

THE PROGRAMMING PERIOD **2014-2020**

GUIDANCE DOCUMENT ON **MONITORING AND EVALUATION**

EUROPEAN COHESION FUND
EUROPEAN REGIONAL DEVELOPMENT FUND

Concepts and Recommendations

March 2014

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Preface

Cohesion policy is a visible expression of solidarity across the European Union and represents a very substantial part of the budget of the European Union. Citizens expect to know what has been achieved with public money and want to be sure that we run the best policy. Monitoring and evaluation have a role to play to meet such expectations.

This document provides concise guidance for programmes that cover a wide variety of themes and contexts. We believe that this concise approach is the right one, given the rich experience that Member States and Commission have accumulated in the past years. The paper sets out some important changes in the understanding and organisation of monitoring and evaluation. The most important one is the emphasis on a clearer articulation of the policy objectives. This is key to implement a results oriented policy and moving away from an excessive focus on the absorption of funding. The second major concern is the better specification of differences in tasks between monitoring and evaluation. It sets out more clearly the different types of evaluation and calls for more methodological rigour in capturing the effects of our interventions.

With a view to summarising selected information about the implementation of programmes, annex 1 of the guidance paper sets out definitions of common output indicators, to be applied in all programmes, when appropriate.

The paper also advocates some important standards that should guide our work. Appropriate and rigorous methods are a necessary base for the credibility of evaluation. Transparency throughout the whole process, starting from the design of Terms of Reference up to the publication of reports is another key ingredient to ensure quality and unbiased results.

This paper does not include detailed guidance on evaluation methods or on the assessment of projects. Guidance on methods is given in the online portal EVALSED, maintained and updated on the website of the Directorate-General for Regional and Urban Policy. The paper also does not deal with Commission proposals on conditionality and the performance framework, specific guidance on these issues may be provided. While Structural Funds are governed by the same general regulation, some differences occur when it comes to implementation. Therefore this guidance paper covers the European Regional Development Fund and the Cohesion Fund. For the European Social Fund, a separate guidance paper has been issued.

Governance shared between Member States, regions and the European level is a central feature of Cohesion Policy. The success and relevance of monitoring and evaluation will depend on the commitment of actors at all levels. The Commission sees as one of its main tasks the facilitation of exchanges of experience across Member States and reaching out to the academic community to make the best ideas available for the policy. We will continue to learn, to fail in some cases but aim to improve systematically our policy. We must remain open to include new ideas in order to maintain the relevance of our approach and of the guidance provided.

The Evaluation Unit of the Directorate-General for Regional and Urban Policy would like to thank the representatives of Member States in the evaluation network on regional policy and the representatives of the academic world for their critical comments and generous advice to make this paper both theoretically sound and practically useful. Our special thanks go to Harvey Armstrong, Massimo Florio, Frans Leeuw, Alberto Martini and Frank Vanclay.

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1. KEY CONCEPTS

A common understanding of key concepts and terms of programming, monitoring and evaluation should form the basis of their practical application by regions, Member States and the Commission. Section 1 of this document undertakes to facilitate such shared understanding¹.

1.1. Intervention logic of a programme as starting point. Results and result indicators².

The starting point in designing any public intervention is to identify a problem to be addressed. As there will be always a multitude of real or perceived needs, the decision on which unmet needs should be tackled is the result of a deliberative social process (a "political decision"). It is part of this process to also define the direction of the desired change and sometimes the desired situation that should be arrived at (target). A public intervention often will aim at more than one result. For instance, investment in the railway network might aim to improve the accessibility of a region and to reduce the burden on the environment.

Results and result indicators

The intended *result* is the specific dimension of well-being and progress for people³ that motivates policy action, i.e. what is intended to be changed, with the contribution of the interventions designed. An example is mobility, the improvement of which is the aim of building transport infrastructures, for instance a new railway line.

Once a result has been chosen it must be represented by appropriate measures. This can be done by identifying one or more result indicators. Examples for the above case of railways are travel time, CO₂ emissions and traffic fatalities. A reduction in these dimensions could be the objective of a policy.

Result indicators are variables that provide information on some specific aspects of results that lend themselves to be measured.

Selecting clear result indicators facilitates understanding of the problem and the policy need and will facilitate a later judgement about whether or not objectives have been met. In this context it is useful to set targets for result indicators.

Having identified needs and a desired result does not yet mean that the public intervention has been fully designed. Different factors can drive the intended result towards or away from the desired change. A policymaker must analyse such factors and decide which ones will be the object of public policy. In other words, an intervention with a certain *intervention logic* must be established. For example, if number of traffic accidents is the result indicator of a programme, safer roads, a modal shift towards rail or a better behaviour of drivers could be assumed to change the situation. The

¹ Section 1 provides a general discussion of key concepts for monitoring and evaluation. Specific legal terms of structural funds regulations are applied only in the following sections.

² This section benefits from the methodological note "Outcome indicators and targets" produced for DG Regional Policy by an expert group led by F. Barca and P. McCann. In this paper, the meaning of the term "result" is the same as "outcome" in the Barca/McCann paper. In most languages there is only one word for both terms. For further information on the definition of ESF result indicators, please consult the upcoming ESF guidance paper on evaluation and monitoring

³ The notion of change also comprises changes in behaviour, social practices, institutions etc. Desired results include changes to be achieved via a "horizontal" approach (e.g., environmental objectives) because the question remains the same: What should be changed by the public intervention?

programme designers must clarify which of those factors they want to affect. The specific activity of programmes leads to outputs.

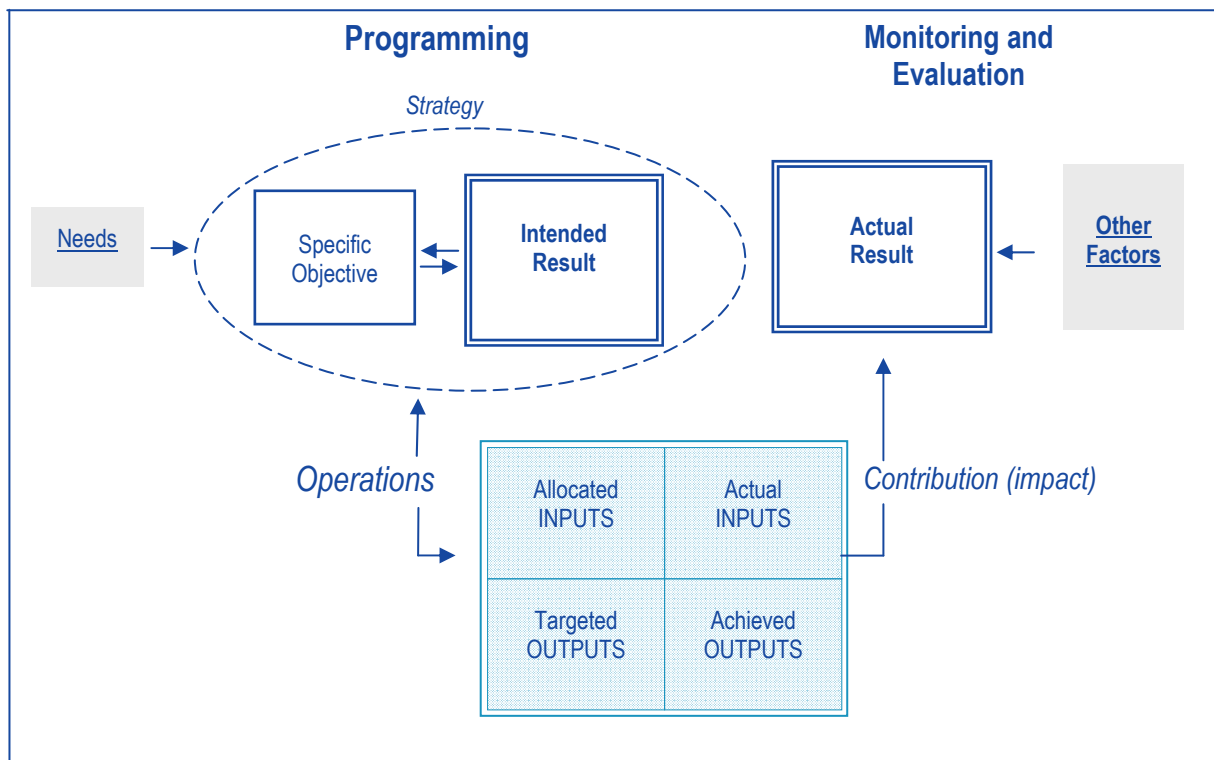
Outputs are the direct products of programmes; they are intended to contribute to results.

The intention to change the situation in a certain region, for a sector or group of people (potential beneficiaries) is the *raison d'être* of the programme. However, public investment programmes often cannot support all persons, areas or enterprises that are concerned by a problem. In most cases only some potential beneficiaries will become actual beneficiaries.

It can be useful to illustrate an intervention graphically by a *logical framework*. Such a stylised representation of a programme should reflect that an intervention can lead to several results and that several outputs can lead to these changes. Equally, it can be useful to differentiate the result(s) by affected groups and time horizons.

