



Federal Ministry for the  
Environment, Nature Conservation  
and Nuclear Safety



## 6<sup>th</sup> ESDN Workshop

### “Reforms for Measuring Welfare and Wealth in the Context of Sustainable Development”

Berlin, 2-3 December 2010

## Workshop Background & Discussion Paper

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Workshop hosted by the [ESDN](#) in cooperation with the  
[German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety](#)

Großer Konferenzraum, KfW Bankengruppe  
Charlottenstrasse 33a, 10117 Berlin

ESDN Workshop Series



## Thematic outline

The recent financial and economic crisis and the challenges posed by various sustainable development issues (e.g. climate change, natural resource consumption, poverty reduction, etc.) raised again interest in the arguments questioning conventional approaches to economic growth and the emphasis on the usage of gross domestic product (GDP) for measuring progress, wealth and prosperity in our societies. Since several years, numerous international, European and national organisations have engaged in developing systems for measurement of well-being and progress of societies that aim to go “beyond GDP” and increasingly reflect issues central to sustainable development.

Among them are the EU’s initiative [“Beyond GDP – measuring progress, true wealth and the well-being of nations”](#), the work of the [Commission on the Measurement of Economic Performance and Social Progress](#) established by the President of France, Nicolas Sarkozy, and led by the acclaimed economist Joseph Stiglitz, as well as a global project on [“Measuring the Progress of Societies”](#) run in collaboration with international and regional partners under the auspices of the OECD. All these initiatives and their outcomes have not only found their way into statistical offices but have also spurred lively political debates.

The ways and means of measuring progress, wealth and prosperity are closely tied both to the underlying concepts as well as practical implementation of national sustainable development strategies and strategies that aim to link economic growth and environmental sustainability (e.g. Europe 2020 strategy, OECD’s Green Growth Strategy, UNEP’s Green Economy Initiative).

## Purpose

The workshop will contribute to the current debate on “beyond GDP” by focusing on questions such as: What are the linkages and challenges between sustainable development policies and measurement? What is the current status of international and national reform processes to measure welfare and wealth? Which options for concrete actions are possible on the national level and in cooperation among countries? In particular, the workshop has the objective to foster exchange on the current status as well as aims, deficits and further options of follow-up activities of “Beyond GDP” (EU), the Stiglitz Commission and the “Measuring the Progress of Society” project (OECD) at the level of both the EU and its Member States. Moreover, the workshop aims to formulate recommendations for action on measuring welfare and wealth in the context of sustainable development.

## Format

Important aspects on linkages and challenges between sustainable development policies and welfare measurement as well as on political and practical implications for new measurement systems will be introduced in keynote presentations. Exchange on the current status of follow-up activities on the international and national level will take place in a panel discussion and an interactive exchange format. Parallel working groups will evaluate international and national measurement approaches and develop recommendations for action. Ample time for exchange among workshop participants will be provided in several plenary discussions.

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## Introduction

For quite some time, when talking about the wealth and progress of societies, economic growth expressed through GDP (gross domestic product) was the primary point of reference for most policy-makers and societal stakeholders. Over the last years, however – and mainly spurred by the recent economic and financial crisis, social inequality, climate change and other instances of environmental degradation – the neo-liberal growth orientation and an over-reliance on GDP have become increasingly questioned. 40 years of grass-roots activism and academic research are now finding resonance on the political level where several initiatives have been launched to broaden our understanding of ‘growth’ and to improve measuring of progress, well-being and quality-of-life in democratic societies. For example, the 2010 annual conference of the Directors General of the National Statistical Institutes (DGINS) concluded that “there is a growing societal and political demand to measure progress, well-being and sustainable development in a more comprehensive way” (DGINS, 2010). These activities are particularly important in relation to sustainable development strategies and policies that aim to integrate and balance economic well-being, environmental protection and social equity.

The participants of a workshop, organised in November 2009 by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), found that several ‘windows of opportunity’ to expand traditional measurement approaches in policy-making exist (Hönerbach & Mayer-Ries, 2010). Over the last two decades, sustainable development concerns have become associated with nearly all policy fields and areas of management, e.g. fighting climate change, green growth concepts, new regulations for the financial markets, enhanced recognition of individual well-being, etc. However, the debate is, due to pressing political challenges, less shaped by scientific and conceptual issues in expert circles, but has been taken up in public debates and is a top priority of most international organisations.

