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**Working Paper**

## The modern challenges of regional development and socio-economic potential of town districts belonging to North macro-region of Poland

Institute of Economic Research Working Papers, No. 66/2015

**Provided in Cooperation with:**

Institute of Economic Research (IER), Toruń (Poland)

*Suggested Citation:* Koza, Iwona (2015) : The modern challenges of regional development and socio-economic potential of town districts belonging to North macro-region of Poland, Institute of Economic Research Working Papers, No. 66/2015, Institute of Economic Research (IER), Toruń

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**Institute of Economic Research Working Papers**

**No. 66/2015**

**The modern challenges of regional development and  
socio-economic potential of town districts belonging to  
North macro-region of Poland**

Iwona Koza

The paper submitted to

**VIII<sup>th</sup> INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS  
CONTEMPORARY ISSUES IN ECONOMY  
*under the title*  
MARKET OR GOVERNMENT?**

Institute of Economic Research and Polish Economic Society Branch in Toruń

18-19 June 18-19, 2015, Toruń, Poland

**Toruń, Poland 2015**

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## **The modern challenges of regional development and socio-economic potential of town districts belonging to North macro-region of Poland**

**JEL Classification:** E62, E65, G28, H70, H71, H72, H76

**Keywords:** *macroregion, town districts, development, socio-economic potential*

**Abstract:** Today, however, the concept of capital strongly focuses on intellectual capital, understood as the current or potential creative resource, or the increase in the wealth of a community. In this context, it is worth to examine the legitimacy of thesis about the expansive reality of Polish town districts.

Over the past 10 years, in North macro-region, there has been a significant improvement of characteristics relating to intellectual capital. At the same time, gross domestic product per capita in the macro-region annually increased its value. It is, therefore, necessary to maintain and multiply the rate of change in the socio-economic sphere, based on a coherent, harmonious and innovative development strategies, evaluating intellectual potential of the communities.

### **Introduction**

Both in the context of identification of opportunities and threats to contemporary functioning organizations, and determining changes occurring in the management of any organization, capital, apart from land and work, is one of the three fundamental factors. During the evolution of this concept, the concept of social capital originated. It stressed the role of individuals and social ties. (Wielka encyklopedia PWN, 2003, pp. 254; Antczak, 2013, pp. 21-; Sierocińska, 2011, pp. 69-86) Today, however, the concept of capital strongly focuses on intellectual capital, understood as the current or potential creative resource, or the increase in the wealth of an enterprise, community, or nation. (Erstad & Sefton-Green, 2012, pp. 146 -162; Herman, 2008, pp. 38-47)

The issue of intellectual capital, as well as the issue of the development of local communities, are relatively young fields of economics and spatial management, which do not yet have their own autonomous theory. Nonetheless, local communities play a crucial role in the economic and social system of the country. They are the places of concentration of the essential economic activity, initiating the potential associated with economic development, employment, and consumption patterns and all other aspects of specific economic reality.

Economic development, which is a part of the process of economic evolution means going higher and higher, on more diverse and more complex levels. It is the

result of quantitative and qualitative progress and changes in the economic, social and natural systems. (Strzelecki (Ed.), 2008, p. 13) It is based in the space formed by political, economic, social and demographic events and processes, and phenomena concerning population are a special factor in economic transition because the population is the principal means and the ultimate goal of economic activity. As a result, human resources play a fundamental role in economic development. A special role in this field is played by human capital, which is the potential of knowledge, skills, health and vitality in the community. (Domański, 1993, p. 16) It is the knowledge and skills acquired by individuals as a consequence of investments in education and training affecting the quality of human resources, and the costs spent on the protection of health, environment, development of culture, etc. Therefore, human capital consists of all efforts and all the achievements of current and past generations of a given area. (Pająk (Ed.), 2009, p. 137) Thus, human capital development is a key explanatory variable in relation to competitiveness and regional differentials. At the same time, there is a feedback loop between human capital and the level of socio-economic development. (Nyce & Schieber, 2005, pp. 212-231; Moss et al., 2008, pp. 333-352)

Evaluation of the role of human capital (both social and intellectual) in the development of the region, can be done by means of two types of circumstances: demographic factors and social determinants. (Madej & Zasadzki, 2001, pp. 117-118) Demographic determinants relate to population structure, diversification of capital resource and its development. Social conditions refer to the overall social infrastructure and living conditions of the population, forming a material basis for the services to meet the social, educational and cultural needs of the population. (Chiot, 2014, pp. 657-663)

Understanding the development of local communities, therefore, requires the analysis of all reciprocal characteristics. (Szewczuk et al., 2011, pp. 30-)

Interaction between entities within the specified district would be a catalyst to the formation of local governance, i.e. local communities involving particular entities of the territory. (Ostrom, 2008, pp. 61 – 110; Porras & Collins, 1996; Dolnicki (Ed.), 2014, pp. 44-57)

In turn, the notion of the region in economic sciences is seen in a triple sense: an important subject of research, object of cognition and object of action. The involvement of researchers in this complex area has created the theory of the region, which is assigned cognitive research and application functions. Within the research function a methodical basis for multidisciplinary research in regions and economic regional studies is created. Cognitive function deals with co-operation in the perception of the surrounding reality, in particular, individual regions. Finally, the application function concerns important strategic projects, that is making adjustments and proposals for a regional policy, as well as procedures for its correction. (Pop-Eleches & Tucker, 2013, pp. 45-68; Szewczuk et al., 2011, pp. 13-)

The subject of the article is based on the above classification. First, an appropriate research tool will be chosen, consisting of a set of statistical indexes. By using it we can prepare a characteristics of in the North macro-region. For the purposes of analysis, the national average size of indexes will also be set. However, the data relating to Warsaw were omitted, due to its specifics as the capital of

Poland.<sup>1</sup> The conclusion of the article will be the applications, which can be further used in regional policy of the studied communities .

