



**Expert evaluation network
delivering policy analysis on the
performance of Cohesion policy 2007-2013
Year 3 – 2013**

**Task 1: Job creation as an indicator of
outcomes in ERDF programmes**

Poland

Version: Final

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**A report to the European Commission
Directorate-General Regional and Urban Policy**

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List of abbreviations

- AIR Annual Implementation Report
- FTE Full-time Equivalent
- IA Implementing Authority
- KSI (SIMIK) Krajowy System Informatyczny: System Informatyczny Monitoringu i Kontroli (National Information System: Information System for Monitoring and Control)
- MA Managing Authority
- MRD Ministry of Regional Development
- OP Operational Programme
- OP IE Operational Programme Innovative Economy
- OP I&E Operational Programme Infrastructure and Environment
- OP EPD Operational Programme Eastern Poland Development
- ROP Regional Operational Programme
- SIMIK see: KSI (SIMIK)

Executive summary

Poland has entered the phase of an economic slowdown which – hopefully – will not lead to an open recession. Increase of unemployment, especially in the younger age groups, is one of the outcomes of this process. Although unemployment in Poland is around the EU average, the situation needs improvement which will be possible, however, only if the rate of growth gets back to 4-5% yearly.

Although job creation is an important task of the development policy, the indicator “new jobs” has been adopted in a relatively small number of priorities/measures. Moreover, in the Annual Implementation Reports (AIRs) of most of the Operational Programmes (OPs) the relevant data are not aggregated at the level of measures, but only at the level of priorities. Therefore information on the real number of jobs is not clear, in spite of very precise (!) forecasts made in 2010, according to which the total number of new jobs created as a result of the implementation of EU funds in Poland will be 259,240, of which 101,026 will be jobs created as a direct result of the supported projects.

The costs of job creation incurred from public funds can be estimated with a rather low level of accuracy due to lack of complete data. Available information indicates that these costs are definitely lower in case of measures addressed to the private sector, also because the programmes oriented to the public domain (like infrastructure and environment) have not been concentrated on job creation.

In the current programming period (contrary to the previous one) there is no comprehensible programme of research which would look at the impact of ERDF co-financed interventions on job creation. Evaluation studies are commissioned (albeit not frequently) by some Marshal's Offices, and also econometric models try to assess these figures.

1. The use of the indicator to assess outcomes in policy areas

The indicator showing the number of new jobs created as a result of projects co-financed from the ERDF which is used in Poland is a horizontal one and, as such, is found in all programmes. Also, all beneficiaries (project promoters) must include it in their application documents and later in claims for payment.

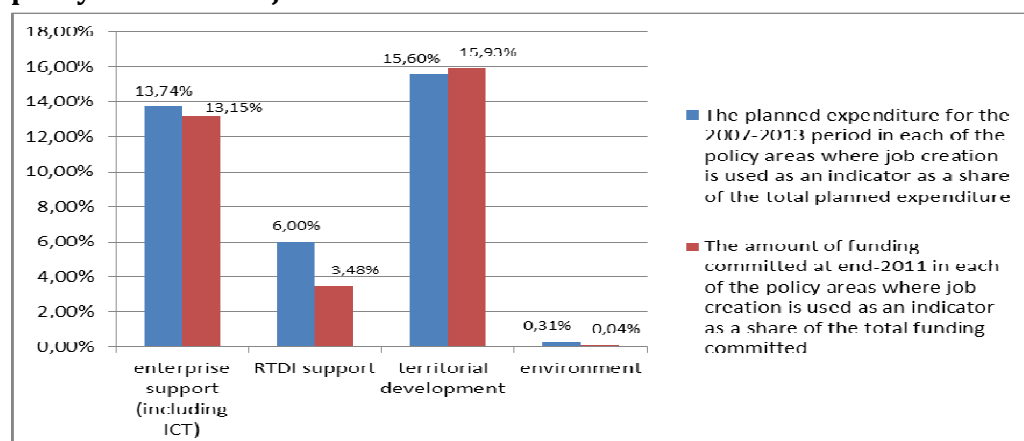
However, the Managing Authorities (MAs) adopted “new jobs” as an indicator in a relatively small number of priorities/measures. Moreover, in the AIRs of most of the OPs the relevant data are not aggregated at the level of measures, but only at the level of priorities.

Analysis of jobs created as a result of OPs co-financed from the ERDF would be more complete if data from the National Information System (KSI) were used, since KSI includes indicators from all the implemented projects, broken down by measures. Even so, such a solution would still leave out the question, in which of the measures the indicator of job creation was allocated to individual measures by the MAs as part of the OP Detailed Descriptions. Nevertheless we present data of KSI on number of jobs created within OPs co-financed from ERDF up to the 12th of March 2013 at the end of this section.

Only in eight of Poland’s 20 OPs co-financed from the ERDF **the data provided in the AIRs concerning the indicator of job creation are aggregated at the level of measures (or sub-measures)**. Nonetheless, **only five OPs were included in our analysis**, due to the accessibility of data concerning financial progress in the implementation of the programme, broken down by measures (or sub-measures). In consequence, the shares of the planned expenditure for individual policy areas in relation to the allocated values and the aggregate committed amounts for the period 2007-2013 were calculated for the Regional OPs (ROPs) implemented in the following regions (voivodships): Lubelskie, Mazowieckie, Podkarpackie, Śląskie and Wielkopolskie. The results are shown in Figure 1.

“Territorial development” is the area where the indicator concerned is found and which has the most extensive both planned and committed expenditure. Most of the measures in this area focus on the development of tourism and culture infrastructure, revitalisation initiatives or strengthening regional growth centres. “Enterprise support” is the second largest area in this regard; the analyses include grant assistance as well as measures under which the firms are offered various refundable instruments. Enterprise support mainly involves capital assistance to planned projects, while considerably less funds (6%) were allocated to measures from another area, RDTI support; its share in the planned expenditure and committed funds in the area of “environment” and “transport” is only marginal. No measures from the (final) area of “human resources” could be identified which is due to the fact that programmes co-financed from the ERDF typically do not target human resources development, as this is mainly done via the ESF-assisted programmes.

