

## OUTCOME INDICATORS AND TARGETS

### TOWARDS A NEW SYSTEM OF MONITORING AND EVALUATION IN EU COHESION POLICY

*The note revises the original methodological note submitted to the High Level Group Reflecting on Future Cohesion Policy on February 15, 2011\*. The revision has been conducted by the same team and it has taken into account the observations presented at the High Level Group meeting and in other subsequent meetings, as well as other comments received since then. Further work is in the meantime being undertaken on the following four issues: a) Surveying good practices in the selection of outcome indicators, b) Lessons from one experience of targeting and financial incentives; c) Guidance for the design of quantitative survey-based evaluation; d) Guidance for the design of qualitative case study evaluation.*

#### 1 INTRODUCTION: A SHIFT OF FOCUS TOWARDS OUTCOME

Current proposals to set within EU Cohesion Policy “clear and measurable targets and outcome indicators ... [the indicators being] clearly interpretable, statistically validated, truly responsive and directly linked to policy intervention, and promptly collected and publicised”<sup>1</sup> respond to the growing demand for EU Cohesion policy, as well as for all other policies financed by the EU budget, to be more result/outcome-oriented, and to counteract “the understandable tendency of policy makers and the public alike to concentrate on highly aggregated, easily communicable measures”<sup>2</sup> and on means rather than ends.

The current shift of focus from actions and financial means to their outcome in terms of people’s well-being and progress through appropriate indicators can contribute to policy effectiveness and to shape the agenda for budget decisions. Several countries around the world have made significant progress in this direction and the OECD-hosted “Global project on measuring progress” has acted as a catalyst for the international debate<sup>3</sup>. The 2009 Report of the “Commission on the Measurement of Economic Performance and Social Progress” (Stiglitz-Sen-Fitoussi Commission) has reviewed many of the methodological issues involved and successfully alerted the general public<sup>4</sup>. The Report, together with the work of the European Union<sup>5</sup> and with important

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\* This note (with two Complementary notes, which have not been revised) presented the results of the work of a team of academics and experts coordinated by Fabrizio Barca and Philip McCann: Andrea Bonaccorsi (University of Pisa), Monica Brezzi (OECD), Henri de Groot (Free University of Amsterdam), José Enrique Garcilazo (OECD), Eric Marlier (CEPS-INSTEAD), Joaquim Oliveira (OECD), Mark Partridge (Ohio State University), Andres Rodriguez-Pose (London School of Economics and IMDEA, Madrid), Matthias Ruth (University of Bremen and University of Maryland), Riccardo Scarpa (University of Trento and University of Waikato), Frank Vanclay (University of Groningen and University of Tasmania), Attila Varga (University of Pecs). The work also benefitted from the contributions of the Commission services and of Anthony B. Atkinson (Nuffield College, Oxford, and London School of Economics), John Bachtler (University of Strathclyde – EPRC) and Alberto Martini (University of Piemonte Orientale).

<sup>1</sup> See the 5<sup>th</sup> Cohesion Report on Economic, Social and Territorial Cohesion ([http://ec.europa.eu/regional\\_policy/sources/docoffic/official/reports/cohesion5/index\\_en.cfm](http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/cohesion5/index_en.cfm)).

<sup>2</sup> See the December 2010 Report “Monitoring economic performance, quality of life and sustainability” jointly produced by the French “Conseil d’analyse économique” and the German Council of Economic Experts (page 9). The report can be downloaded from: [http://www.cae.gouv.fr/IMG/pdf/095\\_ANG.pdf](http://www.cae.gouv.fr/IMG/pdf/095_ANG.pdf)

<sup>3</sup> See <http://www.wikiprogress.org>

<sup>4</sup> See <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>

<sup>5</sup> The significant advancement in the indicator system made in the context of the European Employment Strategy (launched in 1997) and the EU cooperation in the field of social protection and social inclusion (2000), have been followed, among other things, by the 2009 European Commission Communication “GDP and beyond. Measuring progress in a changing world” (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0433:FIN:EN:PDF>)

advancements by some EU Member States<sup>6</sup>, have explored the ways in which indicators of well-being can accompany improved national account statistics and can be used in designing and managing policies.

**Place-based development policies, by applying a combination of endogenous and exogenous forces and requiring an appropriate multilevel governance to deal with the development-enhancing conflict between these forces, call for a particularly important role of well-being indicators within an effective monitoring and evaluation system. They are required to provide the information on policy objectives and policy performance that can support an intense public debate.**

Attempts have been made in the past to make Cohesion policy more focused on performance. But a lack of conceptual clarity on the very purpose of the monitoring and evaluation system has doomed these attempts to failure. Methodological difficulties (see below), an often exclusive focus on absorption issues as well as the overly-ambitious and failed plan to allocate some of the resources based on the achievement of targets<sup>7</sup> have prevented results. The emphasis of both programmes and implementation is still mostly on policy actions rather than performance. So far, reporting on projects and programmes has been inadequate; it has not provided the general public and public institutions with sufficient information on progress towards results expressed in terms of the well-being of citizens; while impact evaluation is barely implemented.

A step forward can now be made by moving from the five most recurrent mistakes which are made in the attempt of “orienting policy to results”:

- 1. The concepts of input, output, outcome/result and impact not being clearly distinguished.**
- 2. Indicators being assigned a marginal (“technical”) role in programming documents, their selection being postponed until after the approval of the documents.**
- 3. No standards or methodological principles for indicators being set and monitored by the external agency in charge for the development grants.**
- 4. *Context indicators* – dashboard/scoreboards of indicators aimed at describing the overall national or regional context and at detecting strengths and weaknesses – being confused with *outcome indicators*, aimed at capturing the dimensions of well-being on which policy can reasonably claim to have an effect.**
- 5. The achievement (failure) to achieve targets being confused with policy achievement (failure), as if no factors other than policy were at work.**

Based on the awareness of these mistakes, a process of monitoring and evaluation can then be built, whereby progress towards outcome and impacts are separately assessed. This can take place by:

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and by the elaboration of the Joint Assessment Framework (JAF), adopted by the Employment Committee and the Social Protection Committee (see <http://ec.europa.eu/social/main.jsp?langId=fr&catId=89&newsId=972&furtherNews=yes>), i.e. an indicator-based assessment system aimed at identifying “key challenges” and “monitoring progress towards the EU headline and related national targets” in the fields of employment and social inclusion. As President José Manuel Barroso said in the opening speech of the European Commission’s at the 2007, EU “Beyond GDP” Conference ([http://www.beyond-gdp.eu/download/barroso\\_speech.pdf](http://www.beyond-gdp.eu/download/barroso_speech.pdf)), the need exists to complement GDP “with indicators that are better suited to our needs today and the challenges we face today”.

<sup>6</sup> Together with the aforementioned Franco-German Report, see in particular the work of other EU Member States surveyed by the Commission Communication (see above) and by the OECD Global Project, and the recent plan of the UK Governments asking its Office of National Statistics to move in this direction. Steps are also being made in some Member States in the direction of switching from using input measures of government output to using measures of government performance (for the UK case see “Atkinson Review: Final Report, Measurement of Government Output and Productivity for the National Accounts”, downloadable from [http://www.statistics.gov.uk/about/data/methodology/specific/PublicSector/atkinson/downloads/Atkinson\\_Report\\_Full.pdf](http://www.statistics.gov.uk/about/data/methodology/specific/PublicSector/atkinson/downloads/Atkinson_Report_Full.pdf)

<sup>7</sup> See EU Commission, “The Performance Reserve” (2004), downloadable from [http://europa.eu/legislation\\_summaries/regional\\_policy/management/g24227\\_en.htm](http://europa.eu/legislation_summaries/regional_policy/management/g24227_en.htm).