Therefore, it is timely to discuss reforms in measuring progress and well-being of societies in the context of sustainable development in the ESDN. This will not only allow us to make links between these approaches and sustainable development strategies/policies, but also to revisit and refine our debates on economic growth and sustainable development which have taken place during the ESDN Conference 2010 in Ghent (July 2010) and the 5<sup>th</sup> ESDN Workshop in Madrid (March 2010).

This background and discussion paper presents first some general links and reflections in the relation between economic growth and sustainable development. Secondly, it will provide an overview of measuring progress and well-being in the context of sustainable development. Thirdly, based on two ESDN case studies, it will summarise latest developments of international and national approaches. Finally, the paper outlines several discussion questions and describes the different formats used in the workshop.

## Economic growth and sustainable development: reflections and links

In this chapter, we provide a short outline on the links between economic growth and sustainable development. We draw here not only on academic literature and policy documents, but, as indicated above, also on the discussions taking place in past ESDN events, in particular the [ESDN Conference in Ghent in July 2010](#) and the [ESDN Workshop in Madrid in March 2010](#).

### Economic growth (and beyond)

For the past two centuries, economic growth fuelled by cheap fossil fuels has been the engine of modern societies. Markets have developed into the central organizing principle of modern democracies and the volumes of production and consumption have become the main measure to judge the success of the economy and, by extension, policy. The post-World War II ‘rule of growth’ was enabled by a global financial system increasingly oriented towards liberalization of capital markets and an increased mobility of workforce as well as goods and services, economic harmonization and integration. The decline of the welfare state, the collapse of the socialist economic system and the transformation of the Chinese economy, all witnessed in recent decades, only seem to underscore the dominance of the free-market capitalist democracy as the most successful political-economic system for a globalized world.

Generally, one can distinguish two basic types of growth recipes. The first can be called ‘*growth by brute force*’ (Baumol et al., 2007). It is a quantitative growth based on increase of inputs (more labor and capital equals more production). The second can be called ‘*smart growth*’ and it is qualitative growth by technological advancement or institutional change (ibid.). The key determinant of qualitative growth is a continuous rise in productivity. Large investments into infrastructure and education are considered to move the economy to a more productive stage (e.g. from an industrial to a service-oriented economy). Trade liberalization, deregulation and privatization, enabling to benefit from specialization and knowledge created elsewhere, were supposed to speed up growth especially of economies lagging behind (Rodrik, 2008).

The [Europe 2020 strategy](#) adopted by the European Council in June 2010 aims to achieve ‘smart, sustainable and inclusive growth’. The objective is to develop an economy based on knowledge and innovation (‘smart’); to promote a more resource efficient, greener and more competitive economy (‘sustainable’); and to foster a high-employment economy delivering economic, social and territorial cohesion (‘inclusive’) (European Commission, 2010). The role of growth is not questioned and, as Tonnie DeKoster (Secretariat-General of the European Commission) put it at the ESDN Conference 2010, “the aim is to return to growth in the future” (see [ESDN Conference 2010 proceedings](#)). The Europe 2020 strategy is seen as “an agenda for all Member States, taking into account different needs, different starting points and national specificities so as to promote growth for all” (European Commission, 2010, 8).

### Economic growth and the environment

Economic theory has handled the environment in an uneven manner. Although several environment-related issues were addressed by economics as far back as 18<sup>th</sup> century (e.g. overpopulation or exhaustion of natural resources), the environment was largely missing in the dominant economic discourse until the 1970s. Today, many economics textbooks and academic

discussions address environmental issues. However, dominant macro-economic models do not take into account natural resources, and the depletion of natural capital (such as fish stocks and fossil fuels) is not reflected in GDP. Many mainstream economists believe that technological progress and market forces can successfully deal with the environmental limits to growth. An example of such optimism is reflected in the hotly debated '*environmental Kuznets curve*' which suggests that at a certain level of economic development, the total emissions in a given economy start to decrease and the environment improves (i.e. that thanks to innovation, an absolute decoupling of emission or resource intensity from economic growth will occur). However, until now the so-called '*rebound effect*' has rather been observed: increasing efficiency and economies of scale and, therefore, diminishing price of goods enable such a high level of consumption that no absolute reduction of emissions or resource use has been reached.

