

Removing Barriers to Public Transport Fare Intergration in Poland: Key Directions and Change

Monsalve, M.C.; van de Velde, Didier; Wolanski, M.P.; Mazur, B.M.; Klatka, J.S.; Czapski, R.

DOI

[10.1596/24929](https://doi.org/10.1596/24929)

Publication date

2016

Document Version

Final published version

Citation (APA)

Monsalve, M. C., van de Velde, D., Wolanski, M. P., Mazur, B. M., Klatka, J. S., & Czapski, R. (2016). *Removing Barriers to Public Transport Fare Intergration in Poland: Key Directions and Change*. World Bank. <https://doi.org/10.1596/24929>

Important note

To cite this publication, please use the final published version (if applicable).
Please check the document version above.

Copyright

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

Takedown policy

Please contact us and provide details if you believe this document breaches copyrights.
We will remove access to the work immediately and investigate your claim.

Removing Barriers to Public Transport Fare Integration in Poland: Key Directions of Change



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



Korea
Green Growth
Partnership

©2016 The International Bank for Reconstruction and Development / The World Bank
1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

Cover photo: Artur Malinowski/Flickr/2016 under a Creative Commons Attribution License.

This report was prepared by the staff of the International Bank for Reconstruction and Development / The World Bank. The findings, interpretations, and conclusions expressed in it do not necessarily reflect the views of the Executive Directors of The World Bank or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Acronyms and Abbreviations

EC	European Commission
EEC	European Economic Community
EMV	Europay, Mastercard, and Visa
EU	European Union
FUA	Functional Urban Area
GOM	Gdańsk Metropolitan Area
KZK GOP	Public Transport Municipal Association for the Upper Silesia Industrial Area
MZKZG	Metropolitan Association for Public Transport in the Gulf of Gdańsk
PLN	Polish Zloty
PR	<i>Przewozy Regionalne</i> , Regional Railway Company
PSO	Public Service Obligation
PTA	Public Transport Authority
SKM	<i>Szybka Kolej Miejska</i> ; Fast Urban Railway
ŚKUP	Silesian Public Services Card
SUMP	Sustainable Urban Mobility Plan
WBA	<i>Wspólny bilet Aglomeracyjny</i> , Common Agglomeration Ticket Łódź
ZTM	<i>Zarząd Transportu Miejskiego</i> , Transport Authority
ZVV	<i>Zürcher Verkehrsverbund</i> , Zürich Transport Network

Acknowledgments

This Report was prepared by a team led by Carolina Monsalve (Senior Transport Economist) and included Didier van de Velde (Senior Urban Transport Consultant), Michal Wolanski (Urban Transport Consultant), Bartosz Mazur (Urban Transport Consultant), Jędrzej Klatka (Legal Consultant), Radosław Czapski (Senior Infrastructure Specialist). The team would like to thank Juan Gaviria (Practice Manager), Arup Banerjee (Country Director), Marina Wes (Country Manager), and peer reviewers O.P. Agarwal (Senior Urban Transport Specialist), Shomik Mehndiratta (Lead Urban Transport Specialist), Georges Darido (Lead Urban Transport Specialist), as well as Giang Thanh Houn Le (Program Assistant) and Funda Canli (Program Assistant).

The team would also like to acknowledge the many formal and informal contributions of officials from the Polish Ministry of Infrastructure and Construction, Ministry of Development, and the Polish Chamber of Public Transport. We are grateful to all other stakeholders for their frank and open engagement in the project. Finally, we would like to thank Eun Joo Allison Yu (Senior Operations Officer) from the Korea Green Growth Partnership for her support, guidance, and continuous assistance during this assignment and the staff of the World Bank Warsaw Office for their support.

Table of Contents

EXECUTIVE SUMMARY	1
INTRODUCTION	1
Background	1
Findings from World Bank Technical Assistance	1
Why Public Transport Integration	2
Scope of this Report	5
PUBLIC TRANSPORT IN POLAND	6
Introduction	6
Urban Transport Operators	7
Urban Public Transport Organizers	9
Intermunicipal Coordination in Poland	11
Examples of Fare Integration in Polish Agglomerations	13
Key Obstacles to Public Transport Integration	15
Public Transport Fare Discounts and Ticket Integration in Poland	19
INTEGRATIVE PRACTICES IN OTHER COUNTRIES	21
Introduction	21
France: Fiscal Incentives for Authority Cooperation	21
Germany: Authority Cooperation and Fare and Service Integration through Public Transport Associations and National Legislation	22
Switzerland: Legal Provisions for Fare and Service Integration	24
Switzerland: The Case of Zurich	25
Great Britain: Quality Partnerships as Integration Platforms	26
Great Britain: National Fare Rebate Schemes including Commercial Operators	28
Great Britain: Fare Integration Companies	29
Summing Up	31
RECOMMENDATIONS	32
Introduction	32
Introducing a Uniform Statutory Discounts System	32
Reforming the System for Financing Statutory Discounts	33
Removing Barriers to Cooperation among Different Levels of Self-Government	35
Strengthening Local Authorities Responsible for Transport and Creation of Open Integration Platforms	35
Introducing Mechanisms Protecting PSO Operations Against Excessive (Predatory) Competition	36
Promoting Fare Integration	37
ANNEX 1. PUBLIC TRANSPORT STATUTORY FARE DISCOUNTS	38
ANNEX 2. PUBLIC TRANSPORT MUNICIPAL UNIONS	42
ANNEX 3. EXAMPLES OF PUBLIC TRANSPORT UNIONS IN POLAND	43

Executive Summary

Legal barriers to fare integration and impediments to integrated service planning across a functional urban area

Introduction

The need for more sustainable and integrative planning processes as a way of dealing with the complexity of urban mobility has been widely recognized. Within the EU there has been an enhanced focus on urban mobility solutions where local authorities move away from past ‘silo approaches’ and develop approaches that can stimulate a shift towards cleaner and more sustainable transport modes, in line with the EU’s 2013 Urban Mobility Package and Sustainable Urban Mobility Plans (SUMP).

As people choose to move away from cities to the periphery or to neighboring municipalities, it becomes critical that the organization of urban transport services, including commuter rail, is coordinated within functional urban areas based on travel-to-work patterns and not be limited to a city’s administrative area.

International experience suggests that public transport planners must recognize two integration dimensions: (a) integration among all modes and routes comprising the multi-modal public transport network, (b) integration of the public transport offer within a functional urban area, such that the public transport offer matches the mobility requirements of passengers. Successful integration in both dimensions will provide a more customer-friendly experience and make public transport more efficient and cost-effective.

The objective of this Report is to assess barriers to fare integration and impediments to integrated service planning. More specifically, it aims to: analyze the current legal framework, review current fare discount policy and public financing of such discounts, identify legal obstacles to fare integration; present examples of European best practice in the area of public transport

integration; and provide recommendations to remove barriers to fare and ticketing integration

Polish Context

Lack of integration between transport and spatial planning, limited horizontal and vertical coordination between the levels of local administration and lack of integration between different means of transport—urban buses, suburban buses, and railways—were identified by the World Bank as key problems facing public transport development in Poland.

Within Polish functional urban areas, with some notable exceptions, there is little integration between municipal public transport, commuter rail, and suburban buses. Each of the subsystems is organized separately, financed separately from different sources and working under different legal frameworks,

Introducing integrated public transport ticketing can have both demand and revenue implications. An important concern regarding the introduction of integrated ticketing is the potentially negative impact on revenue. The literature suggests that the final impact depends on the combination of fare levels for different ticket types and on user distribution according to rates of use.

In the case of Poland, introducing an integrated ticket offer while reforming the generous statutory fare discount policy could help mitigate against the potential risk of reduced operational income.

Key Legal Obstacles to Public Transport Fare Integration

Numerous acts establish public transport statutory fare discounts for certain categories of passengers, different for within city boundaries and for inter-city transport (bus and rail). Rules of compensation differ for these statutory discounts, with no direct central government compensation for city public transport and full compensation for intercity transport, creating barriers to fare integration between city public transport and commuter buses and rail.

The current legal framework does not allow formal cooperation between *powiat* and *voivodeships*, *voivodeship* and *voivodeship*, or between municipal unions or metropolitan unions. Recent legal changes mean that metropolitan unions can now be created, but they exclude *voivodeships*, and hence commuter rail.

A third obstacle is the lack of exclusive rights for a public service obligation (PSO) operator. With exclusive rights, other operators are not allowed to compete with the PSO operator and can be a way of reducing subsidies by using profits generated by the best lines to support minor lines. This makes finding integration solutions, particularly for suburban PSO operated services more complex.

Integrative Practices in Other Countries

There is extensive European experience with integration of public transport services and fares within functional urban areas. This experience suggests that with the right legal framework and/or incentives, public transport operators can work together to provide an integrated public transfer offer across jurisdictional borders and modes.

France

In the 1970s France created fiscal incentives for authority cooperation through the *versement transport* or local transport tax levied on employers and accruing to local transport authorities. The tax created incentives for inter-

municipal cooperation as revenue was only distributed to local authorities/associations above a certain population threshold.

Germany

Public transport associations (*Vekehrsverbund*) exist with a mandate to develop (a) a single fare system for all modes and companies; (b) a uniform ticketing system; (c) timetable coordination; and (d) unified passenger information system. Cooperation can be through setting up a company or through a union owned by the authorities, with responsibility for marketing, service development, fares, sales, etc. Associations exist at metropolitan or regional level. Urban authorities remain responsible for urban transport financing and organization.

Switzerland

Integrated fares are available for trips across most public transport modes across the country using one ticket (so called “Direct Service”). This is organized by the Swiss Union of Transport. Operators are in charge of managing the ticketing system and revenues. Integration is based on a federal legal obligation for all public transport operators to provide integrated tickets and fare systems.

United Kingdom

Quality partnerships have developed in the context of a deregulated bus system outside of London through the voluntary association of commercial operators. A local transport authority improves facilities at specific locations on bus routes (bus stops, bus lanes) and bus operators must meet minimum quality standards to use such facilities.

The UK has a national fare rebate scheme that includes all commercial operators, unlike the situation in Poland. The fact that the public transport market outside London is provided by commercial operators does not prevent the public transport authorities from providing fare rebates (not compensated in full) to specific groups of passengers in line with Regulation EC 1370/2007.

Another interesting feature of the British experience is the creation of fare integration companies covering a specific geographic area through the cooperation of operators

(commercial), agreeing to provide one common ticketing and fare scheme.

Recommendations

The World Bank identified six key recommendations aimed at incentivizing public transport integration:

- (a) **Introducing uniform statutory fare discount system.** This would require the unification and simplification of the catalogue of statutory fare discounts, which should be less differentiated by mode, with special rules for integrated tickets.
- (b) **Reforming the system for financing statutory fare discounts.** Three alternative solutions for policymakers to consider are the (i) inclusion of urban public transport in the direct compensation regime, (ii) inclusion of integrated fare tickets in the direct compensation regime, or (iii) abolition of direct compensation regime with a transfer of all national fare rebate compensation funds to local authorities. As part of solutions (i) and (ii) the fare reimbursement rate should fall from 100 to about 70 percent.¹
- (c) **Removing barriers to cooperation among different levels of self-government.** Such a reform would allow creating unions between all levels of government, including between *voivodeships*. To make metropolitan unions attractive to the core city a 'subsidiarity' principle should be adopted.
- (d) **Strengthening local authorities responsible for transport and creating open integration platforms.** Advisable to allocate responsibilities for inter-city and rural public transport to *powiats*, their unions, or even *voivodeships* in order to achieve proper scale. One solution to explore is creation of open integration platforms.

- (e) **Protecting PSO Operators from creaming skimming.** Introducing exclusive rights for PSO operators would allow expanding urban transport systems to areas outside urban boundaries without the risk of excessive competition based on cream skimming.
- (f) **Promote fare integration.** The World Bank team suggests considering two policy levers: (i) implement compulsory transport unions (covering *voivodeships* and *powiats*, particularly in metropolitan areas); (ii) introduce financial incentives. Both should be considered if the implementation of recommendations (a) to (f) do not translate into increased integration.

Summing Up

Improved public transport requires integrated solutions that go beyond individual cities and modes in order to ensure a seamless experience for passengers and to support sustainable urban mobility. At the moment in Poland, the legal framework creates disincentives for the kinds of successful integration seen in a number of EU-15 countries. Changing the status quo will require significant changes to the legal environment for public transport aimed at removing barriers to integration.

¹ The precise fare rebate level should be a function of the price elasticity of demand.

Introduction

Background

Poland's population has been declining gradually in recent years primarily due to reduced family size, and to a much lesser extent on migration to other EU countries. Within Poland, there has been migration from provincial areas to larger cities such as Warsaw, Wrocław and Kraków, and from city centers to suburban areas. Despite this slightly declining overall population, there has been a significant movement of people within metropolitan areas as families move from small apartments in the heart of cities to apartment blocks or single-family homes in the suburbs.

More recently, this movement towards the suburbs has been slowed down somewhat, as a younger generation reconsiders the benefits of living in cities and the high costs of commuting. Nevertheless, the urban landscape at present is significantly different from the 1990s, with the growth of suburban areas which did not exist before.

This shift towards the suburbs in Polish cities has significant implications for public transport as well as for other urban services, particularly in the long-term. Importantly, expansion into peri-urban areas has been occurring at significant distances from the city center with new developments along main arteries driven by low land prices and improved road access. Residents in these suburban areas typically depend on private vehicles to commute into the city.

As a result, the hard urban cores that defined Polish cities before 1990 have given way to scattered suburban developments that make public transport networks in those areas impractical and expensive and create challenges for the provision of water, sewage, electricity, and solid waste management services. All of these aspects also contribute to rising greenhouse gas emissions. While Polish municipal and regional

authorities recognize that suburbanization has adverse consequences for the provision of transport and other services, there has been little coordination in spatial planning among the jurisdictions that make up Polish functional urban areas to guide new developments in a sustainable way. From a long-term perspective, the demographic and suburbanization trends have important implications on the financial cost and sustainability of delivering urban services. The costs do not appear pressing due to significant EU funds pouring into many Polish cities.

The absence of effective regulation of land-use development and the trend towards uncontrolled suburbanization in major cities inevitably leads to a modal shift towards private transport. The wide distribution of population within suburban areas makes it expensive, and in some cases impractical, for public transport operators to provide a frequent service that would be attractive to car owners. Polish cities, which had been characterized by very high modal share for public transport, are now upgrading their infrastructure in an environment that has become more challenging for public transport.

While the emergence of urban sprawl represents the greatest challenge for the provision of public transport, other institutional and legislative developments in Poland may also limit cities' flexibility in making public transport competitive with private cars. As populations move to the periphery or to neighboring municipalities, it becomes critical that the organization of urban public transport services is coordinated within functional urban areas and not be limited to city administrative borders.

Findings from World Bank Technical Assistance

During the second half of 2013, the World Bank obtained grant financing from the Korea Green

Growth Partnership Trust Fund for analytical support and technical aid in the area of sustainable urban transport systems in selected cities of Eastern Poland. Established in 2011, the Korea Green Growth Partnership strengthens the cooperation between the Government of Korea and the World Bank Group to help third countries achieve sustainable and integrated development by developing and sharing practical knowledge around innovative green growth solutions. The objectives of the first stage of this technical assistance project encompassed the assessment of urban mobility in selected cities—Białystok, Lublin, Olsztyn and Rzeszów—with particular focus on public transport.

Lack of integration between transport and spatial planning, limited horizontal and vertical coordination between the levels of local administration and lack of integration between different means of transport—urban buses, suburban buses, and railways—were identified as key problems facing public transport development in Poland. Within Polish functional urban areas, with a few exceptions, there is little integration between municipal public transport, commuting railways, suburban buses, as well as dedicated school buses. Each of the subsystems is organized separately, financed separately from different sources and working under different legal frameworks, especially with regard to the extensive system of statutory fare discounts.

Numerous acts establish statutory fare discounts for certain categories of passengers using public transport in Polish cities, different for within city boundaries and for inter-city transport (bus and rail). Also rules of compensation differ for these statutory discounts, which create significant barriers to fare integration. This situation reflects the legal framework of transport and spatial planning, technological barriers, and scattering of competences for transport organization, as well as the absence of political leaders or champions for the integration process.

In sum, the analysis suggested the need to rationalize concessional fare structures and remove obstacles to public transport fare

integration, particularly as these arrangements appear to have emerged piecemeal and specific statutory provisions on discounts have hindered operators from offering integrated public transport fares and services.

Why Public Transport Integration²

Streamlining schedules, fares, and passenger information among subways, buses and commuter rail makes it easier for passengers, cuts down on operational costs, increases ridership, and boosts operational revenue. The lack of integration in the public transportation system has long been a major complaint in passenger satisfaction surveys. To reach a destination, for example, a rider is often required to take multiple routes, each with different schedules and transfer stations but without coordination on passenger information. As a result, the rider may have to take a long walk to make transfers and pay multiple fares or, having a season ticket has access to a limited offer with longer waiting time. It also creates overlapping services and discourages ridership. Public transport runs efficiently when it operates as a seamless, integrated system. This is particularly important in countries with high levels of motorization, as is the case in Poland, where public transport must increasingly compete with privately owned cars.

