Sustainable Development Goals: Are the rich countries ready?

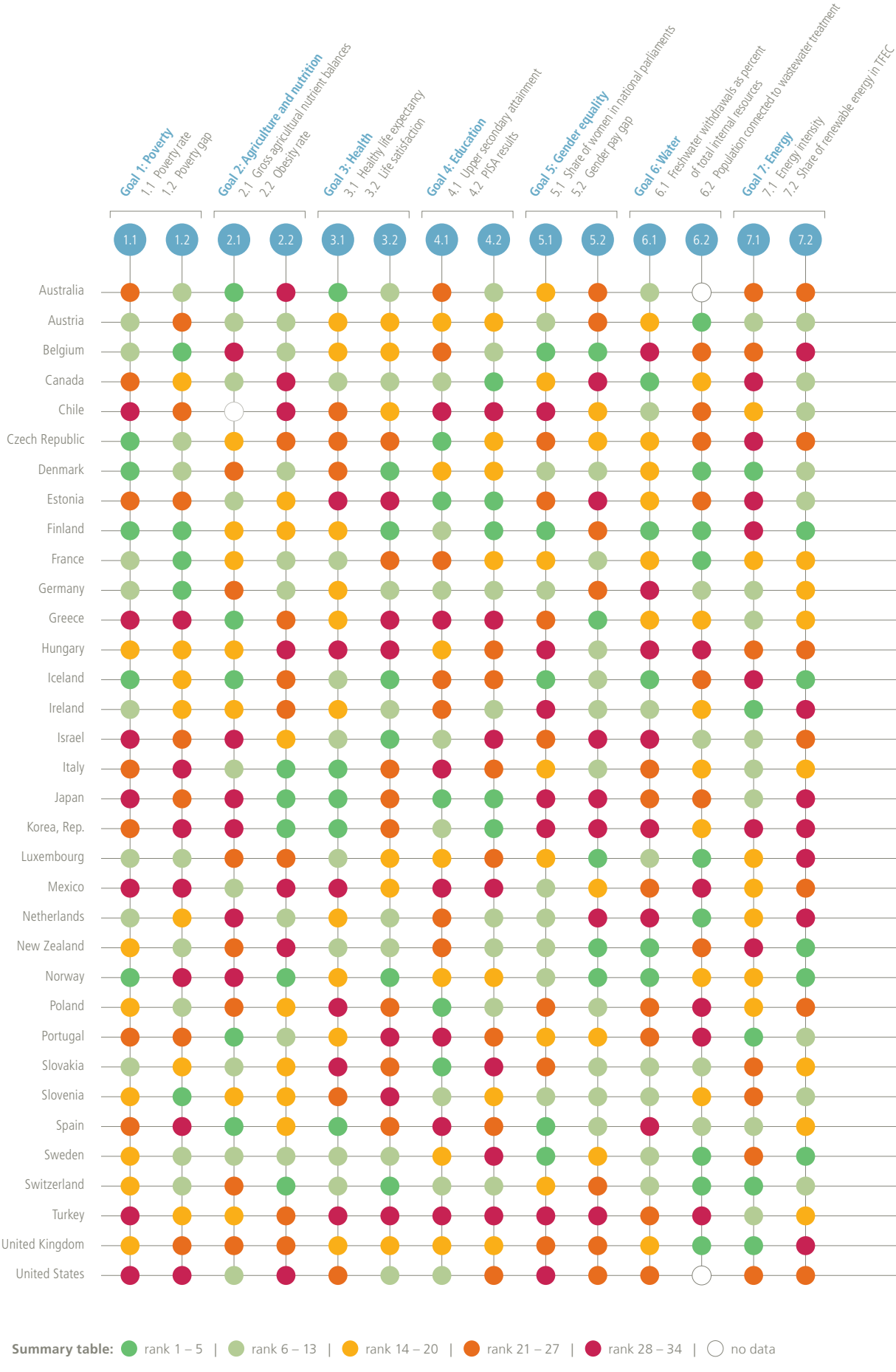
Christian Kroll
with a foreword by Kofi Annan

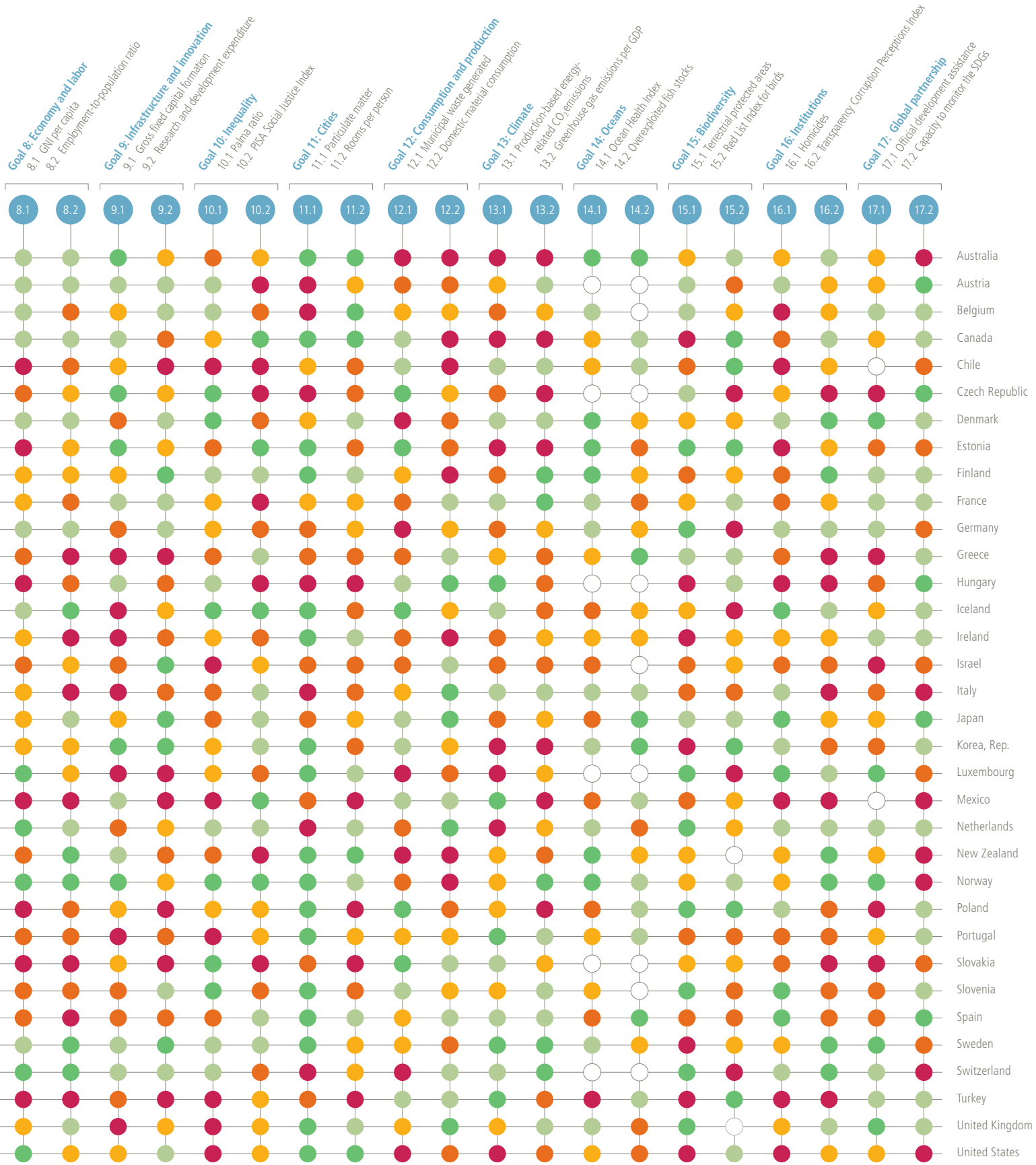
SGI Sustainable Governance Indicators

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

BertelsmannStiftung

Summary table: Which country is fit for which goal?





This table shows at a glance the relative performance of every OECD country for each goal. Deep green represents the leading countries in the respective indicator, while deep red indicates the least readiness. Looking at the countries' relative performance, it becomes evident that not all of them are fit for the goals, and indeed no one country performs outstandingly in all goals. Every country has its own particular lessons to draw from the others. Moreover, even the best-performing countries by today's standards will need to strive for significant improvements over the next 15 years. The chapters in this study contain more detailed analysis of each indicator and country.

Sustainable Development Goals: Are the rich countries ready?

Author: Christian Kroll, PhD
with a foreword by Kofi Annan

Sustainable Development Goals: Are the rich countries ready?

Background

1. World leaders from all UN member countries will gather on September 25, 2015, in New York for a historic UN summit. It will be opened by Pope Francis and aims to adopt new global goals to guide policy in the next 15 years.
2. Throughout the period 2000–2015, the UN Millennium Development Goals (MDGs) have managed to focus the world's attention on the key challenges faced by humanity. Eight goals united the world in an unprecedented effort to make people's lives better. These goals were: (1) eradicate extreme poverty and hunger, (2) achieve universal primary education, (3) promote gender equality and empower women, (4) reduce child mortality, (5) improve maternal health, (6) combat HIV/AIDS, malaria, and other diseases, (7) ensure environmental sustainability, and (8) develop a global partnership for development.
3. Between 2016 and 2030, Sustainable Development Goals (SDGs) ought to be at the center of the global political agenda. The 17 new goals are to be adopted during the UN summit on September 25, 2015, in New York. The outcome document from this summit carries the title "Transforming our world: The 2030 Agenda for Sustainable Development." In it, world leaders commit themselves to "working tirelessly for the full implementation of this Agenda by 2030." How this transformation could work is the subject of this study.
4. What is new about the SDGs in comparison to the MDGs is not only their extended number and more participatory conception. While the eight MDGs were primarily aimed at ending extreme poverty in all its forms in developing countries, the most important novelty is that the SDGs will explicitly broaden the focus to all countries – including the rich nations of this world.
5. From the high-income countries' perspective, if the MDGs were the telescope through which they looked at the developing world, the SDGs are the mirror in which they see their own policies and performance reflected. Achieving the SDGs will require major efforts in every country. Consequently, these goals have the power to question the way we live, how we structure our economies, the way we produce, the way we consume. They can spark reform debates that ultimately increase awareness and highlight the particular responsibilities of the OECD nations in that regard. The SDGs will therefore demand fundamental policy changes in the rich countries themselves.

Key findings

6. This study examines how high-income countries are currently performing in this regard: Are the rich countries holding up their end of the global deal on sustainable development? Are they doing their homework? It ought to be a first systematic assessment of developed nations on what are likely to become the global policy goals for the coming 15 years. It is the first "stress test" of rich countries for the SDGs and presents a new SDG Index to assess country performance on the goals. Moreover, the study highlights best practice in ways of achieving future SDGs. It provides a snapshot of evidence for the crucial UN summit and much further beyond.
7. An in-depth look at the performance in the proposed 17 goals reveals that currently OECD countries vary greatly in their capacity to meet these bold ambitions. It becomes evident that not all countries are fit for the goals, and indeed no one country performs outstandingly in every goal. Each country has its own particular lessons to learn from the others. So in addition to the common challenges for all high-income countries, this study offers a detailed profile of the strengths and weaknesses of the individual countries. Visualizations illustrate at a glance the achievements and challenges of each nation across all 17 goals so that cherry-picking is impossible.

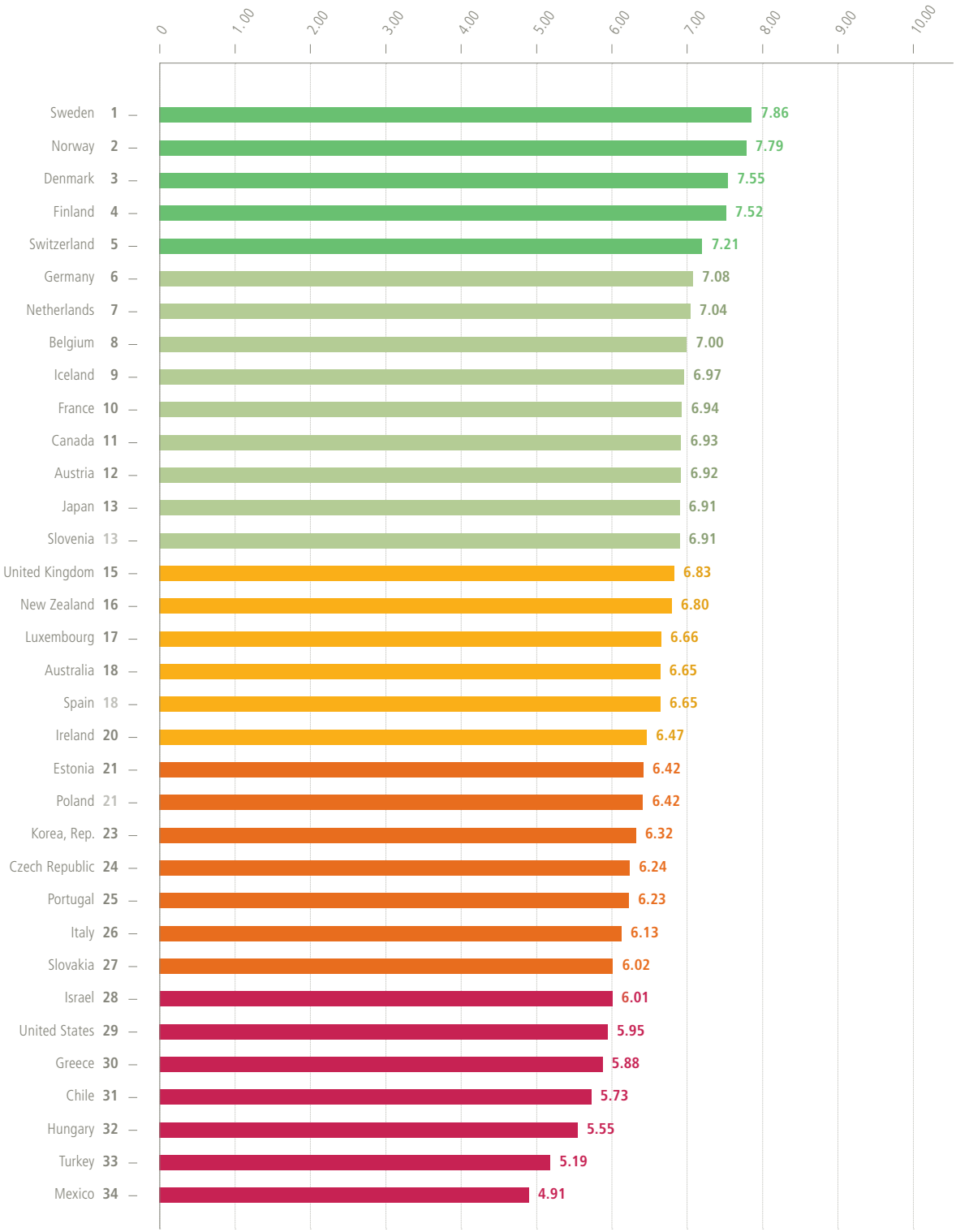
Goal 1. End poverty in all its forms everywhere
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3. Ensure healthy lives and promote well-being for all at all ages
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5. Achieve gender equality and empower all women and girls
Goal 6. Ensure availability and sustainable management of water and sanitation for all
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10. Reduce inequality within and among countries
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12. Ensure sustainable consumption and production patterns
Goal 13. Take urgent action to combat climate change and its impacts
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

Source: Outcome document for the UN summit on September 25–27, 2015: "Transforming our world: The 2030 Agenda for Sustainable Development"

https://sustainabledevelopment.un.org/content/documents/7891Transforming%20Our%20World.pdf

8. This stress test shows that especially Sweden, Norway, Denmark, Finland, and Switzerland can be considered ready for the SDGs. These countries, the fit five, are therefore in a good position to foster further improvements in terms of sustainable development going forward. Even these nations still have significant deficiencies with regard to certain goals as the country profiles illustrate. Nonetheless, stronger policy efforts are needed to follow in the footsteps of the likes of Sweden and Norway for other countries to reach the ambitious set of UN goals by 2030.
9. Without a doubt, all high-income countries will need to step up their efforts to fight poverty and disease in the poorest corners of the world. The SDGs, however, go further than that and also call for domestic reforms in the rich countries themselves. The main challenges for the entire set of OECD countries in terms of the SDGs as far as their own societies are concerned are: fostering an inclusive economic model (goals 8 and 10) as well as sustainable consumption and production patterns (goal 12). In the first respect, sadly, the rich countries in this world are no exception to the trend of a growing gap between rich and poor. Inequality keeps rising across these countries as well with the average income of the richest 10 percent of the population now being about nine times that of the poorest 10 percent. In the latter respect, half of all OECD nations still draw less than 11 percent of their energy from renewable sources – clearly more efforts are needed there. Likewise, countries such as the United States and Denmark generate 725 and 751 kilograms, respectively, of municipal waste per person every year. The UK and Estonia overexploit their fish stock by 24 and 22 percent, respectively.
10. Their inability to fight the growing social divide combined with their overuse of resources therefore shows that today's high-income countries in their current shape can no longer serve as role models for the developing world. In terms of sustainable development, all countries are now developing countries. Thus, a new – more inclusive as well as sustainable – social and economic model must be strived for in the future.
11. Best practices are becoming visible that can facilitate peer learning on the way toward such a new model that would fulfill the ambitious SDGs. Sweden, for example, managed to cut its already outstandingly low levels of greenhouse gas emissions relative to GDP by more than another third (35 percent) since 2006. Such enormous progress at an already high level puts other countries to shame and is worthy of emulation. By contrast, countries such as Canada, Australia, and Estonia emit eight to ten times as much as Sweden relative to GDP. Concrete policy instruments which have fostered this success in Sweden include the carbon tax on the use of coal, oil, natural gas, petrol, and aviation fuel. It set the right financial incentives for the use of biomass, such as waste from forests and forest industries, in heating systems instead of using carbon. Furthermore, it encouraged the growth of non-energy-intensive industries, such as the service sector, which grew stronger than energy-intensive industries over the last years.
12. Rich nations must do more to achieve the SDGs globally but also domestically. We must remain ambitious with regard to the goals: if the MDGs helped developing countries halve mortality rates among children under five years of age over the last 15 years, surely we can demand that the high-income countries use the SDGs to manage the transition toward a more sustainable economic and social model. From now on, civil society will have to hold governments to their pledges at the UN summit and accelerate the change over the next 15 years. This study shall be a start to make that happen.

The world's first SDG Index



The SDG Index illustrates the overall performance of each OECD country based on the 17 goals and 34 indicators examined in the study. In sum, Sweden, Norway, Denmark, Finland, and Switzerland are best prepared to meet the SDGs and in a good position to foster sustainable development by 2030. However, even these countries are faced with particular challenges, as the country profiles in this study illustrate.

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Foreword

Fifteen years ago, world leaders acknowledged that in a world of plenty and astounding technological progress, the poverty, hunger, and disease that so many of our fellow human beings still faced was intolerable. At our UN Millennium Summit in 2000, the largest group of world leaders ever assembled signed the Millennium Declaration in New York and put the Millennium Development Goals into action. Development issues had finally reached the highest political level and, for the first time, developing countries were challenged to translate their development vision into nationally-owned plans.

Today, there is no doubt that the eight Millennium Development Goals and their framework of accountability have helped people across the world to improve their lives and future prospects. They have not only helped to mobilise resources and provided a much-needed sense of direction for national plans and international cooperation; they have also delivered measurable results:

- *The mortality rate of children under five has been cut by more than half since 1990.*
- *The number of people now living in extreme poverty has declined by more than half, falling from 1.9 billion in 1990 to 836 million in 2015.*
- *The proportion of undernourished people in the developing regions has dropped by almost half since 1990.*
- *The number of out-of-school children of primary school age worldwide fell by almost half, to an estimated 57 million in 2015, down from 100 million in 2000.*

However, despite some encouraging steps forward, we are still far from achieving all the targets we had set ourselves. Too many people remain caught in extreme poverty, too many remain hungry and sick, too many mothers die in childbirth, and too many children still do not go to school.

We are also not yet doing enough to meet basic needs and fulfill basic rights, to protect the environment, to build effective international partnerships for development, or to harness private entrepreneurship to deliver public goods and services to those in need.

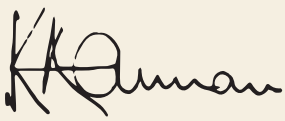
One of the lessons of the last 15 years is that the world's biggest challenges cannot be solved in isolation. Consequently, the new Sustainable Development Goals will be a universal set of goals for all countries, including the rich nations of this world. High-income countries have a special responsibility – not only as donors of development assistance to provide crucial funds in the quest to end extreme poverty. They will also have to do their homework and increase efforts towards a more sustainable and socially just economic model in their own countries. Promoting peaceful and inclusive societies, for instance, or ensuring sustainable consumption and production patterns are challenges that OECD countries need to take on just as much, if not more than, the developing world. High-income nations must become leading examples of truly sustainable development.

The Sustainable Development Goals should be workable and understandable by people so they can ask governments to act. Civil society must be able to put pressure on governments to hold them to account for what they pledge at the UN summit. This study therefore shows how the rich countries currently perform in all of the 17 Sustainable Development Goals. It is a first systematic assessment of what will become the global policy goals for the coming 15 years. It offers detailed profiles of the strengths and weaknesses of each country and thereby highlights best practice in ways of achieving the Sustainable Development Goals. As such, it provides an evidence base for policymakers, businesses, and civil society to act.

I am thankful to the Bertelsmann Stiftung for highlighting this issue in such elaborate detail with the support of the Sustainable Development Solutions Network. The study shows that high-income countries must do more to achieve the Sustainable Development Goals. Their top priority, of course, must remain ending extreme poverty in the poorest regions of the world. However, rich nations will also have to adopt domestic reforms. This study will hopefully spark reform debates on sustainability and social justice in many high-income countries. We owe it to our planet and its people.

Kofi A. Annan

Founder and Chairman of the Kofi Annan Foundation,
Seventh Secretary-General of the United Nations
(1997–2006) and Nobel Peace Prize Laureate (2001)



Foreword

The UN Millennium Development Goals (MDGs) helped unite the world in a joint effort to fight extreme poverty and produced impressive results, halving, for example, not only the mortality rate of children under the age of five years and the number of people living in extreme poverty, but also the proportion of undernourished people in the developing world.

However, there is a lot of unfinished business left that we must focus on over the next 15 years. We must continue to fight poverty in the most desperate corners of the world, but this will not be enough. The MDGs did not include the full spectrum of global issues regarding inequality and environmental issues. The MDG focus divided the world into developing countries and developed, i.e. donor countries. This rightly changes with the new Sustainable Development Goals (SDGs), which explicitly demand domestic reforms from high-income nations toward more social justice and sustainability.

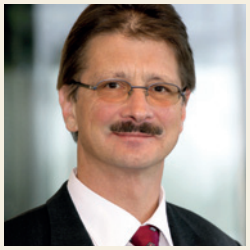
The world's first "stress test" of OECD countries with regard to the new global policy goals presented in this study is a crucial first step for making the SDGs become a game changer in global development policies. We congratulate and thank the author as well as everyone else involved, in particular the UN Sustainable Development Solutions Network. The stress test shows that rich countries will fail the new goals if they do not take immediate steps toward a more sustainable and socially

just economic model. Only then will they be able to serve as role models for the rest of the world. But the study also identifies best practices across all 17 goals and 34 OECD countries. Going forward, we will have to learn from these good examples and discuss how they can be followed by others.

The SDGs are not legally binding goals, they are merely political goals. They will only be achieved if civil society and citizens are effective in putting pressure on their own governments to pursue these goals. The SDGs should serve as leverage for politics to pursue a better economic and social model. The Bertelsmann Stiftung is ready to help make these goals a success. This study and the assessment it provides should be a starting point to give citizens the power to hold their governments to account for what they pledge at the historic UN summit in New York in September 2015. We hope that the study will spark and enrich reform debates in OECD countries in order to make these new goals a success story. In the interest of future generations, we have no time to lose.

Aart De Geus

Chairman and CEO
Executive Board
Bertelsmann Stiftung



Dr. Stefan Empter

Senior Director
Program "Shaping Sustainable Economies"
Bertelsmann Stiftung

1. Introduction: New goals for the world

In the years 2000 – 2015, the UN Millennium Development Goals (MDGs) have managed to focus the world's attention on the key challenges faced by humanity. Eight goals united the world in an unprecedented effort to make people's lives better. These goals were (1) eradicate extreme poverty and hunger, (2) achieve universal primary education, (3) promote gender equality and empower women, (4) reduce child mortality, (5) improve maternal health, (6) combat HIV/AIDS, malaria, and other diseases, (7) ensure environmental sustainability, and (8) develop a global partnership for development.

Fifteen years after the MDGs were put in place, the number of people in extreme poverty, the under-five mortality rate, the maternal mortality rate, and the proportion of undernourished people in developing countries have declined by around half compared to their respective 1990 baseline levels. Many more girls are in school now and the primary school enrolment rate in developing countries currently stands at 91 percent. Access to sources of water has improved significantly, and progress was made in combating HIV/AIDS, malaria, and tuberculosis with, for instance, over 6.2 million malaria deaths having been averted in the last 15 years. Nonetheless, there is still much unfinished business, with more modest accomplishments in a number of goals.[1]

So while levels of fulfillment vary across the goals, and although it might be argued that some improvements in living standards would have come about without the targets, the overall verdict on the MDGs is highly positive: they provided a viable framework for action, a mechanism for peer pressure between countries, and an overarching concept for assessing improvements for those most in need.

From 2016 – 2030, a new set of Sustainable Development Goals (SDGs) ought to be at the center of the global political agenda. World leaders will adopt 17 goals during the UN summit on September 25, 2015, in New York (see box for the 17 proposed SDGs). These goals are the result of an unprecedentedly comprehensive process. Responding to criticism of the MDGs, specifically the lack of opportunities for participation during their conception, the UN conducted the largest consultation exercise in its history to ensure wide ownership of the goals. Following the Rio+20 summit in 2012, an Open Working Group (OWG) with representatives from UN member countries was mandated to create a draft set of goals. It presented the final draft to the UN General Assembly in September 2014. Alongside the official negotiations of the OWG, the UN hosted numerous global conversations including eleven thematic and 83 national consultations, as well as an online "My World" survey – the largest survey in the history of the UN – which recorded the desired policy priorities of over seven million participants to inform the OWG's deliberations. The OWG proposal was then subject to intergovernmental negotiations and will be signed into action in September 2015.[2]

> "**1.** We, the Heads of State and Government and High Representatives, meeting at the United Nations Headquarters in New York from 25–27 September 2015 as the Organization celebrates its seventieth anniversary, have decided today on new global Sustainable Development Goals.
>
> **2.** On behalf of the peoples we serve, we have adopted a historic decision on a comprehensive, far-reaching and people-centred set of universal and transformative Goals and targets. We commit ourselves to working tirelessly for the full implementation of this Agenda by 2030."
>
> Pledge by world leaders in outcome document of the UN summit in September 2015[3]

What is new about the SDGs in comparison to the MDGs is not only their extended number and more participatory conception. While the eight MDGs were primarily aimed at ending extreme poverty in all its forms in developing countries, the most

1 UNDP (2015). The Millennium Development Goals Report 2015. *http://www.undp.org/content/undp/en/home/librarypage/mdg/the-millennium-development-goals-report-2015.html*
2 *https://sustainabledevelopment.un.org/post2015*
3 Outcome document for the UN summit on September 25–27, 2015: "Transforming our world: The 2030 Agenda for Sustainable Development" *https://sustainabledevelopment.un.org/content/documents/7891Transforming%20Our%20World.pdf*

important novelty is that the SDGs will explicitly broaden the focus to all countries – including the rich nations of this world.

Nonetheless, policymakers in the OECD countries still generally look upon the SDGs as a development policy issue. The task for high-income countries, one might assume, is simply to provide greater levels of official development assistance (ODA), specifically, pushing efforts closer to the target of 0.7 percent of GDP, which few countries have managed so far. The truth is, however, that the SDGs will not just require rich countries to increase development funds for others; they will need fundamental policy changes in their own countries. If the MDGs were the telescope through which rich countries viewed the developing world, the SDGs are the mirror in which they see their own policies and performance reflected. In other words, every country is now a developing country when it comes to an economic and social model which is both sustainable and socially just.

Consequently, these goals have the power to question the way we, citizens of the rich world, structure our economies, the way we produce, the way we consume, in short: the way we live. They can spark reform debates that ultimately increase awareness and highlight the particular responsibilities of high-income nations in that regard. The SDGs will therefore demand fundamental policy changes in the rich countries themselves so that the OECD nations keep up their end of the global deal on sustainable development.

Sustainable development is a truly global endeavor, involving rich and poor countries alike. Challenges such as sustained, inclusive, and sustainable economic growth, or sustainable consumption and production patterns are just as, if not more, pressing for the OECD as they are for the developing world. Economically advanced nations need to become leading examples of sustainable development.[4]

This gives rise to the question of how OECD countries are currently performing: Are they keeping up their end of the global deal on sustainable development? Are they doing their homework? Which countries offer "best practice" for which indicator, and which ones are lagging behind? What can OECD countries learn from each other?

This study aims to provide the answers. It will be the first systematic assessment of developed nations on what are set to become the major global policy goals for the next 15 years, in other words a "stress test" or "fitness test" assessing the preparedness of OECD countries for the SDGs. Moreover, the study highlights the type of best practice that can help in achieving SDGs. It provides a snapshot of evidence for the crucial UN summit and much further beyond.

In order to assess whether countries are fit for the goals, two "snapshot indicators" per goal are examined (see Chapter 2, Methodology). A glance at the performance against the 17 goals proposed reveals that at present, OECD countries vary greatly in their capacity to meet these ambitious goals. It becomes evident that not all countries are fit for the goals, and indeed no one country performs outstandingly in every goal. Each country has its own particular lessons to learn from the others.

The evidence on OECD country performance in this study highlights the need for these countries to introduce domestic reforms in order to meet the SDGs. Focusing on the performance of high-income countries should in no way distract attention from the fight to eradicate extreme poverty and the plight of those in most desperate need. Truly sustainable development in fact means, for OECD countries, that efforts in all policy areas be aligned toward the goal of fighting extreme suffering around the globe in a coherent manner. Rich nations cannot buy their way out of their responsibilities by merely increasing ODA while continuing with their own highly unsustainable consumption and production patterns. This, of course, will ultimately impact the poorer nations. While richer countries will inevitably look for trade-offs between different SDGs, they must strive for the full set. And, as a consequence, this study will make performance in all 17 goals visible for each country, a holistic approach which makes cherry-picking impossible.

The remainder of this publication is structured as follows: Chapter 2 outlines the methodology, particularly the selection and presentation of the snapshot indicators. Chapter 3 then illustrates at a glance the strengths and weaknesses of each country across the 17 goals. Chapter 4 presents and discusses the performance by goal: Bar charts are used to rank countries on each goal and make visible the differences between them. Chapter 5 outlines the lessons learned and policy options for the way forward.

It is clear already that rich nations must take these goals seriously, not just globally but domestically as well. And they must do more to achieve them. Civil society will have to put pressure on governments to hold them to their pledge on these 17 goals. This study aims to be a first step in making that happen.

4 See for instance Sachs, J. (2015). The age of sustainable development. New York: Columbia University Press.

2. Methodology

Monitoring the SDGs will be a crucial element of the strategy for achieving them. The SDGs must become management tools for policymakers: We will only know if we are on track to meet the ambitious aims if we have a sound system of indicators in place to guide our policies.

In fact, as this study is being prepared, the Inter-Agency and Expert Group on SDGs (IAEG-SDGs), with the United Nations Statistics Division acting as its secretariat, is busy working out a catalog of indicators to create a full monitoring system for the SDGs by March 2016.[5] Naturally, this monitoring system will include a wide range of indicators for a detailed view of each goal and target – many more indicators will eventually be needed than we look at in this study.

The purpose of this analysis in the context of those global deliberations is to provide a concise snapshot of high-income countries' present position with regard to their global responsibilities for sustainable development in the year that the SDGs are signed into action. This will make visible the shortcomings and best practices which policymakers can and should act on over the coming 15 years. It provides a starting point for "transforming our world," as the title of the outcome document of the historical UN summit puts it. This snapshot of evidence should therefore be easily accessible and easily comprehensible, with a manageable number of indicators, but should at the same time be comprehensive enough to provide a first glimpse of country performance. Clearly, two snapshot indicators per goal cannot do justice to the complexity of sustainable development; this will, of course, be fewer than the IAEG-SDG system to come, and important aspects will be omitted. Nonetheless, given the criteria for selection outlined below, this study will offer a relatively detailed overview of country performance in the 17 new goals.[6]

With the support of the Sustainable Development Solutions Network (SDSN) – a network launched by UN Secretary-General Ban Ki-moon in August 2012 to mobilize scientific and technical expertise from academia, civil society, and the private sector in support of sustainable development – two "snapshot indicators" per goal were selected based on the following three criteria[7]:

1. Feasibility: Data must be available today in good quality at least for OECD countries.[8]

2. Suitability: The indicator should represent the – often multifaceted – goal in a broad sense like a headline indicator; there should be a close conceptual fit between goal and indicator; the indicators should be appropriate for the particular challenges of economically advanced nations.

3. Relevance: The indicator should stand a good chance of becoming an actual part of the SDG monitoring system as currently being discussed by the IAEG-SDGs.

In the selection of indicators, we have also built on the SDSN Indicator Report[9] – a comprehensive framework for SDG monitoring which includes a proposed set of 100 Global Monitoring Indicators for which hundreds of organizations provided input over 18 months – as well as on the Sustainable Governance Indicators[10] of the Bertelsmann Stiftung, a country performance assessment framework involving over 140 indicators for measuring sustainable governance, which is produced with a network of around 100 academics worldwide.

The overriding question of this exercise is: Are the rich countries ready for the SDGs? For this reason, we assign particular relevance to the performance on each indicator relative to other countries, namely whether a country makes it into the top five of the 34 countries examined here. Naturally, there are many alternative ways of presenting this information, including alternative cutoff points such as the top quartile or quintile of the distribution. As crude as the present approach

may appear, it provides a rough-and-ready illustration of the number of dimensions in which a country can currently be considered "best practice."

The exact thresholds and baselines that signal achievement of each SDG must be worked out by experts and negotiated between and within countries in a sophisticated process going forward. They should be both ambitious and feasible, exceeding even the best of today's best practices. Nonetheless, the performance of the top five – as a rule of thumb for the purpose of this study – provides a substantive impression of a country's fitness for the respective goal. However, this study also allows the necessary, detailed look at performance across all dimensions.

This method of benchmarking against the top countries gives us a reference point that is achievable for many other OECD countries, yet sufficiently ambitious that only a handful of countries have yet attained it. But even the current top performers must increase their efforts for a number of goals, including sustainable consumption and production patterns. Here, current performance benchmarks are simply not good enough in light of the earth's capacities.

In order to summarize country performance, the first SDG Index has been compiled for this study (see results in Chapter 5) based on the 34 individual indicators presented in Chapter 4. To calculate the index, the raw data for each indicator have been normalized to the interval [0;1] using a linear transformation, with the minimum and maximum values over the three observed data points as upper and lower boundaries. Subsequently, a score between one and ten has been assigned to the transformed data in such a way that for each indicator, a score of ten is the best and a score of one the worst result possible. The overall SDG Index was calculated as an unweighted arithmetic mean of the 34 individual indicators.

The key theme of the SDGs, namely that no one gets left behind, should eventually also be reflected in the final monitoring system. There is only so much that statistical averages can tell us, and in the future they should be complemented by distributions and disaggregation (e.g. by age, sex, or employment status). Nonetheless, the averages presented here provide a starting point and a good indication of where countries currently stand on the path toward the SDGs.

5 Regular updates on the process are available at *http://unstats.un.org/sdgs/*

6 In the long run, to strike a good balance between accessibility and complexity of an SDG monitoring system, it might be possible to display the larger number of indicators concisely using a sub-index for each of the 17 goals.

7 Thanks to the participants of an expert workshop hosted by the Bertelsmann Stiftung and SDSN in Paris in April 2015 on "SDG indicators for OECD countries" which provided input into the selection of indicators displayed here: Guido Schmidt-Traub, Eve de la Mothe Karoubi, Maria Cortes-Puch (all SDSN Paris), Simone Bastianoni (SDSN Mediterranean and University of Siena), Nilgun Ciliz (SDSN Turkey and Bosphorus University), Nicola Massarelli (Eurostat), Marco Mira d'Ercole (OECD), El Iza Mohamedou (PARIS21), Nicole Rippin (SDSN Germany and German Development Institute), as well as thanks to Wilfried Rickels (IfW Kiel) and all participants of a workshop at the Bonn Conference for Global Transformation (May 2015). The selection of indicators or views expressed in this publication do not represent an official position on the subject by the institutions that participants of the workshop are affiliated with. The author of this study bears full responsibility for the final selection of the indicators.

8 For the future, further improvements in data coverage and quality are, of course, desired. For this assessment of current performance, however, the indicator selection had to be restricted to the data that is already available.

9 Sustainable Development Solutions Network (2015). Indicators and a monitoring framework for the Sustainable Development Goals. *http://indicators.report/*

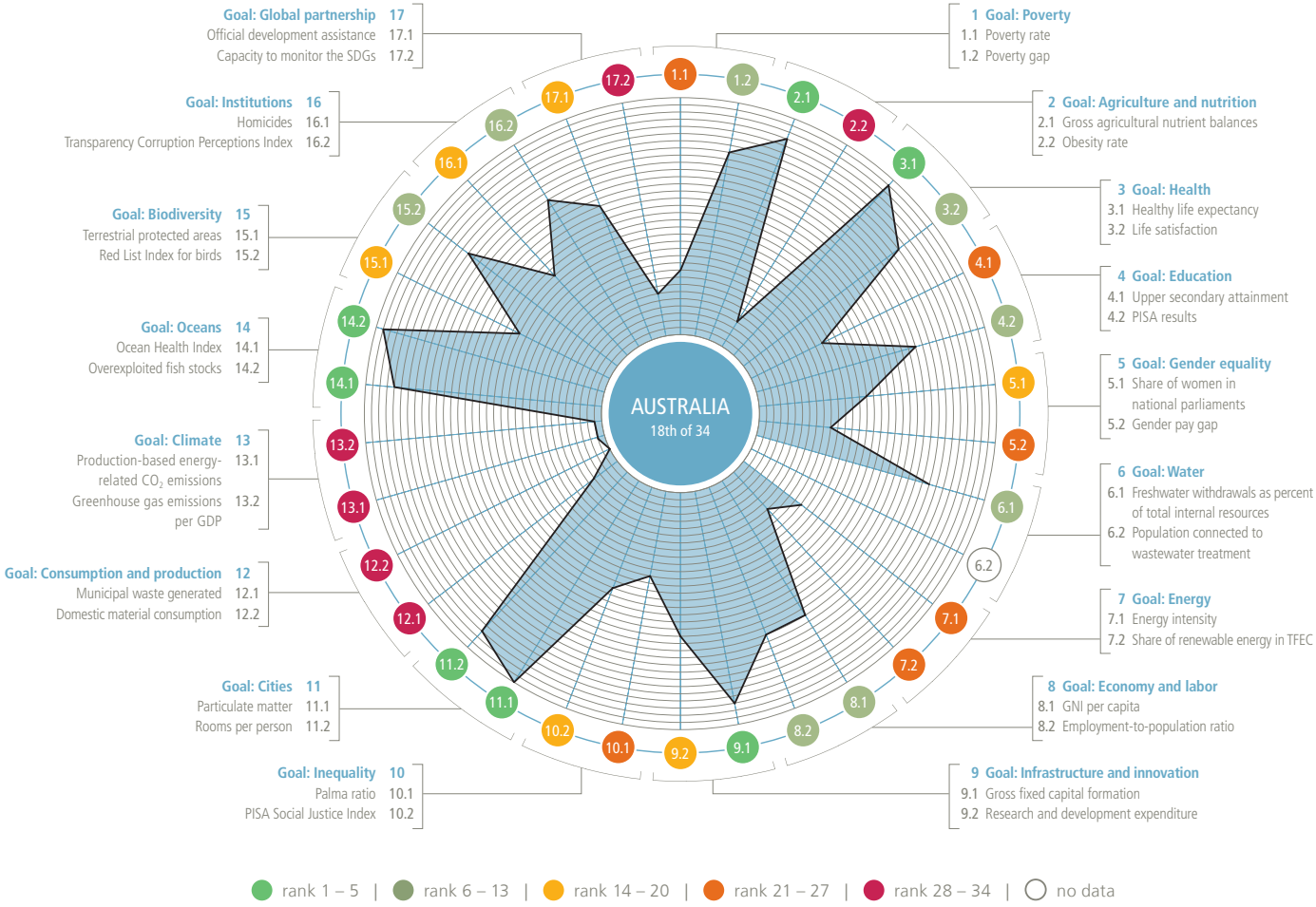
10 *http://www.sgi-network.org*

Chapter 3 presents a detailed profile of the strengths and weaknesses of each country for all 17 SDGs. Charts are used to illustrate relative performance in each of the snapshot indicators discussed in more detail in chapter 4. The outer circles of the chart in green represent the best results moving to the worst at the center. A chart for a country that ranks highly in numerous indicators will have a large shaded area. Where values are missing (e.g., the ocean-related goals for landlocked countries) the line is interrupted.

These charts and country profiles serve as an illustration of what a concise but informative SDG monitoring system could look like in the future. It would make it impossible for policy-makers to cherry-pick selected goals, drawing attention to areas where their country excels and ignoring dimensions where performance is wanting. In this chapter, then, the whole set of 17 goals will be examined. What emerges is a holistic image of country performance across the entire catalogue of goals.

In addition, detailed country reports which examine more dimensions than covered here in this study can be viewed at www.sgi-network.org. Country reports for low- and middle-income countries are available at www.bti-project.org.

3. Country profiles



Overall

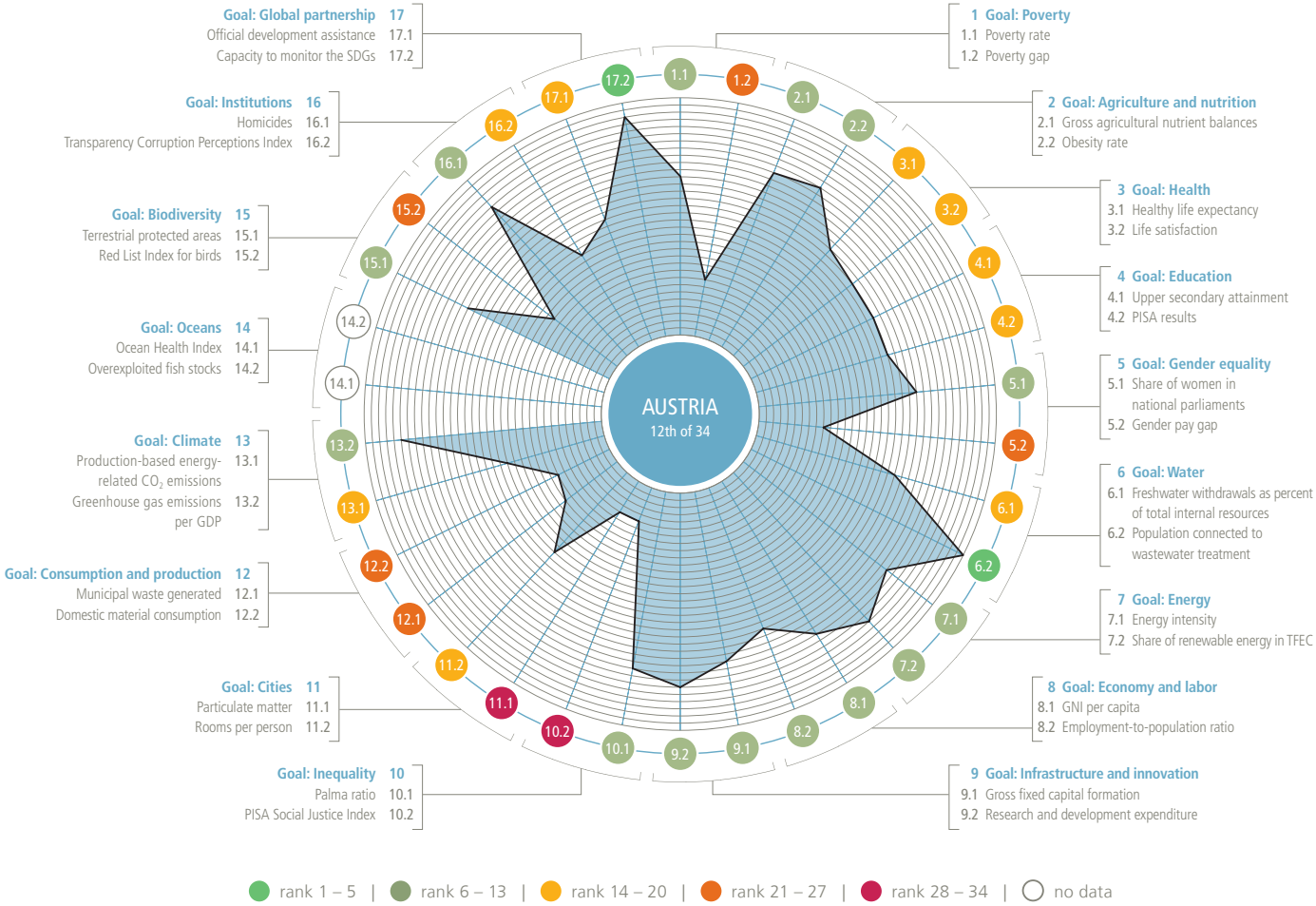
Australia ranks 18th out of 34 countries across all dimensions of this study's SDG Index. It numbers among the top five in seven of the 34 indicators. Australia's performance, however, varies considerably. On eleven of the indicators it can be found in the bottom third.

