

GDP and beyond

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1. Background

1.1 Introduction

Gross Domestic Product (GDP) has been used as an indicator of economic performance since the 1930s. After the Great Depression, it became a solid basis for economic policy decisions but it has also come to be considered as a proxy indicator for overall societal development and progress in general. However, GDP has several limitations in this sense; it cannot distinguish between activities that have a negative or a positive impact on well-being and it does not take into account the non-economic factors that add to well-being, such as environmental and social aspects.¹ Additionally, it encourages very short term thinking.

With the overall objective of assessing the achievement of balanced progress towards social, economic and environmental goals in the context of sustainable development, there are a number of debates and initiatives aiming at identifying and developing indicators that may provide complementary information to GDP, especially in the socio-environmental field. At the European and international level, the Commission's August 2009 Communication on 'GDP and beyond - Measuring progress in a changing world' and the Stiglitz Commission's September 2009 report put, respectively, again the topic high on the agenda, after the 2007 'Beyond GDP' conference. Concurrently, at the national and regional/local level there is evidence of initiatives aimed at developing alternative indicators to GDP as a basis for policy-making and local development.

1.2 The Beyond GDP conference

In November 2007, a high-level conference on Beyond GDP was jointly organised by the European Commission (EC), the European Parliament, the Club of Rome, the OECD and the WWF. The objective of the conference was to clarify which indices are most appropriate for measuring progress, and how these can produce a more reliable knowledge base for better public debate and policy-making. The main achievement of the conference was to reveal a high degree of political consensus among the various attending stakeholders (policy makers, experts, and civil society representatives) on the need for change in

¹ Examples of non-economic factors include: environmental issues, such as resource depletion, emissions of carbon and other pollutants, water quality and biodiversity; social issues, such as poverty, inequality of income distribution, educational attainment and health-care access; non-market goods and services, such as ecosystem services, volunteer work and the value of leisure.

measuring progress in a modern society, taking into account its complexity, current needs and challenges.

The conference agreed some general conclusions:

- GDP is a rigorous indicator for economic purposes. It is expected to continue playing a role in economic decision-making but it is not a good indicator of well-being.
- Rather than looking for a single alternative to GDP, a number of potential alternatives should be considered, from new headline and/or composite indicators to integrated accounting.

Access to quality, timely data is important. Environmental and social information is often years old by the time it reaches policy makers. The way forward, therefore, also demands progress on the various measurement tools.

- As an essentially subjective concept, there might not be consensus on what well-being is and this implies problems of aggregation and territorial comparability of the information.
- There is urgency for action.

The good participation of civil society actors at the conference confirmed that this review process is not led solely by the public sector. In 2007, a GlobeScan poll showed that public opinion is, in general, supportive of these EU/international initiatives to go beyond GDP while measuring progress and development. In the same year, a Eurobarometer survey revealed that *‘Europeans progressively position the state of the environment (80%) on a par with economic factors (84%) as issues which influence their quality of life’*.

Composite indicators, or indices, encompass different variables, each variable having a weight. As single-figure indicators they are easy to communicate, effective in attracting public interest, raising awareness and focusing debate; but since they imply judgement decisions on the weight of each variable, they may lack neutrality and transparency and, in the worst case, send misleading messages.

1.3 Main concepts and objectives of COM (2009) 433

At the Beyond GDP conference, the EC expressed its willingness to take a leading role in the process, in partnership with other international organisations, state and non-state actors. In August 2009, a Communication identifying five concrete actions to be taken in the short to medium term for a more

comprehensive measurement of progress was released. A review of progress in implementation is planned for 2012.

The five actions outlined by the Communication include:

- I. **Developing (i) a comprehensive environmental index and (ii) improved quality-of-life and well-being indicators to complement the GDP indicator with information on the environmental and societal dimensions of development.** The publishing of an environmental index to be applied within the EU is expected in 2010. It will be produced on an annual basis and will reflect progress on environmental protection in the major strands of environmental policy (climate change and energy use, nature and biodiversity, air pollution and health impacts, water use and pollution, waste generation and use of resources). The index will measure the ‘harm to’ or ‘pressure on’ the environment’. Potentially, an indicator of ‘environmental quality’, in terms of the number of European citizens living in a healthy environment, will also be considered for development. The choice to develop an environmental index for Europe derives from the belief that existing indices such as the ecological and carbon footprints are limited in scope. For quality-of-life and well-being indicators, the Communication relies on the outcomes of the work currently undertaken by The European Foundation for the Improvement of Living and Working Conditions as well as on the findings of specific feasibility studies, some of which were jointly launched with OECD.
- II. **Producing timely data to allow policy-making to react quickly to new developments.** The Communication focuses on the mechanisms used to collect environmental and social data, and in particular on the way these mechanisms can be improved to generate more timely information. For environmental data,

The Open Method of Coordination (OMC) is a tool of governance based on common objectives and indicators. In 2008, the Commission proposed in **COM (2008) 418** a reinforcement of the ‘Social OMC’ (i.e. related to the field of social protection and inclusion) in accordance with the objectives of the Renewed Social Agenda. In particular, the setting of quantitative targets by MS, to be monitored by means of social indicators, which may be differentiated by country or group of countries, was encouraged. The Communication also envisaged the reinforcement of the necessary analytical tools for the development of better knowledge-based social policies, namely the collection and analysis of statistical data and the definition of indicators related to the topics covered by the OMC.

automatic measurement stations and ‘now-casting’ statistical techniques are expected to improve real-time monitoring. In the social domain, being data gathered mainly through surveys, the new European System of Social Statistical Survey Modules is expected to improve data collection procedures.

- III. **Improving reporting on distribution and inequalities.** Within the framework of the Renewed Social Agenda, the Commission reports on a set of indicators agreed with the Member States (MS); the current analysis looks not only at income disparities but also at other non-monetary aspects of social exclusion. The Communication expects this reporting exercise to be improved and enriched by complementing studies focussing on specific issues.
- IV. **Developing a Sustainable Development Scoreboard and establishing thresholds for environmental sustainability.** The scoreboard is expected to be based on, but not be limited to, the EU set of Sustainable Development Indicators (SDIs), agreed with the MS to monitor progress against the objectives of the EU Sustainable Development Strategy (SDS), and is meant to stimulate the exchange of experience on policy responses. On the other hand, thresholds for key pollutants and renewable resources will indicate ‘alert levels’ to policy makers before the actual critical points are reached, thereby informing policy debate and assessment. A pilot version of the SD scoreboard was expected for 2009.
- V. **Developing consistent data frameworks at national accounts level for environmental and social information.** As called for by the European Council in its June 2006 conclusions, the EU and its MS are expected to extend the national accounts to key aspects of sustainable development. The Communication anticipates this process to be part of future revisions of the international System of National Accounts and of the European System of Accounts. In particular, the Communication puts a great emphasis on environmental accounting and its integration with economic accounting, with a view to complementing physical environmental data with monetary figures.

