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## EUROPEAN UNION STRUCTURAL FUNDS. STATISTICAL MEASURES FOR EVALUATION AND MONITORING

### 1. General characteristics of the European Union structural funds

One of the key policies is a common regional policy, oriented at narrowing the gap between levels of economic development of various regions. This gap may constitute an obstacle in the process of integration and harmonious development of the whole European Union. This policy is, on one hand, an expression of the existing noble principles of solidarity and partnership in the EU and on the other hand the result (as it seems) of the adopted strategy of development, preventing from excessive concentration of economic activity. Such a concentration has an unfavourable influence, not only on relatively pauperized and often depopulated peripheral regions, but in the long term it also results in negative effects the central, highly industrialized regions, due to growing problems with transport infrastructure, pollution, etc. General objective of this policy is the improvement of situation in poorer regions or in regions where the development needs are most explicit. By means of influencing the allocation of resources appropriate for investments, the policy promotes economic growth in backward regions and at the same time, it does not contribute to growth of consumption. It should be also pointed out that financial transfers from the EU budget should not lead to the decrease of structural expenditures incurred by Member States. Upon granting structural help, the principle of additionality is in force which means that the structural help supplements only domestic resources appropriate for structural support by beneficiary regions or states.

Principles of the UE regional policy which are currently in force are presented in the document called "Agenda 2000. Enlarged and Stronger

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European Union" from 1999. The regional policy aims mainly at regions which are lagging behind in their development, supporting areas which have been industrialized and now are facing structural difficulties, counteracting long-range unemployment, integration of the youth in professional life, development of entrepreneurship in rural areas, as well as support of development of low populated regions.

Main objectives of structural policy have been presented in the Fig. 1. Basic tasks realized within the frame of the first regional priority include supporting social and economic development, as well as positive structural changes in regions which are lagging behind in their development, and where the GDP level, with regard to purchasing power of currencies, is below 75% of the EU average.

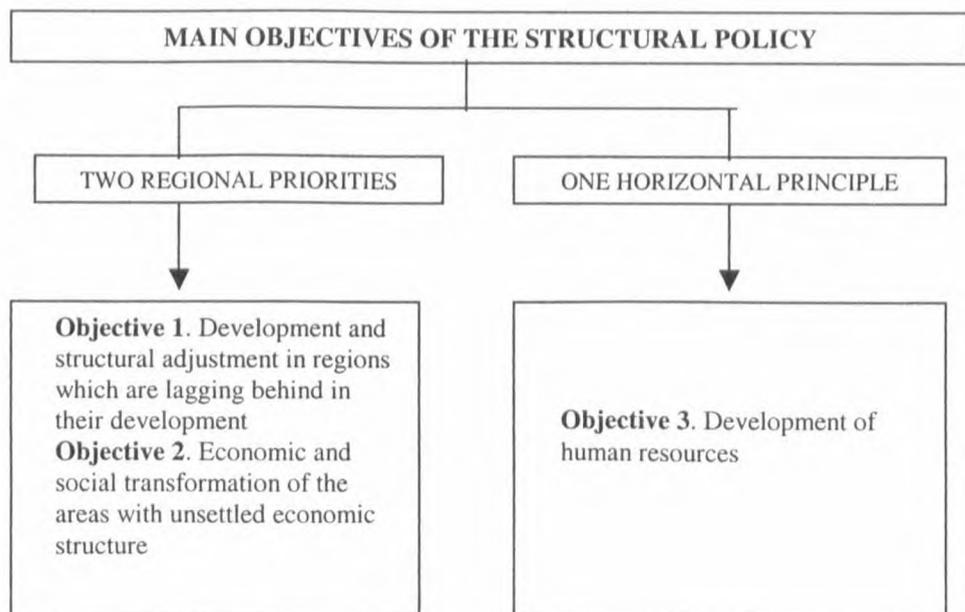


Fig. 1. Main Objectives of the Structural Policy

The second regional priority covers activities regarding regions with severe structural problems concerning industry and services, declining agriculture and fishery, as well as severe urbanization problems. The horizontal principle (objective 3) does not regard regions but whole countries, which means that it may be applied to the whole territory of the European Union. Detailed horizontal objectives aimed at overcoming long-range unemployment, facilitating chances in professional career for the graduates, matching professional qualifications of unemployed with changing needs and equalization of women's chances on the labour market. Within the frame of the horizontal principles we can distinguish

four initiatives concerning interregional, cross-border and transnational co-operation (Interreg), support for towns and urban areas (Urban), support for rural areas (Leader), as well as concerning non-discrimination and ensuring equal opportunities (Equal).