Figure 1 - Planned and actual ERDF expenditure for the 2007-2013 period in each of the policy areas where job creation is used as an indicator¹



Source: own elaboration.

Taking into account data from other ROP, for which the analysis of data concerning indicator of job creation can be done at the level of Priority Axes, we can conclude that the trends described above are very similar - most of the job creation indicators are used for Priorities devoted to enterprises and the territorial development policy area. Regarding other OP, implemented at national level, it should be noted that:

- in the case of the **Operational Programme 'Innovative Economy'** (OP IE) job creation indicator is used in priorities, which can be attributed to RTDI policy area (even though some priorities are devoted to enterprises, all measures concern support for implementation of innovative solutions, i.e. Priority 4. Capital for innovation);
- in case of the **Operational Programme 'Infrastructure and Environment'** (OP I&E), indicator of jobs created is assigned for only two priorities: 'Culture and Cultural Heritage' (target set: 280; jobs created up to the end of 2011: 12) and the 'Higher Education Infrastructure' (target set: 348; jobs created up to the end of 2011: 0);
- in the case of the **Operational Programme 'Eastern Poland Development'** (OP EPD), indicator "Number of jobs created in R&D area - only researchers" is used in Priority I 'Modern Economy' (target set: 112; jobs created up to the end of 2011: 0).

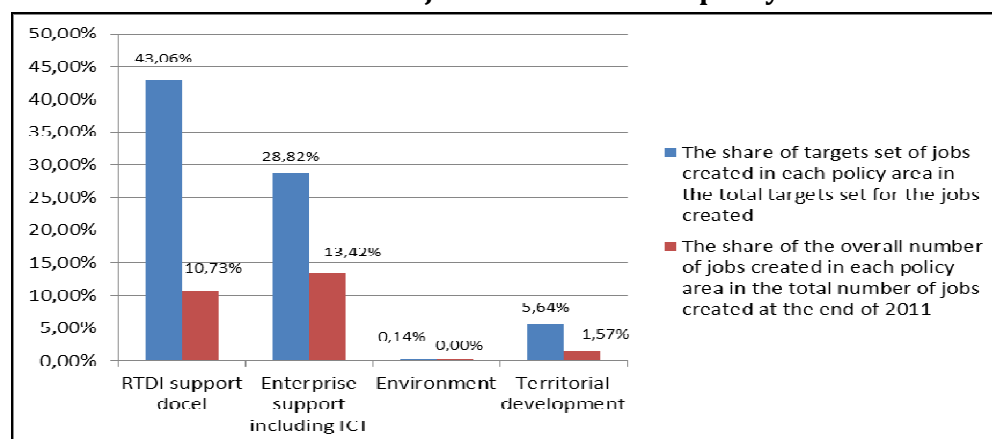
As regards the values of the indicator of new jobs broken down by specific policy areas, the calculations were made for those OPs where these values could be ascribed to measures or priorities; in the latter case, the necessary condition was a relatively homogeneous objective of all the measures making up a given priority, allowing to ascribe a given priority to one policy area.² The findings suggest that the largest number (over 43%) of all the planned jobs are

¹ The percentages do not add to 100%, due to the fact that the sum of the jobs creation indicators used for the selected measures within given OP is not equal to the key indicator, monitored at the level of the entire OP (sum of indicators used for measures within given OP is lower than the key indicator).

² To take an example: the analyses leave out the Lubuskie ROP, where the data concerning the indicator at hand were aggregated at the level of priorities; for Priority 1 - *Development of infrastructure to enhance the competitiveness of the region*, each measure could be ascribed to a different policy area, viz.: transport, territorial development, RTDI. Similarly to analyses concerning the amounts allocated to/disbursed in specific areas, the two largest OPs implemented nationally have not been considered, viz.: the IE OP and the I&E OP, due to the lack of data generated for the individual measures.

working positions created as part of measures in the RTDI support area³. Interestingly, the highest indicator of jobs already created is found in another area – enterprise support including ICT. Measures associated with territorial development are expected to ultimately produce 5.6% of all the planned new jobs to be created (in the surveyed OPs). The ratio of already created jobs in this area to all the new jobs created as a result of the implementation of OPs included in the analysis is 1.6%. The significance of the analysed indicators for the remaining areas could be summed up as marginal (or none at all).

Figure 2 - The share of each policy area in the total target for the number of jobs and the share of the overall number of jobs created in each policy area



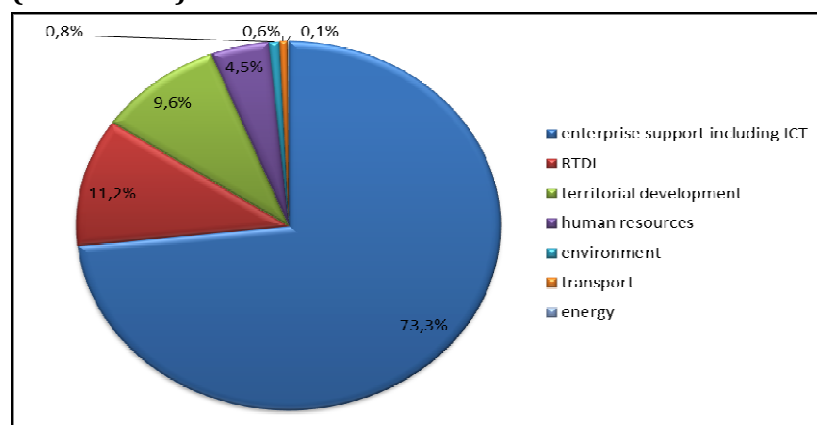
Source: own elaboration.