Finally, the Communication acknowledges that apart from being a road map for action in the beyond GDP process, the reflections on indicators ‘*could contribute to setting new strategic goals for the post-2010 Lisbon Strategy*’.

1.4 The position of the CoR on some of the issues address by COM (2009) 433

The CoR recommended in its opinion 85/2007 *‘that the provisions of EC Treaty Articles 99 and 128.....should be implemented in a comprehensive context including environmental and institutional as well as economic and social aspects in the integrated package of guidelines, so as to enable the Sustainable Development Strategy to put the cross-cutting and overarching nature of sustainable development into practice’*. It further called on the Commission to propose policies encompassing *‘ceilings for the production of certain pollutants or exploitation of certain resources’*.

With reference to the EU Cohesion Policy, the CoR noted that its purpose is to support the economic as well as the ecological and social dimensions of development (CdR 66/2005), and that territorial cohesion shall imply reducing existing inequalities at regional and local level; in particular the CoR called upon the Commission to develop adequate tools (among which indicators) to determine and monitor territorial disparities with regard to specific socio-economic problems that may be faced by certain types of region (mountainous, islands, outermost regions, etc.) as well as with respect to development and prosperity intended as *‘income, availability of public services, quality of healthcare and the provision of cultural and vocational education’* (CdR 273/2008 and CdR 274/2008).

Within the debate on the post-2010 Lisbon Strategy, the CoR recently (CdR 25/2009) called for the new upcoming Strategy to have as an explicit overarching objective *‘a high quality of life and well-being for all EU citizens’* and reiterated that combating poverty and wealth inequalities requires a territorial approach across all policies. The opinion also specifically referred to the need of different tools for the measurement of the Strategy’s impact, calling, specifically for:

- The development of new indicators providing a more meaningful tool for measuring prosperity, well-being and quality of life in Europe than GDP currently offers.
- The measurement of *‘wider societal and environmental challenges, including child poverty indicators, income distribution, levels of CO2 and other emissions, impact on biodiversity, and other elements that form part of a broad definition of well-being, and that reflect differences at sub-national level across Europe’*.

- The direct involvement of regional and local authorities in determining targets and indicators for the new upcoming Strategy.

2. The development of new indicators complementing GDP: main recommendations

Because of the multi-level and multi-stakeholder nature of the process, selected recommendations have been structured according to their predominant policy (section 2.1) or technical character (section 2.2), the latter referring to recommendations made by international/national statistical offices and/or statisticians. Suggestions for the development of new indicators are presented under section 2.3.

2.1 Policy level

At policy level, recommendations relate to the urgency, scope, scale and concerted nature of action needed, while on the development of new indicators, the focus is on proposing a common understanding of well-being (or welfare) and a common measurement framework for progress.

Urgency for action

- The current financial and economic crisis has highlighted the need for better metrics/sets of indicators on which policy and individual decisions may be based. Some members of the Stiglitz Commission believe one reason the economic crisis took many by surprise is that the measurement system failed to provide the correct information on economic performance.

Scope of action

- The European Economic and Social Committee (EESC) in its opinion on ‘Beyond GDP – measurements for sustainable development’ noted that ‘switching to a policy that is not exclusively based on economic growth but is also determined by social and environmental factors’ is a long term process. In order to keep the process feasible, the definition of indicators should be limited to the EU MS, possibly with extension to candidate countries and countries having comparable economic developments.

Scale of action

- During the Beyond GDP conference, the Portuguese EU Presidency called for a measurement of progress ‘*on several territorial levels in a totally comparable way*’. Indicators not allowing for inter-regional comparison could end-up not being useful.²
- The Lisbon council recommends clearer linkage of macro policy and macro indicators to the regional dimension. This would imply the need for more data at the local level and a harder engagement of local authorities in the production and dissemination of data, engagement that could possibly be achieved by setting regional targets, alongside the national ones.³ Referring the measurement process to the regional and local level could also achieve better and more provision of information to citizens on the need for, and use of, indicators.

Common concept of progress, well-being, welfare, or wealth

- For the EU ‘*progress means economic performance in a global world, together with social cohesion and environmental sustainability*’.⁴ These concepts are already clearly defined within the renewed Lisbon Strategy which should represent, together with other relevant EU strategies, the European political framework of reference.
- The concept of ‘well-being for all’ is fundamental to the definition of social cohesion put forward by the Council of Europe; the concept is to be based on the way in which citizens and communities see it. Some methodological work carried out by the Council, highlighted that well-being was systematically reflected into the following eight dimensions: feelings, personal balance, social balances, commitment/participation, relations between persons, relation with institutions, access to essential resources and living environment.
- The Stiglitz Commission considers the concept of well-being a multi-dimensional one, inclusive of: material living standards (income, consumption and wealth); health; education; personal activities, including work; political voice and governance; social connections and relationships; environment; insecurity, in economic as well as physical terms. Measuring

² Rui Baleiras, Secretary of State for Regional Development of Portugal - and EU Presidency at the time of the conference. Proceedings of the Beyond GDP conference, Session 1.

³ The case of Spain including a breakdown by region of the main goals of the Lisbon Agenda, in its [National Reform Programme](#), is mentioned.

⁴ See note 2.

all these dimensions requires both objective and subjective data that the Stiglitz Commission suggests collecting by means of surveys. Further recommendations include: (i) assessing inequalities within each dimension; (ii) establishing links among the various dimensions for each person; (iii) aggregating information across all dimensions to develop single summary measures or indices.

The Commission on the Measurement of Economic Performance and Social Progress (**'The Stiglitz Commission'**) was created in February 2008 on the initiative of the French government. Its work took a global approach and aimed to: (i) identify the limits of GDP as an indicator of economic performance and social progress; (ii) consider the additional information that might be required for the production of more relevant indicators of social progress; (iii) assess the feasibility of alternative measurement tools proposed and discuss how to most appropriately present this information. The 2009 report's recommendations centre on changing the emphasis from measuring economic production to measuring human well-being; on the problems of defining well-being; and on how to measure environmental sustainability.

- The OECD adopts the broad concept *'that societal progress occurs when there is an improvement in the sustainable and equitable wellbeing of a society'*.⁵ This is in line with the Istanbul Declaration where communities are encouraged *'to consider for themselves what 'progress' means in the 21st century'*. The 'progress of a society' (or societal progress) is: (i) a multi-dimensional concept that includes both material and non-material aspects of well-being; (ii) a dynamic concept that looks at the past and considers the future – in particular with regard to the sustainability of the current level of well-being; and (iii) refers to the experiences of individuals. The 'well-being of a society' (or societal well-being) is the sum of the human well-being and the condition of the ecosystem.