The structural policy is financed by the EU budget through the structural funds<sup>1</sup>:

- 1) European Regional Development Funds (ERDF)
- 2) European Social Fund (ESF)
- 3) European Agricultural Guarantee and Guidance Fund (EAGGF)

The above mentioned funds supplement resources of respective regions, appropriate for realization of projects covered by: a) objective 1 – all funds; b) objective 2 – ERDF and ESF and c) objective 3 – ESF. Functioning of structural funds, is regulated in general by means of the above mentioned European Council's Decree no. 1260/99<sup>2</sup>, and it should contribute to the concentration of resources in the amount with regard to finances and area required for realization of adopted, often several years long, complex structural programs, proper monitoring and control of their realization and structural effects obtained at different aggregation levels. The impact on structural funds is complemented by the special Cohesion Fund which facilitates integration processes by supporting large structural interregional investments.

Applying structural funds is a process which begins with the planning stage, go through the realization and monitoring period and end up with summarizing current and long-term results of realized projects. Member States are responsible for proper course of this process at all stages. We should point out that Poland as well as the remaining new member countries accessing the European Union have to face a specific and a quite difficult situation. It results from the fact that the program for the structural funds has been prepared for years 2000–2006 and regions which are currently benefiting from the structural support have prepared appropriate programs using the special directives prepared in 1999 by the European Union Commission. In March this year the Commission prepared similar directives for the countries accessing the EU<sup>3</sup>, pointing out, among others:

- lack of experience of countries accessing the EU, despite benefiting from the preaccession funds;
- short, only triennial period of planning;

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<sup>1</sup> The European Council's Decree (1999R1260) of the 21<sup>st</sup> July 1999 concerning general provisions of the structural funds, section 7 of the preamble.

<sup>2</sup> Activities of respective structural funds are regulated in detail by means of separate decrees: the European Regional Development Funds – 1783/99, and the European Social Fund – 1784/99.

<sup>3</sup> Kommission der Europäischen Gemeinschaften: Gesetzliche Indikative Leitlinien für die Beitrittsländer. Brüssel, den 12.3.2003.

– lack of appropriate structures and specialists with adequate knowledge allowing preparation of regional plans and investment projects, as well as their monitoring and evaluation.

Due to this, the Commission suggests that while preparing plans and projects one should not try to solve all former problems, but focus on as small as possible number of the most urgent problems, in case of which invested financial resources may bring the most significant results. The Commission also indicates the possibility and purposefulness of early submitted program documents prior to the accession and adjusting them with the Commission in order to extend the period of realization of planned projects.

Planning activities within funds is a complex process realised at different levels. At first, the National Development Plans are prepared for the whole country and the Regional Development Plans<sup>4</sup> for the regions selected for the structural support. All plans should include description of the current situation of the region, and in case of regions affected by recession also description of past periods and the scale of recession, as well as description of goals which are supposed to be obtained within various areas and in different time. These descriptions should be prepared, if it is possible, by means of measurable indicators. National and regional development plans prepared by Member States constitute the foundation for preparation of the Community Support Framework, which is in return the basis for assigning structural support resources.

Realization of structural projects initiated in the Community Support Framework is done on the basis of operational programs, which include, among others description of main tasks together with determination of their coherence with regional or national development plan, specification of individual projects, and quantitatively described and set of goals as precise as it is possible, as well as estimation of anticipated effects. Each state is obliged to indicate units of national administration – Managing Institutions – responsible for efficient and proper management and implementation of operational programs, description of applied systems of their evaluation and monitoring, principles of managing money assets (among others principles of applying proper procedures of concluding public contracts) and systems of control.