- a) distinguishing outcome/result (from now on, outcome) from output and expressing the objectives in the programming documents and at project level in terms of changes in outcome measured by indicators chosen by Member States and assessed, whenever possible, with reference to explicit targets;
- b) ensuring the quality of outcome indicators through the adherence to clear-cut methodological principles that need to be met by these indicators;
- c) ensuring that Member States report about progress of outcome indicators;
- d) planning ex-ante and prospectively the assessment of policy impact and clearly distinguishing it from the monitoring of changes in outcome indicators.

**The goal is not to set a “dashboard of indicators” for the EU as a whole<sup>8</sup> in order to assess changes of contexts in a comparative way<sup>9</sup>. Nor the goal is to set for each Member State a “set of regional statistics” in order to monitor the change of context while Operational Programmes are being implemented. Nor the goal is to set a “menu of indicators” from which Member States can choose. The goal is rather to build a system of monitoring and evaluation whereby each Member State and Region chooses, according to agreed general principles, those outcome indicators that are most suitable to capture the objectives of its own programmes (which outcome for which people?) and to track the progress towards them, and commits to annually report about changes in these indicators and to evaluate impacts.**

The shift requires methodological clarity. This note focuses on issues a), b) and c) - not on evaluation of impacts. After providing a definition for outcome indicators, as well as a list of motivations for the new emphasis on outcome (section 2), two basic proposals are made for the Commission to formally adopt in its Regulation. The first one concerns the methodological principles to be met by outcome indicators (section 3). The second one is about the way outcome indicators should be used in the Partnership Contract and Operational Programmes, as well as at project level (section 4). Some lessons are then drawn from international and EU experience which the Commission should consider issuing as non-binding recommendations to Member States. They concern: the sources of indicators (section 5); how to select indicators through a deliberative process (section 6); how to deal with target-setting (section 7).

The Annex to this note tests the general methodological points with reference to several thematic priorities by providing examples of outcome indicators that Member States and Regions might want to consider for their choices at Programme and/or project level.

## **2 OUTCOME INDICATORS: DEFINITIONS AND MOTIVATIONS**

For shifting the focus towards outcomes, it is important to clarify and simplify the logical framework used in programming and implementing cohesion policy.

### *The new logic behind a revised Monitoring and Evaluation system*

The traditional framework – by now more than ten years old<sup>10</sup> - was never clear on the distinction and the linkages between inputs, outputs, outcomes/results and impacts (to refer to the terms traditionally used). A modernised policy now calls for a modernised framework, based on the

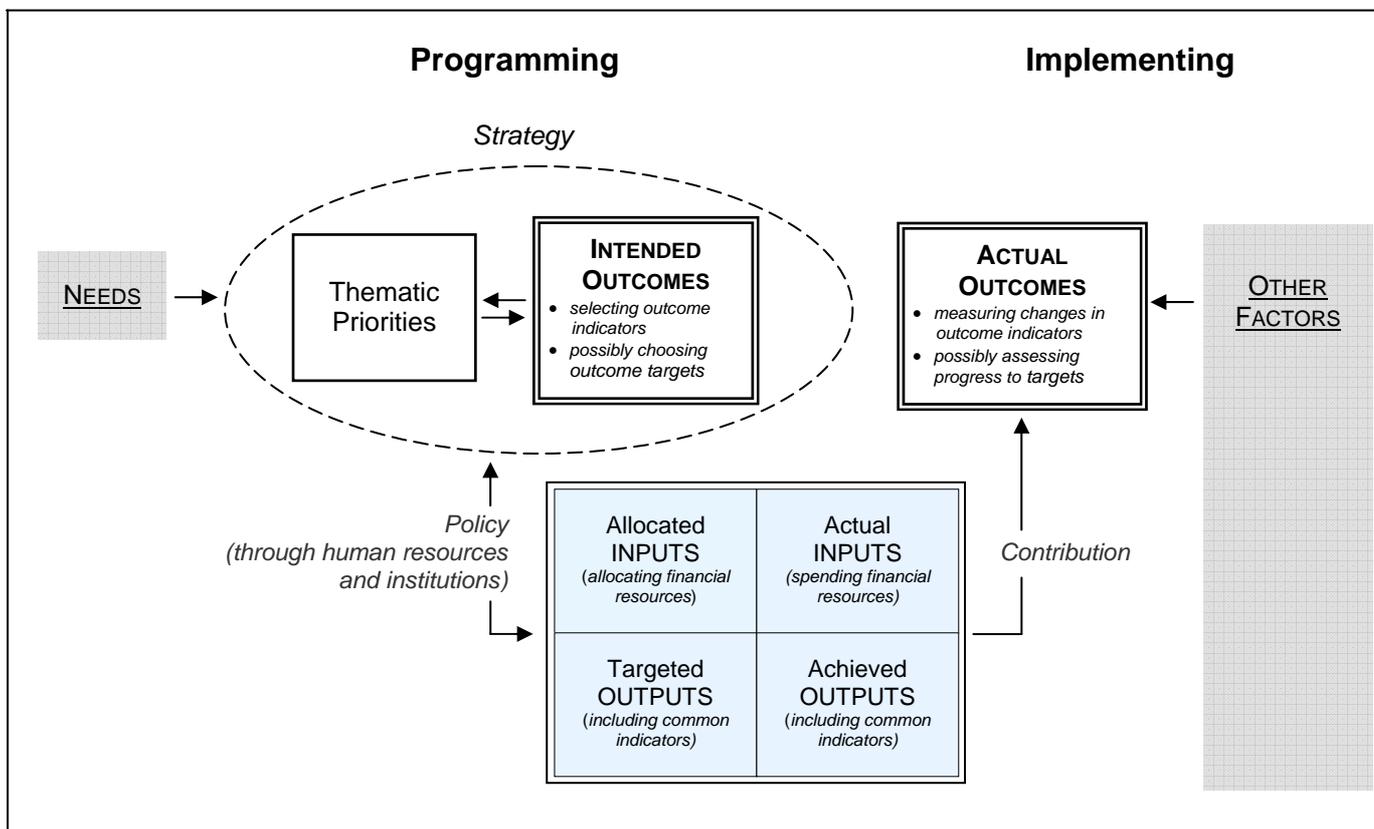
<sup>8</sup> This is for example the case of the Joint Assessment Framework (JAF) (see above).

<sup>9</sup> A link between the outcomes of Cohesion policy and the EU-wide headline objectives set by Europe 2020 should be made whenever applicable (see section 4), but this should not be pursued by a top-down homogenisation of outcome indicators.

<sup>10</sup> See European Commission (1999): the MEANS collection – Evaluating socio economic programmes, Luxembourg, Office for Official Publications of the European Communities.

lessons from Cohesion policy itself. This framework is summarised in the chart below: *policy actions, by allocating (spending) financial resources (the inputs) are aimed at producing planned outputs through which intended outcomes in terms of people’s well-being are expected to be achieved.* The actual outcomes will depend both on policy effectiveness and on other factors affecting outcomes: therefore, changes in outcomes must not be identified with the effect of policy action (denominated “impact”, according to international usage).

### Input, Output and Outcome: a framework



Once the programming and implementation framework are conceived along these lines, the **two distinct functions of the monitoring and evaluation system** can be described as follows:

- I) **Focusing the attention** of policy-makers, the media and the public on the intended outcomes of policy actions, by making them measurable and known and ensuring wide-open information on actual outcomes.
- II) **Assessing whether and how far policy action is effective** in delivering the intended outcomes.

**The two functions are linked but separate.** The first function can be performed without performing the latter: it ensures that all actors know why policy is being implemented, brings attention on targets and on whether progress towards them is being made and raises questions on whether and how far policy is having a role. The second function requires the measurements produced by the first and, through the use of dedicated methodologies, can provide an answer to the questions that those measurements have provoked.