The second World Forum on 'Measuring and Fostering the Progress of Societies' (Istanbul, 2007) gave the OECD the mandate to begin a [Global Project on 'Measuring the Progress of Societies'](#). The project goals are to: advocate globally encouraging societies to develop their own measures of progress; assist those who want to measure progress by sharing and developing best practices and providing support; and achieve results by promoting the use of these measures, by working with the media and the ICT industry.

⁵ The reference to 'equitable' takes into account inequalities in human well-being and condition of the ecosystem that may occur across and within societies or geographical regions and between generations.

Frameworks to measure the progress of societies

- The OECD proposes a conceptual framework to measure progress, intended as a tool to identify/describe the components of societal progress that should be measured, but without providing indications on the actual measurements. The OECD framework considers that societies are based on two systems: the ‘Human system’ and the ‘Ecosystem’, interlinked by means of ‘resource management’ and ‘ecosystem services’.⁶ The framework: (i) encompasses elements that can and cannot be expressed as ‘capital’; (ii) allows for objective and subjective measures; (iii) provides measurements for input domains such as the economy, governance and culture; and (iv) has the measurement of progress of human well-being as one of the two major focus.
- The National Accounts of Wellbeing (NAW) is a framework for the measurement of well-being developed by the New Economics Foundation. It focuses only on the subjective measurement of human well-being (not of the ecosystem well-being) and it is made up of personal well-being (encompassing emotional well-being, satisfying lives, vitality, resilience and self-esteem; and positive functioning) and social well-being (encompassing supportive relationships, and trust and belonging).
- The EU set of SDI is an example of a theme-oriented framework conceived to provide a clear and easily communicable structure, relevant to political decision-making. Within the framework, indicators are ranked in three levels: headline indicators to monitor the overall objectives of the strategy; second-level indicators to monitor the operational objectives of the strategy; third-level indicators related to other relevant actions. Although the framework is based on an integrated approach in the use of statistics, looking at economic development, social cohesion and protection of the environment, it has nonetheless proved to be too focused and the information provided too limited, in particular on the progress of human well-being.

Stakeholder participation

- Moving beyond GDP implies the adoption of a different perspective on unit value (money). There are several examples of placing a discussion on indicators within a process of democratic debates involving both the public and civil society (among which the ‘Grenelle de l’environnement’ experience in France, the ‘Collective to fight poverty’ initiative in Quebec,

⁶ Further details on the proposed framework are given in the OECD working paper by Giovannini E. *et al.* ‘A Framework to measure the progress of societies’.

Canada, and the public consultation process adopted by local governments in Australia to comply with a recent law to include social and environmental indicators into their 5-year plans).⁷

- The Club of Rome expects indicators *‘to be defined from the viewpoint, the perspective, of the lowest, of the poorest, of the people who got left behind, and not by those who dominate the decision structures of our society’*.⁸
- The Council of Europe emphasises the participation of civil society in the measurement of progress. In particular, the method proposed by the Council for developing and using the well-being indicators is a concerted process fostering the participation of all concerned stakeholders. In late November 2008, the Council organised a seminar in Strasburg on [‘Involving citizens/communities in measuring and fostering well-being and progress: towards new concepts and tools’](#).
- Finally, the Stiglitz Commission suggests the establishment at the national level of round-tables involving key stakeholders, to identify and prioritise indicators for the measurement of progress.

2.2 Operational level – remarks by statisticians

A broad consistency in the observations made by statisticians is noted. Complementing GDP with new indicators is preferred, and a set of indicators is considered more appropriate than single indicators. In particular:

- Complex reality cannot be represented by very simple indicators. By reducing the information provided to policy makers, there is a risk of diminishing the seriousness of decisions taken (Eurostat and OECD).
- The experience of the German Office for Statistics indicates that developing an enhanced version of GDP integrating calculations of natural and social capital is a complex task. The following is therefore recommended: (i) tackle information that is *‘theoretically consistent, politically relevant and empirically measurable’*; (ii) decide to which phase of the political cycle indicators shall refer (agenda setting, goal-setting or performance control) since indicators used are very different; (iii) agree on indicator sets based on available information; (iv) ensure that any new data requirements are matched by adequate resources for statistical offices; (v) broaden accounting systems so that underlying data for the individual

⁷ Patrick Viveret, Proceedings of the Beyond GDP conference, Session 3 and Mike Salvaris, RMIT University, Australia, Session 4.

⁸ Ashok Khosla, Proceedings of the Beyond GDP conference, Session 4.

indicators are part of a comprehensive framework, ideally encompassing national accounts and satellite systems for environmental-economic and socio-economic accounting; (vi) improve communication (Web 2.0).⁹

- Statistics Netherlands is in favour of a limited set of headline indicators, where each indicator measures an aspect of welfare. These indicators should preferably be embedded in an integrated system of accounts allowing for analysis of inter-relationships, inter-linkages, and trade-offs between them. Trying to capture the different aspects of welfare or sustainability in one indicator (for example, the Adjusted Net Saving - ANS - developed by the World Bank) is considered to still present theoretical and practical problems.^{10, 11}

The term **Web 2.0** commonly refers to web applications that facilitate interactive information sharing, interoperability, and collaboration.

Examples of Web 2.0 include web-based communities, hosted services, web applications, social-networking sites and blogs.

In general, integrated accounting is considered by most to be the strongest tool for developing policy-relevant statistics. However, it is agreed that the extension of the economic national accounts framework to other domains is a long-term and costly, though promising, solution. And while much has been done on the environmental side (at least in theory), on the social side progress is still lagging behind.

2.3 Proposals on the selection of new indicators

There are two main clusters of proposals for new indicators:

1. *Improving the measurement of economic performance*

- The Stiglitz Commission suggests improving the measurement of economic performance within the existing framework of national accounting systems by (i) adjusting GDP to account for depreciation (this leads to a measure of net domestic product- NDP); (ii) making adjustments for quality changes;

⁹ Radermacher W., Schoer K. (2008) - Federal Statistical Office of Germany; Radermacher W. at the Beyond GDP conference, Session 4.

¹⁰ Peter van de Ven, Statistics Netherlands, at the Beyond GDP conference, Workshop Session 3.

¹¹ Within the review of the ANS by the Stiglitz Commission, major highlighted shortcomings are: the adjustment for environmental degradation is limited to a restricted set of pollutants, in particular carbon dioxide emissions (underground water depletion, unsustainable fisheries, soil degradation, and biodiversity loss, for example, are not considered); pricing of natural assets is based on market (current) prices in a context of imperfect or non-existent valuation by markets (for pricing environmental degradation).