Analysis of jobs created as a result of OPs co-financed from the ERDF **based on data from the KSI** show that most of working positions was created within projects that can be attributed to enterprise support policy area. The total number of jobs created up to the 12th of March 2013 in this policy area is 32,761 which is over 73% of all jobs created within OPs implemented in Poland. The number of working places that was created within measures supporting RTDI is similar to the number of jobs created within measures focused on territorial development (respectively: 4,985 and 4,298).⁴

³ This is a consequence of the assumption that all OP IE priorities can be assigned to the RTDI policy area.

⁴ Detailed data on jobs created calculated on the basis of AIRs and KSI were included in the Annex Tables.

Figure 3 - The share of jobs created in each policy area in the total number of jobs created (12.03.2013)⁵



Source: own elaboration.

2. Definition, methodology, data reporting and wider use of the indicator

Definition and methodology

In connection with the operation of the Information System for Monitoring and Control (KIS), the Ministry of Regional Development (MRD) adopted the Guidelines for the collection and transmission of data electronically, which are applicable to all the OPs implemented in Poland (MRD 2010). The Guidelines include provisions on the manner and scope of collecting the so-called key indicators. The list of key indicators appended to the Guidelines includes inter alia horizontal indicators, which demonstrate the impact of Structural Fund interventions on job creation. Chapter 7 of the Guidelines lays down the rules for collecting the data on created jobs, and points out that *“in those measures where jobs creation is possible, individual institutions should oblige the beneficiary to declare the target value for the output and result indicators measuring the number of jobs created, and then to adequately monitor and report the relevant implementation in that regard. The target values (planned to be achieved) shall be specified in the co-financing agreement/decision, whilst the values actually achieved – in subsequent claims for payment.”* (MRD, February 2010).

Institutions involved in the implementation of OPs are obliged to report the data at the latest within five days after an event changing the indicator values has taken place. According to the Guidelines, if the costs involved in creating a new job is co-financed by European Funds and if it is created in the course of project implementation (i.e. from its commencement until the beneficiary submits a claim for final payment), it needs to be entered into the KSI (SIMIK 2007-13).

For new jobs being directly created as a result of project implementation, but which fail to fulfil all the conditions stipulated for qualifying them as output indicators and which have been created by the end of the project's operational phase at the latest (i.e. 12 months from the

⁵ Calculations based on KSI data.

moment the beneficiary submits a claim for final payment), the relevant value of the result indicator is reported to the KSI (SIMIK 2007-13).

These horizontal indicators help measure the number of staff employed under employment contracts (excluding those employed under contracts to perform a specific task or mandate). The reported new jobs must be directly connected with the implementation of the project, and the beneficiaries should plan these jobs to be maintained for at least two years, unless other regulations or programme principles stipulate stricter obligations in this regard (MDR, February 2010, Appendix 3, pp. 3, 4).

Though, the above rules are clear and equally applied by all MAs, there is no common definition and no harmonised methodology for the assessment of the jobs created other than permanent jobs directly resulting from a project. According to the MDR, jobs created indirectly (e.g. in companies located in “investment sites” developed with the support of ERDF) should not be regarded as a horizontal indicator monitored at the OP’s level. These jobs are perceived as impacts and can be monitored, as the result of an indirect rather than a direct result of a project. Similarly, there is no obligation, but only a recommendation to monitor jobs created under other than employment contract. MAs gather data on the number of jobs created indirectly on the basis of surveys circulated among companies, which are located on “investment sites” developed with the support of ERDF. The lack of common definition, methodology and obligation of aggregating the figures on job creations other than permanent, direct ones within KSI makes it impossible to calculate the number of all jobs created as a result of OPs implemented in Poland.

The indicators from the list of key indicators in the KSI (SIMIK 2007-13) can be automatically aggregated from the project level to the OP level; they can also be aggregated in terms of similar investments in various OPs. This allows to have most up-to-date information regarding the physical results from EU funded projects and breakdowns of the results by territorial area; sector of activity; type of beneficiaries; area of implementation; classification code; type of project, etc.

Content of data

The indicator of new jobs created is expressed in Full-time Equivalent (FTE) terms. Only those jobs are counted which can be directly converted into FTE (i.e. exclusively employment contracts and start-up beneficiaries, for which FTE=1). Part-time jobs and seasonal jobs are converted into a relevant portion of FTE (e.g. an all-year half-time job=0.5 FTE, a three-month seasonal full-time job=0.25 FTE, etc., provided it is a ‘permanent’ seasonal job). It was decided not to round up the indicator values to a full FTE unit as this could imply considerable differences between the actual results and the reported values.

For projects where output or result indicators (e.g. for R&D projects) are measured in terms of jobs, full-time equivalence is determined on the basis of the proportion of the time worked by individual employees during the reporting year to the full working time applicable to a given job position in a given institution.

In Poland the system for monitoring progress in implementing ERDF co-financed OPs only requires permanent new jobs to be aggregated. Nevertheless, individual MAs, in compliance with MRD recommendations, have monitored on their own the creation of new jobs other than

permanent ones. These concern mostly teachers and physicians⁶ as well as job positions established on the basis of civil law contracts (e.g. contracts to perform a specific task or contracts of mandate) or fixed-term contracts. In addition, data are collected on jobs in enterprises located “investment sites” developed with the ERDF support. These data, however, are collected independently of the system of aggregating mandatory indicators (both key indicators and those ascribed to specific measures). Information on the creation of non-permanent jobs is also included in evaluation reports commissioned by some (but not all) of the MAs.