### *Outcome indicators: definitions, examples, features*

Both functions refer to a concept that is central in the new framework: intended outcome, or simply “**outcome**”, defined as *the specific dimension of the well-being and progress of people (in their capacity of consumers, workers, entrepreneurs, savers, family or community members, etc.) that motivates policy action, i.e. that is expected to be modified by the interventions designed and implemented by a policy*. Examples of outcomes are the following ones or a mix of them:

- *mobility*, the improvement of which is the aim of building transport infrastructures and/or town planning and/or R&D, etc;
- *competence*, the increase of which is the aim of providing additional or enhanced education and/or offering child care and/or implementing urban renewal, etc
- *rationing of SMEs*, the reduction of which is the aim of providing them with subsidised loans and or services, etc.
- *jobless households*, the reduction of which is the aim of providing training and individualised personal support services and/or removing barriers to competition, etc
- *cross-border understanding*, the improvement of which is the aim of meetings and/or courses and/or pilot projects organised by “territorial cooperation”.

In these examples, transport infrastructures, town planning, R&D, additional or enhanced education, child care, urban renewal, subsidised loans, services to firms, training or individualised personal support services, competition-enhancing measures, territorial cooperation initiatives (meetings, courses, etc) are “**outputs**”: *measurable policy actions whose intended task is to produce outcomes*.

A policy strategy might be aimed at more than one outcome, i.e. at different dimensions of well-being and progress. In place-based policies, where the integration of different sectoral action is the norm, this will often be the case. For example, an urban-regeneration plan might at the same time be aimed at improving innovation, reducing/not aggravating access to work, improving air quality.

The choice of outcomes should be the result of a *deliberative process*. As the Stiglitz-Sen-Fitoussi Report argues: “Determining which elements should belong to [the] list of quality of life features [...] inevitably depends on value judgements about which aspects are of greater importance at a given place and time” (p.156). A relevant heterogeneity of value judgements generally survives any reasoned scrutiny. A deliberative process is necessary for these different views to come to the fore, for them to be compared and debated and for a fair choice finally to be made among them (see section 6).

Once an outcome has been chosen, for it to become the centre of attention and public debate it must be represented by appropriate measures. This can be done by selecting one or more appropriate **outcome indicators**, i.e. *variables that provide information on some specific aspects of the outcome that lend themselves to be measured*.<sup>11</sup> With reference to the previous list, 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 and/or the share of students in the last quintile of a test 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);

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<sup>11</sup> Outcome indicators can measure both actual “achievements”, i.e. activities and situations of people (e.g.: a change in the number of cars travelling from X to Y, or a change in the banking leverage of SMEs), and “opportunities to achieve”, i.e. what people would be able to achieve if they decided to do so (e.g.: a change in the travelling time from X to Y – were one decide to go from X to Y - or a change in the rationing behaviour of banks – were a firm decide to borrow). On this, see the Stiglitz-Sen-Fitoussi Report, pages 151-156. It is up to policy makers to decide which aspect to focus on, and to people to call for one or the other.

- *the share of all children living in “jobless households” appropriately defined (as an aspect of jobless households) ;*
- *share of people in a given community speaking the language of those living in a trans-border community (as an aspect of cross-border understanding).*

Notice that these indicators do not necessarily refer to the whole region and therefore do not necessarily correspond to regional statistics. This correspondence will occur whenever it is the reasonable intention of the policy – given its amount of resources and ambition – to influence significantly a given dimension of well-being for the people of the whole region. If, on the other hand, the policy’s reasonable goal concerns a subsection of the population, the outcome indicator will refer only to that sub-section.

The difference with the possible corresponding measures of output is clear-cut. With reference to the same examples, output indicators could be: the length, width or quality of the new roads; the number of hours of extra-teaching or some features of teaching itself; the capital investment made by using subsidies; the number of hours of training or a measure of the supplied personal support services; the number of meetings or trips organised by territorial cooperation projects.

By definition, any indicator captures only some aspects of the outcome that it is supposed to measure. Different aspects of the same outcome can send different signals about whether well-being is improving or worsening. For example, with reference to the same examples:

- the travelling time might be decreasing but at the same time the share of lethal accidents might be increasing;
- the average competence in mathematics might be increasing but at the same time a measure of “general culture” might be decreasing or the share of students “falling behind” (below a given threshold) might be increasing <sup>12</sup>;
- rationing by banks might be reducing according to one measure but not to a different one;
- the share of children living in jobless households might be decreasing according to one definition of “jobless” but not to a different one;
- the share of people speaking the language of those living in a trans-border community might be increasing, but the density of social relations between the two communities (measured through a survey) might be decreasing.

Due to the multiplicity of outcome indicators available for any given outcome, the selection of outcome indicators is very important. Care should be put in interpreting them <sup>13</sup>, while flexibility sometimes recommends to use more than one indicator for a given policy outcome.

Finally, the outcome indicators can capture a short- or a long-term feature of the outcome. In particular, they can differ according to which stage they are expected to capture of the “process of change” initiated by the policy action. <sup>14</sup>

Once outcome indicators have been chosen, a **baseline** must be established, *i.e. the value of the outcome indicator before the new policy intervention at stake is undertaken and possibly the expected trend.* **Outcome targets** can finally be established, *i.e. the values of the outcome*

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<sup>12</sup> In this case the trade-off between the efficiency and equity dimensions of the “outcome” comes to the fore, since the change of “average competence” captures the efficiency aspect of competence, while the change of the “share of students falling behind” captures the equity aspect.

<sup>13</sup> It would be sometimes appropriate to accompany the publication of an indicator with the identification of other aspects of the outcome at stake where there could be adverse effects not captured by the indicator.

<sup>14</sup> Unlike in the present programming period, no conceptual distinction should be made between “long-term” outcome and “short-term” outcome, since none of them is bound automatically to capture the policy impact, *i.e. the contribution of policy to the outcome itself.*

*indicators which policy action aims to achieve.* The target will reflect the theory of change held by policy-makers (see section 7).

### *Effects of the new logic*

The focus on outcome indicators ensured by this framework is instrumental in counteracting the innate tendency to over-emphasize both inputs and outputs and to disregard outcome. As it has been argued in the context of the EU cooperation and coordination in the social field: “Concentrating on outcomes means that Member States, in reporting on policy, are encouraged to relate those interventions to the desired/planned impact on outcomes, rather than simply present a catalogue of policy measures. Policy interventions can then play their appropriate role, as means to an end, rather than as they are so often presented, as if they were ends in themselves”<sup>15</sup>.

Asking all Cohesion policy programmes and projects to make explicit, through the choice of appropriate indicators, the outcomes at which they aim and to set a target for these indicators can have several positive effects on policy effectiveness:

- by ensuring that all actors share a common information and understanding on what policy measures are aimed at, it **promotes public debate** and a fair and reasoned choice of policy objectives and it strengthens public authorities in checking the rationale of policy proposals made by influential stakeholders;
- it **exerts an ex-ante disciplinary pressure on policy makers** to coherently check the means with reference to the ends and, by alerting beneficiaries on some specific outcomes, it increases the chance that policy interventions are not discontinued or downplayed when governments change;
- by emphasizing a check on the progress towards targets, it **raises questions** on whether policy is effective, provides some of the necessary - though by no means sufficient<sup>16</sup> - tools (the indicators) for answering these questions through evaluation, and can improve decision-making and the allocation of future resources.

**It is therefore clear that a systematic and rigorous use of well-defined outcome indicators is a very powerful managerial tool for increasing policy effectiveness.**

### *The further step: evaluating impact*

Outcome indicators represent a fundamental input in the final phase of a monitoring and evaluation process, not covered in this note: evaluating impacts, i.e. evaluating whether and by which extent changes in outcome indicators are the result of policy or of “other factors”. In order to evaluate impacts, further information is needed. In particular, in order to implement counterfactual impact evaluation, values of the outcome indicators (and their change through time) for the population at

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<sup>15</sup> Marlier, E., Atkinson, A.B., Cantillon, B. and Nolan, B. (2007), *The EU and social inclusion: Facing the challenges*, Bristol: The Policy Press, page 41. In this book, the authors put forward concrete suggestions for strengthening policy analysis and moving towards evidence-based policies.