The test period includes past 10 years of the functioning of Polish local authorities, i.e. years 2004-2013.<sup>2</sup>

For the article subject structured in this way, the thesis is stated about expansive reality of Polish district communities. However, over the past 10 years, largely thanks to the funds from the EU, there has been a significant improvement in the values of characteristics relating to intellectual capital.<sup>3</sup>

## Research area

The activities in the programming of Polish economic development policy for the period 2007-2013<sup>4</sup> and 2014-2020<sup>5</sup> have been oriented in such a way that the majority of priorities was and still is associated directly with the influence on the various dimensions of intellectual capital, and the other, indirectly to create favourable conditions for its accumulation. Noteworthy is the fact that the activities revolve around the dimensions that are particularly important in the relation between intellectual capital and competitiveness. They concern human and structural capital, but also care about the development of social capital. It is proved by the priorities concerning the innovation and growth of the economy, the efficient use of human resources and building social capital. What is more, these initiatives for the period 2007-2013 were the activities carried out within the framework of the two operational programmes: innovative economy and human capital, directly addressing the human and structural dimension of intellectual capital. In the period 2014-2020 a new instrument of European cohesion policy will be also used, which is the local development led by the community.

However, compared to other developed countries, Poland belongs to the countries with the lowest level of GDP per capita and the lowest values of the KI index (Knowledge Index), which can be treated as an approximate to intellectual capital.<sup>6</sup> It is commented that the reasons are too slow dynamics of making technological upgrading, but also too slow process of changes on institutional, social and cultural level of Polish economy. The current level and structure of intellectual capital are a significant barrier to development.

When it comes to the Polish government structure, based on the concept of self-government contained in the European Charter of local self-government<sup>7</sup>, at the

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<sup>1</sup> The value of statistical indexes achieved by Warsaw, in each year, and in all respects, far exceed the index values by other cities grodzkie. Their omission raises the readability of both analytical comparisons and charts.

<sup>2</sup> For some indexes it was possible to get the data from shorter time periods.

<sup>3</sup> See: <http://www.funduszeuropejskie.gov.pl>, access on 28. 11.2014

<sup>4</sup> More: *Strategia Rozwoju Kraju 2007-2015*, Ministerstwo Rozwoju Regionalnego, Warszawa 2006.

<sup>5</sup> Further: *Krajowa Strategia Rozwoju Regionalnego 2010-2020*, Ministerstwo Rozwoju Regionalnego, Warszawa 2009.

<sup>6</sup> More information can be obtained on the web portal: <http://www.oecd.org/poland/>

<sup>7</sup> Europejska Karta Samorządu Terytorialnego, Dz.U.1994.124.607 as amended.

local level there are three types of communities<sup>8</sup>: land districts<sup>9</sup>, town districts and municipalities<sup>10</sup>. The results of the statistical analysis of the situation of Polish local communities show their little optimistic financial situation. (Koza, 2013) However, town districts (i.e. the districts formed by big cities) display a very pro-development approach. This is the reason why these organisms will be subjected to further analysis in the following article. It is worth considering what factors have an impact on this state of affairs. (Strzelecki Z. (Ed.), 2008, p. 222)

Test area of this article will be a North macro-region of our country. It includes the voivodenships: Kuyavian-Pomeranian, Pomeranian and Warmian-Masurian. The macro-region is characterized by a high potential of dynamic economic development.

## Research tool

Local and regional development is a relatively young field of economics and spatial management, which does not yet have its own autonomous theory. This specific type of activity, serving to develop and improve the organization of activities for spatial development as well as the structure and functioning of local government and social system, is based in the sphere of the theoretical considerations on a general theory of economic development or economic theory and the theory of spatial management. (Klasik, 1996, pp. 11-)

Research techniques relating to local communities can be divided into descriptive and quantitative ones. Descriptive test methods of territorial communities are generally characterized by a meticulous analysis of the facts. On the other hand, by using these methods, we get the results that are imprecise and incomparable in the wider scale, which create a large possibility of obtaining extremely subjective evaluations. Quantitative methods, on the other hand, do not have some of the shortcomings of descriptive methods. First of all, they give you very specific (measurable quantitatively), relatively unbiased results. This is, in turn, one of the conditions for the application of the time-spatial comparisons, which are significant in the regional studies.

The research on the regularities occurring in mass phenomena and processes is done, in particular, with the use of taxonomic methods.

Taxonomic method was first taken from the field of anthropological research to zone farming systems by J. Fierich. (Fierich, 1957, pp. 73-100) The first successful attempt to zone agricultural production by means of taxonomic method became the impulse for the creation of many studies of this type. The most popular, taxonomic method of averages differences (named after its creator, Czekanowski) is based on connecting into groups the elements of a larger part. The elements that are connected, in comparison with other elements, are characterized by smaller average differences in terms of number of simultaneously included features. In other words,

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<sup>8</sup> Ustawa z dnia 24 lipca 1998 roku o wprowadzeniu zasadniczego trójstopniowego podziału terytorialnego państwa, Dz.U. z 1998 roku nr 96, poz. 603 as amended.

<sup>9</sup> Ustawa z dnia 5 czerwca 1998 roku o samorządzie powiatowym, Dz.U. 1998 nr 91 poz. 578 as amended.

<sup>10</sup> Ustawa z dnia 8 marca 1990 roku o samorządzie gminnym, Dz.U. 1990 nr 16 poz. 95 as amended.

it is a classification of units (spatial in this case) of a group due to several intentionally selected characteristics. (Fajferek, 1966, p. 48; Bywalec & Rudnicki, 2002)

Taxonomy<sup>11</sup> is a discipline dealing with the rules and procedures of organization and classification. The taxonomic method is to group a set of elements of any nature into more statistically homogenous. (Kwiatkowski (Ed.), 2008, pp. 269-294; Czermińska, 2002, pp. 149-157)

In order to be able to use taxonomic method, two conditions must be met: first, the phenomenon chosen as a feature must be quantitatively measurable, secondly, reliable statistical data must be guaranteed that represent the values in the appropriate territorial section.