During the project implementation phase the indicator of job creation is regarded as an output indicator. In the case of ROPs, OP EPD and sectoral OPs, it is reported very seldom because of the nature of the projects which are to a large extent investments carried out by subcontractors. Jobs created by subcontractors are not covered by outcome indicators. Although jobs created under the Technical Assistance priority (measured by the number of jobs, and not FTEs) are equally aggregated, there is no control whether or not these jobs are maintained after assistance comes to an end.

In the system for reporting physical progress of an OP, four types of indicators related to job creation are taken into account: (1) the actual number of new jobs (reported by beneficiaries in their payment claims); (2) the target value (set by the MAs); (3) the baseline value (which is 0) and (4) the estimated implementation (forecast made on the basis of contracts signed earlier).

As outlined above, the guidelines for collecting data on the job creation indicator in the context of the outputs and results of the implemented projects are the same for all programmes but there is no common methodology for forecasts or setting the targets. The data in the AIRs show wide disparities between targets, achieved and estimated values. The institutions concerned usually explain these disparities by the fact that the frame of reference is based on statistics from 2006 (e.g. the latest available data when the programmes were prepared) when both the Polish and most of European economies were developing without any perturbations. The current economic crisis is largely made responsible for not achieving the targets set, especially because the changes in the economy and the current downturn directly affect the development of enterprises where a large-scale job creation was planned. In practice it is hard to assess the extent to which the problem of not achieving the targets derives from the economic downturn and from overestimating the targets at the time they were set (e.g. in 2006).

The number of net created jobs (including indirect jobs created in regional economy in relation to the implementation of OP)- assessed using the HERMIN model - is one of the indicators found in the present monitoring system for all the OPs co-financed from the ERDF in Poland. Until the mid-term review, the numbers were updated annually. Currently, MAs are commissioning much less frequently studies to assess changes in the indicator because of cost reasons. Some MAs plan to carry out an assessment of the total number of jobs created in the period 2007-2015 by using an alternative econometric model to HERMIN (e.g. MaMoR or EUImpactIII).

⁶ Due to the specific, for employers unfavourable regulations (regulated by Labour Code), Polish employers often choose to employ them under specific contracts (in Polish: *kontrakt lekarski*, *kontrakt nauczycielski*). Although this kind of employment can take (and usually does so) the form of permanent employment, it does not fulfil the definition of staff employed under ‘regular’ employment contracts, which – according to MRD guidelines – can be calculated as indicator of jobs created.

The reporting of other estimates of indirect job creations resulting from the ERDF expenditure by other models than HERMIN is not compulsory. By a similar token, they are not included in the so-called Local Information Systems, used by the implementing and MAs to collect data on the progress on other than key indicators. No Implementing Authority (IA) has included such an indicator in the list of indicators, and therefore they cannot be included in the application form (although beneficiaries may include them in their feasibility studies). Nevertheless, as suggested above, the MA, in line with the recommendations given by the MRD, will monitor changes in this indicator by conducting additional surveys of beneficiaries (questionnaire surveys). This mainly applies to activities such as financial engineering measures or employment created by companies on ERDF co-financed "investment sites". In case of the latter, the job creation indicator was treated by some MAs as a result indicator, but the MRD judged this approach to be incorrect and ordered changes to be made in this regard. Some evaluation studies commissioned by MAs are assessing the number of jobs created as an indirect result of project implementation. Due to the fact that, with the exception of indirect job creation estimated by the HERMIN model, there is no single and universally applied method in this regard, it is difficult to discuss how double counting of new jobs could be prevented or avoided. The lack of a harmonised methodology for estimating jobs - other than permanent jobs directly associated with the implementation of the project - is a problem raised by MA representatives and which affects the reliability of impact assessments of ERDF on employment growth. To take an example, surveys on businesses located on "investment sites" developed with ERDF support inappropriately look at overall employment levels and not just at new jobs. On top of that, the surveys are carried out by the municipalities receiving support for the construction of "investment sites" and participation of companies being located there is voluntary. In many cases, the response rate is not more than 40% of the companies surveyed and inference is made from these on the aggregate number of FTEs in all companies.

There is no assessment of the quality of newly created jobs resulting from the OPs and there is no clear definition of 'quality jobs' or 'quality work'. Nevertheless, just as in the case of estimating jobs which were created as an indirect result of ERDF expenditure, some institutions seek to obtain relevant information as part of the commissioned evaluation studies. The definition of 'quality jobs' is adopted on every such occasion by the evaluating body.

The indicator showing new jobs created as a result of ERDF co-funded projects does not cover safeguarded or maintained working positions.

The indicator of new jobs is aggregated separately for OPs assisted under the ERDF and those assisted under the ESF.

Given the above, it should be noted that the data presented in the AIRs, which indicate that the number of jobs created as a result of the implementation of the OP by the end of 2011 (32,321) applies only to permanent jobs created directly, under a contract of employment. Jobs created indirectly (for example, in companies that have benefited from assistance under the financial engineering measures, by subcontractors realizing infrastructure projects, etc.) and those that were created under a contract other than a contract of employment (temporary jobs, jobs created under physicians' and teachers' contracts) are not included. Hence, it should be marked, that the impact of the implementation of measures co-financed by ERDF on creation of new jobs in Poland is definitely underestimated.

Wider use of indicator

As already mentioned above, KSI enables the aggregation at national level of indicators from different OPs. The MRD checks the correctness of the data inputted by the MAs on a regular basis. In case of errors or implausible values, corrections are requested. Verifications are equally carried out at IA/MA level (e.g. project audits, systemic audits of the IAs). At the most recent audit the monitoring system and aggregation of data relating to the indicators were verified. In addition to that, the indicators are checked for compliance with the KSI and the Regional information⁷ systems (for example, in the Małopolskie ROP, a provision was added to the MA Handbook regulating the monitoring process of the indicators to be conducted by the IA and the MA).

