





# POSSIBILITIES OF INTEGRATING BUS TRANSPORT IN THE WARSAW METROPOLIS



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# A. Possibilities of Integrating Bus Transport in the Warsaw Metropolis

# 1. Initial information about the pilot action

Metropolitan area executing pilot action	City of Warsaw, Warsaw Metropolitan Area (WMA)
Study cluster and tool chosen	Name of cluster: Strengthening Metropolitan Governance through Integrated Public Transport Management
	Name of tool: Integrated Metropolitan Transportation System
	Lighthouse: Stuttgart Region Association
	Co-Lighthouse: J.S.P.D. Berlin Brandenburg
The pilot action	Name of pilot action: Possibilities of Integrating Bus Transport in the Warsaw Metropolis
	The pilot action was prepared drawing on best practices from the Stuttgart and Berlin-Brandenburg regions.
	An inventory of the current state of bus transport services in the metropolis was developed, and the necessary actions were identified to facilitate the integration of public transport in the Warsaw Metropolitan Area (WMA).
	The pilot action aims to impact the creation of a metropolitan public transport system and will be an added value and a useful element as part of the solutions that may be considered during work on the Metropolitan Act.

# 2. The importance of pilot action

The justification for the choice of the selected	The City of Warsaw has been working on the Metropolitan Act for a few years, with a central challenge remaining in <b>developing the</b>
tool	most effective solutions for metropolitan transportation. This issue has been repeatedly highlighted at meetings of the General Assembly of the Warsaw Metropolis Association, where local government representatives have consistently emphasized that public transportation is the top priority for metropolitan cooperation. Consequently, the most pressing concern for the







Warsaw Metropolis is the creation of a unified and efficient metropolitan transport system.

The significance of this challenge is underscored by the following statistics:

- so far 34 inter-municipal agreements covering bus and rail transportation have been concluded with the City of Warsaw (of 79 local government units from the WMA),
- around 2.7 million people live in the communes covered by agreements, representing more than 85% of the total population of the entire metropolis,
- in 2023, 955.8 million passengers were transported via Warsaw Public Transport (WPT),
- annual expenditure on public transport in Warsaw has amounted to several billion PLN in recent years, and this type of expenditure is also a major burden for other local governments. Without legal solutions providing additional financial resources, it is problematic to build a metropolitan public transport system.

The innovative systems developed by the project partners are of great interest to the Warsaw Metropolis, as the practices and tools outlined below are highly relevant to the ongoing work on the Metropolitan Act:

#### Integrated Metropolitan Transportation System:

- 1. Mobility and Planning: Stuttgart Region Association (VRS)
- VRS is responsible for spatial planning, transport planning, and mobility (particularly the S-Bahn) in the Stuttgart Region. This integrated approach to spatial and transport planning facilitates transit-oriented development throughout the region.

#### 2. Berlin-Brandenburg Transport Association

 The association manages and coordinates public transport in Berlin and Brandenburg, offering seamless connectivity and joint, transparent ticketing across the entire region.

By acquiring knowledge in the study cluster, the Warsaw Metropolis is better positioned to strengthen cooperation and improve management in metropolitan transport, thereby contributing to the development of more efficient, sustainable, and user-centric transportation systems.









# The justification for the selection of the pilot action

The main part of the pilot action, "Analysis of the possibilities of integrating bus transport in the Warsaw Metropolis", generates critical data that will serve as a foundational basis for initiatives aimed at integrating and optimizing the metropolitan transport network. Furthermore, the outcomes of the pilot action outline a phased approach to creating an integrated bus transport system. This analysis is one of several key steps in the long-term effort to achieve this goal.

Along with other essential components, such as enhanced coordination in rail transport and the implementation of a unified metropolitan fare system, these efforts will support the establishment of a fully integrated metropolitan transport network within the WMA. This analysis, together with other complementary studies, will also provide the necessary rationale for the Metropolitan Act, which is currently being prepared for further legislative work.

