MIN knowledge base consists of two types of data:

- Relevant academic, industry and policy sources, stored in PDF format
- Textual data obtained by crawling internal INNO-MOB web content.

Relevant academic, industry and policy sources are/will be obtained as a result of desk research activities conducted by partners during Project activities. On the other hand, textual data is obtained as a result of automatic processes of the internal INNO-MOB web content crawling (web scraping), conducted in order to update AI knowledge base with actual data stored as a result of different MIN members' activities, as well as with the updated content published at the official MobiNexus Project website.

3.2.1 Semantic Matchmaking Using Participant Descriptions

Matchmaking processes within MIN members was conducted using the enhanced matchmaking algorithm, which initially included three types of parameters, which were obtained from profile data of involved MIN members. However, this algorithm didn't take into account detailed analysis of MIN member description. In order to improve the MIN matchmaking process, RAG is employed to analyse and determine matching estimation of participants based on the semantic content of their descriptions. This involves converting the textual descriptions into vector embeddings using a sentence transformer model. These embeddings capture the semantic meaning of the text, allowing the system to identify similarities between descriptions that might not share exact keywords. The implementation of semantic matchmaking begins with embedding all participant descriptions and storing them in a vector ChromaDB database. When generating matches, the system combines structured filtering with semantic similarity scoring that is further converted into additional matchmaking matrix, storing numerical representation of matchmaking strength for each potential pair. The update of matchmaking matrix is realised by deploying the Cron job (a Linux version of Task Scheduler). Then such a (weighted) data is included in the additionally improved matchmaking algorithm. In this way, the structured data ensures that criteria such as Matchmaking preferences, Mobility Sector Experience and proximity criteria are met, while the semantic analysis identifies deeper compatibilities that

might otherwise go unnoticed. This hybrid approach results in higher-quality matches that reflect both the explicit preferences and implicit interests of participants.

3.2.2 MobiNexus AI Chatbot: Service and Best Practices Repository aware engine

A significant improvement of INNO-MOB Services is the MobiNexus AI Chatbot engine that uses all available data including the repository of services and best practices, which enlarges as MIN members contribute their knowledge and experiences. RAG offers a solution to this problem by enabling semantic search capabilities within the repository. Instead of relying on exact keyword matches, the system converts both the repository content and participant queries into vector embeddings. This allows the system to retrieve documents that are semantically related to the query, even if they do not share specific terminology. To implement this, the repository content is first chunked into manageable segments and embedded using the same sentence transformer model applied to participant descriptions. These embeddings are stored in a vector database, allowing for efficient similarity searches. When a participant submits a prompt, the system retrieves the most relevant documents and uses an LLM to generate a concise summary or answer based on the retrieved content. The onboarding process can be further enhanced by deploying an interactive chatbot that answers participant questions using the RAG system. This chatbot retrieves relevant information from the repository and participant descriptions, generating responses that are both informative and contextually appropriate.

3.3 The RAG Technical Implementation

The integration of RAG into the INNO-MOB platform required a structured approach to data preparation, system architecture, and deployment. The first step involved extracting and preparing the textual data that will form the basis of the semantic analysis. This includes participant descriptions, repository documents, and any other unstructured content that can provide value to the matchmaking and recommendation processes.

Once the data is prepared, the next step was to build the RAG pipeline. This involved setting up vector databases for participant descriptions and repository content, involvement of a sentence transformer model, and integration of the retrieval and generation components with the existing platform infrastructure. The vector databases are tested to support efficient similarity searches, allowing the system to quickly retrieve relevant information in response to participant queries.

The final step in the implementation plan was to deploy the RAG-enhanced system and integrate it with the platform's user interface. This included adding semantic search functionality to the repository, defining certain AI-generated match explanations and content recommendations, and deploying the onboarding chatbot.

One of the primary challenges was the cold start problem, where the initial lack of relevant content that should be generated by the desk research partially limited the system's ability to generate meaningful recommendations. This effect has been lowered with the receiving the literature lists and gathering corresponding content from the literature repositories. Still, the

system remained to be fully tested regarding the supporting incremental updates, which would allow new content to be added without requiring a complete rebuild of the vector database.

The risk of hallucinations, where the LLM generates plausible but incorrect responses, is an inherent challenge in RAG systems. This was tested and it is actively monitored during platform exploitation. Hence, there is still possibility that complete rebuild of the vector database would be realised considering the fact that cold start was not fully avoided at the beginning of vector creation process.

4. MobiNexus Platform – The updated MIN structure

Keeping in mind the positive experience with the MIN website, the MobiNexus platform has retained the same structured layout designed to offer intuitive navigation and comprehensive access to key features. The main theme has been redesigned to retain the recognisable MIN look. It is visible through the design of the easy-to-follow MIN homepage (Fig. 2). At the top, a prominent top menu provides an easy overview of the sections for non-registered users. It should be noted that the content of the top menu has been modified and adapted to the needs of the MobiNexus project, while maintaining the most important features of the original version of the platform. Now this menu contains the basic items:

- Home
- MobiNexus Labs
 - MobiNexus Entrepreneurship Academy
 - MobiNexus User-Centric Lab
- News
- Services
- Join MIN
 - Register
 - Login

MobiNexus Labs is the new item that contains two subitems related to the activities within the MobiNexus project. These are the MobiNexus Entrepreneurship Academy, as well as the MobiNexus User-Centric Lab.

The MobiNexus Entrepreneurship Academy will launch with the development of a detailed training syllabus, drawing on the findings of the project's earlier skills needs assessment. In order such an option to be supported a draft lecture page template is prepared (Fig. 3). To ensure the syllabus is both current and forward-thinking, its creation will involve collaboration with experts from academia and industry. These experts will contribute their insights to build content that addresses the latest trends and challenges in the transport and mobility sectors. The entire training program - including lectures, interactive exercises, discussions, and assessment activities - will be delivered online. Please note that current version of the draft lecture page is filled with 'dummy' data and will be in unpublished state until all Academy content would be prepared by the Project team.



About Us

About MIN Platform

MIN platform is a result of INNO MOB project focusing on the opportunities that initiatives & networks offer to innovative and dynamic businesses through an inclusive mobility innovation European ecosystem business support framework.

Now, the MIN platform is additionally empowered with new features, which are developed within the MOBIXUS project that is designed to bridge the gap between academia and industry to foster innovation in the transport and mobility sector especially focusing on the triple revolution in mobility. Such an ecosystem will drive the development and implementation of cutting-edge sustainable mobility solutions critical for achieving Europe's climate neutrality targets by 2050.

