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Urban Regeneration – a Financial and Material Approach. The Scale of Financial Needs in Regeneration Processes Based on the Example of Selected Cities in Poland

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ABSTRACT

Purpose – The research problem presented in the paper concerns the scale of regeneration needs in the largest cities in Poland. The aim of the conducted research was an attempt to identify the extent of these needs as well as to review and compare the scale of planned urban regeneration projects in financial and material quantitative) terms.

Design/methodology/approach – The research area represents the eleven largest cities in Poland in terms of population. The time frame covers current urban regeneration programmes created since 2015, enacted or updated by the end of August 2019. To achieve the objectives of the study, the following methods of data collection were used: a literature review, desk research and, the free-format interview. For data analysis, desk research and comparative analysis methods were used.

Findings – The total value of the projects planned in the eleven studied cities exceeded PLN 14 billion. The value of regeneration needs in Polish cities was estimated at PLN 50.7 billion. The intensity of activities planned in the cities surveyed in the years 2015-2020+ is more than three times higher than that planned in the largest cities (more than 200,000 inhabitants) in the 2007-2013 financial framework. However, the scale of the intervention may still be insufficient. At the same time, the scope of planned actions may exceed the real financial capacity of some cities, resulting in the partial implementation of the urban regeneration process and the achievement of only fragmentary changes described as islands of renewal.

Research implications – The analyses carried out show a clear relationship between the availability of EU funds and the scale of planned regeneration activities, as well as the dominance of investment activities in most of the studied cities. Furthermore, it can be said that the problem identified in previous programming periods, i.e. covering with programmes too large urban areas, has not been resolved.

Keywords:	Urban regeneration; regeneration costs; regeneration scale; regeneration programming, EU funding.
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INTRODUCTION

The motivation for the research arose from observing crisis phenomena in Polish cities and remedial measures taken by local authorities. Crisis phenomena in cities in Poland are characterised by a particular intensity of change resulting from complex factors such as systemic transformation, years of neglect in maintaining the technical condition of the housing stock in city centre areas, as well as socio-economic transformation, and dynamic deindustrialisation (Majer, 2014, p. 161). Urban degradation takes the form of a self-sustaining and self-winding spiral of change (Olbińska, 2020, pp. 32-40; McCarthy, 2007, p. 7; Lang, 2003, p. 3). Reversing or even stopping this process requires a specific intervention in the form of multifaceted, focused and comprehensive actions known as urban regeneration. Three decades after the beginning of the transformation process, Polish cities face an extremely difficult challenge of urban renewal. The needs in this area are enormous. It is estimated that the degraded areas account for more than one-fifth of the area of Polish cities (Jarczewski, 2009, p. 63).

The aim of the conducted research was:

1. an attempt to identify the scale of financial needs connected with regeneration in the largest cities in Poland, as well as
2. a review and comparison of the scale of planned urban regeneration projects in financial and material (quantitative) terms.

The achievement of thus formulated objectives includes an attempt to verify three research hypotheses. (H1) The first hypothesis states that the planning of the urban regeneration process in Poland depends on the possibility of obtaining EU funds and is subordinated to the partial (selective) investment needs of individual cities. (H2) The second hypothesis states that the actions planned in the regeneration programmes focus on investments in the material sphere (concerning built environment and infrastructure), while the role of soft (non-investment) actions is limited. (H3) The third hypothesis indicates that the urban regeneration programmes in the cities studied are mainly aimed at achieving spatial transformation objectives, while social and economic objectives are implemented to a lesser extent.

To fulfil the objectives of the study, the following data collection methods were used: a literature review, desk research (analysis of existing data) and the free-format interview. The desk research and comparative methods were used for data analysis.

The paper consists of four sections. The first part includes a literature review, which provides justification for taking up the topic and presents previous experience in the field of research on programming urban

regeneration processes in Poland. The next part presents how data were collected and the research methodology, as well as the limitations of the chosen methods and their adequacy in the context of the conducted analyses. The presentation and discussion of the research results constitute the subject of further consideration. This section discusses, among others, the value of the projects planned in the eleven cities surveyed against the background of the EU funds allocated for urban regeneration under the 2014-2020 financial perspective and in terms of the financial expenditure of individual cities' budgets, as well as the structure of actions taken in material and financial terms. The last part is a summary of the presented considerations and recommendations for developing the requirements for urban regeneration programming in the future.

LITERATURE REVIEW

The needs for urban regeneration in Poland are enormous. Studies on different types of degraded areas have estimated that around 21% of previously developed land in cities needs to be regenerated, it is a problem that directly affects almost 2.4 million of their inhabitants (Jarczewski, 2009, p. 63).

Attempts to determine the scale of funds needed for regeneration have already been undertaken, but so far the focus has been mainly on the needs of housing stock modernisation. The estimated financial outlays for the modernisation of multi-family housing stock in Poland (in current prices including expenditure on renovation and modernisation of dwellings and commercial premises) was assessed in 1995 at approx. PLN 1.3 billion, in 2000 at approx. PLN 3.5 billion, and in 2005 at approx. PLN 5.0 billion (Belniak & Wierzchowski, 2009, p. 136). According to estimates carried out by J. Korniłowicz, the size of the renovation gap for the housing stock in Poland was determined at PLN 36 billion in 1995. The estimated financial outlays for the modernisation of housing stock as part of the regeneration in Poland was estimated in 2008 by the team of H. Zaniewska at the level of PLN 3.7 billion in the minimum variant and the level of PLN 43.3 billion in the maximum variant (as cited in: Belniak & Wierzchowski, 2009, pp. 136-138; cf. Kucharska-Stasiak, 1990).

The legislator defines regeneration as "*a process of leading degraded areas out of crisis by way of measures implemented in a comprehensive manner, through integrated actions, for the benefit of the local community, space and economy, territorially concentrated, carried out by regeneration stakeholders on the basis of the municipal regeneration programme*"

(Regeneration Act, 2015, Article 2). As is clear from the definition of regeneration, the nature of the measures undertaken goes well beyond the realm of investment in the housing stock, which makes it necessary to include in the estimates also other categories of activities that make up the comprehensive and integrated intervention constituting regeneration.