#### 3. The core of pilot action

# Description of the pilot action

A comprehensive analysis was created, the details of which are described below. The full document has been attached to the report as Annex.

# DESCRIPTION OF "ANALYSIS OF THE POSSIBILITIES OF INTEGRATING BUS TRANSPORT IN THE WARSAW METROPOLIS":

Due to the ongoing conceptual work aimed at preparing legal solutions to define the future framework for metropolitan cooperation, efforts on metropolitan transport issues have been undertaken. Given the significant diversity of formal-legal aspects regulating bus transport operations, as well as the multitude of entities involved in organizing public transport within the Warsaw Metropolitan Area, it became necessary to prepare a study inventorying the current state of bus transport services in the metropolis. This study also aimed to identify the required actions to facilitate the integration of bus public transport.

The general goal for the future organization of public transport is the establishment of an integrated metropolitan transport system spanning the entire metropolitan area. It was anticipated that the integrated metropolitan tariff would be introduced, allowing passengers to travel across all modes of transport (both metropolitan and municipal lines) using a single ticket. Additionally, plans were









made to create a unified database encompassing all bus lines within the metropolis, which would be made available to passengers via a website and mobile application, enabling them to plan trips using all available modes of transport.

The analysis focused on the following areas:

- the potential for integrating bus transport in terms of information;
- the potential for integrating bus transport in terms of tariffs.

The analysis covered the area of the Warsaw Metropolis, in accordance with the statistical classification NUTS 2. This region encompassed the central part of the Masovian Voivodeship, as designated by Commission Regulation (EU) 2016/2066 of 21 November 2016. It included the City of Warsaw, 69 municipalities and 9 counties.

The final product of the analysis comprised an inventory of the bus transport services currently provided within the Warsaw Metropolis, along with a list and description of the actions required to implement the information and tariff integration process at the metropolitan level, both under current and planned conditions (INVENTORY PART).

The analysis also included the formal-legal aspects that affected the feasibility of carrying out the integration and tariff integration of public collective transport (**PLANNING PART**).

- The inventory part included:
  - list of organizers, operators and carriers operating within the area of the analysis in terms of bus lines;
  - list of the bus lines operating in the area of the analysis with the information regarding the routes and the scheduled daily number of trips with distinction to weekdays, Saturdays, Sundays and holidays;
  - list of depots, bases and technical facilities used by operators and carriers, along with their locations;
  - list of ends/terminals/stations used by buses on municipal and district lines, specifying their locations;
  - list of buses owned by individual organizers and carriers, including their number and types;
  - information about timetable and tariff data currently made available by organizers, operators and carriers (e.g. data









format in which organizers, operators and carriers create timetables, online vehicle positioning) and methods of making passenger information available;

The inventory part also contains a detailed description of the current conditions and characteristics of the studied area, identified problems, and many statistics and maps.

- The planning part included:
  - Maximally detailed description of organizational, technical and IT activities, necessary for effective information and tariff integration of the bus lines in the area of analysis, explaining the need for their implementation;
  - list of entities that can and should participate in the common tariff and information system;
  - necessary steps, that can be taken even before legal solutions are prepared as part of cooperation between individual entities;
  - the form and method of creating an integrated passenger information system, taking into account the current capabilities and content of the systems that are already in operation.

# Innovativeness of pilot action

The study "Analysis of the Possibilities of Integrating Bus Transport in the Warsaw Metropolis" is the first comprehensive inventory of bus transport across such a vast area. The study begins with an inventory of existing bus services, identifying their organizers, operators, and carriers that provide these connections. It also assesses the quality of available transportation information. Based on these findings, the study outlines a strategic plan for integrating public bus transport services across the metropolitan area.

The goal of the new metropolitan public transport system, which includes bus transport, is to deliver a high-quality service that meets the needs and expectations of society. Bus transport, as a key component, must offer a viable and competitive alternative to private car use, providing a clear and appealing option for everyday travel in terms of convenience, efficiency, and quality.