Transport planners and operators regard public transport integration as a desirable thing. However, the definition of the concept is not always clearly formulated, leading to much confusion. Let us start this chapter by reviewing and defining the main related concepts, and by noting up front that it all relates to the coordination of the components of the public transport system, both between themselves, and with related policy field.

The level of integration can vary substantially in intensity of institutionalization, from simple cooperation to full integration. Cooperation is the lowest form of integration. It is not more than a willingness to work together to reach common objectives. It can involve independent operators in the free market, public providers or authorities.

² This section is based on Van de Velde, D.M. (2005), "Coordination, integration, and transport sector regulation", In: Handbook of Transport Strategy, Policy

& Institutions (Eds.: Hensher, D.A. and K. Button), Handbooks in Transport, Vol. 6, 115-134, Elsevier, Amsterdam.

Examples are agreements to accept each other's tickets or to promote each other's services, agreements to provide common timetable information, common route maps, or cooperation to synchronize departure times between operators at interchanges stations. Such cooperation can appear autonomously when it is in line with the participants' interests, even though distrust or political rivalry between neighboring jurisdictions may hamper the appearance of such cooperation, such that leadership is likely to be a factor facilitating the appearance of such cooperation.

More formalized coordination is the next level and usually entails some form of institutionalization between operators. Examples are: a timetable conference that is organized every two years on the basis of a legal obligation to ensure an 'integrated' timetable throughout Switzerland; the coordinated planning of the network between operators in the German *Verkehrsgemeinschaft* or the coordination of fares within the German *Tarifgemeinschaft*.³ In these cases, an agreement exists between independent operators or authorities to coordinate their planning on a regular basis and according to preset procedures. Another example is the transport associations that coordinate services of individual operators on route corridors, as commonly encountered in developing countries, although these do not always have a legal basis and are not necessarily in the public interest.

Full integration represents then the highest level. Here the service planning functions from all operators of the area are merged into a single separate and common planning body. An example is the *Verkehrsverbund* as developed at a wide scale in Germany since the 1960s, first as unions of companies and later as unions of authorities. In Poland, the separation of former municipal bus operators into a planning body and several operators (some selected through competitive tendering) is an example of integration of service planning and marketing of those bus services at the level of a city.

Looking at it from a different perspective, public transport integration can be understood in terms

of the scope of the integration. Four main domains should be distinguished: integrated information, ticket and fare integration, network integration and wider integration.

Integrated information on routes (such as common maps, etc.), timetables and fares (common leaflets, websites) means that the system is to be perceived as 'one', with a unified set of concepts and a common language in the communication towards the users (livery, logo and marketing). Information integration aims to increase ridership by increasing market transparency by lowering the search and information effort for the passengers about the system as a whole.

Ticketing and fare integration are meant to facilitate travelling from the perspective of the traveler. Ticketing integration is meant to facilitate payment. Fare integration removes price differences between similar journeys (a situation which occurs when two similar trips can be accomplished by a one-legged journey for fare x , or by a two-legged journey with two different operators for a fare of $y+z$, which is larger than x) and allows using different modes of transport, having one season ticket. While ticketing and fare integration were in the past closely linked, the advent of electronic ticketing systems now allows to retain ticket integration while having more fare variety (e.g. between slower buses and faster trains).

Network integration is seen as a means to enhance the quality of existing services by the creation of a structure where each public transport mode fulfills a specific role within the system. The 'bundling' of passenger streams to higher-ranking modes (from bus to trams, metros and heavy-rail) is explicitly aimed at. Network integration comprises several topics:

The coordination of investments in infrastructures and main interchanges, allowing them to interconnect and provide convenient, short interchanges for the passengers;

The coordination of the planning of the transport services such as to avoid waste and realize

on timetables, transfer, and unified route designations among others.

³ *Verkehrsgemeinschaft* is an association of public transport companies with the aim of creating consolidated routes, uniform ticket types, agreements

network effects (services properly feeding into one another with attractive transfer time);

The coordination of the operations where operators provide guaranteed interchanges, have established procedures for tackling with disruptions or unforeseen excess demand, including the provision of adequate network-wide information by all operators.

Wider integration, finally, covers two main issues. The first is investment, planning and operations integration with the wider transport system (private car, taxis and bicycles). The second is integration with urban planning and with environmental and social policies. On the basis of these two dimensions, what the profession sees as 'good practice' can then—broadly speaking—be categorized into four levels. These are, ranked from the narrowest to the widest scope:

From a mere integration of information about public transport services (common maps, common timetables, common internet timetable search engines) via a simple cooperation between operators and/or authorities, with services that are themselves not coordinated in term of planning (no coordination of timetable planning, no physical coordination of interchange points, etc);

Via more intense forms of integration that can include integrated ticketing and fares (same tickets and same fares for all operators, with a common apportionment regime), or coordinated timetables and routes, organized via an institutionalized form of coordination between independent operators and/or authorities (e.g. through contractual agreements or other obligations);

To a fully coordinated public transport services network with one integrated service planning and marketing system, managed through an institutionalized form of coordination, located in a separate planning body;

Up to even wider forms of integration (urban transport authority, urban development authority) that can include coordination with other transport modes (car traffic, parking policy, bicycle systems, etc.) or also with other urban policies, such as land-use planning.

The introduction of integrated fares can lead to trade-offs in terms of increased patronage and reduced revenues collected. International academic literature agrees on the importance of integration to realize an attractive public transport system.⁴ The examples of integration studied in that literature cover cases in Germany, Spain (Madrid), Italy or Israel. These example cover in most cases both fare integration and integration of services (coordination of timetables and well-planned interchange locations). Studies looking in particular at the effect of fare integration tend to show that this can contribute to a rise in usage varying from a few percent to more than 25 percent in some cases, with impacts being on average larger in the longer run than in the short run (substantial variations are observed between cases, depending upon local circumstances and implementation details, in particular network coordination).

As fare integration comes in most cases with a reduction in fares for at least part of the passenger base, integration can lead to a decrease in revenue for the operators. Concrete cases show that this is compensated in part by the demand generation effect created by such schemes. This results from both the fare decrease for some and the improved attractiveness of services for all if services are subsequently properly coordinated. In addition to this, service coordination can itself be a source of operational cost savings, where wasteful duplication of services can be avoided, thus liberating financial means to compensate for revenue shortfalls.

Furthermore, and referring to the specific Polish case, it is likely that better targeted fare discounts

⁴ See for example. Abrate, G., M. Piacenza and D. Vannoni (2009), "The impact of Integrated Tariff Systems on public transport demand: Evidence from Italy", *Regional Science and Urban Economics*, 39, 120-127; Buehler, R. and J. Pucher (2011), "Making public transport financially sustainable", *Transport Policy*, 18, 126-138; Chowdhury, S. and A. Ceder (2016), "Users'

willingness to ride an integrated public-transport service: A literature review", *Transport Policy*, 48, 183-195; and Matas, A. (2004), "Demand and revenue implications of an integrated public transport policy: the case of Madrid", *Transport Reviews*, 24, 195-217.

could avoid spending subsidies on fare rebates to groups of users that could easily afford to pay more, thus providing one further source of compensation for a potential revenue shortfall caused by the introduction of integrated fares.

As local circumstances are of major importance to determine what concrete action should be, case-by-case analyses should then be conducted to determine which potential for service integration exists and establish which particular combination of fare simplification and integration is desirable in connection to this.

Scope of this Report

The need for more sustainable and integrative planning processes as a way of dealing with the complexity of urban mobility has been widely recognized. Within the EU there has been an enhanced focus on urban mobility solutions where local authorities move away from past 'silo approaches' and develop approaches that can stimulate a shift towards cleaner and more sustainable transport modes, in line with the EU's 2013 Urban Mobility Package.⁵

As populations move to the periphery or to neighboring municipalities, it becomes critical that the organization of urban transport services is coordinated within functional areas based on

travel-to-work patterns and not be limited to a city's administrative area.⁶ Public transport in this context refers to bus, trolleybus, and tram public transport services organized by local administrations, as well as commuter rail services organized by regional administrations.

This Report focuses on urban public transport integration in Poland and aims to assess obstacles to integration and to provide concrete recommendations that can remove existing barriers to integration, with an ultimate view of increasing the attractiveness of public transport, against its main competitor, rapid motorization and increased car use. It focuses on barriers to fare integration and impediments to integrated service planning. More specifically, it aims to: analyze the current legal framework, review current fare discount policy and public financing, identify legal obstacles to fare integration; present examples of European best practice in the area of public transport integration; and provide recommendations to remove barriers to fare and ticketing integration

The Report is organized as follows: the first chapter presents the Polish context for public transport. The next chapter presents examples of integrative practices within Europe, before the final chapter concludes with a set of actionable recommendations.

5

http://ec.europa.eu/transport/themes/urban/urban_mobility/ump_en.htm

⁶ This is the approach adopted by the Sustainable Urban Mobility Plans. See:

http://www.eltis.org/sites/eltis/files/guidelines-developing-and-implementing-a-sump_final_web_jan2014b.pdf

Public Transport in Poland

Introduction

The way urban transport is organized varies considerably from country to country, and even from city to city. Numerous aspects come into play—the manner in which national and local authorities divide regulatory powers governing public transport, the way public transport financing is organized, the ownership and structure of transport operators, the nature of the relationship between authorities and transport operators, and the usage of competitive mechanisms as part of a regulatory regime, among others.

The organization of local and regional public transport in the EU has changed over the last decade, with a growing use of contracting. However, contracting can indeed take many forms, as many kinds of relationships are possible between transport authorities and transport operators.

In order to understand the organization of public transport in Poland it is necessary to understand the different levels of local administration. With the fall of communism, Poland created a legal framework to give local administrations the authority they needed to be able to meet their responsibilities as delegated by the central government. The administrative division of Poland has, since 1999, been based on three levels of local administration: 16 regions (*voivodeships*), 379 districts (sub-regional units *powiats*), and

2,479 municipalities (*gminas*). Major cities normally have the status of both *gmina* and *powiat*. Local administration thus exists at a regional, sub-regional, and local government levels. Regional authority consists of a *voivodeship* council and a marshal who is head of the executive body of the regional self-government, while the governor is a central government representative responsible for supervising the activities of the *voivodeship* council. There are three legal categories for municipalities: rural, urban, and urban-rural.

The 2010 Public Transport Act specifies statutory requirements for local authorities and the Ministry of Infrastructure regarding the organization of public transport markets, transport planning, and the financing and management of public transport services. Public transport is organized by local government entities corresponding to the area where such transport is provided. Local transport is organized by municipalities (*gminas*) and *powiats*, regional transport by *voivodeships*, while the responsibility for organizing national and international transport falls on the central government. The Act defines the requirements for the selection of the public transport operators, based on direct awards according to Regulation (EC) 1370/2007⁷, the public procurement law⁸ and concession for construction activities and services act⁹. The intention of the Public Transport Act was to devolve the organization of public transport to the lowest tier of the local administration.

⁷ Regulation (EC) No 1370/2007 of the European Parliament and of the Council on public passenger transport services by rail and by road and repealing Council Regulations (EEC) No 1191/69 and 1107/70 was adopted on 23 October 2007. This Regulation, which entered into force on 3 December 2009, aims to create an internal market for the provision of public passenger transport services. It does so by complementing the general rules on public procurement. It also lays down the conditions under which compensation payments stipulated in contracts

and concessions for public passenger transport services are deemed compatible with the internal market and exempt from prior State aid notification to the Commission.

⁸ Ustawa z dnia 29 stycznia 2004 r. Prawo zamówień publicznych. Dz.U. 2004 nr 19 poz. 177.

⁹ Ustawa z dnia 9 stycznia 2009 r. o koncesji na roboty budowlane lub usługi. Dz.U. 2009 nr 19 poz. 101. This method of contracting public transport services has been used marginally.

The Act changes little for urban public transport, as since 1990 urban municipalities have been responsible for public transport within their administrative borders¹⁰ and larger cities received also ownership of transport companies. Especially between the half of 1990s and the half 2000s it led to rapid development of urban public transport, compared with other types of public transport. Nevertheless, its enactment has had a significant impact outside the cities, as it created new responsibilities for public transport.

This Act is an important piece of legislation, which helps local authorities work with the increasing number of private providers of public transport services and introduces the requirements provided in the Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services.

It also provides other changes, not required by EU regulation. Especially Article 68, by amendment of the Reduced Fares Act, states that statutory discounts apply only in cases of public service obligation (PSO) contracts, thus abolishing the possibility of state budget compensation for rebated fares in commercially provided public transport.¹¹ Article 87 of the Public Transport Act, a transitional regulation of the Act, states that until December 31st 2016 public transport statutory fare discounts apply and are refunded using old rules, which do not require Public Service Contracts. This is a significant change for intercity and rural bus transport, but not for urban public transport as there is no specific budget compensation provisions for those discounts. The act also requires that a transport plan in order to sign a public service contract in case of *gminas* and *powiats* over a given threshold of inhabitants (usually 50,000 and 80,000 inhabitants respectively).

¹⁰ Ustawa z dnia 8 marca 1990 r. o samorządzie terytorialnym. Dz.U. 1990 nr 16 poz. 95 (art. 6, number 1, point 7).

¹¹ This modifies the Reduced Fares Act of June 20, 1992 (Dz.U. 2002, nr 175, poz. 1440, amended). See <http://isip.sejm.gov.pl/DetailsServlet?id=WDU19920540254>).

This chapter provides an overview of the types of public transport operators and public transport organizers in Poland, experience with public transport integration in Poland, public transport fare discounts and implications for ticket integration, before turning to an assessment of the key obstacles to public transport integration.

Urban Transport Operators

A key characteristic of Poland's public transport market is the dominance of large companies owned by local governments, although in some cases, as in Kielce, Wałbrzych, Elbląg, and Tczew operators are privately owned. There are four main types of operators within metropolitan areas:

- **Municipal urban public transport operators (internal operators).** Among urban public transport operators (carriers) performing services with a public service obligation (PSO), public ownership remains dominant in the form of single-person local authority companies, local government companies, municipal union ownerships, and municipal companies. In the majority of cases, contracting of services is by direct award to internal operators.¹²
- **Privately-owned (or co-owned) public transport operators,** having PSO contracts as a result of winning a tender. In some cities (Warsaw, Kraków, Lublin, Gdańsk, Gdynia) they co-exist with internal operators. In other cases, they are allowed as sub-contractors to municipal operators (Wrocław, Lublin, Wejherowo) or operate entire networks (Kielce, Wałbrzych, Elbląg, Tczew, Lubin).

¹² High share of other than municipal operators is recorded in some smaller towns (Bielawa, Olkusz, Chrzanów) where there are no municipal operators. In extreme cases of small transport networks (e.g. Pisz) the orders are so small that they may be based on the small carrier clause.

- **Regional railway transport within the framework of public service.** *Przewozy Regionalne* (PR) is a train operator responsible for local and interregional passenger transportation and is organized by the *voivodeships*, in rare cases with additional financial support by *powiats* or *gminas*.¹³ All *voivodeships* participate in the financing of PR, which provides the majority of local and intercity rail passenger services in Poland. In some regions, separate rail companies operate services and are established and owned by specific local administrations.
- **Commercial non-PSO public transport operators.** While this Report focuses on collective public transport contracted by public bodies of local government, one should also consider the role played by commercial operators, particularly in cities where their market share is high, as for example in the Kraków agglomeration. Transport operations of a commercial nature—or quasi-commercial when discounted fares are refunded—often fill a gap where no PSO transport services are provided.
- **Bus transport within the framework of public service contracted by non-urban local authorities.** They occur mainly in the locations where ‘municipalization’ of the bus transport enterprise that used to be a State Treasury company took place based on the internal operator model, owned by a *powiat* (Bielsko Biała). They may be co-

financed by the municipalities, in particular rural ones.

With the adoption of the 2015 Metropolitan Union Act and the 2015 Act Amending the Municipal Administration Act, the types of public transport operations were expanded to include metropolitan unions and *powiat-gmina* unions (Box 2).¹⁴

There are also some cities in Poland – usually small towns – where urban public transport is fully served by a private company, after winning a tender. This way of organizing public transport resembles more the ‘Dutch model’ rather than the ‘French model’ as the rolling stock, garages and other infrastructure are not provided by the local authority but by the operator.