Regeneration needs in cities far outweigh the financial capacity of local budgets. Therefore, measures are needed to stimulate private investment (cf. Wojewnik-Filipkowska, 2014, p. 26) and flexibility in the allocation of resources. The construction of the financial framework for the regeneration programme is therefore based on the principle of combining resources from different available sources as well as making optimal use of existing instruments and financing mechanisms (Adair et al., 2000, p. 153). Sources of funding for regeneration may be following (cf. Belniak, 2009, pp. 146-147; Kopeć, 2011, pp. 70-76; Sagan & Grabkowska, 2012, p. 1148):

1. public national funds from the state budget and state special-purpose funds (e.g. the environmental fund, thermomodernisation fund, monument preservation fund, etc.), budgets of local government units, other public finance entities, the issue of municipal bonds, and profits from the sale of public property;
2. Community public funds from the budget of the European Union, in particular from the Structural Funds: the European Regional Development Fund or the European Social Fund, made available in the form of grants and repayable funds, e.g. the JESSICA initiative;
3. other public funds from the European Economic Area, the Norwegian Financial Mechanism or international institutions, such as: the European Bank for Reconstruction and Development, the European Investment Bank, the Council of Europe Development Bank, and the World Bank;
4. public-private partnership and other innovative development financial arrangements (Squires et al., 2016 p. 56);
5. credits, loans or leasing;
6. private funds.

The requirement to combine various sources of funding is reflected in the key documents governing the rules of the regeneration process in Poland – the Regeneration Act (2015, Art. 15 paragraph 1 point 7) and the Guidelines on the Regeneration in the Operational Programmes in the years 2014-2020 (2016, pp. 23-24).

Private sector involvement is a critical component of the urban regeneration process. The role of the private sector in regeneration is to use its resources to create a new or added activity that will enhance the level of

economic performance and by doing so raise value, expectations and confidence within areas and provide the circumstances for further and sustained investment. The private sector will not invest in regeneration areas without substantial public sector commitment (Adair et al., 2002, p. 59, Adair et al., 2003, p. 1065).

The limited scope of the use of various sources of funding and the failure to involve private capital are some of the weaknesses of the regeneration programmes formulated in the previous programming periods (Instytut Rozwoju Miast, 2013, pp. 8, 17). The problem of financing the regeneration with the use of a small range of funding sources, mainly in the form of municipalities' own resources and EU funds, was highlighted by the authors of a report prepared by the UniRegio Centre for Regional Studies (2012, p. 292). Over-reliance on the availability of EU funds during the regeneration planning phase reduces the ability to implement all projects planned in the programmes and diminishes the chances of achieving the concentration of actions and the synergistic effect. The experience of the previous programming periods has shown that the inability to raise these funds for some projects often resulted in them being excluded from the implementation (their postponement or abandonment), which only allowed for the achievement of fragmentary transformational effects (Ibidem). Also in the current programming period, the possibility of using EU funds has been an important motivation to undertake or continue the process of regeneration for many local governments (Jarczewski & Kułaczkowska, 2019, pp. 9, 16). According to the authors of this paper (p. 17), the regeneration in Poland is strongly dependent on funds from the EU programmes, and the interest of cities in undertaking such interventions is related to the value of funds allocated for this purpose in the Regional Operational Programmes. The authors also point out that the regeneration is in practice equated with projects co-financed by the public, usually European, funds and that the scale of its practical implementation depends on the success of project grant competitions. Cities often include capital-intensive investments in their urban regeneration programmes in the hope of receiving external funds. The universality of this approach and the limited value of the funds to be distributed among applicants mean that the vast majority of projects will not receive funding and will lose their chances of implementation (Ibidem).

The cross-sectional studies on the regeneration programmes so far have mainly aimed at summarising and evaluating the activities carried out in the 2004-2006 and 2007-2013 programming periods. The evaluation of the programmes prepared in the years 2004-2006 was conducted by Siemiński and Topczewska (2008). The study covered eleven programmes and thirty

regeneration projects that received ERDF funding. It focused on the assessment of the level of compliance with the requirements for integrated regeneration planning, coordination of actions, efforts to achieve synergies, selection of intervention areas, and financial engineering. The research carried out concerning the regeneration programmes established in the years 2007-2013 was also primarily of an evaluation nature (Dyspersja, 2013; Centrum Rozwoju…, 2015; Centrum Studiów Regionalnych UniRegio, 2012). The scope of those analyses was limited to the following voivodeships: Pomorskie, Zachodniopomorskie, and Podkarpackie. Analyses of problems and methods of financing the regeneration process of urban areas based on the example of cities in the Warmińsko-Mazurskie Voivodeship in the years 2004-2013 were prepared by Farelnik (2012). A wider study was conducted by Jarczewski and Kuryło (2009). They analysed 205 local urban regeneration programmes prepared by 195 cities with more than 10,000 inhabitants. On this basis, it was estimated that expenditure amounting to approximately PLN 30 billion was planned for the regeneration in the years 2007-2013. Medium-sized and small cities planned larger resources for this purpose, i.e. from 0.4 to 0.9 million per hectare than the large cities, where the average expenditure amounted to PLN 0.3 million per hectare. The researchers assessed the planned outlays as small in relation to potential needs, such as the state of the housing stock. In their opinion, it shows that the programmes covered areas which were too large in relation to the real financial possibilities of the cities (Jarczewski & Kuryło, 2009, p. 256).

Concerning the current programming period, the research on the scope of planned regeneration projects was conducted by the Institute for Urban and Regional Development (Jarczewski & Kułaczkowska, 2019). Those studies encompassed 698 municipal or local regeneration programmes included in the voivodeship list maintained by the Marshal's Offices[1]. During the period considered, 75.1% of cities in Poland had such programmes. The total value of the approximately 14,500 analysed planned regeneration projects amounted to PLN 47.4 billion (Jarczewski & Kułaczkowska, 2019, p. 16). For 90% of the planned projects, external financing was envisaged, mainly (in case of 80.9% of projects) European funds, the EEA Financial Mechanism, and the Norwegian Financial Mechanism (Jarczewski & Kułaczkowska, 2019, pp. 58-59). In the case of that paper, the extensive scope of research did not allow for the presentation of in-depth analyses and

[1] Listing is the basis for applying for EU funds available under the Regional Operational Programmes.

the recognition of the specificities of the planned actions in terms of individual cities. This paper aims to fill this gap.

RESEARCH METHODOLOGY

The research area represents the eleven largest cities in Poland in terms of population[2]. Selected urban areas have the status of voivodeship cities, which translates into their rank and development opportunities, but also problems. In total, they represent 28.36% of the urban population in Poland. These cities have many years of experience in planning and conducting urban regeneration processes. Due to the scale of problems, as well as the available resources, they are at the forefront in drawing on the foreign experience and developing their own regeneration solutions (Jadach-Sepioło & Rachoń, 2014, p. 111).