Strengths

On average, Australians can expect to live 73 years in full health; this places the country among the best performers for this indicator. Australia is also among the top countries for goal 11 (inclusivity, safety, resilience and sustainability of cities and human settlements). Australians enjoy considerable domestic space, with 2.3 rooms per person, with particulate matter air pollution below World Health Organization safety thresholds. In addition, the country ranks fifth in gross agricultural nutrient balances with a surplus of just 15 kilograms per hectare of agricultural land, indicating that nitrogen and phosphorous are used in farming in a way that minimizes pollution. By comparison, the average OECD country has a surplus of 67 kilograms while South Korea, the worst performer on this indicator, has a surplus of 259 kilograms per hectare of agricultural land. Also noteworthy: Australia ranks among the top five countries in this study for goal 14 (which calls for the sustainable use of oceans, seas and marine resources). The country comes in fifth on the Ocean Health Index and second on the use of its fish stocks. Australia's fish stocks are overexploited at a rate of "only" 15.2 percent, better than the very high 17.8 percent OECD average and just 0.2 percent behind front-runner Japan, but still illustrating how some of today's best performances simply are not good enough.

Weaknesses

With 47 tons per capita, Australia has the worst rates of domestic material consumption among the OECD countries. The country also generates 647 kilograms of municipal waste per capita, putting it 30th among the 34 countries studied. These two indicators jointly measure the sustainability of consumption and production patterns (goal 12). Australia's performance is equally dismal for goal 13 (which calls for action to combat climate change and its impacts). In terms of both greenhouse gas emissions and CO_2 emissions from energy production, Australia ranks 33rd, with the country's fossil fuel energy production causing 17 tons of carbon dioxide emissions per capita. By comparison, the top five countries each emit less than 5 tons per capita.



Overall

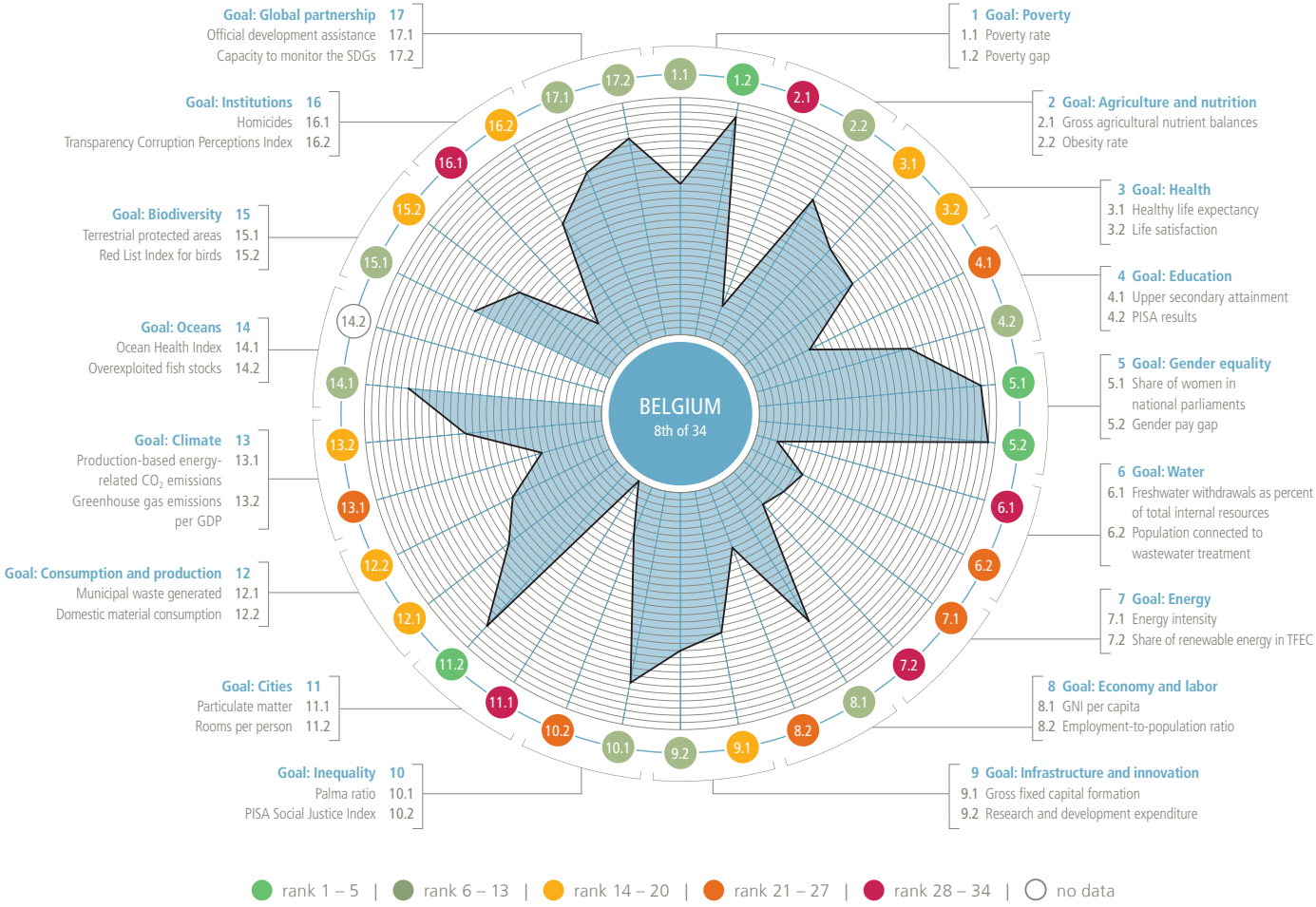
Austria ranks twelfth out of 34 countries across all dimensions of the SDG Index. The country is among the top ten in twelve of the 34 indicators in this study, two of those in the top five. Austria's performance varies considerably across the various indicators, although it gravitates toward the mid-zone. The country features in the bottom five in just two indicators.

Strengths

Austria comes in sixth among the 34 countries studied in terms of its renewable energy consumption. A laudable 30.6 percent of gross energy consumption comes from renewable sources. The country also has lower greenhouse gas emissions per GDP than 28 other OECD countries. With emissions of 248.8 tons per million measured in CO_2 equivalents per GDP, Austria performs better than the 352.1-ton OECD average, but is still a long way behind the front-runner Sweden (which emits only 66.8 tons). The country is also a leader in wastewater management. Finally, Austria is in a very good position to implement and track SDG-related performance, featuring in the top three for SDG monitoring: more than 80 percent of SDG indicators used in this study are reported annually with a time lag no greater than three years.

Weaknesses

With a score of 6.4, Austria ranks 29th among OECD countries on the PISA index of economic, social and cultural status. In other words, the impact of socioeconomic background on educational performance among Austrian pupils is among the highest in the OECD, making it hard for students from poorer households to catch up. So while the country's income gap between rich and poor is better than two-thirds of the countries studied, its low PISA index ranking means that Austria's performance for goal 10 (which calls for reduction of inequality within and among countries) is highly mixed. The country also ranks 29th for particulate matter air pollution. Also worrying: with 21.7 tons per capita, Austria's domestic material consumption level places it among the bottom third of OECD countries.



Overall

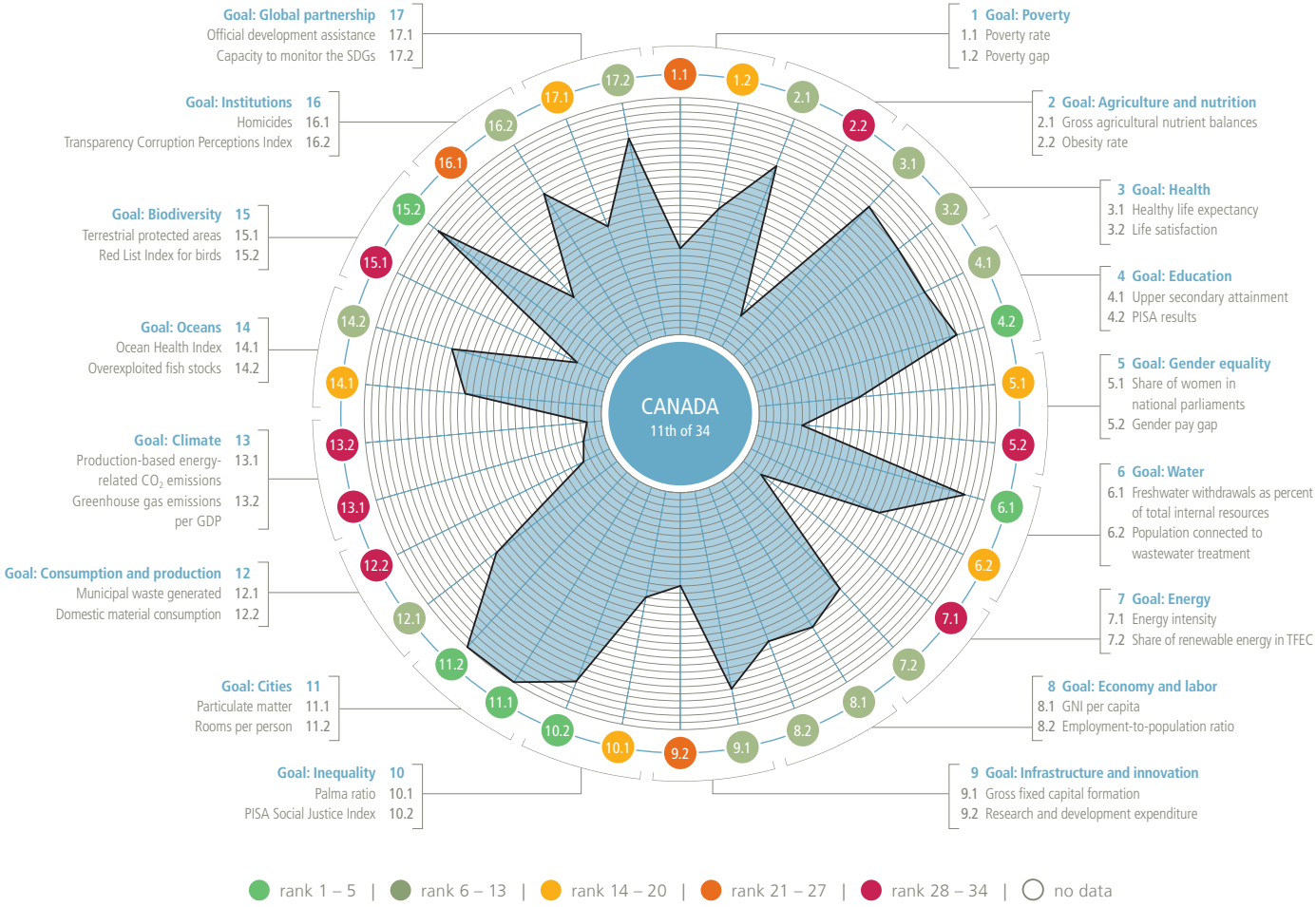
Belgium ranks eighth out of 34 countries across all dimensions of the SDG Index. The country is among the top ten in nine of the 34 indicators, four of those in the top five. Belgium's performance, however, varies considerably. For three indicators the country finds itself among the bottom five.

Strengths

Belgium does particularly well in terms of gender equality and the empowerment of women and girls (goal 5). With a relatively low gender pay gap of 6.4 percent and a national parliament which is 41.3 percent female, Belgium ranks second and third respectively. By contrast, the average gender pay gap across the OECD is 15.5 percent. With 2.2 rooms per person, Belgians also enjoy considerable domestic space, which places the country among the top five. In addition, the country ranks among the top five on the poverty gap (the percentage by which the mean income of the poor falls below the poverty line). This position, combined with a relatively favorable income gap between rich and poor (seventh, with a Palma ratio of 0.9), illustrates Belgium's relative success at tackling poverty and inequality.

Weaknesses

Belgium ranks last for particulate matter air pollution, with many Belgians exposed to levels exceeding World Health Organization safety thresholds. Half of all OECD manage to keep within these limits. In addition, Belgium annually withdraws 51.8 percent of its total renewable freshwater resources, putting it at 31st among the 34 OECD countries, and indicating that the sustainability of its water resources is gravely endangered. Belgium is also among the bottom five countries for gross agricultural nutrient balances, with nitrogen and phosphorous use that degrades the environment in contravention of sustainable agriculture concepts (goal 2). On goal 7 (which calls for universal access to affordable, reliable, sustainable and modern energy), Belgium ranks among the bottom 10 OECD countries. The country's relatively high primary energy intensity (6.4 petajoules per GDP) and low share of renewable energy consumption (5.3 percent) are unsustainable and threaten the energy supply of future generations.



Overall

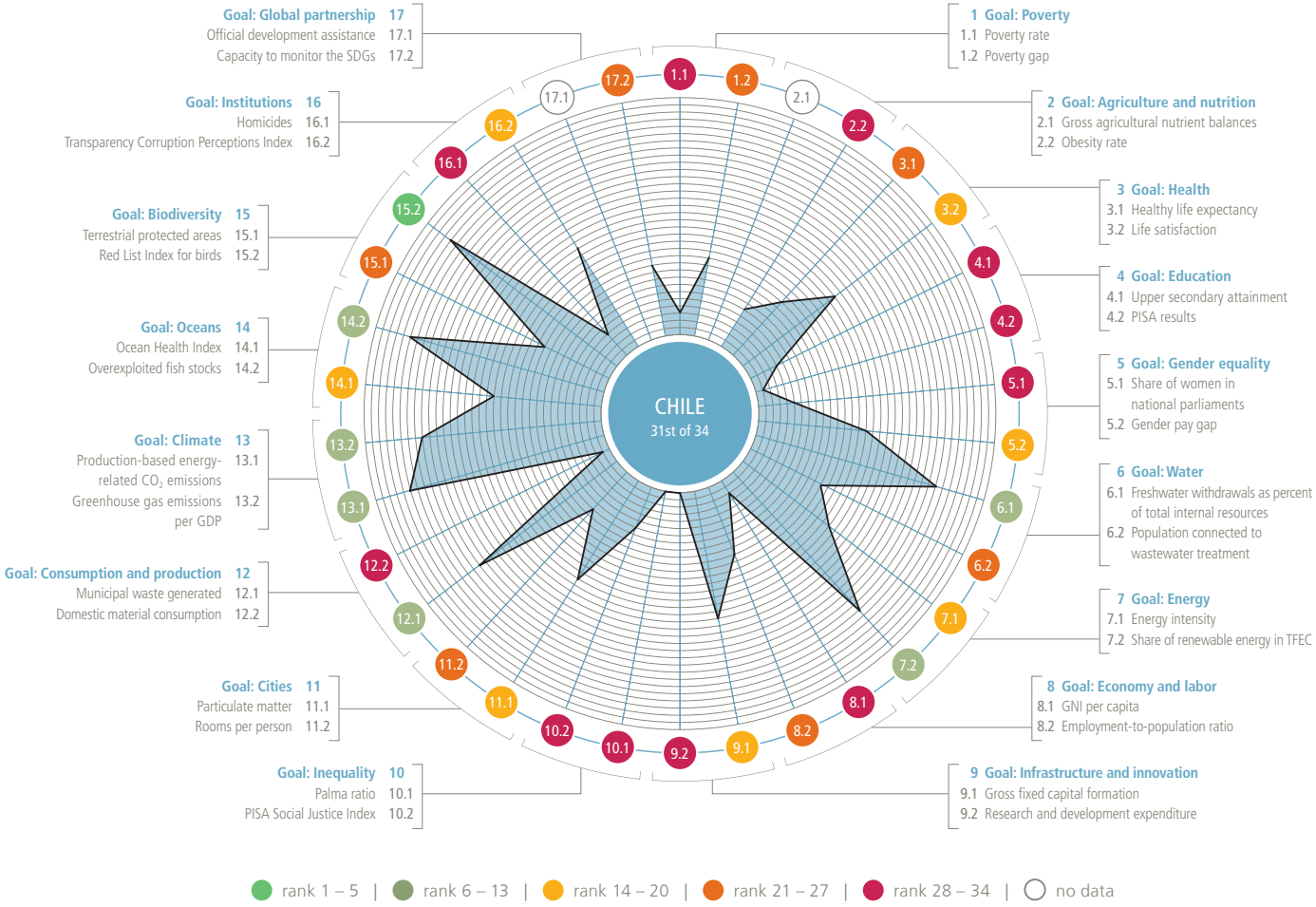
Canada ranks eleventh out of 34 countries across all dimensions of the SDG Index. It does significantly better than its neighbor, the United States, which comes in at 29th place. Canada is among the top ten on 15 indicators; on six indicators it ranks in the top five. Across the various goals, Canada's performance varies considerably, with six indicators finding the country among the bottom five.

Strengths

Canadians not only do better at school than other OECD countries, they also overcome socioeconomic background to a greater degree. On both PISA results and the PISA index of economic, social and cultural status, Canada comes in fifth. Canada also leads the OECD countries in making cities and human settlements inclusive, safe, resilient and sustainable (goal 11). With 2.5 rooms per person, Canadians enjoy considerable domestic space, and particulate matter air pollution is below World Health Organization safety thresholds. Canada ranks third behind Turkey and Poland in protecting threatened animal species. A relatively low 9 percent of bird species in the country are threatened: the OECD average is 22 percent. In addition, Canada annually withdraws just 1.5 percent of its total renewable freshwater resources. This puts the country fourth among the countries in this study.

Weaknesses

The Canadian government does, however, face policy challenges. Canada is 32nd for greenhouse gas (GHG) emissions (with only Australia and Estonia faring worse) and 31st for CO_2 emissions from energy production. The country's fossil fuel energy production caused 15.3 tons of carbon dioxide emissions per capita. By contrast, the top five OECD countries each emit less than half of Canada's total GHG emissions and less than 5 tons per capita through fossil fuel energy production. The country also ranks among the bottom five countries in this study for primary energy intensity (8.1 petajoules per GDP). The same is true of domestic material consumption where Canada (29.2 tons per capita) falls far short of countries like Japan, Hungary and the United Kingdom (all below 10 tons per capita).



Overall

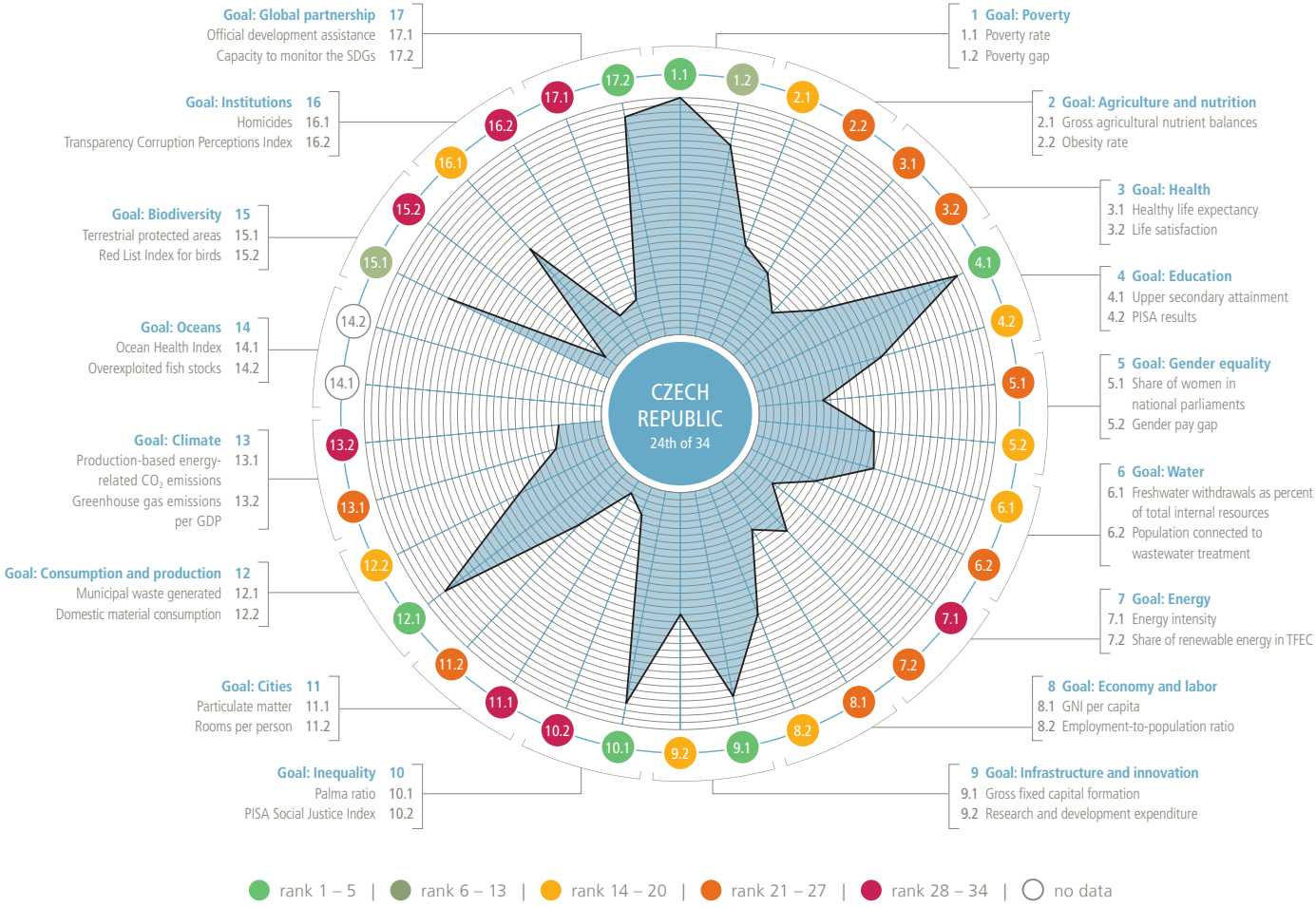
Chile ranks 31st out of 34 countries across all dimensions of the SDG Index. Chile is among the top ten in seven of the 34 indicators in this study, but only once manages to crack the top five. The country's performance across the indicators varies considerably. On 18 indicators Chile finds itself among the bottom third of countries in this study, nine of those placing it in the bottom five.

Strengths

Chile performs well in protecting animal species, ranking fifth among the 34 OECD countries. A relatively low 11 percent of bird species in the country are threatened (compared to the 21.6 percent OECD average). Similarly, a comparatively low 15.8 percent of Chile's fish stocks are overexploited, ranking the country sixth. This is somewhat better than the 17.8 percent OECD average. The country also is among the top ten for taking urgent action to combat climate change and its impacts (goal 13). For example, the country's fossil fuel energy production causes 4.5 tons of carbon dioxide emissions per capita (sixth place in the sample). Chile also has lower greenhouse gas emissions per GDP than 25 other OECD countries. With emissions per GDP of 273 tons per million USD, the country performs better than the 352.1 tons OECD average, but still short of the front-runner, Sweden (which emits just 66.8 tons).

Weaknesses

A sustainable economy requires innovation, yet Chile spends less on research and development than any other OECD country (just 0.4 percent of GDP). By contrast, the top six countries in this study each spend between 3 and 4 percent of GDP on domestic R&D. The country's last place for income gap between rich and poor (Palma ratio of 3.3) indicates that Chile has so far failed to adequately address inequality. Even more worrying, the country performs dismally for both indicators that measure goal 4 (which calls for inclusive and equitable quality education and lifelong learning). The viability of a society depends to a large extent on the capabilities of its members, yet Chile is still a long way from providing education opportunities on a par with most other OECD countries. In 2011, just 57.5 percent of Chileans had completed at least upper secondary education. In addition, the average Chilean student's PISA score was 60.9 points below the OECD mean, with only Mexico offering a worse performance. Also alarming: the country's high domestic material consumption (41 tons per capita) ranks it 33rd, surpassed only by Australia. By comparison, the average OECD country uses approximately 19 tons of materials per capita in its economy.



Overall

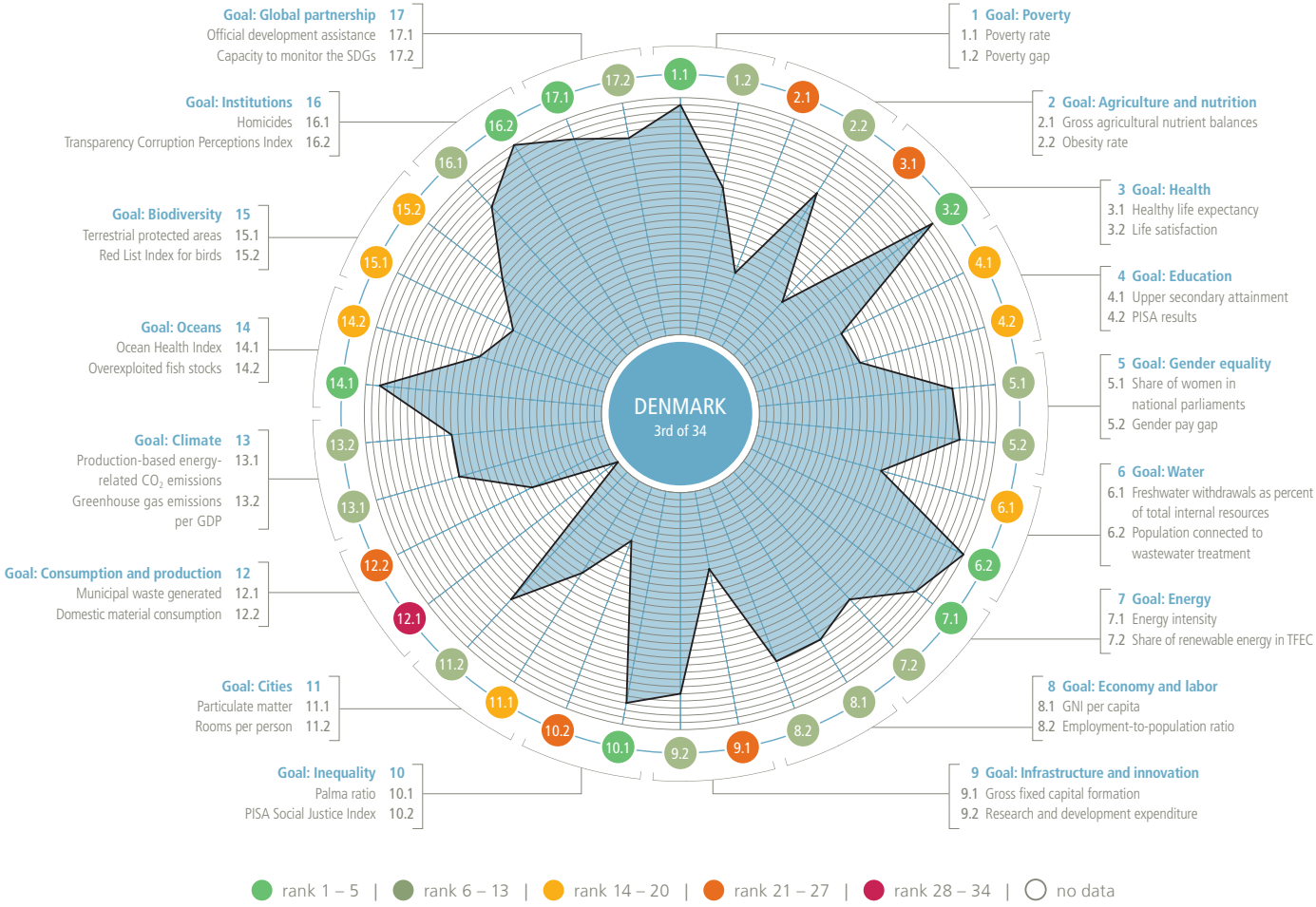
The Czech Republic ranks 24th out of 34 countries across all dimensions of the SDG Index. For eight of the 34 indicators in this study the country is among the top ten of OECD countries, managing the top five for six indicators. The Czech Republic's performance, however, varies considerably. For 14 indicators the country ranks among the bottom third, and for five indicators in the bottom five.

Strengths

Czechs are second only to the Japanese for education rates, with 92.8 percent completing at least upper secondary school. The Czech Republic has made commendable strides toward ending poverty in all its forms (goal 1). A relatively low 5.2 percent (the lowest rate in this study) of Czechs live below the poverty line, far better than the 11.5 percent OECD average and almost on par with top performer Iceland. Similarly, the country's poverty gap (the percentage by which the mean income of the poor falls below the poverty line) places it among the top ten OECD countries. The Czech Republic's gross fixed capital formation (25.3 percent of GDP) ranks it fifth and a relatively progressive Palma ratio (0.9) – the distance between the richest and the poorest 10 percent – ranks it fourth, indicating that some policies are helping to reduce inequality (goal 10).

Weaknesses

Unfortunately, the other indicator in goal 10, the PISA index of economic, social and cultural status, clouds this sunny picture, with the Czech Republic ranking 30th among the 34 OECD countries. Truly fulfilling goal 10 (which calls for a reduction in inequality within and among countries) will require significant policy action that ensures education opportunities are not limited by socioeconomic status. In addition, the country ranks 32nd on particulate matter air pollution, with many Czechs exposed to levels which exceed World Health Organization safety thresholds; in the same year, half of all OECD countries kept within these limits. The country's bird species are also not adequately protected; 52 percent of bird species are threatened (more than double the 22 percent OECD average). Also worrying: the Czech Republic ranks among the bottom five countries in the sample for public sector corruption and primary energy intensity (7.1 petajoules per GDP).



Overall

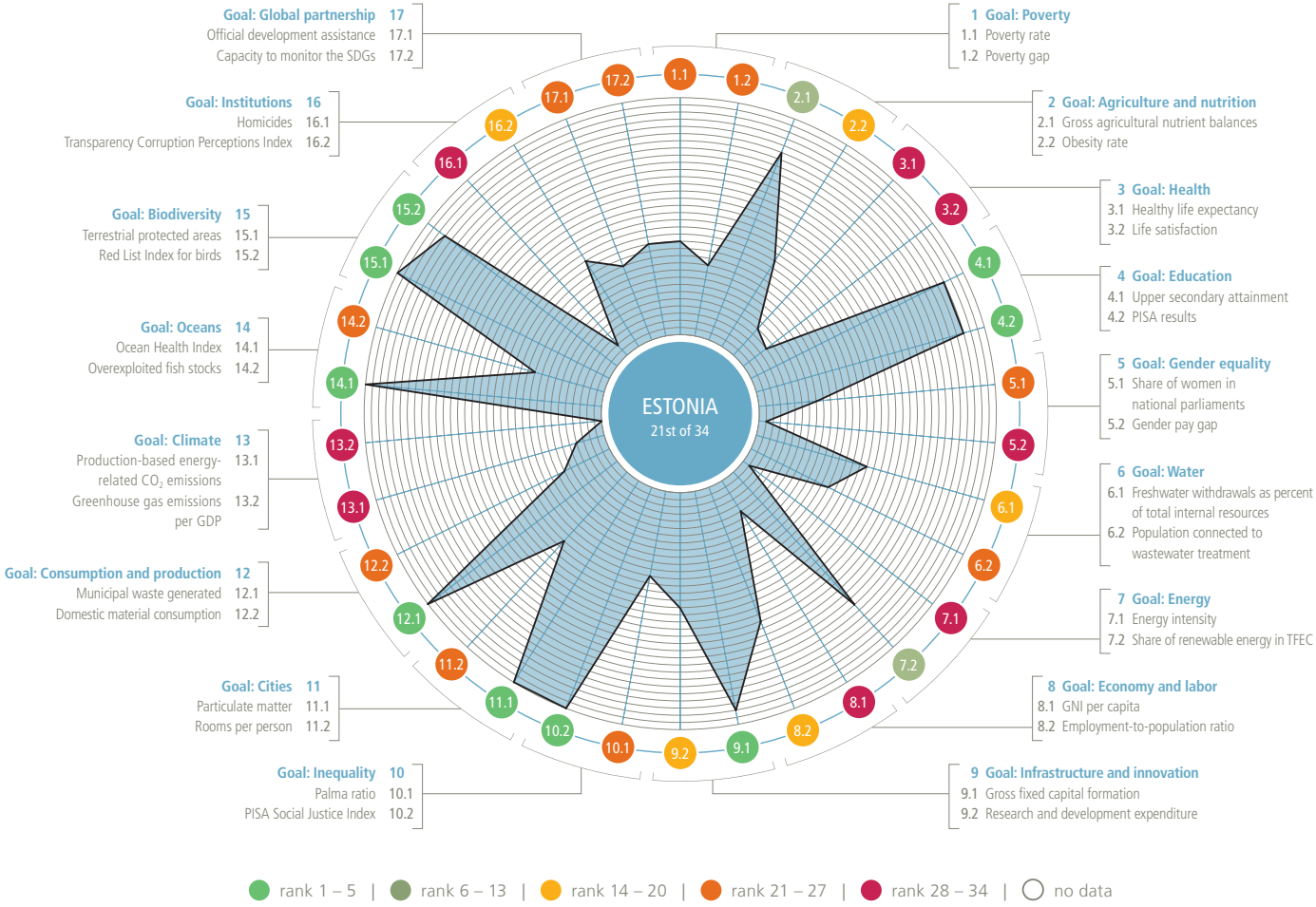
Denmark ranks third out of 34 countries across all dimensions of the SDG Index. The country is among the top ten for over half of the 34 indicators in this study, appearing in the top five eight times. While Denmark's performance varies, it maintains a very high average. The country finds itself among the bottom third for five of the indicators, and in the bottom five for just one.

Strengths

Among the 34 OECD countries, Denmark has the least corrupt public sector. The country also ranks among the top ten for homicide rates: just 0.8 per 100,000 inhabitants. These indicators illustrate that Denmark is a leader in promoting peaceful and inclusive societies, providing equality of justice, and building accountable public institutions (goal 16). In addition, Denmark's poverty rate of 6 percent puts the country right behind the Czech Republic. Similarly, the Danes' narrow income gap between rich and poor puts it in fourth place and demonstrates its success at reducing inequality. Denmark also leads the way in citizens' satisfaction with life. The Danish government is at the same time among the five most generous in development assistance, giving 0.9 percent of GNI (nearly $3 billion in 2014). Significant financial contributions to developing countries are essential to sustainable development on a global scale. Also noteworthy: the country ranks third in the Ocean Health Index, behind Estonia and New Zealand. This high ranking indicates Denmark's sustainable use of marine ecosystems, ensuring that they are available not just now but also in the future.

Weaknesses

Despite its positive showing, Denmark is not without its challenges. Danes generate 751 kilograms of municipal waste per capita every year, one of the worst rates among OECD countries. By contrast, inhabitants in the five best-performing countries for this indicator generate between 293 and 347 kilograms per capita. And while it rates highly for income gap, the other indicator for goal 10 (which calls for reducing inequality) finds Denmark among the bottom ten on the PISA index of economic, social and cultural status. Addressing this weakness will require policy action that ensures education opportunities are not limited by socioeconomic status.



Overall

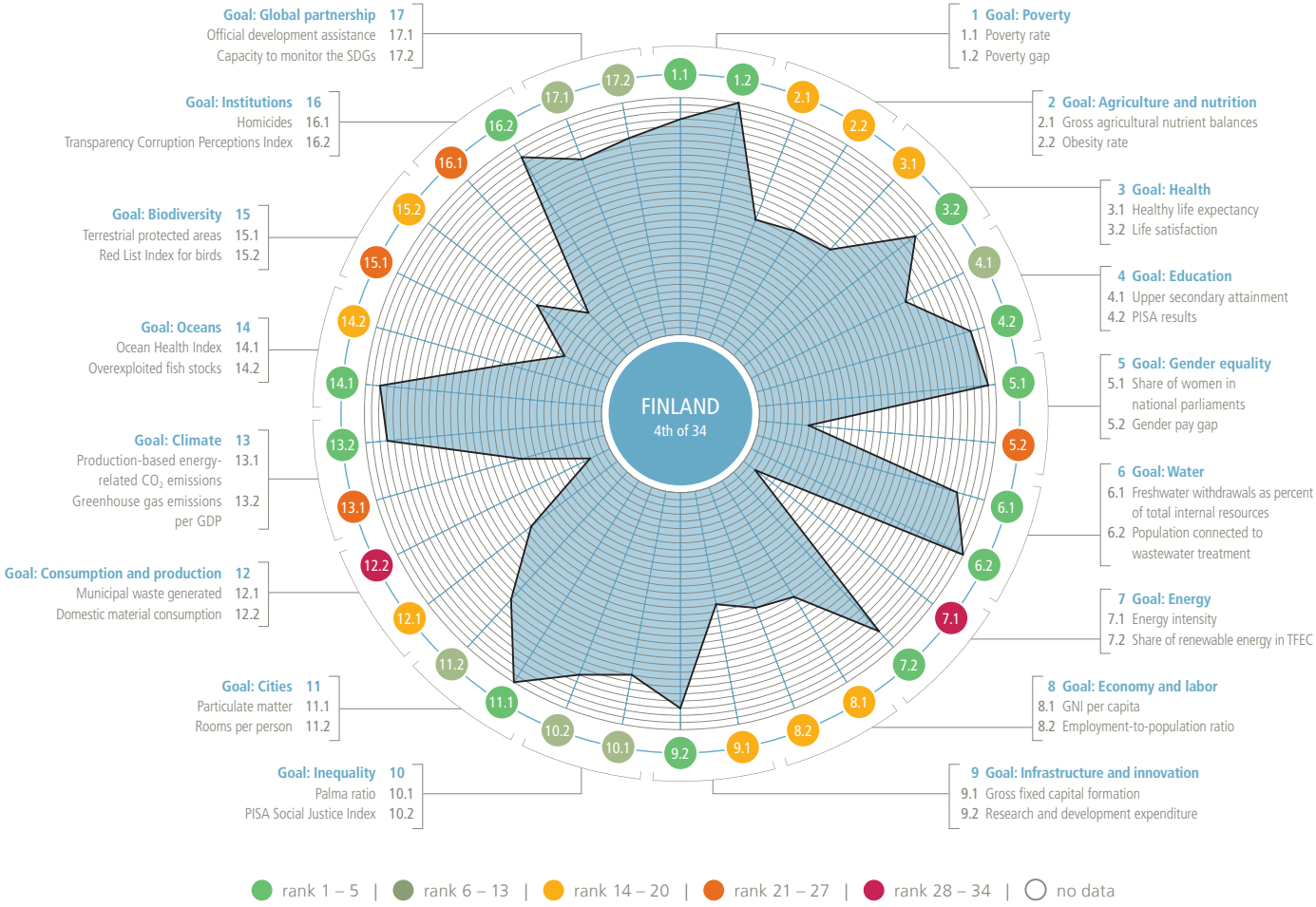
Estonia ranks 21st out of 34 countries across all dimensions of the SDG Index. For nine of the 34 indicators it is among the top five OECD countries and for five it tops the rankings. Estonia's performance, however, varies greatly. For 13 indicators the country is among the bottom third, and among the bottom five for eight.

Strengths

The country tops the PISA index of economic, social and cultural status. Educational opportunities are less limited by socioeconomic status in Estonia than any other country in the sample. Estonia is a leader among OECD countries when it comes to goal 15 (the sustainable use of terrestrial ecosystems and the protection of biodiversity). The country is showing the way in protecting both its terrestrial biomes and animal species. For example, a comparatively low 10 percent of the country's bird species are threatened, which puts the country at fourth. Similarly, Estonia leads the OECD countries in the Ocean Health Index (which assesses the condition of marine ecosystems). Estonians also generate the least municipal waste; the country's 293 kilograms per capita is far below the OECD average of 483 kilograms. Also of note: Estonia's particulate matter air pollution levels are below World Health Organization safety thresholds. In addition, Estonia's gross fixed capital formation (27.8 percent of GDP) puts the country in third place, with only South Korea and Norway performing better.

Weaknesses

For all of its impressive accomplishments, Estonia faces significant policy challenges. Estonia performs dismally in goal 13 (which calls for action to combat climate change and its impacts). The country ranks last among the 34 OECD countries for greenhouse gas emissions and 30th for CO_2 emissions from energy production. With emissions per GDP of 680 tons per million, the country emits nearly double the OECD average and more than ten times the front-runner, Sweden (which emits 66.8 tons). Likewise, Estonia's fossil fuel energy production emits 12.3 tons of carbon dioxide emissions per capita; the top five countries each emit less than 5 tons per capita. Just as worrying: Estonia ranks among the three worst-performing on three diverse indicators: primary energy intensity, the gender pay gap, and homicide. Estonia's high primary energy intensity (9.1 petajoules per GDP) is more than double that of each of the top five countries. The country's 31.5 percent gender pay gap, is more than double the OECD average. Finally, with a homicide rate of 4.1 per 100,000 inhabitants, the country is surpassed only by Turkey and Mexico.



Overall

Finland ranks fourth out of 34 countries across all dimensions of the SDG Index. For more than half of the indicators the country ranks in the top ten and in the top five for 13 indicators. Finland's performance varies across the different indicators, but it skews above average. It finds itself among the bottom third for five indicators and notably in the bottom five for just two indicators.

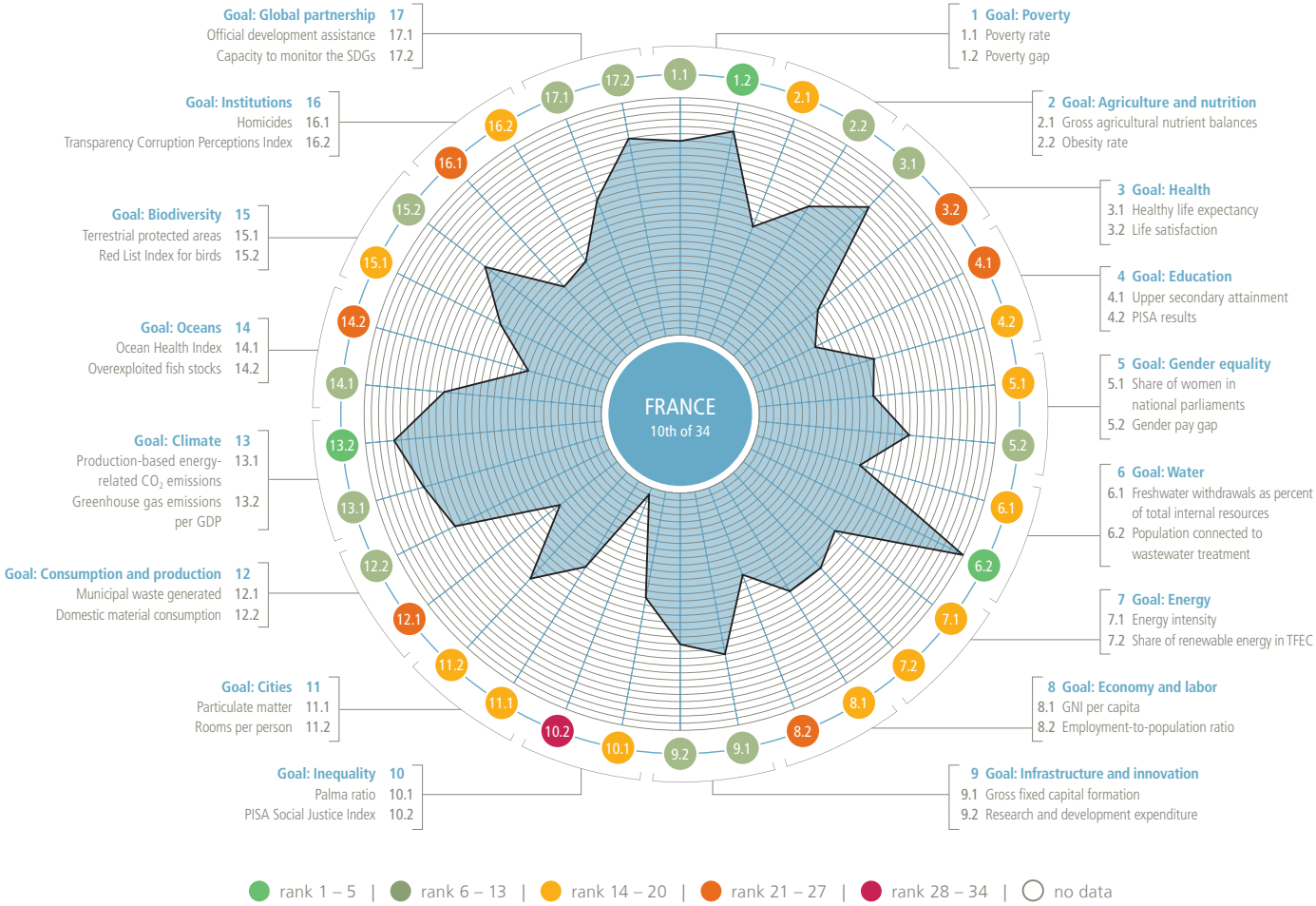
Strengths

Finland has made commendable strides toward ending poverty in all its forms (goal 1). A relatively low 6.6 percent of Finns live below the poverty line, far better than the 11.5 percent OECD average. Even more impressively, Finland has the narrowest poverty gap (the percentage by which the mean income of the poor falls below the poverty line) of any OECD country. Finland is not only a champion when it comes to protecting marine resources, as illustrated by its good performance on the Ocean Health Index. Particulate matter air pollution is also below World Health Organization safety thresholds. Furthermore, the country ranks third for PISA results. It secures the same position in terms of public sector corruption, with only Denmark and New Zealand having lower perceptions of corruption.