The indicator of job creation is not used in other programmes than those receiving EU support, save for the European Economic Area and Norwegian Financial Mechanism programmes, although in the latter two cases the data are not collected or monitored by the donors even though they are included in the application documents submitted by the beneficiaries.

The problems associated with collecting the data on the indicator of job creation are mostly due to the inaccuracy of certain definitions. The example of the indicator of job creation quoted above, and relating to the jobs created by entrepreneurs on “investment sites” was treated as a result indicator by some MAs⁸. The most serious problem however, is that there is no single definition or methodology for estimating the number of new jobs other than permanent working positions, which are created directly as a result of the implementation of a given project.

Another problem is the arbitrary inclusion of this indicator into individual measures/priorities in the OP Detailed Descriptions. Due to the fact that the number of newly created jobs was identified as one of key (horizontal) indicators, it was not ascribed to most of the measures in the OP Detailed Descriptions. Therefore, the data reported in regular reports show wide disparities between the values of this indicator at the implementation level for the entire OP and its individual measures/priorities (the sum of the values of the indicator ascribed to individual measures is much lower than its value for a given programme). The data on the indicator of job creation broken down by measures/priorities may only be generated from the KSI, which therefore becomes the primary source of relevant data for the MA. In the new programming period, the MRD plans to introduce regulations which will force greater consistency of the accepted target values at the programme level and the values ascribed as part of specific measures, a move which will make the KSI a secondary, and not primary, source of data.

⁷ RSI - Regionalny System Informatyczny.

⁸ The Ministry took a stance that new jobs created in investment sites in enterprises which are not direct programme beneficiaries cannot be regarded as result indicators.

3. Cost per job created

Analysis of the costs of job creation will be illustrated by several examples from the available measures and sub-measures, as summarised below⁹.

1. IE OP, Measure 4.5. *Support for investments of high importance to the economy*. The aim of this measure was to improve competitiveness and innovativeness of the economy by offering assistance to production and service enterprises making innovative investments of considerable value and generating substantial numbers of new jobs. Preference was given to investment projects associated with either commencement or expansion of R&D activity in enterprises. The measure included two sub-measures:
 - Sub-measure 4.5.1 – *Support for investments in the production sector*, under which co-financing was offered to innovative investments (such as innovative technologies, innovative products), involving purchase or implementation of a technological solution that has not been used elsewhere in the world for longer than three years. The precondition for receiving a grant was the creation of at least 150 jobs (net employment increase).
 - Sub-measure 4.5.2 – *Support for investments in the advanced services sector*, including investments such as e.g. purchase of tangible assets, intangible assets, which produced net employment increase not lower than 100 jobs and led to the establishment or expansion of the following:
 - a) joint services centres (e.g. finances, accounting, human resources management, administration, logistics, bank and insurance facilities (back office), market research), ICT support;
 - b) IT centres (e.g. software development, application testing and management, network design and implementation, project optimisation, database management);or investments related to establishment or expansion of R&D activity involving purchase of tangible assets, intangible assets, which produced net employment increase of no less than 10 R&D staff.

As part of the projects completed under this measure, 5,282 (FTE) jobs were created, **with the cost of a single job creation from public funds (ERDF and national public contribution) of approximately EUR 7,760.**¹⁰

⁹ All calculations based on KSI data.

¹⁰ For the calculations, we used the average EUR/PLN exchange rate published by the National Bank of Poland in exchange rate table no. 252/A/NBP/2012 of 31 December 2012 = 4.0882.

Table - 1 Number of jobs created and public funding - IE OP, Measure 4.5. Support for investments of high importance to the economy (up to 12.03.2013)

Number of jobs created	ERDF contribution (a) (EUR million)	National public contribution (b) (EUR million)	Private (EUR million)	Total a) and b) (EUR million)	Cost of single job creation (public funds) (EUR)	Cost of single job creation (all funds involved) (EUR)
5,282	34.8	6.1	79.5	40.9	7,760	22,812

Source: own elaboration.

2. ROP for Podkarpackie Voivodship, Measure 2.1. *Transport infrastructure*. The aim of the measure was to improve transport connections and public transportation system in the region. As part of the measure, several schemes were implemented: Scheme A – Regional roads, Scheme B – District roads, Scheme C – Municipal roads, Scheme D – Public transport, Scheme E – Railway infrastructure, and Scheme F – Infrastructure for Rzeszów-Jasionka airport. All the schemes stipulated provision of construction works leading to the development of specific transport infrastructure. Apparently all the new jobs (which are counted as the outcome indicator under this measure) were created in projects implemented as part of the latter scheme.

As part of the projects completed under this measure, 342 jobs were created, with **the cost of a single job creation from public funds (ERDF and national public funds) of approximately EUR 395,274¹¹**.

Table 2 - Number of jobs created and public funding - ROP for Podkarpackie Voivodship, Measure 2.1. Transport infrastructure (up to 12.03.2013)

Number of jobs created	ERDF contribution (a) (EUR million)	National public contribution (b) (EUR million)	Private (EUR million)	Total a) and b) (EUR million)	Cost of single job creation (public funds) (EUR)	Cost of single job creation (all funds involved) (EUR)
342	95.1	40.1	1.2	135.2	395,274	398,643

Source: own elaboration.

3. I&E OP, Measure 11.2. *Development and improvement of culture infrastructure having supra-regional significance*. As part of the measure, support was offered to projects relating to the development and improvement of non-historic culture infrastructure with supra-regional significance (construction, renovation of culture institutions and provision of their equipment). The aim of the measure was to widen access to culture and improve the quality of cultural offer and boost Poland's attractiveness for tourists, investors and local residents alike.

