



Concept and Methodology

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Concept and Methodology: Sustainable Governance Indicators

Measuring Sustainable Governance

The Sustainable Governance Indicators (SGI) address one of the central socio-political questions facing the highly developed states of the OECD and the European Union at the outset of the 21st century: How can we achieve sustainable policy outcomes and imbue political decision-making with a longer-term focus? Challenges such as economic globalization, social inequality, resource scarcity, and demographic change, each of which cut across policy sectors and extend beyond national boundaries, require policymakers to adapt rapidly and learn from the examples of others. Ideally, governments should act with long-term consequences in mind. This involves generating policy outcomes that maintain or improve the quality of life for present and future generations without placing an unfair burden on future generations. This also means governments need to safeguard the long-term health of their societies' economic, social and environmental systems. However, long-term thinking of this nature is currently rare. Most governments tend instead to act with the short term in mind. Mounting public debt, the unequal allotment of participation opportunities and the wasteful exploitation of natural resources have significant negative implications for present and future generations, thus imperiling the overall sustainability of OECD and EU states. Taking stock of these problems, the Sustainable Governance Indicators project aims to support OECD and EU governments' capacity to act with the long term in mind, thereby achieving more sustainable policy outcomes.

The SGI project is a monitoring instrument that uses evidence-based analysis to provide practical knowledge applicable to the daily work of policymaking. The SGI thus targets the spectrum of those individuals who formulate, shape and implement policies, from political decision-makers in centers of government and the democratic institutions of the OECD and EU states, to representatives of civil society and international organizations, to scholars and interested citizens. Underlying the SGI project is a cross-national comparison of governance in 41 states of the OECD and the EU on the basis of a customized set of indicators. This comparison of strengths and weaknesses is intended to activate (international) learning processes while at the same time casting a spotlight on vital reforms for decision-makers and the public.

This instrument is built on three pillars – the Policy Performance Index, the Democracy Index and the Governance Index – that collectively identify examples of sustainable governance (see figure 1).

Figure 1: Overview Sustainable Governance Indicators



In the following, we detail the specifics of each of the three indices before discuss the transformation and aggregation logics underlying the Sustainable Governance Indicators. The SGI allow for several kinds of comparisons: more general comparisons of the surveyed countries, comparisons across sub-indices and between specific indicators, as well as the comparison of developments within a specific country over time.

Policy performance – sustainable policy outcomes

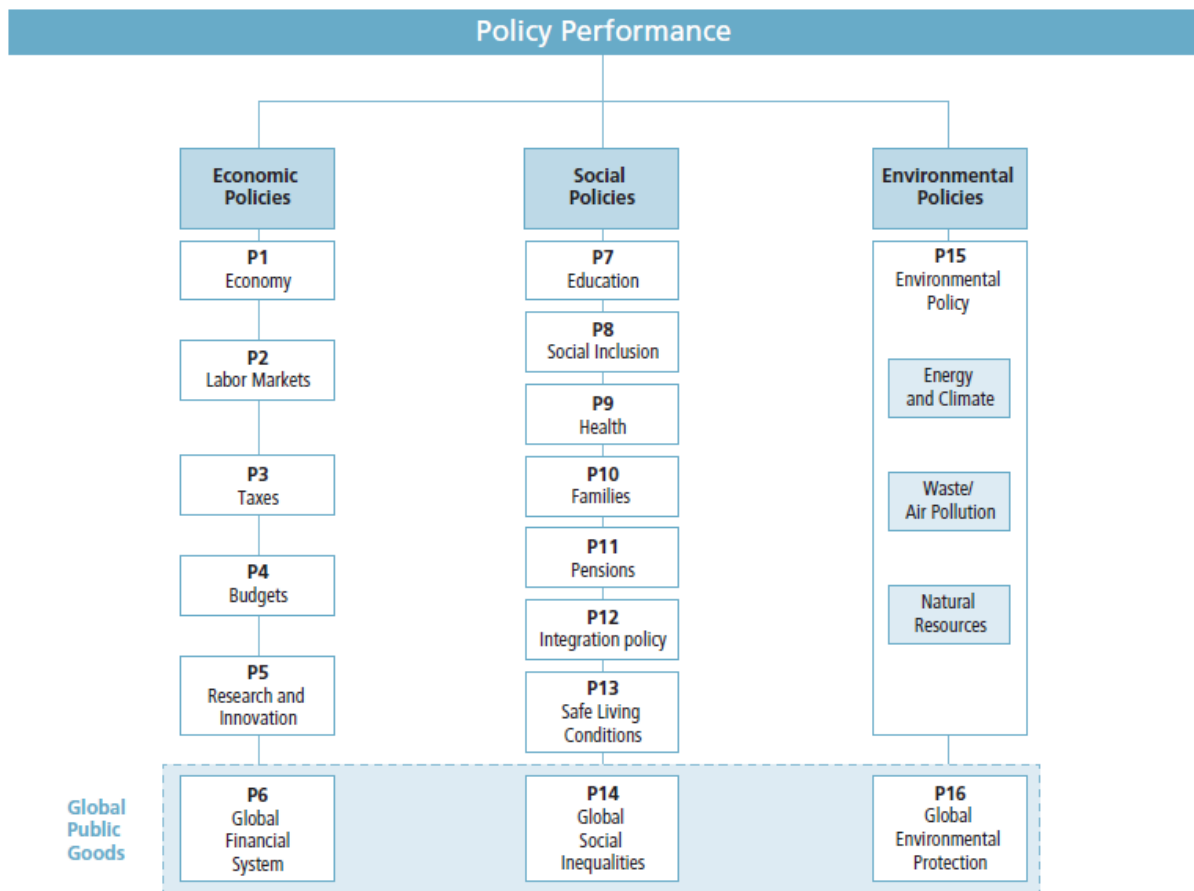
The Policy Performance Index creates a map of reform needs in key policy areas for each country, asking how successful individual countries have been in achieving sustainable policy outcomes. In so doing, it references a range of ideas central to current international discourses on measuring sustainability, social progress and quality of life. Thus, the Policy Performance Index does not limit itself to the conventional measures such as a society's economic growth and material prosperity. Instead, this pillar of the SGI also relies on data that measure the success of OECD and EU states in a variety of policy areas that must be taken into account in seeking to develop robust, high-performing, long-lasting economic, sociopolitical and environmental systems, not to mention high levels of social participation.