A third of Finland's energy comes from renewable sources, which is almost twice as much as the OECD average and the fourth-highest value of all countries. Finally, Finland's parliament is 42.5 percent female, second only to Sweden's.

Weaknesses

Finland's relatively high primary energy intensity (8.2 petajoules per GDP) puts it well toward the bottom of the table, with only Estonia and Iceland performing more poorly. Similarly alarming, the country's high domestic material consumption (34.3 tons per capita) puts it 31st; by comparison, the OECD average is around 19 tons per capita of materials in the economy. Despite its impressive female representation in parliament, Finland's performance in goal 5 is brought down by a disappointing average gender pay gap of 18.7 percent, below the OECD average of 15.5 percent, putting Finland 27th in the sample.



Overall

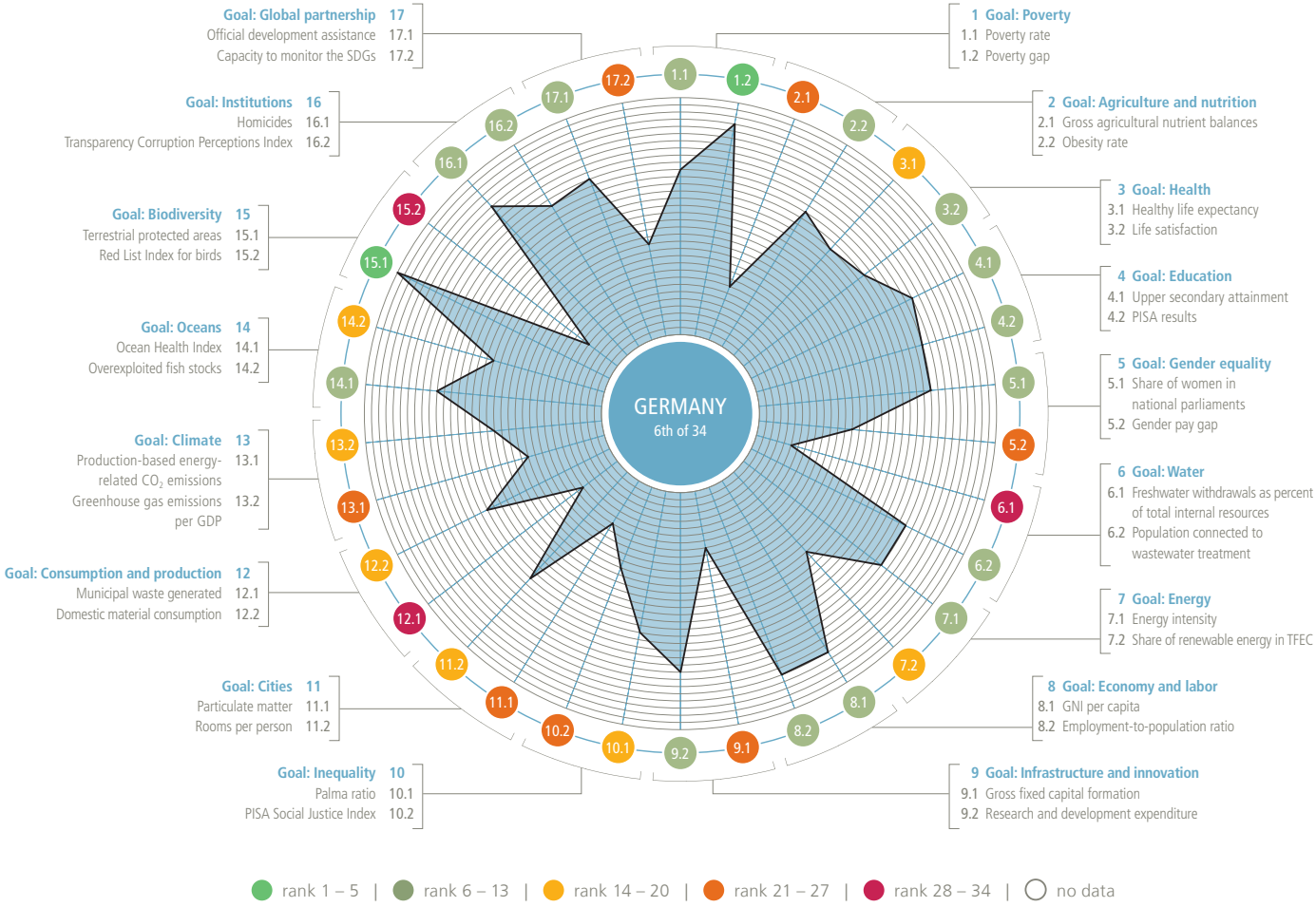
France ranks tenth out of 34 countries across all dimensions of the SDG Index. France ranks among the top ten for eight of the 34 indicators in this study. Only three times, however, does it make it into the top five. France's performance varies between indicators, although it gravitates toward the mid-zone. On only four indicators does the country find itself in the bottom third, and only once among the bottom five.

Strengths

France ranks among the top ten for urgent action to combat climate change and its impacts (goal 13). The country has lower greenhouse gas emissions per GDP than 29 other OECD countries. With emissions per GDP of 230.8 tons per million USD, France performs better than the 352.1-ton OECD average, but still far short of the front-runner, Sweden (which emits 66.8 tons). The country's fossil fuel energy production emits 5.3 tons of carbon dioxide per capita (eighth place in the sample). France has also made commendable strides toward ending poverty in all its forms (goal 1). A comparatively low 8 percent of French live below the poverty line, better than the 11.5 percent OECD average. In addition, the country's low poverty gap (the percentage by which the mean income of the poor falls below the poverty line) places it fifth among the countries in the sample. On average, the French can expect 72 years of life in full health, putting the country among the top ten countries for this indicator.

Weaknesses

In the PISA index of economic, social and cultural status, France is second-last of all the OECD countries. Fully meeting goal 10 (which calls for a reduction in inequality within and among countries) will require significant policy action that ensures education opportunities are not limited by socioeconomic status. Also, only 75.1 percent of the population have completed at least upper secondary education; the top five countries in the sample had completion rates of at least 90 percent. The French generate 530 kilograms of municipal waste per capita, putting the country 24th among the OECD countries; inhabitants in the top five countries generate between 293 and 347 kilograms per capita.



Overall

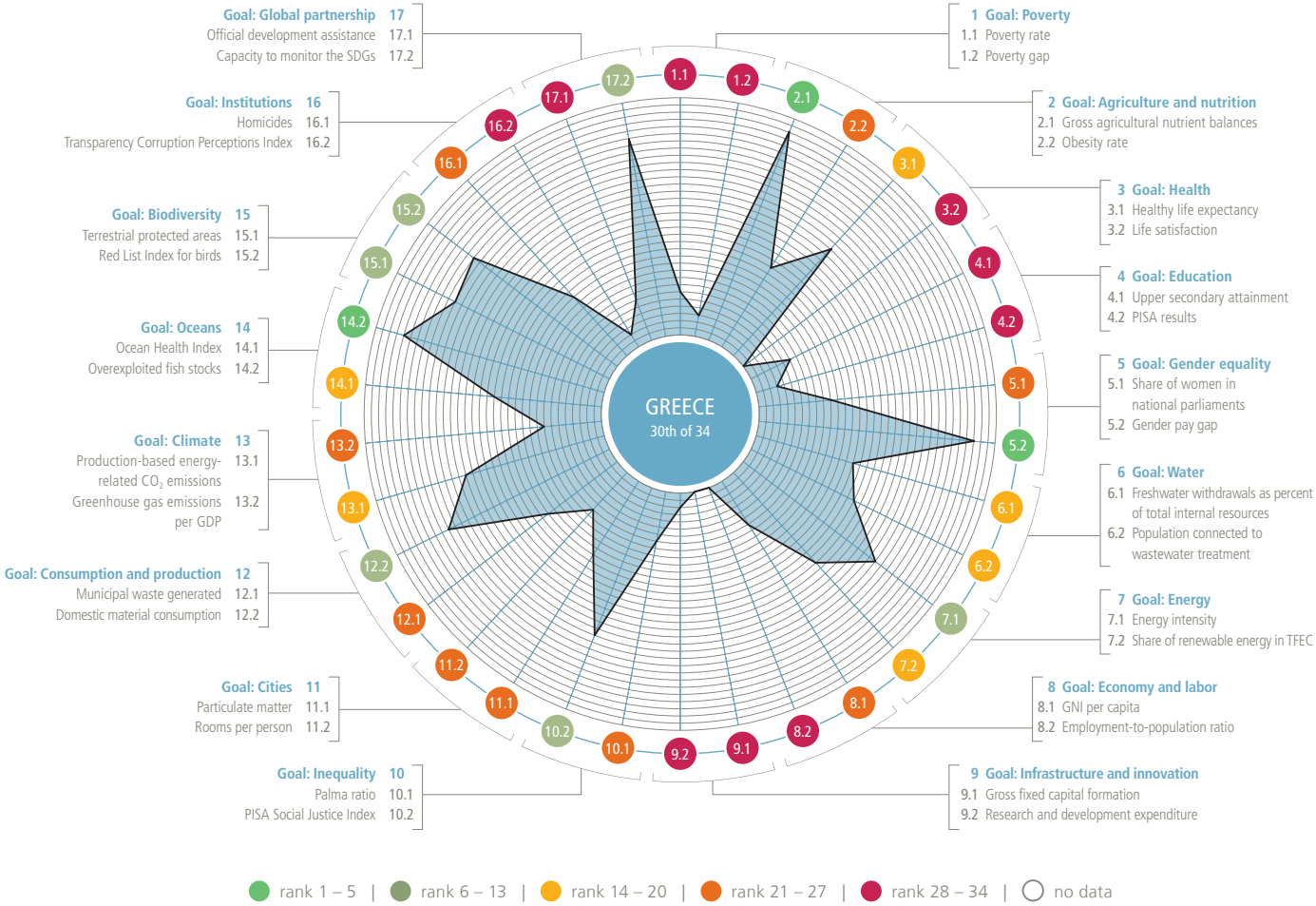
Germany ranks sixth out of 34 countries across all dimensions of the SDG Index. It is among the top ten for twelve of the 34 indicators in this study, but only twice manages a top five placing. Across the various indicators Germany's performance varies, although it hovers around the median. On seven indicators the country finds itself in the bottom third, yet only twice among the bottom five.

Strengths

As Europe's economic powerhouse, Germany ranks among the top countries in the sample for promoting economic growth and employment. With a GNI in 2014 of $46,840 per capita, the country ranks sixth (although it needs to do more to ensure that this growth is inclusive and sustainable, as goal 8 requires). In addition, 73.8 percent of working-age Germans are in employment, putting the country in sixth place. The country's narrow poverty gap (the percentage by which the mean income of the poor falls below the poverty line) puts it at fourth among the countries in the sample. Germany also excels in conservation, designating 17 percent or more of terrestrial biomes as protected areas, a distinction it shares with seven other OECD countries. This demonstrates the country's commitment to sustainable use of terrestrial ecosystems and biodiversity (although tempered by a poor showing in the protection of animal species). Germany also has a relatively low homicide rate of 0.7 per 100,000 inhabitants, putting it in the top ten, and relatively high expenditure on research and development (2.9 percent of GDP).

Weaknesses

The sustainability of agriculture in Germany is severely threatened by nitrogen and phosphorous use, coming in at 26th for this indicator. A surplus of 94 kilograms per hectare of total agricultural land indicates a high risk of pollution soil and water. In addition, Germany is in 28th place for waste per capita: at 614 kilograms, far more than inhabitants in the top five countries, who generate between 293 and 347 kilograms per capita. Germany's use of total renewable freshwater resources, which it draws on at an annual rate of 30.2 percent, puts the country among the bottom five. In addition, the country ranks 29th among the 34 countries in the sample for protection of animal species; 36 percent of bird species are threatened, significantly higher than the 22 percent OECD average. Also worrying: many Germans are exposed to particulate matter air pollution exceeding WHO safety thresholds, ranking the country in 27th place in this indicator.



Overall

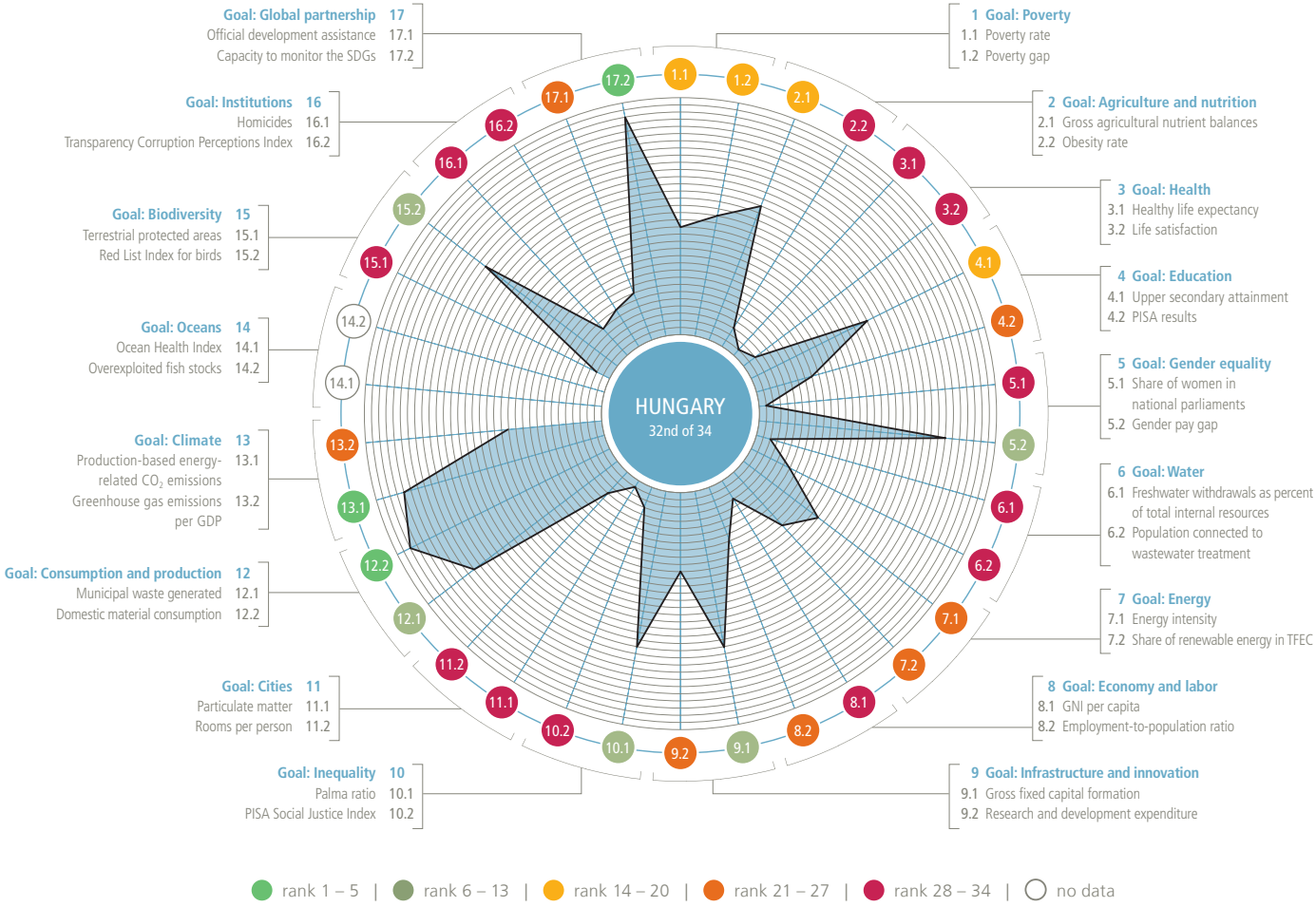
Greece ranks 30th out of 34 countries across all dimensions of the SDG Index. For eight of the 34 indicators in this study it can be found among the top third of OECD countries, three indicators of those in the top five. Greece's performance varies considerably, with alarmingly low values in some indicators: the country is among the bottom third for a full 16 indicators, and in the bottom five for seven.

Strengths

Greece trails only Iceland and Spain for gross agricultural nutrient balances with 12 kilograms per hectare of agricultural land surplus, indicating nitrogen and phosphorous use in farming that minimizes environmental degradation. The country also ranks fourth among the 34 OECD countries for its relatively narrow gender pay gap; at 6.9 percent, it is less than half the OECD average of 15.5 percent. Also noteworthy: Greece ranks fifth for use of its fish stocks. A comparatively low 15.7 percent of the country's fish stocks are overexploited, better than the 17.8 percent OECD average. At 12.1 tons per capita, Greece has low enough domestic material consumption to put it in the top ten.

Weaknesses

One of Greece's many challenges, particularly during the country's current economic crisis, is its troublingly low employment rate. In 2014, 49.4 percent of working-age Greeks were in employment, the worst figures for any OECD country. This has fueled an alarmingly wide poverty gap (the percentage by which the mean income of the poor falls below the poverty line), only exceeded by that found in Italy, Mexico and Spain. Another major challenge relates to the need for resilient infrastructure, sustainable industrialization and innovation (goal 9). Greece ranks last in gross fixed capital formation and only two places higher for gross domestic research and development expenditure. Building a sustainable economy requires innovation, yet the country spends just 0.8 percent of GDP on research and development – only Chile and Mexico spend less. The country's perceived level of public sector corruption is among the highest on a par with Italy and exceeded only by Mexico. Given its many challenges, it should come as no surprise that Greece ranks at the very bottom for life satisfaction. Greeks' life satisfaction has in fact declined the most compared to all other OECD nations in recent years.



Overall

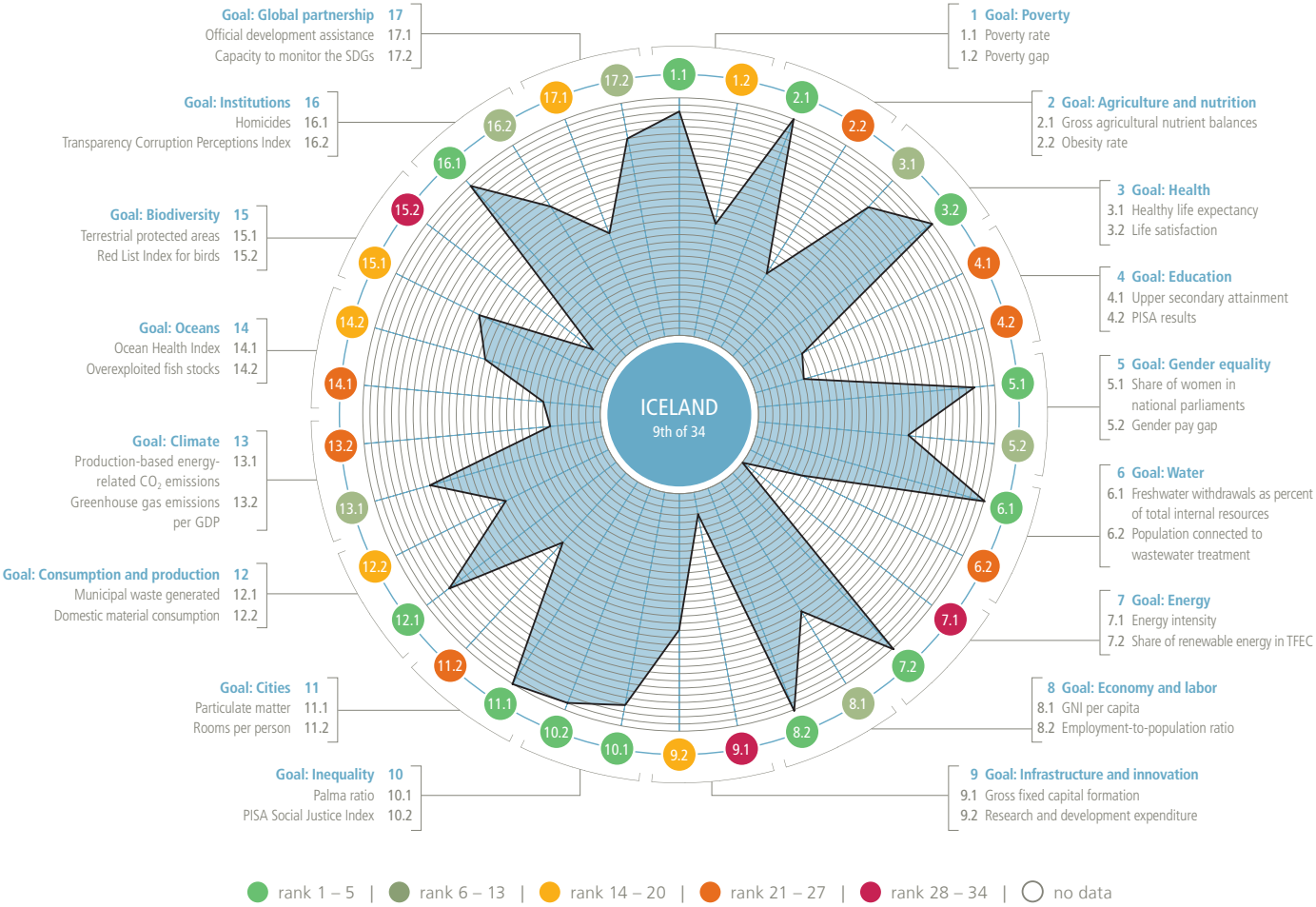
Hungary ranks 32nd out of 34 countries across all dimensions of the SDG Index. For six of the 34 indicators used in this study it features among the top third of OECD countries, and in the top five for three of them. Hungary's performance, however, is very much mixed. For 18 indicators the country is among the bottom third, and in the bottom five for an alarming eleven indicators.

Strengths

At 10 tons per capita, Hungary's domestic material consumption is almost half the OECD average of around 19 tons per capita of materials in the economy, putting it in third place. Furthermore, the country's fossil fuel energy production causes 4.4 tons of carbon dioxide emissions per capita (fifth place in the sample). Hungary is also among the top ten for its relatively narrow 8.7 percent gender pay gap, significantly better than the OECD average of 15.5 percent. Finally, Hungary is in a very good position to monitor SDGs in the future with over 83 percent of the SDG indicators used in this study reported annually with a time lag no greater than three years.

Weaknesses

Hungary is one of the least successful OECD countries in ensuring healthy lives and well-being (goal 3). Hungarians, on average, can expect 65 years of life in full health, ten years less than their Japanese counterparts. Hungary's performance in gender equality (goal 5) is offset by the number of women in parliament; with 9.3 percent, only Japan has fewer. Hungary is also among the five worst-performing countries for goal 11 (making cities and human settlements inclusive, safe, resilient and sustainable). Hungary's environmental profile is particularly alarming: it is second-last for particulate matter air pollution and only one place higher for use of renewable water sources; its annual rate of 93.1 percent severely threatens the sustainability of its water resources. Similarly, the country protects just 5 percent of its terrestrial biomes; meanwhile eight OECD countries have designated 17 percent or more. All of this may help explain why Hungarians rank 32nd for life satisfaction.



Overall

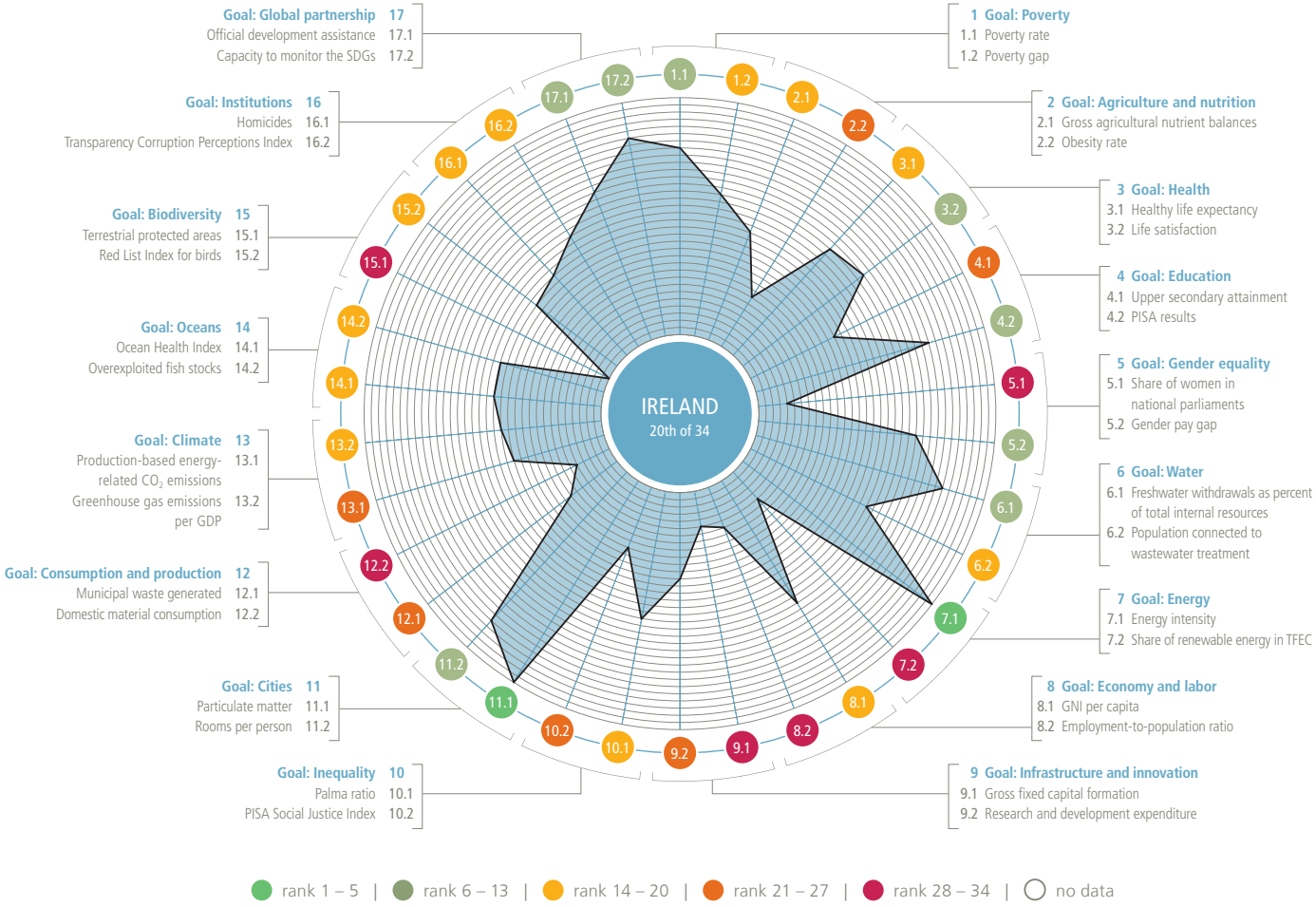
Iceland ranks ninth out of 34 countries across all dimensions of the SDG Index. The country is in the top third for almost half of the indicators in this study, and twelve of them find Iceland in the top five. Iceland in fact comes out on top for a commendable six indicators, and although its performance varies, it skews above average. For eight of the indicators the country finds itself among the bottom third, and in the bottom five for three indicators.

Strengths

Iceland leads the OECD countries in employment with 82.8 percent of its working-age citizens employed. Iceland has also made progress toward ending poverty in all its forms (goal 1). The country has a low poverty rate among OECD countries, with just 6.1 percent of Icelanders living below the national poverty line, far better than the 11.5 percent OECD average. Yet, the country's performance on goal 1 is mixed. Iceland's poverty gap (the percentage by which the mean income of the poor falls below the poverty line) ranks 18th among the countries in the sample. The country has particulate matter air pollution below World Health Organization safety thresholds and annually withdraws just 0.1 percent of its total renewable freshwater resources. In both of these indicators, Iceland leads the OECD. Icelanders are also largely unaffected by homicide, and when it comes to reducing inequality (goal 10), Iceland is among the top five countries. The country ranks fourth in the Palma ratio, the comparatively small income gap between rich and poor (0.9), and second for its score on the PISA index of economic, social and cultural status (which assesses the degree to which socioeconomic status limits education opportunities). Finally, Iceland leads the world for its use of renewable energy sources (76.7 percent) – effectively all from geothermal and hydropower.

Weaknesses

While Iceland utilizes the OECD's highest share of renewable energy, it also has the least efficient energy use with a primary energy intensity of 22 petajoules per billion in GDP, well ahead of the OECD average of six petajoules. This woefully inefficient energy use makes Iceland's success in goal 7 (which calls for a sustainable energy sector) very much mixed. Also worrying, the country only ranks 31st in gross fixed capital formation. Finally, the country performs poorly on biodiversity: 44 percent of bird species are threatened (about double the 22 percent OECD average).



Overall

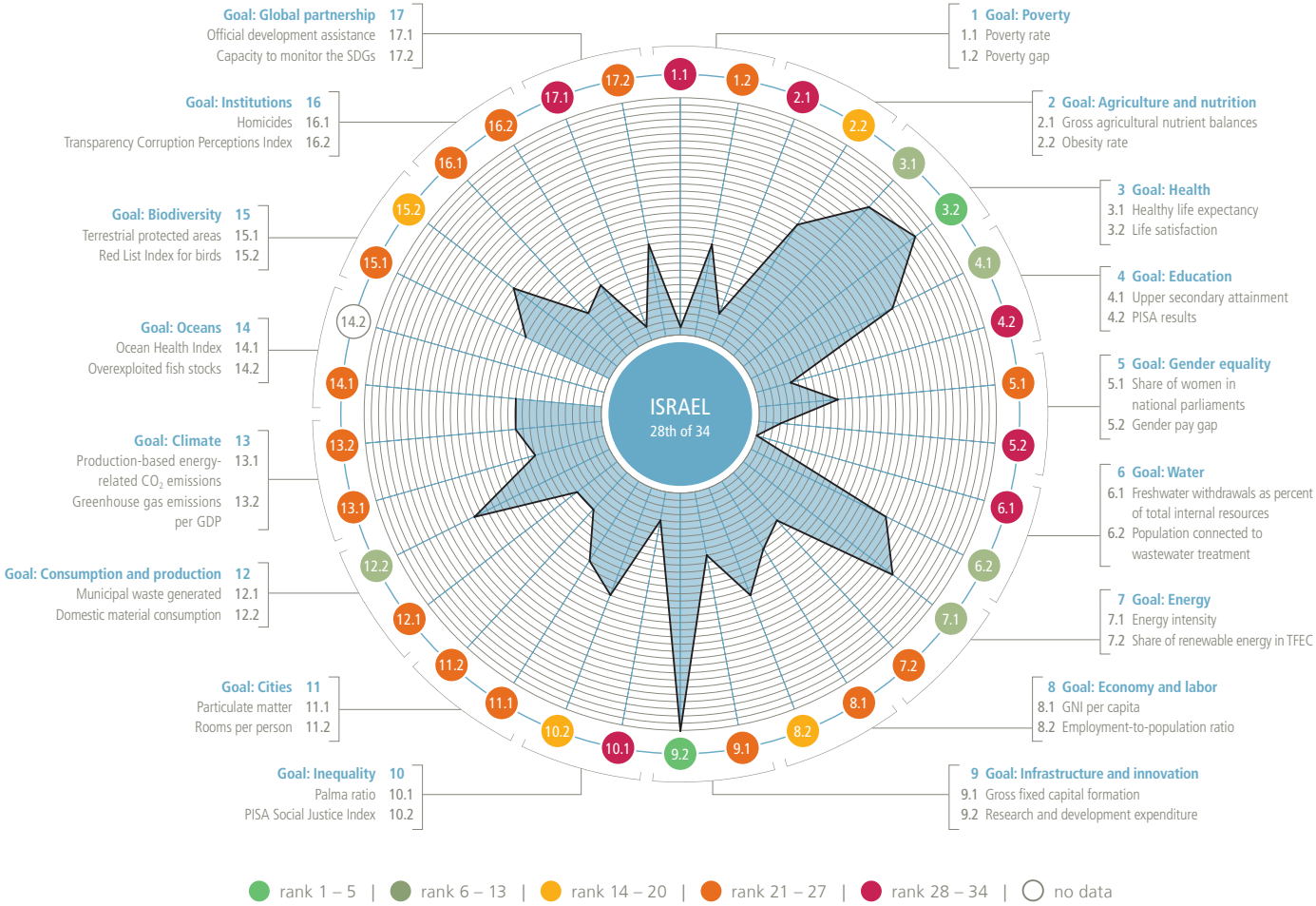
Ireland ranks 20th out of 34 countries across all dimensions of the SDG Index. On seven of the 34 indicators in this study the country is among the top ten OECD countries, featuring in the top five for two. However, Ireland's overall performance is mixed. For nine indicators the country ranks among the bottom third, and in the bottom five for five indicators.

Strengths

Ireland ranks among the top countries for goal 11 (making cities and human settlements inclusive, safe, resilient and sustainable). The Irish enjoy relatively generous domestic space, with 2.1 rooms per person, and particulate matter air pollution below World Health Organization safety thresholds. In addition, Ireland withdraws a mere 1.6 percent of its total renewable freshwater resources every year, placing it among the top ten in this study. Ireland's efficient energy use is also noteworthy, beating every other country with a primary energy intensity of just 3.4 petajoules per billion in GDP – the OECD average is six petajoules per GDP. Finally, Ireland is among the best countries in terms of SDG monitoring due to a good capacity to track progress and failures with regard to the indicators examined here.

Weaknesses

Ireland's exemplary energy efficiency is offset by the low proportion of renewables in its energy mix: just 5.2 percent, putting it in 29th place. Fully meeting goal 7 (which calls for universal access to affordable, reliable, sustainable and modern energy) will require significant policy action to ensure that current energy needs are met without jeopardizing future generations. The Irish government faces other policy challenges: the country protects just 1.8 percent of its terrestrial biomes, putting it at dead last among OECD countries. By comparison, eight OECD countries have designated 17 percent or more of their terrestrial biomes as protected areas. The country also has appallingly low female representation in parliament; the most recent elections, in 2011, put women in just 15.7 percent of seats. At 24.9 tons per capita, Ireland's domestic material consumption level puts it among the bottom five countries; the average OECD country uses approximately 19 tons per capita of materials in the economy.



Overall

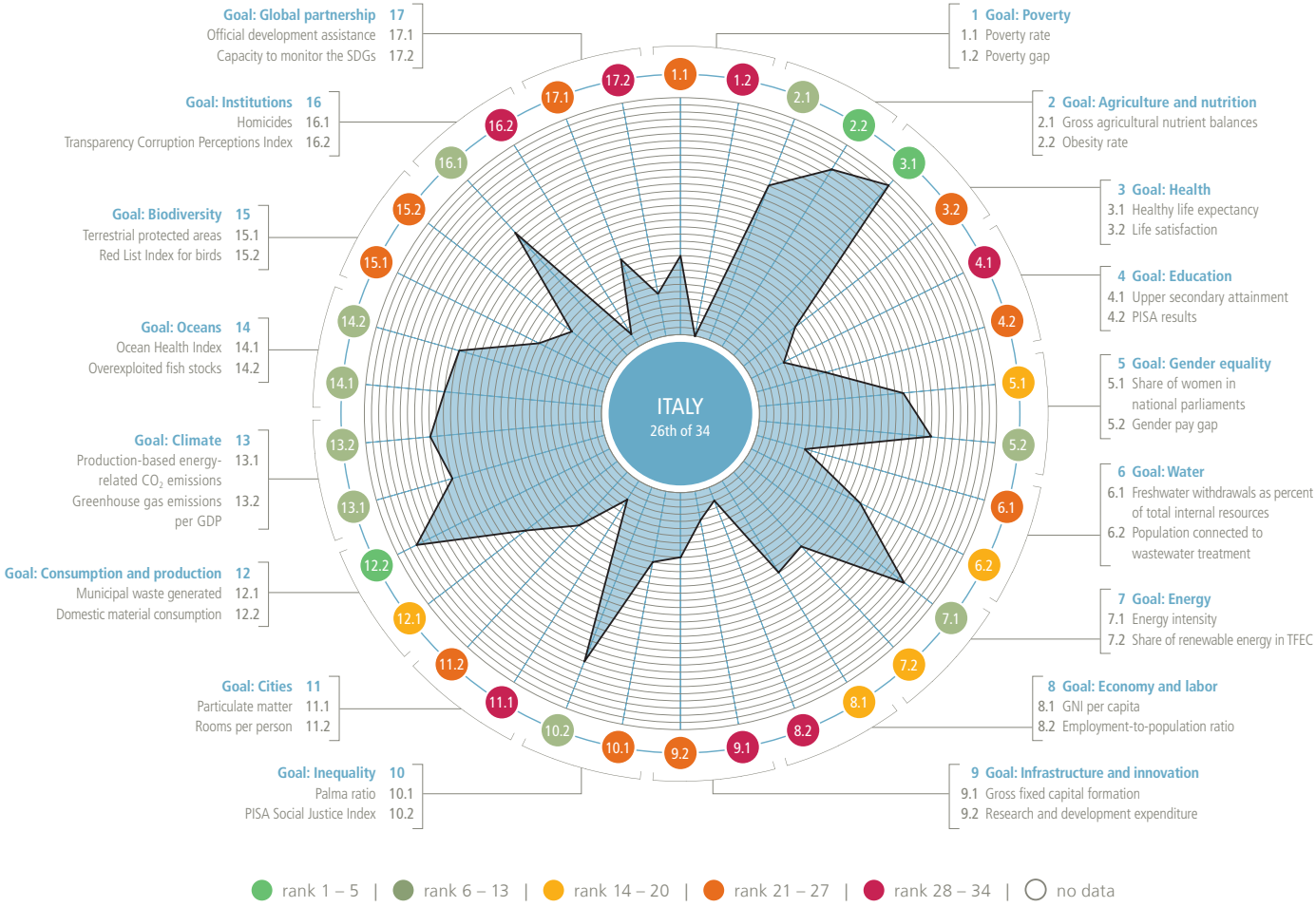
Israel ranks 28th out of 34 countries across all dimensions of the SDG Index. Israel is among the top ten for four indicators, twice making it into the top five. For 16 indicators (almost half of the indicators), however, the country finds itself among the bottom third of countries in this study, and on seven indicators in the bottom five.

Strengths

A sustainable economy requires innovation, and Israel spends more on research and development than any other OECD country (4.2 percent of GDP), roughly 80 percent of which comes from business. In addition, the country ranks fourth in life satisfaction, as measured by surveys. Also noteworthy: Israel ranks among the top ten countries for the efficiency of its energy use with a primary energy intensity of 4.4 petajoules per billion in GDP, significantly better than the OECD average of six petajoules. Finally, a respectable 85 percent of Israelis complete upper secondary education, putting the country on track to reach goal 4 by 2030: ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

Weaknesses

Israel annually withdraws 260.5 percent of its total renewable freshwater resources, putting it at the very bottom of the 34 OECD countries. Israel is also among the worst five countries in gross agricultural nutrient balances, indicating nitrogen and phosphorous use in farming that pollutes the ecosystem. With 136 kilograms per hectare of agricultural land surplus, the country performs far worse than front-runners Iceland, Spain and Greece. In addition, Israelis annually generate 620 kilograms of municipal waste per capita, putting the country at 27th. By comparison, inhabitants in the top five countries generate between 293 and 347 kilograms per capita. One of the country's other great challenges is its troublingly high poverty rate, at 20.9 percent there is a greater proportion of people living in poverty than any OECD country apart from Mexico. Similarly, the income gap between rich and poor in Israel puts the country at 30th, suggesting little progress at reducing inequality. The country ranks 31st in this study with a 21.8 percent gender pay gap, wider than the OECD average of 15.5 percent. And while development assistance is essential to strengthening the means to develop sustainably on a global scale, Israel ranks 32nd in the sample. The Israeli government gives less than 0.1 percent of its GNI to development assistance.



Overall

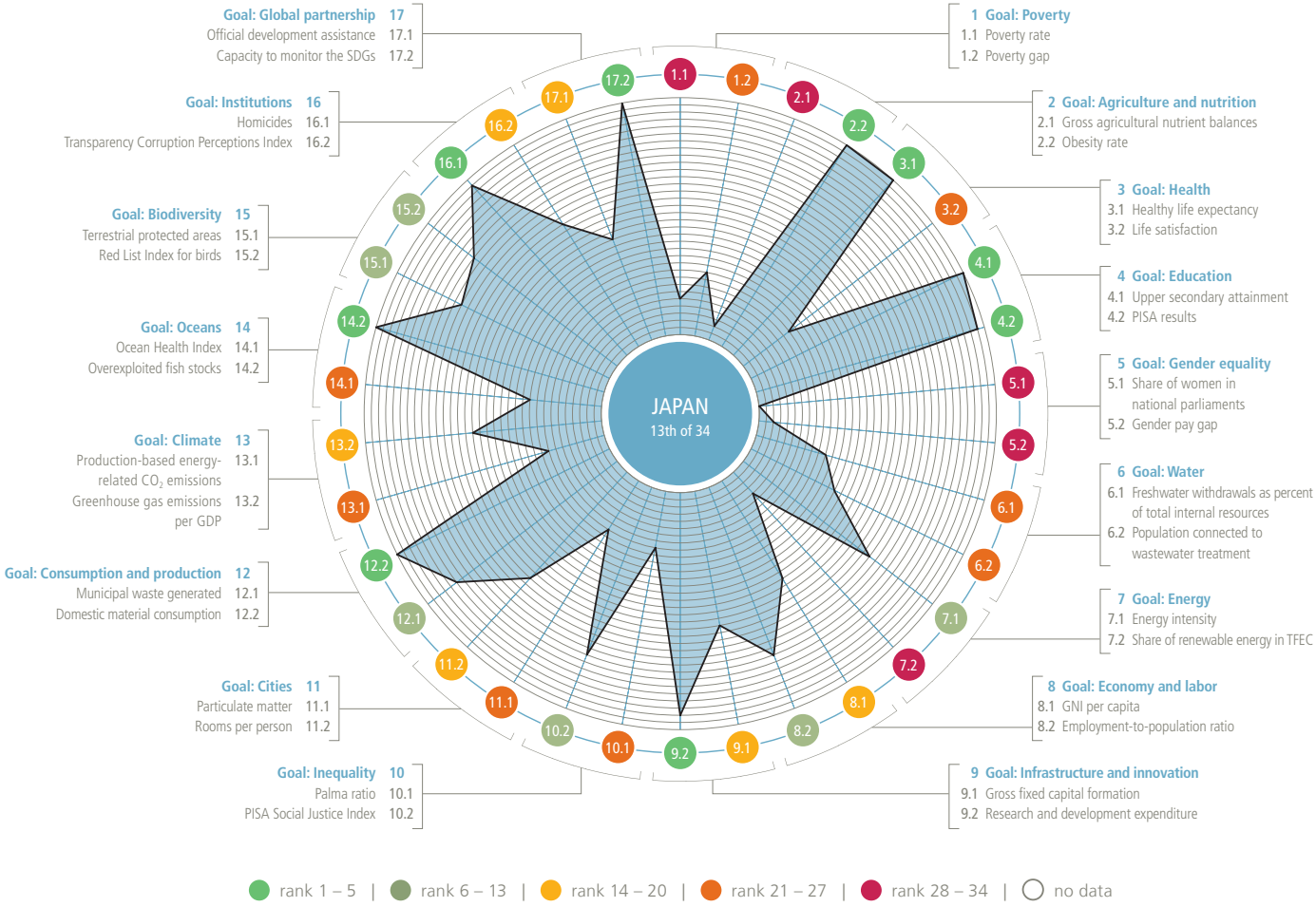
Italy ranks 26th out of 34 countries across all dimensions of the SDG Index. For nine of the 34 indicators in this study the country is among the top third OECD countries, and among the top five for three of those. Italy's performance, however, varies considerably. For 16 indicators (nearly half of the measures) the country ranks among the bottom third, and in the bottom five for five indicators.

