

city, transformed

# WARSAW

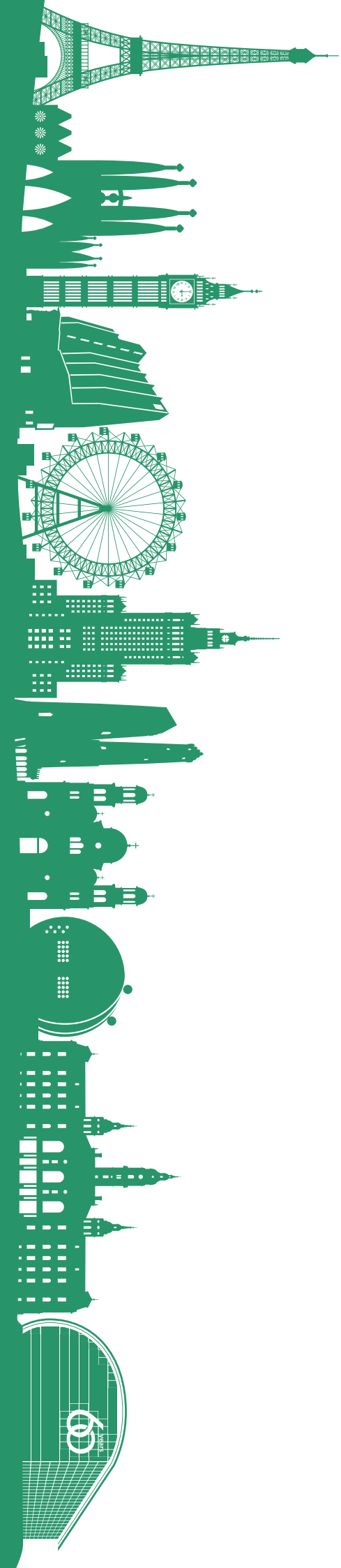
Revival and realignment

Wojciech Dziemianowicz  
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European  
Investment  
Bank





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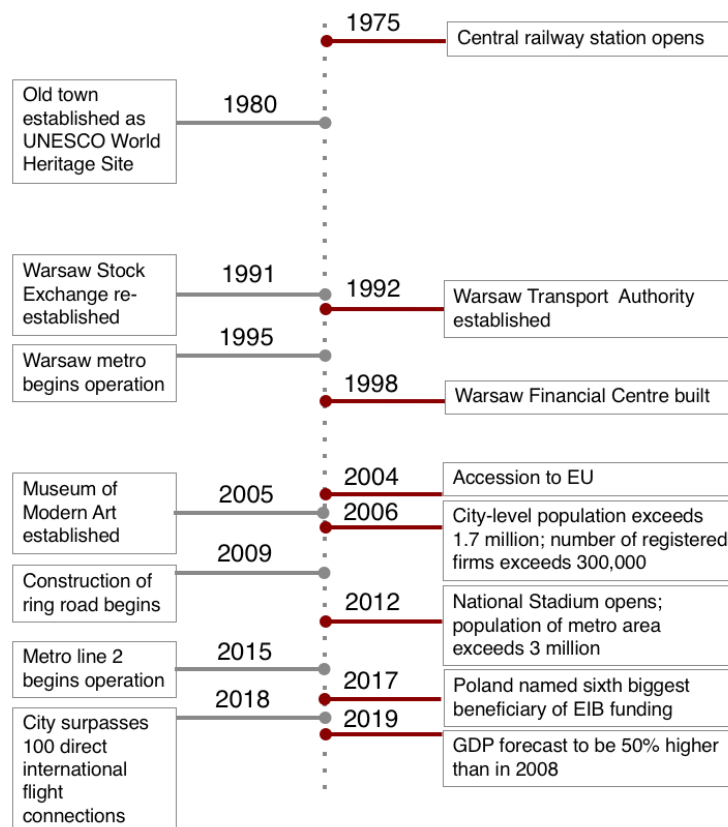
# How Poland's capital went from environmental and infrastructure degradation to the wealthiest capital city in Eastern Europe

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## 1. Introduction

With 3 million residents, the Metropolitan Warsaw region is today the ninth most-populated capital city in the EU. It has undergone a series of far-reaching changes to its economic structure over the past 50 years to attain this status.

When Warsaw returned to a market economy in the 1990s, it inherited a unique set of conditions. These included poorly organised and poorly integrated public transport, ubiquitous pre-fabricated housing blocks, a distinct lack of single-family homes, numerous empty spaces, a very complex ownership pattern with hundreds of historic property owners demanding restitution from the new state, and almost no legal or regulatory instruments to prevent sprawl.<sup>1</sup> This in turn led to a cycle of haphazard development, sprawl, and a proliferation of low-density suburbs, particularly as the previous planning office was replaced by private companies that lacked planning experience.



Over the past 20 years or so, however, Warsaw's economy has bounced back. This recovery is primarily due to a cycle of investment in infrastructure that emphasised the metropolitan scale of development and avoided the car-dependent model of growth. It also benefited from Poland's accession to the EU in 2004, which facilitated free movement of European labour and capital into the city.