<sup>16</sup> Observing that some outcome indicators are improving in the direction aimed at by the policy measures is not by itself enough to learn whether the improvement was produced by them. As much as observing that outcome indicators are worsening is not by itself a sign of policy failure. For “impact” to be assessed, i.e. whether and how much policy measures have modified outcome, the causality between means and ends must be established. This step requires appropriate techniques: spanning from counterfactual impact evaluation and realistic evaluation (see “An Agenda for a Reformed Cohesion Policy”: [http://ec.europa.eu/regional\\_policy/policy/future/pdf/report\\_barca\\_v0306.pdf](http://ec.europa.eu/regional_policy/policy/future/pdf/report_barca_v0306.pdf)) to reporting methods such as Performance Story Reporting (<http://www.clearhorizon.com.au/flagship-techniques/participatory-performance-story-reportin/>). It would produce very negative consequences if the monitoring of changes in outcome indicators were to be confused with impact assessment. At the same time, impact assessment is heavily impaired if outcome indicators are not ex-ante identified and measured.

which policy is aimed must be supplemented by the values (and change) of the same indicators for a “comparison group”, a “similar” population not affected by policy. The collection of these complementary data will also be a necessary ingredient of the monitoring and evaluation process.

### 3 METHODOLOGICAL PRINCIPLES TO BE MET BY OUTCOME INDICATORS

The specific nature and use of outcome indicators need to be reflected in the methodological principles that these indicators have to meet. By referring to a framework already developed in the European Union<sup>17</sup>, and following the outline anticipated by the Fifth Cohesion Report, outcome indicators selected by Member States should be:

- a) **reasonable:** capturing the essence of an outcome according to a reasonable argument about which features of the outcome 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 or within a certain range is a favourable or an unfavourable result);
- c) **robust:** reliable, statistically and analytically validated, and, as far as practicable, complying with internationally recognised standards and methodologies;
- d) **responsive to policy:** linked in as direct way as possible and potentially affected by the policy actions for whose assessment they are used, while not being subject to manipulation;
- e) **feasible:** built, as far as practicable, on available underlying data, their measurement not imposing too large a burden on Member States, on enterprises, nor on the citizens (see section 5);
- f) **debatable:** timely and openly available to a wide public, with room being built for public debate and for their own revision when needed and motivated<sup>18</sup>.

These methodological principles should be spelled out in the Cohesion policy Regulation as requirements to be implemented in the selection of outcome indicators of all Operational Programmes (and Partnership Contracts). Their implementation should inform negotiations with the Commission. The failure to do so deprives the whole new logic of a rigorous foundation.

Given the specific use of outcome indicators in the Cohesion policy framework – where the choice of indicators needs to fit the specific policies, value judgements and normative aspirations of each Member State – the requirement of “comparability” does **not** need to be satisfied, although it would certainly add value in terms of policy learning. This makes also clear that the outcome indicators of the new framework cannot be used for setting any EU-wide performance reserve (if such a controversial tool were to be introduced).

**The requirement of outcome indicators being “responsive to policy” is particularly notable.**

In the universe of indicators measuring well-being, it sets the ground for drawing a distinction between two categories:

- The *first category* includes those indicators which, although being possibly affected by a given policy measure, are also expected to be influenced by so many other factors that the **responsiveness appears very remote**; so remote that their analysis hardly represents a way

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<sup>17</sup> In particular, see the principles developed in the EU cooperation in the field of social protection and inclusion (discussed in T. Atkinson, B. Cantillon, E. Marlier and B. Nolan, “Social Indicators. The EU and Social Inclusion”, OUP, 2002) and those proposed by the Franco-German Report (see above), page 12.

<sup>18</sup> Revision of indicators is important when advances are made in understanding, when there are changes in policy concerns or when unintended policy outcomes become cause for concern.

to “focus” policy-makers attention and public debate<sup>19</sup>. This would be the case, for example, of: the productivity of the whole economy of a region, when the policy is aimed at promoting knowledge-intensive sectors; the percentage of car ownership, when the policy is promoting energy saving; an indicator of income poverty, when the policy is about improving social care or access to health.

- The *second category* includes those indicators whose **potential responsiveness to a given policy measure is expected to be relatively great and less remote**: it then makes sense for policy-makers to choose them as indicators of the specific dimensions of well-being that are expected to be modified by policy action. This is the case of the examples made in section 2 and of those made in the Annex.

The requirement of responsiveness to policy makes it clear the **strong distinction between *context indicators and regional statics, on one hand, and outcome indicators, on the other***. Context indicators – which can range from GDP and traditional macroeconomic statistics to other statistics of well-being – are used to assess the economic and social conditions of a given context (national, regional, sub-regional), possibly by examining changes of variables through time or comparing data across space, with the aim of detecting weaknesses and strengths, alerting policy-makers and steering policy. Context indicators do **not** necessarily make reference to any policy, and do not need to comply with any requisite of “responsiveness to policy”. **Outcome indicators, on the contrary, can be defined only once a policy has been identified and must refer to the population of beneficiaries that can potentially be influenced by that policy.** When the resources provided by cohesion policy are very large compared to the whole regional resources available for development, it might be the case that regional statistics are well suited to be used as outcome indicators. But when cohesion policy resources are small this is very unlikely the case.

Finally, outcome indicators can either be *objective*, i.e. verified by convincing documentary evidence, or *subjective*, i.e. based on respondents’ own judgement. Subjective indicators might be necessary in some important fields – for example, when attempting to measure outcome in the provision of public goods (especially environmental ones) via “hypothetical statements of willingness to pay”. Great care should be put in the selection, measurement and use of subjective indicators<sup>20</sup>. For both typologies, where possible and meaningful, measurement and publication of outcome indicators should be accompanied by qualitative information, or “commentary”, whereby special circumstances which have taken place and which might influence the value of the indicators are reported – for instance: an exceptional drought for an indicator measuring water irregularities.

#### **4 USE OF OUTCOME INDICATORS IN OPERATIONAL PROGRAMMES AND PARTNERSHIP CONTRACT AND AT PROJECT LEVEL**

##### *Operational Programmes and Partnership Contract*

Outcome indicators and outcome targets are needed at programme level – in the Operational Programmes and in the Partnership Contracts – as well as at project level.

Each **Operational Programme**, while specifying the planned outputs in terms of *output indicators* (using, where relevant, *common output indicators* which can be aggregated at EU level) and the *planned inputs* (assigned financial resources, broken down by category of expenditure), for each thematic priority would also specify according to Regulations:

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<sup>19</sup> As argued above, changes in outcome indicators do not necessarily capture policy impact. But it would be unreasonable to choose indicators whose remoteness from policy (or where the “noise” produced by other factors) is so high that it prevents even to postulate a significant and measurable impact.

<sup>20</sup> On this, see the Stiglitz-Sen-Fitoussi Report, pages 145-151.

- a) the intended outcome in terms of *outcome indicators*, referred to the population on which policy is intended to have an effect and satisfying the methodological principles of section 3, their *baseline* and their *targets*;
- b) information on each outcome indicator showing its adherence to the methodological principles (including a schedule for the release of the data);
- c) a sketch of how the outcome indicators are expected to be changed by policy action;
- d) a commitment to use outcome indicators in each project financed by the Programme.

The choice of outcome indicators and targets would be up to Member States and Regions, and would be the result of a deliberative process (see section 6). The examples in the Annex and the examples that the Commission would provide for all thematic priorities represent a way of clarifying what outcome indicators are about; **not** a menu to choose from.

The Commission would check during negotiation that the outcome indicators do indeed satisfy the methodological principles. This would be an indispensable requirements for the adoption of the Programmes. In the allocation of responsibilities between the Commission and Member States, the ex-ante methodological check by the Commission is the necessary counterpart of the Member States' and Regions' full responsibility in selecting the outcome indicators. Sanctions should also be foreseen for Member States / Regions failing to produce information on the outcome indicators complying with the methodological principles that they have committed to

The establishment of **outcome targets** would be strongly promoted, it would not be obligatory<sup>21</sup>, but Member States and Regions would have to motivate their failure to set targets.