To assess the specificity of the intellectual capital of the local communities, based on the data from the Central Statistical Office<sup>12</sup>, the following, grouped into subsets, characteristics will be applied:

1. Economic development:
  - Investment in enterprises (current prices; without the entities with fewer than 9 employees) per capita in the working age population
  - Entities of the national economy newly registered in REGON per 10 thousand inhabitants in the working-age population
  - The value of companies with foreign capital per capita in the working age population
2. Employment :
  - Natural persons running their own business per 100 people in working age
3. Consumption Patterns :
  - The number of passenger cars per 1000 inhabitants
4. Social inclusion :
  - The average gross monthly salary (entities of more than 9 employees)
  - Share of long-term unemployed (more than 1 year) in the total number of registered unemployed people
  - Registered unemployment rate
  - Graduates share (not working yet) in the total number of the unemployed
5. Demographics :
  - Birth rate per 1,000 population
  - The balance of migration for permanent residence of people in working age to 10 thousand inhabitants in working age
6. The adequacy of income during old age :
  - Share of long-term unemployed (more than 1 year) in the 55-64 age group in the total number of all unemployed people aged 55-64
7. Health factors :
  - Clinics per 10 thousand inhabitants

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<sup>11</sup> The term "taxonomy" is derived from two Greek words: taksis-"cleanings" + nomos, "law", "rule"(Kendall & Buckland, 1986, p. 194).

<sup>12</sup> Obtaining data from a local data Bank of the main statistical office, [http://stat.gov.pl/bdl/app/wskazniki\\_zr](http://stat.gov.pl/bdl/app/wskazniki_zr), was completed on 25.11.2014, in addition to the index relating to the turnout in local elections, which didn't appeared on the website of the State Electoral Commission, <http://wybory2014.pkw.gov.pl/pl/frekwencja/wojewodztwa/index>.

8. Climate change and energy :

- Electricity consumption per capita

9. Transport :

- Length of public roads with hard surface per 100 sq. km
- The length of cycle paths

10. Openness and participation :

- The number of registered foundations, social associations and organizations per 10 thousand inhabitants
- Turnout in the local elections

11. Economic instruments :

- Funds from the European Union for the funding of programmes and projects of the EU obtained by the municipalities and districts per capita
- Expenditure budgets of municipalities and districts for public debt to 1,000 PLN of total revenue budgets of municipalities and districts
- Share of capital expenditure of municipalities and districts in total expenditure.

These characteristics allow to estimate the level of socio-economic development of local communities. (Ostrom, 1998, pp. 1 – 22; Woźniak (Ed.), 2014, pp. 276-295; Woźniak (Ed.), 2013, pp. 331-; Ranking miast powiatowych, 2014)

To describe the statistical structure of the above characteristics of the local communities will be used such measures as the arithmetic mean of the values achieved in individual years, dynamics chain indices, counted annually, and geometric mean presenting the increase in the values in the last year compared to the first year. (Forlicz (Ed.), 2008, pp. 219-232; Zeliaś, 2000, pp. 37-77)

Selected analytical methods allow for reliable insight into development processes. (Strzelecki, 2008, p. 15, 39) The above measurements, understood statistically, are relative numbers characterizing the alterations in the level of the phenomena occurring in a given time, i.e. indexes. (Timofiejuk et al., 1997, pp. 176-178; Nowak (Ed.), 1970, pp. 247-)

Taking into account the time (Sierpińska & Jachna, 1997, p. 17) , which will apply to the analysis, it will be a retrospective analysis (ex post), containing an assessment of the results of the actions taken in the past, which is the starting point for the current and future objectives.

Due to the established test method (Dylewski et al., 2004, p. 14), the author has chosen an analysis based on the comprehensive evaluation of reality from the point of view of the connections and dependencies between economic phenomena. It contains a comprehensive look at the activities of an enterprise and is a tool for understanding and evaluation of economic phenomena. It provides a structured observation, expressed in terms of points, along with the cause and effect relationships between these phenomena.

Analytical research will end with the presentation of results, in numerical, graphic and descriptive form. Numeric form will help sort out the information about the investigated phenomena in time and in space.<sup>13</sup> Graphic form will show the changes observed in the studied characteristics by means of radar charts.<sup>14</sup> Finally,

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<sup>13</sup> Because of the editorial requirements, the figures will not be presented in the body of the article.

<sup>14</sup> In the body of the article will be placed only the most charts.



the descriptive form will serve to express assessments and opinions and formulate diagnoses and proposals.

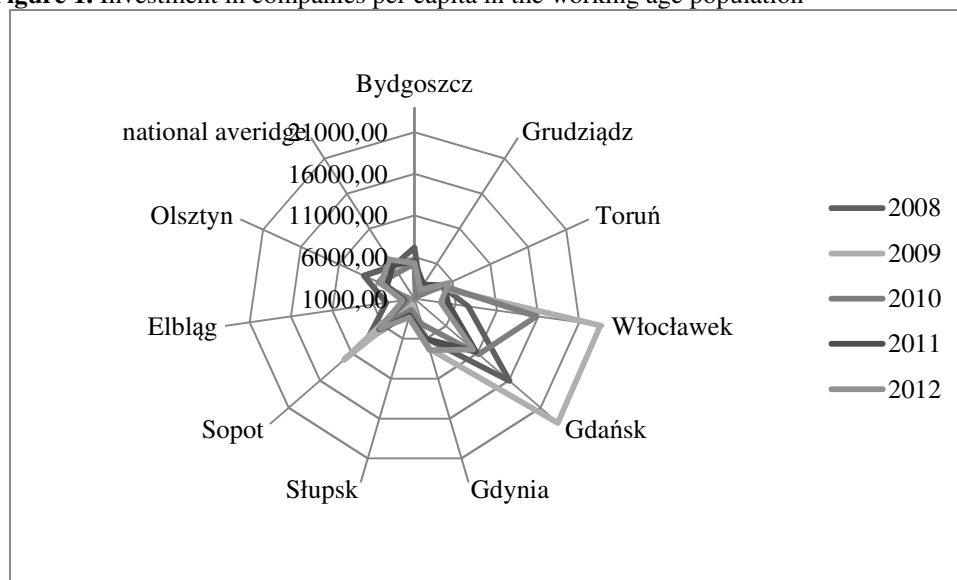
### Socio-economic development

The level of development of the local community is the starting point to the characteristics of the factors supporting the construction of sustainable development. Development is a fundamental concept in the functioning of economies. A high level of economic development usually creates the conditions to ensure a higher level of life of the inhabitants, understood as the degree to which the needs of all kinds are satisfied with goods, including material ones, cultural, educational, related to health and security. At the same time, economic development may be accompanied by a range of negative effects, such as environmental degradation, high levels of pollution. In addition, one of the key tasks of sustainable development is smooth economic development of all regions. (Grabowski et al., 2013, pp. 3-55; and Pawłowska, 2013, pp. 17-70)

In the North macro-region during the period of research when it comes to investment per capita in the working age population, after the initial decline, there was an annual growing trend, which was visible especially in Gdynia, Włocławek and Gdańsk.