Strengths

Italians can expect longer lives in full health than anyone in the OECD, with the exception of the Japanese. On average, Italians can expect 73 years of life in full health, demonstrating some policy success in targeting healthy lives and well-being (offset by low life satisfaction, the other indicator for goal 3). At 11 tons per capita, Italy's domestic material consumption level puts it among the five most frugal OECD countries, some distance below the OECD average of approximately 19 tons per capita of materials in the economy. Italy also has one of the lowest rates of obesity in the sample. A relatively low 10.4 percent of Italians are overweight or obese, ranking the country fifth. Also noteworthy: Italy is among the ten most efficient countries for energy use, with a primary energy intensity of 4.1 petajoules per billion in GDP, below the OECD average of six petajoules.

Weaknesses

Italians' perception of public sector corruption is as high as the Greeks', the two joint second only to Mexico. One of the country's great challenges is its worryingly high unemployment rate. In 2014, only 56.5 percent of working-age Italians were in employment, putting the country 31st in the OECD. Italy also ranks 31st for particulate matter air pollution, with levels exceeding WHO safety thresholds. Goal 4 calls for inclusive and equitable quality education and lifelong learning for all, yet Italian students can only manage average PISA results and school completion rates. In 2013, only 58.2 percent of Italians had completed at least upper secondary education, well below the top five countries in the sample, where completion rates are 90 percent or above. Given its many challenges, it is hardly surprising that Italy ranks among the bottom third for life satisfaction, with its self-reported scores declining in recent years.



Overall

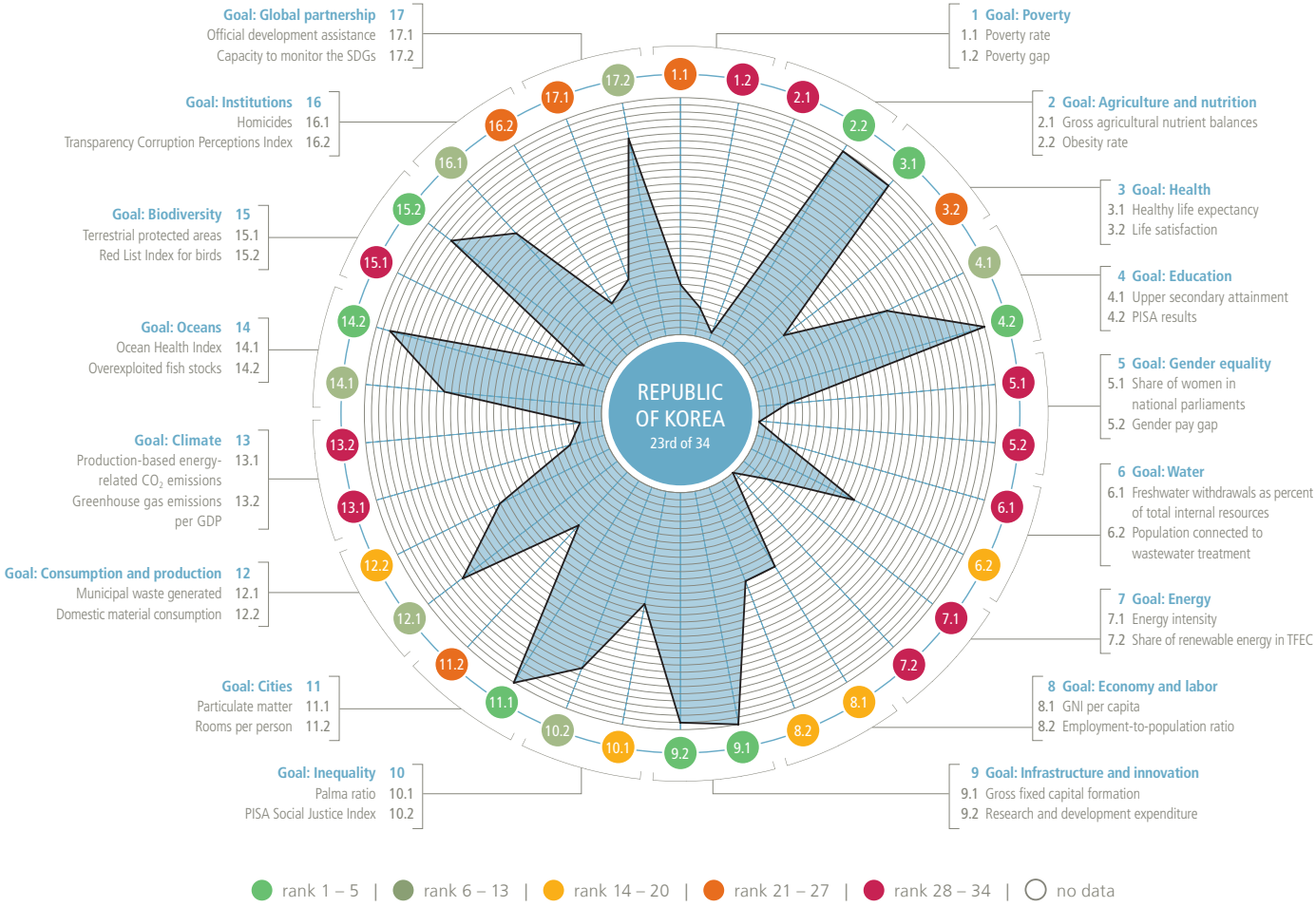
Japan ranks 13th out of 34 countries across all dimensions of the SDG Index. For 14 of the indicators, the country is among the top third, with nine indicators in the top three, and for an impressive six indicators Japan comes out on top. The country's performance tends toward above average overall, although twelve of the indicators put Japan in the bottom third, and five in the bottom five.

Strengths

Japan is a leader on goal 12, which calls for sustainable consumption and production patterns. With 9.5 tons per capita, Japan has the lowest domestic material consumption among the OECD countries. Its output is correspondingly low; 354 kilograms of municipal waste per capita puts it sixth in the sample. By comparison, the per capita averages across the OECD are 19 tons and 483 kilograms respectively. The Japanese have least cause to fear homicide, with a rate of 0.3 percent per 100,000 inhabitants putting it in joint second place with Iceland. Japan is also among the slimmest countries in the OECD, with an obesity rate of just 3.6 percent. Moreover, Japan ranks first in healthy life expectancy. On average, the Japanese can expect to live 75 years in full health. Also noteworthy: the country is a leader in both of the indicators for goal 4 (which calls for inclusive and equitable quality education and lifelong learning). In 2013, all Japanese had completed at least upper secondary education.

Weaknesses

Japan performs particularly poorly on gender equality and the empowerment of women and girls (goal 5). A high gender pay gap of 26.6 percent puts it at 32nd (OECD average: 15.5 percent), while it comes last for national parliament seats held by women – just 8.1 percent. In the top five countries, over a third of seats in parliament are held by women. In addition, 16 percent of Japanese live below the poverty line, significantly higher than the 11.5 percent OECD average. The country's long-term sustainability will depend on the Japanese government tackling both the plight of the poor as well as the discrimination of women in Japanese society. Only when all members of Japanese society are afforded equal opportunities can the country truly thrive.



Overall

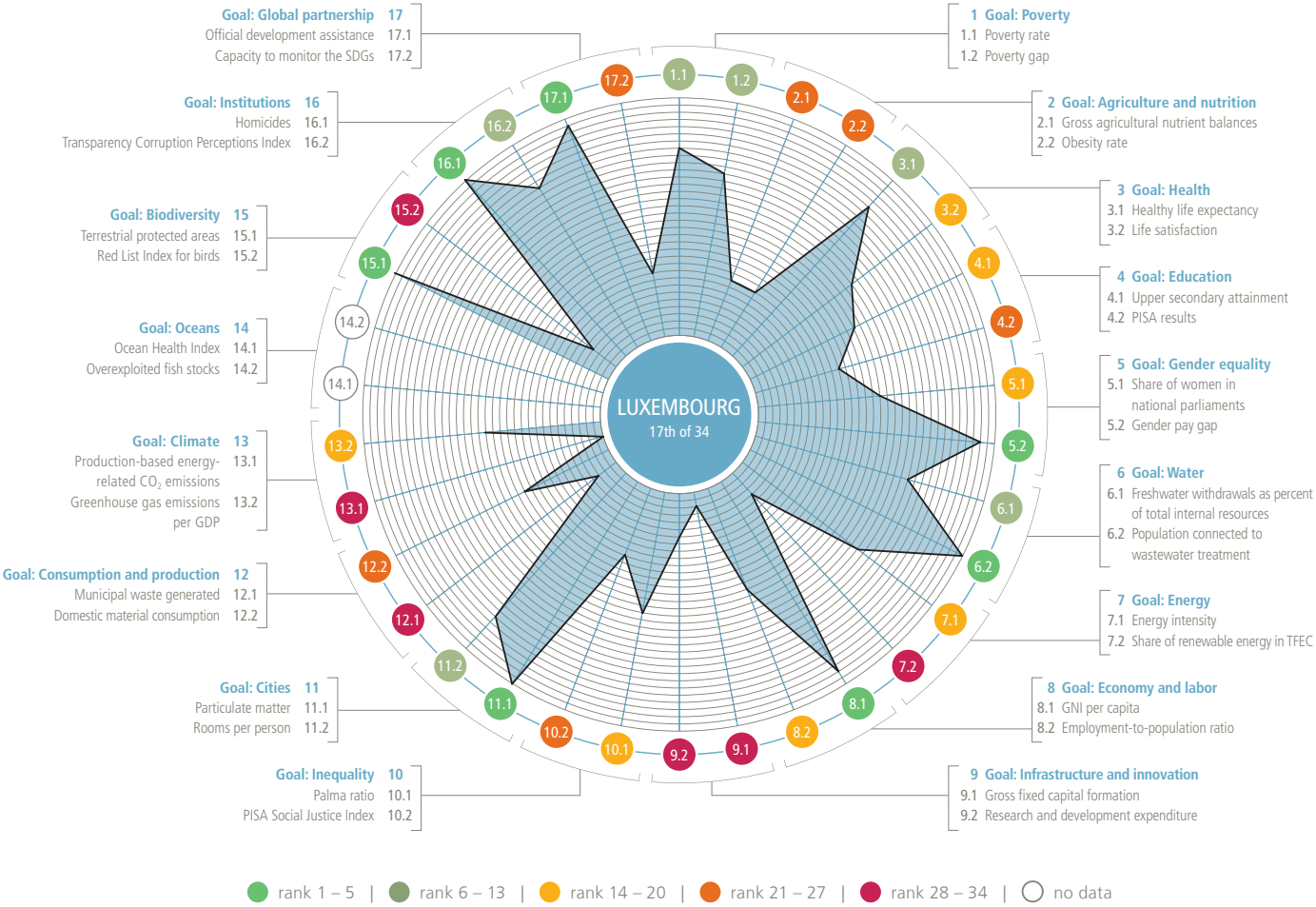
South Korea ranks 23rd out of 34 countries across all dimensions of the SDG Index. For twelve of the 34 indicators in this study it can be found among the top third, and on eight indicators in the top five. On 15 of the indicators the country is among the bottom third, and in the bottom five for a worrying ten indicators.

Strengths

South Korea's PISA results are the best in the OECD. The average Korean student's PISA score was 45 points above the average in the sample. The country is also a leader in goal 9 (which aims for resilient infrastructure, sustainable industrialization and innovation). South Korea ranks first in gross fixed capital formation (28.8 percent of GDP) and second in gross domestic research and development expenditure. A sustainable economy requires innovation and the country has met this challenge by spending 4.2 percent of GDP on research and development, more than double the OECD average. South Korea should also be commended for particulate matter air pollution below World Health Organization safety thresholds as well as its low rate of obesity (4.6 percent of Koreans are obese, putting it in second place). These values go hand in hand with the country's high healthy life expectancy, for which it ranks second.

Weaknesses

One of South Korea's greatest challenges remains its gender pay gap. At 36.6 percent, this disturbingly wide gap puts the country at the bottom of the list, far exceeding the OECD average of 15.5 percent. South Korea's poverty gap (the percentage by which the mean income of the poor falls below the poverty line) also puts it among the bottom five. The country ranks last on renewable energy use: only 1.3 percent of Korean gross energy consumption comes from renewable sources. By comparison, the top five countries for this measure each use over 30 percent renewable energy. South Korea's gross agricultural nutrient balances also sends it to the bottom of the table. The country's 259 kilograms per hectare of agricultural land surplus indicates levels of nitrogen and phosphorous use that harm the environment and threaten terrestrial ecosystems as well as freshwater supplies. Following these two indicators, it should come as no surprise that South Korea ranks among the bottom five on goal 13 (which calls for urgent action to combat climate change and its impacts). The country has higher greenhouse gas emissions per GDP than 30 other OECD countries.



Overall

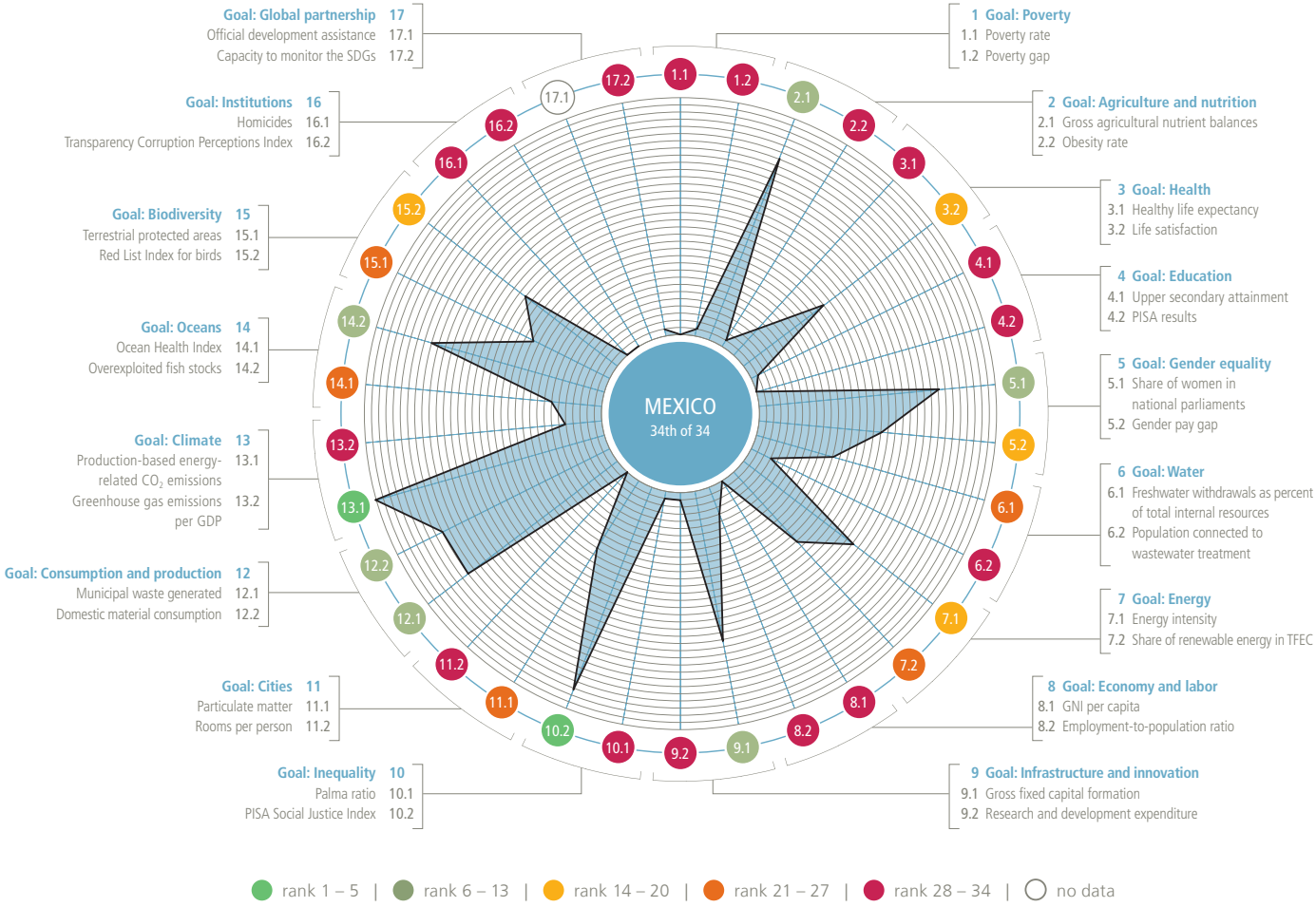
Luxembourg ranks 17th out of 34 countries across all dimensions of the SDG Index. For 12 indicators the country is among the top third, and on seven indicators among the top three. Luxembourg even manages first for three indicators, and overall the country's performance tends toward above average. For ten of the indicators the country finds itself among the bottom third, and on five indicators in the bottom five.

Strengths

Luxembourg ranks among the best-performing OECD countries on wastewater treatment and air quality. Luxembourg has also made commendable strides toward ending poverty in all its forms (goal 1). The country's poverty rate of 8.3 percent puts it among the top ten. Luxembourg's gender pay gap (6.5 percent) is also among the lowest in the sample (third place). Also noteworthy: with a GNI in 2013 of $57,830 per capita (based on PPP), the country ranks third. The government is also among the five most generous in development assistance, giving 1 percent of its GNI. The country is also a leader in protecting its terrestrial biomes, designating 17 percent or more of its terrestrial biomes as protected areas.

Weaknesses

Luxembourg's fossil fuel energy production is particularly alarming, emitting 19.5 tons of carbon dioxide per capita. This puts it at the bottom of the OECD, where the top five countries each emit less than 5 tons per capita. Luxembourg's poor showing here is a result of the country's poor energy mix; renewable sources account for just 3.7 percent of total energy consumption. Policy action is required to ensure that the country can meet current energy needs without threatening future generations, as goal 7 requires. Goal 9 (resilient infrastructure, sustainable industrialization and innovation) represents another major challenge. The country ranks 32nd in gross fixed capital formation (15.9 percent of GDP) and 28th for gross domestic research and development expenditure. Economic sustainability requires innovation, yet the country spends a comparatively low 1.2 percent of GDP on research and development. Luxembourg is also to be found among the bottom five when it comes to protecting animal species.



Overall

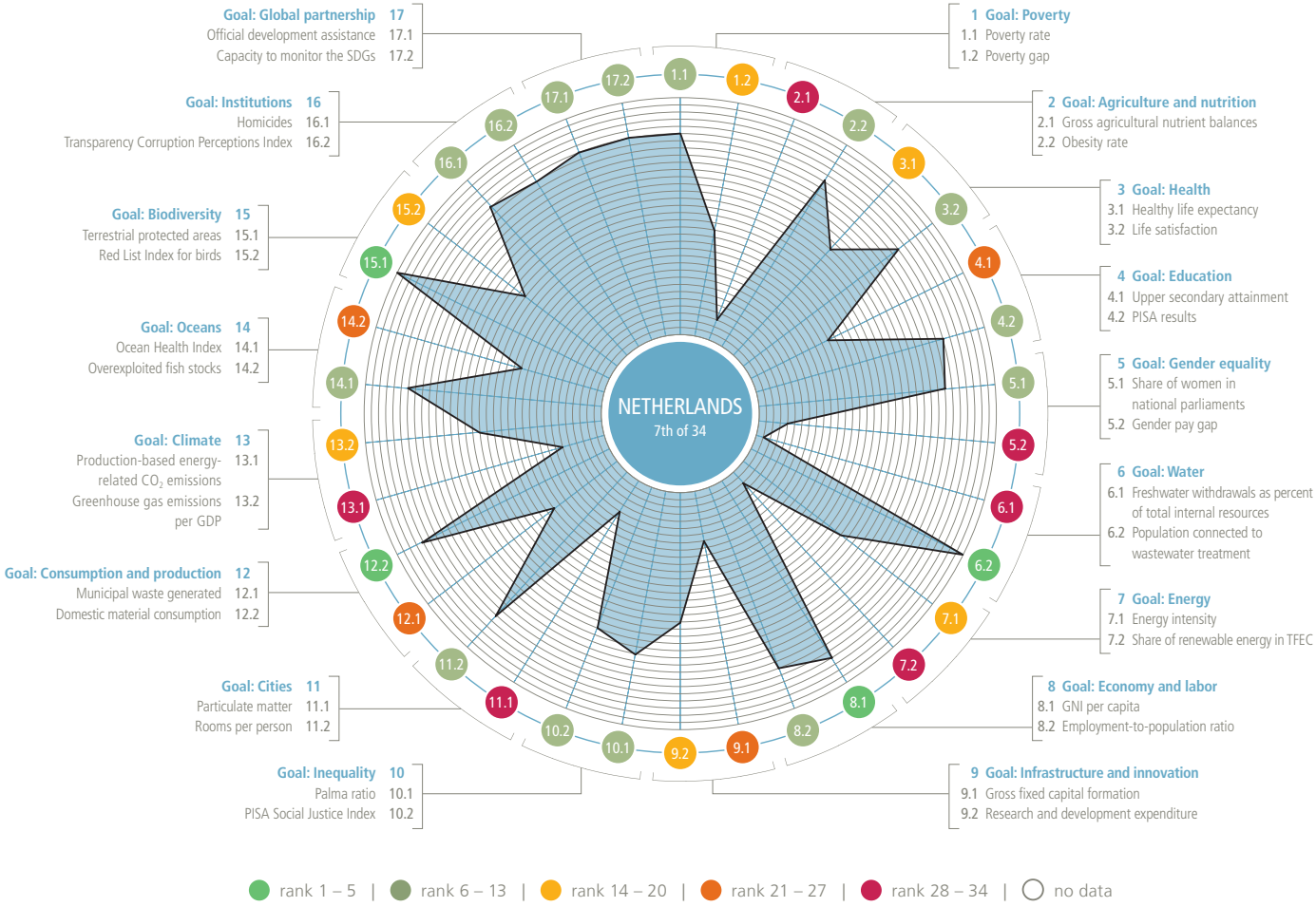
Mexico ranks last out of 34 countries across all dimensions of the SDG Index. Nonetheless, it manages a top ten placing for seven of the 34 indicators in this study, two of those in the top five. For over half of the measures, on the other hand, the country finds itself among the bottom third, and in the bottom five for 16 indicators.

Strengths

Mexico has the lowest energy-related carbon dioxide emissions in the sample. The country's fossil fuel energy production causes emissions of 3.7 tons of CO_2 per capita; the five worst-performing countries for this measure each emit over three times that amount. The country ranks fourth on the PISA index of economic, social and cultural status, indicating that Mexicans' education outcomes tend not to be limited by socioeconomic status (although they remain at a very low level overall). Also noteworthy: Mexico ranks well for the sustainability of its consumption and production patterns (goal 12). For both consumption and waste, Mexico comes in at eighth place: 12 tons per capita domestic material consumption, 360 kilograms per capita municipal waste generation.

Weaknesses

One of Mexico's greatest policy challenges remains ending poverty in all its forms (goal 1). With 21.4 percent of Mexicans living below the national poverty line, the country has the worst poverty rate in this study and nearly double the OECD average. Also worrying is Mexico's wide poverty gap (the percentage by which the mean income of the poor falls below the poverty line) where the country ranks 33rd. In 2013, just 38.4 percent of Mexicans had completed at least upper secondary education, the second lowest rate in the OECD. In addition, the average Mexican student's PISA score was 80 points below the OECD mean. Relative equality of opportunity in education is not enough to offset low uptake and quality, which threaten to hobble the Mexican economy for decades to come. Mexicans are also at the greatest risk of homicide, with a rate of 18.9 per 100,000 inhabitants. Finally, perception of public sector corruption is the highest in the OECD.



Overall

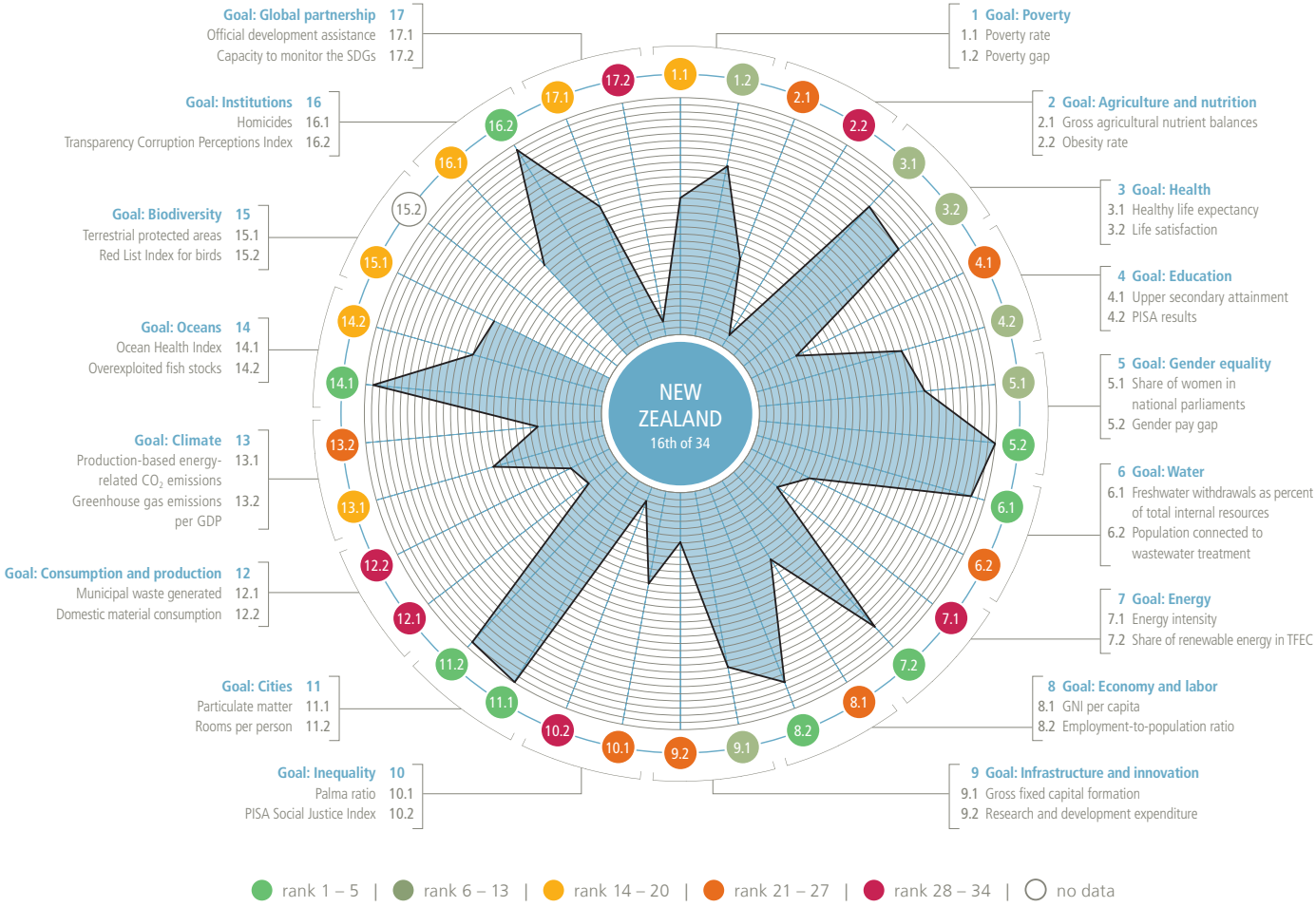
The Netherlands ranks seventh out of the 34 countries across all dimensions of the SDG Index. The country is among the top third for 17 of the 34 indicators in this study, managing the top five for three of them. For nine measures the country finds itself among the bottom third, and on five indicators in the bottom five.

Strengths

The Netherlands is among the best-performing OECD countries for ODA, meaning that it is among the more generous donors relative to GDP per capita. It also performs well for at least part of goal 6 (which targets sustainable water management and sanitation), with all Dutch homes connected to public or independent wastewater treatment. While this success on goal 6 is commendable, the country performs poorly on the goal's other measure: gross freshwater withdrawals. The Netherlands is among the top countries in the sample for economic prosperity and employment (goal 8). With a 2014 GNI of $47,660 per capita (based on PPP), the country ranks fifth. In addition, 73.1 percent of the Netherlands' working-age population were in employment in 2014, ranking the country seventh. A comparatively low 7.8 percent of the population live below the poverty line, better than the 11.5 percent OECD average. These strengths may in part explain the country's seventh place ranking for life satisfaction.

Weaknesses

The Netherlands ranks second-last for freshwater withdrawals, annually withdrawing 96.5 percent of its total renewable freshwater resources and severely threatening the long-term viability of Dutch water resources. The Netherlands is also among the bottom five in the sample on gross agricultural nutrient balances (an indicator of excessive fertilizer use). The country's 198 kilograms per hectare of agricultural land surplus indicates levels of nitrogen and phosphorous use that pollute the environment. Similarly worrying: the country is placed 32nd for renewable energy use with just 3.6 percent of Dutch gross energy consumption coming from renewable sources. By comparison, the top five OECD countries for this measure each use over 30 percent renewables. Finally, the Netherlands ranks 29th on particulate matter air pollution.



Overall

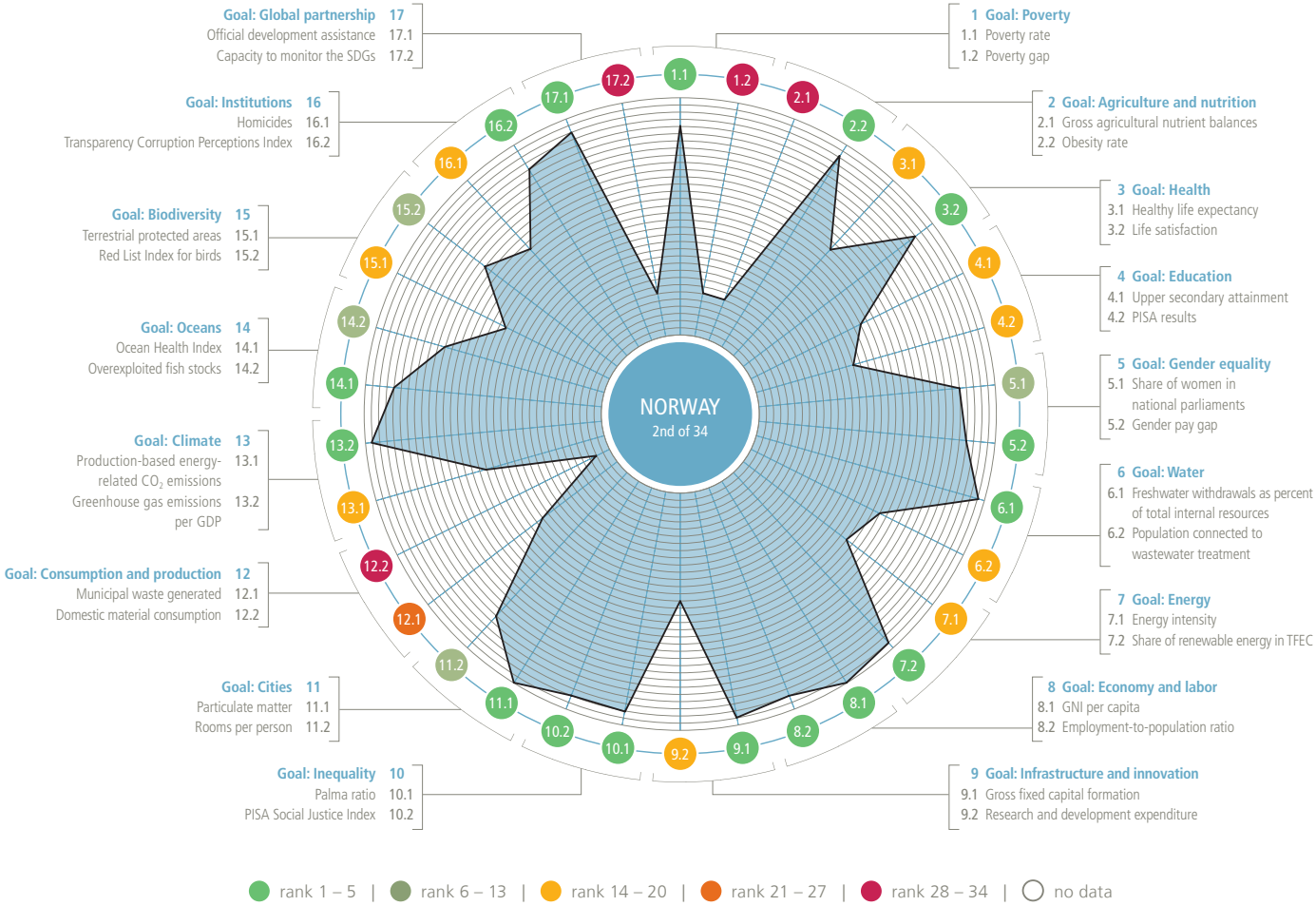
New Zealand ranks 16th out of 34 countries across all dimensions of the SDG Index. The country is in the top third for 13 of the 34 indicators in this study, and for eight indicators makes it into the top five. For ten measures the country finds itself ranked in the bottom third, four of those in the bottom five.

Strengths

New Zealand is in the commendable position of having the narrowest gender pay gap among the 34 OECD countries, with 5.6 percent. By comparison, the average gender pay gap across the OECD is 15.5 percent. Moreover, New Zealand is perceived to have one of the least corrupt public sectors in the sample, ranking second behind Denmark. This indicator illustrates that New Zealand has had some success in promoting peaceful, equal and inclusive societies, and building accountable public institutions (goal 16). The country should also be applauded for its top five ranking in a diverse range of environmental indicators. New Zealand ranks second on the Ocean Health Index, which assesses the condition of marine ecosystems. The country annually withdraws 1.5 percent of its total renewable freshwater resources, putting New Zealand third, behind Iceland and Norway. The country ranks fifth for renewable energy, with 31.5 percent of gross energy consumption coming from renewable sources (mostly hydro and geothermal).

Weaknesses

At 31.3 percent, New Zealand has one of the highest rates of obesity in this study; outweighed only by Mexico and the United States. The country's obesity rate is more than triple that of the top five countries. Also alarming: New Zealand ranks 32nd on the PISA index of economic, social and cultural status. Addressing this weakness will require policy action that ensures students' educational opportunities are not limited by their socioeconomic background. It should also be mentioned that New Zealand is among the least efficient users of energy, with a primary energy intensity of 6.8 petajoules per billion in GDP. Although close to the OECD average of 6 petajoules, it nonetheless demonstrates a need for efficiency improvements. Finally, the country's domestic material consumption level of 23.7 tons per capita puts it among the bottom ten countries; the OECD average here is approximately 19 tons per capita.



Overall

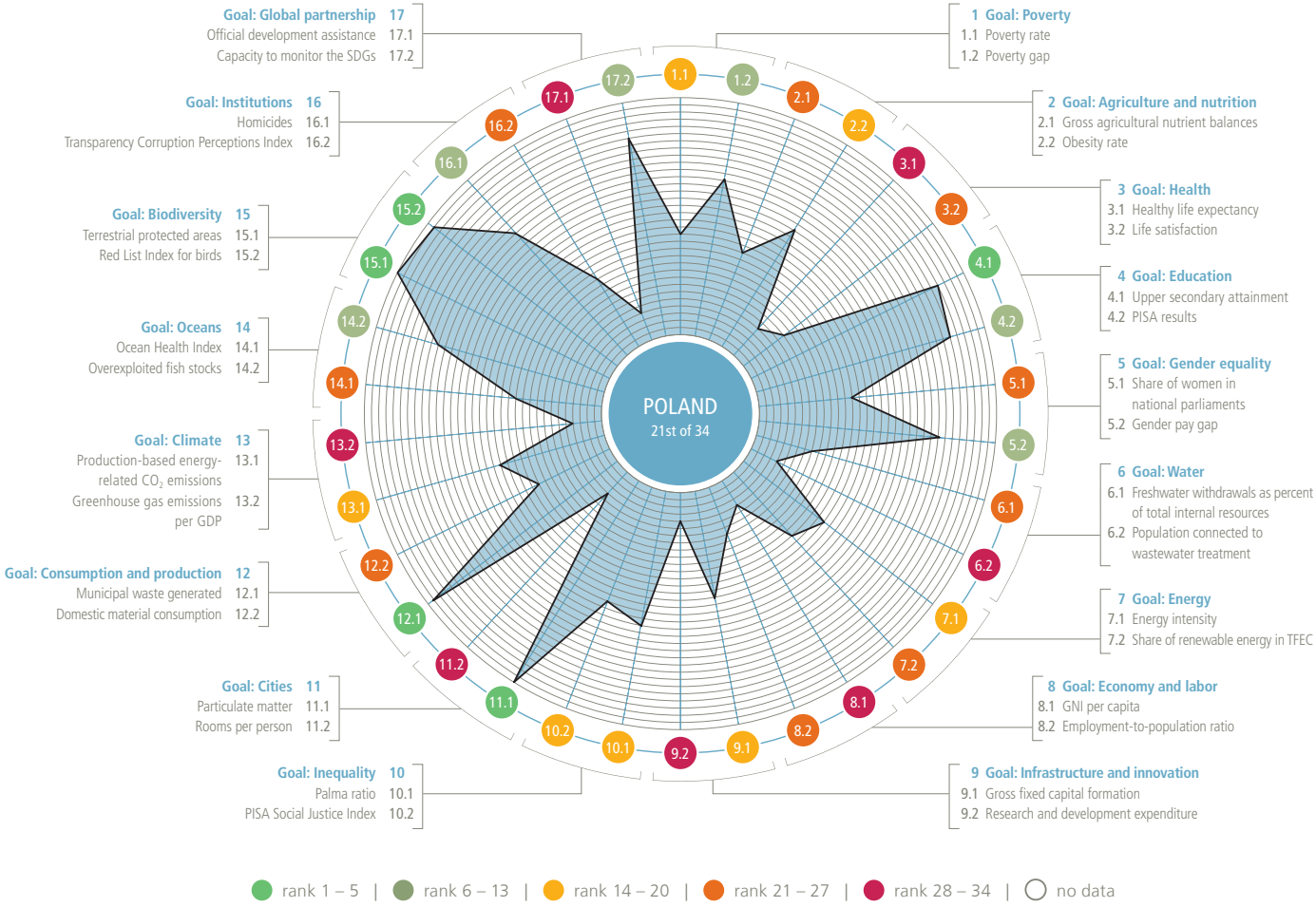
Norway ranks second out of 34 countries across all dimensions of the SDG Index. For 20 indicators Norway is in the top third, an impressive 16 of those in the top five. However, four of the measures find the country among the bottom third, one of them in the bottom five.

Strengths

Norway ranks among the top three countries for promoting sustainable economic growth and productive employment (goal 8), with 75.3 percent of working-age Norwegians in employment in 2014. Norway is also one of the most generous OECD countries in financial contributions to developing countries, giving a laudable 1.1 percent of its GNI (approximately $5 billion in 2014). Also commendable: Norway is among the top five countries in a range of environmental measures. The country is second only to Sweden for greenhouse gas emissions. With emissions per GDP of just 109.3 tons per million USD, Norway performs far better than the OECD average of 352.1 tons. The country also ranks second in renewable energy, behind Iceland, with an admirable 56.9 percent of gross energy consumption drawn from renewable sources (almost entirely hydro). It is also second only to Iceland, once again, when it comes to water, withdrawing just 0.8 percent of its total renewable freshwater resources and ranking fifth on the Ocean Health Index (which assesses the condition of marine ecosystems).

Weaknesses

At 35.6 tons per capita, Norway's high domestic material consumption represents a major policy challenge for Norway. Only Chile and Australia perform more poorly here, while the OECD average is 19 tons of material per capita. The country's winning performance on environmental indicators is offset by its excessive fertilizer use. With 108 kilograms per hectare of agricultural land surplus, this indicates levels of nitrogen and phosphorous use that pollute the environment, threatening ecosystems and water quality, and put Norway at 28th for this indicator.



Overall

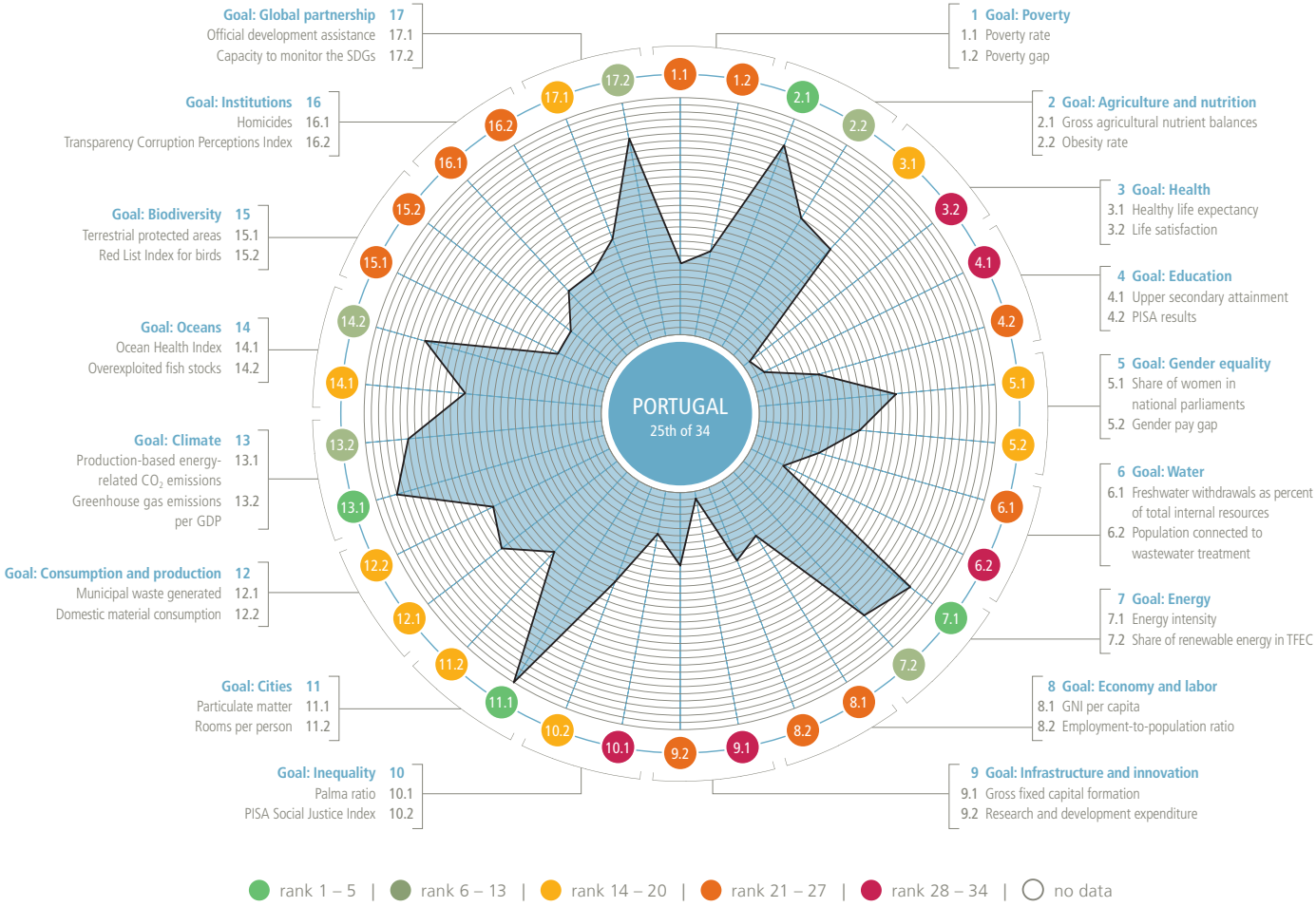
Poland ranks 21st out of 34 countries across all dimensions of the SDG Index. The country is among the top third on ten of the 34 indicators in this study; for five of these, it ranks among the top five. On seven indicators the country finds itself among the bottom five nations.

Strengths

Goal 4 calls for inclusive and equitable quality education and lifelong learning to ensure that all members of society have the skills needed to achieve their potential; Poland performs well in both of the measures of this goal. In 2013, 90.1 percent of Poles had completed at least upper secondary education, putting the country in fifth place. High PISA results (sixth in the sample) point to the quality as well as the quantity of education. Also noteworthy: Poland ranks among the top ten for its narrow gender pay gap. Men in the country earn on average just 10.6 percent more than their female counterparts (around 5 percentage points over the OECD average). In addition, the country comes in second for its relatively low municipal waste (297 kilograms per capita) and among the leading countries in particulate matter air pollution. Also significant: Poland is second only to Turkey in protecting animal species, with just 8 percent of bird species under threat (compared to the 22 percent OECD average). A comparatively low 16.7 percent of the country's fish stocks are overexploited, putting the country tenth and ahead of the 17.8 percent OECD average, but there is still room for improvement.