Key interventions have included investment in the construction and modernisation of sewage treatment plants and railways, the procurement of new modern rolling stock for the metro network, and the construction of a ring road to relieve congestion and link the city to other major European centres, including Helsinki, Berlin and Gdansk.<sup>2</sup> The European Investment Bank (EIB) has been instrumental in enabling such interventions. Since the beginning of EIB activity in Poland in 1994, over 40% of its loans have focused on transport. Over time, investment has also emphasised improvements to the city's health care, social and education services.<sup>3</sup>

Today, Warsaw is recognised as an alpha global city, a major international tourist destination and a significant cultural, political and economic hub. It is expected that by 2019 the city's GDP will be 50% higher than in 2008, making it the wealthiest capital city in Central and Eastern Europe, alongside Berlin.<sup>4</sup> Warsaw is also currently in the middle of a surge in new commercial development and has some of the best medical facilities in East-Central Europe, including one of the largest and most modern oncology institutions in Europe.<sup>5</sup> The imminent extension of the city's second metro line is unlocking major opportunities for housing development, while a series of densification projects triggered by universities and other cultural anchor institutions, such as the new Powisle project, is re-activating the street-life of key riverside districts.<sup>6</sup>

## 2. The backstory of Warsaw's recent development

### 1939 – 1989

As a result of the Second World War, Warsaw lost the position of a leading cultural metropolis that it had held within Europe during the interwar period. This was caused, among other things, by the catastrophic destruction of the city's physical infrastructure, the extermination of large parts of the population during the two uprisings in 1943 and 1944, and the degradation of the quality of human capital.

For these reasons, the idea emerged to relocate the Polish capital to the city of Łódź, which had been damaged to a much lesser extent. [But from January 1945 people started to return to the ashes of Warsaw, and Communist authorities decided to join them in efforts to rebuild the city as the capital.](#) Eventually, reconstruction of Warsaw within the confines of a centrally planned economy had its limitations, as a consequence of the existing political structures, which included weak municipal [economic management, the abolition of territorial self-governments and cancelation of participatory decision-making in city planning.](#) There was also the wider impact of the political division of Europe into two opposing military blocs and the resulting degradation of the international position of the capitals of Central and Eastern European countries, along with their gradual cultural and political marginalisation and socio-economic isolation.

The socio-economic structures of the capital of Poland were shaped in accordance with the binding Soviet political doctrine, which assumed the following: priority for industrial rather than service or cultural economy; the underdevelopment of services, including finance; the overexploitation of natural resources; limiting the role of the private sector; underestimating the importance of technical infrastructure; and the development of bureaucratic structures inhibiting entrepreneurship and creativity. As a result of attempts to adopt solutions designed for the urban planning of the USSR, spatial structures far from the human scale of urban management were often promoted.

Ideology also entered the sphere of spatial planning, resulting in the elimination or modification of various economic categories related to shaping land prices, land use rents, and so on. One of the changes adopted for ideological reasons after the Second World War was the decree of 26 October 1945 on ownership and use of land in the area of the capital city of Warsaw, which resulted in the seizure of city centre properties. According to the ideology then in force, this was meant to facilitate a new socialist metropolitan space on the territory of the country's capital. The lack of democracy hindered the creation of modern spatial structures in the city area and the functionally related suburban areas. The political isolation of Poland translated into spatial isolation, an infrastructure deficit and a lack of international connections and relations. As a result, until 1989, there was no inflow of urban and metropolitan best practices from the outside world.

## 1989 – 2004 – 2018

The geopolitical changes around the world resulting from the disintegration of the socialist system provided a very strong development impulse for Warsaw. Since the empowering of territorial local governments that occurred at the beginning of the 1990s in connection with the system transformation towards a market economy, and Poland's accession to the European Union in 2004, Warsaw has become one of the fastest developing cities in Europe. However, despite the effective national implementation of a number of solutions related to overcoming the negative consequences of a centrally planned economy, in Warsaw itself, reprivatisation issues have not been effectively addressed, constituting a barrier to wider development. In addition, a number of pathologies have emerged in relation to the management of real estate in the downtown area of the city.

Changes in the theory of regional development have played a significant role. Soviet economic theory was aspatial, while in recent decades significant scientific trends have emerged that enhance the territorial dimension. These include a new economic geography (Krugman), place-based policy (Barca) and spaces of flows (Castells).<sup>7</sup>

It is worth noting the fundamental changes in the economic, social and spatial theories concerning the importance of the metropolis for socio-economic development. In the 1970s and 1980s, big cities were seen as areas generating high costs and socio-economic problems. However, the World Bank documented a fundamental change in the position of big cities that took place at the turn of the century and that has been reflected in the treatment of cities – especially the large cities – as a resource with considerable potential to drive development, rather than as a barrier to it.<sup>8</sup> The OECD has developed studies on a number of metropolises worldwide, documenting their leading role in changes in the global economy.<sup>9</sup> The EIB has actively participated in activities aimed at overcoming the development barriers of many European cities, as well as generating development potential. Urban policy has started to be successfully programmed by the European Union as part of its cohesion policy.<sup>10</sup> The EIB has also documented its important and growing role in the socio-economic development of EU cities.<sup>11</sup>