The **Partnership Contract** of each Member State would include a section presenting all outcome indicators and targets of the Operational Programmes<sup>22</sup>. The Partnership Contract would also explain what links exist between these targets and those set in the National Reform Programme, and would explain whether and how - as it will not necessarily be the case - the targets contribute towards the specific EU headline targets set by the Europe 2020 strategy. Finally, it would contain a commitment to give yearly account of progress in the annual Reports on cohesion policy and in other public reporting, providing the best available understanding of the motivations for the progress that has taken place.

### *The project level*

Member States and Regions would commit in the Operational Programmes that each project will be required to have one or more outcome indicators and, whenever possible, the corresponding outcome targets. No reporting duties to the Commission about project-level outcome indicators would be foreseen for Member States. Indicators and targets would refer to the geographic area relevant for any specific project. For any project more than one indicator may be needed, for two reasons: first, as stressed above, for a given outcome it may be appropriate to focus on more than one aspect; second, integrated, place-based projects aiming at more than one outcome call for different indicators.

Setting outcome indicators and targets at project level is clearly a task that can be more easily satisfied than at programme level, since the requirement of responsiveness to policy intervention is

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<sup>21</sup> This choice would take into account the limited knowledge that policy-making has about what interventions are needed for achieving given outcomes, i.e. about the "theory of change". On this see section 7.

<sup>22</sup> This solution is coherent with the choice of simultaneity of the Partnership Contract and the Operational Programmes – both for their preparation and approval. It would allow for the outcome indicators of the Partnership Contract not to be too much removed from policy design (as they would be if selected before preparing the Operational Programmes) and therefore to respect the methodological principles of section 3.

of more immediate verification. The lack of available data may represent an obstacle for the choice and measurement of appropriate indicators. This is one more reason why it is essential for the selection of outcome indicators and the identification of data requirements to be embedded in the project design (see section 5).

### *The distinction between monitoring and evaluation.*

The new logical framework described here clarifies the distinct roles of: a) monitoring expenditure and output indicators; b) monitoring and reporting about outcome indicators and progress towards outcome targets; and c) policy evaluation.

In particular, in reporting annually about changes in outcome indicators and progress towards outcome targets (when established), Member States would present a qualitative assessment of these changes and some hypotheses on the contribution of programmes to outcomes. In running policy evaluation – according to plans presented in advance – Member States would tackle these hypotheses and more in general would attempt to assess the actual impact of projects and programmes on outcomes. These two activities are distinct but they provide information to each other: in particular, in the iterative system of programming, policy evaluation has a decisive role in offering new insights and ideas on how to revise objectives, resource allocation and outcome indicators.

Finally, the Commission could complement the outcome indicators identified and measured at Member State level with some EU-wide indicators. This is certainly possible for those thematic priorities where EU-wide surveys exist. In the case of social inclusion, for example, the Commission could consider complementing the existing poverty risk indicators based on country-specific thresholds with a background statistic based on an EU-wide threshold.

## **5 RECOMMENDATIONS ON SOURCES AND HUMAN CAPITAL**

Building a system of outcome indicators for a Monitoring and Evaluation system requires both adequate human resources and better data and sources. A strategy must be designed to plan these two steps and to minimise the ensuing costs.

As for human resources, both the Commission and the Managing Authorities of Member States and Regions must acquire a critical mass of professionals with the skill required by this innovation. This can be achieved both by a reallocation of some of the resources now engaged in audit and control – if a simplification will indeed allow it – and by a better use of Technical Assistance resources.

As for sources, in the new framework sketched here, where outcome indicators are tackled at the very beginning of the programming process, this issue can be more satisfactorily addressed. This is important since the selection and production of indicators should not become too burdensome on the managing authorities, but it should rather be a tool for easing and focusing programming, while the feasibility principle calls for great care in containing data collection costs. The issue is often not how to create new indicators, but rather how to make sure that the available data are used.

In the selection of outcome indicators the following sources can be considered:

- a) regional EU-wide statistics;
- b) regional nation-wide statistics;
- c) (sub-)national registers/administrative sources;
- d) collection of data collected as an integral part of project implementation;
- e) ad-hoc surveys.

As it was clarified, regional statistics do often fail to satisfy some of the methodological principles of section 3. In particular, some regional statistics (such as GDP per capita, productivity, etc.) might not be adequately responsive to the policy at stake: being influenced by a large number of “other factors”, they might be more suitable as “context indicators”.

However, one should use regional statistics as outcome indicators whenever it is appropriate. This will be often the case for regions where cohesion policy represents a large share of all resources for economic and social development. This is why a major contribution to the general availability of outcome indicators for Cohesion policy – with the additional advantage of comparability - would certainly come from an EU-wide investment in regionalising a few fundamental surveys which already cover all EU Member States. This is certainly the case of:

- the European Union Statistics on Income and Living Conditions (EU-SILC),
- the OECD Programme for International Student Assessment (PISA),
- the European Union Community Innovation Survey (CIS).

The investment in regionalising these data – already accomplished by some Member States – is a task to be pursued. Even for Member States where the amount of cohesion policy resources is small this investment would upgrade the quality of context indicators, i.e. the capacity to assess economic and social conditions of the region, to detect strengths and weaknesses and to alert policy-makers. In designing the reform of Cohesion policy the possibility should then be considered to finance a move in this direction.

National Statistical Institutes have started respond to the call for improved measures of progress, well-being and sustainable development by agreeing in the Sofia Memorandum<sup>23</sup> on improving the use of available information and planning the production of new statistics. The design and implementation of post-2013 Cohesion policy offers an opportunity, both at EU and Member State level, to promote such improvements and to ensure that an adequate investment is made in the regionalisation of national statistics.

As for the three other sources, they ought to be better exploited in improving data availability. First, a better use of administrative and registers data can in many circumstances help meet the need for more detailed (regional or even sub-regional) information at relatively low costs. Second, at project level, the task of collecting new data can often be shifted to the beneficiaries, by making it an integral part of the project implementation: this shift is clearly part of the increased focus on result, whereby it is both in the interest and the duty of beneficiaries to contribute to the policy actions by providing information that is needed both to monitor progress and to evaluate impact. Finally, a wider use of sample surveys is both possible and needed<sup>24</sup>, and has been recently made more convenient by the spreading of web-access<sup>25</sup> and by improvement in techniques.

Sample survey data are structured data collected by sampling the population of interest through an adequately tested and independently validated survey instrument. With adequate sample survey design it is possible to make high quality statistical inference on the population parameters from which the sample has been drawn. The use of sample surveys might be needed when projects affect dimensions for which no systematic data collection is available, or when data are unavailable in the necessary structure (repeated observations instead of cross-section). It can be of particular use in a

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<sup>23</sup> The Sofia Memorandum was agreed in September 2010 by the Directors General of the Member States’ National Statistical Institutes ([http://www.dgins-sofia2010.eu/pdocs/Sofia%20Memorandum\\_11October.pdf](http://www.dgins-sofia2010.eu/pdocs/Sofia%20Memorandum_11October.pdf)).

<sup>24</sup> The importance of survey-based techniques in public policy evaluation is underlined by the 2008 Nobel Prize lectures of James Heckman and Daniel McFadden. See: [http://nobelprize.org/nobel\\_prizes/economics/laureates/2000/heckman-lecture.html](http://nobelprize.org/nobel_prizes/economics/laureates/2000/heckman-lecture.html); and [http://nobelprize.org/nobel\\_prizes/economics/laureates/2000/mcfadden-lecture.html?print=1](http://nobelprize.org/nobel_prizes/economics/laureates/2000/mcfadden-lecture.html?print=1). Over 7000 survey-based analyses have now been published in the research literature (see Carson, R.T., 2011, “Contingent Valuation: A Comprehensive Bibliography and History”, Edward Elgar, Northampton MA, forthcoming).