A perhaps more substantive understanding of the relation between the economy and the natural environment has started to develop since the end of the 1960s. A community of economic thinkers pioneered by Nicolas Georgescu-Roegen (one of the founding fathers of 'ecological economics') focuses on the economy as a subsystem of the environment and, therefore, regards the economy constrained by environmental limits. Since the laws of thermodynamics are suggested to apply to the coupled human and natural systems, the scale of the economy, i.e. its 'throughput', is of crucial importance. The total throughput of the human economy is suggested to be "kept small enough to avoid exceeding two physical limits of the eco-system: its capacity to regenerate itself and its capacity to absorb the wastes" (Daly, 1996).

### **Economic growth and sustainable development**

The early 1970s saw several crucial interconnected developments. First of all, it was the establishment of environmental ministries across Western democracies. Secondly, in 1972, the seminal study of the [Club of Rome](#), entitled "*Limits to Growth*", has been published, focusing on modelling of long-term future development of several variables such as population, agricultural production or natural resources across a range of scenarios. Thirdly, environmental concerns reached a milestone in the form of the UN Conference on Human Environment, held in Stockholm in 1972, where the conflicting interests of environment and development have been explicitly articulated for the first time in a global forum. It has been recognised that the environment "affects the well-being of peoples and economic development throughout the world" ([Stockholm Declaration](#), para 2), but suggests that most of the environmental problems of the developing countries are caused by underdevelopment, while "in the industrialized countries, environmental problems are generally related to *industrialization and technological development*" (ibid., para. 4, emphasis added).

The next milestone was the publication of the report, "*Our Common Future*", by the World Commission on Environment and Development in 1987, commonly referred to as Brundtland Report. The report was the first publication to popularize the term 'sustainable development'. It continued to place significant emphasis on stimulating economic growth and addressing global poverty through international trade. It expressed optimism in terms of the possibility to continuously achieve qualitative economic growth and decoupling.

The attention given to the Commission and its report led to the [1992 UN Conference on Environment and Development](#) in Rio de Janeiro. The Rio Declaration presented the four-pillar model of sustainable development (economic, social, environmental and institutional) and

contained a suggestion for a set of sustainable development indicators. However, the Rio action plan, Agenda 21, was and still is criticized for being too pro-growth and in line with neo-liberal economic recipes. Ten years after the Rio Conference, the [World Summit on Sustainable Development \(WSSD\)](#) was convened in late August and early September 2002. However, the Summit has been criticized for only limited outcomes.

There has been an increasing debate within economics about the relationship between economic growth and sustainable development (Baumgärtner & Quaas, 2010; Nilsen, 2010; Ekins et al., 2003), involving several key concepts including ‘weak sustainability’ and ‘strong sustainability’. ‘*Weak sustainability*’ is associated with a more mainstream orientation in economics and is defined as a sustained development where utility or consumption is non-declining over time (Pezzey, 1997). It derives from the perception that welfare is not normally dependent on a specific form of capital and can be maintained by substituting manufactured capital for natural capital (Ekins et al., 2003). ‘Weak sustainability’ is thus “characterised by the possibility to substitute economy and nature to achieve the goal of highest possible utility for humans” (Nilsen, 2010, 497). ‘*Strong sustainability*’ suggests that the economy and nature are considered to be complementary and are both to be sustained (Daly, 1999). It derives from the perception that substitutability of manufactured and natural capital is seriously limited by such environmental characteristics as irreversibility, uncertainty and the existence of ‘critical’ components of natural capital that make a unique contribution to welfare (Ekins et al., 2003). In this context, Baumgärtner & Quaas (2010) argue that a new field of ‘sustainability economics’ is emerging that can be defined by four main attributes: (i) subject focus on the relationship between humans and nature; (ii) orientation towards the long-term and inherently uncertain future; (iii) normative foundation in the idea of justice, between humans of present and future generations as well as between humans and nature; and (iv) concern for economic efficiency, understood as non-wastefulness, in the allocation of natural goods and services as well as their human-made substitutes and complements.