The Policy Performance Index measures the performance of the 41 states surveyed in terms of three core dimensions of sustainability, manifested here as economic, social and environmental policies (see figure 2). A total of 16 individual policy areas are addressed, with policy outcomes captured by means of a wide range of quantitative and qualitative data. In this respect, the SGI 2014 goes further than previous SGI surveys, as it now encompasses the contribution of individual countries in promoting sustainable development at the international level. And in the context of the United Nations' current discussions over goals to succeed the Millennium Development Goals following their 2015 target date, the highly developed OECD and EU states have a particular responsibility for contributing to an increase in global public welfare.

Economic policies – prospects for inclusive growth

Economic policies that encourage competition and strengthen market principles remain the driver of growth, while safeguarding the resources necessary for a society to be adaptable. However, such policies will be of the greatest advantage to the greatest number of people if they are accompanied by redistributive tax and labor-market policies, and underpinned by social policies that facilitate a just societal allocation of the benefits of economic growth. Therefore, sustainable governance can only be achieved through a successful, future-oriented approach to economic challenges. The decisive question with respect to sustainability is how opportunities for self-realization can be provided to the greatest number of people today without unjustly burdening future generations. Excessive public debt, for example, can leave future generations with a massive mortgage on their opportunities for self-realization, dwarfing the constraints felt by today's generations.

Figure 2: The Policy Performance Index



In assessing the individual policy areas comprising the economic policies category, the following questions are addressed:

- Are economic policies applied on the basis of a coherent institutional framework, thereby enhancing the country's international competitiveness?
- How successful are government strategies in addressing unemployment and increasing labor-market inclusion?
- To what extent do the country's tax policies promote social equity, competition and positive long-term state-revenue prospects?
- To what extent are budgetary policies underpinned by principles of fiscal sustainability?
- To what extent do research and development policies contribute to the country's capacity for innovation?
- Does the country actively contribute to the effective regulation and stabilization of international financial markets?

Social policies – securing participation for present and future generations

Social policies designed to enhance sustainability involve maintaining or increasing individuals' opportunities to act and live in accordance with their own values, which thereby ensures a high degree of participation in society. Political, social and economic systems must be constituted in such a way that individuals are provided with substantive opportunities for self-realization. Ensuring broad-based social participation involves more than providing safeguards against classic risks such as illness, accidents, aging, disability and unemployment. Social policies should also be integrative in nature and empower members of the community to participate actively in public affairs. At the same time, these substantive opportunities for self-realization must be provided in equal measure to all members of society: No one should be systematically excluded from feeling safe, having good health and gainful employment, engaging in political participation, enjoying social relations, being able to participate in cultural life, and living in favorable environmental conditions. Seeking to enhance sustainability thus means ensuring the long-term viability of social-welfare systems. Assessing the performance of OECD and EU states with this in mind involves more than evaluating the extent to which society provides opportunities and enables participation. It also involves taking a close look at factors such as the sustainability of public financing and the potential for reform within existing systems. Sustainability-minded decision-making maintains and even expands opportunities for social participation for today's generations without compromising the opportunities afforded to future generations.

The SGI's social policies category addresses the following questions:

- To what extent do the country's education policies foster high-quality, inclusive and efficient education and training systems?
- To what extent do sociopolitical measures facilitate social inclusion, while effectively combating social exclusion and polarization?
- How successfully do policies secure quality, fairness and cost efficiency in the country's health care system?
- To what extent do family-policy measures make it easier to combine career and family?
- How successful are the country's pension policies in preventing old-age poverty while promoting intergenerational equity and fiscal sustainability?
- To what extent do the country's political measures foster the effective integration of migrants into society?
- How successful is the country in establishing secure living conditions for its citizens by combating crime and other security risks?