A general transformation of Polish urban public transport commenced at the beginning of the 1990s, at the same time as market transformation processes. Newly created autonomous local authorities took over responsibility for transport and ownership of state-owned enterprises that provided such services. Already in the years 1990-1993, three main concepts of organization of public transport were developed:

- in the majority of cities, former state-owned enterprises were converted into budget enterprises that managed and provided transport services in terms of planning, marketing and operations;¹⁵ in some cities those budget enterprises were rapidly transformed into commercial law companies, with the same scope of powers as in case of their predecessors;

¹³ Involvement of local government other than voivodeships occurs in Warsaw only. There, the territorial government contracts railway transport operated by the company established for that purpose (Szybka Kolej Miejska Sp. z o.o.; Rapid Urban Railway Limited Liability Company). Four categories of services are offered: Regio (R) or local passenger trains, REGIOplus or semi-fast local passenger train, interREGIO (IR) or low-cost inter-regional fast train, and REGIOekspres (RE) fast trains on international routes.

¹⁴ Metropolitan Union Act of October 9th 2015 - Dz. U. 2015 poz. 1890 (it amended also Public Transport Act).

Available at:

<http://isap.sejm.gov.pl/DetailsServlet?id=WDU20150001890>. *Powiat-gmina* unions have been introduced by Act of July 15th 2015 Amending the Municipal Administration Act and other acts (it amended also Public Transport Act) - Dz. U. 2015 poz. 1045. Available at: <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20150001045>

¹⁵ A budget enterprise is a unit of a public authority with a separate budget but without legal personality.

- a few local authorities separated public transport organization from the provision of transport services through the establishment of public transport authorities (PTAs) that contracted services mainly with municipal operators that received a gross-cost payment for serving pre-defined routes according to a given timetable; those PTAs began also to tender some lines to private companies.
- Private carriers were also allowed to operate independent lines, with their own fares (including discounts) and timetables.¹⁶

local authorities decided to create a PTA, usually as a budget enterprise. This approach usually involved tendering some lines or bundles of lines, but the majority of the network was usually served by an internal operator based on a direct award or a tender without real competition. External quality control with financial incentives and the threat of potential competition led to improvement of services. A fairly typical example of public transport organization is the case of Olsztyn (Box 1).

Box 1: Public Transport in Olsztyn

The City of Olsztyn provides bus services within the city and certain neighboring municipalities under gross-cost contracts with three operators. MPK Olsztyn has been designated as the city's internal operator, under EU regulations, and it operates approximately 90 percent of city bus services. Two further bundles of ca. 10 percent and ca. 20 percent of services are operated by privately owned KDD and Irex / Meteor under 10-year contracts with the city. All city buses bear the same livery as will the new tram service to reinforce the integration of all city transport services. The city has decided to extend MPK's mandate to include operation and maintenance of the new tram service; consideration was given to tendering the service to third parties, but it was decided that better value and integration would be achieved by using the city's internal operator. A joint bus and tram operator will also facilitate reconfiguration of the public transport network and redeployment of staff when passenger service begins on the tramway and certain bus services will be withdrawn.

Olsztyn's city bus services extend to three municipalities adjacent to Olsztyn; these are Dywity, Purda, and Stawiguda. The city bus network had served all five municipalities adjacent to the city until around 2010, but Olsztyn City Council decided that it could not afford to provide operating subvention for such an extensive network and some of the neighboring municipalities were unwilling to contribute sufficiently for the high-quality service that the city provides. Bus services that cross city boundaries into adjoining municipalities account for a small proportion of overall vehicle kilometers.

Source: World Bank.

Subsequently, two main trends, dating back to the beginning of the era of transformation, were observed. Some cities preserved the municipal monopoly, usually transforming transport companies into commercial law companies and restructuring them. A small number of internal operators were restructured in a different way, by establishing a public-private company controlled by a public partner. Later, a growing number of

Urban Public Transport Organizers

The Act on Public Transport is the fundamental legal act governing the principles of public transport.¹⁷ The Act on public transport defines the organizational principles for the regular carriage of passengers in public transport in road, railway, other rail, cable, cable-terrain,

¹⁶ Usually those carriers had their own buses, but in Katowice, for example, the city rented five public buses to an independent entrepreneur who could freely choose the routes to serve.

¹⁷ Act of 16 December 2010 on public transport, Dz. U. 2011 nr 5 item 13 as later amended.

maritime transport and inland navigation.¹⁸ It defines the principles of financing as concerns public transport operations of a public utility character. An organizer of public transport may finance from its budget public transport of a public service character, but is not allowed to finance commercial public transport operations.

The table below shows main models of organization of urban bus transport in Poland. Beside those options, there is also a fully deregulated model, where private carriers enjoy a

very high degree of freedom and where no public service obligation is contracted. This is the case in the city of Zakopane—although recently the city has decided to create an internal operator—and also in other cities as a complement to the traditional public transport services, as in Lublin or Piotrkow Trybunalski up to mid 2000s. In this case, local authorities have no influence on the quality of service or timetable (especially off-peak) of the commercial operators. The next sections of the chapter explore current practices in term of public transport integration in Poland.

Table 1. Main Models of Organization of Urban Public Transport in Poland

Model	City / Metropolitan Area	Authority	Bus operators	Strategy of contracting services	Selected cities with a similar model
“Copenhagen model” (competition “off the road” for bundles of lines)	Warsaw	Public Transport Authority (ZTM) – budget entity	One internal operator – a municipal company (other municipal companies for trams and metro); 4 private bus operators (at least 30 buses each), private companies with core business in Warsaw public transport; further private companies operate local lines at suburban areas (tendered by ZTM), usually with 1 up to 10 buses.	Tendered contracts for 8-10 years, and 50 buses each, low-floor, new buses required (ca. 25 percent of the network); the rest is awarded to an internal operator under a directly awarded contract	Krakow (but there is in this case only one internal operator for both buses and trams)
	Elblag	Public Transport Authority (ZKM sp. z o.o.) – a limited liability company	Only private bus operators (3 firms)	3 tenders organized at the same time, lowering of an average age of fleet during the contract is required	-
	Gdynia	Public Transport Authority (ZKM) – budget entity	2 internal bus operators (and one trolleybus); a number of private carriers for whom public urban transport is not a core business	Usually short-term (up to 3-4 years) contracts for one or a few buses on a given route; usually second-hand fleet is accepted, but quality requirements are rather high	Bialystok, Szczecin (a split of an internal operator into a number of bus companies), Gdansk, Bydgoszcz, Wroclaw
	Upper Silesia	Komunalny Związek Komunikacyjny GOP – a union between urban <i>gminas</i>	A number of municipal operators, owned by members of the union (often supported by direct owners’ help), as well as local, private companies.	Short-term contracts, different size of bundles (usually single lines), low quality requirements, earlier some carriers had old direct awards, but now have to take part in a tender	Gdansk – Gdynia – Sopot – Wejherowo Metropolitan Area (planned)

¹⁸ Art. 1 section 1 of the Act on public transport.

"German model" (internal)	Legnica, Toruń, Zielona Góra, Gorzów Wielkopolski	Local authority (only strategic authority)	One internal operator for trams and buses – a limited company or a budget enterprise	Long-term contract with extensive powers and low operational control over the company	-
"model" (monopoly of a private)	Tczew	City hall	One municipal company – a privatized internal operator	A contract for serving the network for a long period (8 years), requires gradual renewal of the fleet;	- Lubin; Tarnobrzeg

Source: Wolanski (2008), Competition in Polish Urban Public Transport. European Transport Conference 2008, updated

Intermunicipal Coordination in Poland

In the existing legal and organizational framework in Poland, the easiest and most common way of coordinating urban public transport services with suburban services is by entering into bilateral agreements between the city and its surrounding municipalities, transferring organizational competences from the latter to the former in exchange for covering the deficit of the sub-network that is subject to the agreement. The possibility of such bilateral agreements for the organization of public transport through cooperation between units of local administration is allowed under the Act on Municipal Self-Government. An alternative is the establishment of unions, which creates a separate legal entity, whilst the involved local governments transfer specified competences to the union and commit to cover any deficit generated. Box 2 provides details on the agreements and unions between different local administrations.¹⁹

Recent legal changes have introduced two new categories at the beginning of 2016: *powiat*-municipal public transport unions and metropolitan passenger transport unions. The public transport authority can now be a union of municipalities, union of *powiats*, union of municipalities and *powiats*, and a metropolitan union. However, it does not allow the establishment of a union with the participation of *voivodeships*, which is an important limitation, as *voivodeships* are the organizers of commuter rail services.²⁰ Until 2016, with the entry into force of the Metropolitan Act, the Polish law did not provide much scope for special metropolitan arrangements as there was no specific regulation governing metropolitan areas nor legal documents clarifying the delimitation of a metropolitan area. Within that legal framework, metropolitan areas could either start informal cooperative initiatives or establish formal associations of municipalities or counties (but not both at the same time)²¹ and the association created could take the shape of a separate legal entity to be financed and managed jointly by several local governments.

¹⁹ Dz.U 2013 item 594 as later amended.

²⁰ Metropolitan unions have been introduced by Metropolitan Union Act of October 9th 2015 - Dz. U. 2015 poz. 1890--which amended the Public Transport Act. Available at: <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20150001890>

Powiat-gmina unions have been introduced by Act of July 15th 2015 amending the Municipal Administration Act and the Public Transport Act - Dz. U. 2015 poz. 1045.

²¹ Lackowska, Marta, and Karsten Zimmermann (2011), *New Forms of Territorial Governance in Metropolitan*

Regions? A Polish-German Comparison. European Urban and Regional Studies 2011 18: 156-169. The legal basis for the establishment of the association is the Local Government Act of March 8, 1990, which provides that the obligation to the organization of public transport is the responsibility of municipalities. At the same time it also provides the ability to create (e.g. in urban areas) inter-municipal organizations.

The development of effective associations would require municipalities to agree to transfer specific powers. This is not easy to achieve as the current structure of self-government in Poland, which delegates powers to local authorities, is only 20 years old and, with some exceptions of single-issue associations, there is little tradition of metropolitan cooperation or development of relationships across jurisdictional boundaries. A number of metropolitan cities are skeptical about metropolitan unions, as these unions would limit

their control over their internal, self-financed transport investments, such as tram or metro lines. International experience suggests that the development of cooperation could be encouraged through incentives provided by the central government, including fiscal or budget incentives, but this is not in place in Poland.²² Annex 2 provides an overview of existing public transport municipal unions in Poland, while Annex 3 summarizes the experience with inter-municipal cooperation in the Gdańsk Bay region and Silesia.

Table 2. Fare-Ticket Integration Models

Integration solution	Characteristics	Implementation	Issues
Compound ticket	The price of the integrated ticket as the sum of the prices of tickets of the individual partners, while each of them offers a different discount for the urban and rail elements of the journey according to its pricing strategy	Kraków, Wrocław („big agglomerations”), Silesian Ticket, BiT and WiT tickets in Kujawsko-Pomorskie <i>voivodeship</i>	Different discounts are applied to different parts of the ticket—whether urban or inter-city—making it difficult for a passenger to understand. Budget refunds of statutory discounts is possible.
Combined ticket	Lump sum ticket price covering the full scope of use of the transport networks of different providers	Łódź <i>voivodeship</i> – Common Agglomeration Ticket, tickets of the Metropolitan Transport Union of Gdańsk Bay [Metropolitalny Związek Komunikacyjny Zatoki Gdańskiej]	The refund on the statutory discount for the rail part of the journey is lost, which has a financial cost, but this has to be set against the more attractive and clear pricing for passengers which can increase ridership. Budget refunds of statutory discounts is not possible.
Acceptance Model	Urban transport tickets are accepted by rail operators against a fee paid by the urban authority to the railway operator	Warsaw, Wrocław („small aggro”)	In this case one partner issues a ticket which is then accepted by the other. If the partner issuing the ticket is a PTA, then the rail leg of the journey will receive no refund for the statutory fare discount.

Source: World Bank.

²² Swianiewicz, Pawel, and Marta Lackowska (2007). *From Doing Nothing to Metropolitan Government Institutions? Governing Metropolitan Areas in Poland*. Available at:

www.vrm.ca/documents/Montreal_Swianiewicz_Lackowska.pdf

Examples of Fare Integration in Polish Agglomerations

Three concrete examples of fare integration in Polish agglomerations are given below, in addition to the summary table above, in order to illustrate how fare integration has worked in practice.

Warsaw

Warsaw is the national leader in the implementation of ticketing integration extending beyond the administrative borders of the city, a natural consequence of generating high volumes of passenger traffic. The urban public transport network is organized by the Warsaw Transport Authority (*Zarząd Transportu Miejskiego*; ZTM), which contracts public transport services provided by the following municipal entities: city bus enterprise (*Miejskie Zakłady Autobusowe*), Warsaw Tramways (*Tramwaje Warszawskie*), Warsaw Metro (Metro Warszawskie), Rapid Urban Rail in Warsaw (*Szybka Kolej Miejska w Warszawie*), as well as private operators (Table 1). The transport network managed by ZTM extends to neighboring municipalities.

Within the Warsaw metropolitan area tickets valid for 24 hours or longer issued by the Warsaw Transport Authority and previously validated in city buses, trams, metro or Fast Urban Rail are accepted in all regular trains of Masovian Railways (*Koleje Mazowieckie*), the regional rail operator in the Masovian Voivodeship of Poland. The original motivation for the introduction of an integrated public transport ticket that includes urban public transport, local, and regional rail connections was to increase urban rail mobility. Masovian Railways trains operate with high frequency, particularly on the cross-town railway line represent an attractive way of traveling within the city.

The implementation of the common ticket in the Warsaw agglomeration has evolved over time, initially covering the so-called cross-town railway line only. During the initial period, it was necessary to pay a symbolic lump sum fee in order to board trains. With time, this evolved into an approach that allows the unrestricted use of trains by holders of Warsaw issued period tickets, without the necessity of paying additional fees or collecting special tickets at railway ticketing desks.

The functioning of such common ticketing is based on financing sections of railway lines by individual municipalities or *powiats*. This situation is the cause of a certain instability in its functioning. During a given budget year, a municipality may decide to withdraw from the common ticket as a result of which that ticket is not available on a given section of the line. Municipalities situated further from the agglomeration core are thus dependent on those immediately neighboring Warsaw.

Financing of the common ticket occurs separately (in parallel) to financing the Warsaw urban public transport in the area of neighboring municipalities. This leads to a situation where urban transport coverage does not match the Masovian Railways coverage within the same the periodic ticket issued by ZTM Warsaw. For example, passengers commuting to Warsaw from Halinów face the alternative of commuting by train or by urban bus because within the area of Halinów the ZTM ticket is not valid for travel on Masovian Railways trains.²³

The system is attractive to passengers, but expensive to the local authorities, due to lost budget refunds from discounted fare tickets. The farebox recovery ratio in Warsaw decreased from 46 percent in 2004 to 28 percent in 2014 and operating costs for the city tripled in the given

passengers are accustomed to an entirely different form of information presentation with separate timetables for workdays, Saturdays and Sundays. Some of the railway facilities are also far from being adjusted for linking them with urban transport, as a result of long and poorly marked paths to the bus or tramway stops.

²³ Integration remains imperfect and limited to the integrated ticket. For example, incompatible passenger information systems remain a barrier to integration. The timetable of trains is given in the way typical for railways with chronological list of all trains in all directions and available service information given directly by each train in the list while urban transport

period from PLN 0.9 billion (PLN Euro 204.5 million) per year to PLN 2.8 billion (Euro 636.4 million) per year, whereas ticket revenue only doubled from PLN 0.4 billion (PLN 90.9 million) to PLN 0.8 billion (Euro 181.8 million) over the same period.²⁴

Lower Silesian Voivodeship

The Lower Silesian *voivodeship* represents an interesting example of tickets integrating urban public transport with rail. These tickets were first introduced in 2004, as a result of a collaboration between the Wrocław city administration office and the railway carrier. Two types of integrated tickets were created, the so-called “small aggro” and “big aggro”. The offer of agglomeration tickets for the residents of Wrocław offers the possibility of purchasing for a symbolic fee the right to use trains within the area of the city. Additional stamps affixed to the monthly ticket for urban public transport could be purchased giving the right to travel by railways. Improvement of the railway offer was necessary for the offer to give the expected results – at the beginning only a marginal numbers of such tickets were sold.²⁵ The “small aggro” offer evolved into full acceptance of all periodic (from the day ticket up) urban public tickets on regional trains.

Residents in more distant suburbs were the main audience of the “big aggro” ticket. Physically, the ticket reverses the principle of the “small aggro” as in this case the additional stamp for urban public transport could be purchased with the monthly railway ticket. As a result, the integrated ticket was developed, which was somewhat cheaper than the simple sum of the two tickets (railway and urban). Simultaneously, this is the only ticket that within Wrocław is not a railway network ticket (it is valid for the specific section indicated in the ticket). It has been less successful in

integrating suburban transport. Currently residents in the surrounding municipalities face the option of commuting by train or suburban bus, given the absence of a ticket valid for all the modes of transport going to Wrocław.²⁶

Łódzkie Voivodeship

The introduction of the so-called Common Agglomeration Ticket (WBA) in the area of Łódź *voivodeship* has contributed to public transport integration. Although the sales of the WBA are marginal compared to the possibilities and expectations of the whole idea, however, it is based on the right assumption of establishing the specific “backbone” in the form of railway connections with urban public transport systems of individual towns, including Łódź. The WBA is the most comprehensive example of the possibility of purchasing a periodic ticket valid for different urban transport networks and on trains connecting different towns. This offers travelers comprehensive access to the chain of trips in the form of, for example, travel by urban public bus in Zduńska Wola to the railway station, trip to Łódź by rail and then continuation of the trip to the destination by tramway or bus. This approach combines longer range rail connections with urban public transport, encompassing the functional urban area, and combines the line and zone concept – a customer buys a ticket for a given commuter line plus the entire city zone.