Graph 1 illustrates outputs, results and impacts in a simplified logical framework for the purposes of programming and monitoring and evaluation. Note that use and place of "impact" has changed from former guidance provided by DG Regional Policy. Section 1.2 below explains the part of monitoring and evaluation, including the use of the term impact.

Graph 1: Outputs, results and impact in relation to programming, monitoring and evaluation



1.2. Monitoring and evaluation: supporting management and capturing effects

The public expects managing authorities to fulfil two essential tasks when running a programme:

- to deliver the programme in an efficient manner (the management of a programme) and
- to assess whether a programme has produced the desired effects.

We will argue below that monitoring is a tool serving foremost the management purpose, while evaluation contributes to both tasks. Learning is an overarching objective of all evaluations.

1.2.1 Monitoring

To monitor means to observe. *Monitoring of outputs* means to observe whether intended products are delivered and whether implementation is on track.

Cohesion policy programmes are implemented in the context of multilevel governance with a clear demarcation of roles and responsibilities. The actors in this system – implementing agencies, managing authorities, the national and the EU level – differ in their information needs to be met by monitoring. One of the tasks at the European level is to aggregate certain information across all programmes in order to be accountable to the Council, Parliament, the Court of Auditors and EU citizens in general on what Cohesion Policy resources are spent on. This is the task of *common indicators* defined at EU level.

Monitoring also observes changes in the result indicators (policy monitoring). Tracking the values of result indicators allows a judgement on whether or not the indicators move in the desired direction. If they do not, this can prompt reflection on the appropriateness and effectiveness of interventions and on the appropriateness of the result indicators chosen. Note that policy monitoring means tracking the development for all potential beneficiaries, not just for actual beneficiaries.

The values of result indicators, both for baselines and at later points in time, in some cases can be obtained from national or regional statistics. In other cases it might be necessary to carry out surveys or to use administrative data, such as registry of enterprises or unemployment benefit recipient data.

1.2.2 Evaluation

Changes in the result indicator are due to the actions co-financed by the public intervention, for example by the Funds, as well as *other factors*. In other words, the difference between the situation before and after the public intervention does *not* equal the effect of public intervention:

Change in result indicator = contribution of intervention + contribution of other factors

Only the left hand side of this equation can be observed.

Impact is the change that can be credibly attributed to an intervention. "Effect of an intervention" or "contribution of an intervention" are alternative expressions for this idea.

1.2.2.1 Impact evaluation – capturing effects

To disentangle the effects of the intervention from the contribution of other factors and to understand the functioning of a programme is a task for impact evaluation. Two distinctive questions are to be answered:

- did the public intervention have an effect at all and if yes, how big – positive or negative – was this effect. The question is: *Does it work?* Is there a causal link? This is the question *counterfactual impact evaluations* aim to answer.
- why an intervention produces intended (and unintended) effects. The goal is to answer the “*why and how it works?*” question. To answer this question is the aim of *theory-based impact evaluations*.

Note that both questions cannot exist in complete separation from each other: Each evaluation asking the "does it work" question needs to assume basic elements of a theory of change (a how? and why?)

to determine which changes should be looked at and attributed to a cause. Similarly, every evaluation asking "why it works?" will assume – maybe implicitly – a counterfactual situation. This is the conceptual level at which the two wings of impact evaluation share some features, whilst primarily answering the two different questions of "does it work?" and "why?".

The importance of *theory-based impact evaluations* stems from the fact that a great deal of other information, besides quantifiable causal effect, is useful to policy makers to decide what policy to implement and to be accountable to citizens. The question of *why* a set of interventions produces effects, how, for whom and under what conditions, intended as well as unintended, is as relevant, important, and equally challenging, if not more, than the “made a difference” question. This approach does not mainly produce a quantified estimate of the impact, *it produces a narrative*. Theory-based evaluations can provide a precious and rare commodity, insights into why things work, or don’t and under what circumstances. The main focus is not a counterfactual (“how things would have been without”) rather a *theory of change* (“did things work as expected to produce the desired change”). The centrality of the theory of change justifies calling this approach theory-based impact evaluation.

Typical methods include literature reviews, administrative data analysis, case studies, interviews and surveys in order to reconstruct and verify the intervention logic. Often mentioned approaches are realist evaluation, general elimination methodology, contribution analysis and participatory evaluation. A good evaluation of this type will always be open to flag up unintended effects. Such effects and the understanding of their mechanisms can be as important as the intended intervention logic.

Counterfactual impact evaluation is a set of techniques borrowed from statistical and medical science. They have the potential to provide a credible answer to the question "Does it work?". The central question of counterfactual evaluations is rather narrow — how much difference does a treatment make and produces answers that are typically numbers, or more often differences, to which it is plausible to give a causal interpretation based on empirical evidence and some assumptions. Is the difference *observed* in the outcome after the implementation of the intervention *caused* by the intervention itself, or by something else? Evaluations of this type are based on models of cause and effect and require a credible and rigorously defined counterfactual to control for factors other than the intervention that might account for the observed change.

Typical methods are difference-in-difference, discontinuity design, propensity score matching, instrumental variables and randomised controlled trials. The existence of *baseline data* and information on the situation of *supported* and *non-supported* beneficiaries at a certain point in time after the public intervention is a critical precondition for the applicability of counterfactual methods. Naive before-and-after comparisons, often used in practice, assume that the influence of other factors is negligible. If this assumption is made, this should be explicit and might be acceptable as a “rule of thumb approach” in some few cases, for instance in the example of connecting households to a waste water treatment.

Note that counterfactual methods can typically be applied to only some interventions (e.g., training, enterprise support), i.e. relatively homogenous interventions with a high number of beneficiaries. If a public authority wishes to estimate the effects of interventions for which counterfactual methods are inappropriate (for instance, for major infrastructures), other methods can be used. For example, for a road project this could be an *ex post* cost-benefit-analysis or a sectoral transport model.

Ideally, *counterfactual and theory based approaches should complement each other*. Policymakers should use the results of both sets of methods as they see fit. Even assuming that the counterfactual methods proved that a certain intervention worked and could even put a number on this, this is still a finding about one intervention under certain circumstances. Qualitative evaluation techniques are needed to understand to which interventions these findings can be transferred and what determines the degree of transferability.

Impact evaluations of both types are carried out during and after the programming period. The ex ante evaluation of programmes can be understood also as a theory-based analysis, assessing the strength of the theory of change and the logical framework before the programme is implemented. An important task is to look into different possible interventions and to select those most likely to achieve the programme goals at the least cost.

Box 1: Is there an ideal evaluation guaranteeing valid answers?

As illustrated in the example of impact evaluations, all methods and approaches have their strengths and weaknesses. All evaluations need:

- To be adapted to the specific question to be answered, to the subject of the programme and its context.
- Whenever possible, evaluation questions should be looked at from different viewpoints and by different methods. This is the principle of triangulation.
- The costs of evaluation need to be justified by the possible knowledge gain. When deciding on an evaluation what is already known about an intervention needs to be considered.

In sum: Choice and combination of methods need to be decided on a case-by-case base. A range of methods is available and there is no "best" method for all circumstances.

Closing the policy cycle

Impact evaluations of both types will first of all explore if and how the public intervention under scrutiny made a difference for the beneficiaries. However, a good evaluation should also relate its findings (e.g., the impact on beneficiaries) to the policy monitoring (see section 1.2.1) that looks at the entirety of potential beneficiaries. The reason for this is that it was a perceived need of a region, a sector or a group of people that triggered the intervention in the first place. So after an appropriate duration, authorities should ask if the problem identified in the beginning has been fixed. Was the effect of the intervention big enough to matter? In other words, was the intervention useful?

1.2.2.2 Implementation evaluation – the management side

Implementation evaluations look at how a programme is being implemented and managed. Typical questions are whether or not potential beneficiaries are aware of the programme and have access to it, if the application procedure is as simple as possible, if there are clear and relevant project selection criteria, is there a documented data management system, are results of the programme effectively communicated.

Evaluations of this type typically take place early in the programming period.

Box 2: Impact evaluations are needed

To date Cohesion Policy evaluations have tended to focus more on implementation issues than capturing the effects of interventions. For the 2014+ period, the Commission wishes to redress this balance and encourage more evaluations at EU, national and regional level, which explore the impact of Cohesion Policy interventions on the well-being of citizens, be it economic, social or environmental or a combination of all three. This is an essential element of the strengthened result-focus of the policy.

1.2.2.3 The evaluation of integrated programmes

Most regional policy programmes are of an integrated, complex nature. This means that different parts of programmes are planned to interact and to reinforce each other in their working. The evaluation of such programmes represents a special challenge.

One strategy is to evaluate first of all the components of an integrated programme separately. The effectiveness of the components is typically a necessary condition for the effectiveness of the package. If their effectiveness can be demonstrated, it becomes more plausible that the whole programme is delivering on its objectives. In a next step, we could evaluate if the combination of two or more interventions is more effective than a single intervention.

Theory-based evaluations could assess if the intervention logic of the different components fit with each other and make synergies likely to occur. This could be done both during the ex ante evaluation and during a programming period.