As mentioned above, the links between economic growth and sustainable development have been addressed at recent ESDN events, mainly at the ESDN Conference 2010 and the 5<sup>th</sup> ESDN Workshop. *Below, we present some results of the discussions at these events:*

- The economic and financial crisis should be seen as opportunity for transition of current economic systems; efforts for a sustainable transition need to be increased to move towards a sustainable economy.
- A comprehensive analysis of causes of the crises is needed; there are several crises (e.g. economic/financial, energy, ecosystems) and their interrelations should be addressed.
- Integrated policy toolkits and policy-relevant measurement approaches (including indicators) are needed.
- The risk exists that sustainable development is redefined and downgraded to quick fixes of ‘green jobs’ and ‘eco-innovation’; efforts should be increased to apply integrated approaches that take into account environmental and social issues.
- It is important to reflect upon and find an answer to the question: What kind of growth do we want in the future? The participants regard a different kind of growth, oriented towards well-being and quality-of-life, as important and consistent with sustainable development.

## Measuring well-being and progress in the context of sustainable development

In this chapter, we firstly discuss some general aspects of measuring well-being and progress of societies in the context of sustainable development. Secondly, we provide an overview of international and national measurement approaches and their latest developments.

### Measuring progress beyond GDP

Measurement tools are significant for policy. Typically, there are points in a policy cycle when the performance of existing policies and, similarly, the effects of newly proposed policy options are assessed. Indicators help to describe the current situation/problem; to analyse the causes; to identify possible solutions and analyse, select and implement policy proposals; and to communicate the outcomes at all steps of the policy cycle (Schepelmann et al., 2010).

GDP is currently arguably the most widely used indicator, serving to measure economic performance and market activity. GDP “combines in a single figure, and with no double counting, all the *output (or production)* carried out *by all the firms, non-profit institutions, government bodies and households* in a given country during a given period, regardless of the type of goods and services produced, provided that the production takes place within the country’s economic territory” (Lequiller & Blades, 2006, 15, emphases in original). GDP lies at the top of the entire system of national accounts, and its methodology is rigorously defined and standardised which enables international comparison and aggregations (Wesselink, et al., 2007).

Given the implicit link between market growth and several components of well-being (e.g. levels of employment and consumption), GDP has often been regarded as a proxy indicator of human development and well-being. However, the relationship between economic growth, social welfare and environmental protection is not straightforward. Therefore, the interpretation and use of GDP as proxy for social welfare, well-being and progress of society has received much criticism, including prominent economists (e.g. Joseph Stiglitz, Kenneth Arrow, Amartya Sen). Wesselink et al. (2007) point out that GDP has several important limitations: it does not include a number of factors that determine people’s and nature’s well-being, such as the value of non-market goods and services (e.g. ecosystems, unpaid labour, leisure) or distributional issues; furthermore, GDP focuses on current economic activities or flows, rather than on the developments in natural, economic and social capital assets which are important from a long-term perspective. Therefore, Schepelmann et al. (2010, 7, emphasis added) argue that “*GDP does not properly account for social and environmental costs and benefits*. It is also difficult to achieve sustainable decision-making aiming at sustainable progress and well-being if welfare is being considered from a purely financial point of view. [...] Therefore, in order to *effectively measure ‘progress, wealth and well-being’, one must go beyond GDP*”.

The limitations of GDP have also been addressed in the communication by the European Commission in 2009 on ‘GDP and beyond’ which mentioned that “[GDP], by design and purpose, (...) cannot be relied upon to inform policy debates on all issues. Critically, GDP does not measure environmental sustainability or social inclusion and these limitations need to be taken into account when using it in policy analysis and debates” (European Commission, 2009, 2). Besides the EU, several international and national measurement approaches have been developed to improve data and indicators to complement GDP (for an overview, please see sub-

chapters below). In this context, the link to the sustainable development concept and sustainable development strategies is important to discuss.

The renewed EU Sustainable Development Strategy (EU SDS) of 2006 has the aim to continuously improve *quality-of-life and well-being* of current and future generations (European Council, 2006). In general terms, one could also define this aim of the EU SDS as to improve people's lives. Therefore, it is useful to reflect shortly upon several terms that are sometimes used interchangeably in the context of this topic: happiness, well-being, quality-of-life and welfare. Well-being refers to *objective conditions* and *subjective experiences* in the context of quality-of-life (Ryan & Deci, 2001). The objective approach is based on recognition of several dimensions contributing to a 'good life' such as material standards of living, healthy environment, satisfying job, security or time spent with family. However, Sen (1993) argues that well-being ought to be not only about material goods or 'basic needs', but also about capabilities to pursue and realize the goals that an individual values, provided for by e.g. education, income or political freedoms. This approach focusing on the more objective conditions has found home, e.g. in development studies or healthcare.