Relatively extensive information covering not only the railways but also other means of urban transport, even in locations other than Łódź, represent the added value of the implemented integration. The posters and leaflets made available to the travelers indicate in an intuitive way the different options of the Common Agglomeration Ticket depending on passenger needs. Although it could seem that the ticket is of

²⁴ The farebox recovery ratio is the fraction of operating expenses that are met by the fares paid by passengers. It is computed by dividing the system's total fare revenue by total operating expenses.

²⁵ Based on the data by PKP *Przewozy Regionalne* (PKP Regional Company)

²⁶ The Euro-Nysa ticket applied in the area of Lower Silesian voivodeship is of an entirely different nature.

This is the offer initiated by the Special Purpose Union of Public transport of Upper Nysa and Lower Lusatia in Saxony further extended by some connections in the Czech Republic and Poland. That ticket functions as the day ticket and its major task is to promote public transport for tourism type mobility.

zonal nature, the zones presented in the information mean that specific levels of prices and ticket always covers a specific railway route.

The electronic city card issued by the public transport authority in Łódź is the ticket support for the WBA. The ticket may also be coded on electronic student's card. Unfortunately, the regional rail company introduced its own smartcard that is incompatible with the smartcard issued by the city. As a result, rail stations must also have electronic city card readers. There is a higher share of integrated tickets used for agglomeration routes (direct vicinity of Łódź) than regional travel.

Key Obstacles to Public Transport Integration

Polish local authorities undertake efforts to integrate public transport, although they meet a number of legal obstacles, making integration unnecessarily difficult, expensive, customer-unfriendly and often covering only selected modes of transport. Important barriers to integration touched on in the earlier sections of this chapter are the fare discount rebate and compensation regime and the legal regime governing transport authority cooperation. In addition, the inability to grant an exclusive right regime to PSO operators also creates barriers to integration.

Obstacles Linked to the Fare Discount Rebate Regime

The fare discount rebate regime makes the development of integrated public transport ticketing unduly complex in Poland. The difference in approach to reimbursing statutory fare discounts for urban and non-urban transport discourage urban and non-urban public transport integration. There is no direct central government refund for statutory fare discount policy for urban public transport. Instead, refunds can only be organized through general subsidies from central to local administrations. However, inter-city statutory fare discounts are directly reimbursed and the current legal system of statutory discounts does not take into account the possible

existence of integrated tickets. Discounts are assigned either to urban transport, outer-city bus transport (including rural), or to rail, with additional differentiation among products (for example express rail or bus services) and types of tickets (single / season). For example, a passenger can be entitled to a different discount when purchasing a season ticket for fast train, regional train, or rural bus. Discounts for the same train may differ between season and single tickets. Furthermore, statutory discounts are complemented by discounts awarded by (a) local authorities, especially in urban transport, and (b) operators on a commercial basis, mostly, but not limited to long distance travel.

The difference in approach to reimbursing statutory fare discounts for urban and non-urban transport discourage urban and non-urban public transport integration. There is no direct central government refund for statutory fare discount policy for urban public transport. Instead, refunds can only be organized through general subsidies from central to local administrations. However, inter-city statutory fare discounts are directly reimbursed and the current legal system of statutory discounts does not take into account the possible existence of integrated tickets. Discounts are assigned either to urban transport, outer-city bus transport (including rural), or to rail, with additional differentiation among products (for example express rail or bus services) and types of tickets (single / season). For example, a passenger can be entitled to a different discount when purchasing a season ticket for fast train, regional train, or rural bus. Discounts for the same train may differ between season and single tickets. Furthermore, statutory discounts are complemented by discounts awarded by (a) local authorities, especially in urban transport, and (b) operators on a commercial basis, mostly, but not limited to long distance travel.

Polish rules, particularly for statutory discounts for inter-city public transport, appear extraordinarily detailed and suggest that agreeing on integrated fares across operators within a functional urban area is also be unduly complex. The number of groups entitled to discounts is high, and in some cases the social impact of the

discounts granted is doubtful as some discounts benefit relatively wealthy groups of people. Furthermore, in the current Polish practice the full amount of statutory discount is refunded by the state budget (though not in urban transport, as explained earlier) and this does in effect constitute an additional source of income for the operators over what would be a fair compensation of the rebates.

The mix between statutory and local fare discounts encountered in Poland is also typical for many other countries. However, the usual practice in many European countries is to target discounts to more limited groups of passengers, for example by adding income criteria and restrictions on usage (such as a limitation to off-peak services in urban transport), all of which are not used in Poland. Another important difference is that statutory discounts are usually not compensated in full as is the case in Poland, but only to a specific percentage that is based on the relevant price elasticity in the markets concerned.

Obstacles to Formal Possibilities of Cooperation between Authorities

While Polish legislation foresees many options for cooperation between local and regional government, the analysis conducted for this work suggests there is still a lack of formal possibilities to cooperate between *powiat* and voivodship, *voivodeship* and *voivodeship*, or between two municipal unions or between two metropolitan unions.²⁷ In other words, while recent changes to the legal framework governing unions between and across local administrations are a step in the right direction, it is nevertheless doubtful whether they will be useful in solving the existing problems of regional integration of the public transport offer. The new metropolitan associations do not include *voivodeships* (who are responsible for railways) and do not include rebate compensations from the central government.

Furthermore, this may obstruct core cities' transport system development and may make such cities reluctant to participate. Likewise, the new *powiat-gmina* unions do not include *voivodeships* and are too formal and expensive—as the creation of separate organizational entity requires finding additional financing for running it. As the 2015 legal changes (metropolitan and *powiat-gmina* unions) do not solve these problems, there may be a reluctance to form such unions, and if they are created, these new authorities will be faced with significant problems.

Obstacles Linked to the Lack of Exclusive Right in the New Regime

According to Regulation (EC) 1370/2007, exclusive rights may be granted to an operator within a public service contract. In such a case, other companies are not allowed to compete with the PSO network, even if they are able to run services on a fully commercial basis. Such an approach, suppressing competition during the contract period, allows an operator to focus on the longer term and can be a way to reduce subsidies by using the profits generated by the best lines to support minor, feeder lines. The PSO operator is thus protected from *cream skimming* competition, which is a situation when other companies take over the most profitable services, running during peak times on main lines and targeting single tickets users, while the PSO operator is required to serve lines off-peak, carry disabled people, and accept season tickets. On the other hand, such exclusive rights, by limiting continuous competition, can also have a negative dynamic effect on the market. Once they are granted to one company, other operating companies are excluded from the market and may in the meantime go bankrupt, unless they are able to find different businesses or are allowed to start to act as subcontractors to the main PSO operator. While exclusive rights can be a good solution if there is little or no competition in the local market and if the income levels of the various lines within a

²⁷ The administrative division of Poland has, since 1999, been based on three levels of local administration: 16 regions (voivodeships), 379 districts (sub-regional units *powiats*), and 2,479 municipalities (*gminas*). Major

cities normally have the status of both *gmina* and *powiat*. Local administration thus exists at a regional, sub-regional, and local government levels.

network are highly differentiated, exclusive rights can also adversely affect markets that could otherwise be vibrant, competitive markets and effectively transform them into monopolies, leading to an increasing need for subsidy

The 2010 Public Transport Act states in Article 20 that exclusive rights as defined under EC Regulation 1370/2007 cannot be granted in Poland. In some cases, the lack of exclusive rights in the Polish legislation may lead local authorities not to cover networks with the PSO, and therefore realizing neither integrated transport schemes nor quality improvement, due to the risks linked with this situation, there will be areas where no operator would be ready to accept at a reasonable price a contract that is potentially submitted to competition by other *cream-skimming* companies.²⁸

It should be also mentioned that, according to the 2010 Public Transport Act, transport plans have to describe the networks that will be covered by PSO and organizers are not allowed to contract lines that are not stated in the plan. As the usual Polish practice is to procure for entire networks stated in the transport plan, and as only core networks are described in the transport plans, this prioritizes the network of PSO services over commercial services. The resulting situation reaps neither the benefit that contracting a local monopoly for a given period would deliver in term of cross-subsidizing profitable and less-profitable lines, nor the benefit from the alternative approach where commercial services would constitute the core network and contracted PSO services would fill the social gaps.

²⁸ Cream skimming is the tendency to operate only along lucrative public transport routes, leaving high-cost, unprofitable services, and often also passengers

bearing season tickets, to the public sector. A regulated transport operator, operates in the public interest, serving money-making and loss-making routes.

Box 2: Public Transport Local Government Agreements and Unions

Horizontal agreement of a municipality with a neighboring municipality. The municipality performing the organization of public transport covered by the agreement takes over the rights and duties of the other municipalities. There are no obstacles for municipalities from different voivodeships to make such agreement on condition that they neighbor each other and that they would participate in the financing of public transport organization.

A union of the *gminas* or *powiats*. In Poland for many years unions of *gminas* and *powiats* have been allowed, although a single union can group either *gminas* or *powiats* and has legal difficulties to cooperate with non-member authorities by agreements. At present, there are *gmina* unions inter alia in the areas of Katowice, Gdańsk, and Rzeszów, but they exclude participation from voivodeships.

Horizontal agreement of a *powiat* with another *powiat* and unions of *powiats*. The *powiat* may enter agreements on delegating performance of public transport organization with other *powiats*. For the purpose of joint performance of public tasks *powiats* may establish unions with other *powiats*, and agreements and unions with *powiats* from other voivodeships are allowed.

Vertical agreements of a municipality with a *powiat*. The municipality may perform tasks the scope of competence of the *powiat* based on conditions defined in the agreement. Thus, there are no obstacles for an agreement with a *powiat* from a neighbouring voivodeship.

Vertical agreement of a municipality with a voivodeship. The municipality may perform tasks from the scope of competence of the voivodeship based on agreements with those territorial government units. It should be noticed that entering the “vertical” agreement, the party transferring tasks must assure adequate financing.

Vertical agreements of a *powiat* with a voivodeship. The *powiat* may enter agreements on public transport organization with the voivodeship within the area of which the territory of the *powiat* is situated. That provision indicates that the *powiat* may not agree with the neighbouring voivodeship within the area of which it is not situated.

Unions of municipalities and *powiats*. Since legal changes which came into force in 2016, it is possible to create unions with mixed membership by cooperating municipalities and *powiats*, but exclude voivodeships, who are responsible for rail services.

Metropolitan unions. Such union is created differently from the rest of union options. Instead of the bottom-up logic of other unions that may be created by local initiative, a metropolitan union needs to be accepted at the central level and some of the authorities may be forced to join them by law. Metropolitan unions are also more regulated by law and get additional budget co-financing.

The Metropolitan Act specifies that all transport authority competences must be transferred by member *powiats* and *gminas* to a union. This makes many core urban authorities sceptical about these unions, as their budgets remain the main financing sources of the unions, but they would need to relinquish decision making powers.

The latter two options are new, as the laws only entered into force in 2016. While this is an improvement over the past legal framework, it still does not allow voivodeships from participating in such unions, preventing commuter rail, being integrated in the public transport offer of the unions.

Source: World Bank.

Public Transport Fare Discounts and Ticket Integration in Poland

Numerous acts establish statutory fare discounts for certain categories of passengers using public

Annex 1 details public transport fare discounts for different categories of passengers for urban and inter-city public transport.

Under Polish law, there are three groups of passengers who have the right to travel free of charge on urban public transport. These include members of parliament, wartime and military disabled persons as well as guides accompanying such persons, and civilian blind victims of warfare.²⁹ In addition, the following groups have a 50 percent statutory discount: veterans, undergraduate students, engineering or master's program students, students of teacher training colleges as well as social worker training colleges, and injured veterans receiving disability benefits due to injuries or illnesses developed as a result of participation in warfare conducted abroad.³⁰ These nationally set statutory discounts are not directly reimbursed, but cities have to recover lost income from general subsidies they receive from the central government. In addition, many urban public transport systems offer discounts or free travel to children and elderly passengers by decision of city councils and not as a statutory discount required by central government.

Poland also has statutory reduced fares for inter-city public transport as determined by the Act of June 20, 1992 on reduced ticket prices in public mass transport. The act details a long list of passengers who travel for free or with reduced fares of 95 percent, 93 percent, 78 percent, 51 percent, 49 percent, and 33 percent, for different types of tickets, including single and monthly tickets. Discounts that apply to inter-city railways using single tickets are as follows: 51 percent fare

transport in Polish cities, both for within city boundaries and for inter-city transport.

for university students until the age of 26, doctoral students until the age of 35; 100 percent discount for children under the age of 4; 49 percent discount for children from preschool to secondary school; 33 percent fare reduction for kindergarten, school or university teachers. Children under four travel free, while children from kindergarten to secondary school are entitled to a 49 percent discount on inter-city public transport buses. University students are eligible for a 51 percent fare discount.

Lost income related to financing statutory entitlements to free and reduced fares for rural and inter-city public transport, including rail, are recovered by the state budget in the full amount of the discount given. The differences between the urban and outer-urban schemes described above create barriers to fare integration of inter-urban bus and railway services with urban public transport systems, for when passengers buy integrated tickets, direct compensation of statutory discounts is not foreseen by the law. Furthermore, provisions repealing statutory discounts compensations will come into force on January 1, 2017, with regard to commercial services that are not covered by PSO in line with the Regulation (EC) 1370/2007. This may even lead to the disappearance of many such non-PSO, privately-operated commercially-initiated suburban bus connections.

As a result, when thinking about the possibility of creating integrated fares across operators crossing local administrations and public transport modes, the current system of statutory fare discounts creates a number of obstacles in terms of pricing, ticket distribution, and

²⁹ Respectively, the Act of May 9, 1996, on the exercise of the mandate of a member of parliament or senator, the Act of May 29, 1974, on the supply of war and military disabled persons and families, and the Act of May 16, 2006, on the provision of funds and powers available to blind civilian victims of warfare.

³⁰ Respectively, the Act of January 24, 1991, on the veterans and wartime and post-war victims, the Act of July 27, 2005, on the law of higher education, the Act of September 7, 1991, on the law on higher education, and the Act of August 19, 2011, on veterans' warfare abroad.

information on fares and tickets, as reimbursed tickets have to be sold from special cash registers with trusted memory. Nevertheless, there have

been various attempts at integrating fares in a number of cities, although, as

Table 2 shows, a number of integration issues remain with each type of solution.

Integrative Practices in Other Countries

Introduction

There is extensive European experience with integration of public transport services and fares within functional urban areas. This chapter will cover several examples that could usefully serve as a source of inspiration for the future of integration in the Polish public transport sector. The focus on European experience reflects interest in understanding alternative options that are permitted within the context of the EU *acquis*. In the examples covered in this chapter, there is one non-EU country covered, Switzerland, but otherwise the case studies include France, Germany, and Great Britain.

Introducing integrated public transport ticketing can have both demand and revenue implications. An important concern regarding the introduction of integrated ticketing is the potentially negative impact on revenue. The literature suggests that the final impact depends on the combination of fare levels for different ticket types and on user distribution according to rates of use.

For example, in a study reviewing the introduction of an integrated ticket offer in the Madrid metropolitan region, the analysis suggested that the new ticketing succeeded in reversing the declining patronage trend, in line with similar results in German and Swiss cities and in London.³¹ However, in the case of Madrid the high market penetration rate of low-cost travel cards had a negative effect on company revenues.

In the case of Poland, introducing an integrated ticket offer while reforming the generous statutory fare discount policy, could help mitigate

against the potential risk of reduced operational income.

France: Fiscal Incentives for Authority Cooperation

French public transport benefits from a local tax that is hypothecated to local public transport. Besides being an important source of funding for public transport, this funding regime is also used as an incentive to generate inter-authority cooperation, leading to an increased integration of public transport provision at the urban level. This local transport tax, called “*versement transport*”, is levied on employers accrues to local transport authorities. Revenues are substantial and currently constitute 46 percent of all public transport revenues in France, rising to 63 percent in cities of 100,000 to 150,000 inhabitants. A rationale for this taxation is that employers benefit from, and therefore should contribute to, a better accessibility of the urban area and a larger workforce market that the tax allows to realize through enhanced public transport services.

This tax is a percentage of companies’ wage bill, for companies that have more than 11 employees. The level of taxation is determined by the local urban public transport authority, while the maximum rate is determined by national law and depends on the type of cooperation, such as the size of the cooperation and the existence of fixed-track modes in the area. This maximum percentage varies between 0.55 percent and 1.75 percent.