(iii) measuring government output. Improving macro-economic accounting is also one of the recommendations of the 2009 UK Sustainable Development Commission report on prosperity, as one of the steps towards building a ‘Sustainable Macro-Economy’.¹²

- For the European Central Bank (ECB), national accounts should continue to focus on macro-economic communication, and policies and research on the basis of measurable monetary flows/stocks, thus referring to an incomplete welfare concept that is nevertheless ‘*key for economic and monetary policymaking*’.

2. Complementing GDP with new indicators

- The EESC suggests considering two indicators in addition to GDP, one to measure ‘sustainability’ and the other to measure ‘quality-of-life’ or welfare. ‘Sustainability’ is actually considered to be satisfactorily measured by the Ecological Footprint, ‘*an excellent communication tool.....that takes into account the environmental impacts of our consumption and production patterns (imports and exports) on other countries*’. Therefore the EESC focuses its proposal on a quality-of-life indicator providing information on six spheres: physical integrity and health; material wealth; access to public services; social participation; leisure time; and quality of the surrounding environment.
- In measuring well-being, the Stiglitz Commission also distinguishes between ‘current well-being’ and ‘sustainability’ where ‘well-being’ refers to economic resources, such as income, and to non-economic aspects of peoples’ lives; while ‘sustainability’ depends ‘*on whether stocks of capital that matter for our lives (natural, physical, human, social) are passed on to future generations*’ and refers to whether the level of well-being can be sustained over time. When measuring material well-being, the Stiglitz Commission recommends: (i) consideration of income and consumption rather than production; (ii) emphasis of the household perspective by measuring household income and production; (iii) inclusion of complementary income and production information with wealth information, the latter being expressed as stocks of physical, natural, human and social capital; (iv) allocation of importance to distribution by referring to median (rather than average) consumption, income, or wealth; (v) inclusion of the informal economy, i.e. things people make and do without

¹² The World Bank’s Adjusted Net Savings measure is mentioned as an example of initiative in this sense. The ANS treats resources or wealth as capital, distinguishing: produced capital – buildings, machines and infrastructure; natural capital – croplands, pasturelands, forests, minerals and energy; and ‘intangible capital’, namely the human capital and the quality of institutions.

cash necessarily changing hands. With regard to sustainability, the Stiglitz Commission envisages a ‘dashboard’ of measures providing the variation in several stocks of capital. The stock approach may: (i) simply assess the trend of the stocks, possibly against some critical thresholds – dangerous level of environmental damage; (ii) convert the different types of capital into a monetary equivalent, to derive a monetary index of sustainability (however, this last approach requires imputations and modelling where markets for assets’ valuations do not exist yet). The Stiglitz Commission underlines that the assessment of sustainability should be complementary to the measurement of current well-being or economic performance and should be examined separately.

- The OECD does not support replacing GDP with another indicator, preferring the development of a set of indicators able to reflect the complexity of societies in measuring progress. Additionally, though fostering the highest degree of comparability internationally by means of agreed statistical standards, the national- or regional-based design of indicators is envisaged, taking into account good practices developed around the world.
- Several environmental organisations promote the use of ‘footprints’ or other indexes of sustainability to complement GDP. These indexes are generally meant to measure the impact of human activities on the environment as a whole (e.g. the ‘Ecological Footprint’) or the state of some specific aspects of the environment's health (e.g. the WWF Living Planet Index with respect to biodiversity). They mainly have a communication and advocacy role, although they may also be used at the policy level to monitor the results of different strategies.

3. Examples of initiatives for the development of new indicators measuring sustainable development

3.1 Local and regional level

The selected examples report on initiatives originally piloted at the local level through national (UK) or European (Italy) funds. While in the UK the main reference of activity is the national context, in Italy the scaling-up of the pilot is attempted within European and international frameworks.

Italy	level: local
<p>In 2001-2002, the Life-Environment project CLEAR (City and Local Environmental Accounting and Reporting) facilitated the definition of an environmental accounting system, supporting policy-making and governance transparency, for the eighteen local partner authorities to the project. Since 2002, the Italian municipality of Reggio Emilia has been using this instrument regularly for the production of annual environmental balance sheets. The process relies on approximately 500 indicators related to both the environment and sustainable development. This integrated system of indicators for the monitoring of sustainability at the local level, taking into account environmental, economic and social factors, was established with national funding and took into account international methodologies (the Driving Forces-Pressures-State-Impacts-Responses framework) and commitments (the Aalborg Commitments to sustainable urban development), as well as information provided through relevant European initiatives (European Sustainable Cities).</p>	
Italy	level: regional
<p>In 2004, the CLEAR partners established a Working Group within the Italian National Association of Local Agenda 21 to: (i) promote the take-up of local environmental accounting at municipal, provincial and regional level; (ii) fine tune and update the CLEAR methodology; (iii) promote the approval of national and regional laws supporting environmental accounting; (iv) develop environmental accounting good practices coherent with European and international policies; (v) create a network for the sharing of experience.</p>	

UK	level: local
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In 2007, a 3-year initiative ('The Local Wellbeing Project') was started in three different areas of the country (Hertfordshire, Manchester and South Tyneside) to explore what local governments can do, in liaison with national agencies and local communities, to improve people's well-being through policy-making and service provision. The initiative focussed on five specific issues (emotional resilience for 11 to 13 year olds; well-being of older people; guaranteed apprenticeships; neighbourhoods and community empowerment; and parenting), but it also looked at outlining options for measuring the impact of the newly introduced policies/services and at linking the efforts of local authorities to increase well-being to their sustainable development agenda, namely the Sustainable Community Strategy and the Local Area Agreement. Within these strategies, local authorities are encouraged to develop local indicators and targets for measuring people well-being; they can either draw on the national indicator set (NIS) or go beyond the NIS and develop additional indicators better suited to the local situation. As a result of the project, the New Economics Foundation (NEF) and partners outlined a practical framework for well-being measurement by identifying which indicators in the NIS can be used locally and by providing recommendations and examples for the selection of additional indicators. The project also produced recommendations for the shift to the new local government performance assessment framework, the Comprehensive Area Assessment, which is focussing on communities' outcomes rather than on service provision (highly dependent on the views and experiences of services' recipients).

UK	level: regional
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In the UK, attempts to develop a regional index of sustainable economic well-being have been undertaken since late 2004, when a consortium of Regional Development Agencies (RDAs) commissioned the NEF to produce a report on the relationship between quality of life, well-being and regional development. Afterwards, a pilot Regional Index stemming from the national Index of Sustainable Economic Well-being (R-ISEW) was developed for the East Midlands and then calculated for all the English regions. R-ISEW attempts to monetise costs and benefits that are not traditionally measured in monetary terms, bringing together a wide range of economic, social and environmental issues into a single analytical framework to allow comparisons.