Well-being is, however, also approachable from the more *subjective perspective* utilising concepts from psychology or sociology. One view equates well-being with pleasure and *happiness* (Ryan & Deci, 2001; Kahneman et al., 1999; Kuhlman & Farrington, 2010). Other conceptualisations treat well-being in terms of the cultivation of personal strengths and contribution to 'the greater good', acting in accordance to one's inner nature and deeply held values (Waterman, 1993), the realization of one's true potential (Ryff and Keyes 1995), and the experience of purpose or meaning in life (Ryff 1989). It can also include people's ability to predict and maintain control of outcomes when pursuing satisfaction (Friedman, 1997). A recent study by the New Economics Foundation on national accounts of well-being tries to integrate several subjective components (2010).

*Welfare* can be understood as a more limited concept, stepping from economics and based on the notion of *fair allocations*. It is most often associated with social policies denoting prosperity in terms of material goods such as food, water, health and shelter (Kuhlmann & Farrington, 2010), but can also include monetary and also non-monetary dimensions to people's well-being and their preferences to these dimensions (Stiglitz et al., 2009) and in this respect be almost interchangeable with well-being.

The link between *the environment and human well-being* is also of major importance. On the one hand, the environment comprises a diversity of ecosystems, e.g. forests, agro-ecosystems, freshwater systems. Each of them provides a set of benefits that contribute to human health, well-being and livelihood, from direct provisioning of goods to more indirect benefits, such as through regulating or supporting ecosystem services (Melnick et al., 2005). On the other hand, the environment (or nature) provides an array of intangible goods for people, like green spaces, beautiful landscapes to escape from city life, local environmental for physical exercise, etc. (New Economics Foundation, 2005). However, environmental concerns and human well-being must not necessarily match, for instance, someone can consider flying to different cities and exploring different cultures as positive for subjective well-being, but this will increase greenhouse gas emissions that ultimately contribute to environmental degradation (Jackson, 2009). As one can see, there are a several conflicting lines between subjective and objective criteria of well-being/progress as well as between subjective well-being and environmental sustainability. To

address these issues in the context of sustainable development and to find an integrated approach in measurement reforms is an important challenge.

The *EU SDS* in its key challenges addresses various important aspects of well-being and quality of life. Most directly, the key challenge ‘social inclusion, demography and migration’ has the overall objective “to create a socially inclusive society by taking into account solidarity between and within generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being” (European Council, 2006, 17). This key challenge includes several operational objectives, like poverty reduction, social cohesion, cultural diversity, increased employment, etc. Additionally, most environmental policy objectives in the *EU SDS* can be linked to quality of life and well-being, like climate change and energy (e.g. energy security, energy efficiency); sustainable transport (e.g. pollution and noise reduction); sustainable consumption and production (e.g. improved environmental and social performance of products and processes, food security, food waste, etc.); natural resource management (e.g. halting biodiversity loss, recycling and reuse); public health (e.g. protection against health threats, improved living conditions); global poverty and sustainable development challenges (e.g. Millennium Development Goals, foreign and security policy).

### Indicator approaches in relation to GDP

In order to measure well-being and progress of society and to go beyond GDP, various indicators can be used. Schepelmann et al. (2010) have developed three categories that show how indicators can be related to GDP:

Firstly, indicators *adjusting GDP*, i.e. traditional economic performance measures like GDP or national saving rates have been adjusted by including monetised environmental and social factors. Examples of such indicators are Green GDP or Green National Accounting or Genuine Savings (Adjusted Net Savings) by the World Bank.

Secondly, indicators *replacing GDP*, i.e. indicators that try to assess well-being more directly than GDP, for instance, by assessing average life satisfaction or the achievement of basic human functions. Examples are the Human Development Index (HDI) by UNDP, Ecological Footprint, Happy Planet Index by New Economics Foundation or the Environmental Sustainability Index.

Thirdly, indicators *supplementing GDP*, i.e. GDP is not adjusted or replaced by constructing new indices but complemented with additional environmental and/or social information. Examples are the Sustainable Development Indicators (SDI) set by the European Commission, decoupling indicators or the Millennium Development Goals.