The tax was first applied to Paris, but was later gradually extended to further local authorities.

³¹ Anna Matas (2004), “Demand Revenue Implications of an Integrated Public Transport Policy: The Case of

Madrid”, *Transport Reviews*, Vol.24, No.2, 195-217, March 2004.

The regime generated an incentive for local authorities to create inter-municipal cooperation as French municipalities are rather small by European standards and as this taxation was only available to local authorities reaching a specific population threshold.

This incentive was cleverly used by gradually reducing the population threshold necessary for cooperation of authorities to get access to this taxation, thereby generating successive waves of cooperation, from larger urban areas down to smaller urban areas. In 1973 it became accessible for areas counting at least 300,000 inhabitants, in 1974 100,000 inhabitants, in 1982 30,000 inhabitants, in 1992 20,000 inhabitants and in 1999 to 10,000 inhabitants. It was also extended to newer forms of cooperation between local authorities. The transport tax currently constitutes a major part of public transport revenues in many cities.

The French example is interesting for Poland for several reasons:

- The current Polish regime for inter-authority cooperation allows for several forms of cooperation between authorities located at the same level of government and between *powiats* and *gminas*, and more recently metropolitan unions. The advantage of the French system is that it also allows for more co-operation between various levels of government.³²
- The transport tax has allowed raising additional means to modernize local public transport, in particular it allowed investing in new modes.
- The *versement transport* was instrumental in incentivizing inter-municipal cooperation in the provision and integration of local public transport services.

Ideas for implementation:

- If possible within the Polish taxation regime, such a decentralized transport tax

could generate a strong additional incentive for authorities to create new forms of cooperation. However, it would to be essential to be able to guarantee a proper steering at the national level to ensure that the incentive is adequately geared towards generating the most necessary forms of cooperation, avoiding the creation of a multitude of uncoordinated cooperation areas.

- It is important to remember that the main lesson from this case is the cooperation incentive that is associated with it. It should not be seen as an instrument that has to be coupled with the taxation instrument per se. In the absence of a possibility to use the taxation mechanism, a similar effect could usefully be generated at the level of central government, linking the issuing of specific grants or specific subsidization regimes for urban areas with the implementation of an adequate form of urban governance, at least for transport issues.

Germany: Authority Cooperation and Fare and Service Integration through Public Transport Associations and National Legislation

Public transport associations (*Verkehrsverbund*) are a main characteristic of the organization of public transport in Germany. They aim at organizing a seamless public transport experience, across all modes and service providers. Major components of their action are a single fare system for all participating modes and companies; a uniform ticketing system across all operators; timetable coordination between all operators to ensure good connections between services and even guaranteed connections between services; and a unified passenger information system.

³² One important difference is that French public transport authorities are fully financed by the state

budget and taxes, whereas Polish ones are only co-financed and are reliant on local taxes.

Public transport associations find their origins in the 1960s in Germany—with the famous example of Hamburg. These transport associations were often set up as associations of transport operators, most of which were publicly owned. Later in the 1990s most of these associations were transformed into associations of authorities, themselves owning (municipal) operators. Various structures of cooperation currently exist to institutionalize such cooperation between local authorities participating in an association. This can include cities, provinces (*Kreise*) and/or states (*Länder*). Some associations even include operators.

The level of cooperation through these associations varies. Some are limited to fare integration, while others also include the integration of services (routes, timetables). More extensive forms of cooperation usually require having a more institutionalized form of cooperation between the participating authorities. Such institutionalization (*Verkehrsverbund*) mostly takes the shape of a special purpose company, owned by the cooperation of authorities and responsible for most of the marketing of public transport services in the area, including service development, planning, routes, timetables, fares, sales, promotion, and information. Their action is often focusing on the regional level of integration—one fare regime, one overarching passenger information system, regional public transport planning principles—while more local tasks are carried out or further developed by the participating local authorities and operators, in particular in the main urban centers. The cooperation of authorities can itself be organized according to the respective law on inter-authority cooperation (*Zweckverband*), and act as controlling authority of the special purpose company.

The federal nature of the country allows German transport associations to be organized differently from state to state, all according to the State's public transport legislation, in addition to federal public transport legislation that acts as an important framework for the action of the States. Some States have decided to organize all regional rail transport at the level of the State, this is the

case of Bavaria, whereas other states have decided to organize this at the same level as each of the transport associations created within the State and responsible for the rest of the local public transport.

Another common structure, as in the Rhine-Ruhr area, is to give the public transport association general responsibility for public transport planning in the whole area at the regional level, while the more detailed planning responsibility at the urban level is given to the various participating authorities and their municipal operators. This leads to a type of organization at the level of a conurbation that combines the advantages of broad regional coordination for regional trains services, with the advantages of a local planning focus for urban services in the participating cities.

Regional rail transport is increasingly subject to competitive tendering in Germany. Local public transport (bus, tram, metro), however, is mainly provided via municipal operators. Regional bus transport is provided via licensed 'commercial' operators benefiting from compensation. Currently, there is only a limited number of areas in Germany—such as the State of Hessen, including the Frankfurt region, or the suburban areas around Munich—that have deliberately chosen for a competitive tendering regime in the bus sector.

The German federal legal regime specifies a fare rebate regime, in addition to the regional provisions that the local authorities can develop. This is organized in such a way as to allow as seamless an integration between all regimes as possible. For example, federal legislation requires free travel for handicapped passengers, for which a specific compensation is paid by the State.

For school children, students and trainees, a 75 percent rebate on monthly passes is provided, and half of the difference between the costs incurred for transporting the beneficiaries (number of trips x average trip distance x cost base per trip) minus the revenues obtained is reimbursed to the transport operator (or the body carrying the revenue risk) by the respective State. While this

does not include federal long-distance railway services that are meant to be operated on a profitable, commercial base, it does include regional railway services that are contracted and co-funded by regional authorities.

The German example of public transport associations can be a source of further inspiration for Poland for several reasons.

The reorganization of the urban public transport in Poland in a planning body and operators carried out in the 1990s is in line and compatible with the type of organization that forms the core of a public transport association. Indeed, in both cases we see a separation between public transport planning functions and operational functions. The forms of cooperation encountered in Warsaw, Tricity or in Silesia can also be seen as examples of similar forms of organization.

The continued existence and development of public transport associations in Germany illustrates the usefulness of such form of organization to improve the quality of public transport for the user, and has also been adopted in Austria and Switzerland.

The German case demonstrates the relevance of associating different levels of government within the same public transport association. This was something that was difficult or impossible to realize in the Polish legal setting until the adoption of the recent new legislation on metropolitan areas. Although even with this new legislation, voivodships cannot take part in such unions, whereas in Germany, their equivalent are key players. In Poland, core cities have limited responsibilities for public transport organization under the union, whereas in Germany their equivalent organize their own public transport, while the transport union takes care of integration at the regional level.

Many options to coordinate regional rail transport with the rest of the local public transport services can be observed in the German practices. This shows that there is clearly not a one-size-fits-all solution.

The German federal fare rebate system is an illustration of how national uniformity and simplicity in fare rebates can be regulated by national (federal) law, while sufficient flexibility

for additional action can be organized at the state, regional or local level, including further fare rebates. It also shows how fare rebates can be organized across modes, even when these fall within different legal regimes.

Ideas for implementation:

If made possible by amendments to the existing Polish legal framework, further cooperation between municipalities, counties and *voivodeship* should be investigated. The exact form of cooperation is dependent on regional needs, complexity of the urban area (level of polycentricity), and the presence and relevance of regional railway services within that context. The German experience can serve as an illustration of how to organize full integration of all services (train, metro, tram, bus) at the metropolitan level.

The German experience can also serve as a template for the integration of regional train services organized by a *voivodeship* and the rest of public transport services organized by cooperation at the level of local authorities, even when a *voivodeship* does not directly participate in such cooperation.

Switzerland: Legal Provisions for Fare and Service Integration

The Swiss public transport system represents one of the best examples of integration of fares and services across Europe. Integrated fares are available for trips across most public transport services (bus, tram, trains, boats, etc.) throughout the whole country, using one ticket—or one seasonal pass, or other special fare tickets—all available in principle from any point of sale. This integration is called the “Direct Service”. It is organized by the Swiss Union of Transport Operators who is charged with the management of the ticketing system and the apportionment of the revenues it generates.

This integration is based upon a federal legal obligation for all public transport operators to provide such integrated ticket and fare system.

This includes both long-distance transport and local trips. The law also requires that the general interest dominates above the private interest of the participating operators. The federal ministry has the right to take specific decisions if the operators do not realize quickly enough the integration mandated by law.

The federal regime is complemented since the 1970s by a growing number of regional ticket and fare integration systems that include all local public transport services, *Verkehrsverbünde*, akin to the cooperation between transport operators or authorities in Germany in the same period. In those cases, the federal Direct Service covers trips that cross the boundaries of those regional fare cooperation.

This combination of federal and regional integration is currently evolving towards an enhanced form of countrywide cooperation aimed at replacing all paper tickets with a common chipcard-based system, akin to the examples of the Netherlands and Denmark in term of introduction of one national public transport smartcard.

The Swiss example of national (federal) integration is interesting for Poland for several reasons:

A well-balanced strategic vision at the national level can constitute an important form of guidance for stimulating positive network effects throughout the country. Such a vision, enshrined in stable legislation, makes it clear for all players in the sector that coordination between services and the adoption of a network perspective for all decisions constitute cornerstones of the Swiss public transport system. To be effective, this needs to be based upon a coherent and stable long-term vision. Switzerland represents a clear example of this through its adoption of integration across all modes of public transport and through the maintenance of this choice over many decades, thereby fostering reinforcing developments in this strategic direction over the course of many decades.

The combination of national integration with the possibility to generate further integration at the regional level illustrates how overarching network effects can and should be regulated at the national level, while specific regional needs can be left to be regulated at the regional level.

Ideas for implementation:

Provisions in the national public transport legislation could be devised to foster full service integration. However, the size and complexity of the Polish local government regime may require to start at a more modest level, with financial incentives—grants for example—to encourage each *voivodeship* to develop service integration at its own level. This would require each *voivodeship* to initiate actions or coordinate actions of all public transport authorities within its territory in order to realize ticketing, fare, information and/or service integration. In terms of ticketing integration, national action could nevertheless encourage the adoption of a new wave of interoperable payment systems such as EMV cards, tokens, or Apple Pay.

Switzerland: The Case of Zurich

Public transport in Zurich is organized by the *Zürcher Verkehrsverbund* (ZVV; Zürich Transport Association), which is a public organization of the regional government (Canton of Zürich) coordinating the public transport provision of over 40 operators in the Zürich region for an area of about 1.5 million inhabitants. This includes all local means of public transport, bus, tram, boats and cable cars, as well as regional railways.

ZVV provides for a coordinated network of services and an integrated ticketing and fare system. This allows passengers to use whatever means of public transport on the basis of a single public transport ticket. ZVV's action ensures that all means of public transport are properly connected to each other, generating substantial network effects for passengers, in line with federally mandated integration requirements.

This setup dates back to the 1990s when a major investment in the regional rail network (a tunnel through the city center) was made to enable the railway system to enhance its position of backbone of the public transport system. This required the introduction of service integration and led to the adoption of integral clock-face scheduling. It also required coordinating and integrating fares between rail and the rest of the public transport system. This was taken care of by the then newly created ZVV.

Service coordination is organized at two levels. ZVV is in charge of general public transport policy, its regional planning and general coordination. It is also in charge of the brand under which all services are marketed and it defines the fare regime. The eight main public transport operators—the federal railway company, a regional railway company, the municipal public transport operators in Zürich and in Winterthur, three regional bus companies and the boat company on the Zürich lake—are responsible for service planning, marketing and operations in their respective geographic area or for their respective train services. The system is in general dominated by public transport operators, although regional bus operators also sub-contract some services to third operators.

Relevance for Poland

The example of Zürich is interesting for Poland as:

- It illustrates how integration of services and fares has contributed to a more attractive public transport system, fitting within the urgent needs of the Polish public transport sector.
- It also illustrates how the role of several national, regional and local public operators can be combined within one functional urban region, thus providing an example to strive towards for many Polish urban regions.

Several ideas for implementation can be distilled out of this example. A few illustrations are:

- The Swiss example of integration between all types of regional train services and the rest of the public transport services should inspire further cities in Poland. While the Warsaw region or the Tricity region has implemented this type of integration, this is done at a much more systematic and integral level in the case of Switzerland.
- Fare and service integration organized at two levels, as in Zürich, can form a useful source of inspiration for setting up wider regional forms of integration around Polish cities.

Great Britain: Quality Partnerships as Integration Platforms

Quality partnerships have appeared autonomously in Great Britain within the context of a deregulated bus system outside London, as a result of attempts by local transport authorities to improve the quality of public transport services provided by commercial service providers. This has occurred in the context of deregulation, which has prohibited directly subsidizing commercial bus operations, except for generic subsidies available to all operators, such as supply-based subsidies or compensations of fare rebates requested by the authority to the benefit of specific groups of population.

Transport authorities wishing to improve services developed quality partnerships with transport operators, initially on the basis of voluntary cooperation. These partnerships worked as follows: a local transport authority invests in improved facilities at specific locations along bus routes (e.g. bus stops or bus lanes, etc.) and operators who wish to use those facilities undertake in return for the commercial advantage provided to them by those facilities to provide specific minimum quality standards (e.g. new buses, or driver training standards) or undertake to fulfill service requirements such as maximum frequencies, schedules, or maximum fares.

This form of partnership was initially a simple gentlemen's agreement. While most such agreements in Great Britain are still of a voluntary nature, national legislation was subsequently adopted, both in 2000 and in 2008, to allow for the creation of statutory quality partnerships; these have a compulsory nature and can be initiated directly by the transport authority. These consecutive legal amendments also widened the field of items potentially covered by the quality partnership agreements, in order to provide the local authority with a widened toolbox of measures that could generate a wider level of coordination between transport services.

Quality partnerships can be set up such that only those operators who respect the standards defined in the quality partnership are permitted to use the facilities in which the public transport authority has invested. This can further enhance the quality of the services provided and it prevents free-riding on the public investment. Enforcement of such provision is foreseen through the traffic commissioner; a part of the civil service responsible for licensing transport operators.

The most recent forms of quality partnerships even allow restricting further entry on a route or infrastructure. Operators can also be restricted from introducing variation to the services or from withdrawing existing services unexpectedly; specific criteria are required for the traffic commissioner to be able to enforce such provisions. These provisions can also protect operators and local transport authorities from entry by new services who would undermine existing services, as well as preventing operators from running alongside existing services without respecting standards of services and, through this, undermine the services that do respect those standards.

While current quality partnership scheme must always involve new infrastructure, legal changes are currently being considered to introduce an enhanced form of quality partnership that would remove that requirement and introduce enhanced forms of partnership allowing authorities and operators to agree on service standards for all services in the authority's area. This could include

frequency and reliability along a particular transport corridor, setting emissions standards, or introducing common branding, marketing and ticketing over a wider area.

British quality partnerships could be an interesting source of inspiration for Poland for several reasons.

- The example of quality partnerships as introduced in Great Britain illustrates how a regime based on autonomous entry can be 'softly' re-regulated in an attempt to combine the free market principle with transport planning integration principles.
- It is important to recognize the possibility of generating services through autonomous market initiatives are allowed in the Polish legislation. Although free market initiative constitutes the core of service provision in Great Britain outside London, these currently play a more marginal role in regional transport in Poland and a minor role in the core of Polish urban services.
- This makes this form of 'soft' market regulation via partnership agreements relevant for the Polish context. However, the current Polish legal setting is currently not entirely conducive to the development of such arrangements. Indeed, while Polish law allows authorities to grant or prohibit access to given stops to commercial operators, it does not allow to condition such access to meeting, for example, given service quality requirements or minimum bus capacity. Neither does it foresee regulatory means that would allow for the realization of network effects based on commercial initiative. Essentially the absence of exclusive rights, and the absence of a proper regulatory framework for the development of market-initiated services limit both market opportunities and potential contribution to the public transport network as a whole.
- The British example shows how measures can be taken to enhance the relevance of

such services, in particular in combination with the more recent legal amendments and the further changes that are currently being contemplated.

Ideas for implementation:

- Pending changes in the Polish legal context, such as the abolition of the possibility to compensate fare rebates in commercial services, constitute an adverse development for the future of commercial services in Poland. Furthermore, the abolition of the compensation of fare rebates to commercial operators will inevitably generate a substantially increased need for tendering services.
- This could in part be avoided through a clever combination of maintaining a system of compensations for fare rebates and complementing it with generic subsidies for service supply and additional to the legal regime enhanced forms of quality partnership, including the possibility to create statutory, i.e. compulsory, partnerships.
- A reversal of the abolition of the possibility to compensate fare rebates in commercial services would allow for renewed development of this market and this would allow taking the specificity of the Polish situation into account, which is characterized by the presence of commercial operators (contrary to what is the case in many other countries). This could be complemented by generic service subsidies, such as a subsidy linked to the quantity (kilometers) of service supplied, which could also be used as an incentive to stimulate environment-friendly modes of operations. Additional quality improvements could be generated in many areas if authorities were, through statutory quality partnerships, additionally granted the possibility to link the usage of bus stops by an operator in an area to the realization by the operator of specific quality standards.