Furthermore, the analysis aligns with the assumptions outlined in the "Sustainable Urban Mobility Plan for the Warsaw Metropolitan Area 2030+ (SUMP)" which was adopted in September 2023 by the General Assembly of Members of the Warsaw Metropolis Association.









#### Demonstration and test of the selected tool

The study visit in Stuttgart on February 21, 2024, provided valuable insights that helped define the scope of the pilot action process. By examining the operation of public bus transport in Stuttgart, the City of Warsaw gained a clearer understanding of the key data required for the next stages of the project.

Through online meetings and in-depth discussions on the transport systems in Berlin-Brandenburg and Stuttgart, the City of Warsaw gained valuable insights into a variety of public transport solutions. This enabled them to identify and adopt the most effective methods, tailored to the specific needs and characteristics of the Warsaw Metropolitan Area.

This knowledge will play a key role in refining the regulatory framework to ensure the successful implementation and effectiveness of the system within the Warsaw Metropolitan Area (WMA).

Thanks to the data obtained and the conclusions from the analysis, it will be possible for the identified entities to cooperate in various areas. Examples from the analysis indicate problem areas that should be discussed and proposed in order to solve them. There have never been extensive discussions on metropolitan transport in WMA, and the analysis as a tool has indicated appropriate issues that are worth cooperating on.

# 4. Strengthening governance

#### metropolitan cooperation

#### and

#### Impact on metropolitan cooperation and governance

The pilot action "Possibilities of Integrating Bus Transport in the Warsaw Metropolis" can have a significant impact on metropolitan cooperation and governance by fostering collaboration across various administrative boundaries, enhancing transport efficiency, and supporting sustainable urban development.

The city of Warsaw is part of a large metropolitan area that includes multiple municipalities and counties. The pilot action's focus on integrating bus transport systems across the entire Warsaw Metropolis encourages coordination between local authorities, organizers, operators, carriers, and other stakeholders.

**Improved coordination:** By analysing and proposing solutions for better integration of bus services, the pilot action can create a platform for dialogue and decision-making among different









	municipal governments, which may have had previously fragmented transport policies.
	Shared responsibility: This fosters a sense of collective responsibility for the transportation network, ensuring that all municipalities in the region contribute to and benefit from improvements in mobility.
Involvement of metropolitan stakeholders	Stakeholders were informed about the progress of the project via the websites and social media of the City of Warsaw, the Warsaw Metropolis Association and the Polish Ministry of Funds and Regional Policy.
	The MECOG-CE project newsletters were sent by e-mail to the municipalities and counties of the Warsaw Metropolitan Area (79 local government units).
	Furthermore, updates on the progress of work within the study cluster and the ongoing analysis were shared during the monthly meetings of the Management Board of the Warsaw Metropolis Association.
	The next stage of the work will be to present the analysis results to stakeholders. On December 2, the conference "Transport in the Warsaw Metropolis" will take place, providing a platform for dialogue between the Warsaw Public Transport Authority, transport unions, and local government representatives from the Warsaw Metropolitan Area. The event will focus on assessing the current organization and functioning of public transport in the region and discussions about challenges and goals for the future. Key highlights will include presentations of studies on the integration of bus services across the Warsaw Metropolitan Area, as well as the operation and expansion of Park-and-Ride (P+R) facilities. Additionally, the conference will review findings from the Warsaw Traffic Study and discuss the ongoing initiatives outlined in the Sustainable Urban Mobility Plan (SUMP) for the Warsaw Metropolis 2030+.

# 5. Results

Results of the pilot	The organisation of public transport in the Warsaw Metropolitan Area
action	is currently dispersed. Bus transport is organised by various entities,
	including ZTM Warsaw, individual communes, districts, and district-
	commune Unions. As a result, most of the integrated transport









models are present here, but on a smaller scale - inter-commune agreements (Warsaw City) or district-commune Unions.