The time frame covers current regeneration programmes created since 2015, enacted or updated by the end of August 2019.

Due to the nature of regeneration planning as a process, its effects take the form of regeneration programmes and other documents, e.g. public consultation reports. As a result, the main research tool was the analysis of documents (existing data). The study of existing data consists of the analysis of information available in the form of so-called secondary data. Literature review and desk research methods were used in the study.

The desk research method consists in analysing data contained in publications, reports, newsletters, catalogues, databases, or on websites. It can be used to describe the legal situation or to study normative acts regulating various spheres of social life (Makowska, 2013, p. 18). Desk research is classified as non-reactive research and has all the advantages attributed to the methods included in this group. E. Babbie distinguishes three non-reactive methods, namely content analysis, the analysis of existing statistics, and historical-comparative analyses (Babbie, 2002, p. 342). Desk research is the combination, or rather the essence of these methods. A

[2] Initially, the plan encompassed studying the ten largest cities in Poland in terms of population. These are centres with a population of more than 290,000 people. However, a problem arose then: setting a time point for which this choice should be made. In 2015, according to data from the Central Statistical Office, this group included: Warsaw, Cracow, Łódź, Wrocław, Poznań, Szczecin, Gdańsk, Lublin, Bydgoszcz, and Katowice. At the end of 2017, Katowice (with a population of 296,262 people) was replaced by Białystok, whose population at that time reached 297,288 inhabitants. The next largest city – Gdynia – does not have the status of a voivodeship centre, and its population at the end of 2017 did not exceed 250,000 people. Due to these circumstances, the spatial scope of the study covered eleven cities, taking into account both Katowice and Białystok.

thorough and extensive desk research analysis uses content analysis and existing statistics, as well as cross-sectional and comparative analyses.

The analysis of existing data is sometimes referred to as secondary data analysis. The greatest weakness of this method is that the data analysed come from studies previously conducted by other researchers. Thus, the already existing data can correspond only approximately to the data that the researcher would like to use in the hypothesis testing process. Problems in the case of secondary analysis concern insufficient information on how primary data are collected (Nachmias, 2001, p. 326) and potential limitations on comparability and data pooling, as well as the implementation of complementary analyses using different data sources (Bednarowska, 2015, p. 22). However, the limitations described do not apply to this study, as the data analysed are not secondary data from previous studies, but are present data contained in the regeneration programmes. Therefore, the problem of combining and comparing data resulting from the application of different and not fully comparable methodologies does not arise in this case.

The information obtained through the analysis of the existing data was supplemented and deepened by taking into account qualitative analysis in the form of individual phone interviews. The form of the free-format interview, consisting of interviewing based on a pre-prepared range of information to be obtained from the respondent, was used (Przybyłowska, 1978, p. 54).

For the analysis of the data obtained in the manner described above, a comparative analysis method was used. This method is applied to study complex objects or phenomena and, thus, takes on a multidimensional character. It is most commonly used in studies of financial data and relationships and is often referred to as comparative financial analysis (Szarucki, 2010, p. 52).

The selected research methods, in particular, the analysis of existing data and the comparative analysis are tools commonly used in research on regeneration processes (cf. Jarczewski & Kułaczkowska, 2019; Farelnik, 2012; Basińska, 2019; Kurowska-Pysz, 2017; Kociuba, 2016). These methods are complemented by interviews that capture the context and conditions of observed differences in the scale of planned regeneration activities as well as their material and financial structure. The use of qualitative methods therefore makes it possible to deepen and justify the results obtained.

Until the end of 2023, it is possible to choose how to conduct regeneration processes. Municipalities may carry out these activities based on the Regeneration Act employing municipal regeneration programmes or based on the provisions of the Act on the Municipal Self-Government (1990,

Article 18(2) p. 6), establishing the powers of the municipality to adopt so-called economic programmes. In this terms regeneration is conducted through local, integrated or municipal regeneration programmes.

Out of the eleven cities studied at the end of 2019, only in Bydgoszcz, Gdańsk, Łódź and Poznań, regeneration activities were carried out based on municipal programmes.

In the other cities, it was decided to use a form of the programme based on the provisions of the Act on the Municipal Self-Government. In mid-2018, the creation of municipal programmes in Wrocław and Lublin was initiated, but these procedures have not been completed.

It is worth stressing that, to benefit from the EU Structural Funds, municipalities must also comply with the Guidelines on Regeneration included in the Operational Programmes 2014-2020 (2016) as well as the requirements and guidelines adopted by the managing authorities of the individual Regional Operational Programmes. These guidelines are very similar in substance to those laid down in the Regeneration Act. The Guidelines, as the provisions in the Regeneration Act, indicate the need to develop a regeneration programme listing planned primary regeneration projects and defining the characteristics of other eligible regeneration projects (Act) or their types (Guidelines). All the regeneration programmes examined meet these requirements, which made it possible to analyse both the programmes created under the Regeneration Act and the Act on the Municipal Self-Government.

The analysis encompassed initiatives included in the lists of primary projects[3] and complementary projects[4] if they were described as unconditionally planned for implementation. Projects identified as potentially 'viable' subject to funding, projects with an unspecified budget, and projects planned under other programmes and implemented on a city-wide basis were excluded.

[3] The list of primary projects is a mandatory part of municipal regeneration programmes under the Regeneration Act (Article 15. 1(5a)) as well as other regeneration programmes (local, urban, integrated, etc.) established under the Municipal Self-Government Act (Guidelines, 2016, p. 25).

[4] Both the Regeneration Act (Art. 15. 1 point 5b) and the Guidelines (2016, p. 25) require the description characteristics of other eligible regeneration projects (Act) or their types (Guidelines). Such characteristics may take a descriptive form, specifying the types of projects, or the form of a closed list of complementary projects.

RESULTS & DISCUSSION

A total of 1,030 regeneration projects for which the examined programmes determined the value of the projected financial outlays were analysed. The total value of the projects planned in the eleven studied cities exceeded PLN 14 billion (amounting to PLN 14,378,434,375.71). In terms of financial needs, measured by the scale of planned activities, the programmes of Łódź and Poznań stand out (Fig. 1 – bar chart, left axis). In the first of these cities, the total value of projects exceeded PLN 4.6 billion, in the latter, the value of projects reached almost PLN 3.7 billion. The third position in this respect is taken by the Katowice regeneration programme with the sum of the planned activities amounting to almost PLN 1.9 billion. It is worth noting that the scale of expenditure planned in other cities is significantly lower. In total, in these other cities, the expenditure does not exceed the level of outlays for Łódź.