Thirdly, it is possible to assess the effect of an integrated programme as a whole. Traditionally this has been undertaken for large programmes by macroeconomic models. Other methods are also being tested, for example counterfactual methods comparing the development of supported with non-supported regions⁴.

2. STANDARDS FOR EVALUATIONS

In order to ensure the quality of evaluation activities, the Commission recommends Member States and regions to base their work on clearly identified standards, established either by themselves or to use European Commission standards or those of national evaluation societies, the OECD and other organisations. Most of the standards converge on principles such as the necessity of planning, the involvement of stakeholders, transparency, use of rigorous methods and independence and dissemination of results. A possible structure with some explanations is provided in annex 3.

⁴ See, for example: "Measuring the effects of European regional policy on economic growth: a regression discontinuity approach". Busillo, Muccigrosso, Pellegrini, Tarola, Terribile (2010). Reproduced also in Fifth report on economic, social and territorial cohesion, 2010.

3. PRACTICAL POINTS FOR THE PROGRAMMING PERIOD 2014-20 FOR EUROPEAN REGIONAL DEVELOPMENT FUND AND COHESION FUND

The intention of this section is to provide (future) programme managers with some practical ideas on what is required for monitoring and evaluation of cohesion policy. It explores what should be done and when taking into account the ideas and principles sketched out in the previous section of this paper and what has already been presented in the proposed regulations for the future programming period.

3.1 Programming

Programmes with a clear identification of changes sought, concentrated on a limited number of interventions are a decisive condition for achieving tangible results. The concentration of financial means will also facilitate a programming process of good quality, in which the limited administrative resources can be dedicated to the careful preparation of interventions.

3.1.1 Clear objectives and selection of result indicators

(art. 27, art. 96, CPR)

Priority axes are the building blocks of programmes. Each priority axis will include one or more investment priorities selected by Member States and regions according to their specific needs and context. The specific objective is the expression of what each investment priority aims to achieve (see art.2.34, CPR for legal definition of a specific objective). The change sought by the specific objective is expressed in one (or some very few) *result indicators*.

Result indicators shall meet certain quality criteria. They should be (CPR, annex XI):

- a) responsive to policy: closely linked to the policy interventions supported. They should capture the essence of a result according to a reasonable argument about which features they can and cannot represent;
- b) normative: having a clear and accepted normative interpretation (i.e. there must be agreement that a movement in a particular direction is a favourable or an unfavourable result);
- c) robust: reliable, statistically validated;
- d) timely collection of data: available when needed, with room built in for debate and for revision when needed and justified.

Annex 2 provides worked examples of result indicators.

Each result indicator requires a *baseline value* (art. 6, ERDF regulation, art. 5, CF regulation; art. 16, ETC regulation). A baseline is the value of a result indicator at the beginning of the programming period (for example, the number of start-ups in that year for a priority that intends to drive up the number of start-ups in a region). It can be available from statistical or administrative data. Especially for smaller interventions, it can be necessary to generate unavailable information, for example by surveys.

If a programme is not in a position to deliver the baseline for a result indicator in the case of the ERDF and CF, this can be seen as a case of not meeting the ex ante conditionality on result indicators. Thus, the programme needs to establish an action plan to provide the baseline as soon as possible (see art. 19.2 CPR for the procedure to follow).

Box 3: Attention, a trap: A baseline for what or whom?

At the programming stage, when deciding about the programme, the future managing authority will analyse the situation of all potential beneficiaries. For example, this could be the productivity of SMEs in a region before programme implementation. This is the baseline required by the regulation.

This should be distinguished from the data needed for counterfactual evaluations which will be *different* in most cases. What is needed here is information for supported entities and for a group of non-supported comparison entities. This information will often not be available from statistics. It must be collected for the purpose of the planned evaluation, for example through the monitoring system for supported SMEs and other appropriate means for non-supported SMEs. See annex 2 for examples.

Programmes shall set targets for programme specific *result indicators* for 2023, but they may be expressed in quantitative or qualitative terms (art. 6, ERDF regulation; art. 5, CF regulation; art. 16, ETC regulation). As explained in section one of this paper, two issues need to be clearly distinguished:

- the estimate of a future value of the result indicator. As with the baseline, this value relates to all potential beneficiaries. This value will be influenced by the programme and other factors. It is this stated aim that is meant by the legal text.
- the contribution of the programme to the change in the result indicator (the impact of the programme). Impact evaluations can answer this question.

Annex 2 provides examples how the target of a result indicator could be expressed. To set *qualitative* targets can mean to spell out the range of expected values, the expected direction of change and the expected pace of change. If no meaningful indication is possible, the priority should set out certain intermediate steps or barriers to be overcome in order to achieve the final objective.

Investment priorities will be implemented through projects. Result indicators are an expression of the objective of an investment priority. Consequently, result indicators can inform the decision on project selection criteria because projects should be able to demonstrate how they will contribute to the achievement of the objectives of a priority. It should be underlined that project selection is a task of Member States.

3.1.2 The role of output indicators

Output indicators shall cover all investment priorities of a programme (art. 27.4(b), 96.2(b) CPR). As explained in section 1.1, they should be derived from the intervention logic of the programme, expressing its actions. Output indicators from the list of common indicators may be insufficient to reflect the actions of a certain programme; in this case it is necessary to identify programme specific output indicators.

The programme shall set *cumulative targets* for output indicators for 2023 (art. 6, ERDF regulation; art. 5, CF regulation; art. 16, ETC regulation). Baselines for output indicators are not required (or in other words, the baseline is zero).

Box 4: How to set targets for output indicators?

To set targets for *output* indicators requires knowledge on what products of an intervention should be supported at what cost. For many interventions it will be possible to base the computation of unit costs on past experience, be it a programme co-financed by cohesion policy or national schemes or based on the use of sectoral norms.

If an intervention is completely new, setting targets can be challenging. At the programming stage, the planning body can only set out their best estimate that might need revision at a certain point in time.

What is important in both cases is to provide to the public enough information to understand the estimate. This approach will enhance democratic transparency and open up the estimate to critique and improvement.

3.1.3 Common indicators

Common indicators are designed to aggregate information in a Member State and across Member States. They reflect frequently used investments of the ERDF and the Cohesion Fund. Common indicators reflect the actions, not the objectives of a programme or of regional policy. Actions reflected in common indicators are not more important than others.

Member States shall use indicators from the list of *common indicators* whenever appropriate (art. 6, ERDF regulation; art. 5, CF regulation; art. 16, ETC regulation; see annex 1). "When appropriate" means, for example, if a programme does not support the construction of roads, the corresponding common indicators "kilometres of new roads" is not applicable.

3.2 Ex ante evaluation of operational programmes

(art. 55, CPR)

An ex ante evaluation shall appraise the following elements in order to improve the quality of operational programmes:

- the contribution to the Union strategy for smart, sustainable and inclusive growth having regard to the selected thematic objectives and priorities, taking into account national and regional needs and lessons drawn from previous programming periods;
- the internal coherence of the proposed programme or activity and its relation with other instruments;
- the consistency of the allocation of budgetary resources with the objectives of the programme;
- the consistency of the selected thematic objectives, the priorities and corresponding objectives of the programmes with the Common Strategic Framework, the Partnership Agreement, the relevant country-specific recommendations under art. 121(2) of the Treaty and the relevant Council recommendations adopted under art. 121(2) of the Treaty;
- the relevance and clarity of the proposed programme specific indicators;
- how the expected outputs will contribute to the results;
- whether the quantified target values for indicators are realistic, having regard to the support from the Funds envisaged;
- the rationale for the form of support proposed;
- the adequacy of human resources and administrative capacity for management of the operational programme;
- the suitability of the procedures for monitoring, and for collecting the necessary data to carry out evaluations.
- the suitability of the milestones selected for the performance framework;
- the adequacy of planned measures to promote equal opportunities between men and women and prevent discrimination;
- the adequacy of planned measures to promote sustainable development
- measures planned to reduce the administrative burden of beneficiaries.

The ex ante evaluation can help to understand the data needs for the envisaged evaluations and it can also establish baselines for result indicators. Ex ante evaluations can also support Member States in

their assessment of the ex ante conditionalities linked to statistical systems and result indicators (annex XI, CPR).

The ex ante evaluation should be carried out in interaction with the establishment of the programme and shall be submitted to the Commission at the same time as the operational programme together with an executive summary. Member States shall integrate, where appropriate, the strategic environmental assessment into the ex ante evaluation.

More detailed guidance on the ex ante evaluation has been made available by the Commission.

3.3 Monitoring – the annual implementation report

(art. 50, art. 111, CPR)

Annual reports are one of the key elements of the monitoring of an operational programme. All implementation reports are required to set out certain information, starting with the report for 2016:

- on the implementation of a programme and its priority axes. Besides financial data, this will require *cumulative values for output indicators*. Values will relate to selected and fully implemented operations. See art. 2.14 CPR for definitions.

"Cumulative" means to provide each year a value that includes the achievements of former years.

Information based on selected projects will be especially valuable in the first years of a period when the actual values, using information of completed projects will be necessarily very low.