- And looking to the international level: To what extent is the country engaged in efforts to combat global social inequalities, such as the promotion of fair global-trade structures and just participation opportunities within developing countries?

Environmental policies

In terms of sustainability, the environmental policies category is of particular significance given environmental conditions' far-reaching effects on the quality of life. The quality of the surrounding environment can influence quality of life positively (by providing access to clean water, air and recreation areas) or negatively (through water, air or noise pollution, for example). The quality of the environment partly determines where people want to live, drives migratory movements and makes basic human existence possible. But natural environments (with their ecosystemic functions) are also dependent on human social systems – particularly the extent to which these latter systems observe principles of environmental sustainability. Lifestyle choices and advanced economic systems dependent on an intensive use of resources, which can destabilize the ecosystem in the long term. Indeed, the growing material expectations of an expanding global population represent the greatest risk of destabilization. And yet the ability to fulfill these demands is constrained by immutable planetary limits. Environmental sustainability therefore means ensuring that regenerative resources are used only to the extent that they can be replenished. Environmental sustainability also involves ensuring that nonrenewable resources are consumed only to the extent that similar, renewable substitutes can be developed. Harmful pollutants such as greenhouse gases should be emitted only to the extent that they can be absorbed by natural systems. The goal of sustainable environmental policies must be to secure the natural foundation of human existence and leave an intact ecosystem for future generations.

Therefore, in this category of sustainability, the SGI addresses the following key questions for each of the 41 OECD and EU countries:

- How successful are the country's environmental policies in protecting natural resources and promoting livable environmental conditions?
- How committed is the country to the advancement of binding global environmental-protection regimes?

A broad range of quantitative indicators underlying this category also allow for a systematic assessment of environmental-policy outcomes (e.g., greenhouse-gas emissions, renewable energies, particulate pollution, waste recycling).

Comparing strengths and weaknesses across the three categories of the Policy Performance Index allows us to identify not only the areas in which individual countries are achieving positive policy outcomes, and the extent to which this is occurring, but also the areas in which there is a pressing need for further reform.

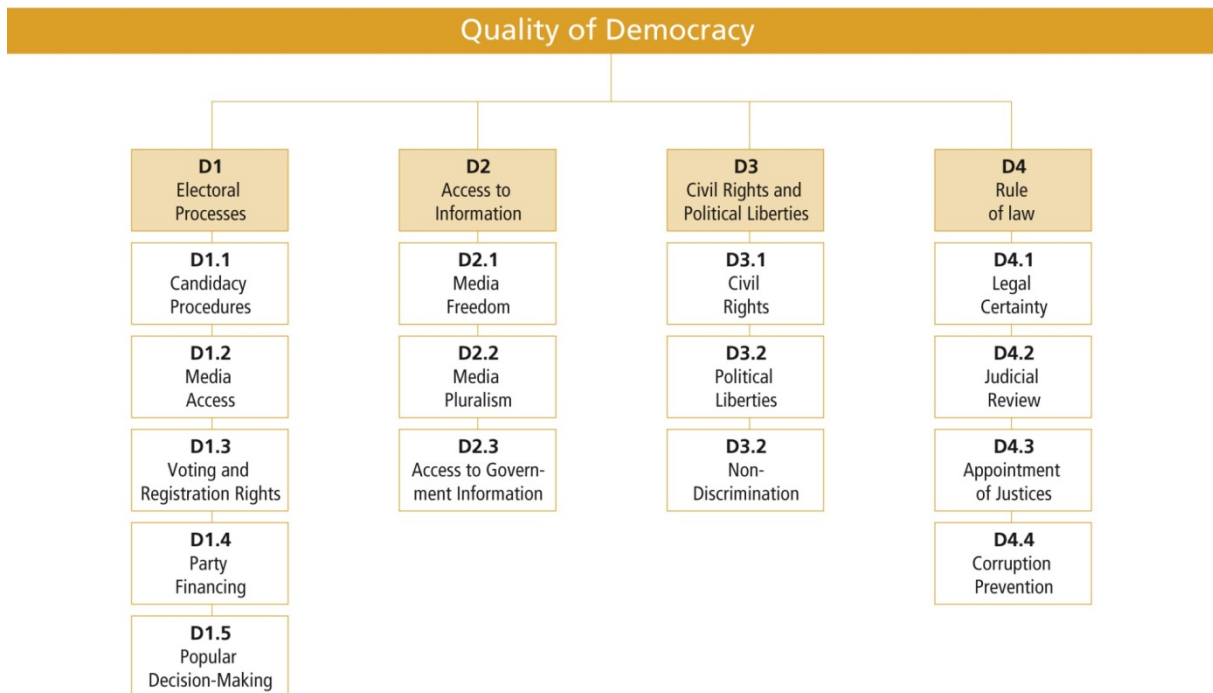
Behind this model is the idea that the long-term viability of economic, social and environmental systems can be achieved only through measures that consider these systems together. It is important to consider the diverse interactions and conflicting goals that arise from the three systems and their associated policies, with no single component viewed in isolation from the others. The structures, actors and processes through which such conflicting goals are addressed, and where possible resolved, are therefore of central importance in sustainable policy formulation (for more on this, see also aspects of quality of democracy and governance, below).