The above-presented data can be referred to as the allocation of EU funds available for regeneration initiatives at the level of individual voivodeships. The largest pool of funds aimed exclusively at urban regeneration under Investment Priority 9b (Fig. 1 – line chart, right axis) is planned in the Łódzkie Voivodeship (EUR 159.5 million). The Śląskie Voivodeship comes second in this respect, with an allocation of EUR 122.4 million. The third position is taken by the Małopolskie Voivodeship with funding of EUR 114 million.

An analysis of the size of EU allocations in each voivodeship indicates a clear relationship between the availability of EU funds and the scale of planned regeneration activities. The correlation coefficient between the allocation size and the total value of the planned projects is 0.675.

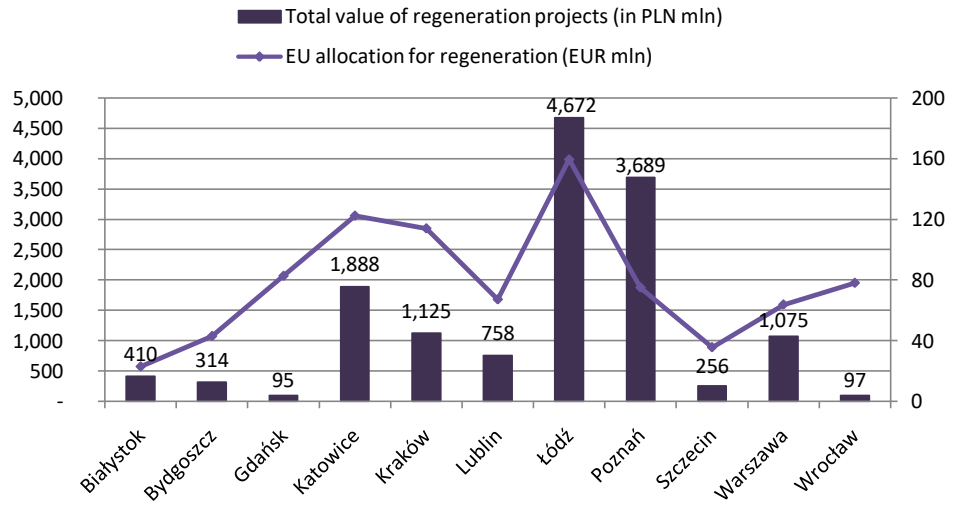

Figure 1. The total value of regeneration projects in the cities studied (in PLN million, left axis) and the size of the EU allocation for regeneration (IP 9b) of urban areas in individual voivodeships (in EUR million, right axis)

Source: own study; data on UE allocation (Jarczewski & Kułaczkowska, 2019, p. 65).

Taking into account the presented size of the EU allocation, the resources available at the level of individual voivodeships would be enough to carry out only 9%[5] of tasks planned in Poznań, 15% of projects planned in Łódź, or about a quarter of the projects included in the Białystok or Warsaw programmes. In total, the value of EU funds directly available for regeneration under Investment Priority 9b in the eleven voivodeships whose capitals are the studied cities examined, amounting to approximately EUR 864.2 million, would cover the costs of around one-quarter of the actions planned in the regeneration programmes examined. These funds, however, do not constitute an allocation addressed exclusively to the capitals of the voivodeships.

An in-depth analysis of the implementation capability of the programmes is hampered by the fact that the scale of the envisaged commitment of EU funds has not been revealed in the programmes of some

[5] Own calculations based on data from Jarczewski & Kułaczkowska, 2019, p. 65 and Bankier.pl, assuming an average EUR to PLN exchange rate of 4.2699 (average NBP rate as of 10.02.2020). In the period 1.01.2015-19.02.2020, the EUR exchange rate ranged from PLN 3.98 (21.04.2015) to PLN 4.50 (06.12.2016).

cities studied[6]. Among the cities for which such data are available, Białystok stands out due to the particularly high level of planned EU funding. It can amount to up to 78.6% of the value of primary regeneration projects. The experience of previous programming periods shows that cities can overestimate their capacity to raise EU funds. Projects for which such funds cannot be obtained are often suspended or abandoned. Too much optimism in assessing the possibility of obtaining EU funding may therefore pose a threat to the comprehensive implementation of regeneration programs. Cities, where the implementation of the regeneration programme depends to a large extent on the availability of EU funds, include Cracow (66.9% of EU funding), Bydgoszcz (62.2%), Wrocław (49.5%), and Lublin (44.5%). Szczecin (30.4%) and Katowice (24.3%) are less at risk in this respect. The data are not available for the other cities.

The data cited so far illustrate, on the one hand, the scale of needs, and perhaps also the great ambitions of the cities, and on the other hand, their considerable optimism or even disregard for the reality of the availability of funds. An example of this is Białystok, where financing of the regeneration programme with an EU grant of around PLN 320 million is planned, while the IP 9b funding available for urban areas throughout the Podlaskie Voivodeship amounts to EUR 22.9 million[7]. The discrepancy in expectations and capabilities is clear in this case, even though in terms of the value of its programme Białystok is ranked as 7th out of the eleven cities studied.

The planned expenditure per capita of the city inhabitant look similar to the total value of the projects (Fig. 2). Poznań, Łódź and Katowice have recorded the highest values which exceed the level of PLN 6,000 per person. The expenditure on regeneration in Lublin has also developed above-average levels. In other cities, however, the intensity of planned expenditure is significantly lower and does not exceed PLN 1,500 per person. In total, activities planned in the studied cities amount to the average cost of PLN 2,194.02 per capita.

[6] This data are missing even for the cities that have planned the largest scale of activities, namely Łódź and Poznań.

[7] It can, of course, be argued that the cities can also raise EU funds under other priorities for the implementation of their urban regeneration programmes, but IP 9b is the main source in this case, and other sources are also limited. The total allocation (including IP 9b, indirect and direct assistance) for the regeneration in the Podlaskie Voivodeship is approx. EUR 100 million (Jarczewski & Kułaczkowska, 2019, p. 63). This means that in order to achieve the planned level of EU funding commitment, Białystok would have to receive 75% of the funds allocated to the whole voivodeship.