Institutions (but this may also be private and public enterprises) ordering realization of a project are defined as “final beneficiaries<sup>5</sup>”. They accept applications for realization of respective projects from potential final recipients,

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<sup>4</sup> A member state can also submit one, global development plan for several or even all its regions. This solution has been adopted by Poland. The global development plan can not lack any information regarding individual regions. See, art. 13 of the European Council’s Decree 1260/1999.

<sup>5</sup> Currently, final beneficiaries have been chosen only in the Social Development Program “Increase of enterprises competitiveness”. These are: Polish Entrepreneurship Development Agency, Industry Development Agency, Science and Normalization Ministry, National Environment Protection and Water Economy Fund and The Ministry of Economy, Employment and Social Policy.

who are entities applying for financial support from the structural funds. Moreover, the final beneficiaries are responsible for, among others, monitoring of implementation of respective projects and preparation of quarterly and annual reports comprising the evaluation of the project's impact.

Entities submitting applications regarding granting financial support from the structural funds to the final beneficiaries are "final recipients". A final recipient, in case his project is accepted, will be responsible for realization of this project in accordance with the submitted application. Final beneficiaries may be final recipients of services and investments at the same time.

For each operational program, the Managing Committee and Monitoring Committee are appointed. The Managing Committee revises submitted projects and recommends them to the Managing Authority for the final approval. The Managing Committee is appointed by the Managing Authority. The Monitoring Committee is appointed by the Prime Minister and exercises supervision over the realization of the Operational Program. The assumption is that this committee should be independent from the Managing Authority<sup>6</sup>. Responsibilities of the Monitoring Committee cover, among others, approving criteria of projects' selection and systems of quantitative and financial indicators, applied for monitoring and evaluation of effects of projects prepared by the Managing Authorities. Integrated Operational Program of Regional Development prepared for Poland for years 2004–2006 provides appointment of Monitoring Subcommittees in all 16 administrative regions<sup>7</sup>.

## **2. Evaluation of statistical information sources for the purpose of structural policy**

All types of structural support, at all levels, beginning with individual projects, through operational programs and finishing with the national development plan, should be described by means of statistical information. Which should be:

a) reliable, i.e. describe investigated phenomena according to the real situation;

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<sup>6</sup> Managing Authority for the Social Development Program "Increase of enterprises competitiveness" is The Ministry of Economy, Employment and Social Policy, and the president of the "independent" Committee Monitoring this program is a representative of this Ministry. See: *Ibidem*, p. 30.

<sup>7</sup> See: Integrated Operational Program of Regional Development. The Ministry of Economy, Employment and Social Policy. Warsaw, February 2003, p. 67.

b) collected by means of methods and procedures consistent with professional principles (scientific and ethical);

c) as much up-to-date as it is possible, i.e. it should regard not distant moments and periods of time;

d) disaggregated as deeply as it is possible;

e) easy to interpret, which is conditioned by the knowledge of its sources and origins, as well as methods and procedures of obtaining it;

f) harmonized, i.e. calculated for all comparable populations (in time and space) based on identical definitions, classifications, by means of the same methods and procedures.

Statistical information for the purpose of objectives of the structural policy can be obtained using different sources. From the point of view of final beneficiaries, these sources can be divided into external and internal (see Figure 2). The most important and the richest source of information is the public statistics. Public statistics gather information concerning almost all spheres of life of our society, then the information which should ensure clear view of economic and social reality, is processed and widespread. Undoubtedly, the disadvantage of the Polish public statistics is partial or complete lack of up-to-date descriptions of methodology of many of conducted investigations, e.g. with regard to the estimation of the level and dynamics of the Gross National Product, dynamics of sold production of industry, CPI etc., which conditions fully conscious and proper use of results of these investigations.