In many countries, the foundations have been laid for national urban policy, implemented in partnership with national, local and provincial governments and individual city authorities. In 2015, the Council of Ministers in Poland also adopted a National Urban Policy 2023.<sup>12</sup>

The largest urban centres have once again become catalysts for development, the high-level services concentrated in big cities have generated income and employment, and changes in spatial trends have led to the return of people and economic activity to city centres. The current dominant megatrends in the global economy are generally beneficial for big cities. Technological progress is conducive to the effective adoption of territorial accessibility deficits, and environmental problems no longer constitute a barrier to the development of the biggest cities. Among other things, the concept of a circular economy has emerged, which has been key to the development of these cities. In recent years, big European cities have been characterised by high-quality development processes and, under favourable conditions, spatial diffusion into the surrounding areas.

### 3. Strategic thinking about the development of Warsaw

Unfortunately, at a city and municipal level, the culture of strategic planning and its connection to the realisation of development objectives is still in its initial phase in Poland. The same cannot be said for the strategies of voivodeships<sup>13</sup>, whose documents created in 1999 have already been updated three times, increasingly defining real needs and connecting plans with the implementation of European socio-economic programmes.<sup>14</sup>

At a local level, there is no systematic translation of the city's strategy into implementation programmes (including those financed with European funds), although the strategies of the Integrated Territorial Investments implemented in the European Union since 2014 have been a harbinger of the direction of desired changes. In Poland, they are implemented by every provincial capital, including Warsaw. It should also be emphasised that urban strategies in Poland are not obligatory documents; nevertheless, most cities have one, which is on the one hand an attempt to express thinking about the future and on the other hand a factor facilitating the acquisition of external funds.

In 2018, the Council of the Capital City of Warsaw adopted a new City Development Strategy – Warsaw 2030 – which replaced the 2005 document. There are now three strategic documents setting the direction for changes in the near and long term:

- Strategy for the Development of the Warsaw Metropolitan Area by 2030 (prepared in 2015);
- Strategy of Integrated Territorial Investments for the Warsaw Functional Area 2014-2020+ (prepared in 2015 and updated in 2017);
- The aforementioned Warsaw Strategy 2030, adopted in May 2018.

Reviewing these documents from a strategic objective standpoint highlights several areas of particular interest for the city authorities, both in the context of the administrative unit itself and that of the metropolitan area.

The following topics are addressed in all three documents:

- quality of life;
- availability of public services;
- development of metropolitan functions;
- properly organised city space.

**Table 1. Strategic objectives included in the main strategic documents**

<b>Strategy of the Warsaw Metropolitan Area (WMA)</b>	<b>Strategy of Integrated Territorial Investments</b>	<b>Warsaw Strategy 2030</b>
Warsaw along with its metropolitan area as a significant European metropolis	Increasing the availability of public services	Responsible community, including the operational goals: (1) We care for one another; (2) We make joint decisions about our city
Intelligent, integrated public transport network for WMA	Development of a network of economic connections	Comfortable locality, including the operational goals: (1) We have access to a wide range of residences; (2) We actively spend time close to home; (3) We use services close to home; (4) We operate in business-friendly conditions
Spatial order, based on comprehensive planning, ensuring the complementarity of functions, aesthetics, use of existing potentials, and taking into account sustainable development	Improving quality of space	Functional space, including the operational goals: (1) We utilise attractive public spaces; (2) We live in a clean natural environment; (3) We have a user-friendly transportation system
An integrated, attractive offer for spending free time, utilising the natural, cultural and historical potential of the WMA		Innovative environment, including the operational goals: (1) We develop our creative potential; (2) We generate innovations; (3) We attract talent and leaders; (4) We inspire the world
Attractive conditions for developing entrepreneurship and locating investments within the network of urban economies		
High level of human and social capital, participation of WMA residents in shaping a well-balanced metropolis based on the idea of civil society		

Source: Author's own compilation based on strategic documents.

Of course, the individual documents all have their own special features. Not only was the latest Warsaw Strategy 2030 created in a very community-minded way, it also focuses on residents and tries to implement the idea of local centres that will guarantee proximity to public services and to other places of activity for residents.



The strategic assumptions mentioned above make it possible to draw at least two conclusions. The first concerns Warsaw's aspiration to be the core of a modern metropolis that guarantees very good living and working conditions. This is why the city sees such an important role being played by infrastructure investment, which is making up for the deficits accumulated from before the transformation period, and investment in strengthening the benefits of agglomeration enjoyed by the companies operating in Warsaw (especially the proximity of high-quality human capital).

The second strategic conclusion is related to focusing activities on soft projects. This does not mean that Warsaw is now close to an optimum infrastructure situation and will soon have no problems related to the number and quality of roads or transport links with the surrounding area. However, projects strengthening cooperation networks – within the city, within metropolises and in the city's national and international environments – should play an increasingly important role in the structuring of activities.