- MobiNexus Project Site
- Inno Mob Project Site

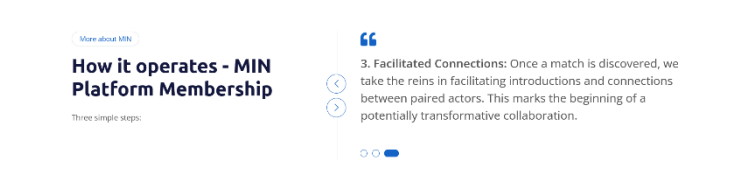
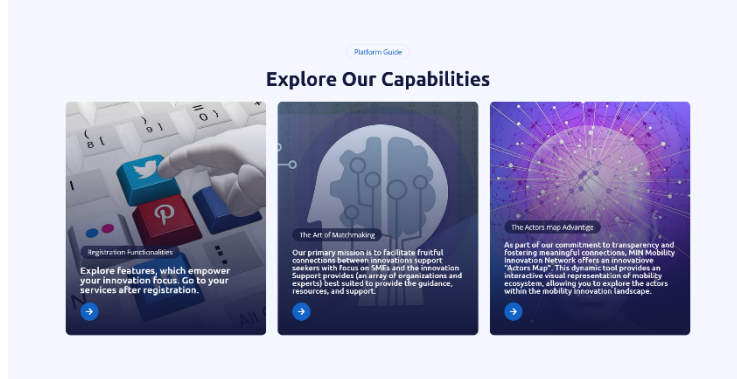
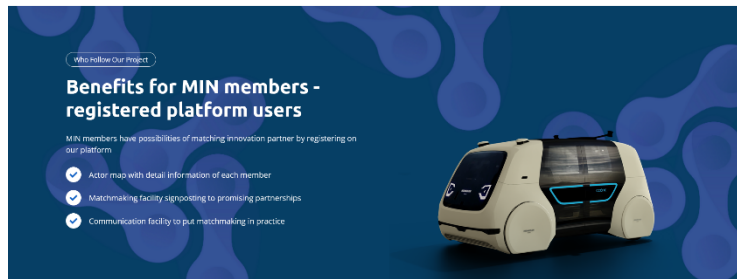


Figure 2 MobINexus platform homepage



Figure 2. MobiNexus platform homepage

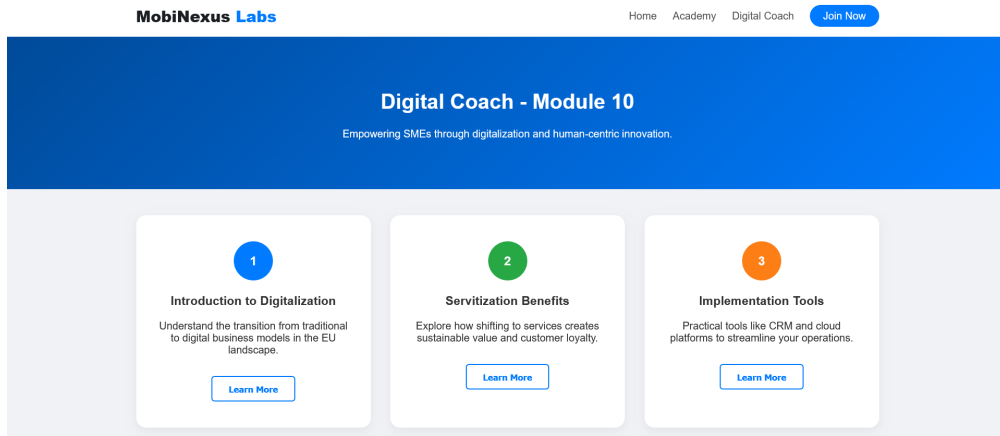


Figure 3 The MobiNexus Entrepreneurship Academy Draft lecture page with ‘dummy’ data

As part of T4.2, the MobiNexus User-Centric Lab has been developed (Fig. 4) as an online version of the Empathy Map tool. Participants will be asked to complete these maps within the context of the three pillars of the triple revolution. Empathy maps are designed to ensure that projects align with the needs and perspectives of citizens, fostering greater engagement, trust, and successful outcomes (Fig.5).



Figure 4 The User-Centric Lab Page Starting page

By pressing “Start the Empathy Map” Button, a participant will open new page with The Empathy Map Questionnaire, which contains all defined survey fields (Fig 5).



Create Empathy Map

Persona Name

The Triple Revolution Pillar
 Select Pillar domain

Say & Do (Says) See (Thinks)

Hear (Does) Think & Feel (Feels)

Pains

Gains

[Submit Empathy Map](#)



Figure 5 The Empathy Map page

Approximately 300 citizens are expected to contribute to the maps. Since registration on the portal is not required for participation, these pages have been placed in the public section of the site. However, The User-Centric Lab has built-in backend page, accessible only to Empathy Map administrators. This page presents submitted data with graphical representation of the most frequently used Gain and Pain phrases (Fig 6.).



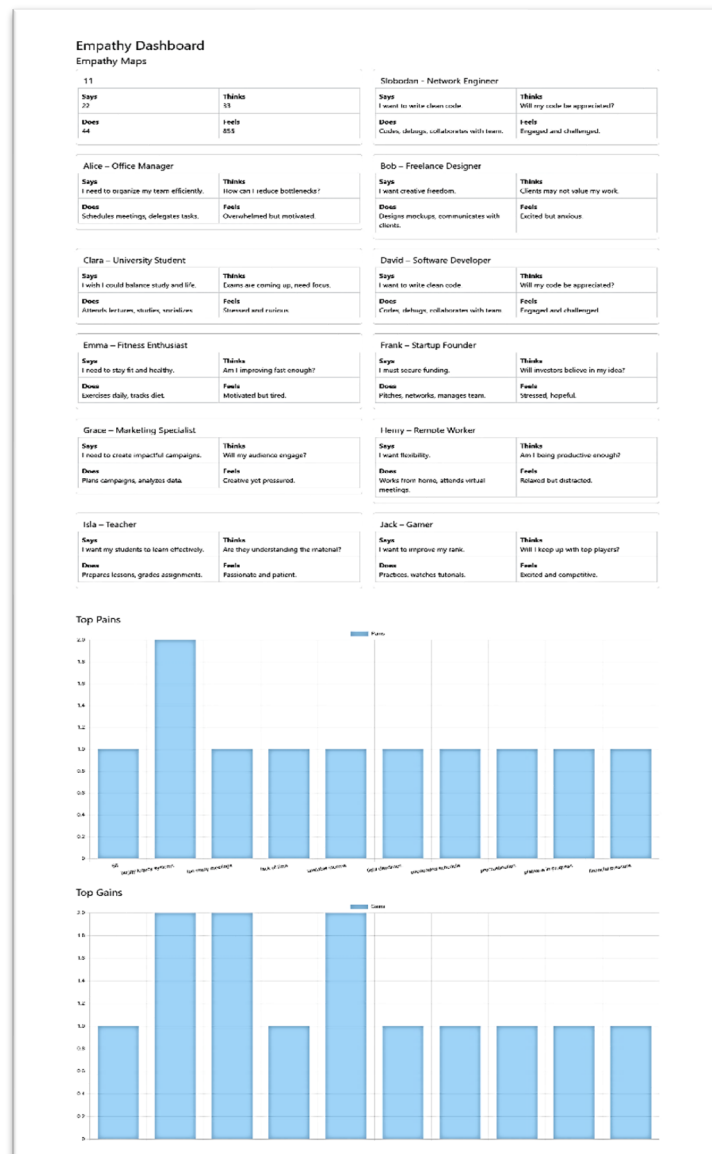


Figure 6 The Empathy Map Admin Page

Regarding the rest of the Platform Homepage, below the top menu, the page is organised into four distinct sections, each focused on specific functionalities and goals. These sections include an informative overview of the MIN platform, highlighting its role in the previous INNO-MOB project, as well as in the current MobiNexus project, outlining the main motivations for further development of the platform. Furthermore, Platform members are presented with detailed benefits, including the possibility to match innovation partners, access to stakeholder maps and use the matching feature. The homepage also highlights the platform’s commitment to facilitating meaningful connections and collaborations among stakeholders across the mobility innovation landscape.

Finally, the homepage ends with a footer section containing relevant information about the current MobiNexus project, as well as the previous INNO-MOB project and development

details, ensuring transparency and providing users with essential context about the Platform and its origins.