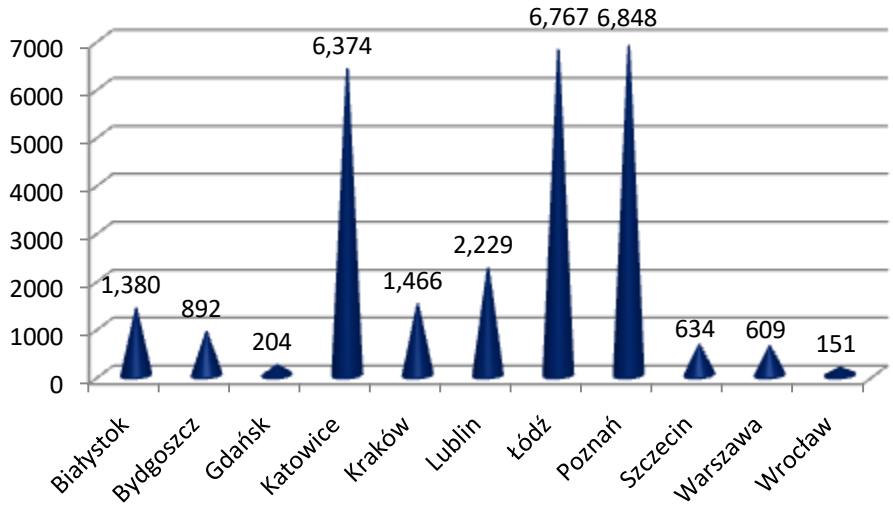

Figure 2. Value of projects in PLN per capita (population as of 2017, BDL)

Source: own study, BDL.

The highest intensity[8] of interventions per unit of the regeneration area is planned again in Łódź (Fig. 3), despite the designation of a large area covering almost 1,800 hectares. This is not the largest urban regeneration area among the cities studied. More extensive areas are delineated in Białystok and Poznań – covering 1,980 and more than 2,400 hectares respectively, which has resulted in significantly lower volumes of projected expenditure in the latter city. Relatively small (i.e. up to about 500 hectares) areas are designated in Wrocław, Szczecin, Lublin, and Gdańsk. This translated into a high level of intensity of planned activities in Lublin and a moderate level in Szczecin. In the case of Gdańsk and Wrocław, a small scale of planned projects, compared to other cities, means low values in this category. In total, the planned expenditure in the cities studied amount on average to PLN 10,896.3 per 100 hectares of regeneration area.

The reference of the financial scale of regeneration activities (the total value of the projects planned for implementation) to the value of the investment expenditure planned in the budget of individual cities for 2017 may be a measure of the implementation capability of their regeneration programmes (Fig. 4).

[8] Expenditure per unit area (100 ha) of the regeneration area.

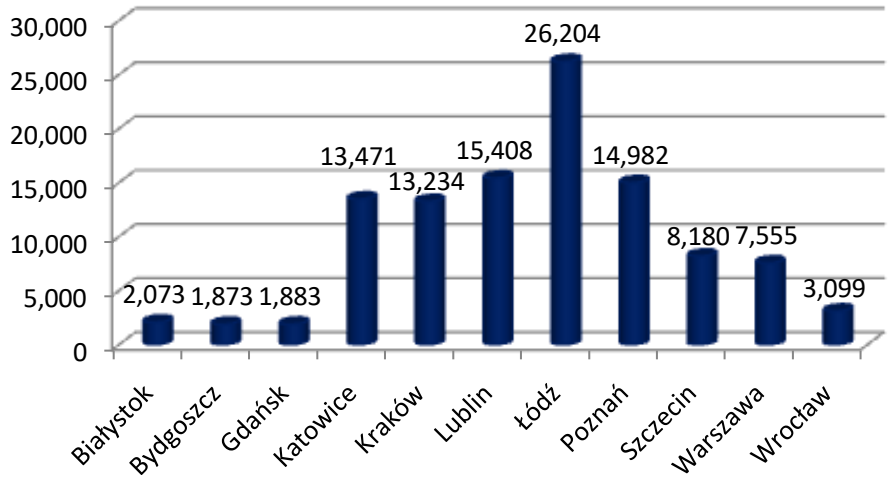

Figure 3. Value of projects in relation to the regeneration area (in PLN per 100 ha)

Source: own study.

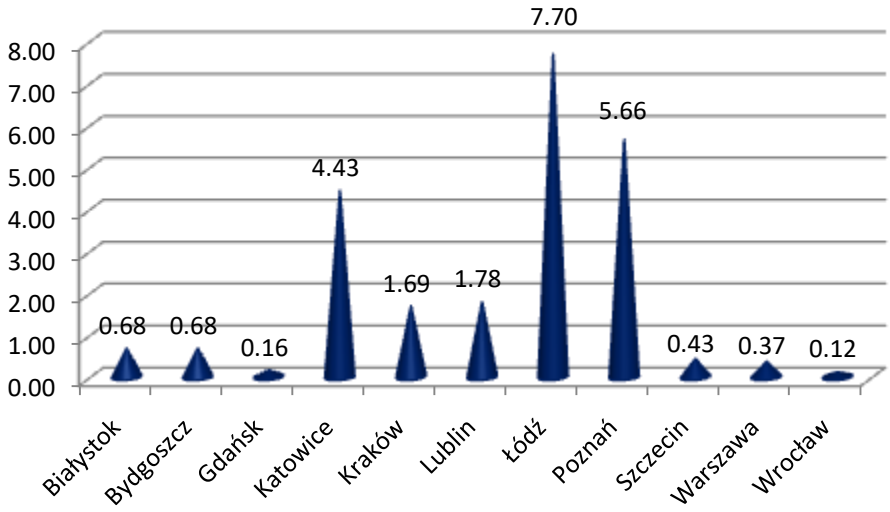

Figure 4. The total value of projects in relation to budget capital expenditure (expenditure for 2017 = 1)

Source: own study, budget resolutions of individual cities for 2017.

In the case of Łódź, Poznań and Katowice, the scale of planned projects exceeds several times the level of annual capital expenditure. It

means that to conduct the planned activities without using external financing sources these cities should spend their entire investment budget for 4.5 (in case of Katowice) up to almost 8 years (Łódź) only for regeneration. Even in a situation of increased availability of EU funds, the implementation of the planned actions may not withstand the confrontation with budgetary realities. Significantly more adapted to the actual budgetary restraints are the regeneration programmes in the case of Białystok, Bydgoszcz, Gdańsk, Szczecin, Warsaw, or Wrocław.