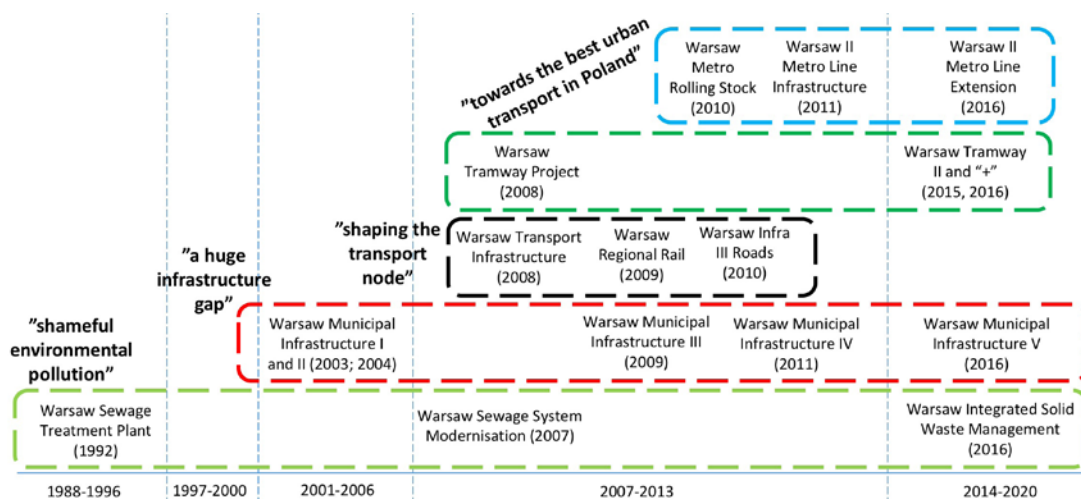
## 4. The importance of EIB financial support for the development of Warsaw

The involvement of EIB resources in the development of Warsaw is multi-faceted. On the one hand, there are the funds allocated exclusively to Warsaw's local government in the form of quite precisely formulated goals. On the other hand, due to it being both a national and regional capital, Warsaw is the place where projects funded by the EIB are implemented, though they may be located within the budgets of other institutions, and the city is only an indirect beneficiary of these projects. One example of this is support for the enterprise sector, a large part of which operates in Warsaw. Another example is the construction of transport links between Warsaw and other cities.

Therefore, when choosing the list of projects to be discussed in more detail in this study, the main criterion was the question of who the administrator of these funds might be. It was important to illustrate the significance of these investments, for which the local authorities of Warsaw are fully responsible. We made one exception here. To illustrate the essence of a comprehensive approach to local development taking place over various levels of administration, we included the Warsaw Commuter Railway implemented by the Marshal's Office of the Mazovian Voivodeship.

From the project database review, 21 infrastructure projects were selected which, taking into account the activity programming periods of the EIB (1988-1996; 1997-2000; 2001-2006; 2007-2013; 2014-2020), are concentrated in the period 2007-2013 (Figure 1). We decided to combine them thematically, which was not difficult, considering the city's continuous investment in specific areas of socio-economic life.

Figure 1. Selected EIB credit lines for Warsaw



Source: Own compilation.

## 4.1 Addressing shameful environmental pollution

In 1989, Warsaw was equipped with a water supply and sewage treatment system which, while it was one of the most modern in 1886 (when only six cities in Europe had this type of system), was already an antique just before the transformation (the Warsaw Filters are now a historic site). The Filters constituted the only point for receiving wastewater from the sewage system of the right and left banks of the city, and this system had not been modernised or expanded for decades. An important element in improving the situation was the launch of a sewage treatment plant in 1991, receiving wastewater from the right-bank area of Warsaw (the northern left-bank area of the city was still dumping sewage into the Vistula River for some time). It is significant that the improved situation in Warsaw led to positive changes for residents of other cities located further down the Vistula. The investment in 1991 was planned as the first stage of a series of subsequent activities to enable the improvement of the wastewater economy in the city. The “Czajka” sewage treatment plant has been successively extended and modernised along with the sewage system, financed mainly from European funds. A significant contribution to this process was also made by two large loans from the EIB (a total of approximately €45 million).

EIB resources were also used to finance another important intervention in the area of environmental protection and residents' quality of life. Contractor selection recently took place for the most modern waste incineration plant in Poland (the “Warsaw Integrated Solid Waste Management” contract with the EIB, 2016). This incinerator will not be a major burden on its surroundings (thanks to filter systems and a vacuum system for collecting waste from lorries). Furthermore, it will enable the liquidation of the existing rubbish dump at Radiowo. During this project, the EIB will finance the construction and operation of a large-scale incinerator (two units with a total nominal capacity of 265,200 tonnes/year), co-generating electricity and heat, and a Material Recovery Facility.

## 4.2 Filling the huge infrastructure gap

Like the rest of Poland, Warsaw suffered at the beginning of the transformation due to poor technical infrastructure, which affected all sectors. Problems connected to the water supply and sewage treatment plants have already been described, while the long list of other challenges faced by the city includes road infrastructure, the condition of residential and public buildings, and the insufficient number of bridges, to name but a few.