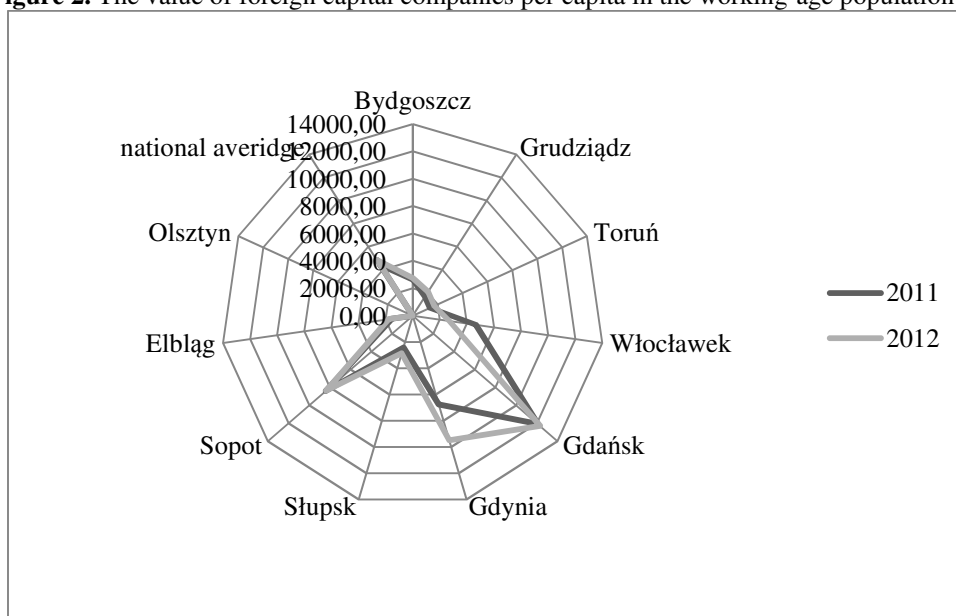
When it comes to the number of entities of the national economy registered in REGON, in most cities there was a growing trend. Similarly, the value of companies with a foreign capital, calculated per capita in the working age population, every year was getting higher. In this context, the outstanding results were achieved by Gdynia and Gdańsk.

**Figure 1.** Investment in companies per capita in the working age population



Source: own elaboration based on data from local data bank of the main statistical office,  
[http://stat.gov.pl/bdl/app/wskazniki\\_zr](http://stat.gov.pl/bdl/app/wskazniki_zr)

**Figure 2.** The value of foreign capital companies per capita in the working-age population



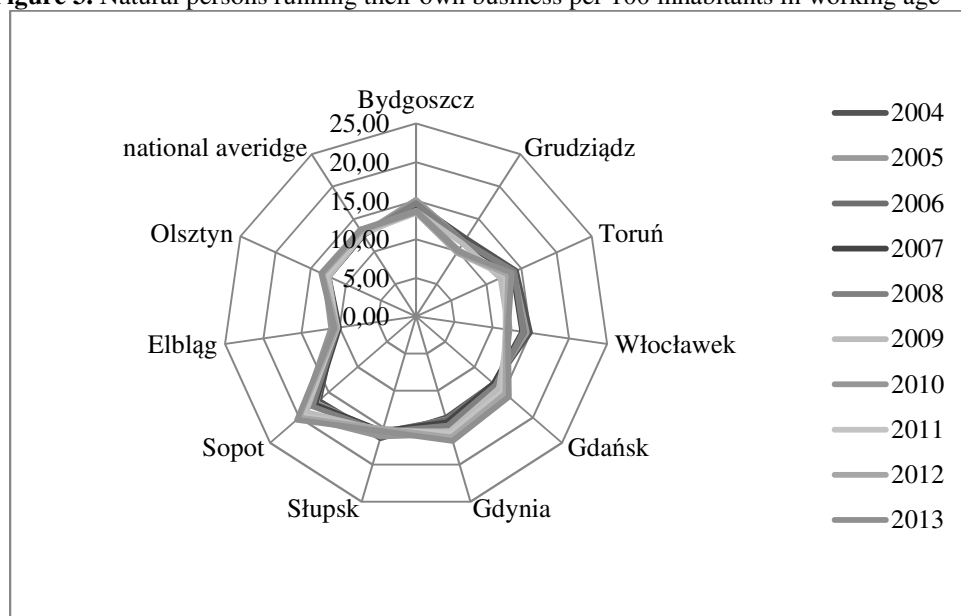
Source: as above

## Employment

An important factor in the development of the regions are labour resources and related human capital. In sustainable development it is one of the elements of interrelated conditions for wealth creation, alongside traditional resources as land and capital, as well as factors, such as, the level of resources and the environment. One of the objectives of sustainable economics is employment for all people in working age. (Markowski, 2009, p. 13; Kwiatkowski (Ed.), 2008, pp. 25-38; Grzega, 2012, pp. 220-268)

Employment in each of the cities of North macro-region, is annually increasing. This was especially visible in Sopot.