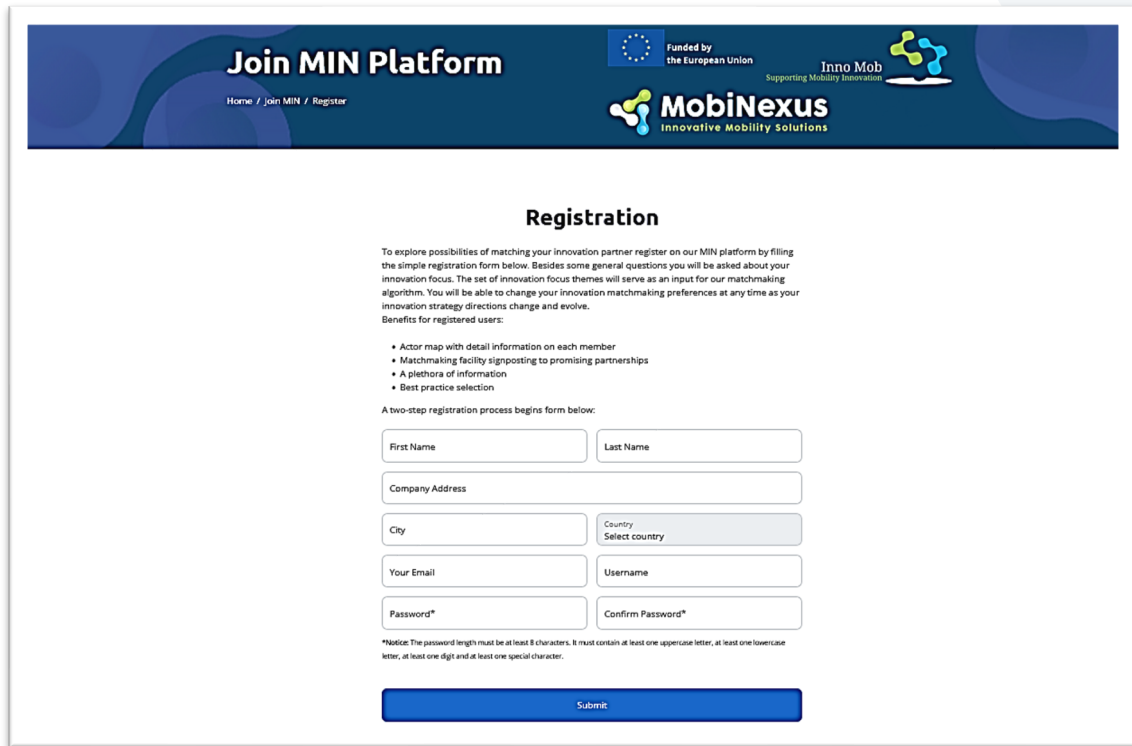
In accordance with the Platform engine specifications, the News section consists of news automatically aggregated in real time from predefined web sources, along with items contributed by Platform members and marked as publicly available (Fig. 7).



Figure 7 The News page

The Services section is accessible exclusively to registered MIN members. Visitors who attempt to access this section without prior registration are automatically redirected to the Join MIN section to complete the registration process. A detailed description of the Services functionality is provided in the following section.

The Join MIN menu includes two submenu options: Register and Login. Selecting the Register option opens the registration page, which requires the submission of information about the representative person of the MIN member organisation (Fig. 8).



Join MIN Platform
Home / Join MIN / Register

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Inno Mob Supporting Mobility Innovation

MobiNexus
Innovative Mobility Solutions

Registration

To explore possibilities of matching your innovation partner register on our MIN platform by filling the simple registration form below. Besides some general questions you will be asked about your innovation focus. The set of innovation focus themes will serve as an input for our matchmaking algorithm. You will be able to change your innovation matchmaking preferences at any time as your innovation strategy directions change and evolve.

Benefits for registered users:

- Actor map with detail information on each member
- Matchmaking facility signposting to promising partnerships
- A plethora of information
- Best practice selection

A two-step registration process begins form below:

First Name Last Name

Company Address

City Country

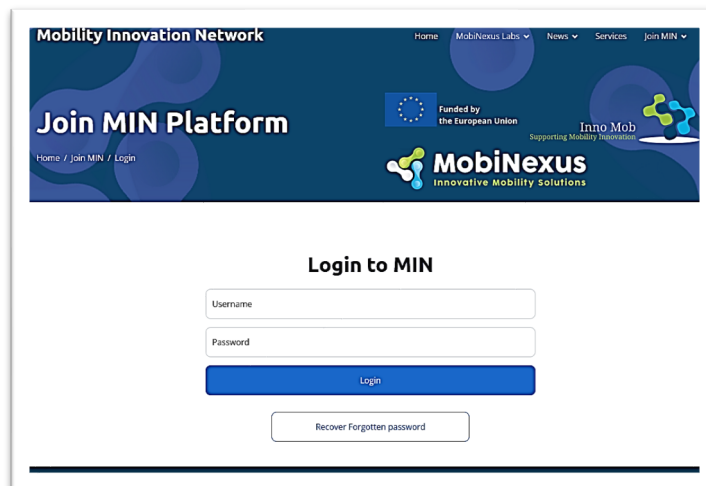
Your Email Username

Password* Confirm Password*

*Notice: The password length must be at least 8 characters. It must contain at least one uppercase letter, at least one lowercase letter, at least one digit and at least one special character.

Figure 8 The Platform Registration Page

On submission, the Platform will send the MIN Member Account Activation message to the entered email address. Upon completion of the activation procedure, the Platform account changes its state to active, allowing the MIN Member to log in to the web platform (Fig 9).



Mobility Innovation Network
Home | MobNexus Labs | News | Services | Join MIN

Join MIN Platform
Home / Join MIN / Login

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MobiNexus
Innovative Mobility Solutions

Login to MIN

Username

Password

Figure 9 The Login page

The login page also includes an option to recover a forgotten password using registered email address.

5. Features and functionalities designed for Platform Members

This section outlines the platform’s features and functionalities, exclusively designed for Platform members. Registered users can access a range of services, carefully developed based on extensive survey insights and collaboration with key stakeholders.

5.1 Setting the profile

Upon first successful login, Platform Members must complete their profile - a crucial step for effective matchmaking. Members can update their profile information during each login to refine their matchmaking and collaboration preferences, as well as keep their expertise in the current mobility sector (Fig. 10).