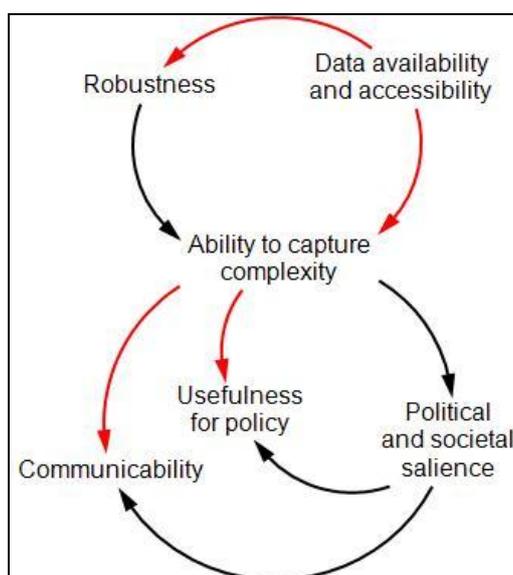
### Challenges for measuring well-being and progress in the context of sustainable development

When reflecting upon the various aspects of measuring well-being and progress in the context of sustainable development, several interlinked challenges emerge that could be addressed in the workshop (for an overview, see Figure 1 below):

- *Data availability and accessibility*: the existence of high-quality data among the data necessary for indicators already collected by the authorities or the possibility to efficiently and speedily collect the data plays a crucial role. Lack of high-quality data will

negatively affect the robustness of indicators as well as their ability to capture complexity.

- *Robustness*: the ability of indicators to represent in a non-contesting manner the issues which they are supposed to represent are crucial (especially in the case of proxy indicators). Robust indicators are reliable and, therefore, they positively affect their ability to capture complexity.
- *Complexity*: measuring beyond GDP, and taking into account environmental and social issues, requires the ability to reflect the complexity of the coupled social and economic systems as well as of the policy concept of sustainable development. Indicators need to be able to capture multiple dimensions and timescales (for identification of potential trade-offs), irreversibility and non-linearity. There is an ongoing debate on complex sets of indicators that can help to capture all the numerous issues which are relevant for the society and contribute to an informed debate (therefore, having a positive influence on salience) and how applicable they are for practical policy-making and communicability.
- *Political and societal salience*: indicators should measure what is of concern to the society and policy. This supports legitimacy, increases their usefulness for policy and improves their communicability (as the public will be willing to devote more attention to the indicators).
- *Policy usefulness*: in order to be useful to policy, indicators need to be responsive to policy intervention and provide quick feedback; they also need to be collected regularly and quickly. Compare, e.g. national GDP which seems to be very responsive to policy with immediately visible results and is calculated on a quarterly or monthly basis with results being available within weeks after the observed period, and most demographic or environmental data with a time lag, hard-to-see causal response to policy intervention and which are collected during several months or years.
- *Communicability*: indicators need to be communicable to the public to inform on the objectives and performance of policies, which would ideally require a low number of indicators with understandable scales.



**Figure 1: Challenges of measuring well-being and progress in the context of SD**

## International measurement approaches: overview and latest developments

The concern of measuring societal progress beyond economic growth is gaining momentum through various initiatives at the international and national level. The most important initiatives at the European level are the *European Commission's Communication "GDP and beyond"* of 2009, and the report of the *Commission on the Measurement of Economic Performance and Social Progress* (commonly referred to as Stiglitz Commission). The Commission communication is based on the debates and follow-up activities of the high-level conference "Beyond GDP" that took place in November 2007 and was hosted by the European Commission, the European Parliament, the Club of Rome, OECD and WWF. The communication "GDP and beyond" does not aim to replace GDP, but to complement it with other top-level indicators in order to provide a more accurate view of progress in social, economic and environmental spheres. This measurement framework is also linked to the "Europe 2020" strategy. The Stiglitz Commission has been established in early 2008 on the initiative of the French President, Nicolas Sarkozy, and has delivered its final report in autumn 2009. The report opened a discussion which has since been taken up on the national and international level.