- any issues affecting the performance of the programme, including the achievement of target values,
- values for the result indicators of programmes taken either from statistics or provided by information sources specific to the priority such as surveys, at particular points in time. Note that such values encompass the contribution of the programme and the contribution of other factors. They relate to all potential beneficiaries (the same unit of analysis as for the definition of the baseline).
- a synthesis of the findings of evaluations that have become available during the previous financial year.

The reports submitted in 2017 will in addition *assess*:

- progress towards achieving the objectives of the programme,
- including the contribution of the programme towards the change of result indicators, when evidence from evaluations is available.

The report submitted in 2019 and the final report shall include the above mentioned elements and include information on and *assess* the contribution to achieving the Union strategy for smart, sustainable and inclusive growth.

In addition to the requirements of the annual report the managing authority might need to collect additional data. For instance, the tracking of result indicators for beneficiaries might be needed for evaluations (see section 3.5.2 on the evaluation plan). Or, in a different case, the operational programmes could include an integrated territorial investment (ITI) and the programme managers may wish to use special result indicators for the ITI, though this is not required by the regulation.

Electronic data transmission

Data on indicators should be transferred to the Commission electronically as part of annual reports. This issue will be treated in detail in the implementing regulation (see art. 111.5, CPR).

Box 5: Typical reporting errors

Seemingly small errors can compromise the value of the reporting, especially when information is aggregated across programmes as it is the case for common indicators. Some typical errors are:

- the use of a wrong measurement unit (for instance square kilometres instead of hectares, Megawatt hours instead of Megawatts, use of national currencies instead of Euro),
- reporting annual instead of cumulative values,
- wrong use of decimal separator in electronic systems (comma instead of point),
- inconsistencies between annual implementation report and structured data transmission via SFC,
- typing errors when inputting data.

Experience shows that quality control by regional and national authorities is essential. Serious deficiencies in the monitoring system may lead to the suspension of interim payments by the Commission (CPR, art. 142.1 (d)).

3.4 Evaluation during the programming period

(art. 56, CPR)

Evaluation during the programming period should reflect the needs of programmes. Evaluations can cover programmes, priorities, themes across programmes etc.

All types of evaluation, including impact evaluation and implementation evaluation, will play a role. Implementation evaluations supporting the smooth delivery of a programme are more likely to be useful in the early stages of implementation. Evaluation capturing the effects of priorities and looking into their theory of change will occur at a later stage. The legal provisions do not prevent Member States from carrying out mid-term evaluations.

The Commission encourages Member States to include, on a voluntary basis, the evaluation of the impacts of similar interventions in a previous programming period. This can make sense as for many interventions it takes years before the effects are fully realised (e.g., for large scale infrastructures, RTD projects).

At least once during the programming period, an evaluation shall assess how support from the CSF Funds has contributed to the objectives of each priority. Impact evaluations using theory based approaches or counterfactual methods are appropriate tools.

It is a task of the managing authority to ensure that such evaluations are carried out. The managing authority can also meet these obligations when evaluations are carried out under other requirements, for instance if required by Commission decisions on State aid schemes co-financed by the ESI Funds. Such evaluations should be mentioned in the evaluation plan and must be subject to the follow-up required by the CPR, e.g. they must be examined by the monitoring committee and sent to the Commission.

A summary report for each operational programme in December 2022 shall wrap up main evaluation findings and assess main outputs and results, providing comments on the reported information (art. 114.2 CPR). One of the main purposes would be to feed the ex post evaluation under the lead responsibility of the European Commission.

Evaluations and their follow-up shall be examined by the monitoring committee. The monitoring committee may issue recommendations to the managing authority regarding evaluation of the programme. It shall monitor actions taken as a result of its recommendations (Art. 49.4, CPR). Steering groups nominated by the monitoring committee can be a valuable part of the process of

steering evaluations. All evaluations shall be sent to the Commission, preferably in electronic format (Art. 56.3, CPR).

Although not required by the regulation, evaluations across all programmes under a partnership agreement can be very useful, depending on the institutional context of a Member State.

The evaluators must be functionally independent of authorities responsible for the preparation and the implementation of the future programme (Article 54 CPR). This independence is essential to support a good evaluation where the evaluators will constructively criticise and give expert judgements on the different elements of the programme. The level of independence should be such that there is no doubt that the work is carried out with objectivity, and the evaluation judgments are unbiased and not subordinated to an agreement of the services responsible for design of the programme. Note however, that it is also necessary to organise evaluation in a way that ensures that evaluators are sufficiently familiar with the interventions they will assess. Equally, it is necessary that the organisation of evaluations facilitates the consideration of findings by the authorities responsible for programming and implementation.

The Commission services consider it as **best** practice to assign the evaluation to external experts or to a different organisation from that responsible for implementing the programme and any of the intermediate bodies reporting to it. With regard to the issue of functional independence, this arrangement does not raise any doubts. Such external expertise can bring knowledge and capacities to the programming authority that is not available with the administration itself.

A **good** practice is to assign the implementation of the programme and the evaluation to different departments within the same organisation.

Where evaluation and programme design are assigned to the same department or unit of an organisation – e.g. in cases of small implementation structures - this could give rise to doubts about the functional independence of the evaluation function. Hence, clear arrangements should be made which ensure independence. Good practice would, in the view of the Commission services, require the following measures to be taken:

- Clear (written) job description for the person, team or sector assuming the evaluation function;
- Exclusion of the aforementioned person, team or sector from the authority of the services in charge of programme design/implementation.

3.5 The evaluation plan (Art. 114, CPR)

The purpose of an evaluation plan is to improve the quality of evaluations carried out during the programming period.

3.5.1 Establishing an evaluation plan

An evaluation plan shall be drawn up by the managing authority or the Member State for one or more than one operational programme and submitted to the monitoring committee no later than a year after the adoption of the programme (art. 114.1, CPR). The monitoring committee will examine and approve the evaluation plan (art. 110.2, CPR). The evaluation of domestic resources can be included in the evaluation plan.

The Commission recommends starting drawing up the evaluation plan together with the operational programme. The ex ante evaluator can provide valuable help in doing so.

3.5.2 Elements of an evaluation plan

An evaluation plan should include the following elements:

- indicative list of evaluations to be undertaken, their subject and rationale;
- methods to be used for the individual evaluations and their data requirements;
- provisions that data required for certain evaluations will be available or will be collected;
- a timetable;
- a strategy to ensure use and communication of evaluations;
- human resources involved;
- the indicative budget for implementation of the plan;
- possibly a training plan.

Including a budget, human resources and possibly a training plan contributes to meeting the legal obligation of Member States to provide the resources necessary for carrying out evaluations (art. 54.2, CPR).

The planning for evaluations to be carried out early in the programming period is likely to be more precise than for evaluations planned for a later point in time. Note, however, that for certain evaluations techniques data need to be created at the beginning of the programming period. Omissions in this respect cannot be rectified later in the period.

Member States may set up coordination mechanisms for evaluation at national or regional level or across funding sources, according to their needs.

3.5.3 Examination and amendment of evaluation plan (art. 110.2, CPR)

The Monitoring Committee shall examine the evaluation plan and approve necessary amendments. The Commission recommends an examination and update, if necessary, of evaluation plans once a year. Note that the existence of an evaluation plan does not exclude the possibility of additional evaluations, responding to emerging urgent needs.

3.6 The use of evaluations

Planning and organising robust evaluations of the impact of interventions, explaining their mechanisms and understanding their delivery systems are demanding tasks. Nevertheless, even evaluations of good quality can remain without consequences if their use has not been considered in advance, during and after completion.

Without any claim of completeness, the Commission recommends that certain issues are considered:

- The usefulness of evaluations depends on the motivation and awareness of the organisation commissioning the evaluation. Is there an understanding, openness for the idea of learning? Regions and Member States should develop and communicate to their stakeholders their own understanding on these topics. Or is evaluation seen just as an obligation imposed by the Commission?
- Evaluation should be a task not just for managing authorities. In particular for regional programmes with a wide range of interventions it is important to ask questions that are relevant for implementing agencies and sectoral ministries.

- An evaluation process needs to be use and user oriented from the beginning. The communications between evaluator and commissioner of evaluations on purpose, methods and use should start before any real work is undertaken.
- The communication of evaluations, their process and their reports should be organised. Reports need to be adapted to the future reader or a variety of different readers.
- Often the use of evaluations can start *during* the course of an evaluation. Feed-back from the evaluator to beneficiaries and commissioners can enhance the quality and use of an evaluation process.
- It is generally better to develop recommendations in a dialogue between evaluator and the commissioner of evaluations because commissioners often have a clearer understanding what is feasible in a certain institutional or political context.
- The creation of knowledge - learning - is a cumulative process. It takes time, the effort of many evaluators, the exchange of findings and critical discussion. The Commission believes that there is a role to be played especially by central national administrations to organise this process.

3.7 Ex post evaluation

(art. 57, art. 114, CPR)

The purpose of the ex post evaluation shall be to obtain a view of the programming period as a whole. It will examine the effectiveness and efficiency of the Funds and their impact on economic, social and territorial cohesion and their contribution to the Union priorities of smart, sustainable and inclusive growth.