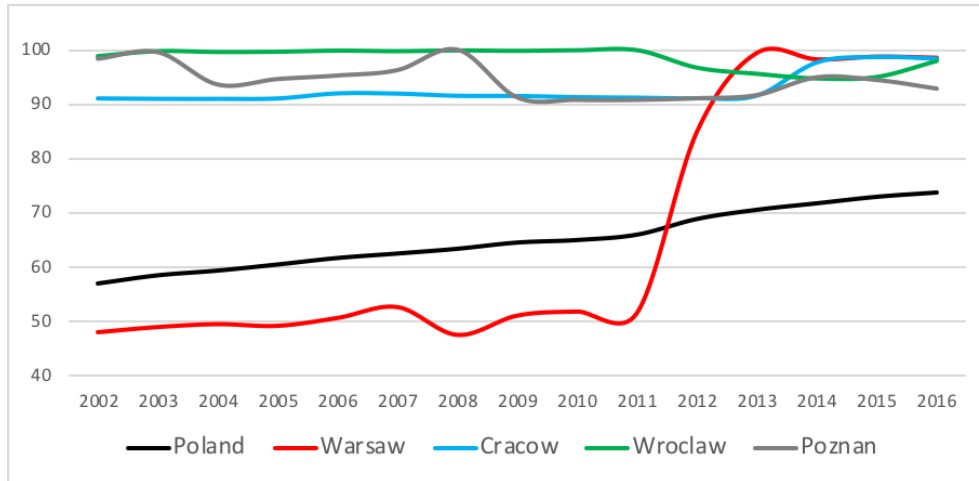
This complex and multifaceted problem was solved in part by a number of credit lines entitled “Warsaw Municipal Infrastructure” (WMI). In the period 1992-2016, five such lines were opened for Warsaw in the subsequent periods indicated in Figure 1. The scale of the problem and the scope of the intervention needed to improve the quality of life in the city is illustrated by data on the investments made with the support of the first credit line (about €47.5 million). It is important to divide all the investments co-financed with the EIB loan into those that were citywide investments and those that were implemented by district authorities (Warsaw is split into 18 districts).

Projects at the citywide level (nearly 160) were thematically focused on health care. Almost 100 projects concerned the modernisation of buildings, the purchase of equipment, and adaptation of infrastructure for the disabled in hospitals, outpatient clinics and health care institutions, as well as care and treatment facilities. Beyond the sphere of health and health care, EIB funds were earmarked for the modernisation of important road routes (a road tunnel on the West-East route, Wał Miedzeszyński, the Łazienkowska route and the Toruńska route) and modernisation projects for metro line I. Modernisation measures in cultural centres (mainly theatres) and sports centres were also implemented from WMI I funds at a citywide level. The investments made by districts were mainly related to road infrastructure (over 200 streets were modernised and rebuilt and lighting was improved), and water and sewage infrastructure. Around 50 Warsaw schools received support to improve teaching conditions.

The next programme, WMI II (over €128 million), included road investments (142 roads in projects implemented by districts), 13 investments covering national, voivodeship and county roads within the city of Warsaw, and one of the most important investments at the time – the construction of the Siekierkowska route. In addition, 26 projects were implemented in schools (the construction of school sports pitches and the modernisation of school buildings).

Two projects implemented at that time were of representative importance for Warsaw. EIB funds supported the modernisation of the city's main tourist route – the historic, prestigious Krakowskie Przedmieście (the street surface was also modernised). The second project involved the co-financing of the construction of the Warsaw Uprising Museum.

**Figure 2. Percentage of residents using sewage treatment plants (%)**



Source: Own compilation based on GUS data.

The significant infrastructure modernisation needs can be seen in the fact that, in the period 2009-2011, projects were still mostly road-related. Intervention in other spheres of socio-economic life increased later on. Of the 285 themes implemented under WMI III (two allocations totalling over €200 million), about 140 were related to the construction and modernisation of the road system, 26 to the modernisation of parks, squares and green areas, and 17 to cultural infrastructure. As part of the programme, 16 projects were also carried out in relation to the construction and modernisation of playgrounds for children, and 13 projects concerning sports and leisure infrastructure (including cycle paths) were implemented. As part of this allocation, decisions were made on other projects that were important for the city's development. These included the construction of an entrepreneurship centre, offering open spaces for small businesses.

Under WMI IV (€250 million), projects were implemented within the thematic areas that had previously been launched. Out of 136 projects, 30 focused on the construction and extension of roads and streets, 15 on the modernisation of lighting, ten on traffic lights, and another ten on the modernisation of hospitals and other health care facilities. However, the majority of projects (51) were related to education in a broad sense falling under the responsibility of the local government (nurseries, primary schools, junior high schools and high schools). In this area, activities included the construction and extension of educational buildings, thermo-modernisation of buildings, and the creation of sports fields and gyms. Investment in health care and cultural infrastructure also continued. EIB funds financed a Centre for Creativity on Targowa Street, constituting part of the revitalisation programme of the right-bank Praga district, and above all, part of the concept of creating a Warsaw Technology Space (Warsaw still has no technology parks). The Centre has become an important place in Warsaw for training, conferences and residents' meetings. Also noteworthy is financial support for expanding the infrastructure of institutions that support children and families in need (the Family Support Centre and the Child and Family Support Hub).