- Taken in combination, these measures would prevent, at least in part, the need for developing local administrations charged with planning and tendering public transport. While such administrations may be present in many urban areas, they are currently absent in the rural and regional areas.

Great Britain: National Fare Rebate Schemes including Commercial Operators

The fact that the public transport market outside London is provided by commercial operations does not prevent the public transport authorities from providing fare rebates or even free transport to specific groups of population. For example, since 2008 the fare rebate schemes in England provide for free transport for all elderly people and is complemented by various local schemes, at the discretion of local transport authorities responsible for their funding.

This provision is authorized by the Regulation (EC) 1370/2007, as a general rule allowing fare rebates for PSO services through reimbursement to the operators providing rebates. An essential condition is that all operators are treated equally, i.e. that the compensation scheme is available on equal terms to all operators operating in the area. The Regulation foresees in a calculation method that is aimed at ensuring the operator is neither better nor worse off than without realizing this public service obligation. This means that the fare rebate is not compensated in full but only in part to take into account the additional traffic generated by reduced fares granted to the groups of population benefiting from the fare rebate.

Compensation of fare rebates constitutes the major part of public spending on bus services in

Great Britain outside London.³³ Currently, out of total public spending on bus services in Great Britain outside London, 56 percent is spent on fare rebates (or free travel), 16 percent on the Bus Service Operators' Grant (a generic subsidy linked to the amount of services supplied by operators), and 28 percent on tendered service. Pure passenger revenues (excluding all forms of public support) constitute approximately 55-60 percent of bus operators' total revenues.³⁴

About 77 percent of the total supply of bus services in England (not Great Britain) outside London is provided on commercial basis, the rest being provided under contract with local authorities, such as under competitive tendering. Fare rebate compensation is granted to all operators, in line with EU rules. The compensation takes a traffic generation factor into account. The law states that a bus operator should be no better and no worse off as a result of the existence of such schemes. In 2012/13, the average reimbursement in England (outside London) amounted to 80 percent of the rebates provided.

The British fare rebates scheme is interesting to Poland for several reasons:

- Various national and local fare rebate schemes can be combined.
- The British example clearly shows that such rebate compensation mechanism is in line with European legal obligations.

Ideas for implementation:

- A fare rebate compensation regime for commercial services currently exists in Poland but is threatened with abolition in January 2017. A cancellation of this measure would allow maintaining in the Polish legislative framework a regulatory feature that could prove useful, at least as an option, for the future of Polish public transport.
- Additionally, if commercial services are to play a larger role in the future of public transport, this feature could also be

expanded to other forms of public transport, including urban transport, and even railway transport. This would lead to the removal of one of the major barriers to integration in Polish urban areas.

Great Britain: Fare Integration Companies

British deregulation of public transport outside London introduced in 1986 a regime based on pure commercial initiative. From then on, operators were essentially allowed to provide services wherever they felt this would make commercial sense. Direct competition 'on the street' between operators was allowed, and any form of cooperation (such as timetable coordination or fare coordination) was prohibited as being anticompetitive. Importantly, two generic subsidies continued to be available to all operators. This was firstly the Fuel Duty Rebate (later Bus Service Operators Grant) that effectively reduced the production costs of all operators and thus led to more services being provided on a commercial basis than would otherwise have been the case. Secondly, local authorities continued to be allowed to provide reduced fares for specific group of population (mainly elderly people, students and handicapped). Operators were then reimbursed for the revenue foregone, taking into account the passenger generation effect of reduced fares. This form of compensation was mostly based on passenger numbers. Here too, more commercial services resulted from this measure than would otherwise have been the case without this passenger subsidy.

One of the effects of this form of deregulation was that pre-existing fare and ticketing integration arrangements had to be re-invented if they were to survive, to be compatible with the strict competition laws introduced with deregulation. There are at least two ways to arrange for this.

³³ Calculations by TAS (2015) based on official British statistics.

³⁴ Department for Transport (2014), Annual Bus Statistics: England 2013/14.

The first is for the transport authority to keep its pre-existing integrated ticketing scheme and agree with as many operators as possible for an acceptance of those tickets and seasonal passes on board their respective vehicles. As all operators always have to keep the right to maintain their own fare system under British legislation, this has often led operator fares to be slightly lower than the integrated fares provided by the local authority.

The second is the creation of a ticketing company covering a specific geographical area, such as a conurbation. Such a company can be established by a cooperation of operators, agreeing to provide one common ticketing and fare scheme. For such an agreement between operators to be acceptable from a competition law perspective, it has to contain governance provisions that allow all operators who would be willing to participate in the scheme to be allowed to participate.

One example of such a fare integration company is Network Ticketing Ltd, operating under the brand of NetworkOneTickets in the area of Newcastle in Great Britain (known as “Tyne & Wear”). This company was created in 1988 to provide tickets that can be used on all modes of transport in the area (bus, metro, train and ferry). The company was established as cooperation between the main providers of public transport services in the area. The company has a board of five directors. Three represent the three main private bus operators, one represents several smaller operators, and one director represents the transport authority (Nexus, which provides the metro system on the basis of a competitive tendering regime). The shareholding of the company is based on an annual auditing process based on the respective market shares of the participating operators. The company has over the years developed several ticket offers and is currently committing itself to deploying a smart ticketing system throughout the area.

This British example of a fare integration company can be a source of further inspiration for Poland, even though some remarks need to be made:

- As the Polish legal and organizational situation differs from the British case presented here, it is important to carry out a proper interpretation of the lessons, abstracting from the ‘pure deregulation’ aspect and the British implementation of the regime. However, the existence of a commercial market-based public transport service provision in Poland contributes to the relevance of this example.
- Such an integration company illustrates how commercial (market-initiated) services can be combined with services provided by an authority, be it in-house or via a tendering regime. A situation that is to some extent similar exists in Poland, where commercial services exist in the regional areas, while authority-organized services exist in the more urbanized areas.
- The development of such a company provides an interesting parallel with the original development of transport associations in Germany.
- Current technology trends that allow for separating issues of ticket integration from those of fare integration can even create new perspectives for this example, as both issues can, to a certain extent, be considered separately.

A few ideas for implementation can be distilled out of this example:

- Ticketing and/or fare integration platforms could play a role in facilitating ticketing and/or fare integration in areas where several public transport providers play a role, in particular in those cases where commercial service provision plays an important role, and also in cases where services organized by different authorities co-exist while a cooperation between those authorities is not or cannot be organized. This could for instance play

a role to facilitate integration between regional rail services and local or urban bus/tram services, without requiring a full replacement of all other existing systems and regimes.

- However, such a system can be seen to make an existing situation more complex, rather than providing a clearer form of integration. Such a regime could therefore be seen either as a transitional feature on a path to a more thorough form of integration. It could, however, also be implemented as a fundamental integration feature if further steps proved to be impossible to realize, for example due to important legal or political barriers.
- This example could also be used to realize an integration of all seasonal passes, without covering the rest of the ticketing system. This could constitute an easier step towards realizing the main benefits of integration.

Summing Up

The seven cases presented include various concrete ideas for an implementation in Poland. They constitute at least as many tools within a wider integration toolbox that can be used for the future of Polish public transport. They represent options for better integration of public transport services using various instruments that vary from financial incentives, to institutionalized planning organizations, via various legal integrative requirements or cooperation platforms.

The examples and their pervasiveness across Europe also illustrate the relevance and importance of good integration of public transport services in term of ticketing, fares, timetable, routing, customer interface, among others. The experiences presented in this chapter summarizes much of the actions taken by numerous European cities in term of increasing the attractiveness of public transport through a focus on its network character and its associated network effects. The

examples show how the realization of these network benefits may be fostered by various measures and that these can be adapted to local needs and to the local institutional context.

The first challenge is to develop both a national framework that removes the current barriers to integration that have inadvertently been created in the past and replace them by legal, regulatory and financial elements that instead foster an autonomous development of improved integration. National tools to foster integration may, for example, include legal obligations for coordination (as exemplified by the Swiss case), financial incentives for cooperation (as exemplified by the French case), national fare rebate regimes (as exemplified by the German and British cases).

The second step will then be to devise and introduce at the regional level a clever combination of tools out of the toolbox suggested in this chapter. It is important to realize that it is only after removing the existing barriers that more concrete designs can be elaborated at the regional level taking inspiration, amongst other sources, from the cases presented in this chapter.

That elaboration will then require taking into account various relevant regional features, such as the level of urbanization, the polycentric character of conurbations, the pre-existence of public transport authorities and their respective skills, the extent of the existing commercial operators' market, the available budgets, the readiness to accept change, etc. Based on such an analysis, regional transport unions could be developed with a structure adapted to the needs of the corresponding regional area—conurbation, central city agglomeration, rural area—by devising adequate governance structures that may in some circumstance include a 'subsidiarity' aspect, as exemplified by the Swiss and German examples presented.

Recommendations

Introduction

This Report has presented an overview of the challenges faced in Polish functional urban areas to develop an integrated public transport offer that is attractive to passengers across public transport modes and administrative jurisdictions. It has also presented the approach taken by a number of countries and cities in the European Union and Switzerland in order to encourage public transport integration, with a view to ensuring that the modal share of public transport increases.

As a first step in facilitating public transport integration across modes and jurisdictions within a functional urban area, this Report argues that there is a need for certain reforms. Such reforms would need to be implemented first, before Poland could consider adapting elements of successful European models of public transport integration. As such, the international case studies represent alternative options, some of which can be combined, whose feasibility in the Polish context need to factor not only technical, but political feasibility considerations. A separate report reviews the opportunities of enhancing interoperability of automated fare collection systems in Poland, which would support fare integration.

Based on this analysis, recommendations have been formulated in order to remove barriers to public transport integration in Poland, structuring around five reforms: (a) introducing a uniform statutory discount system; (b) reforming the system for financing statutory fare discounts; (c) limiting the number of local authorities responsible for transport; (d) introducing mechanisms protecting PSO operators against excessive competition; and (e) promoting fare integration.

³⁵ This need to review how fare discounts respond to social objectives is necessary, quite apart from the perspective of removing barriers to fare integration.

Introducing a Uniform Statutory Discounts System

Different statutory discounts apply for each mode of transport (urban, rail and outer-city bus), type of services (regional, fast, express and intercity trains) and type of tickets (single vs. season). If a ticket allows using different modes and types of services, there are no clear rules as to which discount to apply and local authorities have either to use complicated solutions or cover the high costs of discounts from their own budgets, without being entitled to reimbursement from the national public purse. This situation leads to two major problems. It renders the fare system unclear for passengers and it creates substantial obstacles to fare and ticketing integration.

A unification of the catalogue of statutory discounts should be the first measure to adopt to remove legal barriers to fare integration. Discount rates should be much less differentiated between modes of transport. In addition rules should become favorable to transport integration and special rules should be applied for integrated tickets. This should be accompanied by a review of the list of statutory discounts, considering their actual efficiency and effectiveness in terms of social policy.³⁵ Although the catalogue of statutory discounts should be simplified and limited, local authorities should retain the right to grant additional rebates. A reform of the generous statutory fare discount policy could be expected to generate additional revenues.

This recommendation would require a number of legal amendments to the following acts:

- Act of 20 June 1992 on eligibility to free and discounted fare trips on means of public transport (uniform text in Dz. U. 2012 item 1138 as later amended);

- Act of 29 May 1974 on support to the war and military disabled people and their families (uniform text in: Dz. U. 2015 item 840),
- Act of 24 January 1991 on combatants and some persons that are victims of war and post-war period repressions (Dz. U. of 2014, item 1206, as later amended),
- Act of 7 September 1991 on the system of education (Dz. U. of 2004 No 256, item 2572, as later amended),
- Act of 27 July 2005 The Law on Higher Education (Dz. U. of 2012, item 572, as later amended.),
- Act of 16 November 2006 on the pecuniary benefit and rights due to the civilian blind victims of war (Dz. U. 2006 No 249, item 1824, as later amended),
- Act of 7 September 2007 – on the Card of the Pole (Dz. U. of 2014, item 1187).

Reforming the System for Financing Statutory Discounts

Urban transport is currently excluded from the system of direct compensation of statutory discounts, while in case of other public transport markets each discount given is refunded in full from the state budget. This means, that if urban transport tickets were to be used for railway services, central budget subsidies could not be used to compensate the fare discounts and local authorities' would have to finance such discounts from their own budget. Other solutions, such as introducing combined tickets consisting of two separate tickets, or recognition of subsidized rail tickets by urban transport operators, tend to be unclear and confusing for passengers or are even risky.³⁶ One can conclude that the current statutory discount refinancing system does in fact discourage integration.

This barrier can be removed in a number of ways:

- (1) Firstly, by including the urban public transport market in the direct compensation of statutory discount scheme.
- (2) Secondly, by including integrated tickets in the direct compensation mechanism for statutory discounts, while keeping the urban transport tickets outside the system.
- (3) Thirdly, by a total abolition of the system of subsidies for statutory discounts, replacing it by integral subsidies through public service contracts for public service obligations. In this case the current budget for discount compensation would be re-allocated amongst local authorities and made available for PSO contracts. This may nevertheless be accompanied by various requirements, including preservation of the uniform national rebate regimes for specific groups of population.

The advantages and disadvantages of these three options will be discussed in the following. The introduction of each of the solutions requires amendments to the text of the Act of 20 June 1992 on eligibility to free and discounted fare trips on means of public transport (uniform text in Dz. U. 2012 item 1138 as later amended).

Inclusion of urban public transport in the direct compensation regime. Including urban transport in the direct compensation regime of statutory discounts is the simplest but also the most expensive solution. Together with unifying the catalogue of discounts similar to that applicable to railways (which means in particular introducing statutory discounts for school pupils), this would require allocating additional funds amounting to a minimum of PLN 1.5-2 billion (Euro 341-455 million) annually. This means more than a twofold increase of the funds currently allocated by the State budget to subsidizing statutory discounts. As

date, there has been no such case in rail yet, but there were some between urban and local bus transport.

³⁶ For example, it can be risky to sell a rail ticket, obtain statutory discount compensation and let passengers use such a discounted ticket in urban transport, as urban transport is excluded from compensation. The railway operator could then be forced to return refunds. To

compensation of statutory discounts in urban transport is currently covered by the general transfer to local authorities, this would mean that, as of the implementation of this new regime, an equivalent decrease of that transfer should be effectuated such as to remain budget neutral from both a national and a local perspective. A disadvantage of this system is that it will be technically complicated to register all sales – currently urban transport is exempted from this requirement, and tickets are sold in a wide network of outlets, including kiosks, bus drivers and vending machines, that would have to be upgraded.

Inclusion of integrated fare tickets in the direct compensation mechanism. Including integrated fares tickets within the direct compensation mechanism of statutory discounts, while retaining current rules for urban transport, represents a limited version of the preceding option. Such a solution would, however, quickly promote integration. During the initial period following implementation, local authorities in the areas where integration is already widespread (such as Warsaw) would be the main beneficiaries. Extending compensation mechanism to integrated tickets would immediately lead to the necessity of allocating at least PLN 300 million (Euro 68 million) of subsidies to Warsaw alone.

Reducing the rate of fare rebate reimbursement. It is important to add that to respect European rules, in both the first and second option a decrease of the rate of refund should be introduced in order to take into account price elasticity. This means that the discount should not be refunded in full, but up to about 70 percent (depending on the price elasticity model). While options one and two will require significant additional funding, it will decrease the additional financial needs by about 30 percent under the first scenario. For those services currently covered by compensation, little effective savings will be achieved if the same level of service is to be continued. This is due to the fact that the reduction in fare compensation will require more subsidies to provide those services through contracts instead.

Abolition of direct compensation regime. The third option is based on a total abolition of the system of subsidies for statutory discounts and a transfer of all national fare rebate compensation funds to local authorities. This would effectively lead to a major increase in influence of those authorities on the quality of transport services within their areas. The funds previously allocated nationally to finance statutory discounts would thus be passed to the *voivodeship*, county and municipal territorial governments, and would instead be spent on contracting public service in public transport, leading to a contracting regime akin to that implemented in the Netherlands or France.

These funds could initially be earmarked for use in public transport only, while the volume of such transfers should ideally be planned for multi-year periods. Over the medium to long-term, the earmarking may be limited or abolished, in order to allow local authorities to manage the funding in more flexible way.