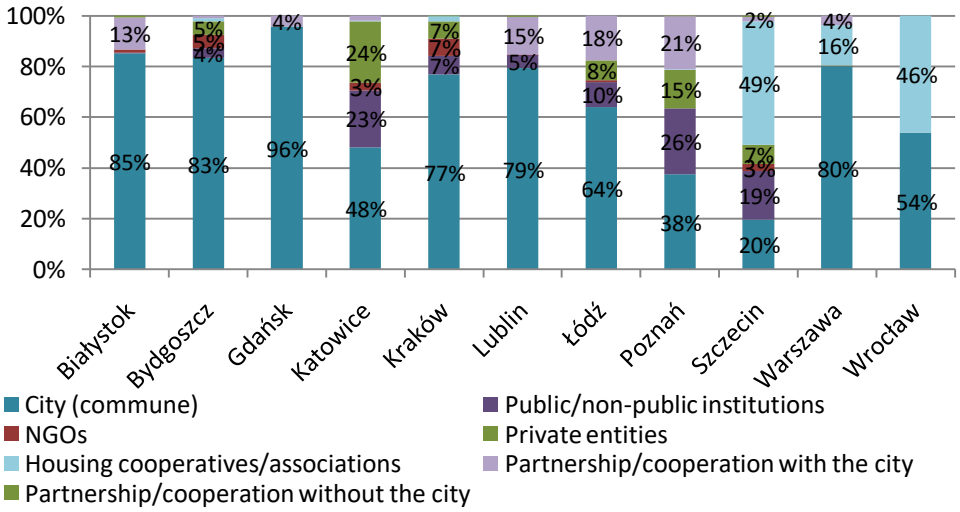

Figure 5. Share of projects implemented by individual entities (in value terms)

Source: own study.

In financial terms, most of the programmes examined are dominated by projects planned for implementation by individual cities (communes) and their subsidiaries (Fig. 5). A particularly high share of urban projects has been recorded in Gdańsk (96%), Białystok (85%), Bydgoszcz (83%), Warsaw (80%), Lublin (79%), or Cracow (77%). Housing cooperatives and housing associations play an important role as participants in the regeneration process in Wrocław, Szczecin and Warsaw, with the share of 46%, 49%, and 16% respectively. There is a clear commitment to the planned activities of public and non-public institutions in Poznań (26%), Katowice (23%), or Szczecin (19%), and to a lesser extent also in Łódź, Cracow and Lublin (10%, 7% and 5% respectively). Poznań, Szczecin and Katowice are characterised by the most balanced structure of projects in this category. Poznań (21%), Łódź (18%), Lublin (15%), and Białystok (13%) stand out with a significant share of projects planned for implementation in partnership or cooperation. These

activities most often involve cooperation with the city. These are often tasks designated by the city for which selecting a social or private partner is planned.

The often highlighted weakness of regeneration programmes is their focus on investment activities – so-called 'hard' projects. In previous programming periods, the vast majority of programmes contained mainly 'hard' (investment) actions, while marginalising 'soft' (non-investment) actions (Topczewska, 2008, p. 16; Dyspersja, 2013, p. 35). Also, doubts have been raised as to the usefulness of spectacular investments concentrated primarily on image-building (so-called 'flagship') projects, which in practice are usually meeting the needs of a small user group not requiring any special support (Instytut Rozwoju Miast, Dyspersja, 2015, p. 32).

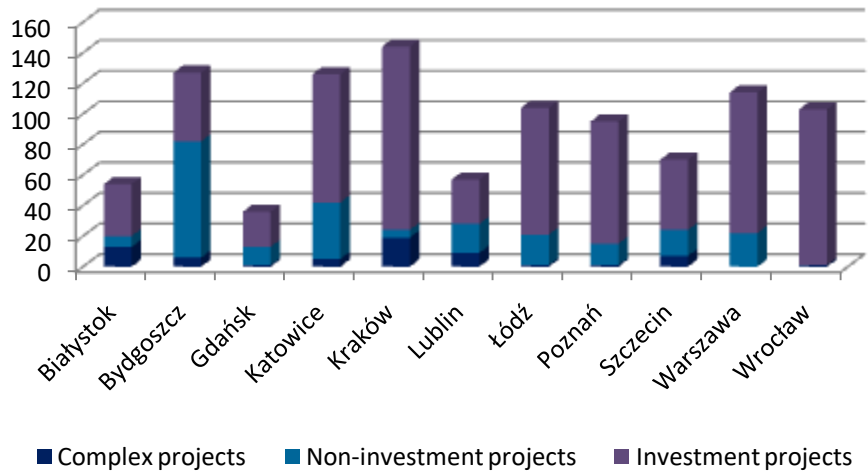

Figure 6. Structure of activities (number of projects)
Source: own study.

Almost all the regeneration programmes analysed are dominated by investment projects (Fig. 6). Only Bydgoszcz, where 'soft' projects account for 60% of the planned activities, stands out in this respect. In the case of Bydgoszcz, the high share of non-investment projects is largely due to the consultations and guidelines of the Marshal's Office. As the managing authority for the allocation of EU funds, the Marshal's Offices are entities that approve regeneration programmes as meeting the conditions for applying for EU funding. The Marshal's Office of the Kujawsko-Pomorskie Voivodeship called for each investment activities in the submitted programmes to be 'embedded' in non-investment projects. Hence, each of the 'hard' actions in the Bydgoszcz programme is accompanied by at least

one 'soft' action. The Lublin, Gdańsk and Katowice programmes also show a significant share of non-investment projects of approx. 30%.

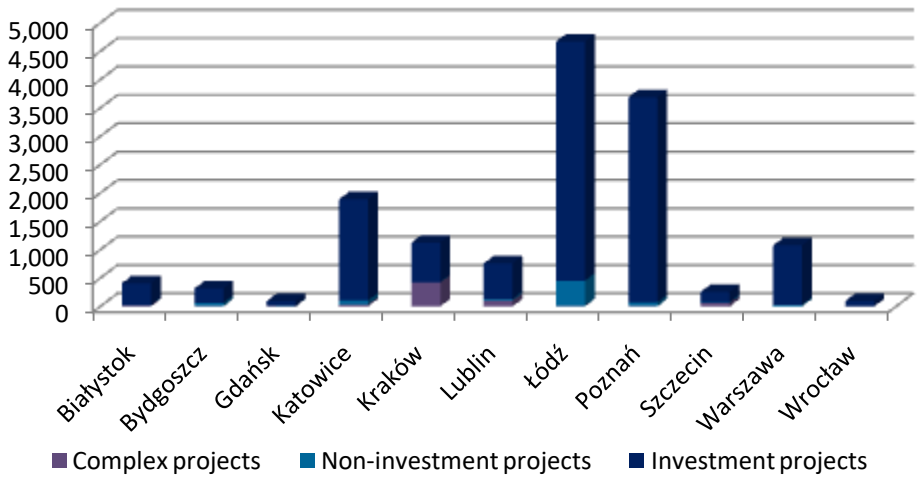

Figure 7. Structure of activities (value of projects in PLN million)
Source: own study.