As part of the projects completed under this measure, 121 jobs were created, with **the cost of a single job creation from public funds (ERDF and national public funds) of approximately EUR 774,081.¹²¹³**

¹¹ For the calculations, we used the average EUR/PLN exchange rate published by the National Bank of Poland in exchange rate table no. 252/A/NBP/2012 of 31 December 2012 = 4.0882.

¹² For the calculations, we used the average EUR/PLN exchange rate published by the National Bank of Poland in exchange rate table no. 252/A/NBP/2012 of 31 December 2012 = 4.0882.

Table 3 - Number of jobs created and public funding - I&E OP, Measure 11.2. Development and improvement of culture infrastructure having supra-regional significance (up to 12.03.2013)

Number of jobs created	ERDF contribution (a) (EUR million)	National public contribution (b) (EUR million)	Private (EUR million)	Total a) and b) (EUR million)	Cost of single job creation (public funds) (EUR)	Cost of single job creation (all funds involved) (EUR)
121	68.2	25.2	0.0	93.5	774,081	774,081

Source: own elaboration.

4. ROP for Mazowieckie Voivodship, Measure 1.5 *Development of entrepreneurship*. The aim of the measure was to improve the competitiveness of micro-enterprises and SMEs through their better adaptation to market requirements, including provision of access to new technologies, certification and quality systems. Under this measure, co-financing was granted to new investment projects involving establishment of a new enterprise or expansion of an existing enterprise.

As part of the projects completed under this measure, 526 jobs were created, with **the cost of a single job creation from public funds (ERDF and national public funds) of approximately EUR 53,784.**¹⁴

Table 4 - Number of jobs created and public funding - ROP for Mazowieckie Voivodship, Measure 1.5 Development of entrepreneurship (up to 12.03.2013)

Number of jobs created	ERDF contribution (a) (EUR million)	National public contribution (b) (EUR million)	Private (EUR million)	Total a) and b) (EUR million)	Cost of single job creation (public funds) (EUR)	Cost of single job creation (all funds involved) (EUR)
526	24.0	4.2	25.3	28.3	53,784	101,872

Source: own elaboration.

These examples show a regularity which can be observed in all OPs that the costs of job creation incurred from public funds are definitely lower in case of measures addressed to the private sector. This is due to two fundamental reasons: firstly, publicly financed projects involve a considerable part of private funding, which adds to the value of all funds allocated to a given undertaking. Secondly, high costs of job creation in projects which are implemented as part of measures addressed to public entities are due to the fact that their **aim is not to create direct new jobs** (i.e. ones covered by the monitored indicators). The very nature of the infrastructure that is being developed restricts the possibilities for the creation of jobs 'servicing' a given investment project after it has been commissioned for use¹⁵. Such opportunities may help create jobs in the project's wider surroundings, but even so, this would not be captured by the indicator system currently in place.

¹³ It should be taking into consideration that projects implemented within this measure are aimed at modernization/reconstruction/building etc. of culture infrastructure. It is not of their purpose the direct creation of new jobs. That is why the relation costs (which concern interventions in the infrastructure)/jobs created is so high.

¹⁴ For the calculations, we used the average EUR/PLN exchange rate published by the National Bank of Poland in exchange rate table no. 252/A/NBP/2012 of 31 December 2012 = 4.0882.

¹⁵ This mostly applies to the road infrastructure.

4. The indicator of job creation in evaluations and AIRs

Analysis of the basis of evaluation reports (www.ewaluacja.gov.pl) indicates that there is no research which would look at the impact of ERDF co-financed interventions on job creation. Such studies were conducted for programmes in the previous financing perspective (2004-2006). For instance, in 2010 a report entitled: "Impact of Cohesion policy on the level and quality of employment in Poland", devoted to the 2004-2006 programming period, was elaborated for the MRD. The study combined top-down and bottom-up approaches: macroeconomic analysis based on general statistical data (available on www.stat.gov.pl) and individual BAEL (Badanie Aktywności Ekonomicznej Ludności) surveys, the results from macro-models (EUImpactMod, MaMoR and HERMIN), elements of bottom-up studies based on data from interviews with entrepreneurs and trained employees, case studies of enterprises and analysis of the net effect of training for unemployed using Propensity Score Matching. The study entitled: "Analysis of the impact of ERDF co-financed projects implemented as part of Integrated Regional OP priorities I and III on the creation of new jobs" made use of several research methods, including an econometric probit model (probit regression method), questionnaire surveys and methodologies described in the Commission recommendations laid down in the document: "Measuring structural funds employment effects" from September 2006, which stipulated estimating net jobs using the formula: $\text{net number of jobs} = [(\text{gross number of jobs} * \text{additionality ratio}) * (1 - \text{crowding out effect})] * (1 + \text{multiplier effects})$, using the data collected through questionnaire surveys. Another example of this type of research, which only partially refers to Poland, is the 2010 study entitled: "Impact of Cohesion policy on the level and quality of employment in the Visegrád Group countries – summary and conclusions." It made use of such methods as: secondary data analysis, including: analysis of documentation, earlier studies and reports; analysis of statistical data from national statistics offices, Eurostat and national ministries and departments; database analysis, using such methods as regression and Propensity Score Matching; in addition, the study used the results from economic macro-models which were developed separately from the evaluation, questionnaire surveys, individual or group interviews and case studies of projects which created jobs in enterprises.