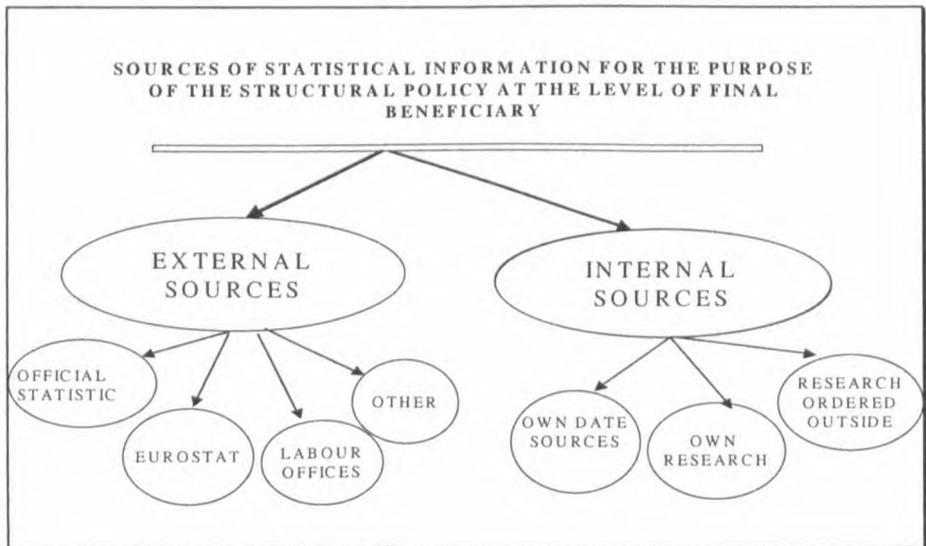


Fig. 2. Sources of Statistical Information

The public statistics act as an ancillary tool, not only with regard to central and local state administration, but also with regard to all other participants of social and economic life, beginning with self-government authorities at various levels, through employers' organizations, trade unions, social organizations and societies, etc. and ending up with individual citizens. Establishing informative needs of such a broad audience and the choice of most objective and most urgent and desirable data is an extremely complex matter. This is done in the process of establishing the program of statistical investigation that is what should be the subject of statistic research. Investigation program is consists of two stages.

At the first level, which is conducted for two years advance, the Central Statistical Office carries out survey of informative needs of different recipients and prepares project of the investigation program. At this stage there are submitted comments and conclusions concerning the scope of the investigation and profiles for which results of partial research will be generalized<sup>8</sup>. Since structural help of the EU will create demand for new, currently not collected or insufficiently disaggregated information, it would be advisable to consider it in the programme of public statistics' research.

Currently, in the resources of public statistics there is an enormous quantity of data obtained due to the General Census and General Agricultural Census. On the basis of that data, provided that they will be properly processed, it will be possible to gain wide and up-to-date knowledge concerning the territorial units, no matter how low the level of aggregation is. Data can be used for validating the applications for refinancing projects from structural funds.

An important external source of information at the level of regions and respective states is the European Union's Office – Eurostat. The Eurostat is the only statistical office that does not carry out its own investigations'. Its main task is to react towards the consistency investigation conducted by the National Statistical Offices. The process of harmonisation should lead to optimal comparability of statistical information from different states, which is conditioned, among others, by the application of identical classifications and systematic, investigation scopes, definitions, research methodologies, etc. Moreover, the Eurostat prepares statistical publications containing aggregated data concerning the whole EU, calculated on the basis of information provided by respective national statistical offices.

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<sup>8</sup> In case of regional statistics especially severe and defective aspect of research carried out by the public statistics is generalization of results of all partial research only with regard to respective regions disregarding smaller administrative units. As a result of this this, the reserve of statistical information concerning even large agglomerations is limited to those only that have their origin in censuses carried out usually in too long time intervals (e.g., economic entities census – which, among others could regulate the Region register – is being prepared since the beginning of nineties) and the current registration.

High costs related to carrying out own statistical investigation result in searching for other external sources of information. The information can be found, among others, in labour offices with regard to the registered unemployment, at the police with regard to accidents and criminality, in the Inland Revenue with regard to operating economic entities and their economic potential, at the fire-brigade offices with regard to the endangered buildings and premises, etc.