The described trends are seen even more clearly in the value terms (Fig. 7). In this respect, the share of investment projects in all the cities studied has exceeded 60%. Investment projects account for more than 90% of the planned actions in the case of Białystok, Gdańsk, Katowice, Łódź, and in the case of Poznań, Wrocław and Warsaw, they amount to 97% or even 98%. In this respect, Cracow, where as much as 37% of the value of projects falls on complex activities, stands out[9]. The share of complex activities, although at a lower level, is markedly visible also in Lublin and Szczecin. The relatively largest funds for 'soft' measures have been planned in Bydgoszcz (18% of the total value of projects) and Łódź. In absolute terms, in Łódź, outlays over PLN 445 million are foreseen for 'soft' activities. The scale of this expenditure exceeds the total value of the whole programme in five out of the eleven studied cities.

Spectacular investments of an image-related, 'flagship' nature, which has little to do with actual regeneration, have been identified in the programmes in some of the studied cities. These are most often projects that will result in the creation of facilities with limited accessibility for the local

[9] Complex projects are combining 'hard' and 'soft' actions within a given project: e.g. renovation of a facility for training purposes, along with ensuring the implementation of a specific training programmes.

community living in the revitalised area, mainly due to economic constraints or capital intensive projects for which the authorities are looking to use the EU funds. At the stage of analysis of the regeneration programmes, projects with a value exceeding PLN 35 million were identified as potential projects of significant value and image-related character. In Cracow potential 'flagship' projects include the comprehensive regeneration of the Liban Quarry and its adaptation to educational and tourist functions (PLN 50 million) and the project to create the Centre for Literature and Language (PLN 66.9 million). In the case of Łódź, projects of this type include activities related to the construction of the EC-1 City of Culture complex. The total amount of projected expenditure for these projects is PLN 236.3 million. The Poznań programme includes the construction of the Musical Theatre for PLN 218 million, the modernisation of the event and sports hall for PLN 45 million, as well as the expansion of the HCP Medical Centre (PLN 60 million) and the Children's Health Centre (PLN 375.1 million). The programme for Lublin includes the creation of an integrated communication centre. The total amount of planned expenditure, in this case, amounts to almost PLN 280 million. Warsaw, on the other hand, since 2010 has had plans to modernise the facilities for the Simfonia Varsovia Orchestra for almost PLN 300 million.

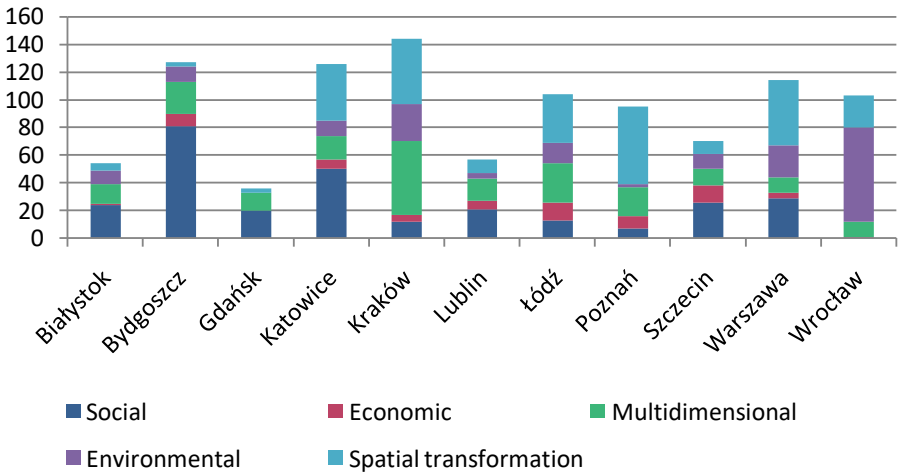

Figure 8. Structure of activities by indirect impact (number of projects)
Source: own study.

In terms of indirect impact[10] (Fig. 8), projects aimed at spatial transformations, as well as environmental investments, mainly in the form of

[10] In case of identification of the indirect impact it is assumed that the impact of renovation and modernisation activities without changing or developing new functions is limited to the

thermomodernisation, dominate in Wrocław, Warsaw and Poznań. Multidimensional (complex[11]) projects are investment projects enabling the development of new functions, primarily cultural or recreational, as well as enhancing safety through monitoring. Such projects have been planned in all cities, with their share being the largest in Cracow and Gdańsk. Social projects include soft measures and investment activities of a relatively small scale related to the development of social services, including the renovation of premises for social and sheltered housing. A high share of such activities is recorded in Bydgoszcz, Gdańsk, Białystok, Katowice, and Lublin. Economic initiatives largely include commercial projects submitted by private entities, as well as, to a lesser extent, programmes aimed at stimulating economic activity. Their share is relatively low in the regeneration programs, exceeding 10% only in the case of Szczecin, Łódź and Lublin. Out of the 1,030 regeneration projects studied, social and spatial transformation projects amounted to 27%, environmental investments to 18%, multidimensional (complex) projects to 21%, and economic initiatives to only 7% of planned actions.

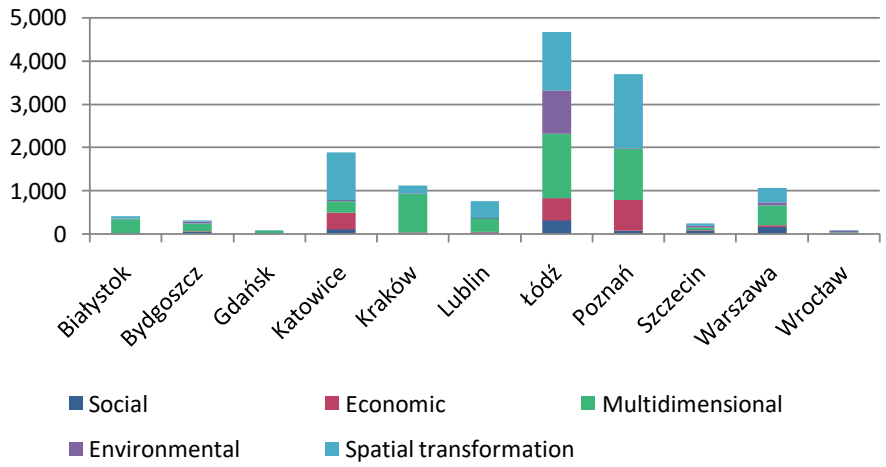

Figure 9. Structure of activities by indirect impact (value of projects in PLN million)
Source: own study.

spatial sphere. Environmental activities consist primarily of thermomodernisation, and have therefore also been recognised as spatial transformation. Activities related to the creation of new functions or the development of a range of services are classified, within the framework of their specificity, as social, economic or multidimensional (complex) activities (spatial-social, spatial-economic or socio-economic).