<sup>25</sup> Greater attention should also be put to the analyses of internet traffic and content.

specific field very relevant for Cohesion policy: the provision of public goods, where surveys based on “hypothetical statement of willingness to pay” can be carried out.

While the responsibility for selecting the sources and the indicators is up to Member States and Regions, the Commission should play a relevant role in offering technical assistance. The “bag” of outcome indicators preliminarily presented in the Annex is an example of such an assistance. In the programming phase the Commission could also advise on the design of the required quantitative and qualitative data-gathering exercises. Such technical assistance should be designed to enhance the capability of local institutions to develop and run Cohesion policy programmes, to foster partnership between the Commission and the Member State, and to maximise the local ownership of the programmes.

## **6 RECOMMENDATIONS ON THE SELECTION OF OUTCOME INDICATORS THROUGH A DELIBERATIVE PROCESS**

Selecting outcome indicators useful for policy-making is a knowledge-intensive process, since the local context and the system of values matter: the selection depends on value judgements on which aspects of well-being are of greater importance in a given moment, these judgements are by nature place-based and are bound to be heterogeneous. **For outcome indicators to be truly effective as a tool for focusing the attention of all agents, their selection must be the result of a participatory process and an informed and informative public debate to take place at national, regional and local level.** All views need to be given a chance to come to the fore, public scrutiny of their soundness and merits must take place in an open way, and the final choice must be public and motivated.

The deliberative process should be structured in such a way that the responsibilities of the different actors are clearly attributed. The experience surveyed by the OECD Global Project and produced by Cohesion policy itself suggests that:

- it should be the responsibility of the **political level** to make goals explicit in terms of clear-cut outcomes;
- **administrators**, with the support of **academics and experts**, should have the responsibility for turning these outcomes into appropriate indicators and for designing feasible ways to communicate them, as well as for establishing targets <sup>26</sup>;
- **social and economic partners and active citizenship organisations** should have the responsibility and the room to voice their consent and dissent on the choices made by politicians and administrators and to advance proposals <sup>27</sup>.

The nature and extent of the deliberative process should obviously differ for Partnership Contract and Operational Programmes, on the one hand, and projects, on the other.

In the case of the **Partnership Contract** and the **Operational Programmes**, an effective and genuine consultation of all partners and an assessment of past experiences should lead to the selection of a limited number of indicators, since they can become more easily the priority Programmes and the object of public debate.

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<sup>26</sup> In performing this task methods such as Performance Story Reporting mentioned above are of particular use.

<sup>27</sup> Several studies have looked at the challenges of involving citizens in public policies [see in particular OECD(2009), “Focusing on citizens: public engagement for better policies and services”]. Citizens may be willing to participate but unable to do so – say, due to “cultural” barriers - or able and unwilling - say, due to a low trust in how government would use their contributions. Among the difficulties encountered in engaging citizens the most cited are lack of knowledge and communication rather than financial and human resources. The transparency and visibility of choice alone may not be enough to spur a democratic debate in communities or target groups where trust is poor and whenever citizens lack the relevant information for defining their needs. Participation must thus be actively promoted by national and sub-national authorities.

In the case of **projects**, commitments undertaken in the Operational Programmes should guarantee that the choice of outcome indicators is taken through a participatory process, whereby citizens are truly involved and lessons learnt from the evaluation of previous choices is used. Active citizens' organisations should be engaged in the definition of outcome indicators, by giving them fuller access to information; they should have the opportunity to express and dissent and to formulate proposals <sup>28</sup>.

**The role of informed debate and participatory process must not be limited to the preliminary phase of selecting outcome indicators but must cover the whole programming period.** Informing the community on the progress towards the identified objectives is one of the very reasons for outcome indicators and targets to be designed. The debate has thus to become public and be kept alive throughout the whole programming period, so as to learn from feedbacks and adjust the necessary actions. **To this end all collected data on outcome indicators must be made public and open.**

## 7 RECOMMENDATIONS ON HOW TO SET OUTCOME TARGETS

Outcome targets can strongly help focus public debate and provide an **incentive** for different stakeholders to share information, to take part in the selection of outcomes and corresponding outcome indicators, to follow up progress towards results, to raise questions on policy effectiveness <sup>29</sup> and to eventually influence resource allocation in the following programming period. On the other hand, outcome targets can act as a **perverse incentive**. Since policy-makers know rather little about causality (how much/what it takes to achieve a given target) and they may fear negative peer-review or sanctions, they may opt for low targets or decide not to fully take part in defining objectives in order to avoid target setting <sup>30</sup>.

These opportunities and risks should be taken into account in setting outcome targets. In particular, international experience suggests the following recommendations:

1. Targets should be **explicitly linked** to the policies and projects which are being undertaken.
2. Targets should be **time-bound**.
3. Targets should be based on **rigorous analytical evidence**: in setting them, one should move from a well-established baseline and, when possible, from estimated trends (in the absence of policy measures), and take into account previous experiences and benchmarks.
4. According to circumstances targets may be expressed in **relative terms** (rates of change/improvement) or in **absolute terms**. In a few cases, where the understanding of the causality link between policy and outcome is particularly weak but the outcome is still considered worth the programme effort, targets could be limited to the **direction of change** of a given outcome indicator.
5. Since targets would not to be used here to compare performance across different programmes, they could be expressed as **ranges rather than single values**.

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<sup>28</sup> International experience of setting systems of indicators to monitor the progress towards policy objectives shows that a monitoring process initiated by the civil society is better equipped to identify local needs and can help building a common vision on the necessary changes and on how to achieve them. See for example, with reference to measures of well-being and poverty, the paper by S. Alkire and M. Binat Sarwar in [http://ec.europa.eu/regional\\_policy/policy/future/pdf/7\\_alkire\\_final\\_formatted.pdf](http://ec.europa.eu/regional_policy/policy/future/pdf/7_alkire_final_formatted.pdf)

<sup>29</sup> As mentioned before, achievement or failure to achieve targets do not provide information by themselves on policy impact. But the setting of targets can be used as a benchmark of policy-makers' intention when carrying out impact evaluation through dedicated techniques.

<sup>30</sup> For a recent and thorough discussion of both the challenges and potential of setting targets (at national and EU level), see: Walker, R. (2010), *The potential of Eurotargets*, in: E. Marlier and D. Natali (eds.) with R. Van Dam, *Europe 2020: Towards a more Social EU?*, Brussels: P.I.E. Peter Lang, pp. 201-223, 2010.

6. Targets can be a stimulus for policy learning, they should be ambitious and yet realistic and expressed in a way to spur ownership. In this respect, the **revision of targets during implementation should be allowed**. This revision should: a) take place at fixed dates, so as to allow enough time to experiment and to produce information on results, and b) be based on reasonable and verifiable motivations, and possibly on evaluation results (made public).
7. **Attaching sanctions or financial awards to targets** should neither be prevented nor be mandatory: if this choice is made, **great care** should be put in assessing and counteracting its possible perverse effects.
8. Target-setting should be the object of **technical assistance** aimed at building in-house capacity for dealing with all the methodological issues described above.

## 8 CONCLUSIONS

There is a compelling need for a more performance-oriented EU Cohesion policy, which requires a shift of focus towards outcomes. The main attention of EU Cohesion policy needs to be put on the intended effects of policy interventions on specific dimensions of people's well-being and progress (outcomes) through the use of appropriate indicators, rather than on financial inputs and on actions; i.e. on ends rather than means.

For this, we have elaborated a proposal with:

- a set of binding methodological principles which all outcome indicators should satisfy;
- a scheme for using these indicators in the Operational Programmes and the Partnership Contract as well as in projects;
- a set of recommendations which should be developed and delivered by the Commission through Regulation on statistical data sources, on the selection of outcome indicators and on target setting.