Democracy Index – comparing frameworks for democracy and the rule of law

How are the state of democracy and the rule of law in OECD and EU states? This question is also vital in assessing sustainable governance, because the rule of law and citizens' ability to participate in political processes are essential to ensuring a political system's good performance and long-term stability. Fully developed opportunities for political participation must be in place if a society is to achieve high levels of participatory justice. Indeed, the quality of democracy in a society must be high if it is to sustain pluralism in the processes that build and shape public will and opinions (input legitimacy), as well as in the policy-formulation and decision-making processes that accommodate the interests and needs of a broad spectrum of stakeholders in society (throughput legitimacy), while ultimately transforming these processes into concrete and efficacious actions (output legitimacy). Democracy and the rule of law are therefore fundamental to preventing the systematic exclusion or neglect of social groups or individuals, enabling all members of a society to participate in shaping opinions and building the will to reform. When managing the inherent conflicts underlying sustainable policy goals, it is particularly important to prevent the systematic exclusion of any group, thus following the principle of equal opportunity. The legitimacy of a political system rests upon its ability to provide appropriate oversight of decision-makers' activities, opportunities for democratic participation, protection of civil rights and legal certainty. Citizens' consent to and trust in a political system will depend heavily on these conditions. Moreover, democratic participation and oversight are essential in enabling concrete learning and adaptation processes, as well as the capacity for change. In SGI terms, a high level of democracy quality and a rigorous observation of the rule of law are vital

to achieving sustainability in the sense of long-term systemic viability. The SGI measure these conditions in detail through the Democracy Index (see figure 3).

Figure 3: The Quality of Democracy Index



The SGI's Democracy Index is oriented toward the institutional and organizational realization of basic democratic standards. Its normative reference point is an ideal representative democracy.

The SGI criteria by which government systems in the OECD and EU are derived from those dimensions identified by democratic theory as most significant, and contain key indicators by which the quality of democracy can be assessed. In total, 15 qualitative indicators, comprising four criteria, are used to evaluate the fabric of democracy in each country. Criteria include the following:

- The electoral process, which includes the rules governing political-party ballot qualification and voter registration as well as the issue of party financing; for the first time, this edition of the SGI also evaluates direct-democracy structures and participation opportunities;
- The public's access to information, which can be measured by the extent of media freedoms and media pluralism;
- Civil rights and political liberties; and
- The rule of law, including legal certainty, the judicial review of laws and the prevention of corruption.

Governance Index – an international comparison of reform capacities

In a context of rapidly changing environments and growing complexity, it is ever more important for policymakers (and the institutions through which they act) to respond quickly and resolutely while bearing in mind the long-term impact of actions taken today. It is therefore important that any assessment of sustainable governance look not only at policy outcomes, a country's underlying democratic order and the rule of law, but also at the political leadership's capacity to steer processes with success. Just how effective are OECD and EU leaders in managing strategic processes, and how well do they address and resolve the problems they face? The SGI's Governance Index answers these questions using a broad and innovative set of indicators. These indicators permit a contextualized assessment of the extent to which the governments of OECD and EU states – working together with other institutions and social groups in the course of democratic decision-making processes – are able to identify pressing issues, develop appropriate solutions and implement them efficiently and efficaciously.

The modern concept of governance employed by the SGI emphasizes a government's capacity to deliver sustainable policies (executive capacity) as well as the participatory and oversight competencies of actors and institutions beyond the executive branch (executive accountability).

Executive capacity

The executive capacity category focuses on the core activities of a government and examines the steering capabilities demonstrated by a political system's administrative apparatus. This includes strategic planning, interministerial coordination, knowledge management, consultation and communication processes, as well as policy implementation and learning capacity. The key actors examined here are the governments of the OECD and EU states along with the organizational and institutional resources at their disposal (centers of government, ministries, agencies, etc.).

Executive accountability

The second category within the Governance Index, executive accountability, focuses on the forms of interaction between a government and other stakeholders in the policymaking process, seeking to assess the extent to which participation and oversight competencies are produced and cultivated. If policies are to succeed in the long term and yield sustainable