There are several possible models of organisational integration of public transport in the WMA:

- inter-commune and district agreement;
- the metropolitan Union in its full version, in which competencies are transferred from the current Organisers to the metropolitan level:
- a light/hybrid metropolitan Union, in which there is full tariffticket and information integration with the functioning of the current Organisers;
- a district-commune Union, which may be characterised, like a metropolitan Union, by a varying degree of organisational, tariffticket and information integration;
- a capital company of local authorities.

The analysis concludes that the core for developing the system should be the creation of a cohesive and efficient network of connections, enabling seamless movement across the entire metropolitan area. Passengers should be able to navigate the system using a unified and straightforward fare structure, facilitating easy travel across various modes of public transport available in the metropolitan area. In addition, access to real-time information should be guaranteed, such as a through central database that consolidates details about the metropolitan public transport system, similar to the network managed by the Warsaw Public Transport Authority. This information should be readily available to passengers, allowing them to plan their journeys using any available transport option. These principles represent the core benefits of transport integration.

The pilot action produced a comprehensive analysis that, for the first time, fully captured the fragmentation and complexity of integrating bus public transport across the Warsaw Metropolitan Area. It successfully met its original objectives and now will serve as a foundational document for the detailed planning of the region's future transport network.

Transferability

The transferability of the Integrated Metropolitan Transportation System tool is as follows:







- **Experience and Methodology:** The long-standing cooperation in functional/metropolitan areas provides valuable insights for regions with shorter histories of joint transport efforts.
- Universal Applicability: The analysis of bus transport is broadly relevant across different metropolitan areas internationally, allowing for adaptable solutions.
- Integrated Transport System: The model places rail transport as the core of the public system, with buses serving as an important support, ensuring a cohesive and effective transit structure.
- Regional Mobility Hubs: The development of regional hubs that connect various modes of transport enhances connectivity and streamlines mobility across the area.
- Varying Planning Scales: The emphasis on regional-level planning may not always be applicable at local levels, limiting the applicability in some areas like WMA.
- Cultural and Societal Factors: Differences in societal attitudes and lifestyles can create resistance to structured, cooperative planning, as some regions may lack a strong attachment to organized systems.
- Reluctance to Centralize Power: Local governments may be hesitant to cede authority or trust a single metropolitan entity, hindering the implementation of unified transport structures.

In summary, while the tool benefits from extensive experience, universal applicability, and integrated transport systems, challenges arise from differences in planning levels, cultural attitudes, and governance dynamics that could complicate implementation in some regions. The analysis based on the best practices of Stuttgart and Berlin-Brandenburg proved that integration in the WMA is possible. The process of transfer was successful and could be adapted to the WMA context.

#### 6. Subsequent activities

#### Subsequent activities

On December 16, the General Assembly of Members of the Warsaw Metropolis Association will be held and on December 2, a public transport conference will be organized (Regional Stakeholder Meeting). During these meetings, representatives from local authorities across the region will be updated on the results of a pilot action, a proposed new solution will be presented, and the next









steps related to the establishment of an integrated transport system in WMA will be discussed.

Furthermore, the analysis will play a crucial role in the efforts of the Warsaw Metropolitan Area and will be an added value and a useful element as part of the solutions that may be considered during work on the Metropolitan Act. During the General Assembly meeting of the Warsaw Metropolis Association on September 30, 2024, in Nowy Dwór Mazowiecki (municipality within the WMA), a resolution was adopted with near-unanimous support (only one abstention), expressing provisional approval for the draft legislation on the metropolitan union in the Mazovian Voivodeship. The next step is to engage in lobbying efforts at the government level. The prepared analysis offers a strong foundation and compelling arguments for negotiations with the government administration.

### 7. Project management of pilot action

# The process of pilot action

In order to obtain the best results, the preparation of the analysis was commissioned to a professional company as a public procurement. On July 15, 2024, an agreement was concluded with the company: Zespół Doradców Gospodarczych TOR Sp. z o. o. to prepare a study entitled "Analysis of the possibilities of integrating bus transport in the Warsaw Metropolis". The project team, together with experts from the Warsaw Public Transport Authority, was responsible for conducting the public procurement procedure. The subject of the order was completed within 15 weeks from the date of signing the contract (July - October 2024).