The ex post evaluation shall be a responsibility of the Commission in close cooperation with Member States and managing authorities to be finished by 31 December 2024. The ex post evaluation will be facilitated by evaluations of Member States and Commission during the programming period, especially by the Member States' summary of evaluations and main outputs and results during the period submitted to the Commission by 31 December 2022.

The Commission encourages Member States to carry out their own ex post evaluations.

3.8 Transparency

(art. 54.4, CPR)

All evaluations shall be made public, preferably via internet. English abstracts are recommended to allow for an European exchange of evaluation findings.

Member States can go beyond these legal requirements. Examples include interactive electronic maps with projects and beneficiary information or additional information on baselines and monitoring of result indicators.

3.9 Role of the European Commission

The regulations governing regional policy require the European Commission to summarise a certain amount of information at European level, for instance via progress reports (CPR, art. 52) and evaluations carried out by the Commission (CPR, art. 56.4). Going beyond such obligations the Commission wishes to cooperate with Member States and to support them, when necessary.

The Directorate-General for Regional and Urban Policy aims:

- to make the knowledge and experiences of regions and Member States in the field of evaluation available to their peers, e.g., via seminars and the publication of all evaluation reports on its website;
- to support the development of a quality assurance system, for instance by using a peer review approach;
- to facilitate the exchange of experience across Member States, for example via the DG REGIO network with Member States;
- to provide guidance on evaluation approaches and methods, for instance by guidance documents and further development of EVALSED;
- by offering learning events, for instance evaluation summer schools.

Glossary

Baseline	The value of the indicator before the policy intervention at stake is undertaken. For example, the baseline for output indicators is zero. The baseline for result indicators to be presented in Operational Programmes is the situation before the programme intervention <i>of a region or population</i> of persons or enterprises etc that you want to change.
Common indicators	A list of indicators with agreed definitions and measurement units to be used where relevant in Operational Programmes, permitting aggregation to the national and EU level.
Evaluation	Evaluation is the systematic collection and analysis of information about programmes and projects, their purpose and delivery; it derives knowledge on their impact as a basis for judgments. Evaluations are used to improve effectiveness and inform decisions about current and future programming.
Impact	The change that can be credibly attributed to an intervention. Same as “effect” of intervention or “contribution to change”.
Indicator	A variable that provides quantitative or qualitative information on a phenomenon. It normally includes a value and a measurement unit.
Method	Methods are families of evaluation techniques and tools that fulfil different purposes. They usually consist of procedures and protocols that ensure systemisation and consistency in the way evaluations are undertaken. Methods may focus on the collection or analysis of information and data; may be quantitative or qualitative; and may attempt to describe, explain, predict or inform action. The choice of methods follows from the nature of the intervention, the evaluation questions being asked and the mode of enquiry – causal, exploratory, normative etc.
Output indicator	An indicator describing the “physical” product of spending resources through policy interventions. Examples are: the length, width or quality of the roads built; the number of hours of extra-teaching hours provided by the intervention; the capital investment made by using subsidies.
Result	The specific dimension of the well-being of people that motivates policy action, i.e. that is expected to be modified by the interventions designed and implemented by a policy. Examples are: the mobility in an area; the competence in a given sector of activity.
Result indicator	An indicator describing a specific aspect of a result, a feature which can be measured. Examples are: the time needed to travel from W to Y at an average speed, as an aspect of mobility; the results of tests in a given topic, as an aspect of competence; the share of firms denied credit at any interest rate, as an aspect of banks’ rationing.

ANNEXES

Annex 1

List of Common Indicators

Common indicators are legally required and listed in the annexes to the ERDF, Cohesion Fund and ETC regulations. The list below numbers the common indicators and provides indicative definitions.

	UNIT	NAME	Definition / Comments
Productive investment			
1	enterprises	Number of enterprises receiving support	<p>Number of enterprises receiving support in any form from ERDF (whether the support represents state aid or not).</p> <p>Enterprise: Organisation producing products or services to satisfy market needs in order to reach profit. The legal form of enterprise may be various (self-employed persons, partnerships, etc.).</p> <p><i>Note that indicators 1 to 5 measure the number of the enterprises and multiple counting needs to be eliminated (i.e. an enterprise receiving grants more than once is still only one enterprise receiving grants). Registering a unique identifier for each enterprise to avoid multiple counting is a good practice</i></p> <p><i>Note that the sum of indicators 2, 3 and 4 may be higher than indicator 1 if enterprises may receive different types of support or combined support.</i></p> <p><i>This indicator should be used together with indicators 28 and 29 for innovation in enterprises. The indicator is also needed when support is given for energy efficiency measures in enterprises.</i></p>
2		Number of enterprises receiving grants	<p>Number of enterprises receiving support in forms of non-refundable direct financial support conditional only to completion of project (grants).</p> <p><i>Subset of 'Number of enterprises receiving support'</i></p>

3			Number of enterprises receiving financial support other than grants	Number of enterprises receiving non-grant type financial support, in forms of loan, interest subsidy, credit guarantee, venture capital or other financial instrument. <i>Subset of 'Number of enterprises receiving support'</i>
4			Number of enterprises receiving non-financial support	Number of enterprises receiving support that does not involve direct financial transfer (guidance, consultancy, enterprise incubators, etc.). Venture capital is considered as financial support. <i>Subset of 'Number of enterprises receiving support'</i>
5			Number of new enterprises supported	Number of enterprises created receiving financial aid or support (consultancy, guidance, etc.) from ERDF or ERDF financed facility. The created enterprise did not exist three years before the project started but the Managing Authority or national legislation may set lower the time criterion. An enterprise will not become new if only its legal form changes. <i>Subset of 'Number of enterprises receiving support'</i> <i>This indicator should be used for both enterprise development and innovation measures if the goal is to create or support new enterprises (e.g. spin-offs, technology start-ups).</i>
6		EUR	Private investment matching public support to enterprises (grants)	Total value of private contribution in supported project that qualifies as state aid where the form of support is grant (see Common Indicator 2 'Number of enterprises receiving grants'), including non-eligible parts of the project.
7		EUR	Private investment matching public support to enterprises (non-grants)	Total value of private contribution in supported project that qualifies as state aid where the form of support is other than grant (see Common Indicator 3 'Number of enterprises receiving financial support other than grants'), including non-eligible parts of the project.

8		FTE	Employment increase in supported enterprises	<p>Gross new working positions in supported enterprises in full time equivalents (FTE). Essentially a 'before-after' indicator which captures the part of the employment increase that is direct consequence of project completion (workers employed to implement the project are not counted). The positions needs to be filled (vacant posts are not counted) and increase the total number of jobs in the enterprise. If total employment in the enterprise does not increase, the value is zero – it is regarded as realignment, not increase. Safeguarded etc. jobs are not included.</p> <p>Gross: Not counting the origin of the jobholder as long as it directly contributes to the increase of total jobs in the organisation. The indicator should be used if the employment increase can plausibly be attributed to the support.</p> <p>Full-time equivalent: Jobs can be full time, part time or seasonal. Seasonal and part time jobs are to be converted to FTE using ILO/statistical/other standards.</p> <p>Durability: Jobs are expected to be permanent, i.e. last for a reasonably long period depending on industrial-technological characteristics; seasonal jobs should be recurring. Figures of enterprises that went bankrupt are registered as a zero employment increase.</p> <p>Timing: Data is collected before the project starts and after it finishes; Managing Authorities are free to specify the exact timing. Using average employment, based on 6 months or a year, is preferred to employment figures on certain dates.</p>
9	Sustainable tourism	Visits/year	Increase in expected number of visits to supported sites of cultural or natural heritage and attractions	<p>The <i>ex ante</i> estimated increase in number of visits to a site in the year following project completion. Valid for site improvements that aim to attract and accept visitors for sustainable tourism. Includes sites with or without previous tourism activity (e.g. nature parks or buildings converted to museum). One visitor can make multiple visits; a group of visitors count as many visits as many members the group has. The Managing Authorities set the methodology for estimating the expected number that can be based on demand analysis.</p>
	ICT			
10	ICT infrastructure	households	Additional households with broadband access of at least 30 Mbps	<p>Number of households with internet access with a download speed of at least 30 Mb/sec and who before only had more limited access or did not have access at all. The capacity to access must be a direct consequence of the support. The indicator measures households with the possibility to access, not whether the people living in the households actually choose to be connected or not.</p> <p><i>30 Mbps is in line with EU2020, see COM(2010)245 "A digital agenda for Europe"</i></p>
	Transport			