3.2 Academic level

Efforts to develop new indicators for measuring sustainable development at the regional level are also led by national academic/research bodies, either with the support of national agencies or as independent initiatives.

In Germany, research on a complementary indicator to GDP led to the definition of a 'national welfare index' (NWI). This index encompasses 21 variables that refer to usually neglected welfare services, such as voluntary and domestic work or environmental damage and the costs of compensation for environmental damage. These variables are conceptually based on the 'Index for Sustainable Economic Welfare' and on the approach of the 'Genuine Progress Indicator', thus there is still a connection with the traditional reference frame of economics. The research, carried out by the Protestant Institute for Interdisciplinary Research and the Research Centre for Environmental Policy, and financed with the support of the German Federal Environmental Agency, is still ongoing and the NWI is now being further reviewed against the background of the ongoing international discussion on the dimensions of sustainable social development.

In 2008, the University of Thessaly published the results of a study on inequalities among 51 Greek regions (NUTS III level). Bearing in mind the limitations of GDP, and as well as using the GDP per capita indicator, the research defined and applied a Composite Indicator of Development and Prosperity (CIDP) to encompass many dimensions of quality of life and well-being. The CIDP was built using information from about 21 economic, demographic and geographic variables with equal weights, the index thus being an average of the standardised values of each variable. The research concluded that the level of regional disparities measured through CIDP was much higher than that measured through GDP, suggesting that the GDP indicator may underestimate the real degree of inequalities across regions. The level of evolution of regional divergence was also different depending on the indicator used.

With regard to EU funded research, a 2009 review of the contribution of research projects under the 6th and partly the 7th EU Framework Programme (FP) to the ongoing reassessment of the set of SDIs, highlighted that, overall the tendency is to disregard the social component of sustainable development and rather to focus on its economic and environmental dimensions. In particular: (i) indicators related to climate change, energy and sustainable transport have been well covered, though some specific issues received a limited attention; (ii) conservation and management of natural resources have mainly been addressed in terms of research on indicators for fisheries and biodiversity; (iii) a significant gap in FP funded research in the field of sustainable consumption and

production (SCP) is noted; (iv) finally, public health (and in particular health inequalities), social inclusion, demographic changes, migration and global poverty are the areas least researched.

4. Debates and concrete actions on linking improved measurements with policy-making and public funding

4.1 Debates

The relevance of Beyond GDP discussion to other Community policies

The Beyond GDP discussions are relevant to the debate on a series of EU policies that will be renewed or re-launched in the coming years, namely the successor to the current Lisbon Strategy (EU 2020), the new Sustainable Development Strategy, and the post-2013 Cohesion Policy. In this sense, recently, several calls have been made to the Commission to comprehensively re-think the concept of growth, to adopt new indicators and rigorous benchmarking to tackle unsustainable trends and to ensure better accountability of governance. In particular:

(a) While discussing the progress on the SDS, the EESC expects the Commission to make clear the concept that a policy not exclusively based on economic growth but also determined by social and environmental factors can lead to better and more balanced political choices and contribute to a more sustainable and socially inclusive economy. Additionally, it suggests that the adoption of the European social model as defined by the EESC and paving the way for a democratic, environment-friendly, competitive, socially inclusive welfare space based on the social integration of all EU citizens, may represent the goal of such strategy.

(b) Some major European/international NGOs have made vigorous calls for the EU SDS to become an operational instrument rather than a merely strategic framework of good intentions. The debate follows the recent (July 2009) adoption by the Commission of the 2006 EU SDS progress report and the built-in invitation to reflect on the future of the strategy, taking into account that *'unsustainable trends persist in the EU in several areas'*. In general, environmental NGOs call for binding targets, commitments, roadmaps and timetables. Specific requests include: (i) the updating of targets and actions related to climate and energy, according to latest developments and insights; (ii) the establishment of a post-2010 Biodiversity Rescue Plan along with ambitious targets and the reform of national income accounts to take into account the countries' consumption of natural capital; (iii) the upgrading of SCP agenda within the EU and national Sustainable Development Strategies.

(c) More recently, the European Environmental Bureau (EEB) has called upon the Commission to launch a SDS that could become a *'reference for a horizontal review of EU's economic, social and sectoral policies'* and where GDP is just one of the main indicators for progress. The EEB criticises the weak position of the European Council with regard to the lack of progress showed by the 2009 monitoring report of the EU SDS and regrets the fact that the Council failed *'to mention any concrete example of urgent action to tackle a number of unsustainable trends'*.

(d) The Lisbon council considers that the onset of a new EU 2020 strategy is an opportunity to introduce new indicators and calls for more rigorous benchmarking and evaluation to move towards evidence-based policy-making. Indicators are considered to be a *'key tool to hold decision-makers accountable for how well they are doing in achieving the objectives that have put them into public office'*. Additionally, the Lisbon council stresses the need to have indicators based on output and actual performance, rather than on measurements of inputs and refers to the International Student Assessment (PISA) as a successful example in this sense.

A 2008 EC-funded study demonstrated that **environmental and social policies are strongly interlinked** as *'environmental policy impacts on society in different ways while social factors affect environmental quality, for example through patterns of consumption'*. Besides producing recommendations to maximise the potential synergies between the two policy areas, the study emphasises the need to assess and mitigate the unequal social distribution of environmental quality, often observed within poorer or socially excluded groups. Proposed mitigation measures include the tailoring of environmental policies to consumption patterns, in accordance with the *'polluter pays principle'* and the evidence that a major driver of household consumption, and thus of environmental impact, is the per capita income; and the fostering of well designed delivery at the local level, on the basis of an integrated analysis of social and environmental policy impact.

EU budget review

If other dimensions than merely the economic ones are to be considered, and thus monitored, in guiding the upcoming review of some EU policies, the Beyond GDP discussions should also be considered relevant to the EU budget review. Birdlife calls for *'a transparent debate about the future EU budget'* and highlights the fact that biodiversity decline and climate change, as *'the most pressing challenges for the environment and a big threat to human well-being and socio-economic development'*, need to be specifically addressed within this

review. More generally, the EEB requests the budget show clear consistency with the SDS objectives.

The use of composite indicators

A further debate is on the appropriateness of the use of composite indicators, with two major positions: the aggregators and the non-aggregators. As quoted in the 2008 OECD/JRC Handbook on Constructing Composite Indicators '*official statisticians may tend to resent composite indicators, whereby a lot of work in data collection and editing is "wasted" or "hidden" behind a single number of dubious significance. On the other hand, the temptation of stakeholders and practitioners to summarise complex and sometime elusive processes into a single figure to benchmark country performance for policy consumption seems likewise irresistible*'. The OECD/JRC report is aimed at contributing to this debate to provide a better understanding of the issue rather than solutions.