Additionally, as part of the work on the draft metropolitan act and target solutions, intensive work was underway to identify a variant suitable for the Warsaw Metropolitan Area. The work involved, among others, public transport experts and lawyers. The current conditions, elements that should be involved in the process and the ability to implement them with appropriate financial and time outlays were analysed. Foreign and domestic solutions were also compared. Finally, the best solution was initially determined, which can be considered during further work and arrangements.

# Methods of work in the metropolitan area

The analysis utilized data from various sources, including the Warsaw Public Transport Authority, the Marshal's Office of the Mazovian Voivodeship, bus line operators within the analysed area (such as municipalities, counties, and intermunicipal transportation









	associations), carriers, and other relevant data sources essential for its comprehensive development.  Throughout the preparation of the analysis, the Contractor maintained ongoing communication with the project team, experts from the Warsaw Public Transport Authority, and representatives of the Warsaw Metropolis Association. The Contractor provided regular updates on the progress of the work, including bi-weekly reports and participation in periodic working meetings to discuss advancements. The Contractor, together with the project team and experts, coordinated work on the process of obtaining data from the survey, which was sent to local governments. Additionally, the Contractor prepared and delivered a presentation for the above-mentioned group, summarizing the findings and results of the analysis.
The reflection of the initial work setup and time plan	The partners of the study cluster have committed to executing the tasks outlined in the initial work set-up and time plan. Except for a few minor deviations, there were no significant changes to the proposed plan. Minor changes are described in the following section "Problems and deviations".
Problems and deviations	The planned online cluster meeting on 17/06/2024, as well as additional meetings with experts, were unnecessary due to sufficient know-how exchange in the first meetings and additional written exchange with experts.
	The scheduled on-site visit to Warsaw was replaced with an online meeting on October 29, 2024, to assess the pros and cons of the studied tool and present the results of the pilot action.

# 8. Joint development and cooperation with partners

Processes of co-design and peer-review	The work within the cluster proceeded smoothly and without disruptions. Partners supported each other and shared knowledge and insights primarily during regular online meetings, as well as during the study visit in Stuttgart on February 21, 2024. Additionally, all materials related to the cluster's activities (presentations, written exchanges) were uploaded to a dedicated folder on SharePoint. Communication was also maintained through phone calls and emails. The peer review of pilot action took place during an online meeting on October 29, 2024, when a representative from the City of Warsaw delivered a presentation summarizing the analysis of integrating bus transport within the Warsaw Metropolis. The meeting
	integrating bus transport within the Warsaw Metropolis. The meeting was attended by representatives from the City of Brno (Project









The guidance provided	Leader), Stuttgart, and Charles University in Prague. Following the pilot action, the sub-report, along with the analysis, was uploaded to SharePoint for review and feedback from all project partners, associated partners, and research institutions.  Stuttgart proved to be an excellent lighthouse, with a high level of
by the lighthouse metropolitan area	commitment. Communication within the cluster was seamless, with meetings held regularly and convened as needed in urgent situations. The knowledge shared about the cooperation and metropolitan governance by Stuttgart and Berlin-Brandenburg shaped the final pilot action and ensured its smooth development without any obstacles.
Meetings and study visits	The study visit provided invaluable insights that significantly facilitated the process of defining the scope of public procurement. By gaining a first-hand understanding of how public bus transportation operates in Stuttgart, the City of Warsaw was able to identify the specific data and information required for the next stages of the project. During the meeting, several key topics were discussed and addressed by the participants. These included a brief overview provided by the City of Warsaw highlighting the importance of pilot action in the development and optimization of metropolitan public transport systems. The presentation emphasized how pilot action can serve as crucial testing grounds for new ideas and technologies, providing valuable data and insights for future full-scale implementations. This introductory segment underscored the need for innovative solutions to address challenges such as congestion, environmental impact, and accessibility in urban transport networks.
	List of activities conducted to facilitate knowledge exchange throughout the research cluster's work. The development of pilot action was also discussed during these meetings.
	<ul> <li>09/04/2024 online meeting regarding initial work-set up and time plan of study cluster,</li> </ul>
	<ul> <li>30/04/2024 online meeting on genesis and mode of operation of integrated public transport systems in the metropolitan areas of Stuttgart and Berlin,</li> </ul>
	<ul> <li>13/05/2024 online meeting on metropolitan transport and tariff associations in Stuttgart and Berlin,</li> </ul>
	<ul> <li>23/05/2024 written exchange between Warsaw and VRS expert,</li> </ul>