**Figure 3.** Natural persons running their own business per 100 inhabitants in working age



Source: as above

### Sustainable consumption and production

Changing production and consumption patterns towards sustainable, as well as the promotion of such behavior is one of the key challenges of the modern world. Separating economic growth from environmental degradation is a condition for sustainable development. (Markowski, 2009, p. 13; Kwiatkowski (Ed.), 2008, pp. 25-38 and Grzega, 2012, pp. 220-268)

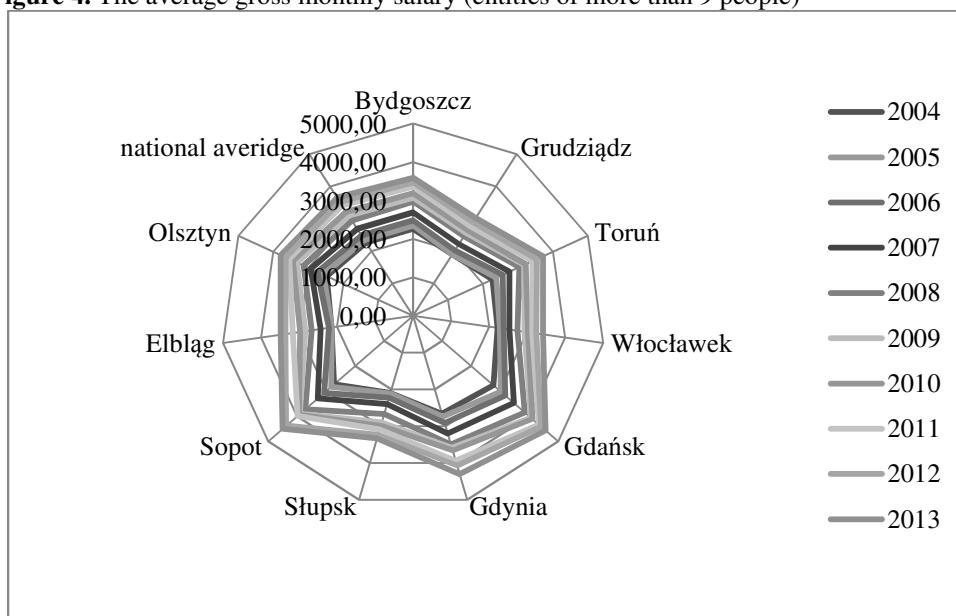
The determinant of the above changes is the number of passenger cars per 1000 inhabitants. In the North macro-region, this quantifier is every year higher.

### Social inclusion

Exclusion and social inequality is a situation that prevents (or at least makes it difficult) an individual or group from performing social roles (family, professional, civil, social), making the use of public goods and social infrastructure, collecting resources and earning income in a worthy manner. The problem of social exclusion is a major barrier to economic growth and sustainable development. On the contrary, the concept of social inclusion implies the creation of a society based on social inclusion, taking into account the solidarity between the generations and within the generations, as well as to ensure the improvement of the quality of life of citizens, which is the basis of social welfare. (Lew-Starowicz & Lorecka, 2013, p. 16; Kotowska, 2014, CD-ROM)

The index that provides statistical information in this field is the average gross monthly salary. As far as the cities of the North macro-region are concerned, in the last decade, as in all Polish cities, every year there was an increase in this value. In particular, there was the Tricity, including Gdańsk, Gdynia and Sopot.

**Figure 4.** The average gross monthly salary (entities of more than 9 people)

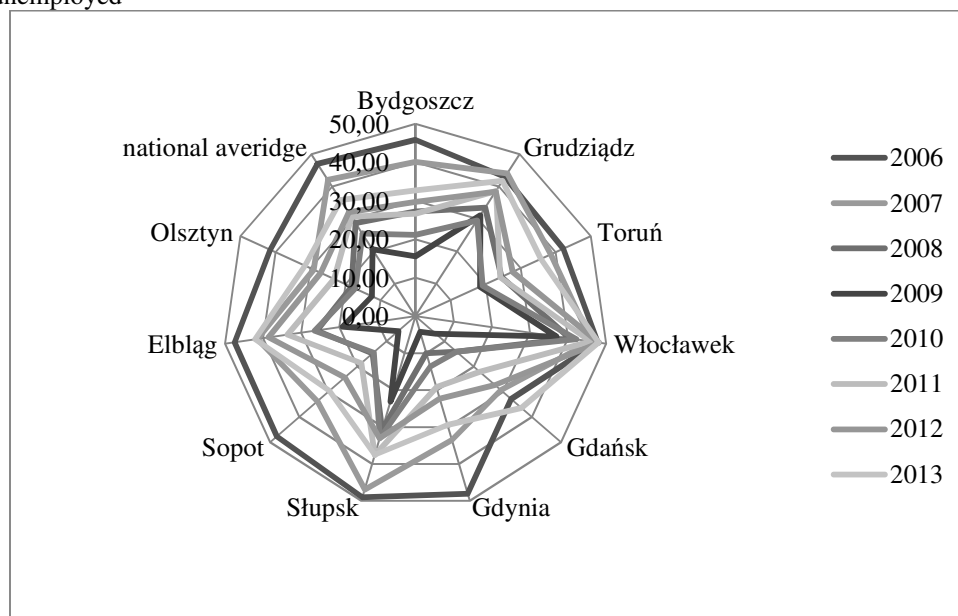


Source: as above

Access to the labour market in the context of social inclusion also means that every citizen showing willingness to work should be able to find a job corresponding to their professional qualifications. The place occupied on the labour market decides not only about material, but also social status. (Barteczek & Rączaszek (Ed.), 2014, p. 34; and Kotowska, 2014, CD-ROM; Pająk, 2009, pp. 19-32)

In the macro-region, the share of long-term unemployed increases every year, even though to a less extent than in other town districts in our country. Similarly, the registered unemployment rate increased every year. A positive sign is that the share of unemployed graduates in general was decreasing over time but that was the effect of the high rate of migration of young people abroad.

**Figure 5.** Share of long-term unemployed (more than 1 year) in the total registered unemployed



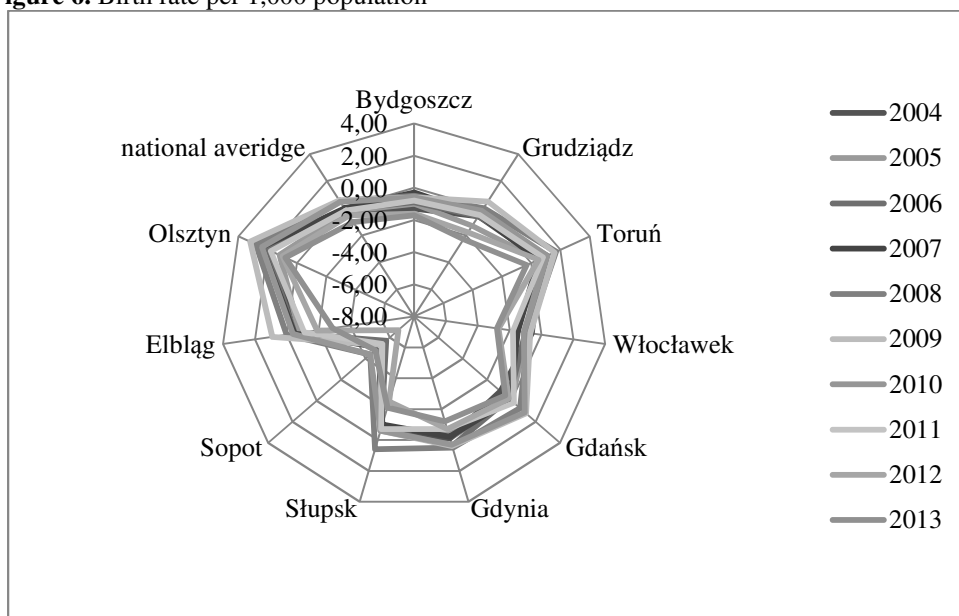
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### Demographic changes