The translation of knowledge into policy-making

At the 2007 Beyond GDP conference, the representative of the Council of Europe noted that the institutional aspects and the follow-up of knowledge are still very unclear. In general, it is widely acknowledged that measurement alone is not enough if results are not then taken into account in policy-making. In other words, it remains an open question as to whether more and better information would lead to better policy-making. To this end, the Lisbon council suggested that any decision made on indicators be accompanied by a blueprint for delivery.

Linking prosperity and well-being to goods and services provided by nature

The TEEB report provides evidence, through practical examples, of the value of ecosystems services and of biodiversity, in environmental and economic terms. The report '*demonstrates that understanding and capturing the value of ecosystems can lead to better informed and possibly different decisions; accounting for such value can result in better management; investing in natural capital can yield high returns; and sharing the benefits of these actions can deliver real benefits to those worst off in society*'. The TEEB findings are acknowledged by the Commission in COM (2009) 433; however, it is also noted that translating such findings into practical action at the macro level '*needs further research and testing*'.

[‘Well-being 2030’](#), a 2-year research project co-funded by the European Policy Centre and the European Commission, intends to build up a European Policy Network to pool existing knowledge and generate a broad-based debate on Europe’s policy options for improving citizens’ quality of life by 2030. Well-being measurement is among the key issues that will be debated. Additionally, the network will explore the type of social Europe that citizens want, the way European policies can contribute to improving social conditions and the way public sectors and services can address the sustainability challenges arising out of demographic change, globalisation, climate change, the current economic crisis, inequalities and social exclusion.

4.2 Concrete actions

4.2.1 EU level

The EU has made relevant progress in linking economic data in the national accounts to non-economic environmental data through the promotion of the System of Integrated Economic and Environmental Accounts. The process is led by Eurostat both at EU (in particular with the contribution of the European Environment Agency and several EU Member States) and international level (OECD and UN agencies) and it has so far reached some good results in specific fields (for example, air emission accounts). Future goals include developing comparable accounts among Member States for air emissions, economy-wide material flows and environmental expenditure, as well as achieving good data coverage for accounts on waste, water and environmental taxes. As stated in COM (2009) 433, these accounts are expected to be fully available for policy analysis by 2013.

Within the EU, there are many **examples of the application of environmental accounting at regional/local level**, focussing on specific themes: within the European Interreg IIC GROW Project, five European regions have started to compile environmental accounts for air emissions; in Sweden there has been work on regional accounts for the Stockholm area and several studies have been made at district level for water accounts; in Germany the statistical offices of the Länder compile material flow accounts at the regional level.

Environmental accounting is developed in the context of the European Strategy on Environmental Accounting and the revision of the UN-SEEA2003. The UN System for Integrated Environmental and Economic Accounting (SEEA) is an attempt to standardise different frameworks and methodologies integrating traditional macro-economic indicators with environmental information. The SEEA encompasses economic and environmental information in a common

framework to measure the contribution of the environment to the economy and the impact of the economy on the environment. Currently, efforts are focussed on elevating the SEEA to an international standard, and advancing its implementation at the national and local level. Discussion and revision related to incorporating depletion and degradation, as well as measurement of the ecosystem is also in progress and will be brought by the UN Committee of Experts on Environmental Accounting to the Statistical Commission in 2012.

Valuation of and accounting for ecosystem goods and services is still at a conceptual framework level. The challenge is complementing physical environmental accounts with monetary figures for the costs of environmental damage and the benefits of environmental protection. Such information would be able to better guide and focus the current policy debate on the extent to which prosperity and well-being depend on goods and services provided by nature.

The [research project EXIOPOL](#) (6th FP, priority 6.3 Global Change and Ecosystems) is working to set up for 25 EU countries an environmental extended (EE) Input-Output (I-O) framework for the estimation of environmental impacts and external costs of different economic sector activities, final consumption activities and resource consumption. The results of the external cost estimates and of the EE I-O analysis will allow an analysis of policy questions.

The European Foundation has developed and made operational a concept of quality of life. Operationalisation was necessary in order to achieve measurements. The concept (i) uses a micro-perspective, meaning that it focuses on individual conditions and circumstances; (ii) focuses on a number of measurements of people's lives (multi-dimensional approach); (iii) needs both objective and subjective indicators measuring people's perceptions, attitudes, but also satisfaction or happiness. A quality of life survey was then designed and developed to capture the necessary information. The European quality of life survey (EQLS) was carried out for the first time in 2003, covering 28 countries and then, in 2007, covering all Member States plus Norway, Turkey, Macedonia and Croatia. The EQLS provides data and analysis on issues such as employment, education, housing, family life, health and life satisfaction and perceived quality of society.

The European Social Survey (the ESS) is a project funded jointly by the European Commission, the European Science Foundation and academic bodies in each participating country. It is a biennial multi-country survey covering over 30 nations. The first round was fielded in 2002/2003, the fourth in 2008/2009. Within Round 3, a 'well-being module' seeking to evaluate the personal and social well-being of citizens was included. The conceptual framework

underpinning the module distinguished the personal and inter-personal dimensions of well-being, each dimension further considering the feeling (being) and functioning (doing) component of well-being. The module was a first attempt to systematically create a set of policy-relevant national well-being accounts based on subjective measures, to be complemented by more objective data relating to economic, social and environmental influences on well-being derived from other items within the ESS and other sources.

4.2.2 National and regional level

Some of the existing initiatives at the national and/or regional level on applying new indicators linked to sustainable development are summarised below.

Austria	level: national and regional
<p>The assessment of sustainable development in Austria is based on a ‘2-sphere model’: the Man/Society sphere and the Environment sphere. The choice of integrating the social and economic aspects under one single sphere is intended to provide an integrated view of the socioeconomic system and to point out the relations between economic and social phenomena. This assessment framework has been devised to be applicable in practice, while providing a comprehensive overview of sustainable development; its strength is that it takes into account several social themes and detects existing or potential conflicts or harmonies among the themes. Indicators related to the model were selected following a broad participatory process with all concerned actors. Since 2006, the national reporting system has been harmonised with the requirements of the renewed EU SDS.</p>	
<p>The system provides every two years an overall assessment of SD at country and regional level (Austrian Federal Provinces), the latter on the basis of a selected set of indicators.</p>	

Nordic countries**level: regional (multi-country)**

The Nordic co-operation is a form of regional collaboration involving Denmark, Finland, Iceland, Norway, Sweden, and the three autonomous areas of the Faroe Islands, Greenland, and Åland. In late 2008, the Nordic Council of Ministers adopted a new Nordic Strategy for Sustainable Development 2009-2012, complementing national strategies and defining qualitative goals and priority areas of action in the following dimensions: climate and renewable energy; sustainable production and consumption; the Nordic welfare state as a tool for sustainable development; education and research, public participation and local sustainability strategies. The Nordic Strategy and the set of indicators used to monitor progress against the goals strongly emphasise the environmental dimension of SD where *'health and well-being are connected with a sound living environment and a rich outdoor life and access to nature increases understanding of the efforts and behavioural changes required for development to be sustainable'*.