Evaluations on new job creations are commissioned (albeit not frequently) by some Marshal's Offices. One example of an evaluation exercise recently completed in the regions is the study "Impact of the interventions under the Wielkopolskie ROP on employment in Wielkopolska region – targeting support on the creation of new jobs", which calculated the gross effect and which, in the authors' words, was an attempt "to provide only a tentative estimation of additionality and indirect effects".¹⁶ The impact of ERDF co-funded projects on job creation was

¹⁶ The authors of the study cite the methodology of assessing the impact of the Structural Funds on job creation in a wider context, proposed in the 6th working document, and also write that: the methodological approach outlined above is essentially an ideal type, which however cannot be fully applied in this study. Even the authors of the 6th working document claim that investigating additional effects, notably the displacement effect and indirect effects, is extremely difficult at the level of an individual research project. Therefore, the authors of the document recommend using multipliers (of displacement, supplier, income) developed as part of other, specialised research projects conducted for the same area, which, based on the information of the gross effect, after including them in the relevant formula, will give an approximate net effect. Regretfully, this methodological approach cannot be used either, since the values in question have not been defined in any research projects either in the Wielkopolska region or in the country at large. We put forward this hypothesis on the basis of our

also assessed as part of the evaluation of the Warmińsko-Mazurskie ROP. In this case, however, analysis of newly created jobs in the beneficiary enterprises was only a part of a broader study focused on estimating the net effects of the intervention (including job creation) using the counterfactual analysis method based on questionnaire surveys.

In 2012 the MRD prepared a report on indirect jobs created as a result of the implementation of projects co-financed under Cohesion policy. The data were collected from 22 MAs, and the results indicated that the total number of new jobs created as a result of the implementation of EU funds in Poland up to the 31st of December 2011 was 259,240, of which 101,026 were jobs created as a direct result of the supported projects. The data were aggregated by three categories: jobs created by (1) financial engineering instruments (including “investment sites” created by financial intermediaries as a result of loans, guarantees and other forms of assistance); (2) enterprise support and (3) the number of jobs based on other than regular contract of employment. The data can be regarded as estimates due to the relatively low return level (around 40%) of the questionnaires sent out by the MAs to the beneficiaries.

In the AIRs information on the number of indirect new jobs (estimated using different methods than HERMIN) can only be found in the EPD OP; the MA made an attempt to assess additional (indirect) jobs on the basis of data received from the beneficiaries, and stated that “according to the data as at 31 December 2011, as many as approximately 200 indirect jobs were created in projects from priority axis I of the EPD OP”.

The data collection system has a bottom-up structure, i.e. it is based on information provided by the beneficiaries in their applications and claims for payment. Therefore, there are no grounds for any concern about the reliability of the reported number of jobs directly created as a result of ERDF co-funded programmes.¹⁷ However, an assessment of the overall impact of the intervention, also including indirect jobs or net job creation is not possible given the current arrangements in place. As mentioned above, there are neither clear definitions nor methodologies for assessing the total number of jobs created as a result of ERDF co-financed projects. Working positions created only for the duration of the project by enterprises which are providers of works commissioned by the beneficiaries are completely left out of the picture. For instance, even though there is a marked employment increase in the construction sector in Poland, which is associated with the execution of large infrastructure projects, it is not covered by any research nor included in the statistics.

The use of the HERMIN model (or of any other econometric model) to estimate changes in employment following an indirect impact of the intervention is also problematic. The data obtained from the modelling exercise may be a far cry from reality owing to the assumptions on

independent analysis of reports on the impact of Structural Funds on employment, and on the basis of the publication entitled: *Impact evaluation and forecasting effects in evaluation studies*, PARP, Warsaw 2011”.

¹⁷ MAs check whether the beneficiaries have achieved the declared result indicators upon project completion, when they verify the claims for final payment, on the basis of copies of employment contracts attached to the payment claims. Upon project completion, the beneficiaries may also submit a declaration on the employment of staff indicated in the application for co-financing at a later date, however not later than one year after project completion. In such a situation, the beneficiaries are expected to provide copies of employment contracts concluded with the staff employed by them not later than 12 months after the submission of the claim for final payment. The quoted values will also be verified while auditing the permanence of the project (durability).

which the algorithms are based. Furthermore, as claimed by the authors of an evaluation study of the indicator and monitoring system in Łódzkie Voivodship, this model is not in all cases correctly applied by the MAs (e.g. the documents quote the same figures as an indicator for 2013 and 2015, assessed using HERMIN). On top of that, in many cases the data from HERMIN modelling are not updated regularly.

5. Looking forward to the 2014-2020 programming period

At the time of preparing the report (February-March 2013), the work on the adoption of an indicator system for the new programming period 2014-2020 had been considerably advanced, and conducted by the relevant services of the MRD in consultation with the MAs. The proposed definitions of common indicators are well-known and extensively discussed, since the Polish indicator database is currently in its preparatory phase. The interviews we conducted suggest that although the definitions of employment indicators proposed by the EC are well understood generally, yet in the opinion of Polish experts they should be made more specific if they are to serve as a practical and reliable basis for making international comparisons.

One issue which is especially pertinent is the clarification of the term 'employment' – whether it also includes being employed under the types of contracts used in Poland, i.e. contracts of mandate (*umowa zlecenia*) or contracts to perform a specific task (*umowa o dzieło*) or whether it solely applies to employment contracts. Taking into account the fact the large percentage of those employed under such contracts (*umowa zlecenia* or *umowa o dzieło*), which have dissimilar implications for the persons employed, this is an issue of considerable significance. The prevalent opinion so far has been that only a contract of employment can be a measure of employment. However, no final decision has been reached as yet. Data on average paid employment include persons employed on the basis of an labour contract for a full-time work, as well as persons employed part-time converted into the number of the employed full-time" (GUS 2012: 12). According to newest statistics published there are at least 1 million of those employed on contracts of mandate (*umowa zlecenie*) or specific task contracts (*umowa o dzieło*) in Poland, and their number doubled over just one year (0.6 million persons in 2010 and 1.0 million in 2011) (Sendrowicz 2013).

According to Polish experts, another issue which should be clarified is the operating definition of the permanence of employment. What is the minimum period required in that respect – one year? Two years? Without some clarification in this regard, the indicator concerned would be of little value in any comparisons.