Weaknesses

Poland faces challenges in a wide range of policy areas. Relatively few Polish households are connected to public or independent wastewater treatment (64 percent); only Mexico and Turkey fare worse for this indicator. Healthy life expectancies are among the shortest in the OECD, putting the country in the bottom five. On average, Poles can expect 67 years of life in full health – eight years less than their Japanese counterparts. With a 2014 GNI of $24,090 per capita (based on PPP), the country performs worse than 29 other OECD nations, and over $13,000 below the OECD average. Poland's greenhouse gas emissions also require attention, offsetting its positive performance in other environmental indicators. With emissions of 520.7 tons per million USD as a percentage of GDP, Poland performs far worse than the 352.1 tons OECD average, coming in 30th.



Overall

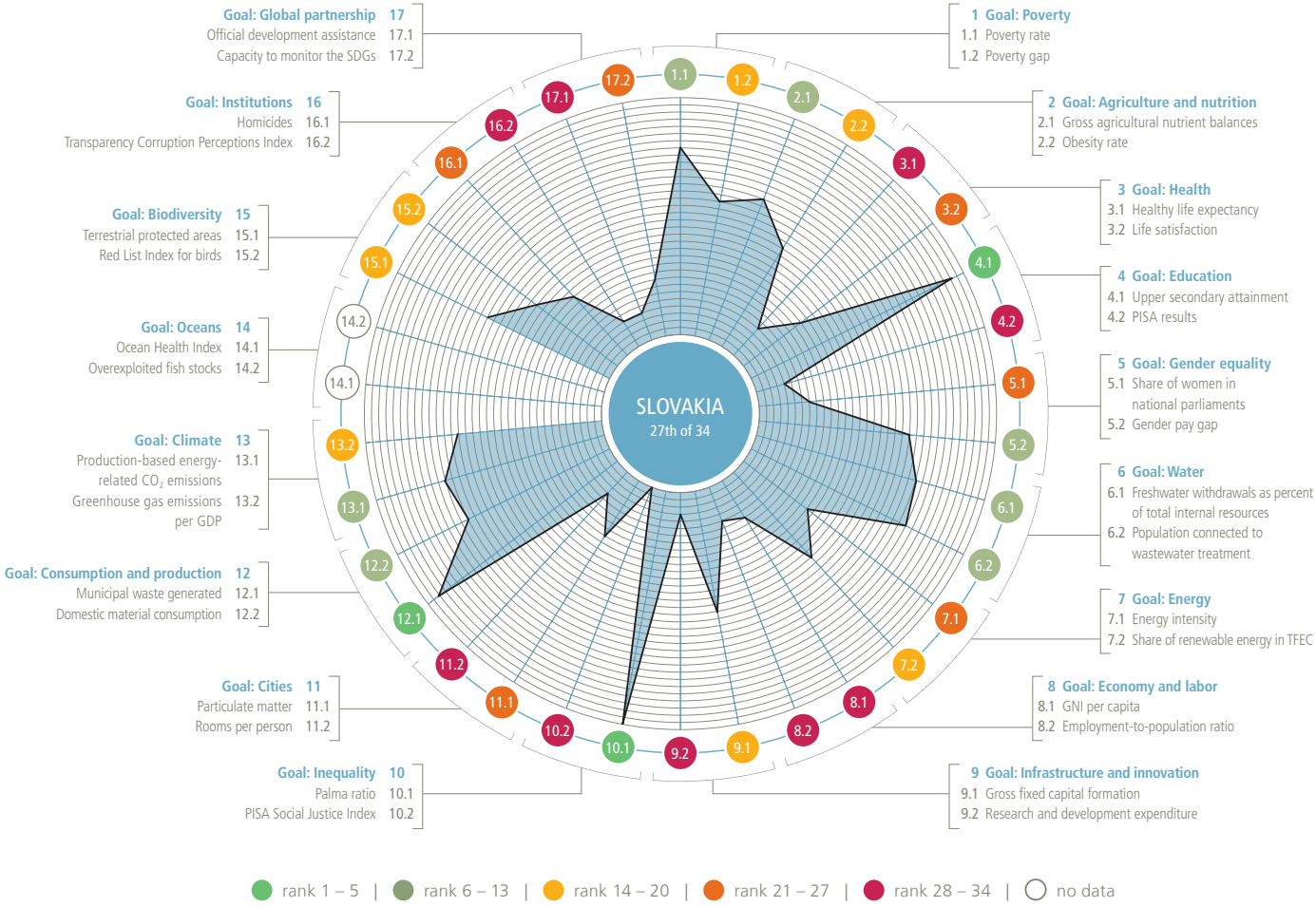
Portugal ranks 25th out of 34 countries across all dimensions of the SDG Index. The country is in the top ten for eight of the 34 indicators and among the top five for four measures. For 13 indicators the country is among the bottom third, and on four indicators in the bottom five.

Strengths

Portugal ranks among the top ten countries in the sample for goal 13 (which calls for action to combat climate change and its impacts), coming in seventh for greenhouse gas emissions and a commendable fourth on CO_2 emissions from energy production. With emissions per GDP of 249.8 tons per million USD, Portugal emits considerably less than the OECD average, though still short of front-runner Sweden (which emits 66.8 tons). The country's fossil fuel energy production causes a comparatively low 4.4 tons of carbon dioxide emissions per capita. It should come as no surprise that Portugal also ranks among the top ten for energy sustainability (goal 7), with a primary energy intensity of 4.1 petajoules per billion in GDP, putting it in fifth place, and an admirable 27.9 percent of renewables in its energy mix. The country ranks fifth on efficient energy use with a primary energy intensity of 4.1 petajoules per billion in GDP. Portugal also achieves an admirable 27.9 percent in renewable energy (gross final energy consumption). Portugal further protects its terrestrial biomes and freshwater resources by moderate fertilizer use, putting the country in fifth place for gross agricultural nutrient balances.

Weaknesses

The Portuguese have among the lowest levels of life satisfaction in this study, with only the Greeks expressing greater dissatisfaction. Another challenge for Portugal's government comes in the area of resilient infrastructure, sustainable industrialization, and innovation (goal 9). Portugal ranks 24th for gross domestic research and development expenditure (1.4 percent) and a dismal 33rd in gross fixed capital formation. The long-term viability of any economy depends on innovation and prioritizing investments in the future. Finally, Portugal has worryingly low education completion rates. Only 39.8 percent of Portuguese have completed at least upper secondary education; by comparison, the top five countries in the sample had completion rates of 90 percent or above.



Overall

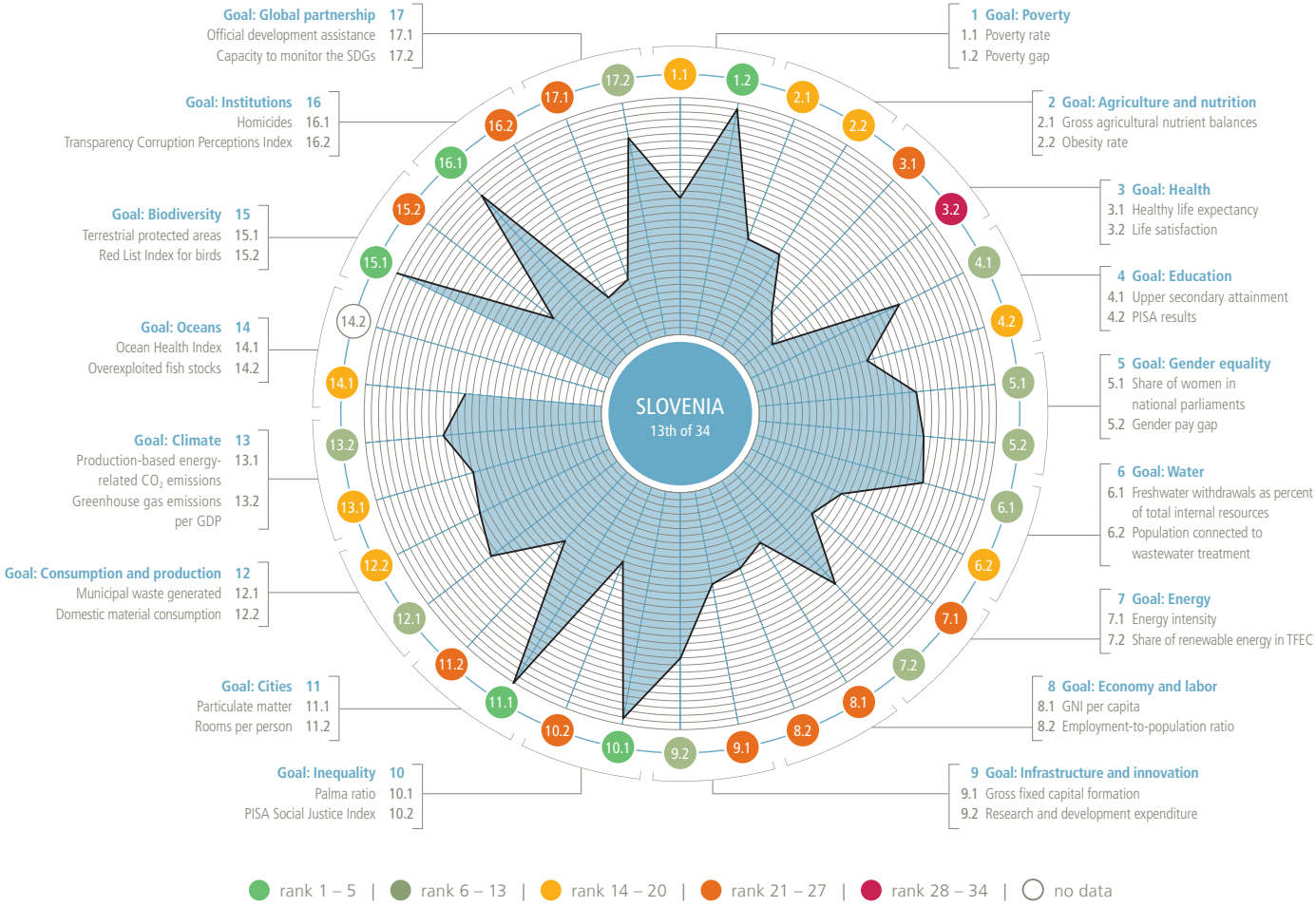
Slovakia ranks 27th out of 34 countries across all dimensions of the SDG Index. For seven of the 34 indicators the country is among the top third of OECD countries, and among the top five for three. Slovakia's performance, however, varies considerably. For 15 indicators (nearly half of the measures) it can be found among the bottom third, and on eight indicators in the bottom five.

Strengths

Sustainable consumption and production patterns are essential for minimizing a country's ecological footprint. Each year, Slovaks generate just 304 kilograms of municipal waste per capita, nearly 180 kilograms lower than the OECD average; only Estonia and Poland perform better here. Slovakia also comes in third for access to education, with a laudable 91.9 percent of Slovaks completing at least upper secondary education. The country's impressively narrow income gap between rich and poor puts it in first place. The number of people living below the poverty line is also relatively low – 8.3 percent, putting Slovakia ahead of the 11.5 percent OECD average and into the top ten.

Weaknesses

One major policy challenge for the Slovakian government is equitable, high-quality education. Despite its impressive finishing rates, Slovakia is at the very bottom of the PISA index of economic, social and cultural status. Fully meeting goal 10 (which calls for a reduction in inequality) will require significant policy action that ensures education opportunities are not limited by socioeconomic status. Student performance is also troubling, with the average Slovakian student's PISA score 70 points below front-runner South Korea, putting it 30th among OECD countries. Also worrying: the country ranks 31st on gross fixed capital formation (21 percent of GDP). In comparison, the top five economies are each investing between 25 and 29 percent of GDP. The business climate is further affected by a high degree of perceived public sector corruption. While Slovakia's rank in Transparency International's CPI has fluctuated over the previous three years, the country is now among the bottom five countries for this indicator.



Overall

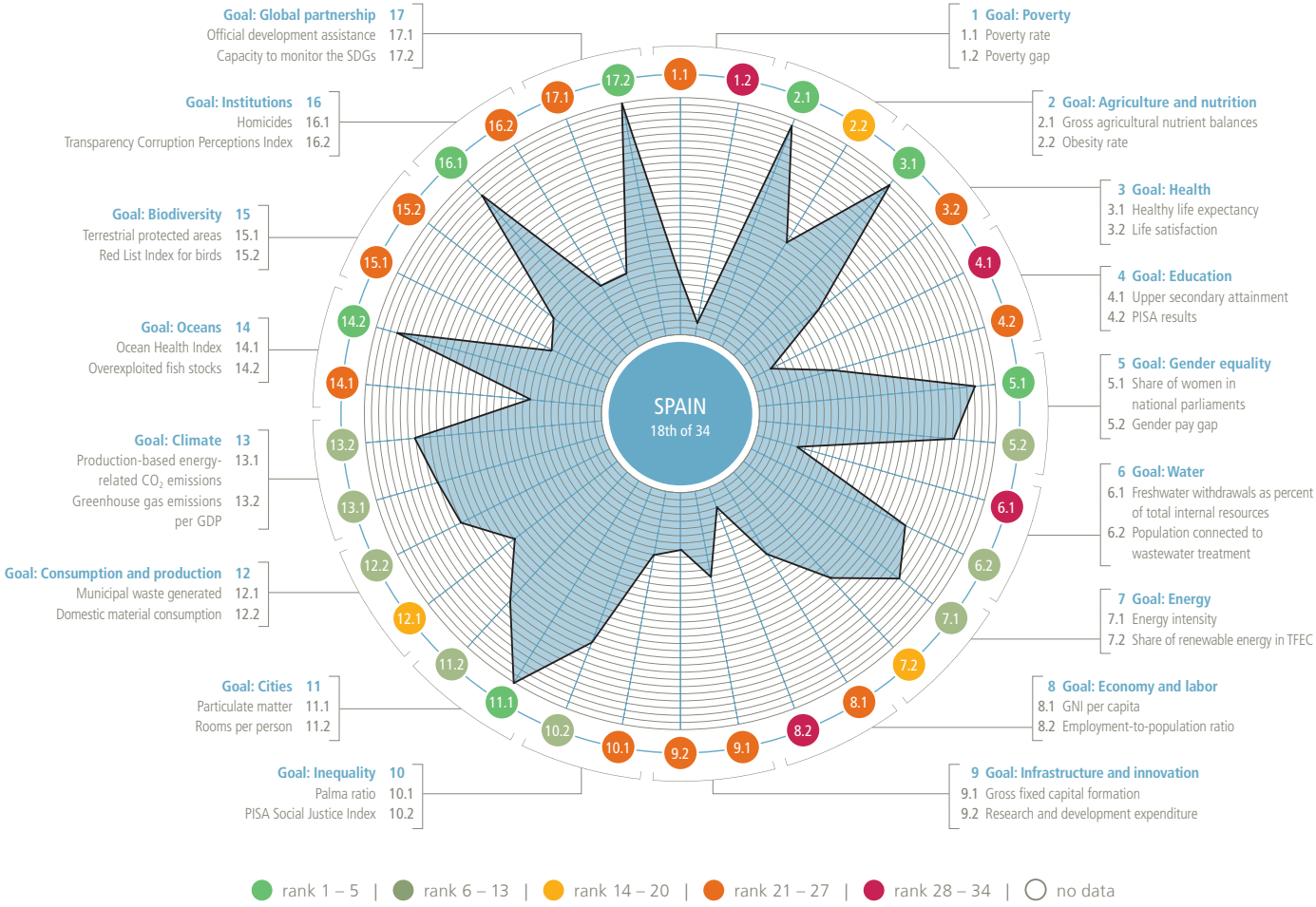
Slovenia ranks 13th out of 34 countries across all dimensions of the SDG Index. Slovenia is among the top third for ten of the 34 indicators in this study and in the top five for four. Across the diverse measures, however, Slovenia's performance varies. On seven indicators, the country finds itself among the bottom third, but only once among the bottom five.

Strengths

Slovenia can be commended for the narrowest income gap between rich and poor (Palma ratio) among the 34 countries of the OECD. This second place ranking is associated with the country's similarly low poverty gap (the percentage by which the mean income of the poor falls below the poverty line), for which it also ranks second. Slovenia's laudable performance in both of these measures illustrates considerable success at addressing poverty and inequality. Also noteworthy: the country ranks fourth (on par with Spain and behind Luxembourg and Japan) for its homicide rate, which in 2012 was a comparatively low 0.6 per 100,000 inhabitants. Slovenia also deserves praise for particulate matter air pollution below World Health Organization safety thresholds.

Weaknesses

Slovenia's performance puts it solidly in the mid-zone. On goal 3, however, which calls for healthy lives and well-being for all, the country's performance is wanting. Slovenia ranks among the bottom five for life satisfaction. Based on self-reporting collected by Gallup, Slovenians' life satisfaction has also declined somewhat in the most recent survey year. Moreover, Slovenians fall just short of the average in healthy life expectancy, ranking the country 26th. Slovenians can expect 69 years of life in full health, five years less than the Japanese. The country's score on Transparency International's CPI also leaves room for improvement, bearing in mind that a sustainable economy with satisfied citizens requires trust in government institutions. Among the 34 OECD countries, Slovenia came in 26th for perceived public sector corruption.



Overall

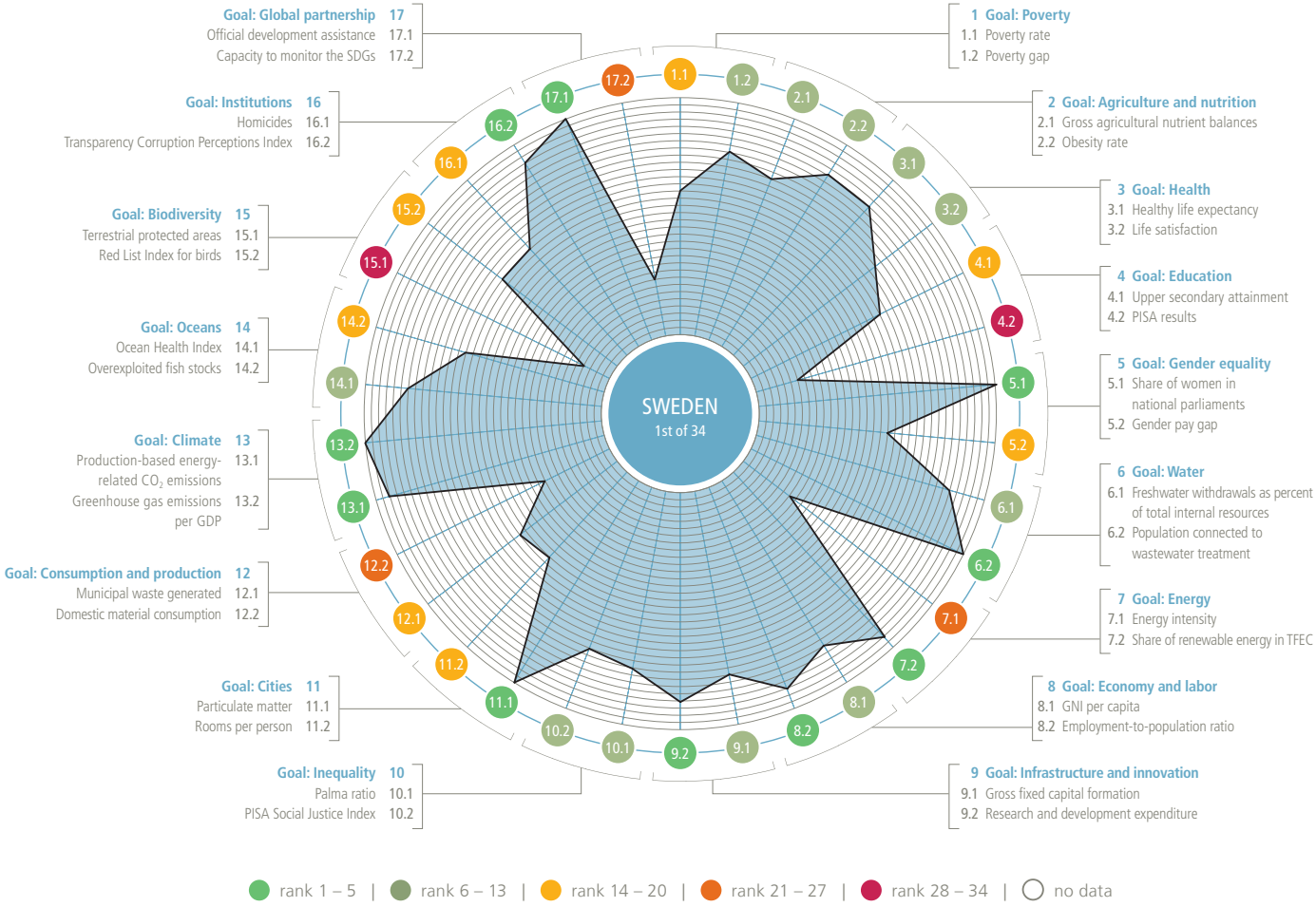
Spain ranks 18th out of 34 countries across all dimensions of the SDG Index. The country finds itself in the top third on 15 of the 34 indicators in this study and on seven indicators makes it into the top five. Spain's performance varies significantly, figuring in the bottom third for 13 indicators and the bottom five for three.

Strengths

Spaniards, on average, can expect 73 years of life lived in full health, longer than the OECD average (71 years) and second only to the Japanese (75 years). The country also has a low homicide rate of 0.6 per 100,000 inhabitants (on par with Slovenia and behind Luxembourg and Japan). On gender equality and the empowerment of women and girls (goal 5), Spain performs well. With a national parliament which is 39.7 percent female and a relatively narrow gender pay gap of 8.6 percent (OECD average: 15.5 percent), the country ranks fourth and seventh, respectively. A comparatively low 15.7 percent of Spain's fish stocks are overexploited, putting the country in fourth place for this indicator. While this is somewhat better than the 17.8 percent OECD average, there has been a slight rise in overexploitation over the decade. Finally, Spain comes in second (behind Hungary and Iceland) for gross agricultural nutrient balances (an indicator of excessive fertilizer use).

Weaknesses

One of Spain's greatest policy challenges will come in ending poverty in all its forms (goal 1). Most alarming, the country has one of the widest poverty gaps (the percentage by which the mean income of the poor falls below the poverty line) among the 34 OECD countries. This is coupled with a relatively high poverty rate, with 15.9 percent of Spaniards living below the poverty line, putting the country in 26th place. Despite some fluctuation, over the last ten years, this rate has remained high. This worrying performance is linked to one of the lowest rates of employment in this study. In 2014, 56.8 percent of working-age Spaniards were in employment; only Greece, Turkey, and Italy fared worse. With relatively few opportunities for entry into the workforce, many Spaniards drop out of education. In 2013, just 55.5 percent of Spaniards had completed at least upper secondary education, one of the lowest rates in the OECD.



Overall

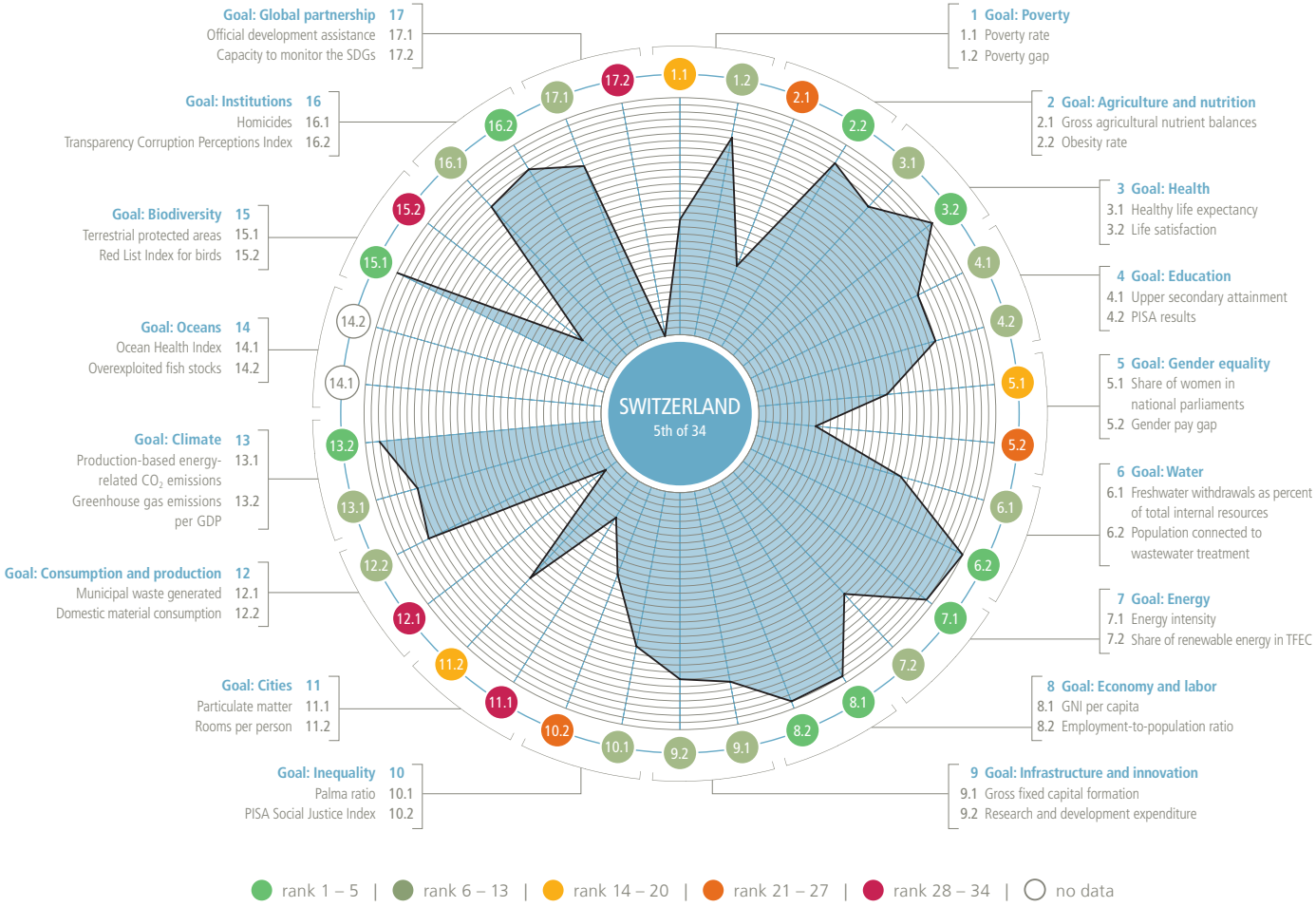
Sweden comes out on top of the 34 OECD countries across all dimensions of the SDG Index. For 21 of the 34 indicators, well over half, the country ranks among the top third, and in the top five for an admirable ten indicators. On five indicators the country can be found among the bottom ten, but never in the bottom five.

Strengths

The Swedish government can take pride in policy success on a number of fronts. It is among the top three countries for urgent action to combat climate change and its impacts (goal 13). The country also has lower greenhouse gas emissions per GDP than any other OECD country. Furthermore, its fossil fuel energy production causes just 4.3 tons of carbon dioxide emissions per capita (putting it third in the sample). Sweden also ranks third for renewable energy consumption, with the share of renewables in its energy mix rising by nearly 30 percent since 2004. These accomplishments should serve as a model for others. At the same time, a comparatively high 74.9 percent of working-age Swedes were in employment, putting the country in fourth place. Earnings are also high, with a GNI in 2014 of $46,710 per capita (based on PPP), putting Sweden in seventh place. Finally, Sweden leads the OECD in female representation in parliament: 45 percent.

Weaknesses

Although the country's renewable energy share is impressive, it doesn't use energy as efficiently as it could. With a primary energy intensity of 6.3 petajoules per billion in GDP, Sweden ranks 26th for energy efficiency. The country also ranks among the bottom five for terrestrial biome protection. Sweden protects just 8 percent, well below the 17 percent that eight OECD countries have designated as protected areas. Also requiring attention is the country's performance on the indicators that measure goal 4 (inclusive and equitable quality education and lifelong learning). While Sweden's performance is average with regard to upper secondary completion, the country ranks only 28th on PISA results.



Overall

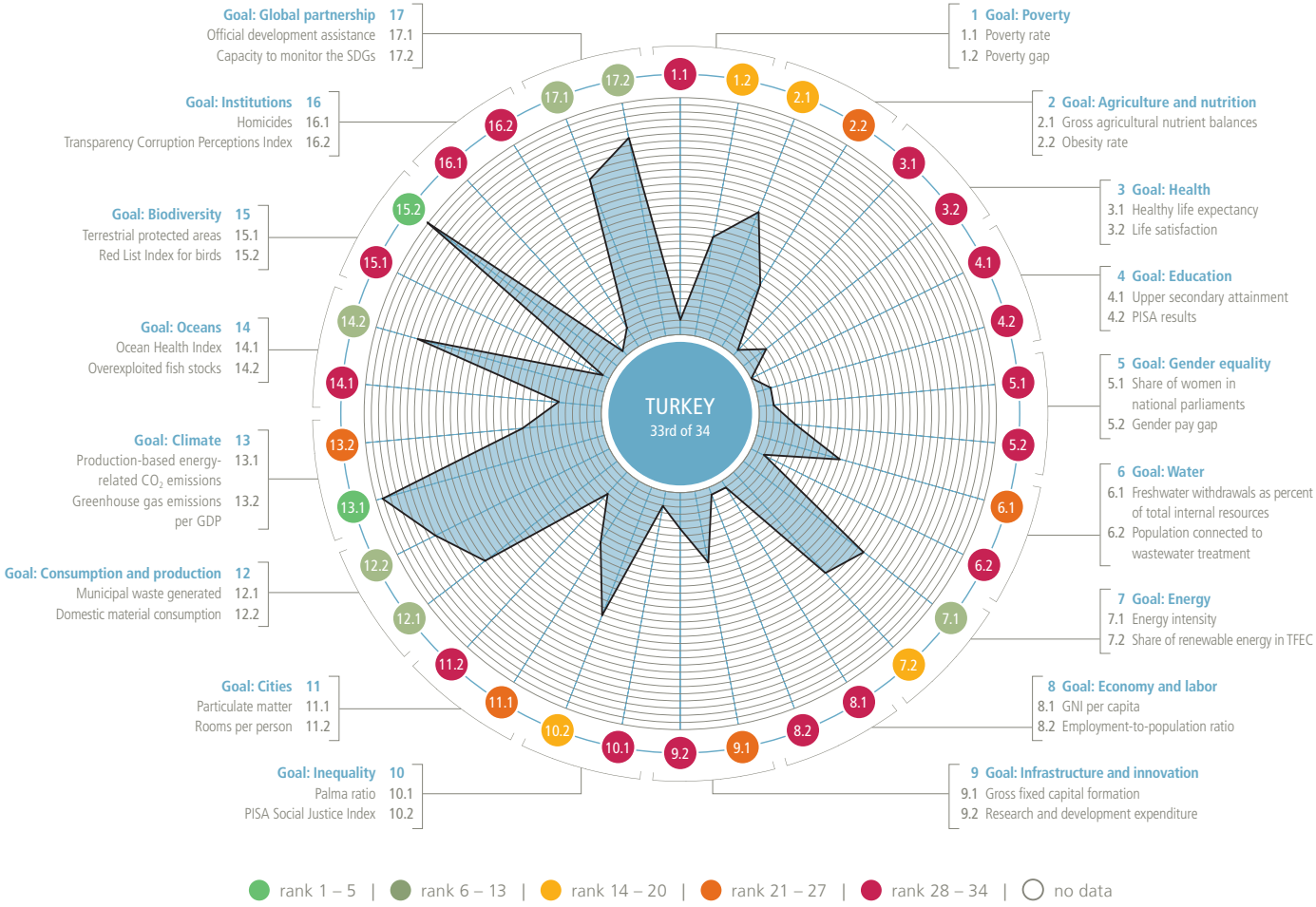
Switzerland ranks fifth out of 34 countries across all dimensions of the SDG Index. While the country's performance varies, it skews above average. On 20 of the 34 indicators the country ranks among the top third, nine of these rank in the top five. For seven of the indicators, however, the country finds itself among the bottom third, and in the bottom five for three.

Strengths

The Swiss have made admirable progress toward meeting the SDGs. The country is among the top ten OECD countries for ensuring healthy lives and promoting well-being (goal 3). The average Swiss national can expect 72 years of life lived in full health, just three years less than the Japanese. In addition, the Swiss rank first for self-reported life satisfaction. These strengths are complemented by Switzerland's equally commendable second place ranking for goal 8 (which calls for sustainable economic growth and productive employment). The country's GNI in 2013 of $59,600 per capita (based on PPP) is over $22,000 more per capita than the OECD average. In addition, 79.8 percent of working-age Swiss nationals were in employment in 2014. Switzerland has proven that it is a desirable place to live and work. Based on the measures, the country is a leader in promoting peaceful and inclusive societies, providing equal justice, and building accountable public institutions (goal 16). The Swiss also have a homicide rate of just 0.7 per 100,000 inhabitants, making them the sixth safest (from violent crime). The country is also perceived to have one of the least corrupt public sectors in the sample, ranking fifth. With regard to urgent action on climate change (goal 13), Switzerland can once again be found among the best-performing OECD countries.

Weaknesses

Switzerland comes third-last in this study for municipal waste generation. The Swiss annually generate a 712-kilogram mountain of municipal waste per capita. Among the 34 OECD countries, only Denmark and the United States perform worse. The average in the top five countries for this indicator is between 280 and 350 kilograms per capita. Switzerland's environmental profile is mixed, with the country among the top countries in one dimension of goal 15 (sustainable use of terrestrial ecosystems and the protection of biodiversity): Switzerland protects 17 percent of its terrestrial biomes, ranking the country first jointly with various others. However, 35 percent of Switzerland's bird species are under threat. Finally, monitoring the SDGs in Switzerland will be problematic: the country has the lowest statistical coverage of the indicators used in this study to assess performance in the SDGs.



Overall

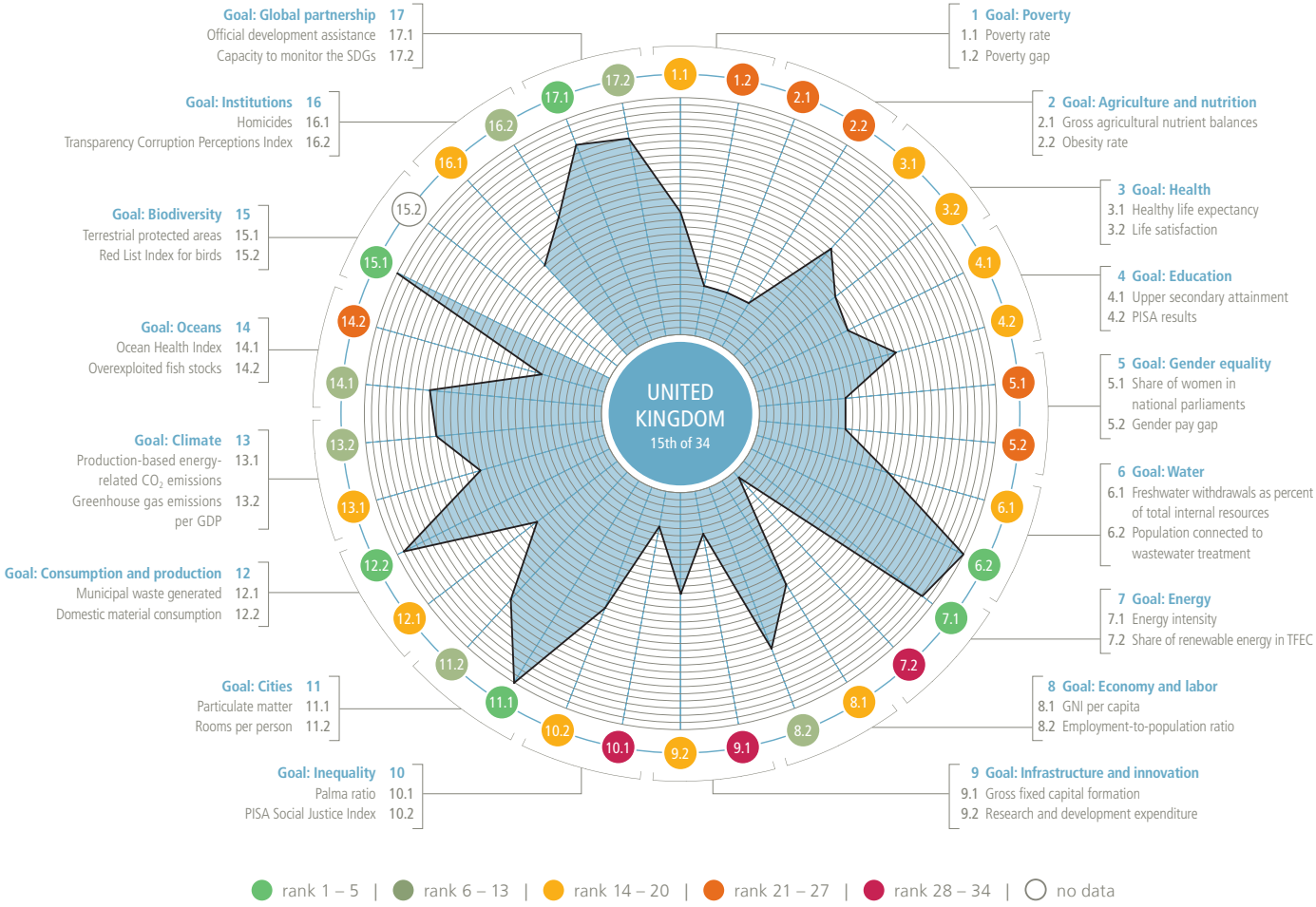
Turkey ranks second-last among the 34 countries across all dimensions of the SDG Index. For seven indicators Turkey is among the top third, and in the top five for three. For over half of the measures, however, the country finds itself among the bottom third and, most alarmingly, in the bottom five for 16 indicators.

Strengths

Turkey has demonstrated some success with the sustainable use of terrestrial ecosystems and biodiversity (goal 15). A commendably low 4 percent of bird species in the country are threatened, far better than the 22 percent OECD average. However, the country has designated only 2.3 percent of its terrestrial biomes as protected areas (eight OECD countries are protecting at least 17 percent). A relatively low 15.8 percent of Turkish fish stocks are overexploited (better than the 17.8 percent OECD average), putting the country in seventh place. Furthermore, the country's fossil fuel energy production causes a comparatively low 4 tons of CO_2 emissions per capita. By comparison, the five worst-performing countries for this measure each emit nearly three times as much.

Weaknesses

Turkey ranks among the least successful OECD countries for ensuring healthy lives and promoting well-being (goal 3). Turkey has the shortest healthy life expectancy in our 34-country study. Turks, on average, can expect just 65 years of life lived in full health, a decade less than the average Japanese. In addition, based on self-reporting collected by Gallup, the country ranks 30th on life satisfaction, although this has slightly improved in the three most recent survey years. Turkey's performance in goal 4 (inclusive and equitable quality education and lifelong learning) is worrying. In 2013, only 31.9 percent of Turks had completed at least upper secondary education. Although this rate has risen in recent years (26.6 in 2007, 28.4 in 2010), it is still the lowest in the OECD. By comparison, the top five countries in the sample had completion rates of 90 percent or above. Coupled with an average PISA score 35 points below the OECD mean, this means that Turkey's education policies have much room for improvement.



Overall

The United Kingdom ranks 15th out of 34 countries across all dimensions of the SDG Index. The United Kingdom is among the top third for eleven of the 34 indicators in this study and in the top five for six indicators. For seven indicators the country finds itself among the bottom third, and in the bottom five for two.

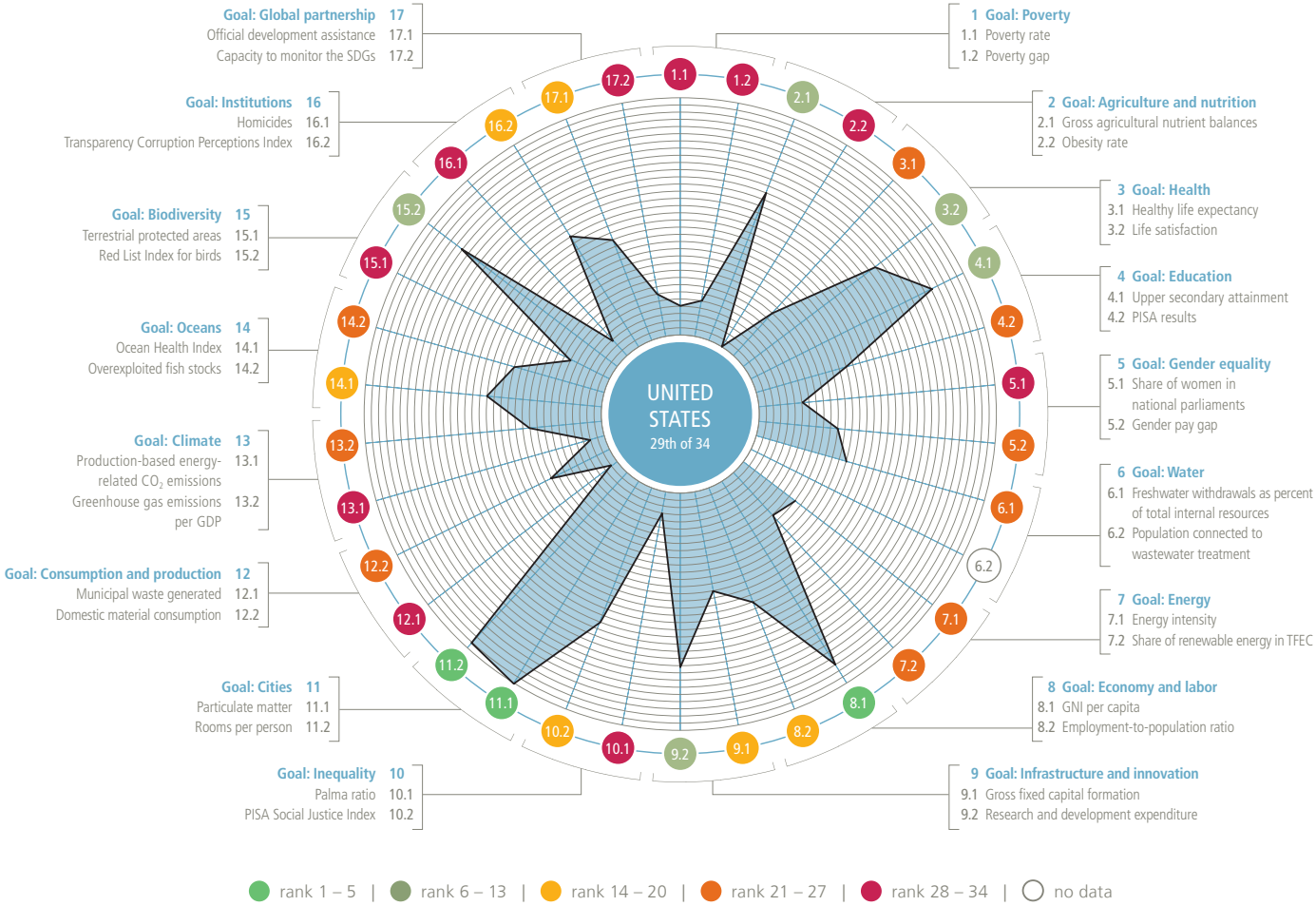
Strengths

The United Kingdom has a commendably low rate of domestic material consumption (DMC); at 9.6 tons per capita of materials in the economy, it is second only to Japan. It should further be noted that the UK's DMC has improved steadily since 2005. The UK government is also among the five most generous in development assistance, giving 0.7 percent of GNI (equivalent to nearly $20.5 billion in 2014). It is to be applauded for significantly ramping up its development assistance in recent years, even during the global financial crisis, a time when many countries reduced their development assistance.

The United Kingdom is also among the best-performing OECD countries for air quality and wastewater treatment. The country's particulate matter air pollution does not exceed safety thresholds set by the World Health Organization and all British homes are connected to public or independent wastewater treatment (on both of these measures, the United Kingdom shares top ranking with a number of other countries in this study).