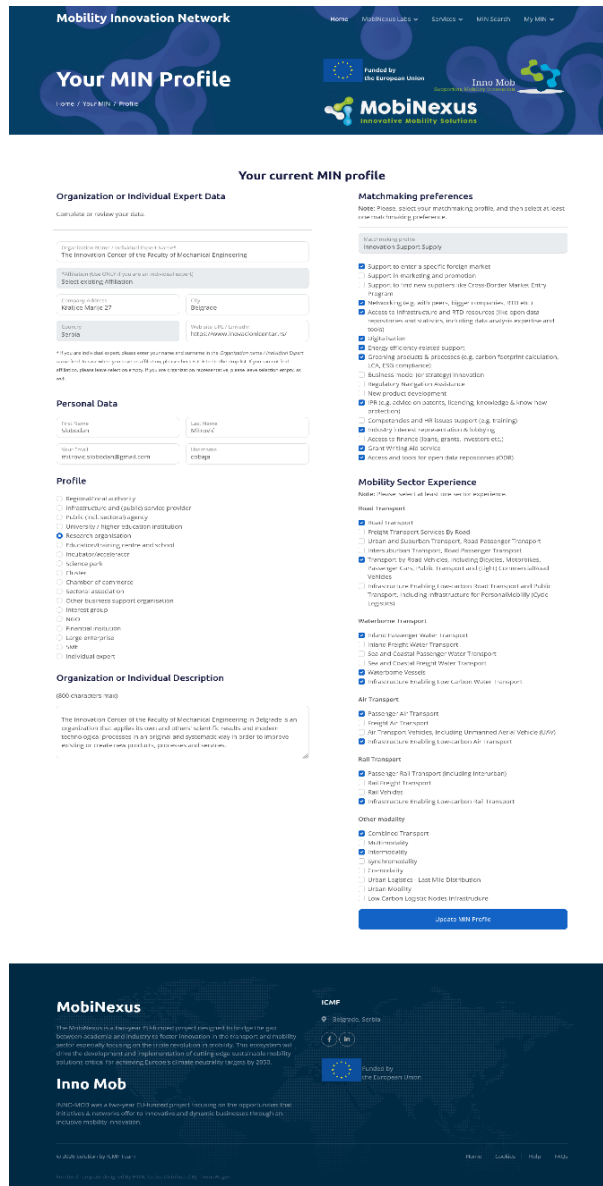


Figure 10 The Platform Profile Page

In their profile, users can update or add their organisation's details - including name, address, website, and a brief description of activities - as well as personal information if acting as a representative. They also select their organisation type from a predefined list and define their matchmaking profile, specifying collaboration preferences such as support for entering foreign markets, networking, and financing. Additionally, users indicate their sector experience within the mobility field to accurately reflect their expertise.

Upon logging in, users unlock an expanded set of features accessible via the Services and My MIN menus. This includes access to two types of news: "News from the World" (publicly available) and "MIN News" (exclusive to platform members). (Fig. 11)

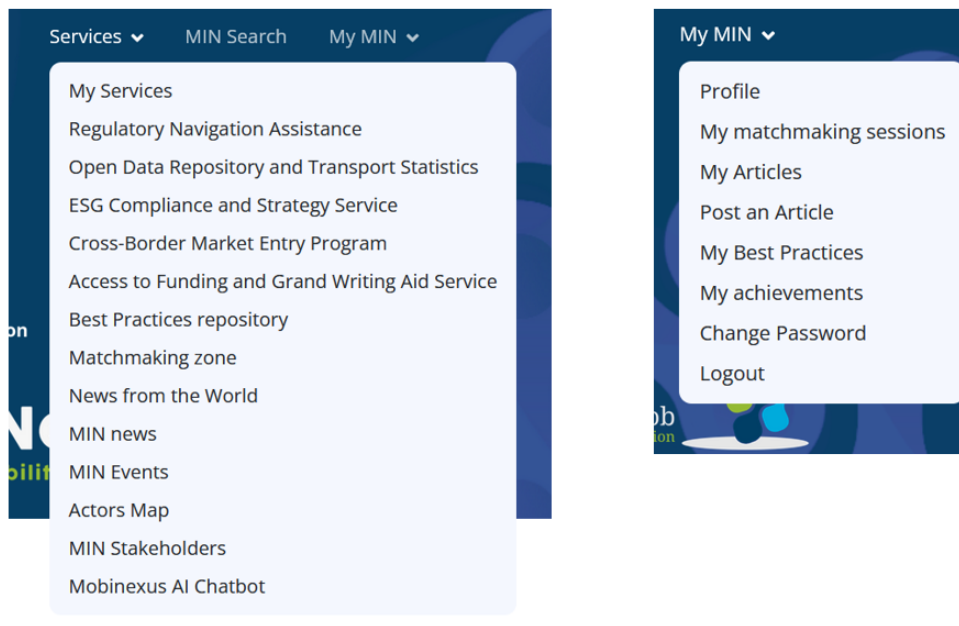


Figure 11 Gained access to advanced set of the Top Menu items

Gained access also includes two types of news: The News from the World that remains publicly accessible, as well as the MIN News, exclusively shared among the Platform members.

5.2 The Services Section

The "My Services" section of the Platform serves as a central hub for specialised support and tailored resources, meticulously designed to foster innovation and collaboration within the mobility sector. This module offers a comprehensive suite of services, developed through extensive stakeholder engagement and co-design processes to ensure they meet the evolving needs of Platform members.

To further enhance the user experience and expand capabilities, the Platform now integrates the MobiNexus AI engine. This advanced technology not only optimises existing services - such

as regulatory navigation, data analytics, and matchmaking - but also introduces a new feature: the MobiNexus AI Chatbot. The chatbot is designed to make it easier for users to leverage the full potential of the available tools.

Hence, the "My Services" section currently includes the following key services, structured as actionable roadmaps to support diverse needs:

1. Regulatory Navigation Assistance
2. Data Analytics and Utilisation
3. ESG Compliance and Strategy Service
4. Cross-Border Market Entry Program
5. Access to Funding and Grant Writing Aid Service
6. Matchmaking & Virtual Collaboration
7. Regional Innovation Showcase
8. MIN Stakeholders Network
9. MobiNexus AI Chatbot

These services are seamlessly integrated into the Platform, ensuring members can efficiently access the support they need to drive their projects forward. Each service is strategically positioned to maximise value for users, whether through expert guidance, data-driven insights, or AI-powered assistance. The table below provides a detailed overview of how these services are organised within the Platform.

Table 1 Services for registered Platform members

Service	Abbreviation	Short description
Regulatory Navigation Assistance	<i>RNA</i>	<i>insights into EU-level legislations and regulations governing the mobility and innovation spheres to help them navigate the complicated regulatory landscape of the mobility industry.</i>
Data Analytics and Utilisation	<i>ODR</i>	<i>Open data and transport statistics for transparency, innovation, and informed decisions, enabling public, researchers, and businesses to improve efficiency in the mobility sector.</i>
ESG Compliance and Strategy Service	<i>ESG</i>	<i>assist SMEs, startups, and entrepreneurs in the mobility sector to integrate ESG principles into their business strategies.</i>
Cross-Border Market Entry Program	<i>CBMER</i>	<i>guides businesses through operation in diverse markets exposing businesses to new ideas, consumer behaviors, and market dynamics, fostering innovation and continuous learning.</i>
Access to Funding and Grand Writing Aid Service	<i>FGWA</i>	<i>identifying funding opportunities and preparing compelling grant proposals, ensuring that businesses can effectively access the financial resources needed to fund their innovations.</i>
Best Practice Repository	<i>BPR</i>	<i>real-life case studies highlighting successful collaborations within the mobility innovation ecosystem.</i>
Matchmaking zone	<i>/</i>	<i>connects stakeholders in mobility innovation, enabling collaboration, idea exchange, and partnership opportunities through tailored profiles and smart matching</i>
MIN news	<i>/</i>	<i>real-time updates on mobility innovations, sourced from live feeds and curated contributions from MIN members</i>

Actors map	/	interactive visualisation of the network of Platform members, highlighting their locations, roles, and contributions to the mobility innovation ecosystem.
MIN Members List	MML	Allows browsing of Platform members and contact initiation.
MobiNexus AI Chatbot	MAIC	Initiates chat with AI RAG based engine

Within the Platform all services can either be accessed by entering the common My Services page (Fig. 12), or individually, by choice of a particular service within the gained menu access as shown in Fig. 11), users are presented with a set of tools and services engineered to navigate the complexities of the innovation landscape.