11	Railway	Km	Total length of new railway line	Length of railroads constructed by the project where no railroad existed before
11a			, of which: TEN-T	Total length of new railway line within TEN-T
12		Km	Total length of reconstructed or upgraded railway line	Length of railroads of which quality or capacity have been improved. This can include electrification, developing single track railroad into double track, increasing the possible speed on the track, or any combination of these, but excludes installation of signalling systems (incl. ensuring ERTMS (European Rail Traffic Management System) compatibility). <i>The approach chosen here is to exclude signalling systems as they distort the values. Signalling systems should be treated in a separate (programme-specific) indicator.</i>
12a			, of which: TEN-T	Total length of reconstructed or upgraded railway line within TEN-T
13	Roads	Km	Total length of newly built roads	Length of roads (in kilometres) constructed by the project where: <ul style="list-style-type: none"> • no road existed before or • as a consequence of project completion, the capacity and quality of the previously existing local/secondary road is significantly improved to reach a higher classification (e.g. national road or equivalent); in this case the road cannot be counted under indicator “Total length of reconstructed or upgraded roads”.
13a			, of which: TEN-T	Total length of newly built roads within TEN-T
14		Km	Total length of reconstructed or upgraded roads	Length of roads where the capacity or quality of the road (including safety standards) was improved. If the upgrade is significant enough for the road to qualify as new road, it will be counted under “Total length of newly built roads” and not under this indicator (see above).
14a			, of which: TEN-T	Total length of reconstructed or upgraded roads within TEN-T
15	Urban transport	Km	Total length of new or improved tram and metro lines	Length of metro, tram or suburban train lines constructed or upgraded. The service along the upgraded lines must significantly improve as a consequence of the project completion. <i>Double counting for this indicator and indicators 11 and 12 needs to be eliminated (e.g. suburban trains). It is up to the MA for which indicator the built/upgraded track is counted but it must be counted only once.</i>
16	Inland waterways	Km	Total length of new or improved inland waterway	Length of inland waterway with new or improved navigation capacity. The improvement may concern improved transport capacity or safety aspects.
	Environment			
17	Solid waste	tonnes/year	Additional waste recycling capacity	Annual capacity of newly built waste recycling facilities. It also includes extension of existing facilities.

18	Water supply	persons	Additional population served by improved water supply	Number of persons provided with drinking water through drinking water supply network as a consequence of increased drinking water production/transportation capacity built by the project, and who were previously not connected or were served by sub-standard water supply. It includes improving the quality of the drinking water. The indicator covers persons in households with actual (i.e. not potential) connection to the water supply system. It includes reconstruction projects but excludes projects aiming to create/improve irrigation systems.
19	Wastewater treatment	population equivalent	Additional population served by improved wastewater treatment	Number of persons whose wastewater is transported to wastewater treatment plants through wastewater transportation network as a result of increased waste water treatment/transportation capacity built by the project, and who were previously not connected or were served by sub-standard wastewater treatment. It includes improving wastewater treatment level. The indicator covers persons in households with actual (i.e. not potential) connection to the wastewater treatment system.
20	Risk prevention and management	persons	Population benefiting from flood protection measures	Number of people exposed to flood risk where vulnerability decreased as a direct consequence of a supported project. <i>Other (than flood or forest fire) risk prevention measures will be counted in programme-specific indicators</i>
21		persons	Population benefiting from forest fire protection measures	Number of people exposed to forest fire hazards where vulnerability decreased as a direct consequence of a supported project.
22	Land rehabilitation	Hectares	Total surface area of rehabilitated land	Surface of remediated or regenerated contaminated or derelict land made available for economic (except non-eligible, e.g. agriculture or forestry) or community activities.
23	Nature and biodiversity	Hectares	Surface area of habitats supported in order to attain a better conservation status	Surface of restored or created areas aimed to improve the conservation status of threatened species. The operations can be carried out both in or outside of Natura 2000 areas, capable of improving the conservation status of targeted species, habitats or ecosystems for biodiversity and the provisioning of ecosystem-services. Areas that receive support repeatedly should be counted only once.
	Research, Innovation			

24	FTE	Number of new researchers in supported entities	<p>Gross new working positions (that did not exist before) to directly perform R&D activities, in full time equivalents. The post must be a consequence of project implementation or completion, be filled (vacant posts are not counted) and increase the total number of research jobs in the organisation. Support staff for R&D (i.e. jobs not directly involved in R&D activities) is not counted. The indicator focuses on employed personnel; the supported entity may be new or already existing.</p> <p>Gross: Not counting the origin of the jobholder as long as it directly contributes to the increase of total research jobs in the organisation.</p> <p>Full-time equivalent: Jobs can be full time, part time or seasonal. Seasonal and part time jobs are to be converted to FTE using ILO/statistical/other standards. In the field of RTD the duration of jobs tends to be shorter ("project support"). The jobs created for <i>different</i> projects should be added up (provided that all projects receive support); this is not regarded as multiple counting.</p>
25	FTE	Number of researchers working in improved research infrastructure facilities	<p>Existing working positions in research infrastructure facilities that (1) directly perform R&D activities and (2) are directly affected by the project. The posts must be filled (vacant posts are not counted). Support staff for R&D (i.e. jobs not directly involved in R&D activities) is not counted. If more researchers will be employed in the facilities as a consequence of the project, thus the numbers of research jobs increases, the new posts are included (see also "Number of new researchers in supported entities"). The facilities may be private or public.</p> <p>The project must improve the facilities or quality of equipment, i.e. maintenance or replacement without quality increase is excluded.</p> <p>Full-time equivalent: Jobs can be full time, part time or seasonal. Seasonal and part time jobs are to be converted to FTE using ILO/statistical/other standards.</p> <p><i>Research infrastructure is a term used to designate a very heterogeneous group of tangible or intangible assets thus cannot be captured by a limited number of physical indicators. The approach chosen here is to focus on a non-financial dimension of the investment (employment) that is still able to reflect the scale of intervention.</i></p>

26		enterprises	Number of enterprises cooperating with research institutions	<p>Number of enterprises that cooperate with research institutions in R&D projects. At least one enterprise and one research institution participates in the project. One or more of the cooperating parties (research institution or enterprise) may receive the support but it must be conditional to the cooperation. The cooperation may be new or existing. The cooperation should last at least for the duration of the project.</p> <p>Enterprise: Organisation producing products or services to satisfy market needs in order to reach profit. The origin of the enterprise (inside or outside of the EU) does not matter. In case one enterprise takes the formal lead and others are subcontractors but still interacting with the research institution, all enterprises should be counted. Enterprises cooperating in <i>different</i> projects should be added up (provided that all projects receive support); this is not regarded as multiple counting.</p> <p>Research institution: an organisation of which R&D is a primary activity.</p> <p><i>Cooperation can be counted based on either the operations or the participants. This indicator focuses on the enterprises as participants.</i></p>
27		EUR	Private investment matching public support in innovation or R&D projects	Total value of private contribution in supported innovation or R&D projects, including non-eligible parts of the project.

28	enterprises	Number of enterprises supported to introduce new to the market products	<p>The indicator measures if an enterprise receives support to develop a 'new to the market' product in any of its markets. Includes process innovation as long as the process contributes to the development of the product. Projects without the aim of actually developing a product are excluded. If an enterprise introduces several products or receives support for several projects, it is still counted as one enterprise. In case of cooperation projects, the indicator measures all participating enterprises.</p> <p>A product is new to the market if there is no other product available on a market that offers the same functionality, or the technology that the new product uses is fundamentally different from the technology of already existing products. Products can be tangible or intangible (incl. services). Supported projects that aimed to introduce new to the markets products but did not succeed are still counted. If a product is new both to the market and to the firm, the enterprise should be counted in both relevant indicators (see indicator 29 'Number of enterprises supported to introduce new to the firm products').</p> <p>The boundaries of the market (either geographical or other) are defined by the Managing Authority based on the business activity of the enterprise receiving support.</p> <p><i>Indicator 1 should also be used where this indicator is used.</i></p> <p><i>Please note the relation with indicator 29 'Number of enterprises that introduced new to the firm product'. While most classic innovations lead to products new both to the market and to the firm, it is possible that the product is new to the market but not new to the firm, e.g. adapting an existing product to a new market without changing functionality.</i></p>
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29		enterprises	Number of enterprises supported to introduce new to the firm products	<p>The indicator measure if an enterprise is supported to develop a 'new to the firm' product. Includes process innovation as long as the process contributes to the development of the product. Projects without the aim of actually developing a product are excluded. If an enterprise introduces several products or receives support for several projects, it is still counted as one enterprise. In case of cooperation projects, the indicator measures all participating enterprises to which the product is new.</p> <p>A product is new to the firm if the enterprise did not produce a product with the same functionality or the production technology is fundamentally different from the technology of already produced products. Products can be tangible or intangible (incl. services). Supported projects that aimed to introduce new to the firm products but did not succeed are still counted. If a product is new both to the market and to the firm, the enterprise should be counted in both relevant indicators (see indicator 28 'Number of enterprises supported to introduce new to the market products').</p> <p><i>Indicator 1 should also be used where this indicator is used.</i></p> <p><i>Please note the relation with indicator 28 'Number of enterprises that introduced new to the market product'. While most classic innovations lead to products new both to the market and to the firm, it is possible that the product is new to the firm but not new to the market, e.g. certain technology transfers.</i></p>
	Energy and Climate Change			
30	Renewables	MW	Additional capacity of renewable energy production	<p>Increase in energy production capacity of facilities using renewable energy resources, built/equipped by the project. Includes electricity and heat energy.</p> <p>Renewable energy resource: Any energy source that is not fossil or nuclear. See regulation 2009/28, art. 2(a).</p>
31	Energy efficiency	households	Number of households with improved energy consumption classification	<p>Number of households in improved energy class – see Directive 2010/31/EU. Improved class must be the direct consequence of the project completion.</p> <p><i>The classification system is governed by directive (2010/31/EU), with a deadline to work out more detailed rules by 30 June 2011 and transposition/application deadline of mid-2013 latest.</i></p>