### 4.3 Shaping the transport system

In 1989, Warsaw was one of few European capitals with no motorway access, and the city itself had a system of major international transport routes practically running through its centre. The transport problem had to be solved on several levels:

- (1) reorganisation of the main national and international transport routes within the city;
- (2) improvement of transport connections within the Warsaw Metropolitan Area; and
- (3) improvement of transport connections with other urban centres in Poland and abroad.

The first of these problems was partially solved by large investments from the “Warsaw Municipality Infrastructure III” and “Warsaw Municipality Infrastructure IV” lines. In 2011, Warsaw received an EIB loan as part of the “Warsaw Infra III Roads” line. The funds were allocated to three important investments for the city:

- construction of Nowolazurowa Street, a significant improvement for the East-West transport route;
- modernisation of the interchange at Siekierkowska Street, alleviating congestion in the left-bank southern part of the city;
- development and modernisation of Marsa Street, which was particularly key in solving transport problems in the eastern part of Warsaw.

These three investments constitute just a small part of the “large” road infrastructure. They form part of the planned Warsaw bypass, which is an element of the Trans-European Transport Networks (TEN-T), for which the city obtained funds from further special lines from the EIB (“Warsaw Ring Road – TEN”) in 2009, 2012 and 2015 (a total of €865 million).

The second level of problems – transport links within the Warsaw Metropolitan Area – was also solved during the Warsaw bypass project, with the key element in this case being the rail links to improve direct access to the centre from the city outskirts. The “Warsaw Regional Rail” project (€37 million in funds granted in 2009) was instrumental in the implementation of these activities. The funds obtained from the EIB were used by the Marshal’s Office of the Mazovian Voivodeship to purchase new carriages for the Warsaw Commuter Railway (WKD) serving stops on the line between Warsaw and Grodzisk Mazowiecki. This south-western part of the Warsaw metropolis has been characterised by dynamic development of economic functions and an increase in the number of residents. It should also be emphasised that other railways serving the metropolitan area were modernised using European funds, including with the purchase of new trains and the facilitation of rail access to the main national airport, Warsaw-Okęcie.

The third dimension of the transport problem relates to the connections between Warsaw and the main urban centres in Poland and abroad. EIB funds have played a significant role in this dimension too, although they were not provided directly to the Warsaw city authorities. The most important investments improving Warsaw’s domestic and international connections are:

- funds for the expansion and modernisation of railway lines, including on the Warsaw – Berlin, Warsaw – Terespol (towards Belarus), Warsaw – Sadowne (Rail Baltica), Warsaw – Lublin, and Warsaw – Radom lines;
- purchase of modern high-speed trains by PKP Intercity for the Gdańsk – Warsaw – Vienna line;
- purchase by Polish Airlines LOT of about 50 aircraft for regional flights from Okęcie Airport in Warsaw.

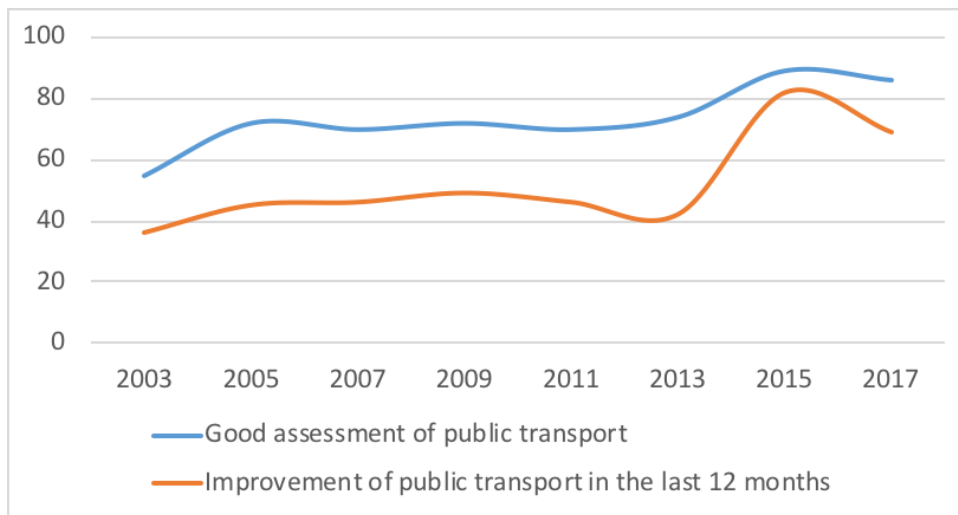
### 4.4 Towards the best public transport in Poland

Warsaw is gradually developing its transport system, including transit via public transport (buses, trams, metro, Fast Urban Railway), bicycle traffic (cycle path networks and a bike rental system), and the organisation of traffic on the most congested roadways via the introduction of bus lanes for public buses and taxis.

All the investments undertaken over the last two decades (financed from various funds, mainly EU Structural and Investment Funds) have led to the public transport system in Warsaw currently being the best in Poland. Warsaw residents appreciate this (Figure 3). Research conducted by the City Hall on a representative sample of Warsaw residents highlighted that:

- satisfaction with transport in the city is already stable and high;
- city residents have noticed the positive changes taking place in Warsaw from year to year.