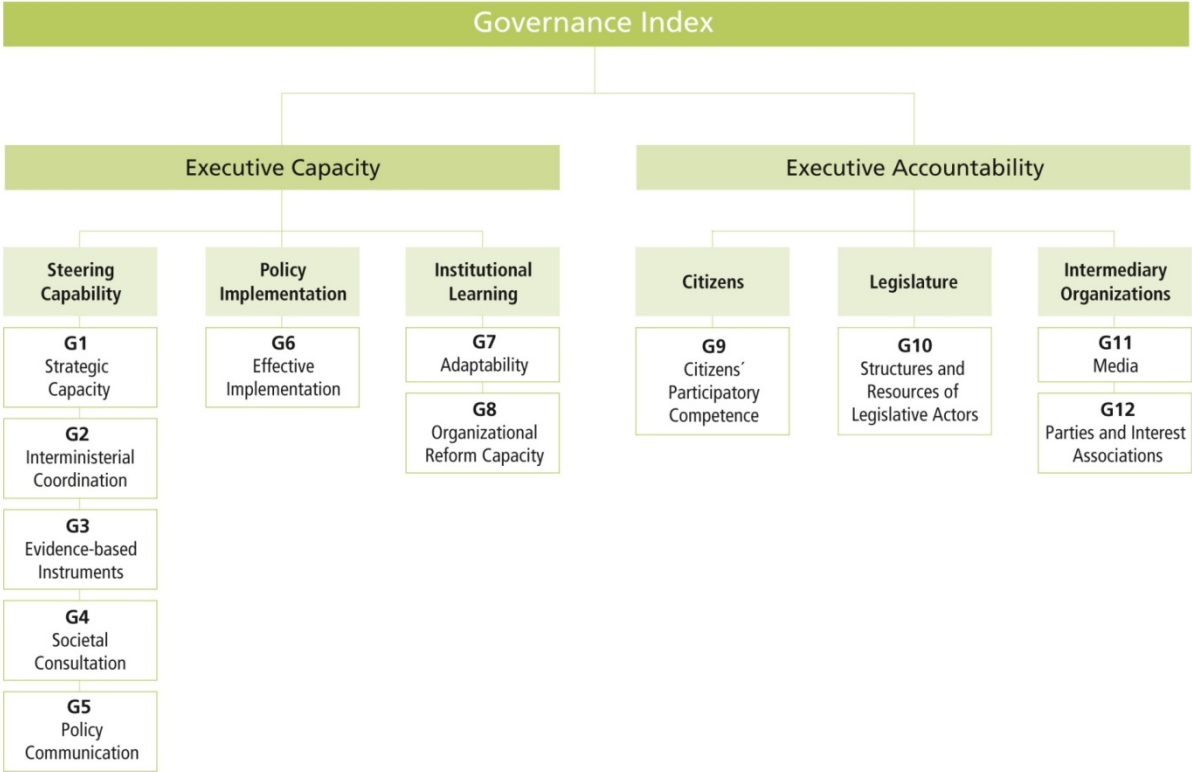
effects, governments clearly cannot afford to formulate and implement policies in isolation. Bearing this in mind, the SGI examines the extent to which other actors who perform essential functions in consolidating and mediating interests in a political system are able to participate in policymaking and monitor the process at each step along the way. The capacity to exercise this oversight function in part reflects the government's obligation to account for its actions to citizens, parliaments, the media, parties and interest groups.

Moreover, executive accountability addresses the effectiveness of government communication, examining how well a government acquires and disseminates information, and the extent to which it involves and activates various elements of society in formulating and implementing policy. The SGI therefore include a series of indicators exploring the extent to which governments consult entities such as special-interest groups early in legislative planning processes. The category also includes indicators that explore the extent to which the associations, citizens and legislatures possess participatory competences (knowledge of politics, financial resources, etc.). In short, this is about the checks and balances and participatory processes that can enhance the quality of political decision-making.

These aspects of modern governance are reflected in the architecture of the Governance Index. As was the case for the Policy Performance and Democracy indices, figure 4 depicting the Governance Index represents merely an overview of its most important features. In sum, 67 qualitative and 69 quantitative indicators underlie the three indices.

The issues and concerns discussed thus far highlight the SGI's two-pronged objective in assessing the future viability of OECD and EU states: to measure the *need for reform* with reference to sustainable policy outcomes and the quality of democracy; and to measure the *capacity for reform* in terms of governments' and social groups' abilities to steer these processes. The SGI take this approach further than other international rankings in two respects. First, the SGI never regard OECD and EU states' reform needs from a purely economic point of view. Instead, the SGI intentionally incorporate cross-cutting topics such as education, the environment, social issues and security. Second, the dimension of reform capacity remains underexplored by other indices to date. No other ranking offers a comparable in-depth analysis.

Figure 4: The Governance Index



Methodology

The SGI draw on established survey and aggregation methods. In order to ensure the proper operationalization of the individual index components, the SGI relies on a combination of qualitative and quantitative data. This allows for an analysis in which the strengths of both types of data can be applied, and it avoids the pitfalls associated with the use of purely quantitative or qualitative surveys. In the SGI, the “objectivity” of quantitative data from official statistical sources is complemented by experts’ context-sensitive qualitative assessments. This combination delivers a detailed portrait of policy outcomes, the quality of democracy and steering capacities.

Data sources

The quantitative data underlying the SGI is drawn from official statistical sources, in particular those provided by the OECD and EU entities. While the SGI project team compiles this quantitative data centrally, the qualitative data is procured from a global network of more than 100 experts in a multiphase process of survey and validation. Each country is evaluated

by (at least) two country experts (political scientists and economists) as well as a regional coordinator, each of whom respond to the questions posed in the SGI codebook. Country reports are then produced through an iterative evaluation process involving reviews and comments by each expert. This procedure figure 5 illustrates is similar to that used by the Bertelsmann Stiftung in the SGI's sister project, the Transformation Index.