At the international level, the *OECD Global Project on measuring societal progress and well-being*, initiated in 2007, has endeavoured to provide a network for the many initiatives aimed at "going beyond GDP". Lately, the focus has shifted in also engaging more technically in measuring well-being. In addition to the OECD efforts, *three activities of the United Nations* must be mentioned: The UNEP hosts the initiative on *The Economics of Ecosystems and Biodiversity (TEEB)* that aims to highlight the growing costs of biodiversity loss and eco-system degradation and gathers expertise from the fields of science, economics and policy to enable practical actions. The United Nation Development Program with the *Human Development Index (HDI)*, started in the 1990s, challenges the hegemony of growth-centric thinking. The third important initiative is the *Joint UNECE/Eurostat/OECD Working Group on Statistics for Sustainable Development* that focuses on developing sustainable development indicators, including the measurement of well-being.

The majority of these initiatives still consider GDP as a useful indicator for measuring economic growth, but clearly point out the shortcomings of GDP in measuring general societal progress. They recommend, therefore, supplementing GDP with environmental, social and sustainability information. The majority of the initiatives recommends, at the environmental level, two groups of instruments which should supplement GDP: (a) the integration of environmental information in national accounts, either through physical flow accounts (air emission, material consumption) or stock of natural capital accounts (fisheries, forests) or through monetary accounts on environmental protection systems (TEEB, 2010), or (b) the provision of environmental information in relation to GDP through indicators (such as the Environmental Performance Index which will be developed for the European level). The other level of supplementing GDP is the societal level with indicators on well-being and quality-of-life.

The initiatives show the following methodological similarities in their approaches and understanding of well-being: (1) well-being is considered as a multi-dimensional concept which should include not only the standard of living (based on national income measures), but also other aspects such as health, education, social relatedness, etc.; (2) well-being should be measured with objective and subjective indicators; (3) as well-being is multi-dimensional, the initiatives propose not to offer a composite indicator but an indicator set; (4) all initiatives

integrate distributional and inequality indicator development for measuring disparities among, nations, regions, societal groups or gender. Sustainable development is seen as a concept which needs complementary indicators to well-being indicators as it includes inter- and intra-generational aspects (temporal questions). Initiatives such as UNECE, Stiglitz Commission, European Commission's "GDP and beyond", and the OECD Global Project explicitly recommend to further develop sustainable development indicators based on the "wealth or stock-based approach".

More detailed information on the various international measurement approaches can be found in the ESDN Case Study No. 3 on the [ESDN homepage](#).

### **National measurement approaches: overview and latest developments**

Several EU Member States – in particular Austria, Belgium, Finland, France and Germany – have been very active in defining indicators which best measure well-being and societal progress in the context of 'beyond GDP'. The majority of these countries have recognized the weakness of GDP for measuring overall societal progress, but also the impossibility and challenge to measure well-being or sustainable development with a single synthetic indicator. Therefore, they find it most useful to apply a broad indicator set on sustainable development or well-being and use only some synthetic indicators alternatively to GDP for communication reasons.

*Austria* has developed its first SDI set in 2003. In 2006, the first monitoring report was published that outlined the approach of measurement and the set of indicators (Austrian Ministry of Environment, 2006). Welfare, health and well-being are explicitly specified as domains for measurement. The approach of Austria is very systemic and holistic in the measurement, so that inter-linkages of "Man/Society" and "Environment" spheres, as defined in the monitoring report, are well reflected in the indicators. A recent study in Austria proved the appropriateness of SDIs in measuring not only welfare aspects but also well-being (Austrian Ministry of Environment, 2010).

*Belgium* has been also very active in measuring and improving its SDI set with well-being indicators. The Task Force Sustainable Development of the Federal Planning Bureau (FPB) has also contributed to measuring the progress of society in the context of sustainable development with its fifth federal report on sustainable development, published in October 2009. Belgium has recommended to add four synthetic indicators to their SDI set (environmental satellite accounts (ESA), Human Development Index, ecological footprint (EF) and bio-capacity (BC), Indicators related to government spending on SD) (FPB, 2009). Furthermore, the Belgian Federal Science Policy Office is looking into theoretically sound and democratically legitimate indicators of well-being in Belgium (WellBeBe). The aim is to construct an alternative indicator to GDP, based on a dynamical conception of well-being which considers the individual in his whole life-cycle and which includes the notion of the social structure through the concept of 'life chances'.