**Figure 3. Proportion of residents rating public transport in Warsaw positively (%)**



Source: Own compilation based on Warsaw Barometer data

The quality of public transport means that 60% of Warsaw residents declare that they use public transport on a regular day, which places the Polish capital in 13th place out of 83 cities in a study of quality of life.<sup>15</sup> According to a EUROSTAT survey of the 28 capitals of the EU Member States, Warsaw had the largest proportion of travellers using city public transport in the middle of the current decade thanks to the transport investments undertaken.

Key investments in this area, financed with EIB loans, included:

- the purchase of carriages for metro line I in 2010 and, above all, the construction and continued development of line II. Under “Warsaw Metro Rolling Stock”, 35 single-spaced six-carriage metro trains were purchased, 20 of which will be used for the new line II of the Warsaw metro currently under construction, with the other 15 used to increase frequencies on the existing line I (€135 million);
- the construction, from funds allocated in 2011 (“Warsaw II Metro Line”), of a 6.7 km section of the new line comprising seven new stations and an extension to the existing depot at Kabaty for a total amount of almost €240 million;
- the credit line granted in 2016 for the development of metro line II in stage II, covering a 16.4 km section where another six stops were located, as well as the purchase of 59 new trains for metro lines I and II, and the construction of a new metro train depot.

Investments in the city’s tram network have also focused on modernisation and development. In 2008, over €230 million was granted as part of the “Warsaw Tramway Project” and in 2015, €191 million was awarded for “Warsaw Tramway Project II”. For example, the EIB financed the purchase of new rolling stock, together with the modernisation and extension of tramway infrastructure as included in the investment plan of the municipal tram company of Warsaw. The second credit line financed the construction of new tramway lines in the city, as well as the purchase of tramway rolling stock. The next EIB credit line, opened in 2016, will enable Warsaw to purchase new tram carriages and,

above all, to build a new tram line to the Wilanów district located in the southern part of the city. This investment will constitute a response to the strong urbanisation of Wilanów in recent years and the growing transport problems in this part of the city.

## 5. What does the future hold for Warsaw?

Largely achieved thanks to the intelligent use of external factors and the successive building of bottom-up potential, Warsaw's development is a success at various levels.

The first aspect concerns the developmental position of Warsaw in comparison to other Eastern and Central European capitals, as well as domestic competition. The growth and level of Warsaw's gross domestic product per capita is impressive (Table 2), even without taking into account favourable purchasing power parity. The city has seen one of the highest increments in the EU within the NUTS 3 regions<sup>16</sup>. The growth in gross domestic product per square kilometre in the period 2004-2014 at current prices was 207%, and per capita in the same period 191% (Table 3). This meant that Warsaw's GDP per square kilometre in 2014 was zł438 million, while in other Polish metropolises it ranged from zł112 to 186 million and the average in Poland was just zł5.5 million. In terms of per capita assessment, these amounts in zł are, respectively: 131,000 (Warsaw), between 56,000 and 89,000 (other Polish metropolises), and just under 45,000 (Poland). These patterns are seen both in the capital city itself and within the functional area of Warsaw.

**Table 2. Gross domestic product per capita according to purchasing power parity in Polish metropolises in the period 2004-2014, EU 28 = 100**

City	2004	2014	Change 2004-2014
<b>Warsaw</b>	<b>144</b>	<b>199</b>	<b>+55</b>
Kraków	78	110	+32
Łódź	61	85	+24
Poznań	103	135	+32
Gdańsk-Gdynia-Sopot	75	94	+19
Wrocław	72	112	+40
Poland	56	68	+12

Source: Own calculations based on Central Statistical Office & Statistical Office in Katowice, 2006 and 2016, Warsaw-Katowice

**Table 3. Gross domestic product per km<sup>2</sup> and per capita in current prices in 2004 and 2014**

City	GDP per km <sup>2</sup> in zł millions		Growth in GDP per km <sup>2</sup> 2004-2014	GDP per capita in zł thousands		Growth in GDP per capita 2004-2014
	2004	2014		2004	2014	
<b>Warsaw</b>	<b>212</b>	<b>438</b>	<b>207</b>	<b>68.7</b>	<b>131.0</b>	<b>191</b>
Kraków	87	168	193	37.5	72.3	193
Łódź	77	135	175	29.1	55.6	191
Poznań	107	186	174	49.1	89.0	181
Gdańsk-Gdynia-Sopot	63	112	178	34.7	61.9	178
Wrocław	77	159	206	34.3	73.4	214
Poland	3.0	5.5	183	24.2	44.7	185

Source: Own calculations based on Central Statistical Office & Statistical Office in Katowice, 2006 and 2016, Warsaw-Katowice

The second sphere of success concerns the increase in the city's demographic potential. Importantly, various simulations of demographic trends, as well as recent strategic choices, speak of Warsaw as a "compact" city. A city of 1.7 million people has no aspirations to increase to 3-4 million, despite free investment sites and a relatively large area (five times bigger than Paris). It is clear that a significant increase in the number of residents would equate to a decrease in the quality of life, unless it was quickly followed by investment in social infrastructure.