Weaknesses

The United Kingdom's performance on goal 7, which calls for universal access to affordable, reliable, sustainable and modern energy, is unsatisfactory. The country comes second-last for renewable energy, with just 3.2 percent of total energy consumption coming from renewable sources. The United Kingdom comes in 29th for its income gap between rich and poor, illustrating that the government is failing to adequately tackle inequality. On goal 2 (which calls for improved nutrition and sustainable agriculture) the United Kingdom only manages 27th place, with high levels of nitrogen and phosphorous used in farming which are harming the environment. Finally, the country has an alarmingly high rate of obesity, with one in four Britons affected, compared to just one in ten in Switzerland or Norway.



Overall

The United States ranks 29th out of 34 countries across all dimensions of the SDG Index. For seven of the 34 indicators in this study the country is among the top third, and in the top five for three indicators. The country's performance, however, varies substantially. For 16 indicators (nearly half) the United States can be found among the bottom third, and in the bottom five for seven.

Strengths

The US can be commended for the nation's high performance on a number of SDGs. Its economic strength in terms of gross national income (GNI) ranks the US fourth – important for goal 8. Americans overall benefit from particulate matter air pollution below safety thresholds set by the World Health Organization, and with 2.4 rooms per person, they enjoy considerable space, which explains the very good performance on goal 11. The country's performance is mixed when it comes to goal 15 (which calls for the sustainable use of terrestrial ecosystems and biodiversity protection), though. A comparatively low 12 percent of bird species are threatened; ranking the US seventh. However, the country has designated just 8.4 percent of its terrestrial biomes as protected areas (eight OECD nations have designated 17 percent or more).

Weaknesses

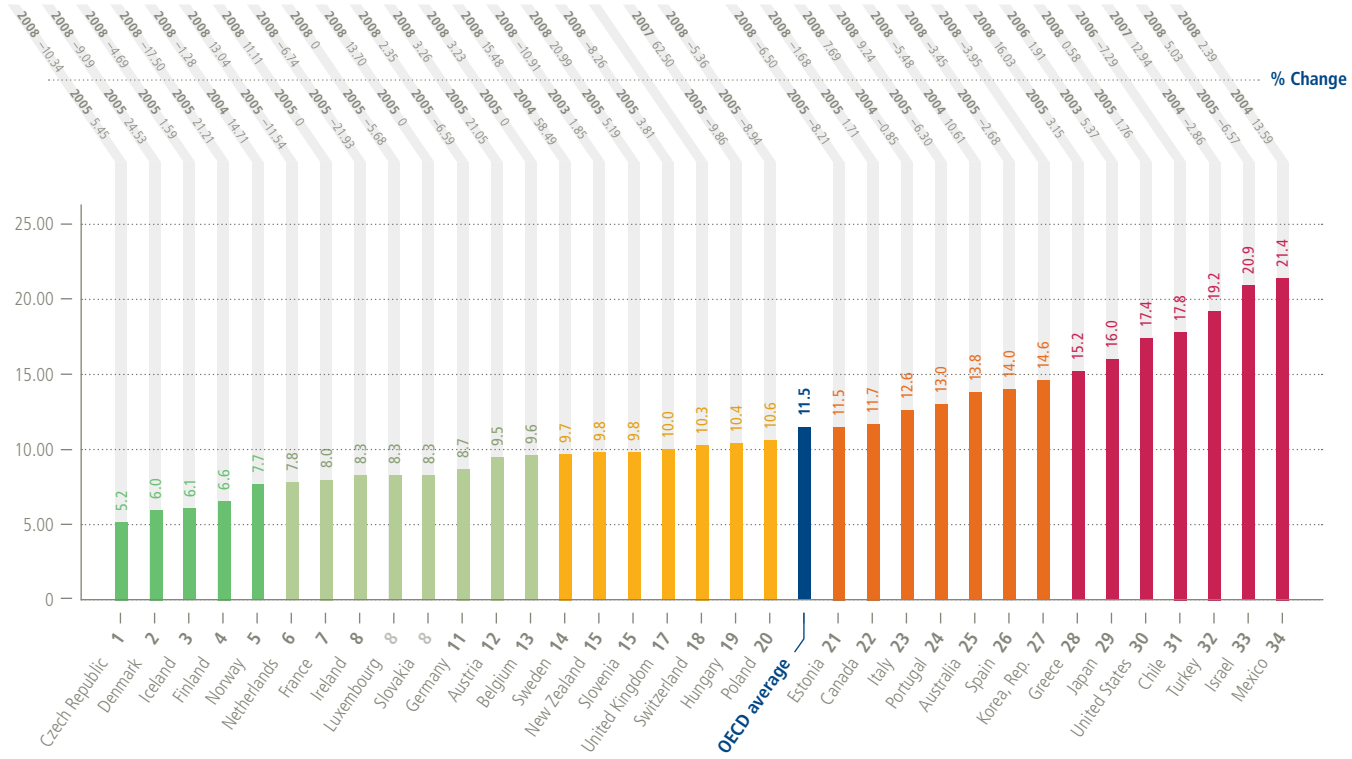
The US does face a number of major policy challenges. Americans generate the second most municipal waste per capita: 725 kilograms every year. In comparison, inhabitants in the top five countries generate between 293 and 347 kilograms. Similarly ecologically worrying is the fact that fossil fuel energy production emits 16.2 tons of carbon dioxide per capita, putting the country in 32nd place. The United States also has the highest incidence of obesity of any OECD country, with more than one in three Americans affected. This is more than triple the rate in each of the top five countries. Another major policy challenge is ending poverty in all its forms (goal 1). The United States ranks 30th for its high poverty rate and 29th for its wide poverty gap. A shamefully high 17.4 percent of Americans live below the national poverty line, significantly above the already high 11.5 percent OECD average. Similarly worrisome, the country's high poverty gap (the percentage by which the mean income of the poor falls below the poverty line) is ahead of only South Korea, Greece, Spain, Mexico, and Italy. With a large gap between rich and poor, the country only outranks Turkey, Mexico, and Chile. This demonstrates that the United States is failing to adequately tackle inequality – a threat to social cohesion and economic growth.

Chapter 4 displays and discusses the performance of OECD countries in each of the proposed 17 SDGs. Two snapshot indicators per goal illustrate where countries stand in the year the SDGs are signed, thereby showing which countries are best prepared for the respective goal and could therefore be a role model for other nations. This analytical work enables countries to find ways to learn from each other and discuss the adoption of best-practice strategies. Each goal will be discussed separately in the subsequent section but, of course, it must be noted that there are many interlinkages between them that should be incorporated when devising holistic strategies for policy action.

4. Performance by goal

1. Poverty

1.1 Poverty rate



Unit: Percent, **Source:** OECD (data refer to 2012, except DNK, NOR, FRA, DEU, SWE, NZL, CHE, CAN, CHL, TUR, ISR: 2011, GBR: 2010, JPN: 2009) | BertelsmannStiftung

Goal 1. End poverty in all its forms everywhere

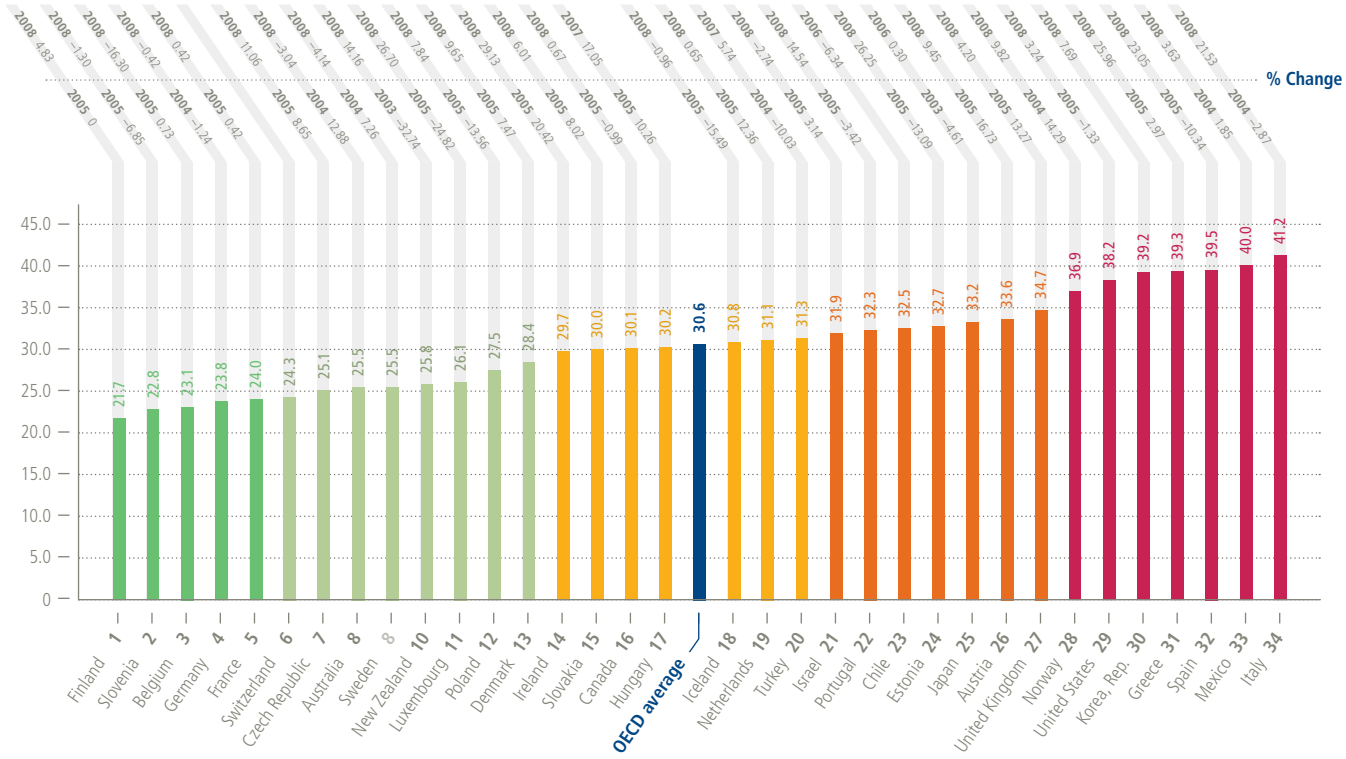
Ending extreme poverty in all its forms is a fitting first goal for a catalog whose eventual purpose is to improve people's lives. The absence of poverty is the very condition upon which other goals can be built, such as making cities and human settlements inclusive and safe, or promoting peaceful societies. The primary focus of policy should always be those in the most desperate need.

Of course, poverty in OECD nations is of a very different nature to the poverty of, for instance, Sub-Saharan Africa. Countries with such immense financial resources as the ones listed here should, however, make sure that they govern their own societies in a way that allows everybody to take part in the wealth that is created. They are increasingly failing at this task, though, with income inequality in OECD countries now being at a record high compared to the entire past half century. The poorest 10 percent and the richest 10 percent across the OECD drift ever further apart. While the latter had seven times as much income as the former 25 years ago, today they earn about nine times as much. OECD countries can only serve as role models for the developing and middle-income nations in terms of a viable social and economic model if they make sure that theirs is an inclusive and sustainable one.

The principle of the SDGs, leaving no one behind, clearly also applies within the rich countries themselves. In fact, the OWG proposal for goal 1 specifically includes a target to "reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions" by 2030.[11] As the figures show, countries

11 Open Working Group Proposal for Sustainable Development Goals (2014). *https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=1579&menu=1300*

1.2 Poverty gap



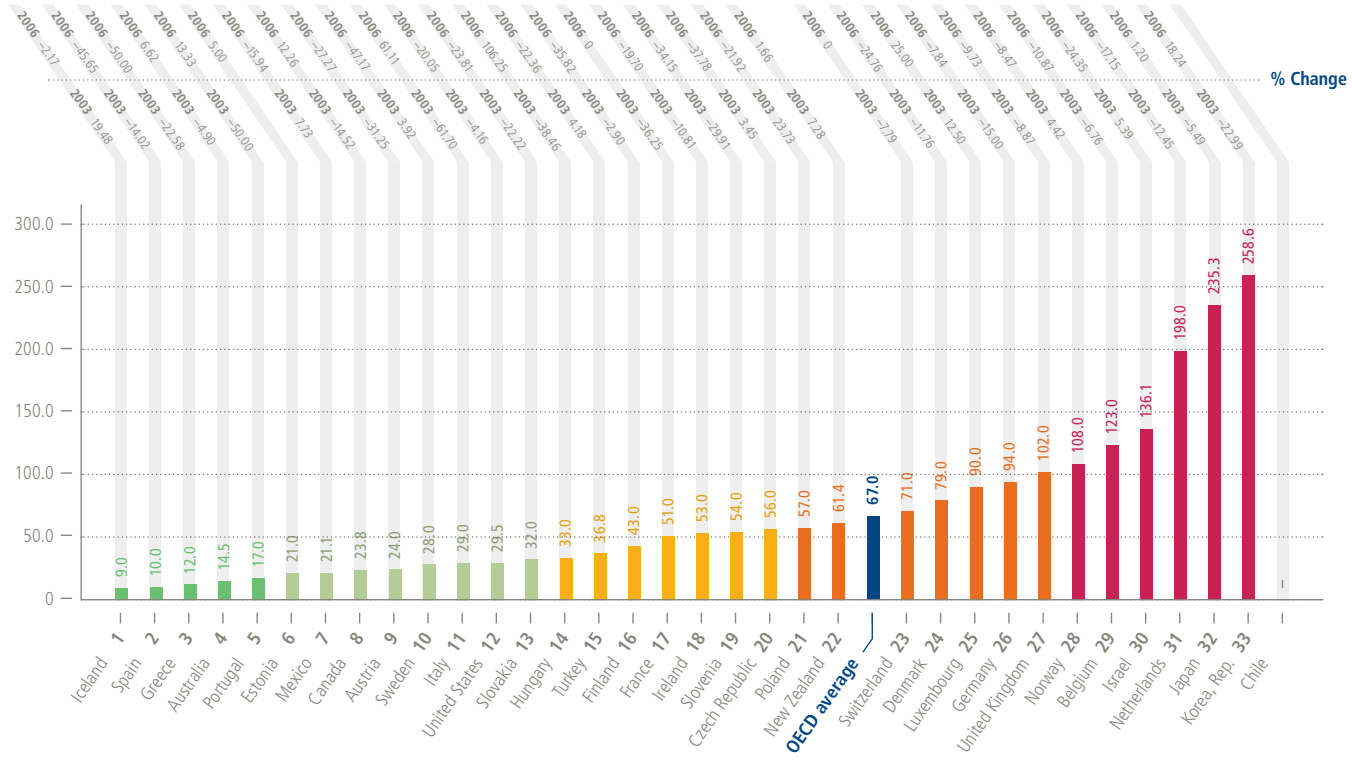
Unit: Percent, **Source:** OECD (data refer to 2012, except DEU, FRA, CHE, SWE, NZL, DNK, CAN, TUR, ISR, CHL, NOR: 2011, GBR: 2010, JPN: 2009) | BertelsmannStiftung

vary in their ability to fight poverty. The poverty rate displayed in figure 1.1 is the ratio of the number of people whose income falls below the poverty line, defined as half the median household income of the total population. It is therefore a measure of how widespread poverty is defined by the respective national standard. The OECD average is 11.46 percent. The differences between nations above and below that average, however, are significant. The Czech Republic (5.2 percent), Denmark (6.0 percent), Iceland (6.1 percent), and Finland (6.6 percent) all show a poverty rate below 7 percent, while at the bottom of the ranking in Israel (20.9 percent) and Mexico (21.4 percent), poverty concerns more than one in five citizens.

To add to the picture, the poverty gap (figure 1.2) holds information on the percentage by which the mean income of the poor falls below the poverty line. Thus, it tells us how severe poverty is in each country with respect to the mean income levels. Finland (21.7 percent) and Slovenia (22.8 percent) hold the top places here, while Italy (41.2 percent) has a higher gap than Mexico (40 percent). Many countries with high poverty rates also display high poverty gaps. But there are exceptions. Norway, for example, which is among the top five in terms of poverty rate, is among the bottom group of countries with regard to the poverty gap.

2. Agriculture and nutrition

2.1 Agricultural nutrient balances



Unit: Kg per hectare of agricultural land, deviation from 0, **Source:** OECD (data refer to 2009, except NZL: 2010, GRC, EST, MEX, ITA, HUN, FRA, SVN, CHE, LUX, DEU, BEL, NLD: 2008) | BertelsmannStiftung

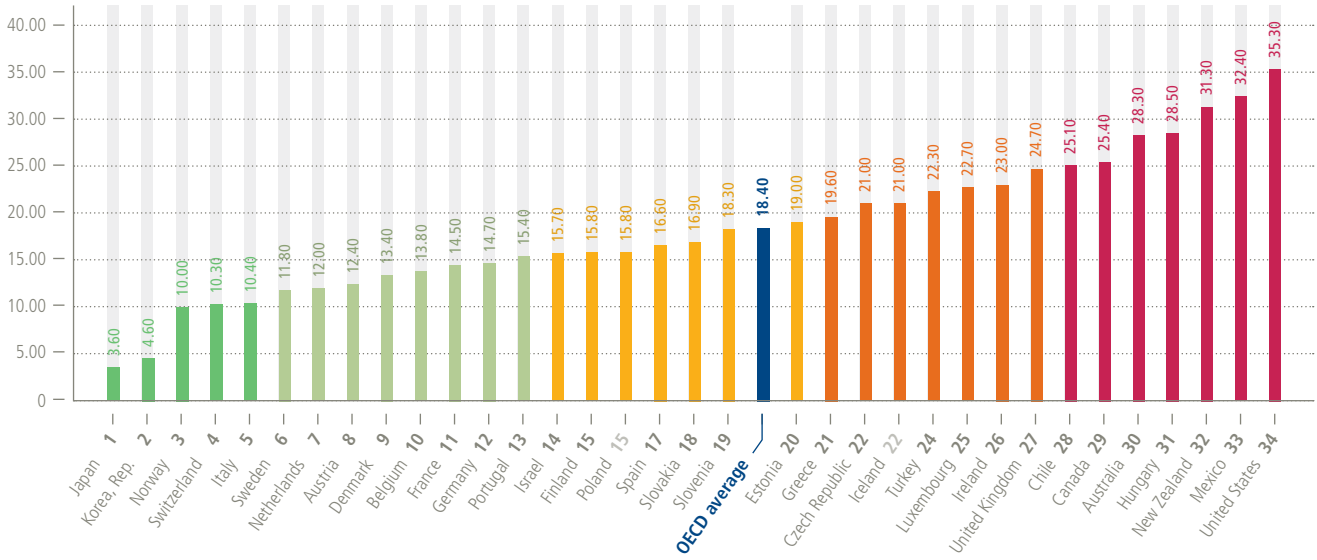
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

In many corners of the world, the plight of hunger and food insecurity still lead to immense suffering among millions of people. Famines and disasters threaten the livelihoods of entire regions. OECD countries have largely overcome such challenges and ought to do their utmost to help other nations overcome them, too. Such problems are furthermore linked to deficiencies in the OECD nations themselves that need to be dealt with: Agriculture must be made more sustainable if we are to ensure its benefits for future generations and larger proportions of our current generation. High-income countries must become leading examples in the quest to reconcile the need for good-quality food with a cautious treatment of those natural resources upon which the agricultural economy is very much dependent.

At the same time, OECD nations face their own particular issues with nutrition among their citizens due to increasingly widespread overconsumption of unhealthy food resulting in ever-growing levels of obesity. Thus, a holistic approach is needed to tackle food insecurity in poor countries as well as unsustainable food consumption practices in rich countries. Such seemingly disparate issues are related and ought to be tackled in conjunction. Furthermore, nutrition-related problems have important spillover effects on other SDGs. In fact, the health-related costs, for example, of obesity are alarming: The WHO attributes 44 percent of diabetes cases and 23 percent of ischemic heart disease to being overweight,[12] leading to massive strains on health budgets in many countries.

12 *http://www.who.int/features/factfiles/obesity/en/*

2.2 Obesity rate



Unit: Percent, **Source:** OECD (data refer to 2012)

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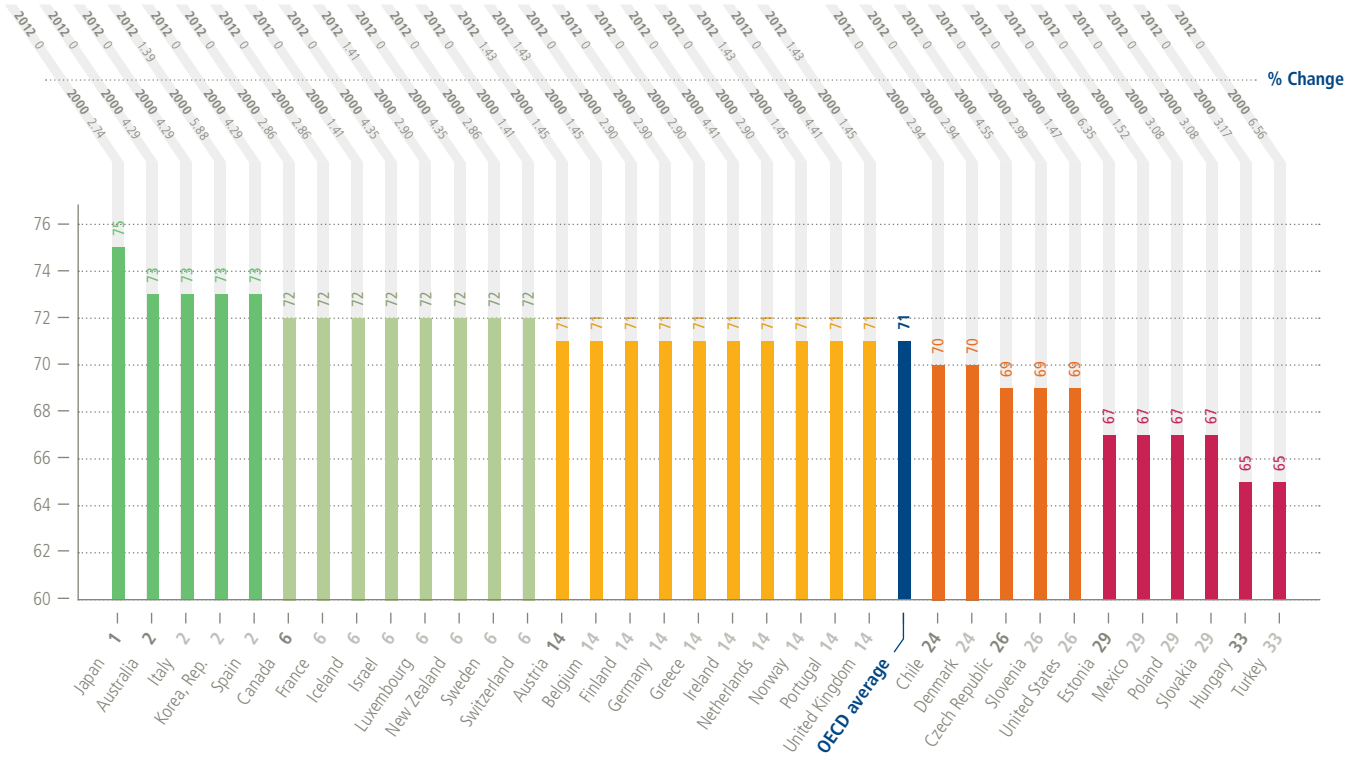
Figure 2.1 shows one dimension of how successful countries are in fostering sustainable agriculture, as illustrated here by the nitrogen and phosphorous balance expressed as N and P surplus intensities per hectare of agricultural land (kilograms per hectare of total agricultural land; deviation from 0). Most countries suffer from a surplus which indicates a risk of polluting soil, water, and air. In the case of Hungary, however, the deviation from 0 is due to a deficit of 33, which could undermine soil fertility. The OECD average lies at 67 on this indicator. While Iceland (nine) and Spain (ten) lead the table of nations with values of ten or below, the Netherlands (198), Japan (235), and Korea (259) display scores of almost or over 200. By contrast, the latter two countries have the lowest rates of obesity as pictured in figure 2.2, with only 3.6 and 4.6 percent, respectively, of the population affected. In New Zealand (31.3 percent), Mexico (32.4 percent), and the US (35.3 percent), obesity concerns around a third of the population. Currently, a level of around 10 percent or less would put a country in the top five of this indicator. Many places are still far off such a target.

3. Health

3.1 Healthy life expectancy



Unit: Years, **Source:** WHO (data refer to 2013)

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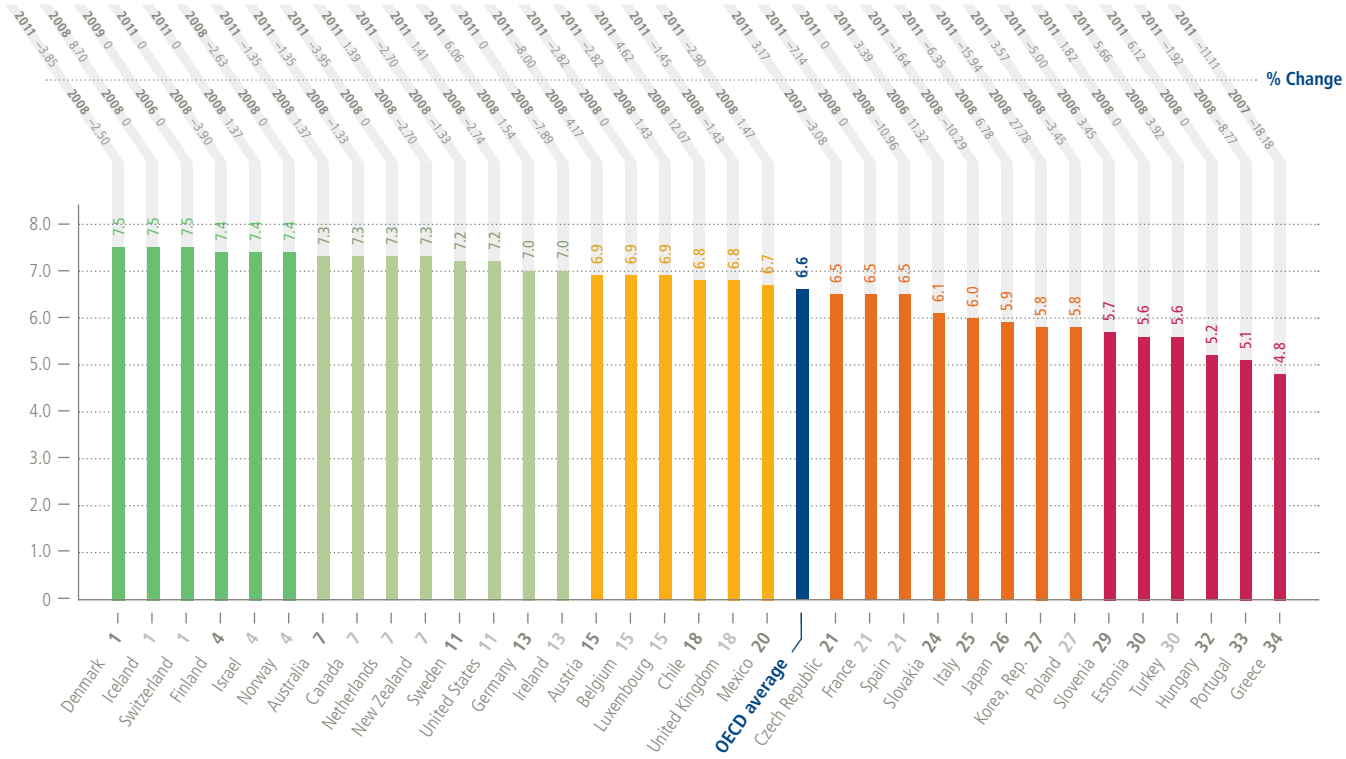
Goal 3. Ensure healthy lives and promote well-being for all at all ages

A healthy life is in many ways a fundamental right for every citizen of the world and at the same time the condition for economic and social progress. Consequently, there are many interlinkages between health and other goals examined here. Goal 3 seeks to "ensure healthy lives and promote well-being for all at all ages." We consider health and well-being therefore to have (at least) two components: physical and mental health. The WHO regularly examines healthy life expectancy (HALE) as a measure that applies disability weights to health states to compute the equivalent number of years of life expected to be lived in full health. Not only can one be more productive if one is in good health and play a conducive part in the economy of one's country. It is also a basic condition for enjoying a high quality of life overall. Figure 3.1 shows that, thankfully, the majority of OECD countries score over 70 healthy life years now, with the top five at least at 73 and top performer Japan at even 75 years. Less than 70 healthy life years are experienced by people in the Czech Republic, Slovenia, the United States (69), Poland (67), Slovakia (67), Estonia (67), and Mexico (67). Hungary and Turkey are at the bottom of the table with only 65 years. However, having improved by four years since 2000, the example of Turkey shows that significant improvements are possible in this regard in a fairly short time period that can impact positively on many people's lives.

In addition, the Gallup World Poll regularly surveys people's life satisfaction, or subjective well-being, by asking them: "Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. The top of the ladder represents



Unit: Standardized scale, **Source:** Gallup (data refer to 2014, except ISL: 2013)

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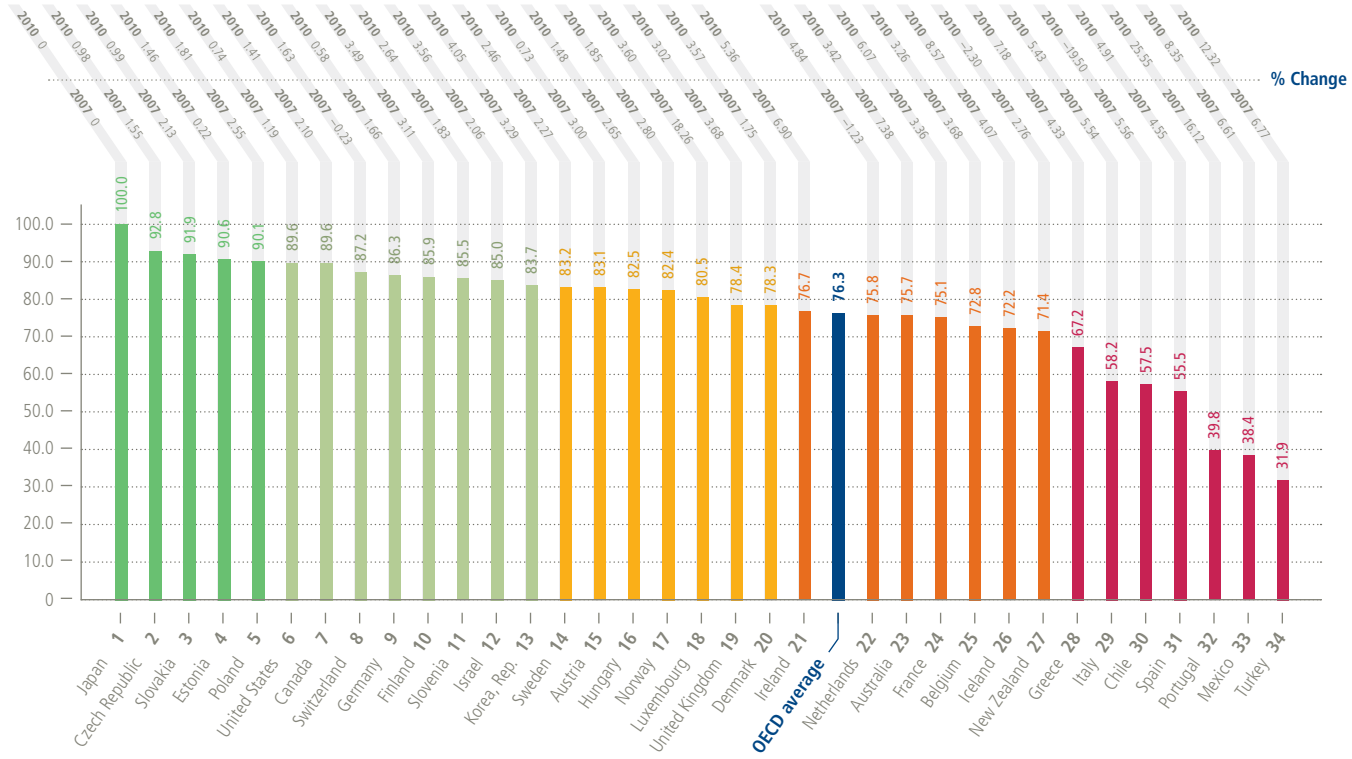
the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?" This question of perceived, self-reported life satisfaction can in an important manner enhance objective portrayals of the quality of life in a country with a people's perspective. Figure 3.2 illustrates that average scores on this indicator range from merely 4.8 in crisis-struck Greece to 7.5 in Switzerland, Iceland, and Denmark. The latter nations manage therefore to provide an environment in which people are subjectively satisfied, and these countries also score highly on many other more objective dimensions of human well-being analyzed in this study. As the latest World Happiness Report[13] has shown, the six factors which explain country performance on the life satisfaction question best are a country's gross domestic product, a lack of corruption, good levels of health, personal freedom, but also – and especially – social support (measured for instance by having someone to count on in times of trouble) and generosity. These findings hint at important trade-offs between potentially conflicting goals, leading the report's authors to demand, for instance, that economic growth should not be pursued to the point where community cohesion may suffer. The relationship between sustainable development as defined by the SDGs and subjective well-being is further examined in this study in Chapter 5.5.

13 Helliwell, J. F., Layard, R., and Sachs, J. (eds.) (2015). World Happiness Report, New York: Sustainable Development Solutions Network. *http://worldhappiness.report/wp-content/uploads/sites/2/2015/04/WHR15.pdf*

4. Education

4.1 Upper secondary attainment



Unit: Percent, **Source:** OECD (AUS, CAN, CHL, ISR, JPN, KOR, MEX, NZL, USA) or Eurostat (data refer to 2013, except CHL: 2011)

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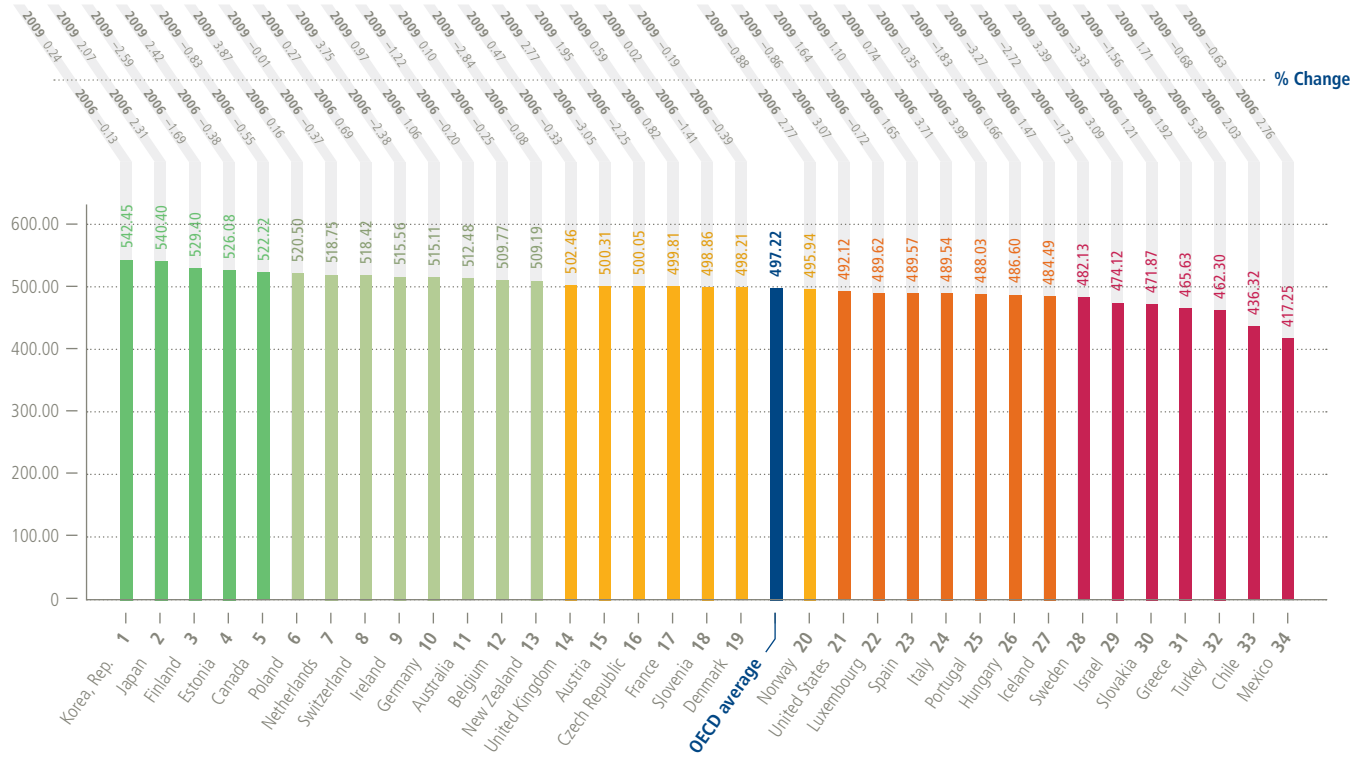
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

A good education holds the key to success in many areas of life. Such a basic truth should lead one to assume that ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all is very high on the agenda in every country studied here.

And yet, the distribution in figure 4.1 shows that there are significant differences with regard to the achievement of that goal. It displays the percentage of the population having completed at least upper secondary education. Upper secondary education (ISCED 3) corresponds here to the final stage of secondary education in most OECD countries. It is therefore a measure for how successful countries are in providing citizens with access to a certain level of education.

On average, OECD countries provide more than three-quarters of their population with this level of education (76.3 percent). The top five countries, however, score above 90 percent here: Poland (90.1 percent), Estonia (90.6 percent), Slovakia (91.9 percent), the Czech Republic (92.8 percent), and Japan (100 percent). In Portugal, Mexico, and Turkey the figure is below 40 percent. Chile, in particular, is also to be named among the bottom group. The country has come down to 57.5 percent compared to 71.4 percent in 2010.

As well as granting people access to education, it is, of course, imperative to ensure that its quality is high. Luckily, the OECD regularly examines the skills of pupils in its member countries in the Programme for International Student Assessment (PISA). As a proxy for the quality of education examined



Unit: Points on standardized scale, **Source:** OECD (data refer to 2012)

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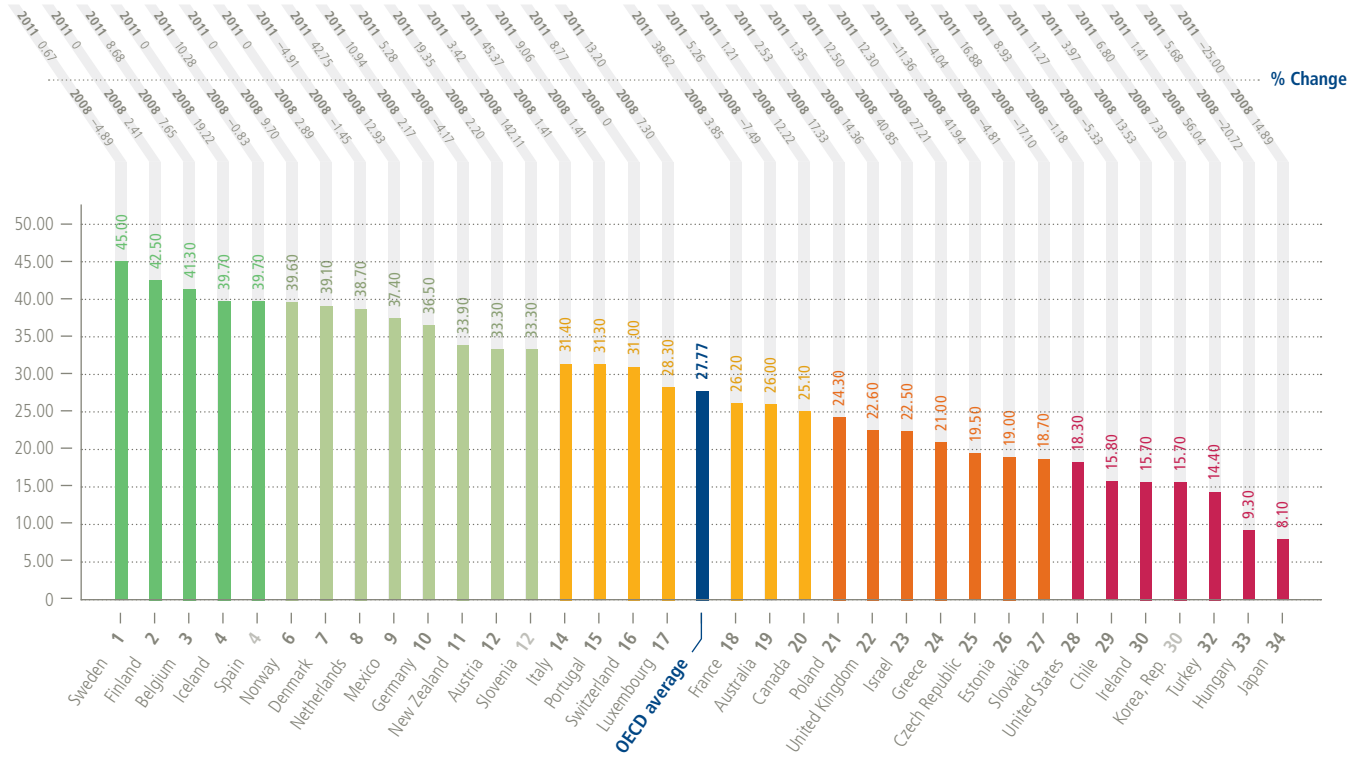
here, we display the arithmetic average of the points achieved on the PISA exercise regarding reading, mathematics, and science scales in figure 4.2. They range from 417 to 542. On average, OECD countries score around 497 points. Canada (522), Estonia (526), Finland (529), Japan (540), and above all the Republic of Korea (542), however, are in the top five here with scores of 522 and above. These countries quite literally hold important lessons to learn for all other OECD nations, but in particular, those whose values are below 470, which are Greece (466), Turkey (462), Chile (436), and Mexico (417). Ireland and Poland show the biggest improvements over the last few years here. They managed to improve their scores compared to 2009 from 497 to 516 in the case of Ireland, and from 501 to 521 in Poland, indicating how progress can be made here.

For this indicator to be used in universal SDG monitoring, it would be desirable to ever further extend its coverage to more countries around the globe in the future. We are revisiting the PISA scores in this study when considering goal 10 (inequality) by examining the impact of socioeconomic background on student performance.

5. Gender equality

5.1 Share of women in national parliaments



Unit: Percent, **Source:** World Bank (data refer to 2014)

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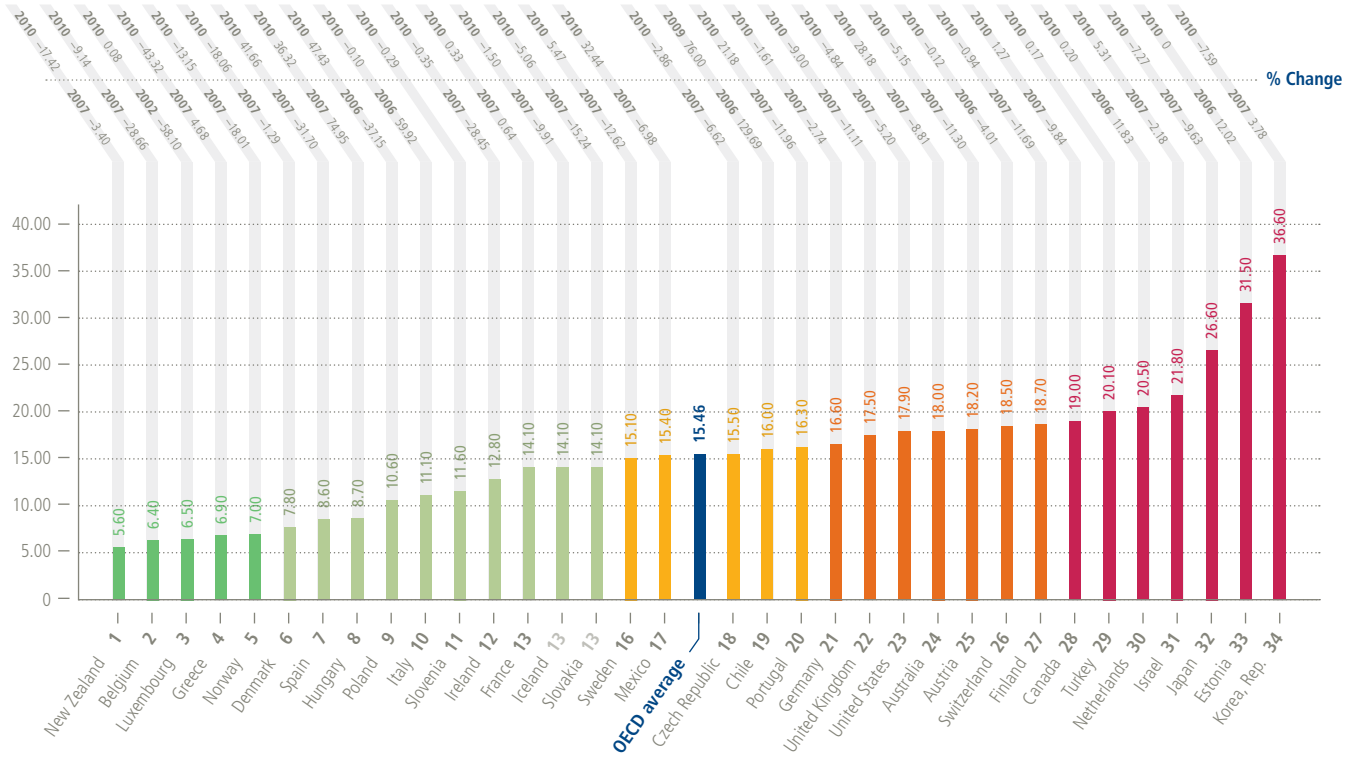
Goal 5. Achieve gender equality and empower all women and girls

Significant progress was made in many OECD countries over the past decades in terms of fighting gender inequality. Nonetheless, there are still many areas in which complete equality has not been achieved and where the success rates vary between nations. Two such areas are displayed here. Figure 5.1 shows the proportion of seats held by women in national parliaments. Representation in the highest political spheres is a strong symbol as well as a proxy for gender equality in a number of areas of daily life – such as representation in executive positions in large businesses or civil society organizations. The OECD average for representation of women in national parliaments is only a little more than a quarter (27.8 percent). This low score certainly does not do the role of women in society any justice. In Iceland, Spain, Belgium, Finland, and Norway, at least, the proportion of women in parliament is close to or above 40 percent. In Sweden's parliament, 45 percent of seats are held by women and the proportion even stood at 47 percent only a few years ago. Mexico also shows a relatively high rate of female MPs with 37.4 percent, just ahead of Germany (36.5 percent).