The SGI Codebook (available at www.sgi-network.org) details the rationale behind each of the 67 qualitative indicators, thereby ensuring a shared understanding of each question among the SGI experts. The SGI questionnaire includes a range of answer options, allowing for precise evaluations on a scale of 1 (lowest score) to 10 (highest). The response to each question includes both a numerical score and a written response that substantiates and illustrates the score given. Throughout the course of the online survey process, experts refer to the quantitative indicators for all 41 countries as benchmarks, allowing assessments to be made on the basis of sound empirical data. In a first step, all so-called first country experts answer the complete questionnaire for their country in the online database, providing a score on a scale of 1 to 10 for each question. This scale is always structured on the basis of four clear response categories, so that each country expert can classify and evaluate their country based on intersubjective and comprehensible criteria.

In a second step, the reviewing experts come into play. These individuals are tasked with examining, supplementing and, if necessary, correcting the first country experts' work. To this end, the reviewing expert has full access to the first country expert's text in the online database; however, he or she cannot see the first expert's numerical ratings. In a kind of blind review, the reviewing expert here awards his or her own score for each question, independently of the first expert. In this way, two independent numerical ratings, from two independent experts, are provided for each question's response text. This allows the regional coordinator, in a third step, to review the first and second experts' evaluations and texts with an eye to consistency of texts and scores.

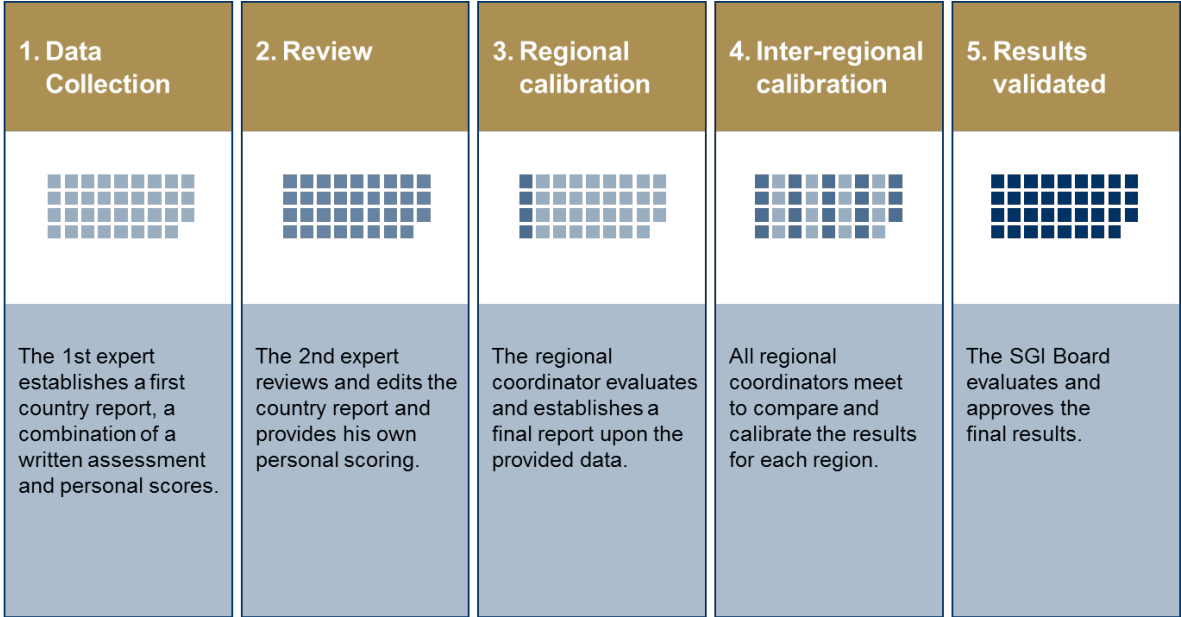
Drawing on this work, the regional coordinators determine the actual scores for all indicators in their country groups. The regional coordinators are comparative political scientists with specific expertise in a particular region in the OECD or EU. Accordingly, the regional coordinators are each responsible for a number of countries (generally between four and eight), while also coordinating the survey process in direct contact with the first and second country experts, and ensuring the intra- and inter-regional comparability of the results.

A fourth step unfolds in the form of a two-day regional-coordinator conference, at which the regional coordinators collectively discuss all qualitative assessments as well as all numerical ratings, and adjust them if necessary. This regional-coordinator round improves the

comparability of responses across all country groups, and ensures that outliers are discussed and are ultimately approved only after reflection.

In a final step, an academic advisory board consisting of political scientists and economists once again examines the plausibility of the expert evaluations. These various levels of oversight do not change the underlying logic of the independent evaluation based on two country experts, but rather complement it, as for example in cases in which experts may disagree or advocate extreme views on specific indicators.

Figure 5: The Qualitative Assessment Process



The qualitative expert reports are concerned with government action taking place solely within the period of review. The quantitative indicators each represent the most current information available. If information for a country is lacking, a value is interpolated by taking the average of all other countries' values for that particular indicator..