The Nordic Strategy is the common ground for a joint contribution of the Nordic region to international initiatives on sustainable development as well as a tool to influence ongoing global actions.

Sweden**level: national and regional**

A revised national SDS was published in March 2006. The Strategy emphasises the environmental sphere of sustainable development highlighting 16 Environmental Quality Objectives (EQOs) supported by a system of EQO indicators developed at national and regional level (a Regional Monitoring System supports the development of national indicators with a regional focus), and in a few cases also at local level. The Swedish SDS also encompasses a set of SD indicators; on the basis of a wide consultation, a selection of some 87 indicators were narrowed down to 12 headline indicators, addressing six main areas: health, sustainable consumption and production patterns, economic development, social cohesion, environment and climate, and global development. EQOs are reviewed every year by means of some 100 indicators, updated annually and monitored through regular sampling, questionnaires and studies on the state of the environment.

The monitoring of progress towards the various EQOs and interim targets has an important role in Swedish politics. Additionally, the Swedish Environmental Advisory Council has developed a set of green headline indicators of ecologically sustainable development, which has been used by the Government in its annual budget statement.

The Netherlands**level: national**

In The Netherlands, well-being measurement is based on the System of National Accounts that includes social and environmental satellite accounts. The relationship between the national economy and the environment is addressed in the National Accounting Matrix including environmental accounts (NAMEA). For the social domain, the Social Accounting Matrix (SAM) is used to provide information on the relationship between persons, households and the economy. NAMEA encompasses a series of sub-accounts related to air emission, water, energy, waste, subsoil for oil and gas, and environmental taxes. The system is currently being improved based on the System of Environmental and Economic Accounting (SEEA), and extended to encompass physical accounts (material flow accounts), environmental industry accounts, environmental subsidy accounts, environmental permits, climate change accounts as well as macro-economic analysis. While environmental accounting is carefully elaborated, subjective well-being (SWB) measurement in the Netherlands has become relatively fragmented. Questions on SWB are incorporated in various surveys and spread over different modules, each contributing to well-being, such as life situation, safety, participation and environment, family formation, cultural changes and labour conditions. Also the Leefsituatie Index (life situation index), developed by the Netherlands Institute for Social Research, has never acquired much authority because it is a mixture of different elements unable to provide a good, consistent picture of social well-being.

The primary aim of Statistics Netherlands is currently to demonstrate the merits of SWB measures for political and societal purposes and to carry out necessary improvements to its measurement. Such improvements relate to both methodological (type of scale to be used, number and type of most appropriate questions) and policy aspects, especially with regard to the fragmentation of data collection.

UK

level: national and regional

The 2005 SDS set out a commitment by the UK Government to explore the concept of well-being. In 2006, a statement of ‘common understanding’ of well-being for policy-makers was developed. Well-being is considered to be integral to sustainable development and unable to be captured by a single indicator since it is influenced by several factors. Well-being is therefore measured by means of a number of existing indicators out of the 68 indicators used to measure progress against the national SDS, plus some supplementary information related to ‘life satisfaction’ and gathered by means of surveys. The well-being indicator system is shared by the UK Government and the Devolved Administrations in Scotland, Wales and Northern Ireland.

The well-being indicator system is an integral part of the [monitoring process of the UK sustainable development strategy](#), *Securing the Future*.

5. Conclusions

Improving the measurement of economic performance should be complemented by the development of new indicators providing information to policy makers on well-being and progress. Substantial conceptual work has been carried out at the international level to define these two concepts and the frameworks for their measurement. Due to their subjective nature, commonly agreed definitions are unlikely; democratic debates and wide participation of stakeholders should be pursued with a view to defining relevant dimensions of progress and well-being as well as indicators for their measurement.

COM (2009) 433 is a concrete follow up to the theoretical work undertaken so far towards complementing GDP with new indicators. Within the Communication, several of the Beyond GDP conference's suggestions and of the Stiglitz Commission report's proposals have been adopted. Among the major ones are the improvement of measurement tools; the strengthening of integrated accounting; the establishment of benchmarking towards evidence-based policy-making; and the setting of thresholds for environmental sustainability. The Communication also emphasises the importance of improving the valuation of and accounting for ecosystem goods and services.

Nevertheless, the Communication also: (i) proposes an environmental index, notwithstanding the ongoing debate of methodological weaknesses of 'indexes'; (ii) leaves actions for the definition and accounting of indicators in the social sphere rather undefined; (iii) relies on unsystematic tools (complementary studies) for improving reporting on distribution and inequalities; (iv) does not specifically address the issue of aggregation of information and territorial comparability in the short- to medium-term, since it is widely acknowledged that integrated accounting, especially in the social domain, is a long-term process.

There is evidence that within the EU, attempts to provide a comprehensive view of societal progress are mostly undertaken as part of national SDS and take either an accounting approach (as in the Netherlands) or a suite of indicators approach (UK). However, there are also attempts to develop single number indicators (Germany), though these are still at a research stage.

Increasingly, local and regional authorities (LRAs) are involved in developing indicators of societal progress. This involvement is rooted in the Agenda 21 action plan for sustainable development agreed at the Rio Earth Summit in 1992. At regional and local level, the potential to engage key stakeholders in a participatory and inclusive process for the selection and development of indicators of societal progress is higher. Additionally, indicators developed

locally take into account the real availability of data that may otherwise represent a serious constraint to implementation for a set of indicators determined at different administrative levels (national or European). Indeed, LRAs can drive a bottom-up approach to the adoption of integrated accounting provided that they are given the resources to do so (the initiatives at the local level reported as examples in this note were all undertaken with financial support either from the EU or from national sources).