Choosing between the above options is not straightforward, as several arguments need to be balanced. However, any of these options should lead to improvements vis-à-vis the current system of financing statutory discounts, which does not treat urban and non-urban transport equally. The first two scenarios are relatively easy to introduce and they are in line with solutions introduced in many other EU countries. However, the first two scenarios may be more difficult to introduce, taking into consideration that the Polish budget may not be able to support additional spending in transport. The third scenario has the advantage of having potentially a substantial positive influence on the quality of transport services without requiring substantial additional budget.

This regime already functions successfully at the urban level, incentivizing authorities and operators to focus more on getting additional passengers than on getting subsidies from central budgets. However, it would also require for the other areas the development or substantial expansion of contracting administration and corresponding skills at the level of the governments concerned, who may not be adequately equipped and skilled for this, which in

turn reduces the expected benefits from its introduction and adds costs to its functioning. In addition, it needs to be borne in mind that this represents a significant reform and departure from current practice, and could meet resistance from local authorities.

Removing Barriers to Cooperation among Different Levels of Self-Government

The current limitations to create forms of cooperation and unions between relevant levels of self-governments represents a major barrier to integration in the public transport sector. Creating transport unions, as is common in Germany, covering all transport authorities in a given area, especially those responsible for rail, would constitute a major step forward. The current Polish legal framework does not allow many of the most promising options, such as the possibility to create unions between *voivodeship* and other local authorities.

In order to facilitate integration, new forms of cooperation between territorial governments of various level in any area are required. One can think in particular of municipalities, counties and *voivodeships* creating transport unions (also metropolitan, but with some independence for urban transport systems), as well unions between counties and neighboring *voivodeship*, or between neighboring *voivodeships* or municipal unions. In addition, as the geographic structure of metropolitan areas may vary—for example its size or its polycentric character—and in order to make joining a metropolitan unions more attractive to core cities, a principle of “subsidiarity” could be introduced instead of full centralization. In such a case, the mandate of unions is limited to issues of public transport integration —regional scheduling, regional fare integration, planning coordination within a metropolitan area. However, unions would not necessarily have to decide on matters specific to a city, such as local bus planning, which are unrelated to questions of integration or metropolitan planning.

The realization of such a reform requires amendments to the Act on public transport and/or the Acts on self-governments:

- Act of 8 March 1990 on municipal self-government (Dz. U. 1990 No 16 item 95 as later amended);
- Act of 5 June 1998 on county self-government (Dz. U. 1998 No 91 item 578 as later amended);
- Act of 5 June 1998 on voivodship self-government (Dz. U. 1998 No 91 item 576 as later amended);
- Act of 9 October 2015 on metropolitan unions (Dz. U. 2015 poz. 1890).

Strengthening Local Authorities Responsible for Transport and Creation of Open Integration Platforms

Currently in Poland *gminas*, *powiats* and *voivodeships* are responsible for non-urban bus transport, with an unclear division of competences. This model leads to a dispersion of competences and responsibilities amongst authorities that are weak and often even do not undertake any action in public transport. Furthermore, this situation leads to an increase in the number of potential partners to integrate.

For that reason, it would be advisable to allocate responsibilities for rural public transport to *powiats*, their unions or even to *voivodeships* in order to achieve a proper scale, as can be encountered in many Western Europe countries. *Gminas* – who are legally responsible for primary and secondary schools including the transport of some pupils – could and should continue to influence public transport systems and could do so by purchasing tickets and being consulted by the union of authorities (or other form of cooperation) for matters related to network development.

Polish rural public transport is currently based on a number of companies of differentiated size, varying from one to 100 buses. Competition between those companies creates efficiency, jobs and mobility, albeit with low quality of service

provision. Buses are mostly not suitable for disabled people, reliability is limited and information is poor. Clearly, a mechanism is required to improve this quality and facilitate integration with public transport services in urban areas.

This challenge can be addressed by creating 'open integration platforms' inspired by various British solutions. This is possible only if the number of local authorities that would have to manage the non-urban networks is limited. The solution could be based on the following rules:

- 'Self-financing transport' (i.e. commercial services) shall have priority over public service. This means that if a socially desired line can be served by a commercial company, there is no need to cover it by additional subsidies;
- The authority should be able to set minimum standards of service for commercial companies, such as age and equipment of the fleet as well as request operators to accept integrated tickets in exchange for participation in the income of the integrated scheme. Such income could be estimated, for example, on the share of passengers carried. These amounts may contain full or partial compensation for fare discounts if the authority decides so. In addition, the authority should also be able to fine the operator if a service is not delivered properly or not delivered at all, as well as set separate increased standards of services for selected areas, lines and stops at areas with high demand for services.
- If no company is willing to serve a line (or a run), then public tender for such line (or run) can be organized.

Introducing Mechanisms Protecting PSO Operations against Excessive (Predatory) Competition

If the current model of contracting public service obligations is to be maintained (assuming in this case a priority of such services over commercial

services), the absence of exclusive rights increases the risks to which contracted 'PSO' operators are submitted. This also hampers their participation in integrated fare systems. Indeed, other (commercial) operators, not accepting integrated tickets, could easily engage in cream-skimming strategies and through this make integration not affordable for Polish local authorities.

Including exclusive rights in the Act on public transport would allow expanding the urban transport systems to areas outside urban boundaries without leading to a risk of excessive competition based on cream-skimming. At the same time, it would also be necessary to make sure that the granting of exclusive rights does not evict current operators from the market. This could partially be done by granting these rights in a competitive way, with suitably low entry barriers or with sub-contracting being allowed.

A statutory requirement for using competitive tendering procedures as well as a maximum size for a contract (line bundle for example) would help to increase competition. Another solution that would allow retaining more of the commercial initiative (and, through this, more of the competition pool) would be to introduce in the legislation or regulation precise criteria according to which local authorities (or regulators) could decide when to allow or refuse entry by commercial operators intending to serve connections already well served by contracted services.

Finally, it should be mentioned, that the open integration platforms, as presented earlier, are the most desirable solution. They would allow benefiting from the current, vital Polish bus operation market and would motivate operators to integrate and improve quality. The introduction of exclusive rights, by contrast, may lead to local monopolies, bankruptcies of small firms and long-term cost increase. This should therefore be treated as 'second best' solution, limiting the necessary scope of legal changes, stated in point

Promoting Fare Integration

Bearing in mind that many authorities are currently struggling with the realization of various plans to introduce integrating schemes, one could indeed expect a trend towards more fare integration once the barriers to fare integration presented above are removed. However, one should also bear in mind that, in some cases, removing barriers for integration may not be enough. Two policy levers could help to further

stimulate integration: (1) implementing compulsory transport unions (covering *voivodeships and powiats*, particularly in metropolitan areas) as well as (2) implementing financial incentives for investment and operation, but only if integration processes do not start by themselves.

Annex 1. Public Transport Statutory Fare Discounts³⁷

No	Eligible group	Urban transport		Inter-city Transport			
		Legal base	Discount	Railway		Road	
				Legal base	Discount	Legal base	Discount
1	Children aged up to 4 years			Art. 2 section 1 point 1	100 percent	Art. 2 section 2	100 percent - KZP
2	Border Guards Officers (in specified cases)			Art. 2 section 1 point 2, 2a	100 percent	Art. 2 section 2a, 4	78 percent KZP or 100 percent
3	Customs Officers (in specified cases)			Art. 2 section 1 point 3	100 percent	Art. 2 section 4	78 percent KZP
4	Uniformed Police Officers (in specified cases)			Art. 2 section 1 point 4	100 percent	Art. 2 section 4	78 percent KZP
5	Military Police Soldiers (in specified cases)			Art. 2 section 1 point 5	100 percent	Art. 2 section 4	78 percent KZP
6	Persons incapable of independent existence			Art. 4 section 1	49 percent (J) TO; 37 percent (J)	Art. 4 section 1	49 percent (J) KZ; 37 percent (J)
7	Caregivers of persons incapable of independent existence			Art. 2 section 3	95 percent (J)	Art. 2 section 3	95 percent (J)
8	Blind persons considered persons incapable of independent existence			Art. 4 section 1a	93 percent (JM) TO; 51 percent (JM)	Art. 4 section 1a	93 percent (JM) KZ; 51 percent (JM)
9	Blind persons considered persons entirely incapable of work			Art. 4 section 3	37 percent (JM)	Art. 4 section 3	37 percent (JM)
10	Civilian blind victim of war considered a person entirely incapable of independent existence			Art. 2 section 7	78 percent (J) OE	Art. 2 section 7	78 percent (J) OE
11	Civilian blind victim of war considered a person entirely incapable of work			Art. 4 section 3	37 percent (JM)	Art. 4 section 3	37 percent (JM)
12	Guide of the person listed in points 8-11			Art. 2 section 3	95 percent (J)	Art. 2 section 3	95 percent (J)
13	Children and youth suffering from disability before completing 24 years of life, students suffering from disability until completing 26 years of life only in case of travel between the place of residence and the applicable educational, upbringing, assistance, health institution and for the rehabilitation term			Art. 2 section 5 point 1	78 percent (JM)	Art. 2 section 5 point 1	78 percent (JM)
14	One of the parents or guardian of the person listed in point 13, on the route defined there only			Art. 2 section 5 point 2	78 percent (J)	Art. 2 section 5 point 2	78 percent (J)
15	Soldiers of non-professional military service			Art. 2 section 6	78 percent (J)	Art. 2 section 6	78 percent (J) KZP

³⁷ For public transport provided within the framework of transport operations possessing the character of a public service (after 1.1.2017).

16	Retired persons and persons on disability pension			Art. 3	37 percent (J – 2 x a year)	-	-
17	Children up to completing 4 years of age until commencement of compulsory one year pre-school preparation			Art. 4 section 4 point 1	37 percent (J)	Art. 4 section 5	37 percent (J) KZP
18	Children and youth from commencement of compulsory one year pre-school preparation until graduation from the lower secondary, higher-than-elementary of higher-than-lower-secondary school not longer, however, than until completing 24 years of life			Art. 4 section 4 point 2, section 6	37 percent (J), 49 percent (M) OE	Art. 5 section 1	49 percent (M) KZP
19	Students and attendees of the teachers' colleges, NKJO and KPSS no longer than until completing 26 years of life	uniform text Dz. U. 2012 item 572 as later amended, art. 188 item 1	50 percent	Art. 4 section 4a, 6a	51 percent (J); 51 percent (M) OE	Art. 5 section 1a	51 percent (J); 51 percent (M) KZP
20	Doctoral students until completing 35 years of life	uniform text Dz. U. 2012 item 572 as later amended, art. 188 item 1a – if the self-government introduces such a discount based on the statutory delegation	Level defined by the self-government	Art. 4 section 4b, 6b	51 percent (J); 51 percent (M) OE	Art. 5 section 1b	51 percent (J); 51 percent (M) KZP
21	Teachers, including pre-school teachers			Art. 4 section 7 point 1	33 percent (JM) TO	art. 5 section 2 point 1	33 percent (JM) KZ
22	Academic teachers			Art. 4 point 7 section 2	33 percent (JM) TO	art. 5 section 2 point 2	33 percent (JM) KZ
23	Holders of the Card of the Pole			Art. 4 section 4 point 4	37 percent (J)	-	-
24	Holders of the Large Family Card			Art. 4 section 4 point 5, section 6	37 percent (J), 49 percent (M)	-	-
25	War and military disabled classified to disability group I or considered entirely incapable of work or incapable of independent existence	uniform text Dz. U. 2015 item 840, art. 16 section 1, art. 41	100 percent	uniform text Dz. U. 2015 item 840, art. 16 section 3, 4, art. 41	78 percent (J) OE, 37 percent (J) Ex	uniform text Dz. U. 2015 item 840, art. 16 section 4, art. 41	78 percent (J) OE
26	Combatants that are war and military disabled classified to disability group I or considered entirely incapable of work or incapable of independent existence	uniform text Dz. U. 2015 item 840, art. 16 section 1, art. 41	100 percent	uniform text Dz. U. 2014 item 1206, art. 20 section 2 point 1 lit. b and art. 12 in connection	78 percent (J) OE, 51 percent (J) Ex kl. 2, 37 percent	uniform text Dz. U. 2014 item 1206, art. 12 in	78 percent (J) OE

				with uniform text Dz. U. 2015 item 840, art. 16 section 3, 4, art. 41	(J) Ex kl. 1	connection with uniform text Dz. U. 2015 item 840, art. 16 section 4, art. 41	
27	Caregivers and guides of persons listed in points 25-26	uniform text Dz. U. 2015 item 840, art. 16 section 2, art. 41	100 percent	uniform text Dz. U. 2015 item 840, art. 16 section 5, art. 41	95 percent (J)	uniform text Dz. U. 2015 item 840, art. 16 section 5, art. 41	95 percent (J) OE
28	War and military disabled classified to disability group II or III or considered entirely or partly incapable of work	uniform text Dz. U. 2015 item 840, art. 16 section 1, art. 41	100 percent	uniform text Dz. U. 2015 item 840, art. 16 section 3, art. 41	37 percent (J)	uniform text Dz. U. 2015 item 840, art. 16 section 5, art. 41	37 percent (J) OE
29	Combatants that are war and military disabled classified to disability group II or III or considered entirely or partly incapable of work	uniform text Dz. U. 2014 item 1206, art. 20 section 1	50 percent	uniform text Dz. U. 2014 item 1206, art. 20 section 2 point 1, uniform text Dz. U. 2015 item 840, art. 16 section 3, art. 41	51 percent (J) OE, 51 percent (J) Ex kl. 2, 37 percent (J) Ex kl. 1	uniform text Dz. U. 2014 item 1206, art. 12 in connection with uniform text Dz. U. 2015 item 840, art. 16 section 5, art. 41	37 percent (J) OE
30	Combatants, including members of the Corp of Veterans of Combat for Freedom of the Republic of Poland and other eligible persons	Dz. U. 2014 item 1206, art. 20 section 1	50 percent	Dz. U. 2014 item 1206, art. 20 section 2 point 1	51 percent (J) OE 1+2 kl, Ex 2 kl	Dz. U. 2014 item 1206, art. 20 section 2 point 1 lit. a	51 percent (J) KZP
31	Veterans victims	Dz. U. 2011 nr 205 item 1203, art. 30 section 1 point 1	50 percent	Dz. U. 2011 nr 205 item 1203, art. 30 section 1 point 2	37 percent (J) OE 1+2 kl, Ex 2 kl	Dz. U. 2011 nr 205 item 1203, art. 30 section 1 point 2 lit. a	37 percent (J) KZP

32	Members of Sejm and Senators	uniform text Dz. U. 2011 nr 7 item 29 as later amended, art. 43 section 1	100 percent	uniform text Dz. U. 2011 nr 7 item 29 as later amended, art. 43 section 1	100 percent	uniform text Dz. U. 2011 nr 7 item 29 as later amended, art. 43 section 1	100 percent
----	------------------------------	---	----------------	---	----------------	--	-------------

Note: Whenever reference to the Journal of Laws was not provided the discount is included in the Act of 20 June 1992 on eligibility to free and discounted fare trips on means of public transport, Dz. U. 2012 item 1138 as later amended. Whenever the Act, Dz. U. 2012 item 1138 as later amended is the base for the right, the eligibility concerns exclusively trips on class two; (J) – rights concerning single trip tickets; (JM) – rights concerning single trip and month tickets; KZ – the right applies to normal transport only; KZP – the right applies to normal and accelerated transport only; TO – the right applies to the slow trains only (“slow trains only”); OE – the rights apply normal, accelerated and fast transport only or slow and fast trains (“excluding express trains”); Ex – the right applies to express trains.

Source: World Bank.