In Poland there is a further intensification of the process of aging of the population. This situation may result from more conscious family planning, improved availability and quality of medical services, improvement of the material situation of the population and the pursuit of a healthier lifestyle. Progressive aging process requires planning and organizing such activities of social welfare which will meet a variety of needs of people belonging to the older age group and provide them with adequate health care and access to the labour market. It is a big challenge for the social policy of the state in maintaining the sustainable level of public finances. Demographic changes are therefore of vital importance for economic and social development. (Pająk (Ed.), 2009, p. 173; Gwiazda, 2011, p. 56-67) At the same time, fair distribution of income, solidarity between generations, as well as the increase in the level of life, reduction of poverty and social exclusion among older people are classified as priority objectives of sustainable development. (Grzega, 2012, pp. 7-158) The primary gauge group of demographic changes are those indicators that serve to diagnose the situation and the trends of aging in the population, which is influenced by many factors including, among others, the level of total fertility rate, life expectancy, the phenomenon of migration.

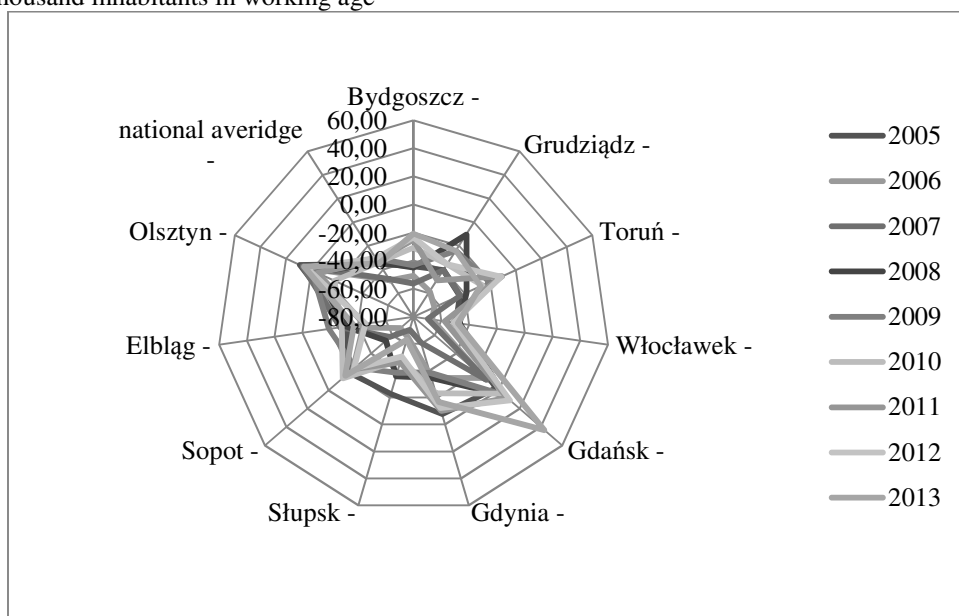
In the North macro-region during the period considered, the birth rate was definitely decreasing, especially in Sopot, and there was a positive balance of migration. At the same time, with the exception of Włocławek and Gdynia, the share of the long-term unemployed in the 55-64 age group in a total number of the unemployed people aged 55-64 increased.

**Figure 6.** Birth rate per 1,000 population



Source: as above

**Figure 7.** The balance of migration for permanent residence of people in working age to 10 thousand inhabitants in working age



Source: as above

## Public health

Access to health care and the health status of the population are included in the basic quality of life factors, apart from, among others, material resources, a feeling

of security, recreational activities, etc. Links between health and the concept of sustainable development are multidimensional and manifest themselves in many ways, among which may be mentioned, in addition to improving the quality of life, the effectiveness and the costs of the functioning of the economy and the impact of the environment on the health of the public. Health factors were taken into account by the impact of environment and the environment on the health status of the population and the access to health care. Even low levels of long-term exposure to complex mixtures of pollutants in the air, water, soil, consumer products and buildings can have a significant impact on health. The factor that affects health is also working conditions associated with: working environment, discomfort and mechanical factors. (Pasowicz (Ed.), 2013, pp. 15-84)

The number of clinics per 10 thousand residents was nearly constant in the cities of the North macro-region.