32		kWh/year	Decrease of annual primary energy consumption of public buildings	<p>Calculations are based on the energy certificate of buildings (see Art. 12.1.b of Directive 2010/31/EU). In line with the deadlines set in the Directive, the indicator must apply to all public buildings above 500m² total useful area and were reconstructed using Structural Funds support. If the construction starts after 9 July 2015, the threshold for public buildings decreases to 250m² total useful area. The Managing Authority may include buildings in the calculation with less than 250m² (or 500m² before 9/7/2015).</p> <p>Value will be calculated from the energy certificates issued before and after the reconstruction. The indicator will show the total decrease of <i>annual</i> consumption, not the <i>total</i> saved consumption.</p>
33		Users	Number of additional energy users connected to smart grids	<p>Smart grid: Electricity network that integrate the actions of energy users by exchanging digital information with the network operator or supplier. An energy user can be consumer, generator, or both. Enterprises can be users too.</p>
34	GHG reduction	tons of CO ₂ equivalent	Estimated annual decrease of GHG	<p>This indicator is calculated for interventions directly aiming to increase renewable energy production (see indicator 30) or to decrease energy consumption through energy saving measures (see indicators 31 and 32), thus its use is mandatory only where these indicators are relevant. Uses for other interventions with possible GHG impact are optional with methodology developed by the Managing Authority. The indicator will show the total estimated of annual decrease by the end of the period, not the total decrease throughout the period.</p> <p>In case of renewable energy production, the estimate is based on the amount of primary energy produced by supported facilities in a given year (either one year following project completion or the calendar year after project completion). Renewable energy is supposed to be GHG neutral and replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the MS total GHG emission per unit of non-renewable energy production.</p> <p>In case of energy saving measures, the estimate is based on the amount of primary energy saved through in a given year supported operations (either one year following project completion or the calendar year after project completion). Saved energy is supposed to be replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the MS total GHG emission per unit of non-renewable energy production.</p>
	Social Infrastructure			

35	Childcare & education	persons	Capacity of supported childcare or education infrastructure	Number of users who can use newly built or improved childcare or education facilities. "Users" in this context mean the children, pupils, or students, not teachers, parents or other persons who may use the facilities too. It includes new or improved buildings, or new equipment provided by the project. It measures nominal capacity (i.e. number of possible users which is usually higher than or equal to the number of actual users).
36	Health	persons	Population covered by improved health services	Population of a certain area expected to benefit from the health services supported by the project. It includes new or improved buildings, or new equipment for various type of health service (prevention, outpatient or inpatient care, aftercare). The indicator excludes multiple counting even if the intervention benefits more services targeting the same persons: one person still counts as one even if that person will use several services which were supported by Structural Funds. For example, an aftercare facility is developed in a city with a population of 100,000 inhabitants. It will serve half the city's population, thus the indicator value will increase by 50,000. If later a prevention service is developed in the same city that will serve the whole population, the indicator value will increase by another 50,000. <i>Urban development measures must also use the 'standard' common indicators where relevant. The indicators below are to capture special urban development interventions</i>
	Urban Development specific indicators			
37		persons	Population living in areas with integrated urban development strategies	Population living in areas with integrated urban development strategies within the meaning of Article 7 of Regulation 1301 / 2013 (ERDF). Use the indicator only once for each area.
38		square meters	Open space created or rehabilitated in urban areas	Size of renovated / newly developed publicly accessible open-air areas. It does not include developments covered by the 'standard' common indicators (e.g. roads, rehabilitated land, schoolyards, etc.)
39		square meters	Public or commercial buildings newly built or renovated in urban areas	Size of renovated / newly developed public and commercial areas
40		housing units	Rehabilitated housing in urban areas	Number of renovated / newly developed housing units in residential areas, as part of urban rehabilitation.
	ETC specific indicators			

41	Productive investment	enterprises	Number of enterprises participating in crossborder, transnational or interregional research projects	Variant of indicator 26 'Number of enterprises cooperating with research institutions' with the difference that the research project must qualify as crossborder, transnational or interregional. If a participating enterprise has departments operating in different places, the location of the participating department(s) should be taken into account to qualify as crossborder project.
42		organisations	Number of research institutions participating in crossborder, transnational or interregional research projects	Variant of indicator 41 'Number of enterprises participating in crossborder, transnational or interregional research projects' with the difference that it counts cooperating research institutions instead of enterprises. If a participating organisation has departments operating in different places, the location of the participating department(s) should be taken into account to qualify as crossborder project.
	Labour market and training			Where relevant, the information on participants shall be broken down by their labour market status, indicating whether they are "employed", "unemployed", "long-term unemployed", "inactive" or "inactive and not in education or training".
43			Number of participants in cross-border mobility initiatives	Cross-border mobility initiatives are those supported under the investment priority set out in art. 7 (a) (i) of the ETC regulation. Participants are those who start in such initiatives. Managing authorities are encouraged to exclude double counting due to multiple participations.
44			Number of participants in joint local employment initiatives and joint training	Joint local employment initiatives are those supported under the investment priority set out in art. 7 (a) (i) of the ETC regulation. Participants are those who start in such initiatives. Managing authorities are encouraged to exclude double counting due to multiple participations.
45			Number of participants in projects promoting gender equality, equal opportunities and social inclusion across borders	Projects supported under the investment priority set out in art. 7 (a) (ii) of the ETC regulation. Participants are those who start in such initiatives. Managing authorities are encouraged to exclude double counting due to multiple participations.
46			Number of participants in joint education and training schemes to support youth employment, educational opportunities and higher and vocational education across borders	Joint education and training schemes are those supported under the investment priority set out in art. 7 (a) (iii) of the ETC regulation. Participants are those who start in such initiatives. Managing authorities are encouraged to exclude double counting due to multiple participations.

Examples for the use of result indicators

Example 1: Support to enterprises in a less developed region

Description of specific objective

Region X wants to boost the productivity of its SMEs. The *result indicator* connected to this objective is defined as the value added per worker, averaged across all SMEs. The policy instrument is non-repayable grants, funded by the ERDF and national co-financing.

Measured in this way, the *baseline value* of SME productivity in the region is significantly below the national average. Its baseline value is 80% of the national average. The baseline is known from national statistics.

Target for result indicator: The region aims to improve the productivity of SMEs in the region, bringing it up to 85% of the national average. The programme co-financed by ERDF will be one of the means to achieve this target. Given the budget available, it is expected a maximum of 15% of SMEs will be supported by the programme. There is no past evaluation available that would allow quantification of by how much the investment grants increase the productivity of the supported enterprises.

Monitoring of result indicator

The annual reports will provide information on the development of the productivity of SMEs in the region. The information is available from national statistics, with a time lag. The monitoring finds that the productivity of SMEs in the region is falling further back in comparison to the national average.

Evaluation

Besides documenting the extent to which the target was reached, the region wants to learn whether the support programme is truly effective. To this end, it intends to use a counterfactual approach to evaluation: the study will attempt to determine which effect the support has on the SME productivity two years after the investment took place. The evaluation design will use the fact that the available budget was limited, allowing to support of only a fraction of the eligible firms that apply for the grant. The estimate of the effect is obtained by comparing the productivity of the firms right above and those just below the cut-off point for admission.

Impact on what? (result indicator)

Data required

Productivity

Productivity of supported enterprises after support
Productivity of non-supported enterprises after support

Data sources for evaluation

Region X is in a lucky situation: Data for supported and non-supported enterprises is available from the balance sheets of enterprises which is collected by the tax authority. The region agrees access to data for evaluation purposes with the tax authority. To reach this agreement took several months.

The evaluation carried out in year X finds that the supported enterprises fair better in terms of productivity than non-supported SMEs.

Issues for a policy discussion

The monitoring committee discusses the findings of the evaluation. It is confronted with the situation that the programme has a positive effect on supported enterprises whereas the overall productivity of SMEs is worsening. The committee should discuss reasons of this development. It could be that the programme should receive additional funding in order to change the situation or that other reforms outside the reach of the programme should be initiated by the region.

Example 2: Support to construction of a highway network, including missing links in trans-European network

Description of specific objective

As part of its major infrastructure programme, Member State X intends to expand its highway network, including the construction of a last missing project in the trans-European network. This programme continues a similar transport programme from the previous programming period. The Member State aims to improve its accessibility by the road network, measured by a road accessibility index (*result indicator*).

The *baseline* for the extension of the TEN-T projects is that 2 out of three concerning the Member State (three highway projects) are completed, representing 70% of the envisaged road length. The baseline for the infrastructure programme as a whole is the value X of the road accessibility index. The index value at programme start has been calculated by applying the existing national transport model. The Member State aims to reduce the index value for the three most lagging regions by about 15% within the programming period (the *target for the result indicator*).

Monitoring of result indicator

During the programming period, the accessibility index will be modelled every second year, starting with the third year of implementation.