By contrast, a country as economically successful as Japan only manages to give 8 percent of its seats to women – which is the lowest proportion measured in any OECD country in the last seven years and even a decrease on Japan's low level in 2008 (9.4 percent). Hungary and Turkey also score below 15 percent and have lots of catching up to do on this goal. The trend in these countries at least is a positive one, as Turkey's rate was just 9.1 percent in 2008, and Hungary's previously stood at 8.8 percent.

Along with strengthening the representation of women in high

5.2 Gender pay gap



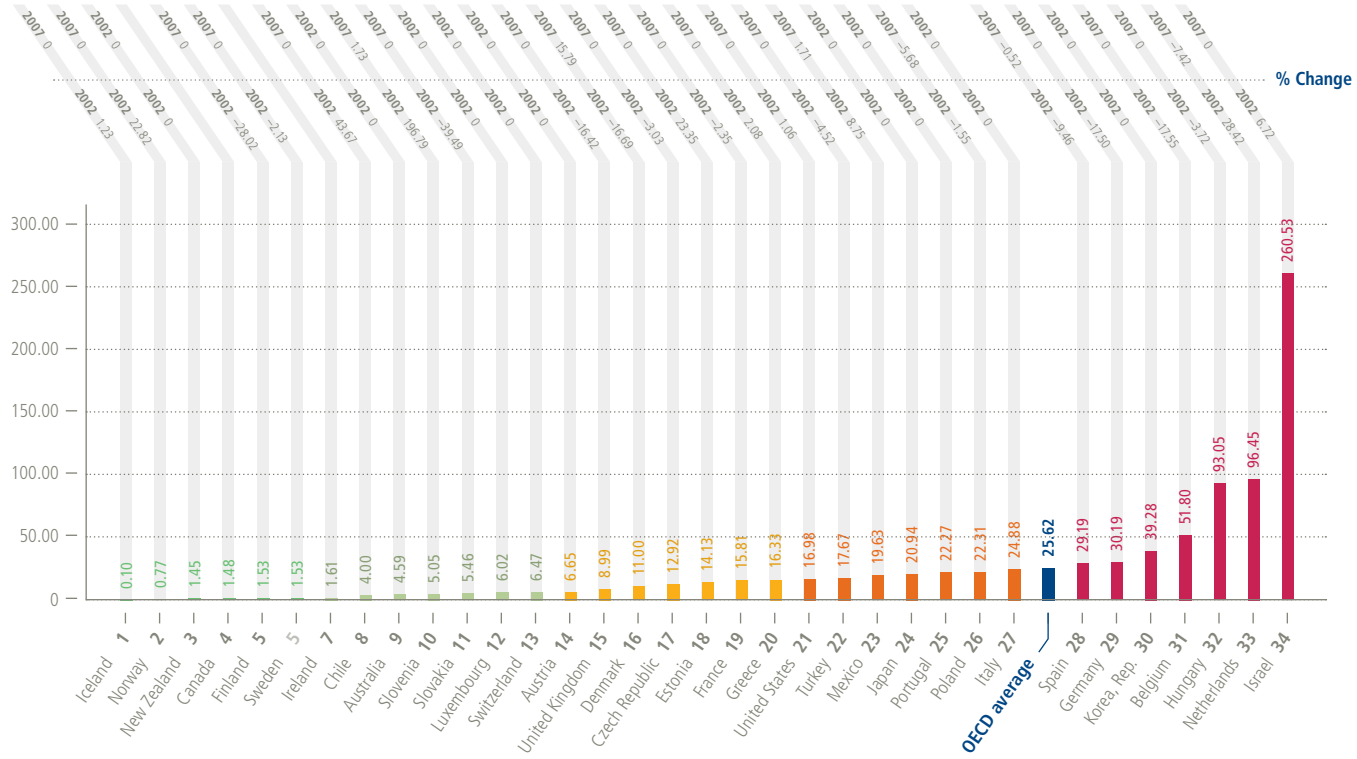
Unit: Percent, **Source:** OECD (data refer to 2013, except BEL, GRC, DNK, ESP, POL, ITA, SWE, PRT, AUT, FIN: 2012, ISL, CHL, DEU, ISR: 2011, LUX, SVN, FRA, CHE, TUR, NLD, EST: 2010) | BertelsmannStiftung

political offices, a remaining deficiency in many OECD countries is the gap in salaries between the sexes. The gender wage gap displayed in figure 5.2 is defined as the difference between median wages of women relative to the median wages of men. Korea, Japan, and Turkey are again in the bottom group in this facet of gender equality with a difference of 36.6 percent, 26.6 percent, and 20.1 percent, respectively. They find themselves in the company of Estonia (31.5 percent), Israel (21.8 percent), and the Netherlands (20.5 percent). A small difference of 7 percent or less is to be found in Norway, Greece, Luxembourg, Belgium, and New Zealand (5.6 percent). Hungary had narrowed the gap to a mere 3.65 percent in 2007, but since then let it increase to 8.7 percent.

A worryingly large increase is also noted for Chile, where in 2006 the gap stood at a formidable 3.96 percent, but since then has grown to 16 percent. This means that the once strong-performing nation in this regard is now ranked below OECD average on this indicator, which stands at 15.46 percent.

6. Water

6.1 Freshwater withdrawals as percent of total internal resources



Unit: Percent, **Source:** World Bank (data refer to 2013)

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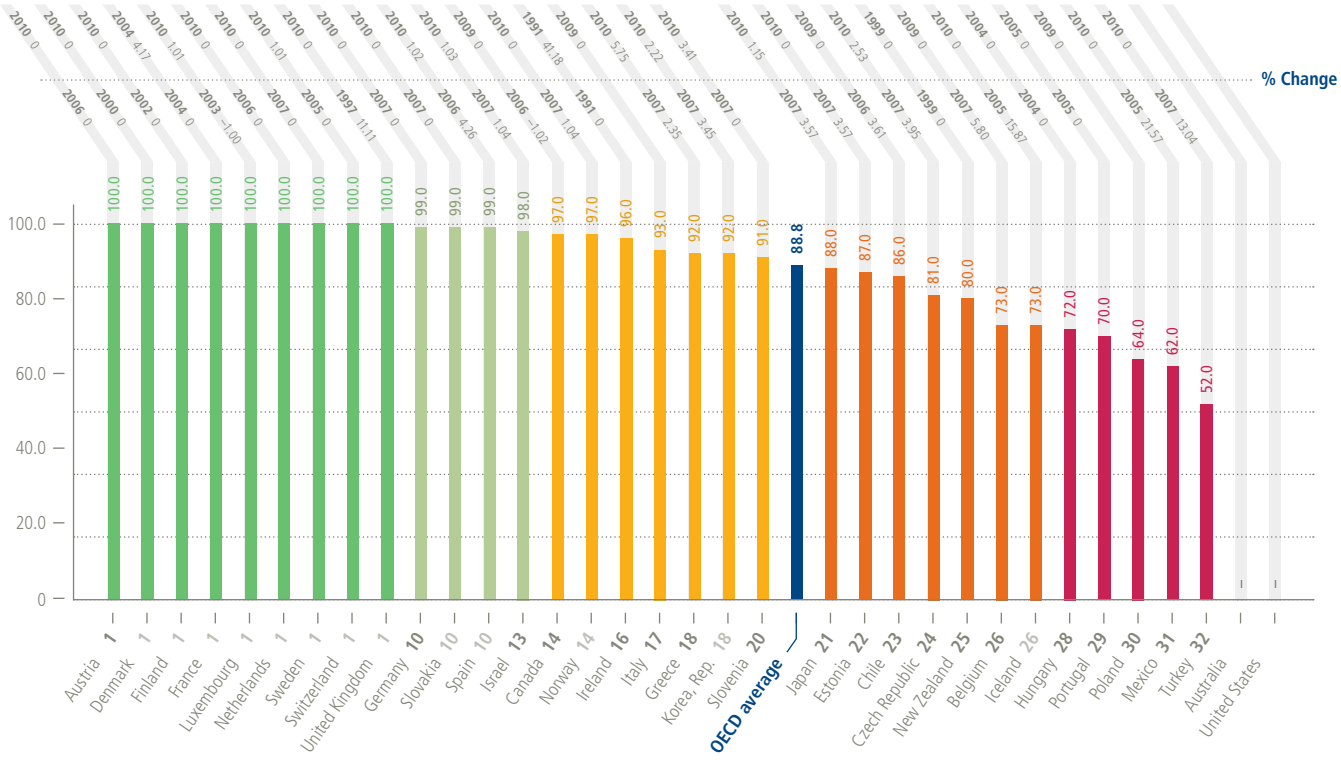
Goal 6. Ensure availability and sustainable management of water and sanitation for all

Water is a fundamental building block of life on our planet. Our water resources not only affect the well-being of our communities but also the success of our agriculture and industry. Universal access to water and the sustainable use of water resources are prerequisites for the viability of all human settlements. How communities manage both freshwater and wastewater has far-reaching effects. Freshwater withdrawals that exceed the natural replenishment rate and inadequate wastewater management threaten local as well as regional communities and ecosystems.

Figure 6.1 displays water resource stress. Annual freshwater withdrawals refer to total water withdrawals (not counting evaporation losses from storage basins). Withdrawals for domestic uses include drinking water, municipal use or supply, and use for public services, commercial establishments, and homes. Withdrawals for agriculture and industry are total withdrawals for irrigation and livestock production and for direct industrial use (including withdrawals for cooling thermoelectric plants). Withdrawals also include water from desalination plants in countries where they are a significant source. Withdrawals can exceed 100 percent of total renewable resources where extraction from non-renewable aquifers or desalination plants is considerable or where there is significant water reuse.

The OECD countries vary greatly in how sustainably they use their water resources. Both Iceland and Norway can be particularly commended for annually using less than 1 percent of their total renewable water resources in 2013. On the

6.2 Population connected to wastewater treatment



Unit: Percent, **Source:** OECD (data refer to 2013, except AUT, NLD, SVK, ESP, GRC, EST: 2012, IRL, JPN, CZE: 2011, GBR, DEU, ISL, MEX, TUR: 2010, CAN, ITA, CHL, BEL, POL: 2009, PRT: 2005, HUN: 2004, NZL: 1999)

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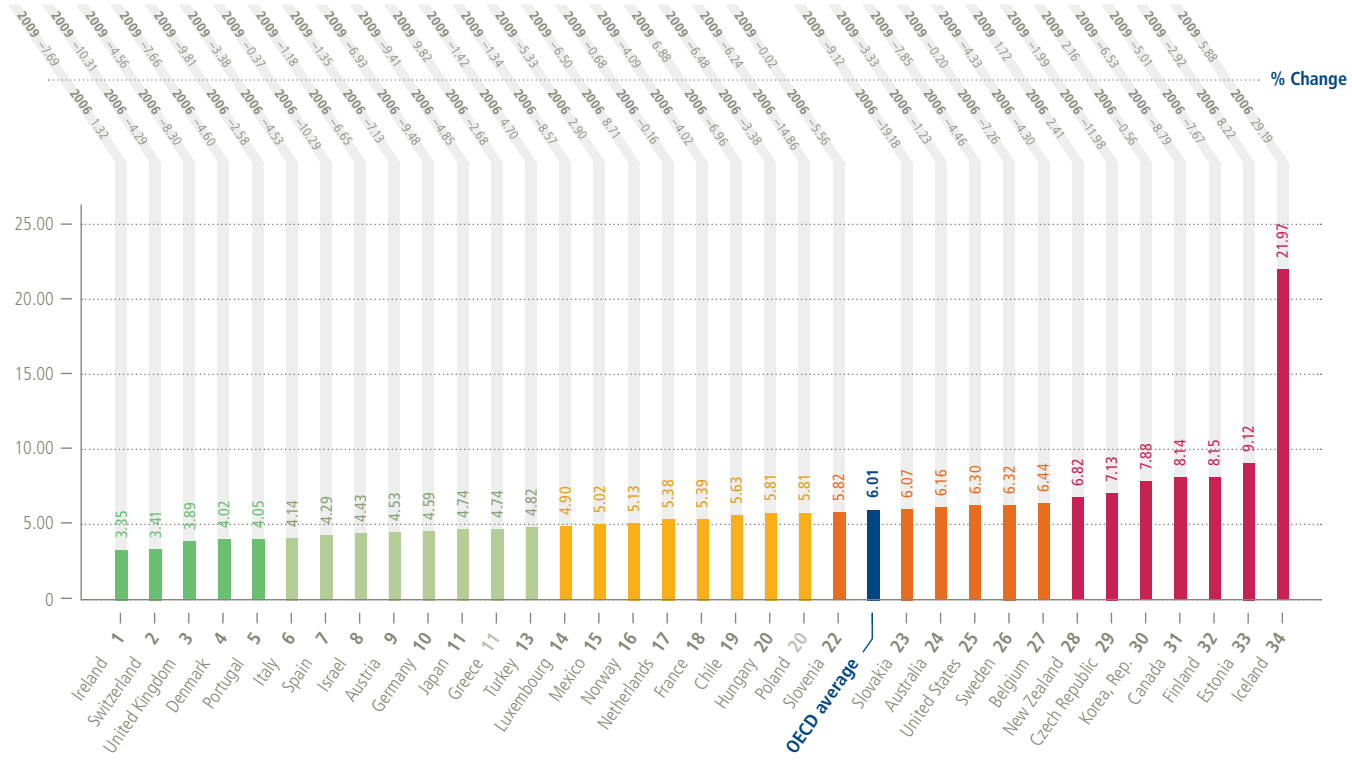
other hand, Hungary and the Netherlands each extracted over 90 percent and Israel, in last place among the 34 countries in this study, withdrew 261 percent of its renewable water resources.

Our second indicator measures the percentage of the population connected (through a system of conduits) to public or independent wastewater treatment. These wastewater collecting systems are often operated by public or semipublic entities. Figure 6.2 states the fact that entire populations of nine OECD countries are connected to managed sanitation services. Yet performance on this measure is not universally stellar, with seven countries dropping below 75 percent. Mexico (62 percent) and Poland (64 percent) are each over 20 percentage points below the OECD average and only 52 percent of Turkey's population is connected to wastewater treatment, still leaving room for improvement to reach SDG number 6, namely ensuring availability and sustainable management of water and sanitation for all.

7. Energy

7.1 Energy intensity



Unit: Petajoules per GDP in billion const. int. 2005 USD PPP, **Source:** IEA (data refer to 2012)

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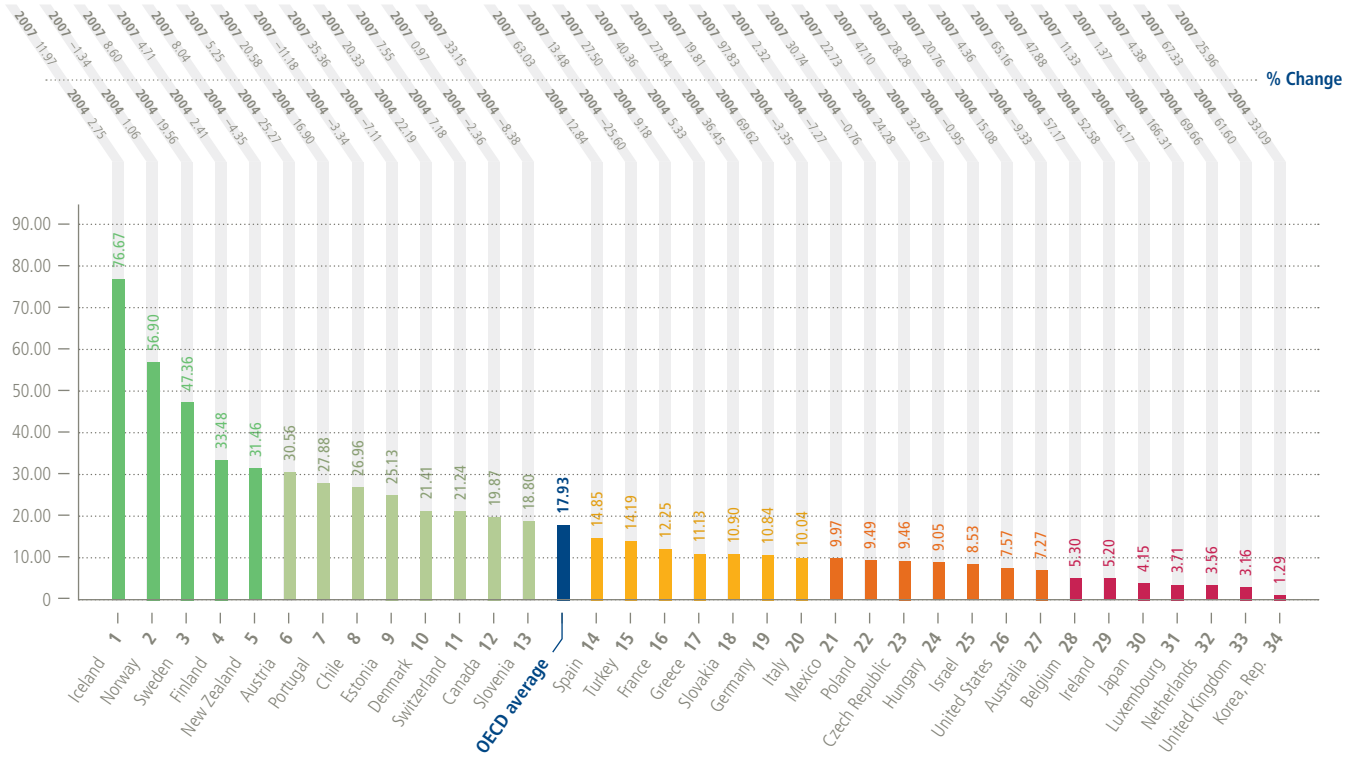
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Sustainability and energy are tightly intertwined. In many OECD countries, anthropogenic greenhouse gas emissions largely come from burning fossil fuels in electricity production, heating, and transportation. As such, how we choose to produce, distribute, and use energy has a tremendous impact on the pace of climate change. Goal 7 calls not only for universal access to affordable and reliable energy services, but just as significantly for substantially increasing the share of renewable energy and doubling energy efficiency. The national governments in the sample have shown great variation in the extent to which they are pursuing policies that foster a sustainable energy sector. Some have made significant strides because of aggressive, forward-looking energy policies that prioritize investments in energy efficiency and renewable sources. Others have benefited from abundant renewable sources, but failed to utilize this relative advantage efficiently. Iceland is the most striking case in point, utilizing the highest share of renewable energy (effectively all from geothermal and hydropower) and, simultaneously, having the highest energy intensity.

Primary energy intensity is used as a proxy for energy efficiency, illustrating how we can increase the "extent to which economic growth is decoupled from energy use – a key requirement for sustainable energy and decarbonization."[14] Primary energy intensity is the ratio between total primary energy supply and gross domestic product (GDP), PPP-adjusted. The higher the primary energy intensity, the less efficient the energy sector. As illustrated in figure 7.1, Ireland, Switzerland, and the United Kingdom have the most efficient energy sectors

14 Sustainable Development Solutions Network (2014): Pathways to deep decarbonization. *http://unsdsn.org/wp-content/uploads/2014/09/DDPP_Digit.pdf*

7.2 Share of renewable energy in total final energy consumption



Unit: Percent, **Source:** World Bank (data refer to 2010)

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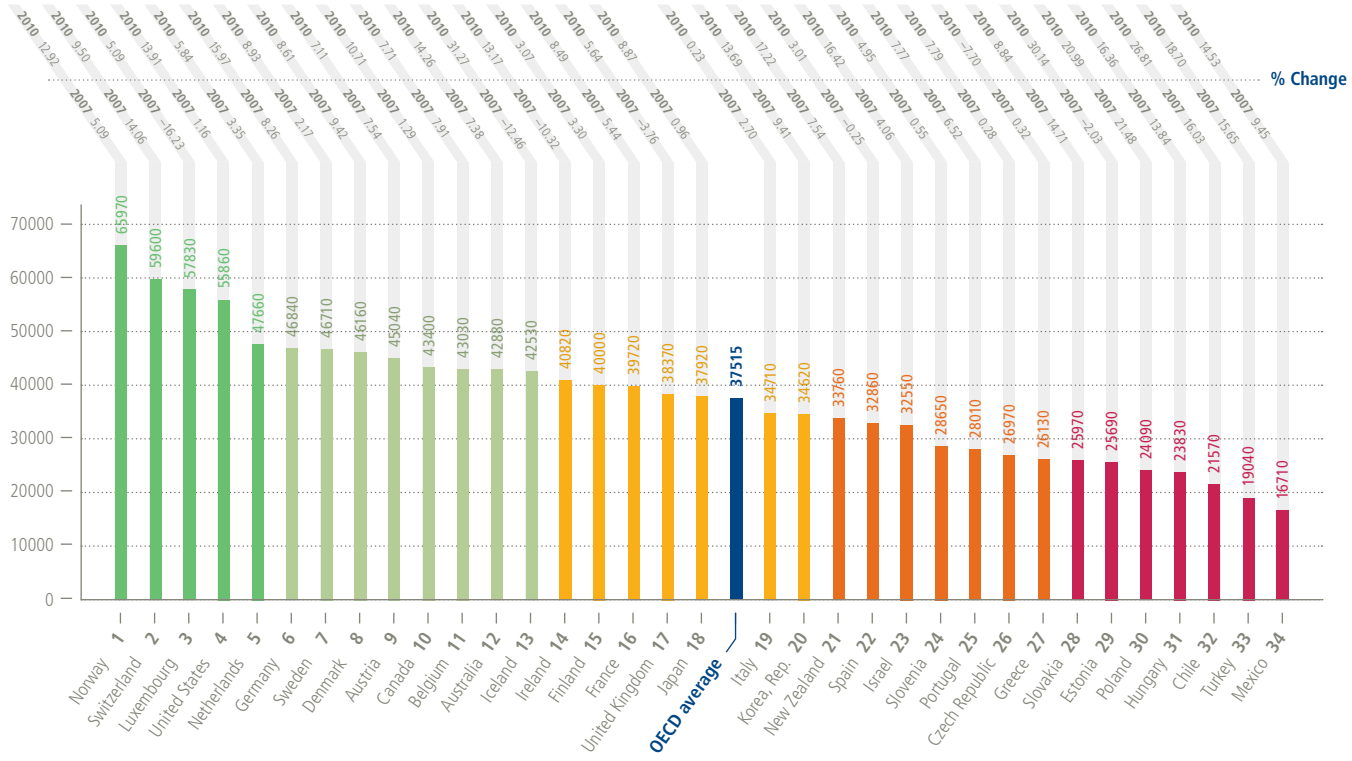
among the OECD countries (each below 4 petajoules per GDP). These countries demonstrate that economic growth and energy efficiency can go hand in hand. Ranking at the bottom of the sample, Canada, Estonia, and Finland each have more than double and Iceland more than five times the energy intensity of the top-performing countries.

Figure 7.2 illustrates the extent of energy use from renewable sources. This indicator measures the total final renewable energy consumption in total final energy consumption (renewable energy consumption includes hydro, modern and traditional biomass, wind, solar, liquid biofuels, biogas, geothermal, marine, and waste). The top countries on this measure each use well above the 17.9 percent OECD average in renewable energy, with Sweden using 47.4 percent (mostly hydro), Norway 56.9 percent (almost entirely hydro), and Iceland a laudable 76.7 percent (effectively all from geothermal and hydro). At the other end of the spectrum, Japan, Luxembourg, the Netherlands, the United Kingdom, and South Korea each use less than 5 percent renewables in their energy sector. South Korea, the most ecologically alarming country on this measure, uses just 1.3 percent.

8. Economy and labor

8.1 GNI per capita



Unit: Current int. USD PPP, **Source:** World Bank (data refer to 2014, except CHE, LUX, AUT, FIN, ESP, SVN, CZE, SVK: 2013, NZL: 2012) | BertelsmannStiftung

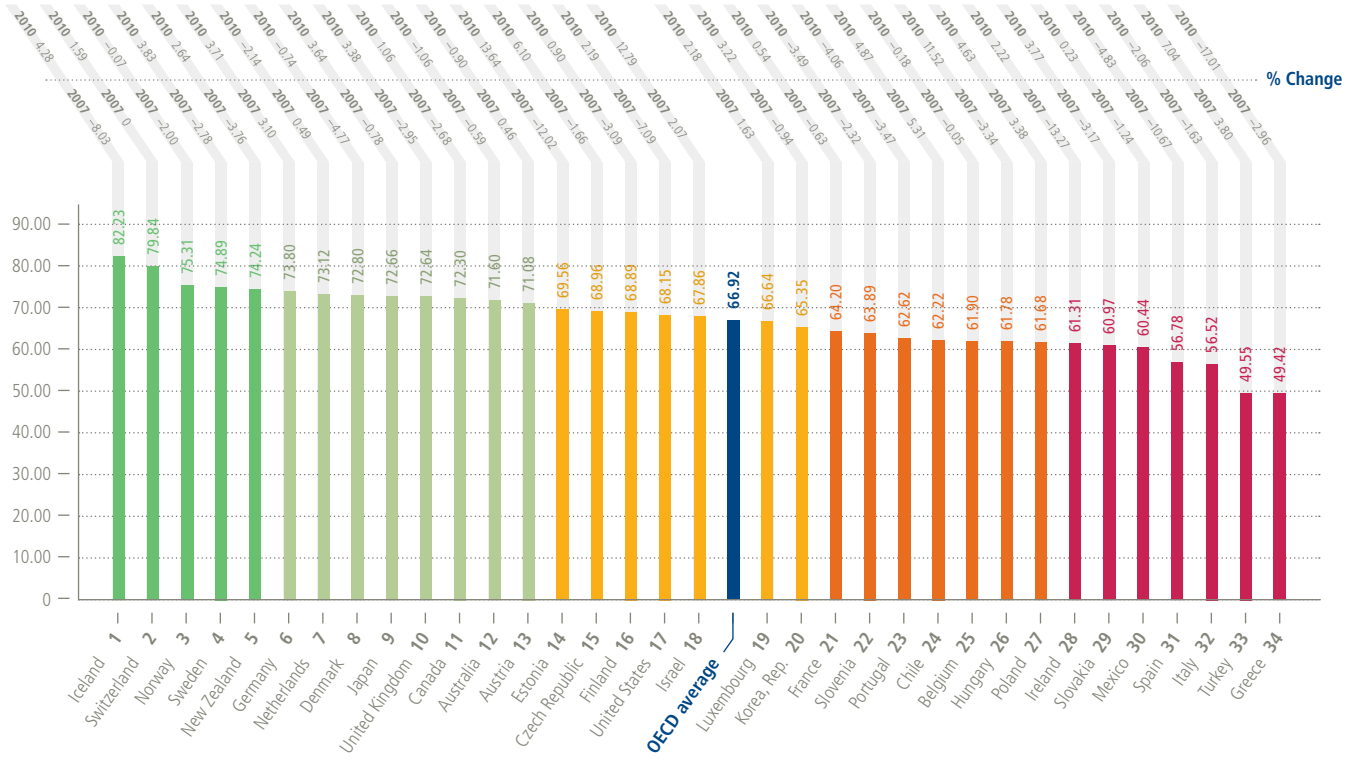
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Promoting sustained, inclusive, and sustainable economic growth as well as full and productive employment – as goal number 8 states – are not ends in themselves. They form the basis of people being able to make a decent living and to provide for their families. The problem with pursuing growth by itself is that it is neither automatically inclusive nor sustainable. Policies must be put in place to ensure that economic growth, i.e. an increase in the sum of goods and services produced, does not come at the expense of future generations. Likewise, the benefits of growth ought to be shared across the population and not just by the upper end of the income distribution scale – as is increasingly the case in OECD countries (see also Chapters 4.1 and 4.10). A comprehensive catalog of goals such as the SDGs can ensure that a previous focus on growth as the main policy goal among many policymakers will be put in perspective by many other societal goals which we need to pursue with at least equal rigor.

Nonetheless, research has shown that a high gross national income (GNI) per capita is not only positively correlated with a number of other desirable quality of life outcomes[15], but also with people's subjectively reported feelings of happiness and life satisfaction[16]. Figure 8.1 shows how countries compare with regard to GNI per capita based on purchasing power parity (PPP). GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. PPP refers to the conversion to international dollars

15 Kassenböhmer, S. C., and Schmidt, C. M. (2011): Beyond GDP and Back: What Is the Value-Added by Additional Components of Welfare Measurement? SOEPpapers 351. DIW Berlin.
16 Delhey, J., and Kroll, C. (2012): A 'happiness-test' for the new measures of national well-being: How much better than GDP are they? WZB Discussion Paper SP I 2012 201, June 2012 *http://bibliothek.wzb.eu/pdf/2012/i12-201.pdf*

8.2 Employment-to-population ratio



Unit: Percent, **Source:** OECD (data refer to 2014)

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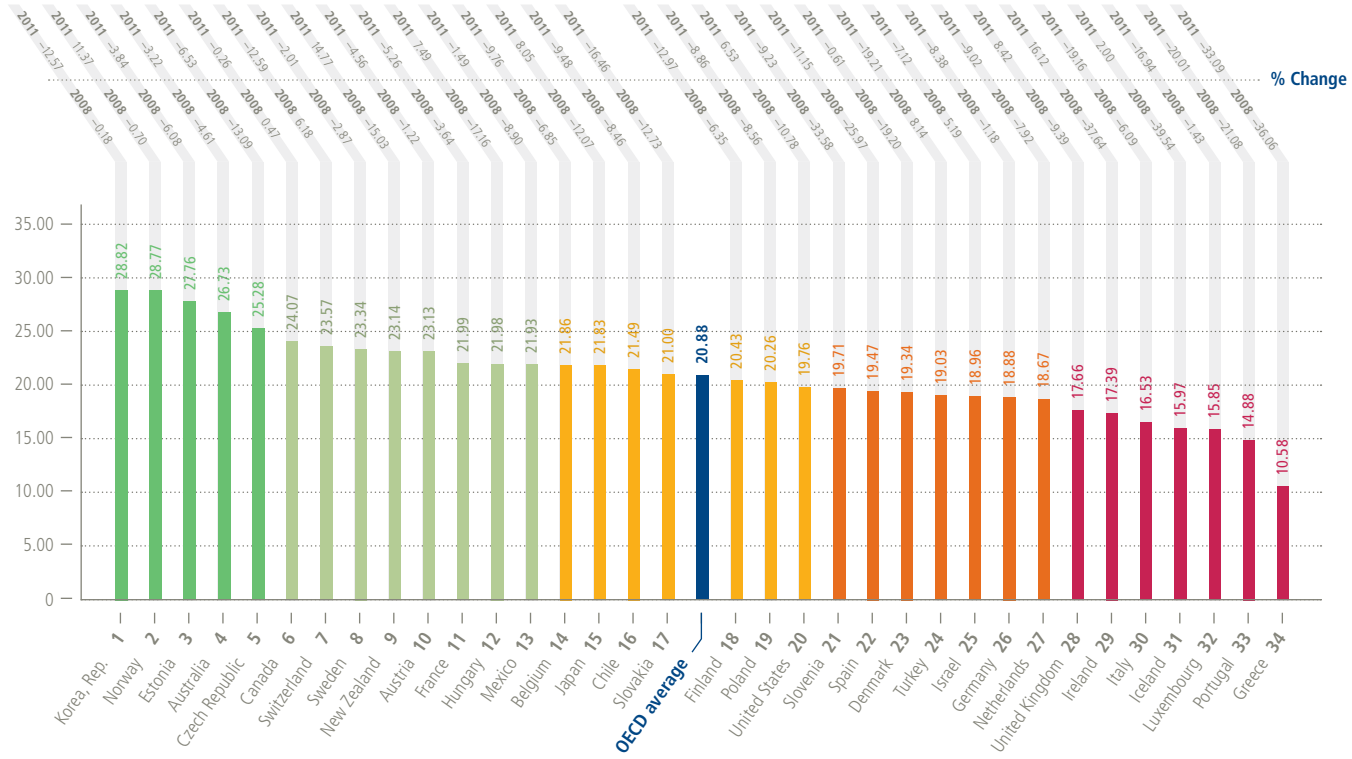
using purchasing power parity rates. The strongest economies by that measure are Norway (USD 65,970), Switzerland (USD 59,600), Luxembourg (USD 57,830), and the USA (USD 55,860). Chile (USD 21,570), Turkey (USD 19,040), and Mexico (USD 16,710), by contrast, have a GNI that is roughly half of the OECD average (USD 37,515).

While the employment-to-population ratio does not give us any information about whether people's jobs are decent, it does provide us with an idea of the size of a country's workforce. It is measured as the proportion of a country's population that is employed, whereby ages 15 and older are generally considered the working-age population. Less than half the population in Turkey (49.55 percent) and Greece (49.42 percent) are in labor, while on average, the figure is around two-thirds (66.92 percent) for all OECD countries. Iceland and Switzerland, however, lead the table by some margin with 82.23 percent and 79.84 percent, respectively.

9. Infrastructure and innovation

9.1 Gross fixed capital formation



Unit: Percent of GDP, **Source:** IMF (data refer to 2014)

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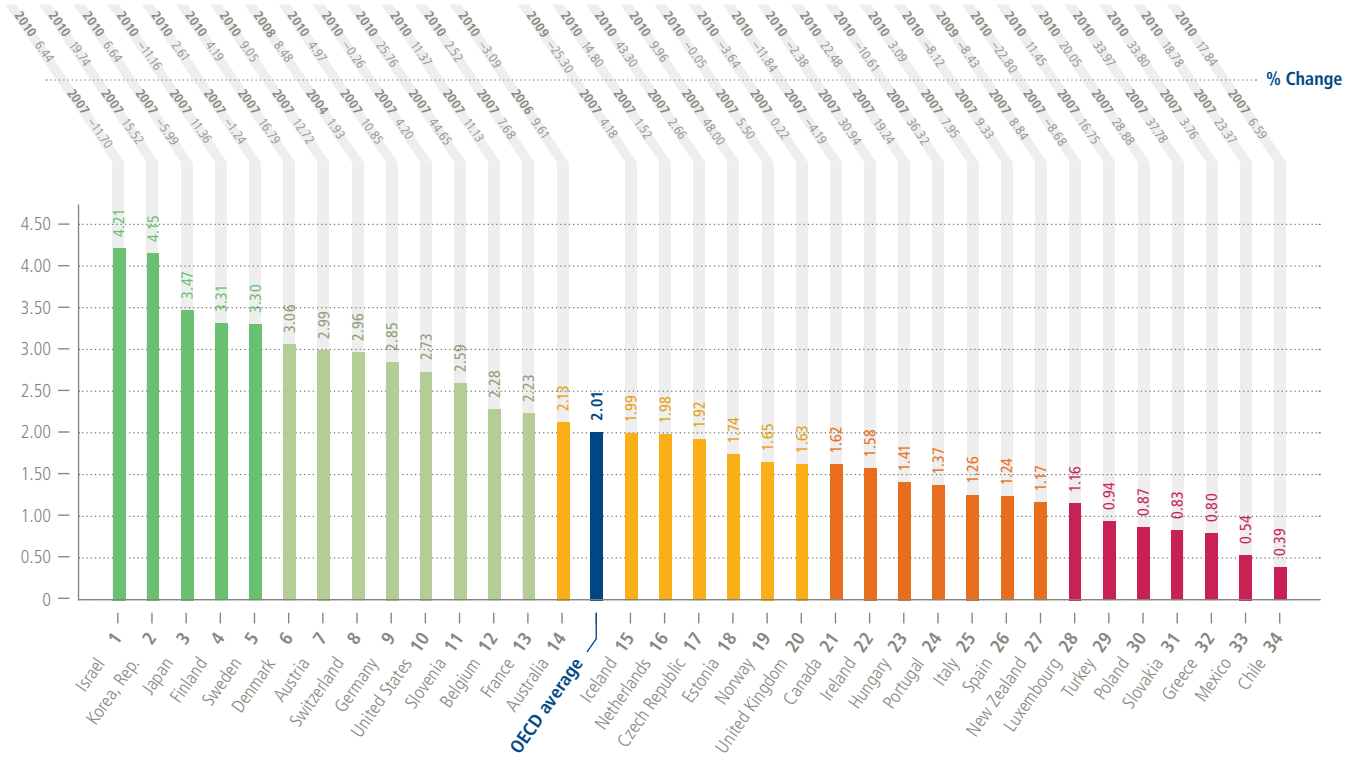
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

The long-term viability of an economy depends on innovation and prioritizing investments in the future. Innovation is fuelled by both public and private investments that sustain a vibrant research sector, staffed by a growing pool of highly skilled researchers. Investing in the future also requires upgrading infrastructure and the technological capabilities of industries "to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes."[17] Countries must focus their policies not only on driving economic growth and high employment in the present, but also on building a sustainable foundation for future growth and employment. SDG number 9 therefore calls on governments and citizens to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.

Figure 9.1 illustrates one such dimension which captures an aspect of goal 9. Gross fixed capital formation (GFCF) gives an indication of how much of the new value added in an economy is invested rather than consumed. Investment or gross capital formation is measured by the total value of the gross fixed capital formation and changes in inventories and acquisitions less disposals of valuables (i.e. investment minus disposals). As a percentage of GDP, South Korea, Norway, Estonia, Australia, and the Czech Republic show the highest GFCF (each in excess of 25 percent). These countries are making forward-looking investments that should bode well for economic success in the future. Conversely, Portugal and Greece show the lowest GFCF among the 34 OECD countries (14.9 percent and 10.6 percent, respectively). Reigniting these economies will require

17 Open Working Group Proposal for Sustainable Development Goals (2014). *https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=1579&menu=1300*

9.2 Research and development expenditure



Unit: Percent of GDP, **Source:** OECD (data refer to 2013, except AUT, MEX: 2014, CHE, IRL: 2012, AUS: 2011)

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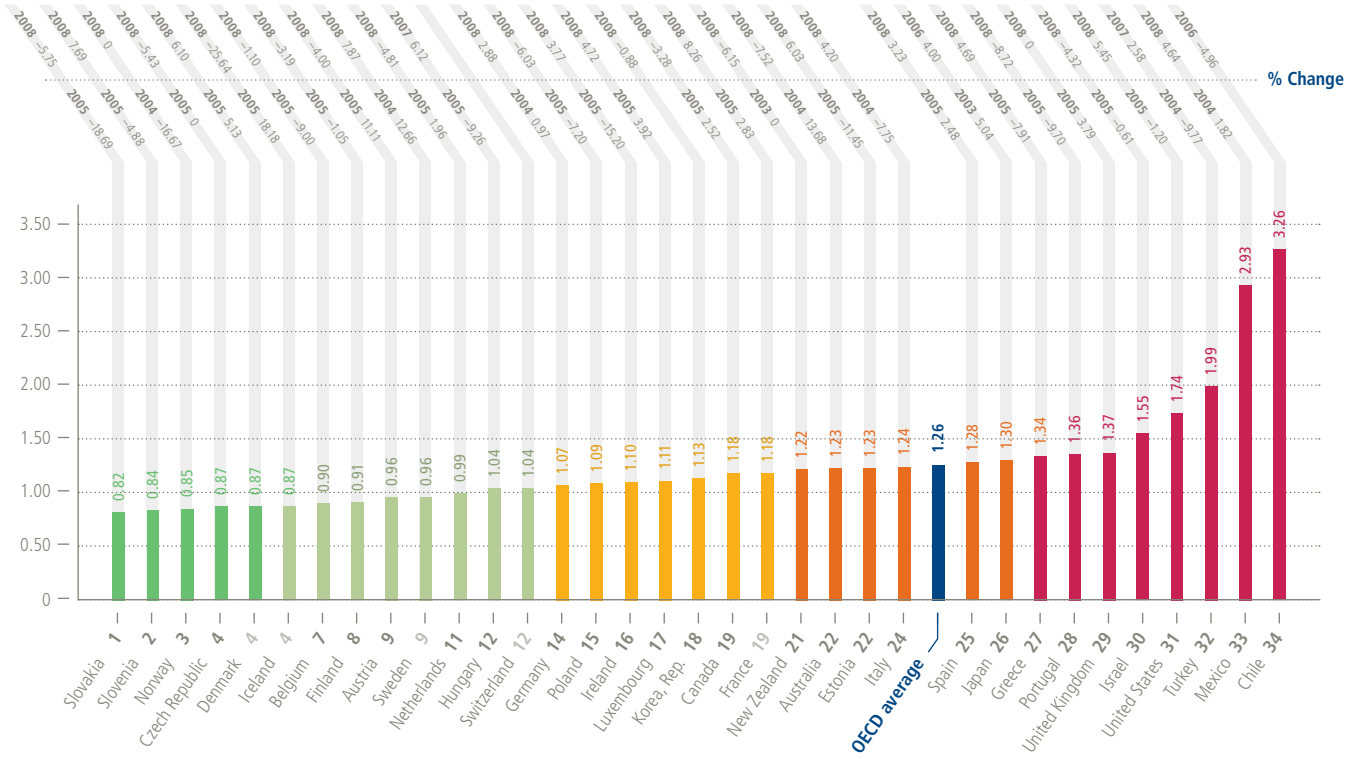
substantial investments in modernizing infrastructure and industries. Without these aggressive investments, no recovery can be realistically expected. Harsh austerity measures that hamper or even scale back such investments simply perpetuate the painful status quo.

Our second snapshot indicator for goal 9 is a measure of innovation potential. Gross domestic expenditure on research and development (GERD) is the total intramural expenditure on R&D performed during a given year, expressed as a percentage of GDP. Figure 9.2 illustrates the extreme variation in GERD that exists across the countries in this study. By far the top performers, both Israel and South Korea, each spend more than 4 percent of their annual GDP on research and development (more than double the OECD average of 2.01 percent). Economic sustainability requires such innovation, yet a number of countries are failing to meet this challenge. Turkey, Poland, Slovakia, Greece, Mexico, and Chile each spend less than 1 percent on R&D. On their current trajectory, the long-term viability of their economies could be significantly hindered by their comparatively weak ability to contribute to necessary innovations.

10. Inequality

10.1 Palma ratio



Unit: Ratio, **Source:** OECD (data refer to 2012, except NOR, DNK, SWE, CHE, DEU, KOR, CAN, FRA, NZL, ISR, TUR, CHL: 2011, GBR: 2010, JPN: 2009) | BertelsmannStiftung

Goal 10. Reduce inequality within and among countries

Inequality is a growing problem in almost all OECD countries. Recent research has shown that in the EU, for instance, the gap between northern and southern member countries is increasing, in addition to the divide within countries[18]. At the same time, studies have shown that less inequality is in fact beneficial to growth. Rich countries must therefore find ways to integrate more equality with economic progress in order to be viable examples for the rest of the world[19]. OECD countries are currently not on the right track since the gap between the richest 10 percent and the poorest 10 percent is at a record level (see also Chapter 4.1).