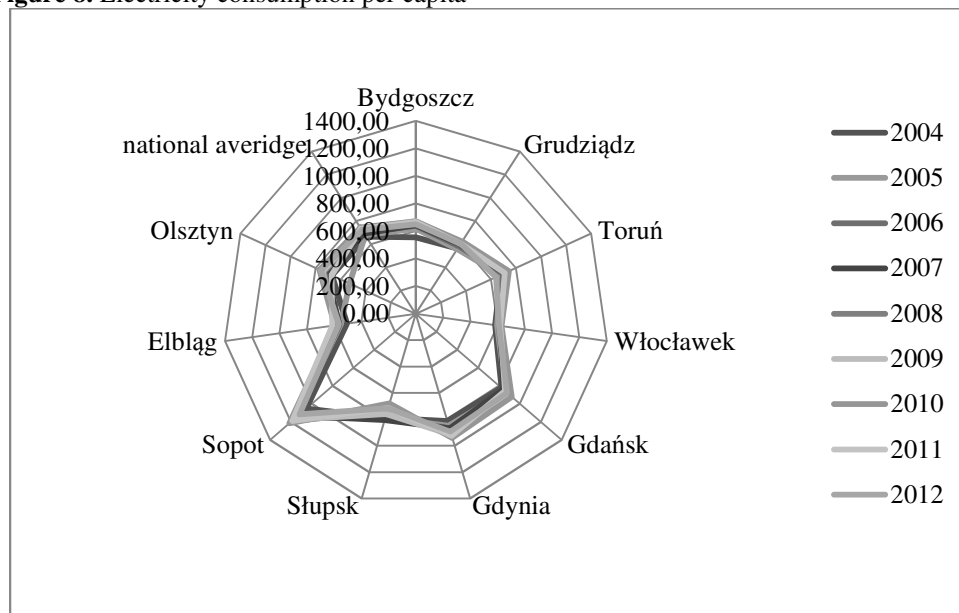
### Energy demand

Limiting climate change, the cost of these changes and the negative effects on the environment and society is the primary determining factor for preserving our planet for future generations.

The demand for energy, growing with the development of civilization, which is running out of its traditional resources, mainly fossil fuels (coal, oil, natural gas), accompanied by environmental pollution, increases consumption, 2014, t. 1, pp. 11-; t. 2, pp. 34-; Sułkowski (Ed.), 2011, pp. 25-66; Swora & Woszczyk (Ed.), 2011, pp. 23-)

Electricity consumption per capita in the North counted during the period had been declining. Particularly positive results in this regard achieved Sopot.

**Figure 8.** Electricity consumption per capita



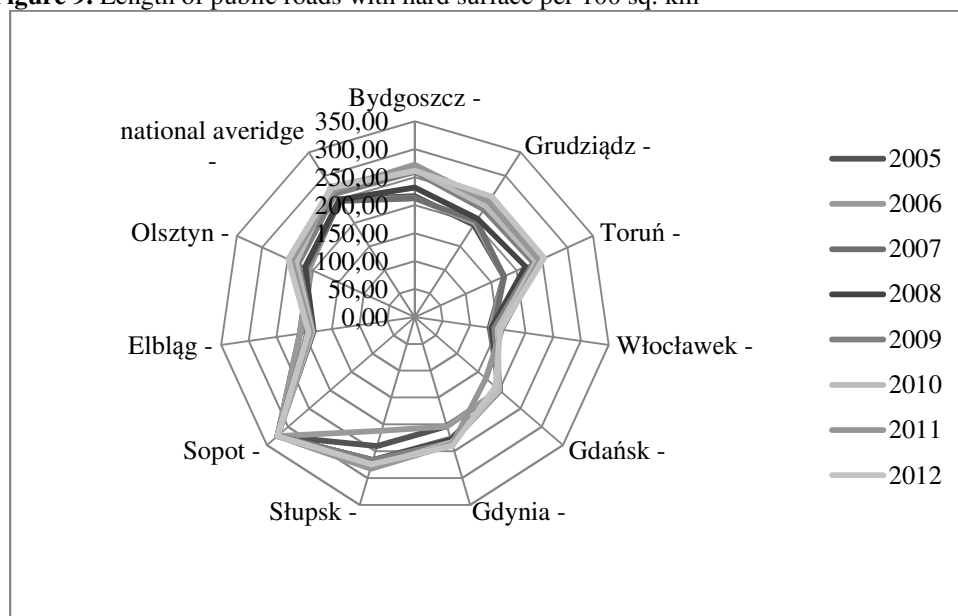
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## Transport

Transport is a key sector for sustainable development due to the social and economic benefits that can be achieved while minimizing its adverse effects on society, the economy and the environment. Sustainable transport takes into account the criterion of access to transport services in accordance with the requirements of health and ecological safety (influence on ecosystems), taking into consideration the principle of inter-generation fairness, the criterion of cost-effectiveness and the criterion of control over the impacts on environment (negative external effects) and usage of space (land). In today's world, ensuring sustainable mobility and access to public goods and services is one of the key challenges to the achievement of the objectives of development. Sustainable transport system is the determining factor of the attractiveness of the site for its residents, but also for people visiting. (Grzega, 2012, pp. 7-158)

In the North macro-region, both the length of local public roads, as well as the length of cycle paths, increased annually. Again, the very positive results in this regard achieved Sopot.

**Figure 9.** Length of public roads with hard surface per 100 sq. km



Source: as above

## The quality of governance / openness and participation

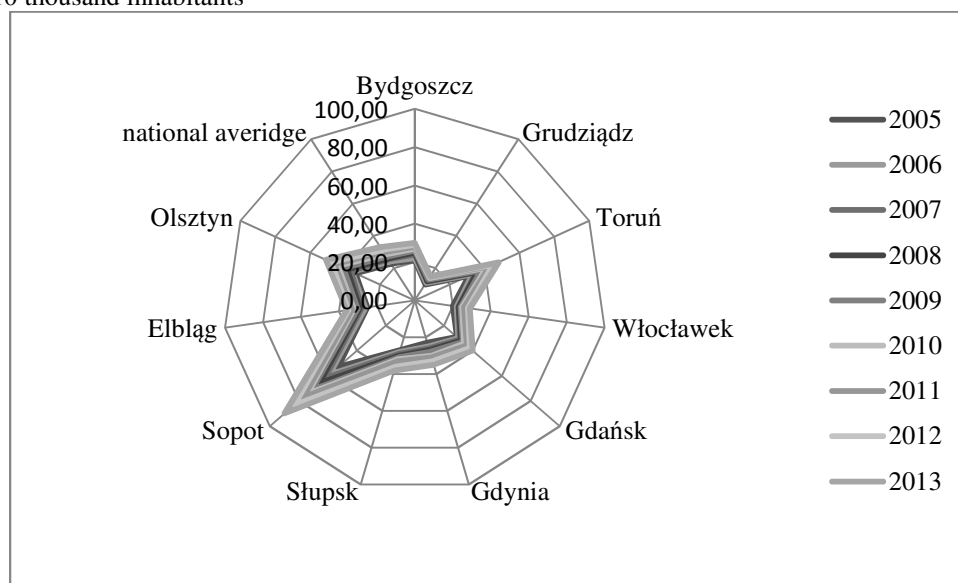
One of the primary goals in the pursuit of sustainable development is to achieve political and institutional order, known as good government-seen in terms of economy, politics or environment. Its manifestation is, among other things, the involvement of citizens in resolving social problems, prevention by the self-government from excessive exploitation of the environment, the effective financial management of local government units. (Wilkin (Ed.), 2013, pp. 11-; Ministerstwo



Rozwoju Regionalnego, 2011, pp. 2-) Moreover, good governance is characterized by such features as openness, or access to public institutions and decision-making processes and participation, leading to an increase in social trust to institutions and public participation in political processes. The participation of local communities in solving social problems (socialization of the decision-making process) is the determinant of a civil society. (Glinski et al., 2010, pp. 23-)

In the macro-region, especially in Sopot, the number of registered foundations, social associations and organizations annually increased. Similarly, increased the turnout in local elections.