Annex 2. Public Transport Municipal Unions

No.	Union name	Member municipalities	Date established
1.	Międzygminny Związek Komunikacyjny [Intermunicipal Transport Union] with headquarters in Jastrzębie-Zdrój	Jastrzębie-Zdrój, Czerwionka-Leszczyny, Marklowice, Mszana, Pawłowice, Pszów, Radlin, Rydułtowy, Suszec, Świerklany, Żory	June 6, 1991
2.	Związek Komunalny "Komunikacja Międzygminna" [Municipal Union "Intermunicipal Transport"] with headquarters in Chrzanów	Chrzanów, Libiąż, Trzebinia	3 July 1991
3.	Komunikacyjny Związek Komunalny Górnośląskiego Okręgu Przemysłowego [Municipal Transport Association of the Upper Silesian Industrial Basin] with the registered headquarters in Katowice	Katowice, Będzin, Bobrowniki, Bytom, Chełm Śląski, Chorzów, Czeladź, Dąbrowa Górnicza, Gierałtów, Gliwice, Imielin, Knurów, Mysłowice, Piekary Śląskie, Pilchów, Psary, Pyskowice, Radzionków, Ruda Śląska, Rudziniec, Siemianowice Śląskie, Siewierz, Sławków, Sosnowiec, Sośnicowice, Świętochłowice, Wojkowice, Zabrze	December 16, 1991
4.	Międzygminny Związek Komunikacji Podmiejskiej [Intermunicipal Union of Suburban Transport] with headquarters in Tarnowo Podgórne	Tarnowo Podgórne, Duszniki, Rokietnica	January 10, 1992
5.	Municipal Union with the registered headquarters in Dębica	Dębica (urban commune), Dębica (rural commune)	March 30, 1992
6.	Międzygminny Związek Komunikacji Pasażerskiej [Intermunicipal Union of Passenger Transport] with the registered headquarters in Tarnowskie Góry	Tarnowskie Góry, Krupski Młyn, Miasteczko Śląskie, Mierzęcice, Ożarów, Świerklaniec, Toszek, Tworóg, Wielowieś, Zbrostawice	April 8, 1992
7.	Związek Komunalny Gmin „Komunikacja Międzygminna” [Municipal Union of Municipalities "Intermunicipal Transport"] with headquarters in Olkusz	Olkusz, Bolesław, Bukowno, Klucze	28 January 1998
8.	Metropolitalny Związek Komunikacyjny Zatoki Gdańskiej [Metropolitan Transport Union of Gdańsk Bay] with headquarters in Gdańsk	Gdańsk, Gdynia, Kolbudy, Kosakowo, Luzino, Pruszcz Gdański (urban commune), Pruszcz Gdański (rural commune), Reda, Rumia, Sopot, Szemud, Wejherowo (urban commune), Wejherowo (rural commune), Żukowo	5 June 2007
9.	Związek Gmin „Podkarpacka Komunikacja Samochodowa” [Union of Municipalities Podkarpacka Automotive Transport] with headquarters in Rzeszów	Boguchwała, Chmielnik, Czarna, Głogów Małopolski, Trzebownisko	5 February 2009
10.	Związek Gmin „Podradomska Komunikacja Samochodowa” Union of Municipalities "Sub-Radom Automotive Transport" with headquarters in Radom	Gózd, Jastrzębia, Jedlnia-Letnisko, Kowala, Orońsko, Skaryszew, Zwoleń	10 November 2010

Source: World Bank.³⁸

³⁸ Based on the List of Intermunicipal Unions published in the Bulletin of Public Information of the Ministry of Administration and Digitization, Available at: http://mac.bip.gov.pl/rejestry/związki-powiatow-i-związki-międzygminne_12_12.html

Annex 3. Examples of Public Transport Unions in Poland

Tricity (Trojmiasto)

The Tricity metropolis (unofficial name) is constituted of the three largest cities, Gdańsk, Gdynia, and Sopot, and seven municipalities. The full metropolitan area has 1.2 million inhabitants. Since 2004, the Metropolitan Council of Gdańsk Bay, established on the initiative of the marshal, has operated in the region. Regular monthly meetings are attended by mayors of all the member municipalities and have led to agreements regarding the coordination of public transport within the metropolitan area. The head of the council is the marshal of the Pomorski Region. Other members are mayors of member counties and municipalities. The main areas of focus of the council are (a) public transport; (b) marketing, promotion, and coordination of common investments; and (c) joint applications for EU funds. Some of the key issues discussed in the council have been the restructuring of Fast Urban Rail, the delimitation of the Gdańsk Metropolitan Area, and the Concept of the Spatial Development Plan of the Metropolitan Area. The activities of the Metropolitan Council were overtaken by the creation of new associations: the Metropolitan Association for Public Transport in the Gulf of Gdańsk/Gdańsk Bay (organizing public transport) and by the Gdańsk Metropolitan Area (GOM) association (other activities, including promotion, spatial planning and managing Integrated Territorial Investments).

The Metropolitan Association for Public Transport in the Gulf of Gdańsk (MZKZG) registered as a municipal association on June 5, 2007. It is located in Gdańsk and members include Gdańsk, Gdynia,

Sopot, as well as four other cities and seven municipalities.³⁹ The association consists of a General Assembly and a board—the chairman of the board is appointed for one year and each year the new chairman is from a different municipality. Members of the General Assembly include mayors of municipalities as statutory members of the association and additional representatives of the municipalities, which are elected by municipal councils, are a function of the population of each municipality. Urban transport authorities in the association include the (a) Public Transport Authority of Gdańsk (ZTM Gdańsk); (b) Public Transport Authority of Gdynia; (c) Public Transport Operator in Wejherowo (MZK Wejherowo); (d) Fast Urban Railways (SKM); and (e) Regional Railways, *Przewozy Regionalne* (PR).⁴⁰ The main task of the association is to develop transport policy and manage public transport within the metropolitan area. Key activities have included (a) development and approval of public transport fares and settlement of metropolitan income generated by fares; (b) market research, planning, and programming of development of public transport; and (c) the use of an integrated fare system. Initially, two models of integration were considered: the creation of a separate association and contractual arrangements without the creation of an association.

The next stage in inter-municipal cooperation would involve organizational and functional integration within the Gdańsk Bay and would include the introduction of uniform fares throughout the area, coordination of various modes of transport, and optimization of

³⁹ This includes the cities of Gdańsk, Gdynia, Pruszcz Gdański, Reda, Rumia, Sopot, and Wejherowo, as well as seven municipalities (Kolbudy, Kosakowo, Luzino, Pruszcz Gdański, Szemud, Wejherowo, and Zukowo).

⁴⁰ The area of operation of (a) ZTM Gdańsk is Gdańsk, Sopot (together with ZTM Gdynia), Kolbudy, Pruszcz,

Gdański, Zukowo; (b) ZTM Gdynia is Gdynia, Sopot (together with ZTM Gdańsk), Kosakowo, Reda, Rumia, Szemud, Wejherowo, Zukowo; (c) ZTM Wejherowo is Wejherowo, Reda, Rumia, Luzino; and (d) Urban Railways (SKM) within the area of Gdańsk operates trains from Luzino to Ciepłowo.

timetables. This stage envisages the association taking on the functions of the individual public transport authorities within the Gdańsk area, including communication, marketing, and setting common standards regarding quality of services. This has not been achieved to date, firstly because municipalities have wanted to keep fare revenues in their budgets in order to improve their credit ratings, and later, because of different quality standards and cost levels of different operators (especially railways, that have no active organizing authority). Nevertheless, in the context of the next EU financial perspective, MZKZG is planning to replace the existing electronic ticketing system with a newer one allowing better integration. It will include private, self-financing bus services. The creation of the Regional Transport Authority, planned for 2017, will facilitate the process.

Integrated ticketing allows a person to make a journey that involves transfers within or between different transport modes with a single ticket that is valid for the complete journey across modes. The purpose of integrated ticketing is to encourage people to use public transport by simplifying transfers between transport modes and by increasing the efficiency of the services. The association has moved in the direction of fare integration by allowing passengers to purchase one ticket, which is valid within the Gdańsk area. The association has created a metropolitan single-fare ticket (excluding trains) as well as 24-hour, 72-hour, and monthly metropolitan tickets valid on buses, trams, trolleybuses, and SKM trains as well as trains from PR within the Gdańsk Area.⁴¹ Apart from metropolitan tickets, it is possible to use tickets that are valid only with the public transport operators under the responsibility of ZTM Gdańsk, ZTM Gdynia, MZK Wejherowo, and SKM. At present, there are six different public fare systems in the area:

- fares applicable for Gdańsk buses and trams and surrounding municipalities

that transferred their public transport organization competences to Gdańsk (five municipalities);

- fares applicable for Gdynia buses and trolleybuses and surrounding municipalities, that transferred their public transport organization competences to Gdynia (eight municipalities);
- fares applicable for Wejherowo buses, and surrounding municipalities, that transferred their PT organization competences to Wejherowo (four municipalities);
- fares applicable to SKM trains;
- fares applicable to PR trains; and
- an integrated MZKZG fare system.

Integrated MZKZG tickets have gained rising ridership. Between 2008 and 2013, revenues rose from PLN 5 million (Euro 1.2 million) to PLN 20 million (Euro 4.8 million) and the number of tickets sold from around 100 000 to around 500 000. Currently, sales revenue is rising about almost 10 percent annually. An estimated 4 percent of passengers using metropolitan long-term tickets have stated they had not bought season public transport tickets before.

The revenue from integrated ticketing is distributed according to the following rules: (a) 60 percent of the revenues from tickets, including railways are transferred to railway operators (52 percent to SKM and 8 percent to PR); (b) half of the remaining funds are distributed between the municipal authorities proportional to supply (number of vehicle-kilometer); and (c) the other half of the remaining funds is distributed according to the results of a survey, conducted at ticket sales points of mobility on the previous day. MZKZG is financed by its member municipalities, which refund its costs as well as the difference between regular and metropolitan ticket prices. Both are distributed between members proportional to the number of inhabitants and

⁴¹ The standard price for a single-fare ticket is PLN 3.20 (Euro 0.77) and PLN 1.60 (Euro 0.38) for reduced fares. For a 24-hour ticket the price is PLN 20 (Euro 4.81) and

PLN 10 (Euro 2.4) for reduced fare. For a 72-hour ticket the price is PLN 40 (Euro 9.62) and PLN 20 (Euro 4.81) for reduced fare.

amount, respectively PLN 1.50 (Euro 0.36) and PLN 3 (Euro 0.72) per inhabitant.

Gdańsk Metropolitan Area (GOM) is the association responsible for the metropolitan development of the area. GOM also acts as secretariat for Integrated Territorial Investment (ITI), although ITI contract parties also include non-GOM members, especially Gdynia. GOM intends to prepare a low-emission strategy and metropolitan transport strategy for the area comprising some, but not all, of its member municipalities. It also aims to prepare a metropolitan spatial development plan. Currently a study gathering all municipal development plans has been prepared. It reveals gaps in the planning process, including areas not covered by any plan and different underlying assumptions. Detailed guidelines for the municipalities have been prepared. These are to be used in future spatial development plans.

Silesia

The Public Transport Municipal Association for the Upper Silesia Industrial Area in the Katowice metropolitan area (Upper Silesia) is the largest and most densely urbanized region in Poland, comprising 17 cities and a population of 2.2 million. One long-lasting example of cooperation is the Public Transport Municipal Association for the Upper Silesia Industrial Area (KZK GOP) in the Katowice metropolitan area, which consists of around 12 cities of comparable size. Since 1991, a large part of public transport has been delivered by KZK GOP.⁴² The Public Transport Municipal Association of Upper Silesian Industrial District was established in 1991. The objectives of the association are to (a) organize local public transport; (b) conduct studies for the development of the public transport system; (c) promote public transport services; and (d) initiate

and coordinate projects for traffic management and parking in cities. Key activities performed by KZK GOP include the organization of public transport, fare policy, raising finance, development of ICT, fostering relations with surrounding municipalities, and integration of transport within the framework of KZK GOP. Two projects are currently under implementation with co-funding from EU funds: ŚKUP and dynamic passenger information.

The association was created as an answer to problems which occurred in the early 1990s, just after the former state-owned company was separated into independent companies, based around the different depots and co-owned by a small number of municipalities. At first, integration was based on a rule that companies would accept one another's tickets, but this led to an increased focus on distribution at the expense of public transport operations. An association was created immediately after it was permitted by the legal framework. This initiative had the support of a number of city mayors, led by the mayor of Sosnowiec. The association consists of a General Assembly and a board. The nine board members are appointed and dismissed by the assembly. The assembly members are the municipalities. The assembly, which has oversight of KZK GOP, is composed of the marshal and mayors of municipalities participating in the association.

From the beginning, all competences in public transport organizations were transferred from the municipalities to KZK GOP, with full downstream financing. They were fully financed by participating municipalities with no state funding as in countries such as France or Germany. One-third of the financial contribution paid by the municipalities to the association was based on a fixed percentage of the participating municipalities' total income, and two-thirds by the number of vehicle-kilometers driven within the

⁴² The name of the association in Polish is *Komunikacyjny Związek Komunalny Górnośląskiego Okręgu Przemysłowego*. Currently, the KZK GOP includes Katowice, Bytom, Bobrowniki, Będzin, Chełm Śląski, Chorzów, Czeladź, Dąbrowa Górnicza, Gierałtówice, Gliwice, Imielin, Knurów, Mysłowice, Piekary Śląskie,

Pilchowice, Psary, Pyskowice, Radzionków, Ruda Śląska, Siemianowice Śląskie, Siewierz, Sławków, Sosnowiec, Sośnicowice, Świętochłowice, Wojkowice, and Zabrze. See <http://kzkgop.com.pl/strony/p-l-geneza.html>

territory of the given municipality. Then, for many years, the municipalities' financial contribution was a fixed percentage of their total incomes—this fixed percentage was kept at a low level to encourage participation—contributing to the overall poor quality of public transport as there was little possibility for a single commune to obtain better quality public transport.

As a result, since 2007 gradually and since 2012 in full, the contribution was calculated based on the individual deficit of a given line, estimated as the difference between the number of passengers (from representative passenger counting) multiplied by an average income per passenger (uniform across the network) minus real costs. The deficit is split between the municipalities, basing on the number of vehicle-kilometers within the territory of a given commune. This leaves the municipalities much more freedom in setting their own quality requirements, although in case of longer lines, a compromise between a number of municipalities is required. There is no distinction between different passengers' profitability (for example, single, regular ticket vs. season, reduced), but this would require much more complex and expensive research. Further development of the scheme is planned, after the introduction of ŚKUP e-ticketing.

KZK GOP has cooperated with the regional railway operator Koleje Śląskie by offering "Silesian Ticket," a monthly ticket that is a combination of routed railway ticket and chosen public transport ticket both at discounted prices (by 20 percent) with possibility of additional statutory discounts, separately for railway and public transport. Currently this is rather a niche offer. KZK GOP cooperates also with neighboring association MZKP (Intermunicipal Association for Public Transport) in Tarnowskie Góry. The latter remains an independent association in terms of contracting and scheduling, but does not issue its own tickets, accepting only KZK GOP tickets. The revenues are distributed using a fixed, contractual formula, based on passenger number estimation for past periods. Unfortunately, in the cities of

Tychy and Jaworzno, separate public transport ticketing systems exist. Those cities are perceived to have better quality public transport and are afraid to lose that quality after integrating. They also have separate e-ticketing systems and their incompatibility increases integration barriers.

Since the entry in force of the 2010 Public Transport Act KZK GOP can no longer contract services with non-member municipalities. Integration of urban public transport with railways is made difficult by the existing regulatory framework as railway discounted tickets are co-financed by the state budget, while integrated public transport tickets are not. In addition, the net-cost model used in railways and gross-cost model used in public transport cause some compatibility challenges. In mid-1993, a number of fare systems operated in parallel in the Upper Silesia Industrial Area, with different fare systems for each tram and bus sub-system. However, in that year KZK GOP took over the system of bus organization in 16 municipalities. In 1999, a common bus-tram ticket was developed.⁴³

The Silesian Metropolis (*Metropolia Górnośląska*), formerly known as the Metropolitan Association of Upper Silesia, is a territorial entity operating on the principle of metropolitan municipality composed of 14 adjacent cities in the Polish province of Silesia. It was established in 2007. The seat of the metropolitan council is Katowice, the largest district of the Silesian Metropolis. The aim of the union is the creation of a strong metropolitan center with pooled resources, an internationally competitive profile and unified management of common infrastructure. Its main focus is planning and joint application for EU funds, and not joint provision of services. The territorial entity lobbies for legal reform that would allow it to have the status of a metropolitan organization based on obligatory cooperation. According to its statutes, the entity has a number of tasks, including:

⁴³ More details can be found in Polish at <http://www.kzkgop.com.pl/strony/p-1-geneza.html>.

- Establishing a common development strategy for municipalities participating in Silesian Metropolis in accordance with the Law on Spatial Planning and Development so that this is factored in when preparing municipal spatial development plans;
- Execution of the tasks covered by the common strategy of city development; and
- Raising funds from domestic and foreign funds earmarked for the implementation of the tasks of the territorial entity (currently only funding for strategic documents and studies has been acquired).

Silesian Metropolis consists of an assembly and a management association (executive body). Cities appoint two delegates to the assembly (including the mayor), with the exception of Katowice, which appoints three delegates. Delegates to the assembly are appointed by city councils while the management association is elected by the assembly.

Box 3: Silesian Public Services Card (ŚKUP)

Silesian Public Services Card (ŚKUP) is a system allowing the processing of payments for services provided by public institutions. The system will allow the use of different services: transport, culture, sports and recreation, library or paid parking. It will also be a platform for the exchange of information between the participants and residents. Participants of the project are: KZK GOP, which oversees its implementation, as well as 21 cities in the Silesian agglomeration. The project has received funding from the European Regional Development Fund under the Regional Operational Programme of Silesia 2007-13. The project addresses the implementation of electronic public services in 120 institutions in the area of 21 municipalities. ŚKUP introduces in the voivodeship a single strategy on pricing policy in the area of transport and parking. This will allow for the development of demand for the products of the institutions involved in the project, including through the implementation of a coherent fare discount policy tailored to the specific user groups. It will also apply special tariffs for specific groups of users.

Source: <http://www.kartaskup.pl/strony/p-1-dwadziescia-jeden-miast-we-wspolnym-systemie.html>