Appendix I – References

- Adelle C., Pallemarts M. (2009). [Sustainable Development Indicators. Overview of relevant FP-funded research and identification of further needs.](#) A study commissioned by the European Commission, DG for Research.
- Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (2006). [Monitoring Sustainable Development in Austria - Indicators for Sustainable Development.](#)
- BirdLife International, SOF/BirdLife Sweden, European Environmental Bureau, Naturskyddsforeningen/EEB Sweden (2009). [An EU Rescue Plan for Biodiversity.](#) NGO briefing for the Strömstad meeting under the Swedish Presidency 7-9 September 2009.
- Costanza R., Hart M., Posner S., Talberth J. (2009). [Beyond GDP: The Need for New Measures of Progress.](#) Boston University, THE PARDEE PAPERS / No. 4 / January 2009.
- de Jonge T., Statistics Netherlands (2008). [The state of play in measuring SWB in the Netherlands.](#) ISQOLS Conference: Measures and goals for the progress of societies. Satellite meeting: Measuring subjective well-being: an opportunity for National Statistical Offices? Florence, 23-24 July 2009.
- Diefenbacher H., Zieschank R. (2008). [Sustainability and growth – towards the description of an area of conflict on the basis of national indicators.](#)
- Environmental Policy Research Centre & Protestant institute for interdisciplinary research (2008). Research Report ‘[Measurement of Welfare in Germany - A proposal for a new welfare index](#)’ – Summary.
- European Central Bank (2009). [What kind of GDP for 2020?](#) Presentation by Keuning S., Director-General Statistics, ECB. Eurostat National Accounts Conference, 16 September 2009, Brussels.
- European Commission (2008). Special Eurobarometer 295/ Wave 68.2 – TNS Opinion & Social: [Attitudes of European citizens towards the environment.](#)
- European Commission (2008). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. [A renewed commitment to](#)

[social Europe: Reinforcing the Open Method of Coordination for Social Protection and Social Inclusion](#). COM (2008) 418 final.

- European Commission (2009). [Communication from the Commission to the Council and the European Parliament. GDP and beyond - Measuring progress in a changing world](#). COM (2009) 433 final.
- European Commission, European Parliament, Club of Rome, WWF, OECD (2009). [Beyond GDP - Measuring progress, true wealth, and the well-being of nations](#). 19- 20 November 2007, Conference Proceedings.
- European Economic and Social Committee (2008). Opinion on ‘[Beyond GDP – measurements for sustainable development](#)’ (Own-initiative opinion of the Sustainable Development Observatory), NAT /392.
- European Environmental Bureau (2009). [EEB Comments on The 2009 review of the EU SDS: 27 September 2009](#). Mainstreaming: move from words to deeds.
- European Environmental Bureau (2009). [European Council short on sustainable development](#). Missed opportunity to show leadership. Press release, December 11, 2009.
- Dalmazzone S, La Notte A. (2009). [Local environmental accounting: Methodological lessons from the application of NAMEA tables at sub-national levels](#). Working paper No. 10/2009.
- Eurostat (2009). [Sustainable development in the European Union - 2009 monitoring report of the EU sustainable development strategy](#).
- Giovannini E., Hall J., Morrone A., Ranuzzi G. (2009). [A Framework to measure the progress of societies](#). Draft OECD Working Paper, September 2009.
- GlobeScan (2007). [International public opinion on measuring national progress: 2007](#).
- Huppert F.A., Marks N., Clark A. E., Siegrist J., Stutzer A., Vittersø J., Wahrendorf M. (2008). [Measuring Well-being Across Europe: Description of the ESS Well-being Module and Preliminary Findings](#). Working Paper N^o 2008 – 40. Paris School of Economics. – Not for citation.

- Jackson T., McBride N., Abdallah S., Marks N. at the New Economics Foundation (2008). [Measuring regional progress: regional index of sustainable economic well-being \(R-ISEW\) for all the English regions.](#)
- Matthews E. (2006). [Measuring well-being and societal progress: a brief history and the latest news.](#) Prepared for the joint OECD-JRC workshop 'Measuring Well-being and Societal Progress' 19-21 June 2006, Milan. Statistics Directorate, OECD.
- New Economics Foundation (2009). [National Accounts of Well-being: bringing real wealth onto the balance sheet.](#)
- Nordic Council of Ministers (2009). [Sustainable Development – New Bearings for the Nordic Region.](#) Revised edition with goals and priorities 2009–2012.
- Radermacher W., Schoer K. (2008). [Sustainable Development Indicators and Environmental-Economic Accounting.](#) Federal Statistical Office of Germany.
- OECD (2009). [Measuring the Progress of Societies - An Introduction and Practical Guide.](#) Working document for presentation at the 3rd OECD World Forum on 'Statistics, Knowledge and Policy', Busan, Korea. – Not for citation.
- OECD/JRC (2008). [Handbook on Constructing Composite Indicators – Methodology and user guide.](#)
- Petrakos G., Artelaris P. (2008). [Regional inequalities in Greece.](#) University of Thessaly, Volos, Greece.
- The Lisbon council for Economic Competitiveness and Social Renewal (2009). [Innovating indicators – Choosing the right targets for 2020.](#) E-brief Issue 04/2009 by Ann Mettler.
- UK Sustainable Development Commission (2009). [Prosperity without growth? The transition to a sustainable economy.](#)
- Pye S., Skinner I., Meyer-Ohlendorf N., Leipprand A., Lucas K. Salmons R. (2008). [Addressing the social dimensions of environmental policy - A study on the linkages between environmental and social sustainability in Europe.](#) Report commissioned by European Commission, DG for Employment, Social Affairs and Equal Opportunities.

- Schenau S., Delahaye R., Graveland C., Maarten van Rossum (2009). [The Dutch environmental accounts: present status and future developments](#). Centraal Bureau voor de Statistiek/ Statistics Netherlands.
- Steuer N., Marks N. at the New Economics Foundation, with contributions from Bacon N., Brophy M. and Hothi M. at the Young Foundation (2008). [Local wellbeing: can we measure it?](#) Report prepared on behalf of The Local Wellbeing Project and with the support of the Audit Commission.
- TEEB (2009). [The Economics of Ecosystems and Biodiversity for National and International Policy Makers – Summary: Responding to the Value of Nature 2009](#)

Opinions of the Committee of the Regions:

- CoR (2005). Opinion of the Committee of the Regions on COM(2005) 37 final: The 2005 Review of the EU Sustainable Development Strategy: Initial Stocktaking and Future Orientations. CdR 66/2005 - Rapporteur: Mona-Lisa Norrman(SE/PES).
- CoR (2007), 70th plenary session. Opinion of the Committee of the Regions on ‘The contribution of local and regional authorities to the European Union’s Sustainable Development Strategy’. CdR 85/2007 - Rapporteur: Nichi Vendola (IT/PES).
- CoR (2008), 77th plenary session. Opinion of the Committee of the Regions on ‘The Fifth progress report on economic and social cohesion’. CdR 273/2008 - Rapporteur: Marta Vincenzi (IT/PES).
- CoR (2008), 78th plenary session. Opinion of the Committee of the Regions on ‘The Green Paper on Territorial Cohesion’. CdR 274/2008 - Rapporteur: Jean-Yves Le Drian (FR/PES).
- CoR (2009), Commission for Economic and Social Policy, 20th Commission meeting. Draft opinion on ‘The future of the Lisbon Strategy post 2010’. CdR 25/2009 - Rapporteur: Christine Chapman (UK/PES).