According to representatives of central administration in charge of the adoption of the final indicator database, common indicators – provided the necessary clarifications are made – can fulfil the expectations in the sphere of employment/job creation. However, due to the specific character of the individual programmes and measures, common indicators should be supplemented (and not replaced) by secondary indicators, having a complementary nature. In this way, the requirements concerning the compliance of the indicators with the specific measures of individual programmes and the need to ensure comparability of indicators for the overall Structural Funds intervention will be reconciled. Provided, however, that a definition of the common indicators for new jobs to be used by the ESF and ERDF/Cohesion Fund is agreed.

Experts believe that making such clarifications will, for the first time ever, open up a possibility to develop a truly working indicator system.

6. Further remarks

There is a need for an increasing the role of the "job creation" indicators as common indicators in the EU co-financed programmes, maybe even in this programming period, and definitely for the next one (during which the economic situation will probably be still far from prosperous). To fulfil this need, several clarifications should be made:

- It should be clarified if it is an indicator of output or of result.
- What type(s) of jobs should be included: permanent, based on temporary contracts, or all?
- What are the time criteria for regarding a job as durable?
- Are the same definitions used cross all EU co-financed programmes, no matter of the source of financing (ERDF, EFS, other)?

If these clarifications are not made and the common measures of reporting are not applied – across the whole EU and across all programmes in a given country – knowledge about the implications of the EU interventions on labour markets will be as crippled in 2014-2020 as it is now (at least in Poland).

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Mr Stanisław **Bienias**, Head of National Evaluation Unit, MRD (interviewed on 8.03.2013).

Mr Tomasz **Złakowski**, Kierujący Stanowiskiem do spraw Monitoringu Rzeczowego NSRO, Departament Koordynacji Wdrażania Funduszy Unii Europejskiej Ministerstwo Rozwoju Regionalnego, (interviewed on 12.03), (head of the NSRO Physical Monitoring Unit, Dept. of the Coordination of EU Funds Implementation, MRD).

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Mr Michał **Ziętara**, Dyrektor Departament Programów Ponadregionalnych Ministerstwo Rozwoju Regionalnego (interviewed 19.03) (director, Supraregional Programmes Dept, MRD).

Mrs Marta **Brzozowska**, specjalista, Departament Programów Ponadregionalnych Ministerstwo Rozwoju Regionalnego (interviewed 19.03) (specialist, Supraregional Programmes Dept, MRD).

Annex

Tables

Annex Table A - Number of jobs created within OPs up to the end of 2011

Policy area	RTDI support	Enterprise support including ICT	Human resources	Transport	Environment	Energy	Territorial development	Total of jobs created (key indicator for OP)*
ROP WD		526					26	869
ROP WKP		679					0	736
ROP WL	0	1,165					675	1,817**
LRP		519			1		147	667***
ROP WŁ		689					0	1,180
MROP	16	939					88	1,085
ROP WM	0	1,226					42	1,268***
ROP WO	7	1,583					299	1,623**
ROP WP (Podkarpackie Voivodship)	0	1,096					43	1,657
ROP WP (Pomorskie Voivodship)		930						1,006
ROP WP (Podlaskie Voivodship)	0	1,369					93	1,366**
ROP WSL	15	2,042					66	2,119
ROP WŚ	0	1,218					112	1,461
ROP WiM		2,227					192	2,467
WROP								2,439
ROP WZ	0	588					8	617
OP EPD	0							10
OP IE	8,568							9,801
OP I&E			0				12	133
Total	8,606	16,796	0	0	1	0	1,803	32,321

Source: calculation based on data from AIRs.

Notes:

* The sum of figures that reflect jobs creation by different areas within OP may not match the total number of jobs created due to the fact that the latter column gathers all jobs created within given OP (even in measures to which 'job created' indicator was not assigned by MA)

** Total of jobs created is lower than the sum of jobs created within each areas. It should be considered as a mistake in AIR's reporting data. For example in Lubelskie AIR 'jobs created' indicators are assigned for 3 priority axis. The number of jobs created in Priority Axis I is 1,165, in Priority Axis II - 652 and in Priority Axis VII – 23, whereas total number of job created reported in Lubelskie AIR is 1,817.

*** The sum of jobs created in Enterprise support including ICT and Territorial development areas equals the total number of jobs created what can be explain by the fact that projects realized in other areas did not generate any employment.

Annex Table B - Targets sets for 2015 of jobs created within OPs

Policy area	RTDI support	Enterprise support including ICT	Human resources	Transport	Environment	Energy	Territorial development	Total of jobs created (key indicator for OP)
ROP WD		7,800					200	8,450
ROP WKP		2,470					150	3,200
ROP WL	20	5,010			200		520	6,140
LRP		800			20		300	1,200
ROP WŁ		2,800					210	6,000
MROP	60	814					2,680	3,554
ROP WM	40	1,000					360	4,500
ROP WO	68	3,080					896	3,396
ROP WP	50	2,280					139	4,946
ROP WP (pomorskie voivodship)		2,100						4,000
ROP WP (podlaskie voivodship)	40	3,072					200	4,400
ROP WSL	2,230	6,509					1,791	10,431
ROP WŚ	85	1,300					142	1,512
ROP WiM		4,350					1,284	5,634
WROP								10,000
ROP WZ	14	2,100					38	2,700
OP EPD	112							2,200
OP IE	65,250							69,625
OP I&E			380				280	5,952
Total	67,969	45,485	380	-	220	-	9,190	157,840

Source: calculation based on data from AIRs.

Annex Table 3 - The number of jobs created within all OPs implemented in Poland in each policy area up to 12.03.2013

	The number of jobs created
Enterprise support including ICT	32,761
RTDI	4,985
Territorial development	4,298
Human resources	1,996
Environment	361
Transport	257
Energy	39
Total of jobs created	44,698

Source: calculation based on data from KSI.