**Figure 10.** The number of registered foundations, social associations and organizations per 10 thousand inhabitants



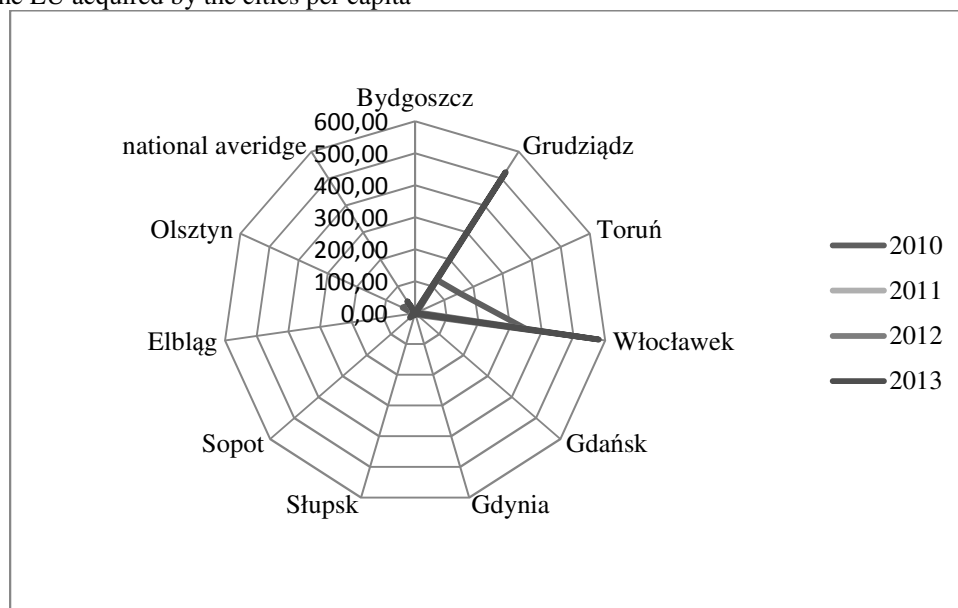
Source: as above

### Economic instruments

Among the tools used to support sustainable development there are such that aim at preventing excessive exploitation of the environment and exerting influence on local government to stabilise finances. Important in this respect is the rational management of the funds by government entities, as well as using environmental and operational charges. (Czternasty (Ed.), 2011, pp. 59-; Wojciechowski & Rabinowitch (Ed.), 2014, p. 47; Bryx (Ed.), 2014, pp. 5-)

Funds from the European Union for the funding of programmes and projects of the EU acquired by town districts of North macro-region were high, though not necessary increasing each year, contrary to what took place throughout the country. At the head were Grudziądz and Włocławek. At the same time, in most towns' budgets increased expenditure for debt, and decreased shares of investment expenditure in total expenditure budgets of towns.

**Figure 11.** Funds from the European Union for the funding of programmes and projects of the EU acquired by the cities per capita



Source: as above

## Conclusions

To sum up, over the past 10 years, in North macro-region, after the initial decrease in the values of the differential characteristics relating to intellectual capital, a significant improvement can be seen. At the same time, gross domestic product per capita in the macro-region annually increased its value.<sup>15</sup> In addition, analyses prove positive forecasts for the values of the above characteristics.

Understanding, knowledge and creation of new social or economic values are innovations. (Gollin, 2008, pp. 115-128) They are caused by the fact that people are feel as a society a need to change the world for better. (Rogoziński & Panasiuk (Ed.), 2012, pp. 207-217) What is more, from the point of view of management theory, the collection of information by an individual (as well as financial, physical and human resources) belongs to the power supply, together with, first and foremost, planning, and organizing, conducting and controlling. (Błaszczuk, 2008, pp. 95-105) The management operations are carried out in the planning (development plans), plans implementation and monitoring their implementation. They concern processes and decisions, whose purpose is to define the measures, put them into practice and finally check their effectiveness. The evidence of the work carried out in these areas are regional development strategies in various regions.<sup>16</sup> (Ekiert & Ziblatt, 2013, pp. 90-107)

<sup>15</sup> Compare with:

[http://stat.gov.pl/bdl/app/dane\\_podgrup.dims?p\\_id=114370&p\\_token=0.771679934688904](http://stat.gov.pl/bdl/app/dane_podgrup.dims?p_id=114370&p_token=0.771679934688904)

<sup>16</sup> Development strategies macro-region, provinces and towns:

<http://www.kujawsko->

They realize the clauses of the Treaty of Lisbon 17, in which a matter of the territorial dimension is of particular importance to the EU cohesion policy. As a consequence, the intervention is to a greater extent adjusted to the needs of different types of territories.

In addition, a characteristic feature of modern market economy, which determines all the activities and relationships within it, is competitiveness. One of the most important ways to increase this competitiveness is to create, and then consistently implement, a promotional strategy. (Bialecki, 2006, pp. 70-) Nowadays, I attach particular importance to the process of innovation, which is crowdsourcing, which is drawing on the expertise and capacities of a given community. (Rupnik & Zielonka, 2013, pp. 3-25)

It seems that the best summary for this article, will be an encouragement to maintain and increase the momentum of described changes, as well as relying on coherent, harmonious and innovative development strategies, evaluating intellectual potential of their communities.

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<sup>17</sup> Compare with: <http://eur-lex.europa.eu/legal-content/PL/ALL/?uri=OJ:C:2007:306:TOC>

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