A review of the existing and raising literature on this topic and of the experience of Member States, also in the context of Cohesion Policy, confirms that the conditions exist for this new framework to be feasible and implementable.

None of the proposals advanced in this note builds on a tentative ground. Surely enough, the implementation of the new framework calls for choices among alternatives to be made and for the mobilisation of technical expertise at EU, national, regional and local level. But all the methodological steps are constructed on sound and widely agreed theoretical foundations, have already been tested in several policy contexts (at both international and country levels) and require human resources and skills for which a growing number of young experts is being trained and which are available on the market.

The appropriate concern that the reform should not impose administrative burdens and undue costs on the authorities entrusted with programming and implementation is also addressed by the framework presented here.

First, the suggested framework simplifies and rationalises a framework which is already in place: it increases the effectiveness of activities of data gathering and monitoring that Member States are already conducting. Second, an attention to costs is central to the framework: a proper tackling of the issue of sources – along the lines which are already being autonomously taken by several Member States – can offer ways to minimise the financial burden. Third, any additional financial cost that the new framework might require would represent – if the implementation is thorough – the source of greater policy effects, i.e. it is bound to lead to a net value added.

## Annex

### EXAMPLES OF POSSIBLE OUTCOME INDICATORS

*The Annex shows the examples of possible outcome indicators responding to the methodological principles put forward in section 3 of the note. As clarified in this section, the list presented here should not be understood as the template of a dashboard or a menu of indicators from which Member States would be asked to choose. It is rather a way to facilitate the practical understanding of the new Framework presented in this note.*

*Notice that the appropriateness of outcome indicators can be judged only with reference to a given policy action. This is why, policy actions are specified in the table. (Obviously these policy actions are far from exhausting the policy actions that can be designed under each priority).*

*The examples are presented for some of the Thematic priorities in which Cohesion Policy can be articulated. The Thematic priorities used below have been mostly extracted (with a few adjustments) from the informal and preliminary document “Thematic Concentration for cohesion policy post 2013” presented by the European Commission in November 2010.*

*For the Thematic priorities linked to the Europe 2020 objectives “Improving the conditions for innovation, research and development” and “Meeting climate change and energy objectives”, the examples are drawn from a wider set which is presented and motivated in two Complementary notes, where indicators are also presented according to different typologies of regions. The Complementary notes, by providing several examples for each policy, make also clear that, since different indicators capture different aspects of a given outcome, reporting about progress for one outcome/policy generally requires the selection of more than one indicator.*

*In the case of the Thematic priorities linked to the Europe 2020 objectives “Promoting employment” and “Promoting social inclusion”, almost all examples are drawn from the “Joint Assessment Framework” (JAF) developed by the European Commission, the EU Employment Committee (EMCO) and the Social Protection Committee (SPC)<sup>31</sup>. While this reference ensures the additional requisite of comparability – a requisite which cohesion policy outcome indicators do **not necessarily** have to comply with (see section 3) – it limits the scope of examples. This section should then be considered as primarily illustrative.*

*With some exceptions, in listing the examples no reference is made to whether they are suitable for Operational Programs (and Partnership Contract) or for projects (for this distinction see the Complementary Notes). Sources or references to EU documents are mentioned when the indicators are already available, although in some cases the availability concerns exclusively the national level.*

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<sup>31</sup> See <http://ec.europa.eu/social/main.jsp?langId=fr&catId=89&newsId=972&furtherNews=yes>

## A1. EXAMPLES BY THEMATIC PRIORITY AND POLICY

Europe 2020 Objectives	Thematic priorities and policies	Outcome indicators
<p>1. <u>Improving the conditions for innovation, research and development</u></p>	<p>➤ <b>Strengthening research and technological development</b></p> <p><i>Strengthening the scientific base</i></p> <p><i>Fostering international research collaboration</i></p> <p><i>Supporting industrial R&amp;D</i></p>	<ul style="list-style-type: none"> <li>• Scientific publications per thousands of R&amp;D employment in the public sector (<i>Eurostat</i>)</li> <li>• Percentage of total publications with co-authors located in other regions (<i>OECD, forthcoming</i>)</li> <li>• R&amp;D expenditure per worker Innovation expenditure per worker % firms introducing product innovation % firms introducing process innovation (<i>CIS-NUTS2</i>)</li> </ul>
	<p>➤ <b>Promoting innovation and smart specialisation</b></p> <p><i>Fostering the creation of new firms in knowledge-intensive sectors</i></p> <p><i>Supporting the growth of new firms in knowledge-intensive sectors</i></p>	<ul style="list-style-type: none"> <li>• Natalty of firms in knowledge-intensive sectors Growth of employment in knowledge-intensive sectors (<i>Eurostat</i>)</li> <li>• Numbers of entrepreneurial ideas identified in the scouting stage (<i>Only for projects: survey</i>)</li> <li>• Numbers of firms in the project accessing seed capital (<i>Only for projects: project data and survey</i>)</li> </ul>

<p><i>Supporting non R&amp;D innovation</i></p>	<ul style="list-style-type: none"> <li>• (For non R&amp;D performers) Innovation expenditure per worker Non-R&amp;D innovation expenditure per worker % firms introducing product innovation % firms introducing progress innovation (CIS-NUTS2)</li> </ul>
<p>➤ <b>Enhancing accessibility to and use and quality of information and communication technologies</b></p> <p><i>Ensuring access to broadband services for all</i></p>	<ul style="list-style-type: none"> <li>• Share of households with broadband access Share of firms with broadband access (Eurostat)</li> </ul>
<p>➤ <b>Removing obstacles to the growth of SMEs</b></p> <p><i>Fostering the innovation capacities of SMEs</i></p>	<ul style="list-style-type: none"> <li>• % of SMEs introducing product or process innovations (Eurostat-CIS)</li> <li>• % of SMEs introducing marketing or organizational innovations (Eurostat-CIS)</li> </ul>
<p>➤ <b>Removing bottlenecks in key network infrastructure</b></p> <p><i>Removing bottlenecks in the transport networks</i></p>	<ul style="list-style-type: none"> <li>• Average travel time of passengers between major urban centres by modality of transport</li> <li>• Average travel time of passengers between urban centres and agglomeration settlements (commuting time)</li> </ul>

<p>2. <u>Improving education levels</u></p>	<p>➤ <b>Improving the quality and performance of education and training systems at all levels and increasing participation in tertiary or equivalent education</b></p> <p><i>Promoting participation in the education and training system</i></p> <p><i>Improving educational outcomes in key competences</i></p> <p><i>Enhancing the international attractiveness of Europe's higher education</i></p> <p><i>Promoting cross-border cooperation of Universities</i></p>	<ul style="list-style-type: none"> <li>• Completion of tertiary or equivalent education in the age group 30-34 (<i>Europe 2020 Headline target</i>)</li> <li>• Early leavers from education and training (<i>Europe 2020 Headline target</i>)</li> <li>• Share of children between 4 years old and the age of starting compulsory primary education that participate in early childhood education (<i>JAF</i>)</li> <li>• Average score of 15-year olds in reading, mathematics and science (<i>OECD-PISA</i>)</li> <li>• Share of low-achieving 15-year olds in reading, mathematics and science (<i>JAF</i>)</li> <li>• Percentage of foreign students of all enrolled tertiary education students (<i>Eurostat</i>)</li> <li>• Numbers of citations awarded to papers published by universities (normalized by discipline)</li> <li>• Number of scientific papers published and research grant funding achieved (normalized by discipline) with co-researchers from universities in other countries</li> </ul>
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<p>3. <u>Meeting climate change and energy objectives</u></p>	<p>➤ <b>Supporting in all sectors the shift towards a low-carbon, resource efficient and climate resilient economy; promoting renewable sources</b></p> <p><i>Fostering transition to local renewable energy and/or fostering energy efficiency</i></p>	<ul style="list-style-type: none"> <li>• GHG emissions (total, per capita, per employee) <sup>1</sup></li> <li>• Percentage of manure and other agriculture by-products used for energy conversion</li> <li>• Percentage of industrial and households wastes used for energy conversion</li> </ul>
	<p>➤ <b>Upgrading Europe’s energy network</b></p> <p><i>Fostering energy efficiency through network</i></p>	<ul style="list-style-type: none"> <li>• Trading volume (per day, per year, during extreme events such as heat/cold waves etc), across jurisdictions (such as States, grid operators)</li> </ul>
	<p>➤ <b>Promoting sustainable transport</b></p> <p><i>Promote non-motorised transport options</i></p> <p><i>Promote public transport</i></p>	<ul style="list-style-type: none"> <li>• Average distance of schools, shops, churches, places of employment from population centroid</li> <li>• Per capita vehicle km travelled with public transport relative to private motorized transport</li> </ul>
	<p>➤ <b>Correcting and preventing unsustainable use of resources</b></p> <p><i>Promoting the increased reuse and recycling of materials</i></p>	<ul style="list-style-type: none"> <li>• Percentage of agricultural and forestry wastes reused as fertilizers (on farms or sold)</li> <li>• Percentage of land not used for agriculture, settlements, etc.</li> </ul>