Transformation

In order to ensure the comparability of quantitative and qualitative data, all quantitative indicators contained in the indices are standardized through a process of linear transformation onto a scale ranging from 1 to 10. Beginning with this survey round, this has been done through the adoption of fixed boundary values so as to assure comparability over time and among various subgroups. In this regard, the SGI are similar to the United Nations' Human Development Index (HDI), for example, which is also forward-looking. The establishment of fixed minima x_{min} and maxima x_{max} allows transformation to take place

independently of the variable's distribution; that is, a newly added observation does not change the transformed values of the older observations. This new procedure represents an improvement over the earlier rounds of the survey, as in those rounds, transformation was carried out on the basis of minima and maxima prevailing at a given time. For this reason, neither subgroups of individual countries nor changes in a country over time could be compared. This is now possible.

In order to determine boundary values that preserve the validity of the transformation through future years and for potential new countries, we adjust the upper and lower bounds of the middle 50% of the observation by an amount equal to 1.5 times the interquartile range (1.5*IQR). We calculate this based on long-term data series for all 41 countries.¹ The use of the IQRs instead of a standard deviation, for example, has the advantage that this measure is less dependent on distribution, and outliers have no influence on the boundary values. We thus obtain the following minima and maxima.

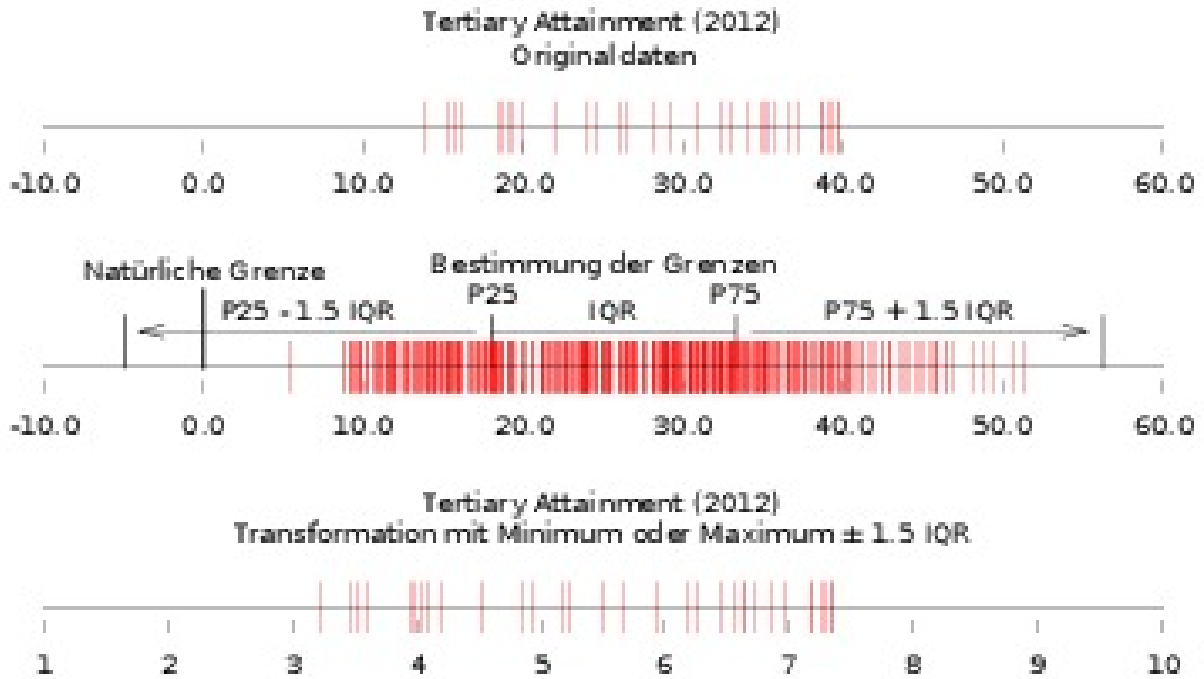
$$x_{min} = P_{25} - 1.5 \times IQR$$

$$x_{max} = P_{75} + 1.5 \times IQR$$

However, if the boundary values are outside the natural limits of a variable, these limits are used instead. Figure 6 illustrates this for the *tertiary attainment* variable. This indicator measures the percentage of the population with a university degree, and thus can range only between 0 and 100. However, for our observations, the variable de facto varies only between 10 and 40, as illustrated in the upper graph in figure 6.

¹ As a result of missing information for some individual countries or years, the data basis is not identical for all indicators.