Significant external sources of information that can be used in the structural policy are data resources localized in different organisational divisions of final beneficiaries. The information often allows to carry out analyses in a very detailed profile that can not be obtained by means of the public statistics; which is among others due to the Polish regulations concerning statistical data confidentiality. The data resources that include some facts or numbers, and which are not currently used, only create the resource of potential information that can be applied after being properly processed. The information consists of data that are compiled, processed or used in other way for informative purposes, for making decisions, preparing conclusions or forecasting, etc. (Syrdy 2003). So, the first step, that does not require – as it seems – big investments should be the review and inventory of these data.

Due to the need of rational management, while collecting optimal set of indicators that are used for description and monitoring of the analysed structural projects, one should look for them in the existing data resources or information, as the decision concerning carrying out a special investigation, and particularly the one which is ordered outside, is usually connected with high costs. In case of small number of items the population census is recommended. Whereas, investigating large statistical population some selected items from the collection will be examined. Although investigations of statistical inferences are cheaper than entire populations, they are relatively more expensive; if the number of specimen in a population is the smaller. This apparent paradox is a result of the fact that in order to obtain comparable precision of results – regardless of the size of researched population – estimation has to be based on samples of the same size<sup>9</sup>. That is why, research, with the same precision, of a matter in question among citizens of Łódź and Poland, has to be based on representative samples of the same size. Representative ness of a sample is best ensured by means of its random choice, which is conditioned by having or having access to a good sampling operate. Currently a very good, verified by the last year census, operate for sampling flats (households) is, carried out within the system of public statistics, the so called territorial register. Conditions of a fairly good citizens' sampling operate are also met by the Polish PESEL. Whereas the

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<sup>9</sup> Size of sample has significant influence on absolute and relative estimate error only in these surveys where the sample constitutes more than 5% of specimen in population under investigation.

second, kept by the public statistics, register of economic entities – REGON, should be estimated as unsatisfactory due to the fact that it is lacking up-to-date information, particularly with regard to the number of employed persons.

Applying registers kept by the public statistics is related to some, quite high costs and therefore may influence tendency to use non-random methods of selection of , items from the collection, which bears the risk of obtaining insufficiently representative sample. In case we decide, due to costs, to apply one of non-random methods of sampling, it is absolutely necessary – before making use of results of research based on a sample selected in such a way – to verify its representatively ex-post.

### 3. Indicators applied in the structural policy

Described indicators are applied to the purpose of evaluation and monitoring of structural projects but they have various individual objectives at different stages and levels of realized projects. Classification of the indicators is closely related to the overall logic of structural support<sup>10</sup> (see Fig. 3). The logic can be investigated from the top to the bottom: 1) the support is undertaken in order to achieve some specific global goal, e.g. to reduce long-term unemployment; 2) the global goal can be achieved by realization of series of specific (intermediate) goals, e.g. reduction of transit time, decrease of transport costs, increase of the number of graduates of courses for the unemployed; 3) each specific goal is realized through particular projects, e.g. number of constructed kilometres of a road, number of participants of the organized course for the unemployed.

The course of the process of structural support can also be viewed from the bottom to the top: 1) projects are realized by ministries, regional authorities, local administrations, companies etc., upon engaging adequate financial, organizational and human resources (input); 2) realization of these projects leads to achieving some operational goals in the form of obtained products (output), e.g. number of constructed kilometres of a road, number of created participants of the course for the unemployed. Realized projects have some advantages from the achieving 3 point of view) specific goals of the program (e.g. increase of goods' transit, better match of qualifications of people looking for job to market needs, and 4) global goal, that is creation of new work places (reduction of unemployment).

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<sup>10</sup> See: The New Programming Period 2000–2006 (working paper 3. European Commission) p. 5 I and further.