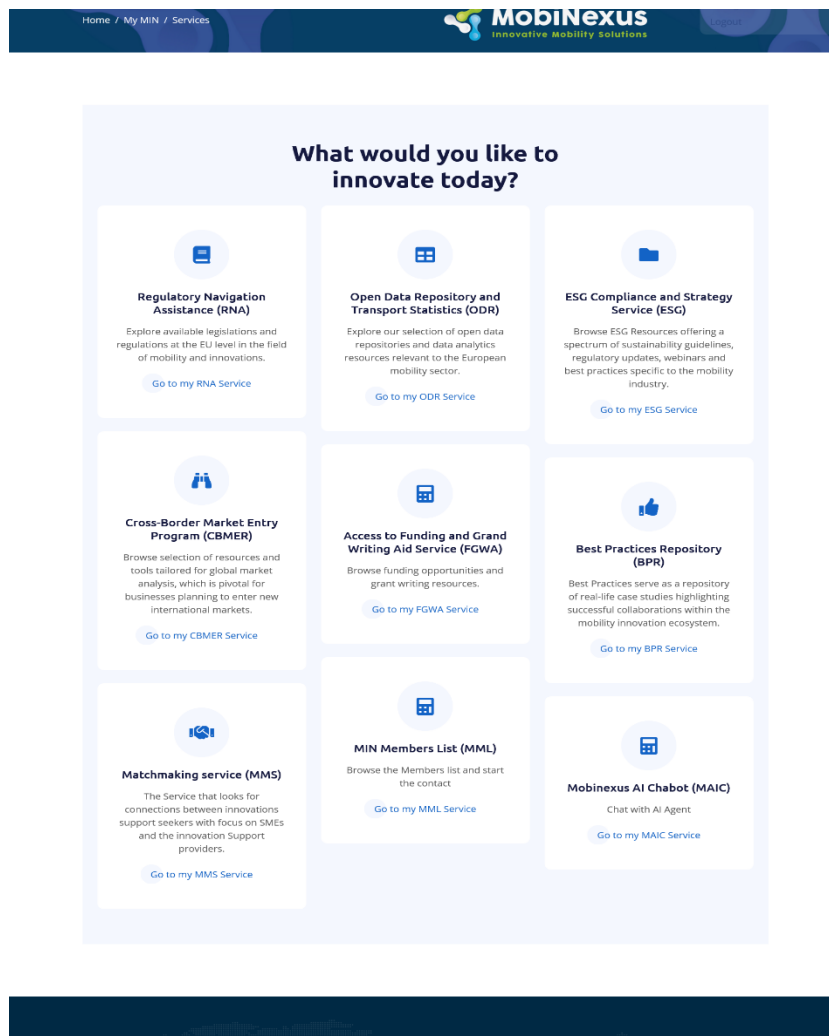


Figure 12 The My Services Page

The operationally aspects of these features are explained in the sections below.

5.3 Navigating the service section

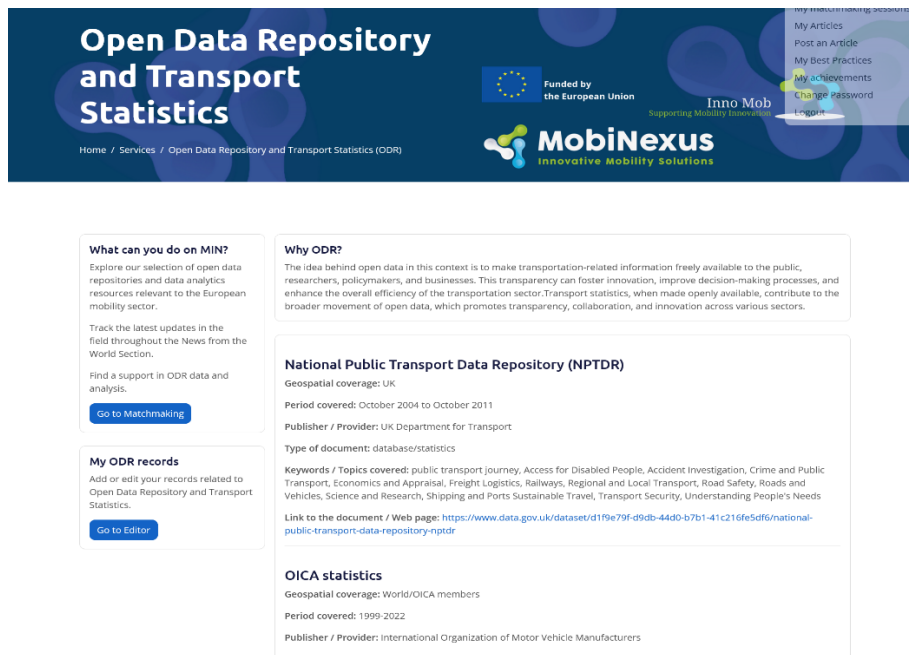
Within the Platform, each service features a dedicated space that presents a detailed and member-exclusive overview of its related records, carefully curated by the community. These pages deliver in-depth descriptions and relevant data for every entry, ensuring users have access to precise and actionable information.

Platform members play an active role in expanding these repositories by contributing their own records. This is done through the Service Editor, which grants access to a member's personal records list (as illustrated in Fig. 13). From there, users can add new entries or modify existing ones, fostering a dynamic and continuously evolving knowledge base. By enabling this collaborative input, the Platform ensures that each service remains rich in content and highly relevant, particularly for members seeking innovation-driven support.

To maintain precision and relevance, each Service Editor (as illustrated in Fig. 14) is tailored to its specific domain, meaning the input fields and options vary depending on the service. For instance: In Regulatory Navigation Assistance (RNA), users select from different categories of regulatory and policy documents.

For ESG Compliance and Strategy, members can contribute not only documents - such as guides or regulatory updates - but also Compliance Tools or Webinar details, reflecting the unique requirements of the domain.

This customised approach guarantees that the data remains domain-specific, and accurate.



Open Data Repository and Transport Statistics

Home / Services / Open Data Repository and Transport Statistics (ODR)

Funded by the European Union

Inno Mob Supporting Mobility Innovation

MobiNexus Innovative Mobility Solutions

My menu: My Articles, Post an Article, My Best Practices, My Achievements, Change password, Logout

What can you do on MIN?
 Explore our selection of open data repositories and data analytics resources relevant to the European mobility sector.
 Track the latest updates in the field throughout the News from the World Section.
 Find a support in ODR data and analysis.
[Go to Matchmaking](#)

My ODR records
 Add or edit your records related to Open Data Repository and Transport Statistics.
[Go to Editor](#)

Why ODR?
 The idea behind open data in this context is to make transportation-related information freely available to the public, researchers, policymakers, and businesses. This transparency can foster innovation, improve decision-making processes, and enhance the overall efficiency of the transportation sector. Transport statistics, when made openly available, contribute to the broader movement of open data, which promotes transparency, collaboration, and innovation across various sectors.

National Public Transport Data Repository (NPTDR)
 Geospatial coverage: UK
 Period covered: October 2004 to October 2011
 Publisher / Provider: UK Department for Transport
 Type of document: database/statistics
 Keywords / Topics covered: public transport journey, Access for Disabled People, Accident Investigation, Crime and Public Transport, Economics and Appraisal, Freight Logistics, Railways, Regional and Local Transport, Road Safety, Roads and Vehicles, Science and Research, Shipping and Ports Sustainable Travel, Transport Security, Understanding People's Needs
 Link to the document / Web page: <https://www.data.gov.uk/dataset/d1f9e79f-d9db-44d0-b7b1-41c216fe5df6/national-public-transport-data-repository-nptdr>

OICA statistics
 Geospatial coverage: World/OICA members
 Period covered: 1999-2022
 Publisher / Provider: International Organization of Motor Vehicle Manufacturers

Figure 13 Records overview (an ODR example)

Edit ODR record
Edit your record related to Open Data Repository and Transport Statistics

Title:

Geospatial coverage:

Period covered:

Publisher / Provider:

Type of document:

Keywords / Topics covered (minimum 5 keywords):

Link to the document / Web page:

Figure 14 Record Editor page (an ODR Record example)

5.4 Matchmaking zone

The Matchmaking Service - referred to as the Matchmaking Zone - stands out as the cornerstone of collaboration within the mobility innovation ecosystem. Unlike other services, it serves as a dynamic hub for fostering partnerships by connecting members across diverse areas of innovation support.