[11] In terms of indirect impact, these are investment ('hard') projects pursuing social or economic objectives.

In terms of value (Fig. 9), the role of social projects can be seen as diminishing. On the other hand, the share of multidimensional (complex) projects is increasing, which further underlines their investment nature requiring significant financial resources. Taking into account the total value of planned projects, expenditure on multidimensional (complex) projects in the eleven cities examined represents 36.4% of the total value of planned actions, expenditure on spatial projects constitutes 36.3%, while environmental investments – 8.8%, economic initiatives – 12%, and social projects only 6.5%.

CONCLUSION

In conclusion, significant discrepancies in terms of the scale of planned regeneration activities can be seen among the studied cities.

If it were to be assumed that this scale expresses to some extent the size of their regeneration needs, taking into account the calculated average expenditure of PLN 2,194 per capita for the eleven cities examined and the size of the urban population in Poland, the estimated total regeneration needs could amount to PLN 50.7 billion. The estimated value is at a similar level to that determined (at PLN 47.4 billion) by Jarczewski and Kułaczkowska (2019, p. 16) for 75% of cities in Poland.

The scale of activities planned in the cities studied in the years 2015-2020+ is more than three times higher (PLN 1.089 billion per hectare) compared to the results received by Jarczewski and Kuryło (2009) for the fifteen largest cities (over 200 thousand inhabitants) in the financial perspective 2007-2013 (PLN 0.3 million per hectare). This means an increase in the intensity of interventions planned in the regeneration areas. However, the scale of the interventions may still be insufficient. All the more so since the problem of including too large urban areas in the programmes highlighted in the literature in relation to the previous programming periods (Instytut Rozwoju Miast 2013, p. 17) also arises in the current programming period. This problem is revealed in six out of the eleven cities examined (i.e. Bialystok, Bydgoszcz, Katowice, Łódź, Poznań, and Warsaw). In each of the cities, the regeneration area exceeds 1,400 hectares. Despite the statutory limits on the size of regeneration areas at 20% of the total area of the city and 30% of the population, according to experts, in principle, the area of regeneration should not exceed 100 hectares or 20% of the urbanized area (Janas & Jarczewski, 2010, p. 86). In most cities, the effective regeneration of up to a few percent of urbanized area is a major challenge (Instytut Rozwoju Miast, 2013, p. 10).

The analysis conducted also indicates that the scale of planned actions may exceed the real financial capacity of cities such as Łódź, Poznań, Katowice, Cracow, and Lublin, resulting in the partial implementation of the regeneration process, and consequently achieving only fragmentary changes taking on the character of islands of renewal. The full implementation of the regeneration programmes would consume in the case of Łódź the investment budget available in the city for almost 8 years[12], in the case of Poznań for almost 6 years, and in Katowice for about 4.5 years.

This is all the more important since, in financial terms, most of the programmes examined are dominated by projects implemented by the city and its subsidiaries, which may mean that a significant part of the expenditure will be borne by local budgets.

It can be noted here that the city budget provides funding for only part of the tasks planned in the programmes. EU funds are another important source of funding for the regeneration processes. However, these funds are also limited. In total, the value of EU funds directly available for regeneration under Investment Priority 9b in the eleven voivodeships whose capitals are the cities examined, amounting to approximately EUR 864.2 million, would cover the costs of around one-quarter of the actions planned in the regeneration programmes examined. An in-depth analysis of the implementation capabilities of the programmes is made difficult by the fact that the scale of the planned involvement of different forms of funding in some of the cities has not been revealed. The available data illustrate to some extent the scale of needs, but also the great ambitions of the cities. The identified discrepancy between the size of planned actions and the possibilities for their implementation may indicate a significant optimism of local authorities or even a disregard for the reality of the availability of funds.

The analysis conducted has shown a clear relationship between the availability of EU funds (i.e. the size of EU IP 9b allocation for urban areas) and the scale of planned regeneration activities.

The study of the regeneration programmes has also indicated that some of these programmes include investment activities requiring significant financial resources, resulting in the creation of image-related and supra-local (flagship) projects. The implementation of these tasks will have little impact on improving the situation of people living in degraded areas. Thus, the first research hypothesis, indicating the dependence of regeneration planning in Poland on the possibility of obtaining EU funds and its subordination to the investment needs of individual cities, is considered as confirmed.

[12] Assuming that capital expenditure develops at a similar level to that recorded in 2017.

The analysis also indicates that investment activities dominate in most of the cities studied, both quantitatively and financially. Therefore, the second research hypothesis formulated at the beginning has been positively verified.

The third hypothesis indicating that the regeneration programmes in the cities studied are mainly aimed at achieving spatial transformation objectives, while social and economic objectives are achieved to a lesser extent, has been confirmed. In terms of an indirect financial impact, there has been a high share of expenditure on multidimensional (complex) projects and spatial transformation projects, and the level of projected expenditure on economic initiatives and environmental investments is significantly lower. The smallest financial outlays are planned for social projects.

In light of the research presented, the following recommendations should be made:

1. a further increase in intensity, as well as spatial concentration of regeneration activities and their real focus on crisis areas, should be continuously sought by reducing the size of regeneration areas;
2. in the next financial perspective, particular emphasis should be placed on realistic planning of regeneration activities; this is crucial in the context of the envisaged reduction in the availability of EU funds;
3. it should be ensured that specific financial plans, taking into account EU funds reserved for individual cities based on previous negotiations between the local authorities and the managing authority, are included in regeneration programmes;
4. in the area of financial planning, a clear emphasis should be placed on the use of financial engineering and a variety of sources of funding, going beyond cities' own resources and EU funds, EEA funds, or the Norwegian Mechanism funds;
5. financial planning should also include forecasting the availability of funds from different sources of funding and formulating contingency scenarios activated in the absence of resources from the sources originally envisaged;
6. an important aspect of regeneration is building partnerships and cooperation between local communities, authorities, NGOs and local entrepreneurs, i.e. strengthening the social capital of crisis (degraded) areas;
7. investment activities undertaken in the context of urban regeneration should be justified by the needs identified in the areas subject to those processes and ought to be used to address the problems identified there;

this requires a stronger focus on creating a coherent intervention logic within the regeneration programme.

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