- 11/09/2024 Transnational Meeting in Ostrava on the presentation and discussion about the outcomes of the cluster and the progress of pilot action,
- 29/10/2024 Online Meeting reviewing the results of the pilot action.

The meetings were invaluable in aligning the cluster's strategic direction, refining key deliverables, and ensuring full participation from all partners. The discussions established a solid foundation for the cluster's success. Furthermore, the combination of online meetings and the in-depth knowledge of metropolitan transport management structures gained during the study visit to Stuttgart proved to be highly beneficial for the preparation of the pilot action.

### 9. Summary of the pilot action

#### Summary

The pilot action "Possibilities of integrating bus transport in the Warsaw Metropolis" aimed to assess the potential for creating an integrated public transport system across the Warsaw Metropolitan Area). Drawing from best practices in the Stuttgart and Berlin-Brandenburg regions, the action conducted a thorough inventory of current bus transport services, identifying necessary steps for integration. This is crucial for advancing the metropolitan transport system and contributing to the ongoing development of a metropolitan act, which will enhance cooperation across municipalities in the WMA.

The pilot action produced an in-depth analysis of bus transport services in the WMA, including data on operators, routes, timetables, and facilities. It also identified the actions required to integrate bus transport in terms of information and tariffs, laying the groundwork for a unified transport network. The analysis successfully developed a phased approach to integrating bus transport, contributing to the broader goal of a unified metropolitan transport system. Additionally, it supported the ongoing work on the Metropolitan Act, highlighting the importance of a cohesive transport system as a key priority for regional cooperation.

By fostering collaboration among local authorities and various stakeholders, the pilot action will continue to improve coordination and promote shared responsibility for the metropolitan transport network. This ongoing process will further strengthen governance by encouraging open dialogue across administrative boundaries,









addressing fragmentation in transport policies, and aligning efforts for a unified approach. The analysis, informed by valuable insights from Stuttgart and Berlin-Brandenburg, will serve as a foundation for implementing key solutions for bus service integration, such as the creation of a unified fare system and the development of a central database for real-time passenger information. These initiatives will significantly enhance passenger convenience and contribute to a more cohesive and efficient transport system across the Warsaw Metropolitan Area.

This pilot action is critical for the WMA as it addresses long-standing challenges in public transport coordination. By fostering integrated bus transport, it contributes to improved mobility, sustainability, and efficiency, which are key priorities for the region's development. It aligns with the goals of the "Sustainable Urban Mobility Plan for the Warsaw Metropolitan Area 2030+" and offers a model for other metropolitan areas facing similar challenges.

The next steps involve presenting the analysis results at the "Transport in the Warsaw Metropolis" conference on December 2, 2024, providing a platform for further dialogue with local governments, transport unions, and other stakeholders. This issue will also be discussed at the General Assembly of Members of the Warsaw Metropolis Association (December 16). The outcomes of this analysis could be integrated into the Metropolitan Act, which will serve as a foundation for lobbying efforts with the government. Based on the analysis, further refinement of the regulatory framework will take place, followed by the gradual implementation of integrated transport solutions to ensure a unified, efficient public transport system across the WMA.

In conclusion, the pilot action has made significant progress in the development of an integrated bus transport system for the Warsaw Metropolitan Area. It has met its objectives and laid the groundwork for future improvements in metropolitan transport governance.