Powered by advanced data analysis and SCMIP algorithms, the Matchmaking Service (MMS) is now further enhanced by the MobiNexus AI engine, which intelligently refines match suggestions based not only on user preferences and expertise, but also on the analysis of user descriptions. This AI-driven approach ensures more accurate, relevant, and timely connections between members.

Platform members can define their matchmaking preferences directly in their Profile pages, selecting from categories such as market entry support, marketing assistance, funding opportunities, and more. Using these preferences, the MobiNexus engine generates and ranks potential matches, presenting users with tailored partnership opportunities and enabling them to initiate direct communication with a single click (as shown in Fig. 15).

Once a member starts a conversation, a dedicated messaging page opens (see Fig. 16), allowing seamless communication. The recipient is instantly notified via email and can access the message by selecting the Messages option in the My MIN Menu (illustrated in Fig. 10). This section consolidates all ongoing discussions with other Platform members, ensuring no opportunity is missed. Email notifications are sent for every new message, keeping users informed and engaged.

Mobility Innovation Network
Home MobiNexus Labs Services MIN Search My MIN

Organization name: The Innovation Center of the Faculty of Mechanical Engineering

Profile type: Innovation Support Supply

Organizational Type: Research organisation
Address: Kraljice Marije 27, Serbia
Web address: <https://www.inovacionicentar.rs/>
MIN Representative: Slobodan Mitrović
Email: mitrovic.slobodan@gmail.com

Matchmaking preferences:

- Support to enter a specific foreign market
- Networking (e.g. with peers, bigger companies, RTD etc.)
- Access to infrastructure and RTD resources (like open data repositories and statistics, including data analysis expertise and tools)
- Digitalisation
- Energy efficiency-related support
- Greening products & processes (e.g. carbon footprint calculation, LCA, ESG compliance)
- IPR (e.g. advice on patents, licencing, knowledge & know-how protection)
- Industry interest representation & lobbying
- Grant Writing Aid service
- Access and tools for open data repositories (ODR)

Mobility Sector experience

- Road transport: Road Transport
- Road transport: Transport by Road Vehicles, Including Bicycles, Motorbikes, Passenger Cars, Public Transport and (Light) Commercial/road Vehicles
- Waterborne Transport: Inland Passenger Water Transport
- Waterborne Transport: Waterborne Vessels
- Waterborne Transport: Infrastructure Enabling Low Carbon Water Transport
- Air Transport: Passenger Air Transport
- Air Transport: Infrastructure Enabling Low-carbon Air Transport
- Railway Transport: Passenger Rail Transport (Including Interurban)
- Railway Transport: Infrastructure Enabling Low-carbon Rail Transport
- Other modality: Combined Transport
- Other modality: Intermodality

Start Matchmaking search

According your preferences, there are 305 matches:

1. **Organization name: Pol Camps**

Organizational Type: Individual expert
Address: Gulden Vlieslaan, Belgium
Web address: p.camps@white-research.eu
MIN Representative: Pol Camps

Matchmaking preferences:

- Support to enter a specific foreign market
- Access to infrastructure and RTD resources (like open data repositories and statistics, including data analysis expertise and tools)
- Energy efficiency-related support
- Greening products & processes (e.g. carbon footprint calculation, LCA, ESG compliance)
- Regulatory Navigation Assistance
- IPR (e.g. advice on patents, licencing, knowledge & know-how protection)
- Industry interest representation & lobbying
- Grant Writing Aid service

Sector experience:

- Road transport: Road Transport
- Road transport: Freight Transport Services By Road
- Road transport: Interurban Transport, Road Passenger Transport
- Road transport: Transport by Road Vehicles, Including Bicycles, Motorbikes, Passenger Cars, Public Transport and (Light) Commercial/Road Vehicles
- Waterborne Transport: Inland Passenger Water Transport
- Waterborne Transport: Sea and Coastal Freight Water Transport
- Waterborne Transport: Waterborne Vessels
- Waterborne Transport: Infrastructure Enabling Low Carbon Water Transport
- Air Transport: Passenger Air Transport
- Air Transport: Air Transport Vehicles, Including Unmanned Aerial Vehicle (UAV)
- Railway Transport: Rail Vehicles
- Railway Transport: Infrastructure Enabling Low-carbon Rail Transport
- Other modality: Combined Transport
- Other modality: Intermodality
- Other modality: Urban Logistics - Last Mile Distribution
- Other modality: Urban Mobility

Initiate communication

2. **Organization name: Areli Kotsi**

Figure 15 Matchmaking Process example

Mobility Innovation Network
Home MobiNexus Labs Services MIN Search My MIN

Initiator: Marijana Petrovic, SeSECC

Initiated contact: Sarah Barsby, Coventry University Services Ltd

Marijana Petrovic, (22/03/2024 10:10)

Dear Sarah, we are very interested to cooperate with CUS on future project proposals. We are a newly established organization that gathers various experts (including mobility) in the field of sharing economy and platform economy. We have great research resources and strong connection with QHelix actors in the field. Currently we are partnering with Kinto Join (part of UK Kinto but located in Sebia, City of Nis) in the filed of ride sharing at universities. Looking forward to your response and future opportunities. Best, Marijana

Sarah Barsby, (22/03/2024 10:38)

orking closely with both the public and private secto find and shape best practice in infrastructure development and sustainable innovation support. orking closely with both the public and private secto find and shape best practice in infrastructure development and sustainable innovation support. Dear Marijana, We are also interested in forging cooperation with your organisation on future project proposals. We are an established organisation acting as a resource for public sector to build the knowledge economy by supporting the delivery and development of programmes that exploit synergistic collaborations between government, business and research. Acting as a resource for public sector build the knowledge economy by supporting the delivery and development of programmes that exploit synergistic collaborations between government, business and research. We very much look forward to future opportunities. Kind regards Sarah

Figure 15 Messaging page example



5.5 Actors Map

The Actors Map is a dynamic, interactive tool embedded within the Platform, designed to visually capture the vibrant landscape of the mobility innovation ecosystem. Leveraging SCMP and Leaflet scripting, this feature presents users with a geographically clustered overview of Platform members-including SMEs, startups, academic institutions, and public entities-across different regions.

Every point on the map represents a registered Platform member, offering quick access to essential details such as the organisation’s name, a brief description, and a link to their website. With its user-friendly interface and advanced clustering capabilities, the Actors Map simplifies the process of discovering potential collaborators, partners, or resources tailored to specific interests (see Fig. 17). Whether exploring local networks or identifying opportunities across borders, users can effortlessly navigate the ecosystem and connect with key stakeholders.