Figure 6: Example for the Transformation of Quantitative Indicator



The lower boundary determined using our method is negative, and thus outside the variable's natural limits (see middle graph in Figure 6). Therefore, the minimum value x_{min} for this indicator is replaced by the natural lower limit, in this case zero. The maximum, at just below 60%, lies fully in the natural range, and is thus retained. On the basis of boundary values derived in this way, all observations for the review period are at this point transformed to a 1 through 10 scale (see the lower graph in Figure 6). For positively responding indicators such as that of our example, in which a higher value signifies greater sustainability, the derived boundary values are left as is. For negatively responding indicators such as the unemployment rate, the boundary values are reversed. This means that high actual indicator values will now receive a low score on the 1 to 10 scale. In this way, high transformed-variable values always signal a correspondingly high level of sustainability. Formally speaking, transformation of the value x from the range $a_{low} = 1$ to $a_{high} = 10$ takes place through the piecewise function:

$$T(x) = \begin{cases} 1, & x < x_{min} \\ \frac{x - x_{min}}{x_{max} - x_{min}} \times 9 + 1, & x_{min} < x < x_{max} \\ 10, & x > x_{max} \end{cases}$$

This process is transparent, relatively easy to understand, and allows a transformation of the different variables using a common scale without changing the relative importance of individual observations within the boundaries. However, values which are outside the boundary values can no longer be distinguished. For example, should two countries in the future increase their college graduation rate to 60% and 65%, they would both receive a score of 10 – thus, the difference of five percentage points would no longer be evident. Both would be regarded as model countries.

Aggregation

All qualitative and quantitative data are eventually subjected to a simple additive weighting process, and in this way aggregated into the three individual indices: Sustainable Policy Performance, Democracy and Governance.

Figure 7: Aggregation Scheme for the Sustainable Governance Indicators

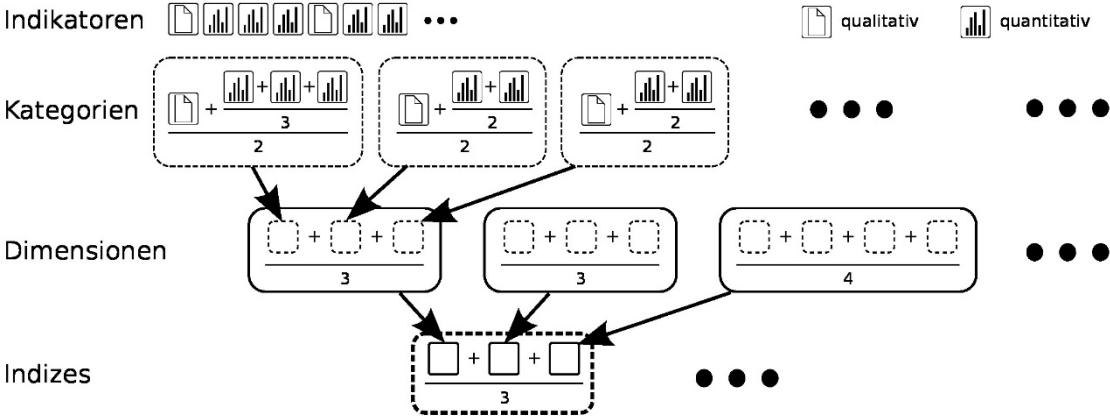


Figure 7 illustrates the aggregation model. First, scores for each of the SGI’s categories are determined on the basis of the qualitative and quantitative indicators. If conceptually meaningful, and if data availability allows, it is always preferable to combine the expert assessments with quantitative information. In this process, the expert assessments are given equal weight with the data from the official statistics. Thus, if a category is comprised of one qualitative and three quantitative indicators (as in the first example, in figure 7), the latter three are first aggregated, and then the average of the two indicator types is again taken, with this average representing the score for the category as a whole. The average of the

individual categories in turn produces the score for the various dimensions, which are subsequently aggregated to the three indices.²

With this multilevel aggregation process, individual categories can be composed of different numbers of indicators, and individual dimensions of different numbers of categories, yet all are nevertheless given an equivalent weight at the next-higher level. By contrast, if all indicators were aggregated in a single step, categories or dimensions composed of many individual indicators would be given excessive weight in the index as a whole.

The additive nature of the aggregation process places all variables on the same level, and allows them (within their individual aggregation level) to be treated equally and independently of one another. In a world of limited resources and different preferences, this allows for flexibility in the development of adaptation strategies. A government that attains good results in all dimensions will in this way be assessed comparably to one that sets stronger priorities and thus achieves very good results in some dimensions, but merely satisfactory results in others.

Naturally, the process by which boundary values are set and the rules governing aggregation are not the only ones possible; rather, they represent conscious choices based on numerous methodological consultations. The method selected for the SGI is based on simple, clear and transparent rules, and thus meets all the academic requirements of parsimony according to Occam's Razor.

Data availability

In addition, the SGI website allows detailed retrieval of the original data as well as the results of the survey at each level of aggregation – from the highest aggregation level, at which the three indices (Policy Performance, Democracy and Governance) are formed, down to the level of individual indicators. This allows users to engage more deeply with topics of personal interest, create country rankings for single indicators, apply their own aggregation rules and even create entirely new indicators. At the end of the SGI survey process, thanks to this combination of quantitative indicators with qualitative expert assessments, the itemized ranking results are accompanied by in-depth country reports on the 41 OECD and EU states examined, all of which are freely accessible at the www.sgi-network.org website. The country reports are also available as separate downloads.

² This step is not applicable in the case of the Democracy Index, as it consists of only one dimension. In the case of the Governance Index, qualitative and quantitative data are always given equal weight. In contrast to the Policy Performance Index, the Governance Index is more strongly based on qualitative data, and there are no criteria composed of a single qualitative indicator and multiple quantitative indicators.

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