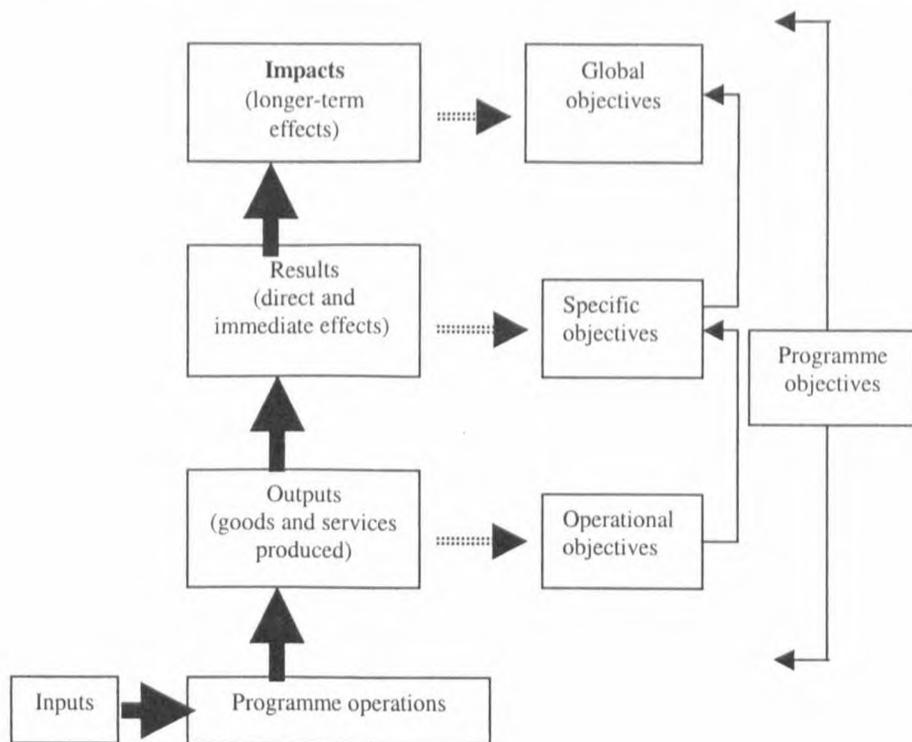


Fig. 3. The intervention logic of a programme

Source: The New Programming Period 2000–2006 (working paper 3. European Commission)

As it was mentioned earlier, the structural support is prepared and realized on different levels, beginning with the National Development Plan, through Operational Plans, finishing with plans for particular projects. The National Development Plan determines range of priorities that is global goals, which will be achieved through the realization of Operational Plans. Also the operational plans comprise range of global goals which will be realized through a number of projects. A global goal at a lower level corresponds to a specific goal at the higher level and vice versa. Operational goals are presented only at the lowest level of particular projects. Form the system of indicators point of view this means that they can be divided into three types:

a) indicators measuring resources engaged in realization of a project (input); these are mainly financial indicators which measure the volume of incurred investments;

b) product indicators (output) expressed in natural units, rarely in money; these indicators exist only at the level of realization of a project;

c) effect indicators, which inform about direct, immediate effect resulting from realization of a structural program at a given level;

d) impact indicators, concerning long-term effects which do not regard final beneficiaries.

The last three mentioned types of indicators are meant to serve the overall evaluation of a structural support, which at the same time can be done from different points of view. The system of indicators should be able to answer the following questions:

1) Whether the goals of a program are adequate with objectives at the national and the EU level?

2) Whether the achieved product, result and long-term impact are in proportion to the invested financial resources? Whether the same goal could be achieved by means of a smaller investment?

3) To what degree, the realized program contributed to realization of specific and global goals?

4) Whether the program had any impact on improvement of situation with regard to assumed goals?

5) What long-term effects should be expected after finishing the period of realization of the program?

Let us point out that the Member States are accountable for preparing programs at the level of projects, as well as qualification of goals related to these projects. The coherence between particular levels of structural projects will be verified by the European Committee Ex-Ante.

The system of indicators applied to the purpose of evaluation and monitoring of structural projects is complemented by the so called baseline indicators. Baseline indicators are applied to the purpose of description of the existing status on the area benefiting from the structural support. They are measured before the structural programs are launched and at the very beginning of their implementation, the baseline indicators suppose to answer the question "what is the situation" and constitute the basis for evaluation of changes in the future. For example, in case the goal of a particular project is the increase of the number of small and medium size companies in the region, the baseline indicator will be the number of small and medium size companies in this region before launching the structural support. This information will allow to precisely evaluate the impact of the program with regard to this aspect. The National Development Plan include a set of seven baseline indicators describing quite precisely the situation in Poland with regard to main and specific goals covered by this plan. Vast majority of baseline indicators of the National Development Plan, five projected Operational Sector Plans, as well as Integrated Operational Plan of Regional Development is located in current resources of the public statistics; only two indicators are not covered by the public statistics: 1) number of people who changed their occupation, 2) number of people benefiting from

courses and professional advising. Both above mentioned indicators shall be covered by the statistical observation by the GUS.