*Finland* has actively participated in international cooperation aiming at the development of well-being indicators. The first project, entitled Findicator, concentrates on providing up-to-date data on 100 indicators for social progress. In October 2009, the Prime Minister's Office and Statistics Finland opened a web-based Findicator website that provides up-to-date statistics on various sectors of society. The most recent project, "New dimensions for the measurement of well-being", examines the possibilities for formulating more comprehensive well-being metrics which

will include not only economic key figures but, to a greater extent, indicators reflecting people's personal well-being and the state of the environment.

In *France*, President Sarkozy has called for an immediate implementation of the Stiglitz Commission's recommendations. One year after the publication of the Commission's report, the French National Statistical Institute (INSEE) and the General Commission on Sustainable Development have undertaken specific efforts in implementing the recommendations based on critical issues of GDP, quality-of-life and especially on the third part of the Stiglitz Commission final report.

An intensive discussion is also taking place in *Germany* about the adequacy of GDP as a parameter of social welfare. The most recent initiative in this context is the development of a new indicator intended to be a complementary source of information to GDP, entitled "National Welfare index" (NWI). The NWI is composed of 21 variables, taking account for welfare services neglected up-to date by GDP, such as non market services (e.g. voluntary work and domestic work), on the one hand, and environmental damage and the cost of compensation for environmental damages, on the other hand (Diefenbacher & Ziehschank 2008).

More detailed information on the various national measurement approaches can be found in the ESDN Case Study No. 4 on the [ESDN homepage](#).

## Discussion questions and interactive formats

Apart from the keynote presentations, the workshop will have several interactive formats. Panel and plenary discussions, a walk-around poster session as well as parallel working groups aim to foster debate and exchange. In the following section, provide an overview of the different formats and propose some discussion questions.

### Questions for panel and plenary discussions

The panel discussion on the first workshop day – with representatives of the European Commission, Eurostat, OECD, Club of Rome and the German Statistical Office – will focus on latest development in international measurement approaches. We propose the following discussion questions:

- ➔ What are the latest developments and follow-up activities on measuring well-being/progress of society in the context of SD?
- ➔ Which indicator sets are developed and which challenges emerge (i.e. conceptual, methodological)?
- ➔ What is the political context of the measurement activities and how are they related to political priorities?
- ➔ How are the measurement approaches related to SD policy in practice? What are the most crucial implementation challenges?
- ➔ What are the expectations regarding the involvement of the national and sub-national levels in measurement activities? What experiences have been made so far?

There will be two plenary discussions during the workshop. The first plenary discussion, on day one, will focus the results of the overview of national measurement approaches (see below) and will work on first topics for recommended actions. The second plenary discussion, on day two, will use the inputs from the parallel working group discussions (see also below) to formulate recommendations for action.

### Overview of national approaches – Walk-around poster session/World Café

Different measurement approaches of EU Member States will be presented on the first day in a walk-around poster session that loosely follows the World Café format. Each country will be presented at a “country island” (with posters on a pin-wall) where a country representative will shortly provide an overview of national activities and will then discuss with the participants. Participants can spend about 30 minutes at one country and are then invited to continue to walk on and discuss at the next “country island”. In total, three rounds of discussions are foreseen, so each participant can visit three country islands. At the end, participants will have about 10-15 minutes to walk through all the country islands. Several questions should guide the walk-around poster session:

- ➔ What are the main objectives, priorities, policy fields and political interests behind the national measurement approaches?

- ➔ What is specific about the measurement approaches? How are they related to international and other national measurement activities?
- ➔ Which indicators have been developed and how have they been used?
- ➔ Which stakeholders have been involved?
- ➔ Which challenges do emerge in follow-up activities (conceptual, methodological, political)?
- ➔ Which preconditions would be necessary to apply them in other countries?

### Working group format

The parallel working groups on the second day will reflect on several questions and have the aim to develop recommendations for action/implementation regarding the measurement of well-being/progress of society from a sustainable development perspective. We, firstly, invite the participants in each working group to discuss the following questions:

- ➔ Which of the presented measurement approach(es) is/are most promising for actions (international, national, bi-lateral)?
- ➔ What are critical challenges (methodological, conceptual, political) and how could they be addressed/overcome?
- ➔ What are the most important factors so that new measurement approaches are used by policy-makers (international, national)?

Secondly, we invite the participants in each working group to develop in total 5 recommendations for action on measuring well-being/progress from a sustainable development perspective for (i) statistics/science, (ii) policy-making (mainly at the national/sub-national level), and (iii) international organizations (EU, OECD, UN).

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