<sup>1</sup> An alternative indicator, on which the OECD is building comparable figures, is “CO<sup>2</sup> emission from ground transportation per capita”.

	<p><i>Improving the protection of land and water bodies</i></p> <p><i>Promoting clean air <sup>2</sup></i></p>	<ul style="list-style-type: none"> <li>• Species diversity in water bodies</li> <li>• Percentage of households with waste water treated in tertiary, quaternary treatment process</li> <li>• Ambient concentration of SOX, NOX, PM, and other air pollutants</li> <li>• Hospitalization rates for respiratory ailments</li> </ul>
	<p>➤ <b>Promoting innovative and sustainable use of natural and cultural resources</b></p> <p><i>Promoting the use of natural/cultural resources for tourism and education</i></p>	<ul style="list-style-type: none"> <li>• Number of visitors to natural and cultural resources (UNESCO world heritage and similar listings and sites)</li> </ul>
<p>4. <u>Promoting Employment</u></p>	<p>➤ <b>Increasing labour market participation of women and men, reducing structural unemployment and promoting job quality</b></p> <p><i>Promoting labour market participation</i></p> <p><i>Promoting job quality</i></p>	<ul style="list-style-type: none"> <li>• Employment rates, by age, gender and education levels (levels and growth) (<i>Europe 2020 Headline target</i>)</li> <li>• Activation of long-term unemployed <sup>3</sup> (<i>JAF</i>)</li> <li>• Employment rate gap between low-skilled workers and non low-skilled workers, by gender (<i>JAF</i>)</li> </ul>

<sup>2</sup> Group of sulfur dioxide species, group of nitrogen oxides and volatile organic compounds.

<sup>3</sup> Stock of participants in regular activation measures (LMP categories 2 -7) that were previously long-term registered unemployed divided by the stock of long-term registered unemployed plus the stock of participants in regular activation measures that were previously long-term registered unemployed and whose unemployment spell is broken by participation in a regular activation measure [Long-term unemployed = 12+ months for adults (25+) and 6+ months for youth (<25)].

<p><i>Promoting gender equality on the job</i></p> <p><i>Promoting regional and cross-border mobility</i></p>	<ul style="list-style-type: none"> <li>• Employment gender gap (JAF)</li> <li>• Gender pay gap (JAF)</li> <li>• Dispersion of regional (un)employment rates (JAF)</li> <li>• Regional and cross-border mobility rates</li> </ul>
<p>➤ <b>Developing a skilled workforce responding to labour market needs and promoting lifelong learning</b></p> <p><i>Improving matching of supply and demand</i></p> <p><i>Improving skills</i></p> <p><i>Promoting life-long learning</i></p>	<ul style="list-style-type: none"> <li>• Vacancies for unemployed (JAF)</li> <li>• Participation of mature students (35+) for the first time in tertiary education, by gender</li> <li>• Number of students studying STEM (Science, Technology, Engineering and Mathematics) subjects</li> <li>• Percentage of adult population aged 25-64 participating in education and training, by gender (JAF)</li> <li>• Percentage of adult population aged 25-64 participating in continuous vocational training, by gender (JAF)</li> </ul>

<p>5. <u>Promoting social inclusion in particular through the reduction of poverty</u></p>	<p>➤ <b>Promoting social inclusion and combating poverty</b><sup>4</sup></p> <p><i>Promoting access to adequate education</i></p> <p><i>Promoting access to adequate health</i></p> <p><i>Promote access to adequate housing</i></p> <p><i>Promoting an overall reduction of poverty and exclusion</i></p>	<ul style="list-style-type: none"> <li>• Early leavers from education and training (<i>Europe 2020 Headline target</i>)</li> <li>• Share of low-achieving 15 year olds in reading mathematics, science (<i>JAF</i>)</li> <li>• Percentage sum of people reporting to be limited or very limited in their daily activities (<i>PIM</i>)</li> <li>• Self-reported unmet need for care<sup>5</sup> (<i>JAF</i>)</li> <li>• Severe housing deprivation by age (<i>JAF</i>)</li> <li>• Housing cost overburden for working age adults<sup>6</sup> (<i>JAF</i>)</li> <li>• Union of three indicators: <ul style="list-style-type: none"> <li>○ People living in households at risk of poverty - at country and regional levels (EU definition: 60% national median; by gender and by age) + value of poverty risk threshold in Purchasing Power Standards (PPS)</li> <li>○ People living in severely materially deprived households - at country and regional levels (EU definition: lack of</li> </ul> </li> </ul>
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<sup>4</sup> Examples for this Thematic priority refer almost exclusively to the Joint Assessment Framework (**JAF**) adopted by the Employment Committee and the Social Protection Committee (see <http://ec.europa.eu/social/main.jsp?langId=fr&catId=89&newsId=972&furtherNews=yes>) and to the “Portfolio of indicators for the monitoring of the European Strategy for Social Protection and Social Inclusion – 2009 updated (**PIM**)” (<http://ec.europa.eu/social/main.jsp?catId=756&langId=en>).

<sup>5</sup> Total self-reported unmet need for medical care for the following three reasons: financial barriers + waiting times + too far to travel. This indicator ought to be analysed together with care.

<sup>6</sup> Percentage of people aged 18-64 who live in households where total housing costs exceed 40% of the total disposable household income (alternatively, as in JAF, the indicator can refer only to people at-risk-of poverty).

	<p><i>Breaking the intergenerational transmission of poverty. Tackling child poverty</i></p> <p><i>Tackling poverty in old age</i></p> <p><i>Promoting social inclusion of immigrants</i></p>	<p>at least 4 out of 9 deprivation items; by gender and by age)</p> <ul style="list-style-type: none"> <li>○ People living in households with a very low work intensity - at country and regional levels (EU definition: work intensity less than 20%; by gender and by age) <i>(Europe 2020 Headline target)</i></li> <li>• Children 0-17 living in households at risk of poverty (definition; see above) + value of poverty risk threshold in PPS <i>(JAF)</i></li> <li>• Children living in severely materially deprived households (definition above) <i>(JAF)</i></li> <li>• Children living in households with a very low work intensity (definition above) <i>(JAF)</i></li> <li>• People aged 65+ living in households at risk of poverty rate, by gender + value of threshold in PPS <i>(JAF)</i></li> <li>• People aged 65+ living in severely materially deprived households, by gender <i>(JAF)</i></li> <li>• At risk of poverty rate (EU definition) of immigrants, by gender</li> <li>• Employment gap of immigrants <sup>7</sup>, by sex and for EU-27 and non EU-27 migrants <i>(PIM)</i></li> </ul>
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<sup>7</sup> Percentage point difference between the employment rate for non-immigrants and that for immigrants.