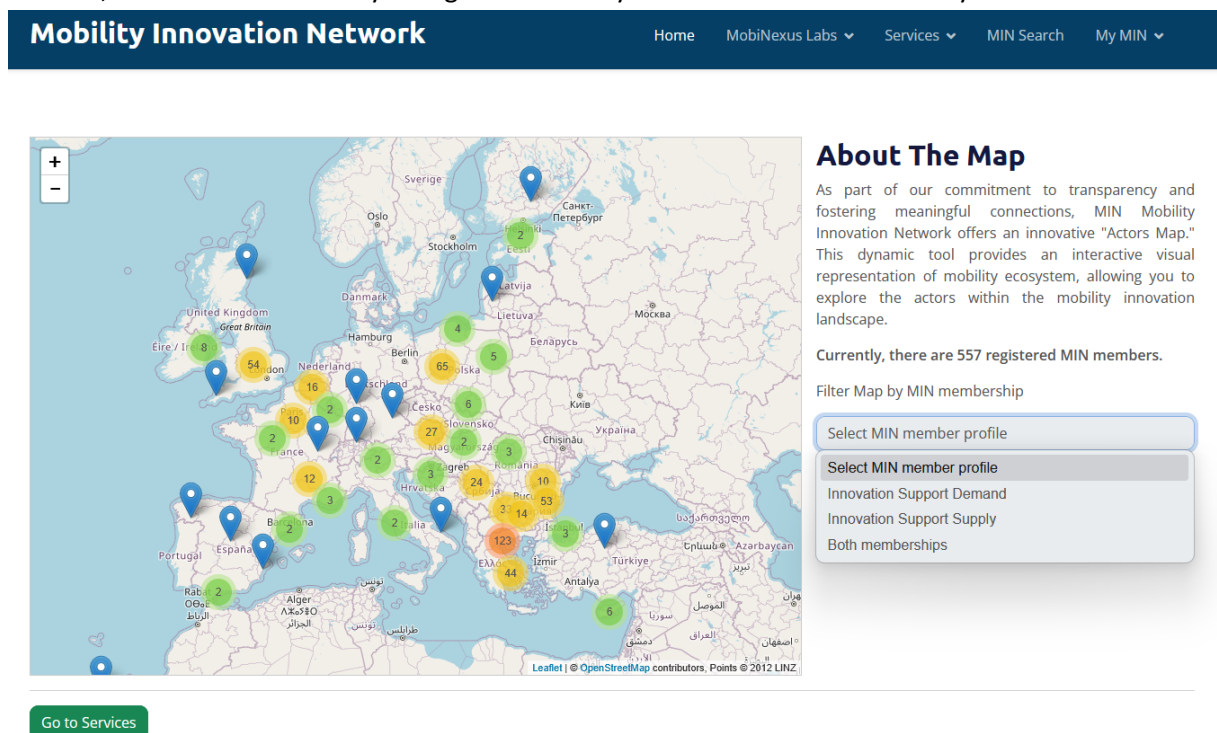


Figure 17 The Actors Map

The Actors Map also includes advanced filtering options to simplify and refine searches. Users can easily switch between innovation support demand and supply members, allowing them to focus their exploration according to their matchmaking needs and collaboration goals.

5.6 Article editing functionality

The Platform’s Article Editing feature gives users the power to create, refine, and publish their own content, fostering a culture of knowledge exchange and collaboration within the mobility

innovation community. When accessing their personal article dashboard, users can effortlessly add new articles or update existing ones, ensuring the Platform stays current with the latest trends, research, and breakthroughs.

Designed for ease of use, the intuitive editor simplifies the content creation process, allowing users to seamlessly insert text, upload images, and adjust settings to match their needs. They also have full control over access permissions, deciding whether to share their articles exclusively with Platform members or make them publicly available to a broader audience (see Fig. 18).

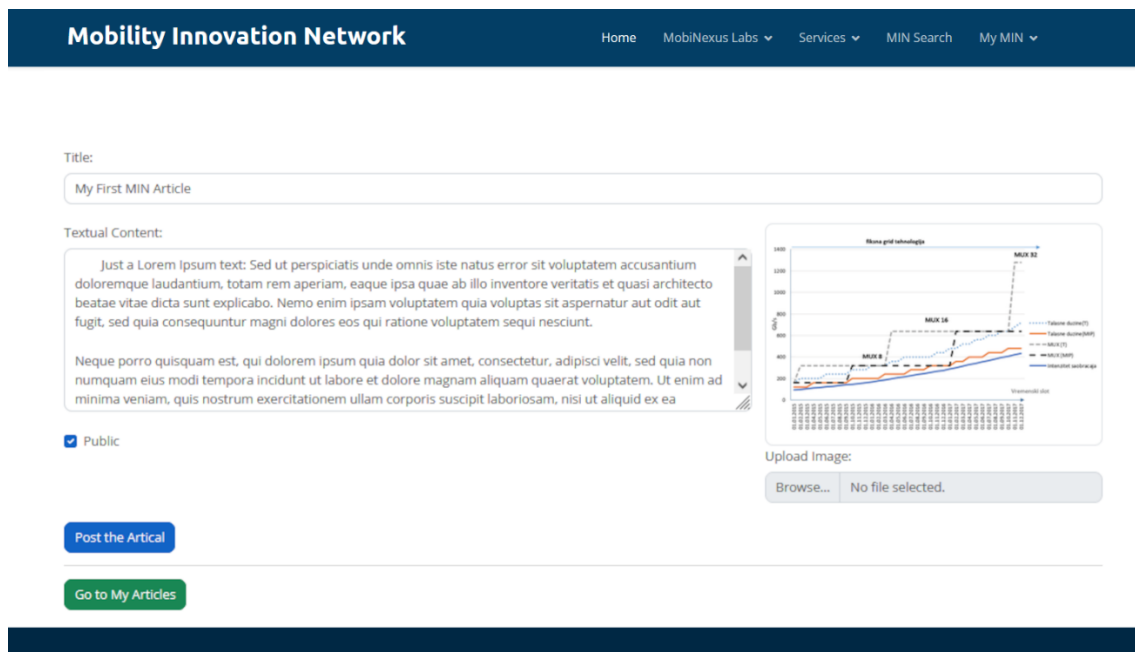


Figure 16 The Article Editor

By providing users with the tools to publish and share articles, the Article Editing feature facilitates the dissemination of valuable knowledge and expertise across the mobility innovation ecosystem. Whether sharing success stories, industry trends, or regulatory updates, Article Section empowers members to engage with their peers, spark discussions, and drive meaningful collaboration.

5.7 Meta-Search Tool

The MIN Services Metasearch Page is a powerful, user-friendly tool designed to help users efficiently explore the diverse range of services available within the mobility innovation ecosystem. With its intuitive search interface, users can quickly locate relevant resources and information by simply entering a keyword, streamlining the discovery process.

Search results are logically organised by service categories and presented in an accordion-style layout, ensuring effortless navigation and accessibility. Each category can be expanded to reveal

a detailed list of results, providing a clear and structured overview of the resources available within that specific service area. Additionally, the tool identifies all relevant stakeholders—Platform members associated with the searched keyword—offering users valuable insights into the ecosystem’s interconnected network. This feature not only enhances transparency but also supports informed decision-making and collaboration (Fig. 16).