Number of baseline indicators for the Integrated Operational Plan of Regional Development is considerably shorter due to smaller data coverage from the public statistics and includes the following indicators<sup>11</sup>:

- 1) GDP in relation to national and the EU averages,
- 2) gap in the GDP value between the most and the least economically developed region,
- 3) employment indicator in regions (according to Labour Force Survey /LFS/),
- 4) unemployment rate in % (according to LFS),
- 5) quality of education in regions (% of population with elementary, secondary and higher education as a proportion of total population between 25 and 59 years old),
- 6) increase in gross value added per 1 employed person,
- 7) investments per 1000 citizens,
- 8) percentage of people using the Internet and the number of accessible to everybody internet connections in public institutions per 1000 citizens,
- 9) victims of fatalities per 10 000 registered cars,
- 10) percentage of population using sewage system,
- 11) percentage of industrial and municipal wastewater purification plants.

Apart from the baseline indicators, all forms of the structural support, at all levels have to be accompanied by set of indicators measuring effects, which allow to monitor efficiently realized projects, by means of which, one can quantify their general and specific goals, as well as expected effects. The set of such indicators prepared at the level of the National Development Plan and the Integrated Operational Plan of Regional Development has been mentioned earlier in the paper. After their appointment, the monitoring institutions should first of all prepare assumptions for evaluation and operational monitoring of projects at lower levels, suggest adequate sets of indicators and indicate sources of their coverage. This should be facilitated by the list of operational indicators prepared by the European Commission<sup>12</sup>. The list should constitute a desirable but not rigorously binding pattern to follow.

Preparation and further application of such a list for evaluation and projects monitoring is a very important and at the same time difficult task. Many doubts may arise in terms of relatively unambiguous definition (what has been already pointed out) of cause and effect connections between planned project and achieved effect; improvement of situation in some area does not have to be a result of the structural support; it may be a result of some other, more or less

<sup>11</sup> See: Integrated Operational Program of Regional Development.

<sup>12</sup> See: note 10, p. 327.

identified factors, e.g. the increased number of work places in the existing small and medium size companies and at the same time reduction of long-term unemployment may be the result of general improvement of economic situation, not by made investments in the infrastructure. As reliable as it is possible, simulations should be performed in such a situation.

Structural funds constitute an instrument aiming at stimulating economical growth and at the process of convergence of disadvantaged regions. The level of efficiency of application of these funds can be different in respective countries, that is why the achieved benefits may differ. The achieved result depends undoubtedly on the quality of structural funds' management, and that shows how well the administration is prepared (managing institutions and monitoring committees of different levels) for selecting the best applications and objective evaluation of results and the impact of realized projects. This will not be possible without adequately prepared administration officials, resignation from political influence on appointing bodies managing funds, reduction of corruption and preparation of transparent criteria for evaluation and monitoring of projects, which will be based on properly selected systems of statistical indicators.

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### FUNDUSZE STRUKTURALNE UNII EUROPEJSKIEJ. MIERNIKI STATYSTYCZNE W EWALUACJI I MONITORINGU

Wraz z wejściem Polski do Unii Europejskiej szczególnego znaczenia nabierają Europejskie Fundusze Strukturalne. Procedura przygotowania wniosku o pomoc finansową z tych funduszy zawiera szereg kolejnych etapów, w tym ewaluację i monitoring. Dla poszczególnych przedsięwzięć zachodzi konieczność budowy i zastosowania konkretnych miar statystycznych jako ilościowych aspektów badania.

W artykule zaprezentowano ogólną charakterystykę Europejskich Funduszy Strukturalnych, źródła informacji statystycznych dla potrzeb polityki strukturalnej oraz rodzaje indykatorów mogących znaleźć zastosowanie w realizacji konkretnych przedsięwzięć strukturalnych Unii Europejskiej.