Evaluation

The evaluation plan comprises several elements:

- ex post cost benefit analyses for key projects co-financed by the programme of the *previous* programming period;
- modelling of the accessibility index, using the existing transport model. The model allows isolating the effect of key projects financed under the infrastructure programme on the accessibility index.

Impact on what? (result indicators)

Road accessibility index

Data required

Road transport data, collected by regular national and regional surveys

Example 3: Enhancing innovation in SMEs

Description of specific objective

Region X wants to enhance the innovation of SMEs. The problem to be addressed is the insufficient capacity of in-house innovation. Consequently, the *result indicator* is the percentage of SMEs innovating in-house. This indicator is taken from the basket of indicators used for the European Regional Innovation Scoreboard (RIS). It is defined as follows:

SMEs with in-house innovation activities. Innovative firms are defined as those firms which have introduced new products or processes either 1) in-house or 2) in combination with other firms. This indicator does not include new products or processes developed by other firms.

The policy instrument is non-repayable grants to enterprises. The region estimates that the programme volume will allow the support to 10% of SMEs in the region.

The *baseline* is the percentage of SMEs innovating in-house in the year before the programme (25%).

The *target* is a higher percentage of such SMEs. The region believes that a value between 30-35% at the end of the period is possible.

Monitoring of result indicator

The Regional Innovation Scoreboard is updated every 2 years. In principle, data is collected via the Community Innovation Survey, carried out every two years.

Evaluation

Evaluation will focus on the mechanisms and barriers that induce or prevent SMEs from undertaking in-house innovation. Potential factors influencing the decisions of SMEs, and therefore to be explored are:

- access to credit,
- ability to attract qualified professionals,
- 'innovative environment', e.g. the degree of cooperation between enterprises, universities and public institutions.

Two surveys – one on enterprises, another on policy makers – three years into the programming period will provide the necessary input. It is a key concern to let the interviewees rank the above mentioned factors and explore others. The survey results will be interpreted via expert review and a discussion with beneficiaries and policy makers.

Impact on what?

Percentage of SMEs innovating in-house

Data required for evaluation

Values of the indicator, taken from Regional Innovation survey,
Results of surveys for evaluation purposes

Example 3a: An example of a specific objective needing further refinement- Enhancing R&D in SMEs in a more developed region

Description of specific objective

A future managing authority suggests using ERDF funding to enhance R&D of SMEs in its region. As an approximation, enterprise R&D expenditure is chosen as *result indicator*.

The *baseline* would be the level of R&D expenditure by SMEs in the region in the year before the programme, expressed as R&D expenditure per employee and year. The value is known from national or regional statistics.

The *target* would be to maintain this percentage within a margin of x Euro. This R&D expenditure per employee proved to be stable throughout the last years.

The suggested policy instrument (*action*) is non-repayable grants to enterprises. The region estimates that the programme volume will allow the support to 0.2% of SMEs in the region (around 80 enterprises). The region believes that the support will have an effect on the supported enterprises but that the support is insufficient to bring about change in the R&D expenditure of enterprises in the region.

Monitoring of result indicator

The regional statistics on R&D expenditure becomes available every two years.

Evaluation

The evaluation will deliver an estimate of the effect on the supported enterprises in terms of R&D expenditure. The method foreseen is a difference-in-difference approach, integrating a regression analysis. The method will need before and after observations of supported and non-supported enterprises. The necessary data will be sourced not from the monitoring but from a commercial database.

An intervention to be challenged

When the managing authority presents the draft operational programme to the future members of the monitoring committee (the partnership) and DG Regional Policy, this intervention is challenged: the partners doubt its relevance : it is too small to bring about real change in the R&D expenditure of SMEs in the region. The managing authority is asked to explore:

- A re-definition of the eligible population of enterprises. This could be done by limiting the eligible SME population in terms of geography, branches or, most likely, by type of supported SME, for example, of a certain technological level.
- how a baseline value 2013 can be established for the redefined eligible population at reasonable costs.

Example 4: European Territorial Cooperation

Description of specific objective

Two regions covered by a cross-border co-operation programme intend to improve education services across the border. The support (grants) is provided to education-related cross-border activities in the following fields: co-operation between universities, schools and training providers, mobility of personnel, mutual recognition of degrees, language training and exchange programmes.

The programme identifies two *result indicators*:

1. Access to education services on the other side of the border measured as number of persons using education services on the other side of the border
2. Quality of education services across the border measured as satisfaction rate of persons using such services.

Baselines

1. The number of persons using education services on the other side of the border at programme start is known from administrative data (2000 persons).
2. The satisfaction rate of persons using education services on the other side of the border at programme start was unknown. When preparing the programme, the regions launched a telephone survey among one thousand current users. The survey found that 50% of users were satisfied with the quality of education services, 20% very satisfied and 30% found the situation unsatisfactory.

Target for result indicators. The regions aim to bring up the percentage of satisfied and very satisfied users up to 80% of all users, while the number of users should go up by at least 100 persons.

Monitoring of result indicators

The number of persons using education services on the other side of the border can be monitored annually by administrative statistics. In order to monitor the development of the satisfaction rate, a telephone survey will be organised every two years.

Evaluation:

The regions plan to set up an evaluation process that will closely involve active and potential users of cross border education services. In a series of discussions with participants, the evaluators will inquire which of the supported services are seen as especially successful, why and which services are seen as less useful. In addition, the evaluators will inquire with non-users why they are not (yet) using cross-border education offers and what should be changed in their opinion.

A structure of evaluation standards⁵:

A) Evaluation activities must be appropriately organised and resourced to meet their purposes.

1. Programmes should use an evaluation function with a clearly defined responsibility for co-ordinating evaluation activities.
2. For this evaluation function, human and financial resources must be clearly identified and proportionately allocated.
3. Each programme must clearly define the procedures for the involvement of stakeholders.

B) Evaluation activities must be planned in a transparent way so that evaluation results are available in due time.

1. An evaluation programme is to be prepared by the evaluation function in consultation with stakeholders.
2. All activities must be periodically evaluated in proportion with the allocated resources and the expected impact.
3. The timing of evaluations must enable the results to be fed into decisions on the design and modification of activities.

C) Evaluation design must provide objectives and appropriate methods and means for managing the evaluation process and its results.

1. A steering group should be set up for each evaluation to advise on the terms of reference, to support the evaluation work and take part in assessing the quality of the evaluation.

D) Evaluation activities must provide reliable and robust results.

1. The evaluation must be conducted in such a way that the results are supported by evidence and rigorous analysis.
2. All actors involved in evaluation activities must comply with principles and rules regarding conflict of interest.
3. Evaluators must be free to present their results without compromise or interference.
4. The final evaluation reports must as a minimum set out the purpose, context, questions, information sources, methods used, evidence and conclusions.
5. The quality of the evaluation must be assessed on the basis of the pre-established criteria.

We recommend the consultation of the following sources:

- Quality of an evaluation report: EVALSED, The Guide.
http://ec.europa.eu/regional_policy/sources/docgener/evaluation/evalsed/guide/designing_implementing/managing_evaluations/quality_en.htm
- Website of European Evaluation Society: It provides access to the standards of national evaluation societies.
<http://www.europeanevaluation.org/library/evaluation-standards.htm>

⁵ Adapted from: Evaluation standards of the European Commission. Communication to the Commission from Ms Grybauskaite in agreement with the president. Responding to Strategic Needs: Reinforcing the use of evaluation. Brussels, 2007.

- OECD, 2010. Quality standards for development evaluation.
<http://www.oecd.org/dataoecd/55/0/44798177.pdf>

Recommended reading

1. EVALSED. An online resource providing guidance on the evaluation of socio-economic development.
http://ec.europa.eu/regional_policy/sources/docgener/evaluation/guide/guide_evalsed.pdf
 EVALSED provides a short introduction to several evaluation techniques. A library of evaluations carried out in the framework of regional policy is part of EVALSED.
2. Impact Evaluation and Development. NONIE - Network of networks on impact evaluation.
<http://www.worldbank.org/ieg/nonie/>
3. Société Française de l'Evaluation. Evaluation des impacts des programmes et services publics. 2011.
http://www.sfe-asso.fr/sfe-evaluation.php?mode=cahiersindiv&id_cahier=21
4. Addressing attribution of cause and effect in small n impact evaluations: towards an integrated framework. Howard White and Daniel Phillips, June 2012
<http://www.3ieimpact.org/en/evaluation/working-papers/>
5. Key evaluation checklist. Michael Scriven, 2005
http://www.wmich.edu/evalctr/archive_checklists/kec_feb07.pdf
6. Outcome indicators and targets. Methodological note produced for DG Regional Policy by the High Level Group led by F. Barca and P. McCann.
http://ec.europa.eu/regional_policy/sources/docgener/evaluation/performance_en.htm
7. Evaluation standards of the European Commission. Communication to the Commission from Ms Grybauskaite in agreement with the president. Responding to Strategic Needs: Reinforcing the use of evaluation. Brussels, 2007.
http://ec.europa.eu/dgs/information_society/evaluation/data/pdf/sec_2007_0213_en.pdf

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