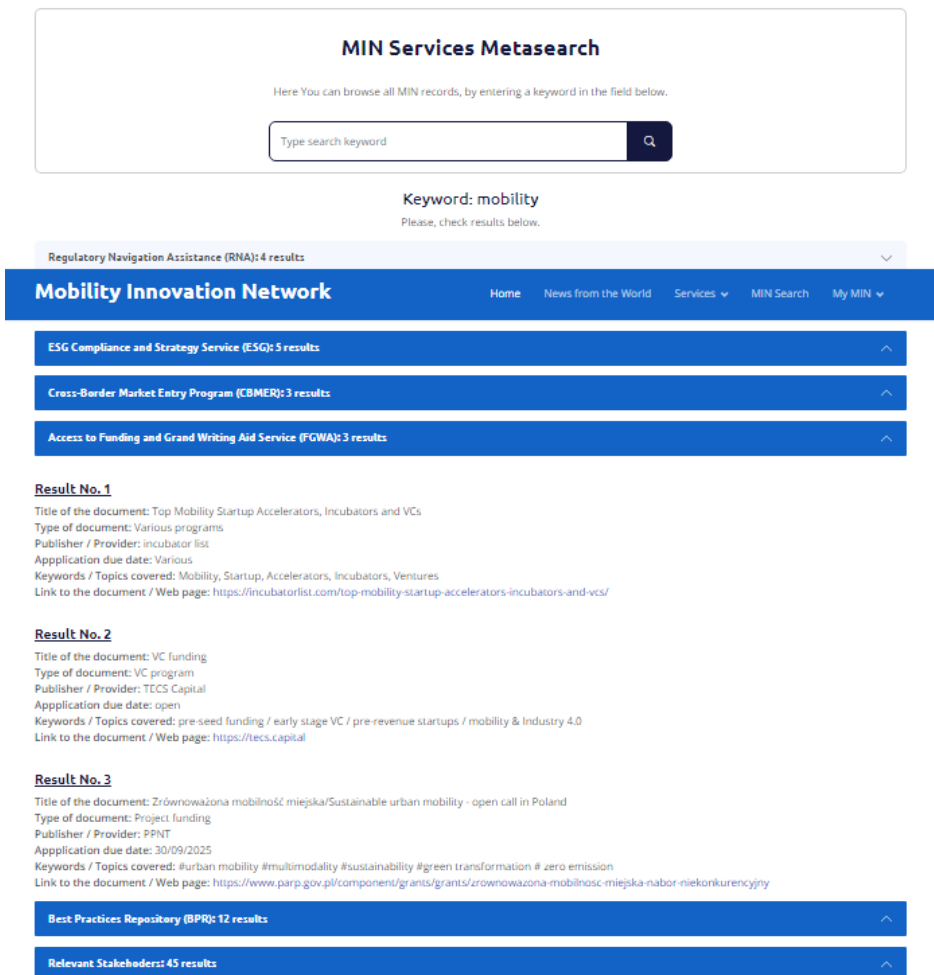


Figure 17 The MIN Services Metasearch

To maintain consistency and improve user experience, the search results mirror the format of the corresponding service overview pages. Each entry includes concise descriptions and key metadata, enabling users to rapidly evaluate the relevance and applicability of the resources briefly. This thoughtful design ensures a seamless and intuitive experience for all users.

5.8 MIN Members List

The MIN Members List is a directory designed to facilitate networking and collaboration within the MobiNexus Platform (Fig 17). This feature provides users with a comprehensive overview of all registered members, allowing them to explore profiles in direct way without matchmaking tool.



Innovation Support Supply

1. Organization name: The Innovation Center of the Faculty of Mechanical Engineering

Organizational Type: Research organisation
Address: Kraljice Marije 27, Serbia
Web address: <https://www.inovacionicentar.rs/>
MIN Representative: Slobodan Mitrović

Matchmaking preferences:

- Support to enter a specific foreign market
- Networking (e.g. with peers, bigger companies, RTD etc.)
- Access to infrastructure and RTD resources (like open data repositories and statistics, including data analysis expertise and tools)
- Digitalisation
- Energy efficiency-related support
- Greening products & processes (e.g. carbon footprint calculation).

Innovation Support Demand

1. Organization name: TECS Capital

Organizational Type: Financial institution
Address: Sofouli 70A, Greece
Web address: <https://tecs.capital>
MIN Representative: Antonios Ilias

Matchmaking preferences:

- Support in marketing and promotion
- Access and tools for open data repositories (ODR)

Sector experience:

- Road transport: Urban and Suburban Transport, Road Passenger Transport
- Other modality: Urban Logistics - Last Mile Distribution
- Other modality: Urban Mobility

Description:

TECS Capital is an Alternative Investment Fund (AIF) established under the Greek





In addition to browsing, the MIN Members List empowers users to initiate contact directly through the platform, streamlining communication and fostering collaboration using the same interface as in case of performing matchmaking communication. By combining transparency, accessibility, and ease of use, this feature not only enhances the platform's value as a networking tool but also accelerates the formation of partnerships that drive innovation and growth in the mobility sector.


5.9 MobiNexus AI Charbot


The MobiNexus AI Chatbot is a cutting-edge virtual assistant designed to revolutionise how users interact with the MobiNexus Platform. Powered by advanced artificial intelligence, the chatbot serves as a real-time guide, helping members navigate the complexities of the mobility innovation ecosystem with ease. Whether users are seeking information about regulatory compliance, funding opportunities, or matchmaking services, the chatbot delivers, accurate, and personalised responses tailored to the context of MobiNexus Platform (Fig. 18). By leveraging natural language processing and machine learning, it understands context, anticipates user intent, and provides actionable insights—making it an indispensable tool for professionals, researchers, and innovators alike. The chatbot is seamlessly integrated into the platform, ensuring that users can access support whenever and wherever they need it, without leaving their workflow.

Mobinexus AI Chatbot

 What is the goal of the mobinexus project?

 The goal of the MobiNexus project is to bridge the gap between academia and industry in order to foster innovation in the transport and mobility sector, particularly focusing on the triple revolution in mobility. This ecosystem aims to drive the development and implementation of cutting-edge sustainable mobility solutions critical for achieving Europe's climate neutrality targets by 2050.

 what are mobinexus (inno-mob) services?

 The MobiNexus (Inno-Mob) services, as per the provided context, offer a platform for registered users, especially MIN members, to explore and find innovation partners. Key features include an actor map with member details, matchmaking facility to identify promising partnerships, and communication tools to facilitate putting these partnerships into practice. Additionally, after registration, users can explore various functionalities that empower their innovation focus.

Ask a question:



Figure 18 Mobinexus AI Chatbot

One of the standout features of the MobiNexus AI Chatbot is its ability to enhance collaboration and decision-making within the platform. It doesn't just answer questions; it actively assists by suggesting relevant services, connecting users with potential partners, and even guiding them through complex processes like grant applications or cross-border market entry. For example, a user exploring ESG compliance can receive not only regulatory updates but also recommendations for tools, webinars, or stakeholders who specialise in the field. The chatbot's adaptive learning capabilities mean it continuously improves, refining its responses based on user interactions to deliver increasingly precise and valuable assistance over time. This dynamic functionality transforms the chatbot from a simple information retrieval tool into a proactive partner in driving innovation and fostering connections across the mobility sector.

Conclusions

The MobiNexus platform represents a scalable and intelligent solution for supporting collaboration, knowledge sharing, and service delivery within a complex innovation environment. Its core value lies in the integration of an advanced AI engine that enables automated data collection, semantic processing, intelligent search, and context-aware



information delivery. Through the combination of real-time external data acquisition and structured member contributions, the platform provides a continuously evolving knowledge base. The implemented access control mechanisms ensure that public information remains openly available, while advanced analytical and collaboration services are securely accessible only to authorised users. The modular architecture of MobiNexus enables continuous functional expansion, including enhanced AI capabilities such as recommendation systems, predictive analytics, and adaptive knowledge services. This flexibility ensures long-term sustainability and alignment with emerging technological and organisational requirements.

By improving information relevance, reducing knowledge fragmentation, and enabling more efficient collaboration, the MobiNexus platform significantly enhances operational efficiency and supports data-driven decision-making. As a result, it serves as a key digital infrastructure component for strengthening innovation capacity and supporting the development of advanced mobility and related ecosystems.