Taking into account the current trends and challenges facing Warsaw as set out in the city's latest development strategy, the following development directions (which are already supported by external sources including the EIB) can be expected:

- **Global Warsaw.** The strengthening of national and international metropolitan functions through an even stronger influence within various cooperation networks (political, business, scientific and cultural). This will be assisted in the long term by European funds for innovation and the creation of various collaborative projects – Warsaw will continue to make the most of its good relationships with Berlin and other European capitals. According to the global think tank Globalisation and World Cities Research Network, which prepares a ranking of world cities every two years, Warsaw's position in recent decades has steadily improved: in 2010 it was 37th, in 2012 it was 32nd, and in 2016 it reached 18th place in terms of its Global Network Connectivity Index level<sup>17</sup>. The high position of Warsaw is primarily the result of the development of metropolitan functions on a scale rarely seen in Europe over the last two decades. This is illustrated, among other things, by the size, quality and growth of office, retail and warehouse space<sup>18</sup>; the growing importance of Warsaw as a research centre; the scale of educational and cultural activities; the size and quality of the business services sector; the scale of concentration of information and communication technologies; and the development and scale of structural transformations, including the employment structure.
- **Mobile Warsaw.** The completion of key road infrastructure plans in Warsaw itself and the improvement of transport connections (mainly railways) will continue to strengthen the position of the city and its metropolitan area as the main development centre of the country. It is difficult to give an unequivocal estimate regarding the future impact of the planned flagship investment of the current government – the Central Transit Port, located about 60 km from Warsaw – which will involve the closure of Poland's largest airport, Warsaw-Okęcie.
- **Liveable Warsaw.** Through Warsaw's new strategy, the city authorities are demonstrating great concern for the quality of life of Warsaw's residents, involving residents in the process of co-management and creating a responsible community. This is why the EIB's current planning of funds for the financing of low-cost housing ("Warsaw North Affordable Housing Facility" and "Warsaw South Affordable Housing Facility") is so important.
- **Green Clean Warsaw.** The development of user-friendly space for residents – which is now characterised by good transport links, leisure areas, and a clean Vistula River that is beginning to fulfil its expected function in integrating the right and left banks of the capital thanks to the investments described above – will take into account the idea of "local centres". This means further investments in social infrastructure throughout the city and an emphasis on even better public transport. At the same time, there will be pressure from developers to develop service and residential functions further. Warsaw already offers good transport links, a systematically increasing quality of public space, and a large number of high-quality green areas. Undoubtedly, the priority must be to provide an effective response to the problem of fundamental improvements in air quality, as well as the social, economic and spatial revitalisation of some of the previously neglected parts of the city.

All in all, this means that broad EIB involvement is possible in both hard and soft activities, enabling the utilisation of the socio-economic potential of Warsaw and the diffusion of the development processes taking place in the Polish capital on various spatial scales: international, national, regional, metropolitan and local.

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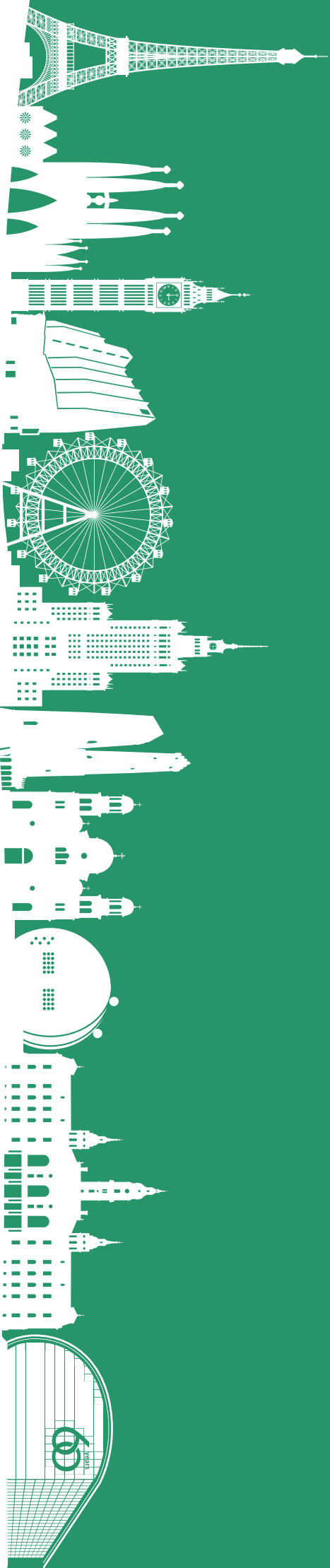
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- 17 The second Polish city in the ranking, Wrocław, was ranked in 211th place.
- 18 According to The Polish Real Estate Market, Edition 2016, Warsaw 2016, approximately 53% of office space, 25% of retail space and 32% of warehouse space of the seven largest Polish cities is concentrated in Warsaw. The office and warehouse spaces are much larger than in Prague or Budapest.



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