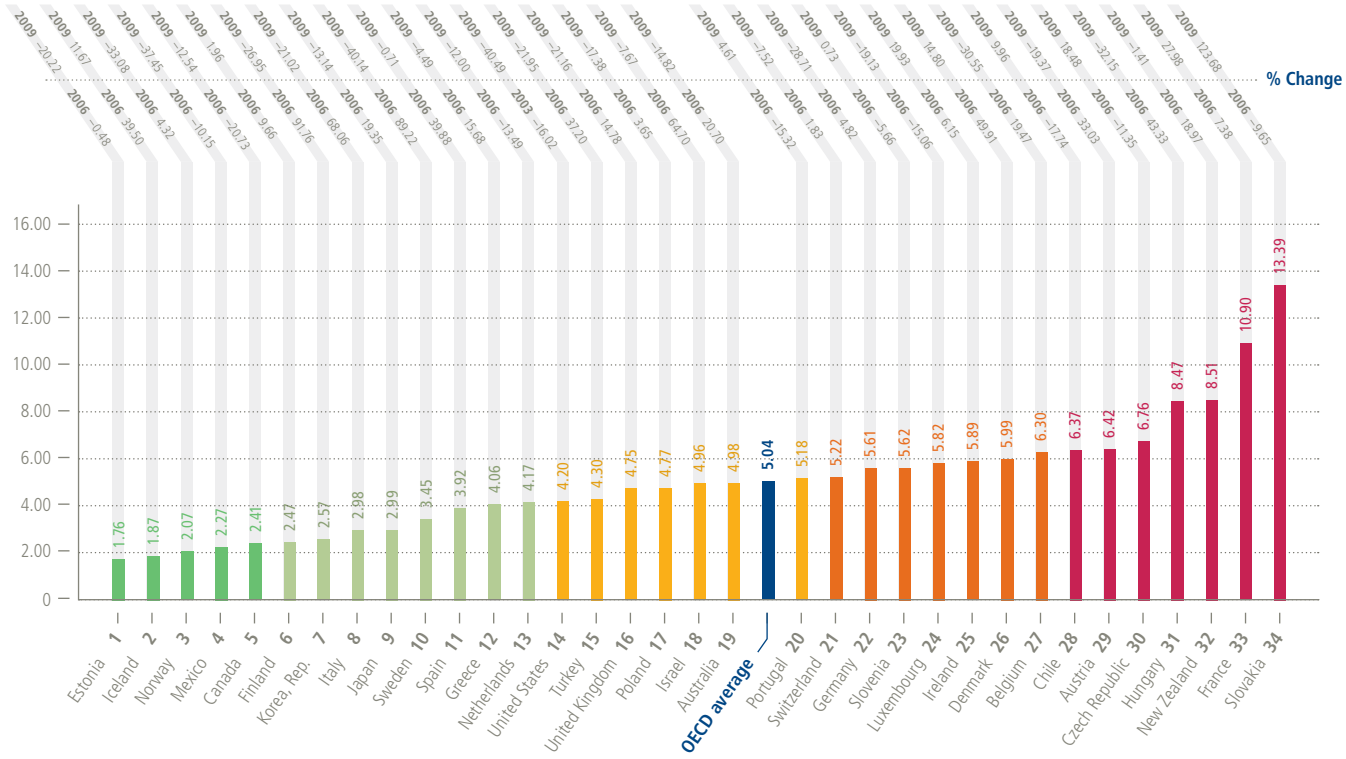
The so-called Palma ratio represents the share of all income received by the 10 percent of people with the highest disposable income divided by the share of all income received by the 40 percent of people with the lowest disposable income. Figure 10.1 shows how OECD countries compare in this regard. The share is comparatively small in Slovakia (0.82), Slovenia (0.84), Norway (0.85), the Czech Republic, Denmark, and Iceland (all 0.87). In 23 OECD countries, however, the top 10 percent earn more than the bottom 40 percent combined, with the United States (1.74), Turkey (1.99), Mexico (2.93), and Chile (3.26) showing the most severe levels of income inequality.

Inequality extends beyond income alone, though. As an example of inequalities in education, an area where the basis of one's entire life is formed, figure 10.2 displays the strength of the impact of one's socioeconomic background and educational success. Chapter 4.4 has shown how the level of educational achievement varies across OECD countries

18 Schraad-Tischler, D., and Kroll, C. (2014). Social Justice in the EU – A Cross-national Comparison. Gütersloh: Bertelsmann Stiftung. *http://news.sgi-network.org/uploads/tx_amsgistudies/Social-Justice-in-the-EU-2014.pdf*

19 Ostry, et al. (2014): Redistribution, Inequality, and Growth. IMF Staff Discussion Note. *https://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf*
OECD (2015): In It Together: Why Less Inequality Benefits All. OECD Publishing, Paris. *http://www.oecd.org/els/soc/OECD2015-In-It-Together-Chapter1-Overview-Inequality.pdf*

10.2 PISA Social Justice Index



Unit: Standardized scale, **Source:** OECD (data refer to 2012)

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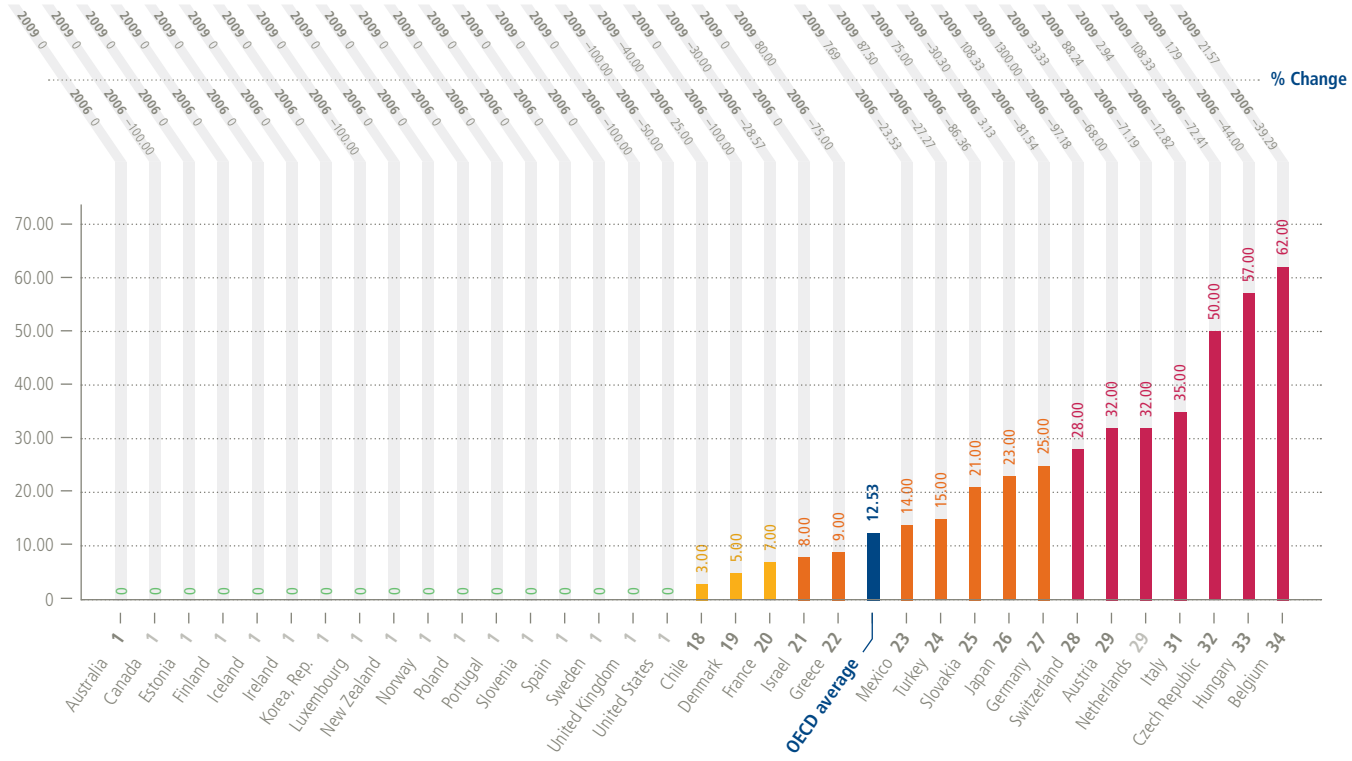
as measured by the Programme for International Student Assessment (PISA).

Moreover, the PISA index of economic, social, and cultural status reflects how inequalities in socioeconomic background impact on student success. It was created on the basis of the following variables: the International Socio-Economic Index of Occupational Status (ISEI); the highest level of education of the student's parents, converted into years of schooling; the PISA index of family wealth; the PISA index of home educational resources; and the PISA index of possessions related to "classical" culture in the family home. The PISA Social Justice Index is the product of the strength of the relationship between reading/science/mathematics performance and ESCS and the slope of the socioeconomic gradient for reading/mathematics/science.

A score of five would put a country near the OECD average on this indicator. Estonia (1.76), Iceland (1.87), and Norway (2.07), though, manage to generate for all students a fairly level playing field for their start in life. These countries show that a high level of educational attainment – which becomes evident by their good performance displayed in Chapter 4.4 – can go hand in hand with giving students from all backgrounds access to good education. In fact, a country can only lay a firm foundation for future innovation in a globally competitive economy if it taps into the intellectual resource of students from all backgrounds. By contrast, countries such as New Zealand (8.51), France (10.90), and Slovakia (13.39) still need to catch up significantly in this respect.

11. Cities

11.1 Particulate matter



Unit: Percent of population exposed to >15 ug/cbm, **Source:** Yale (data refer to 2012)

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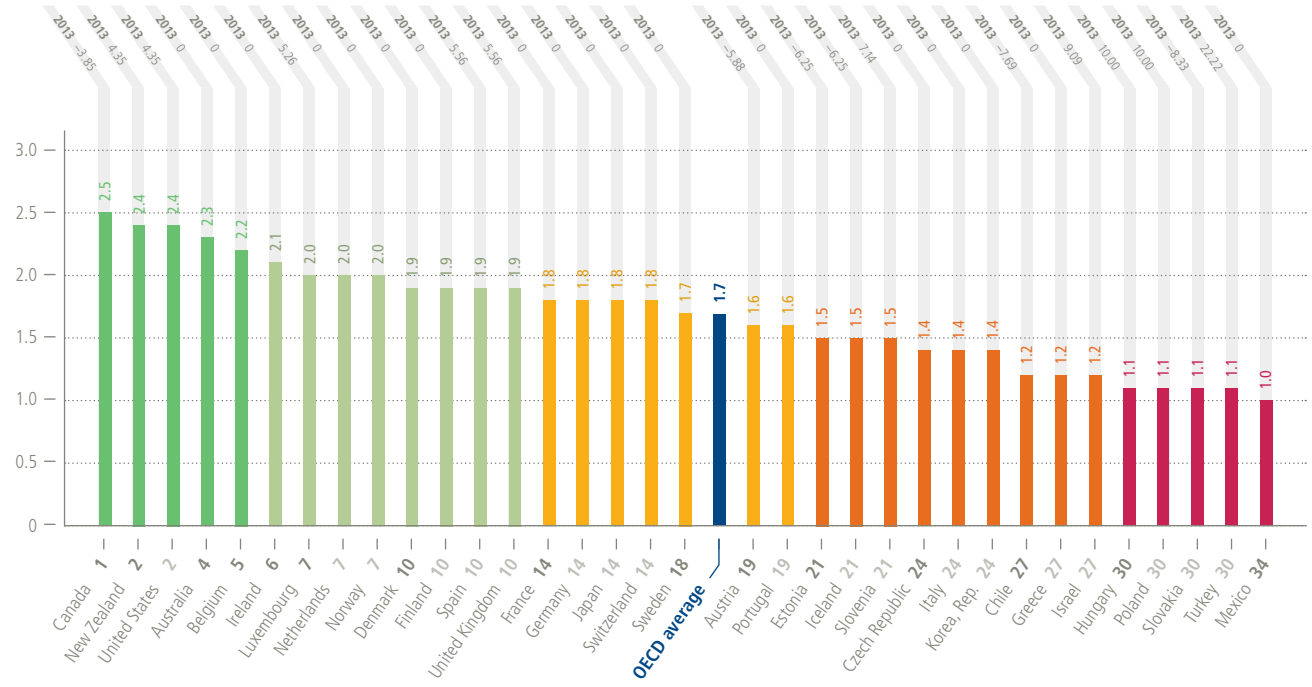
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Today, more than half of the world's population lives in urban areas. It is thus incumbent upon states and societies to foster policies that help make cities and human settlements more inclusive, safe, resilient, and sustainable, as SDG number eleven states. In this cross-national comparison we look at two aspects that can be ascribed to this complex and multidimensional goal.

The first indicator refers to air pollution and potential health stresses caused by high particulate matter concentrations. Figure 11.1 shows the respective proportion of the population whose exposure to "PM2.5" is above the WHO threshold of 15 micrograms per cubic meter. In 17 OECD member states, including several small countries such as Estonia, Iceland, Luxembourg, and Slovenia, but also some large countries such as the United Kingdom and the United States, the population is on average not exposed to particulate matter concentrations exceeding this threshold. However, in the other half of the OECD nations, the picture looks different. In the Czech Republic, Hungary, and Belgium, for instance, more than 50 percent of the population is on average exposed to particulate matter levels above the threshold. These three countries lag farthest behind. And also countries such as Germany (25 percent of the population), Switzerland (28 percent), the Netherlands (32 percent), Austria (32 percent), and Italy (35 percent) still have some catching up to do.

The second indicator used here and portrayed in figure 11.2 refers to potential overcrowding as measured by the average number of rooms in a dwelling per person. The indicator thus

11.2 Rooms per person



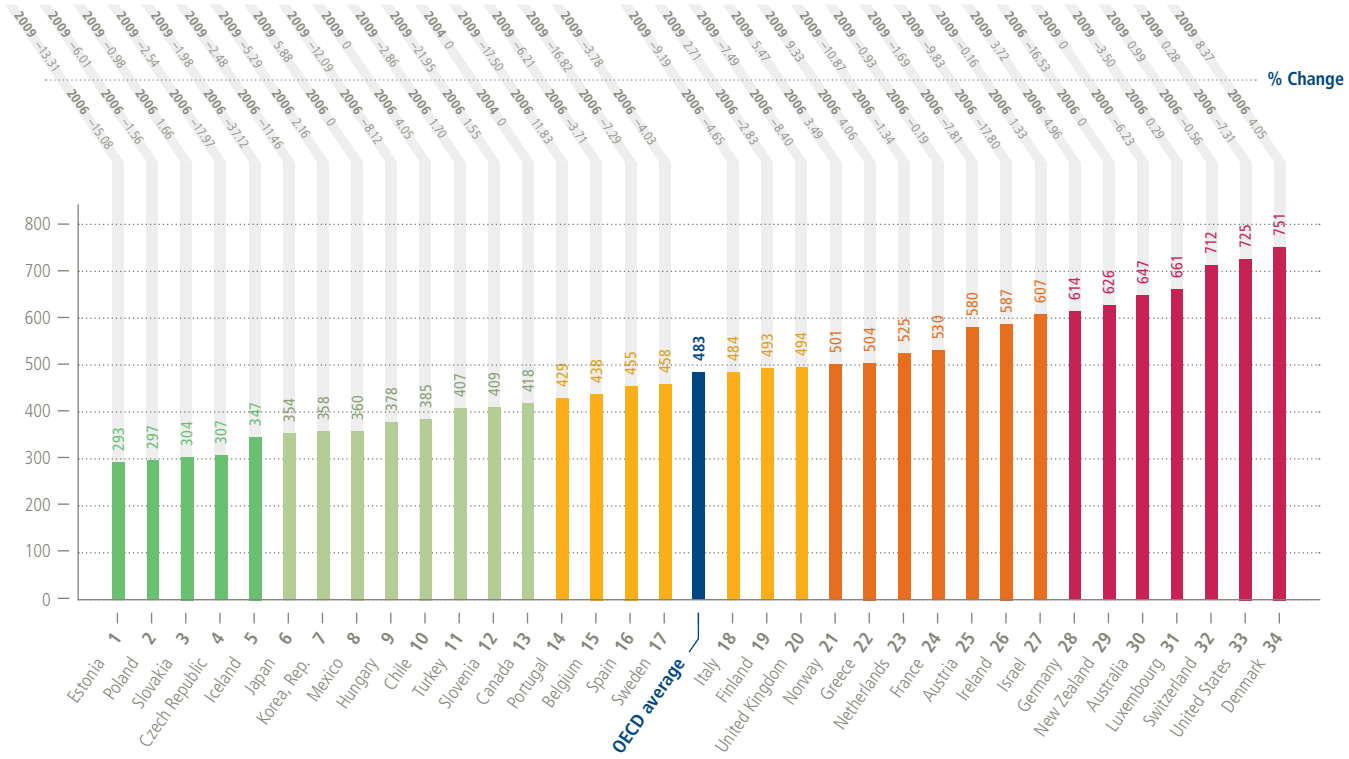
Unit: Number of rooms, **Source:** OECD (data refer to 2015) | BertelsmannStiftung

provides some information on housing conditions in terms of space. The top five countries in this respect are Canada, New Zealand, the United States, Australia, and Belgium, where the respective room per person ratio is between 2.3 and 2.5. The midfield comprises a number of countries with on average 1.6 to 1.8 rooms per person. Countries such as Japan, Germany, France, Sweden, Austria, Portugal, and Switzerland belong to this group. At the bottom of the league table, however, we find several countries where a person has – on average – only one room at his or her disposal: Mexico (1.0), Turkey, Slovakia, Poland, and Hungary (all 1.1).

Further indicators which could be relevant to this goal include, but are not limited to, widespread access to public transport or the number of people killed in road accidents. These domains are particularly relevant outside the OECD nations since 90 percent of global road deaths, for instance, occur in low- and middle-income countries.

12. Consumption and production

12.1 Municipal waste generated



Unit: Kilograms per capita, **Source:** OECD (data refer to 2013, except KOR, MEX, GRC, AUT, IRL, USA: 2012, JPN: 2010, CHL, AUS: 2009, CAN: 2004) | BertelsmannStiftung

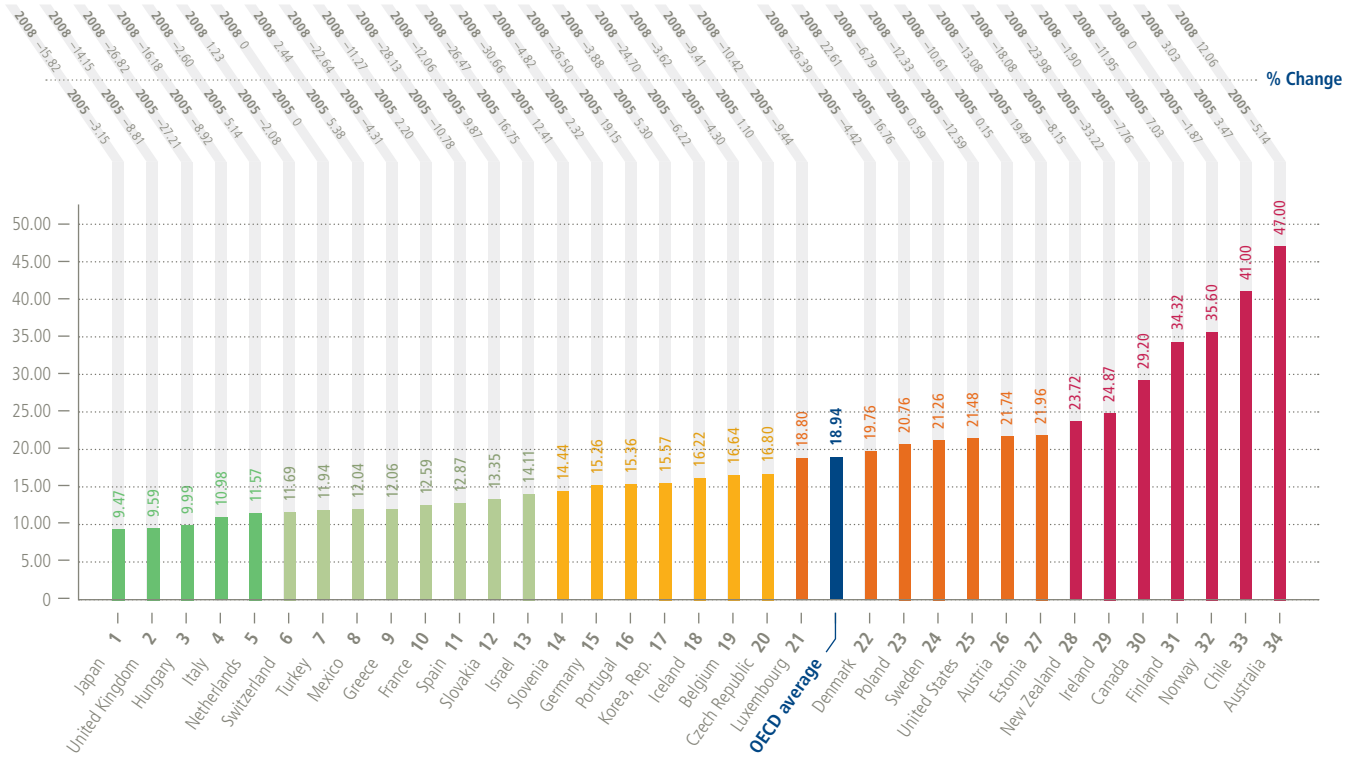
Goal 12. Ensure sustainable consumption and production patterns

Sustainable development is only possible when all countries make sure that their consumption and production patterns do not undermine the planet's environmental boundaries, as well as the social and economic conditions in other countries. The rich countries have a special responsibility to bear in this respect since economically advanced countries produce and consume much more than less developed countries. Goal 12 is therefore particularly relevant for the highly developed countries and the world's fast-emerging economies.

The indicator in figure 12.1 assesses how much municipal waste is generated per capita and per year in each OECD country. Municipal waste includes waste originating from households, commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings) as well as from selected municipal services (e.g. street cleaning). Estonia, Poland, Slovakia, the Czech Republic, and Iceland are the top five OECD countries in terms of limiting the production of municipal waste. However, the variation across the OECD nations is immense. Whereas in top-ranked Estonia "only" 293 kilograms waste per person is generated per year, Denmark and the United States come in the last places with 751 and 725 kilograms per capita, respectively. More than 600 kilograms of municipal waste is also generated per capita and year in Israel, Germany, New Zealand, Australia, Luxembourg, and Switzerland, where the respective figure is even 712 kilograms.

The indicator presented in figure 12.2 – domestic material consumption (DMC) – refers to the amount of materials directly used in an economy (apparent consumption) and is defined

12.2 Domestic material consumption

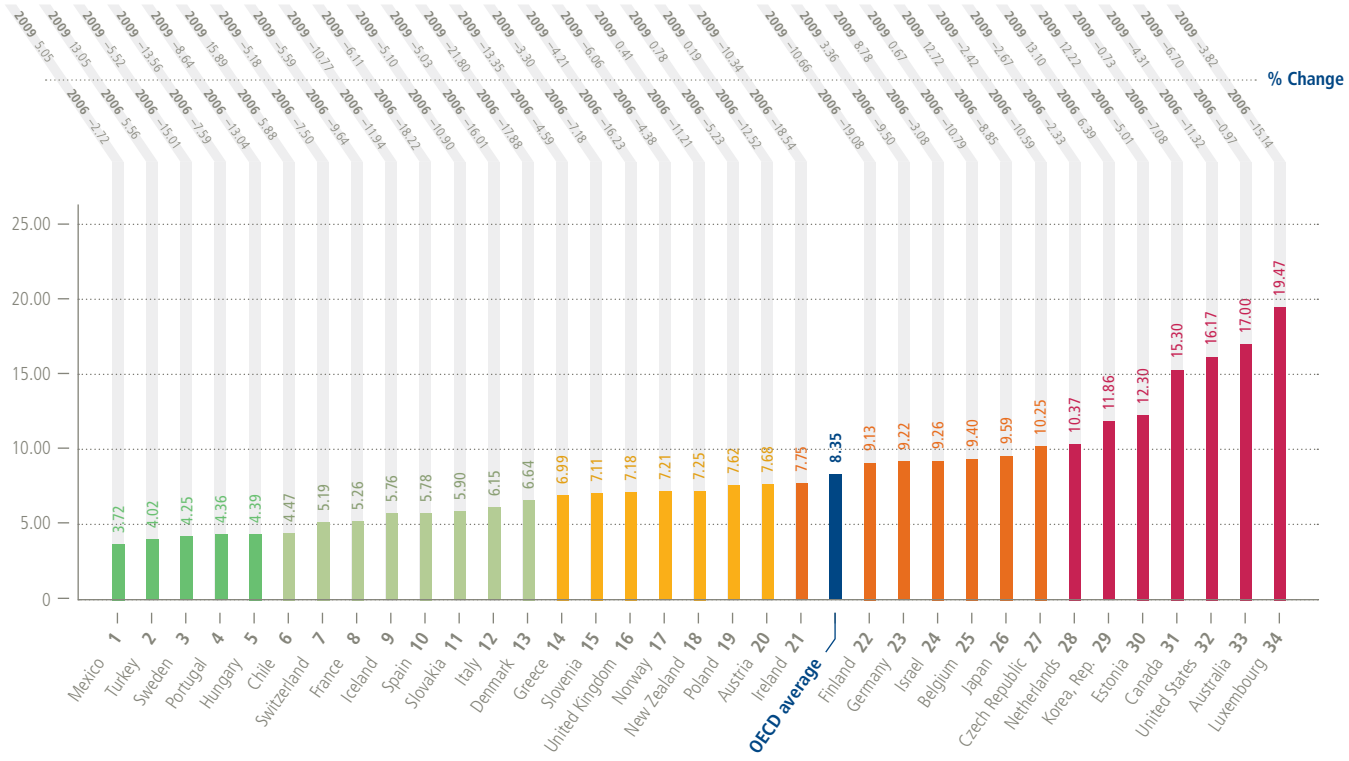


Unit: Tons per capita, **Source:** OECD (data refer to 2010, except JPN, HUN, FRA, SVK, SVN, PRT, ISL, CZE, LUX, POL, SWE, NZL, CAN, AUS: 2011, TUR: 2009, NOR: 2008) | BertelsmannStiftung

as the annual quantity of raw materials extracted from the domestic territory minus total exports plus total imports. The indicator is important in the context of a new global sustainable development agenda as it sheds light on each country's use of resources in absolute terms. Japan, the United Kingdom, and Hungary are the only three OECD countries where domestic material consumption is below 10 tons per capita. Italy and the Netherlands follow in places four and five with approximately 11 and 11.6 tons per capita. By contrast, domestic material consumption is more than four times as high in last-ranked Australia (47 tons). Alongside Australia, the bottom group also includes Canada (29.2 tons), Finland (34.3 tons), Norway (35.6 tons), and Chile (41 tons).

13. Climate

13.1 Production-based energy-related CO_2 emissions



Unit: Tons CO_2 equivalent per capita, **Source:** OECD (data refer to 2012)

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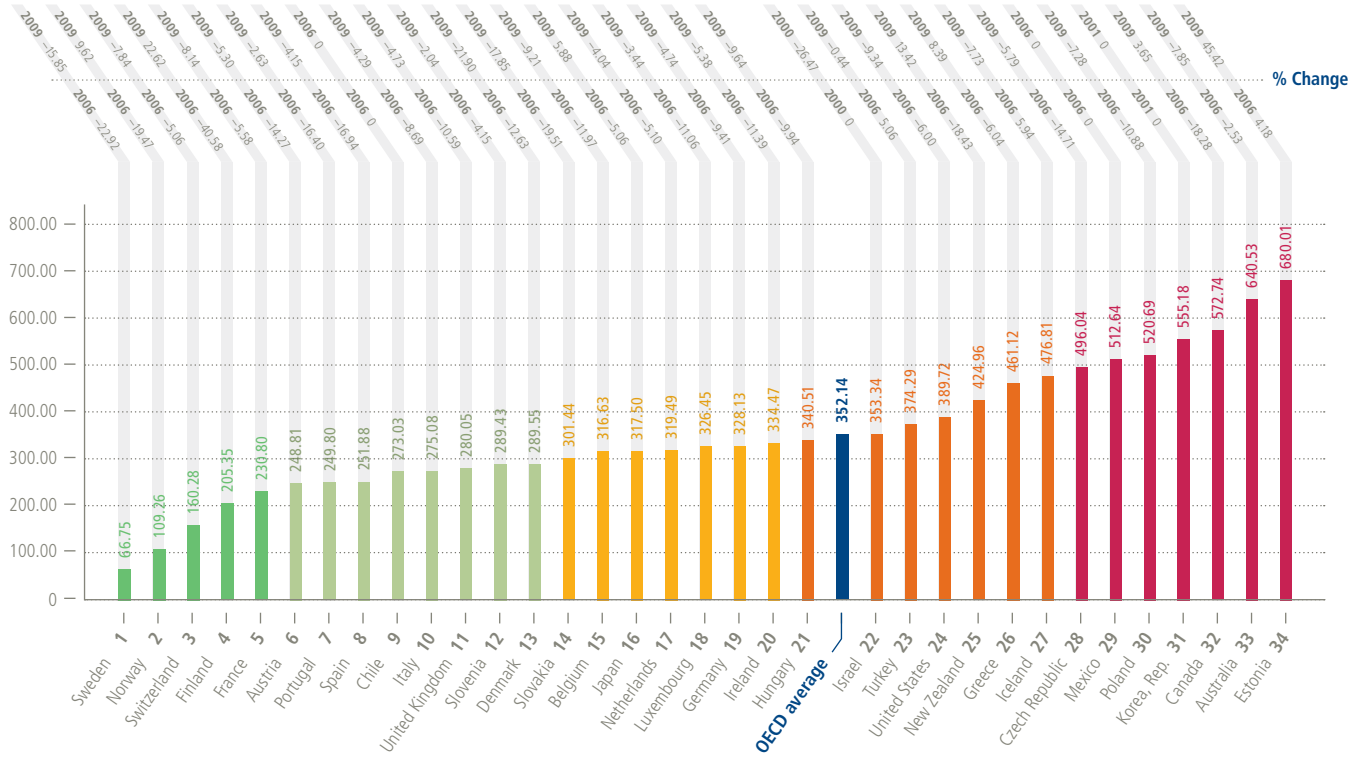
Goal 13. Take urgent action to combat climate change and its impacts

The highly developed industrialized nations' responsibility to combat climate change is obvious and cannot be overestimated. Similar to the issue of sustainable consumption and production patterns, the rich countries need to become leading examples if the goal of combating climate change and its consequences is not to remain mere lip service. Effectively reducing CO_2 and other greenhouse gas emissions is imperative in this regard. The data displayed in figures 13.1 and 13.2 show how far many OECD countries are still lagging behind compared to the respective benchmark countries of the sample. Figure 13.1 provides information on production-based CO_2 emissions per capita. "Production-based" means that emissions refer to gross direct CO_2 emissions from fossil fuel combustion, emitted within the national territory excluding bunkers, sinks, and indirect effects. In the five leading countries, Mexico, Turkey, Sweden, Portugal, and Hungary, as well as in sixth-ranked Chile, production-based CO_2 emissions are below 5 tons per capita. These countries' performances stand in stark contrast to the respective emission levels of countries placed at the bottom of the list, such as Canada, the United States, Australia, and Luxembourg. Here, CO_2 emissions range from 15.3 (Canada) to 19.47 tons per capita (Luxembourg).

The second snapshot indicator links emission levels to the size of a country's economy, and refers to total greenhouse gas emissions per GDP. Greenhouse gas emissions include land use, land-use change, and forestry, and are measured in CO_2 equivalents as a percentage of GDP (tons per million constant 2005 int. USD PPP). The findings are remarkable: While Sweden is by far

13.2 Greenhouse gas emissions per GDP



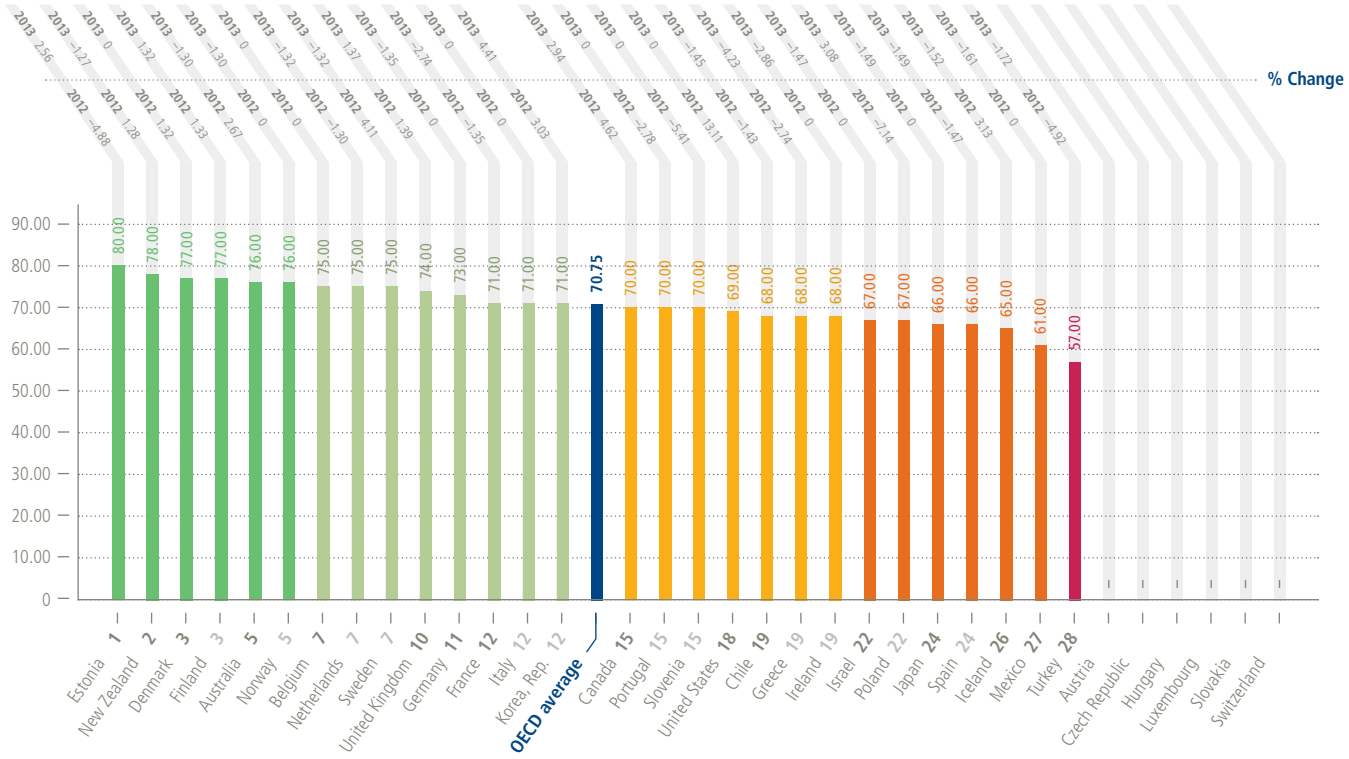
Unit: Tons CO_2 equivalent per million const. 2005 int. USD PPP, **Source:** UNFCCC, IEA (data refer to 2012, except ISR: 2010, CHL, MEX: 2006, KOR: 2001) | BertelsmannStiftung

the top-performing country with an amount of 66.75 tons, Estonia comes in last place with 680 tons – more than ten times as much as in the case of the leading country. Moreover, Sweden is the only country ranked among the top five on both indicators chosen here.

With regard to greenhouse gas emissions per GDP, Norway, Switzerland, Finland, and France follow in places two to five. In fifth-ranked France, however, emissions are already nearly four times as high as in Sweden. At the negative end of the spectrum, Canada and Australia again find themselves in the bottom group. Australia's greenhouse gas emissions per GDP amount to 641 tons, which means that the country ranks second to last on both indicators of goal 13.

14. Oceans

14.1 Ocean Health Index



Unit: Standardized index, **Source:** Ocean Health Index (data refer to 2014)

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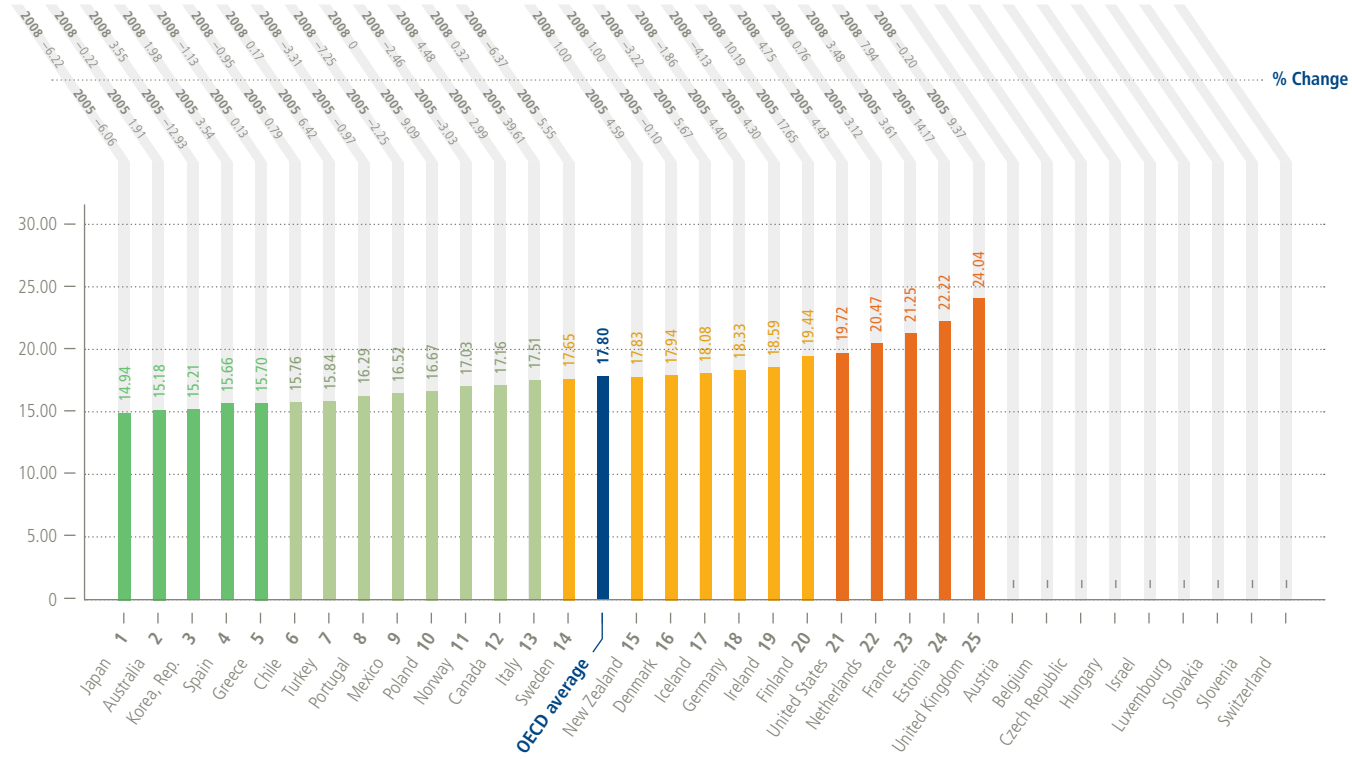
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 14 refers to a key dimension of environmental sustainability. Decisive action is necessary to limit the human-caused degradation of marine ecosystems and to restore marine resources for sustainable development. Setting up protected marine areas, establishing sustainable fishing quotas in order to protect threatened species, and reducing CO_2 emissions can, among other measures, serve as potential strategies to curb the negative human impact on our marine environment.

The Ocean Health Index evaluates the condition of marine ecosystems according to ten human goals, which represent the key ecological, social, and economic benefits that a healthy ocean provides. It is developed by the contributions of more than 65 experts on marine science, economics, and sociology under the leadership of the National Center for Ecological Analysis and Synthesis at the University of California, Santa Barbara, the University of British Columbia's Sea Around Us Project, Conservation International, the National Geographic Society, and the New England Aquarium.

The ten goals that the index refers to are food provision, artisanal fishing opportunities, natural products, carbon storage, coastal protection, sense of place, coastal livelihoods and economies, tourism and recreation, clean waters, and biodiversity. A healthy ocean is therefore considered to be one that can sustainably deliver a range of benefits to people now and in the future. Figure 14.1 shows that Turkey and Mexico lag farthest behind on the index, whereas Estonia, New Zealand, Finland, Denmark, Norway, and Australia form the top group.

14.2 Overexploited fish stocks



Unit: Percent, **Source:** Yale (data refer to 2011)

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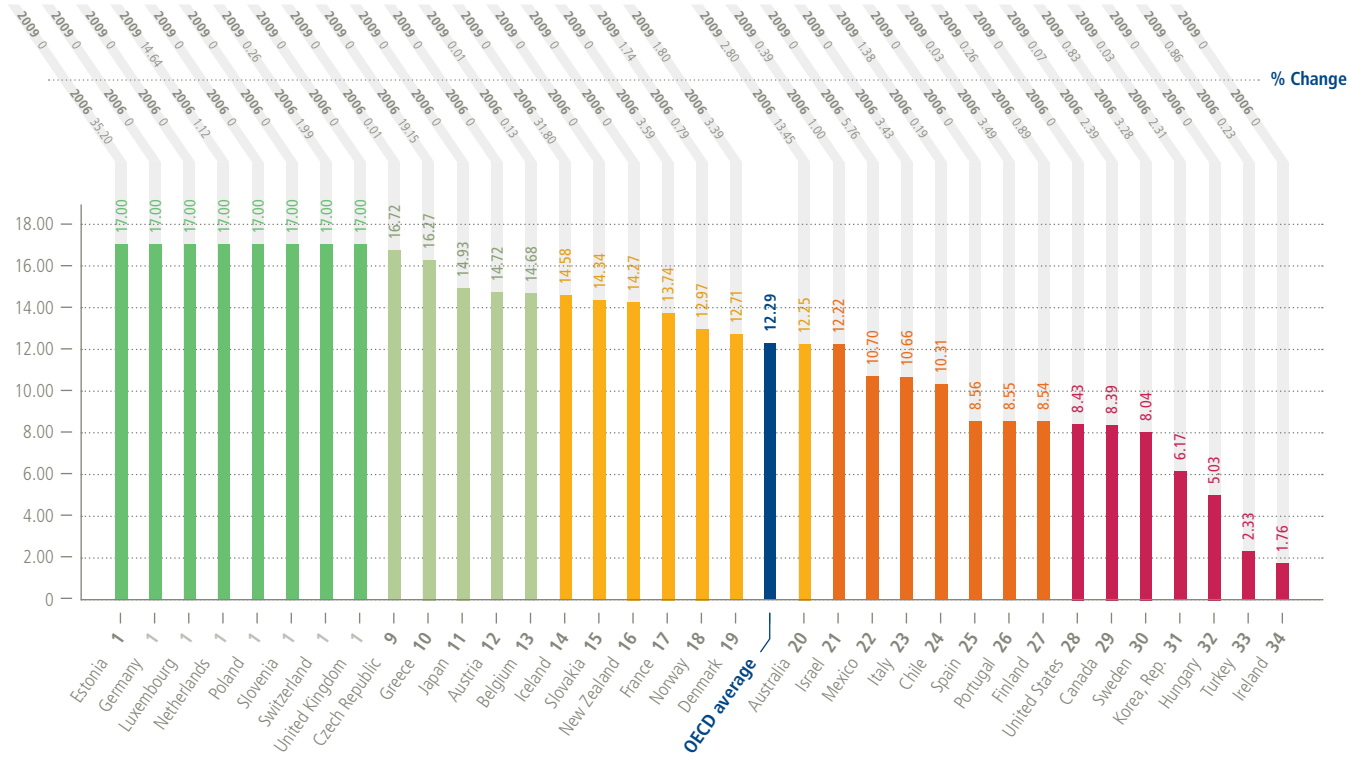
In this cross-national comparison, Australia also performs – in relative terms – well on the second indicator, which assesses for each country the extent to which fish stocks are overexploited and collapsed within the countries' exclusive economic zones. Besides Australia, Japan, Korea, Spain, and Greece are those countries within the OECD with the lowest share of overexploited fish stocks by exclusive economic zone. In these countries, overexploitation amounts to approximately 15 percent. From an ecological point of view, these figures are still much too high. However, things look even less encouraging in those countries at the bottom of the ranking on this indicator. In France, Estonia, and the United Kingdom, overexploitation rates are between 21.25 percent (France) and 24.04 percent (United Kingdom). This clearly underlines the need for these countries to better protect and conserve their respective marine resources.

15. Biodiversity

15.1 Terrestrial protected areas



Unit: Percent, **Source:** Yale (data refer to 2012)

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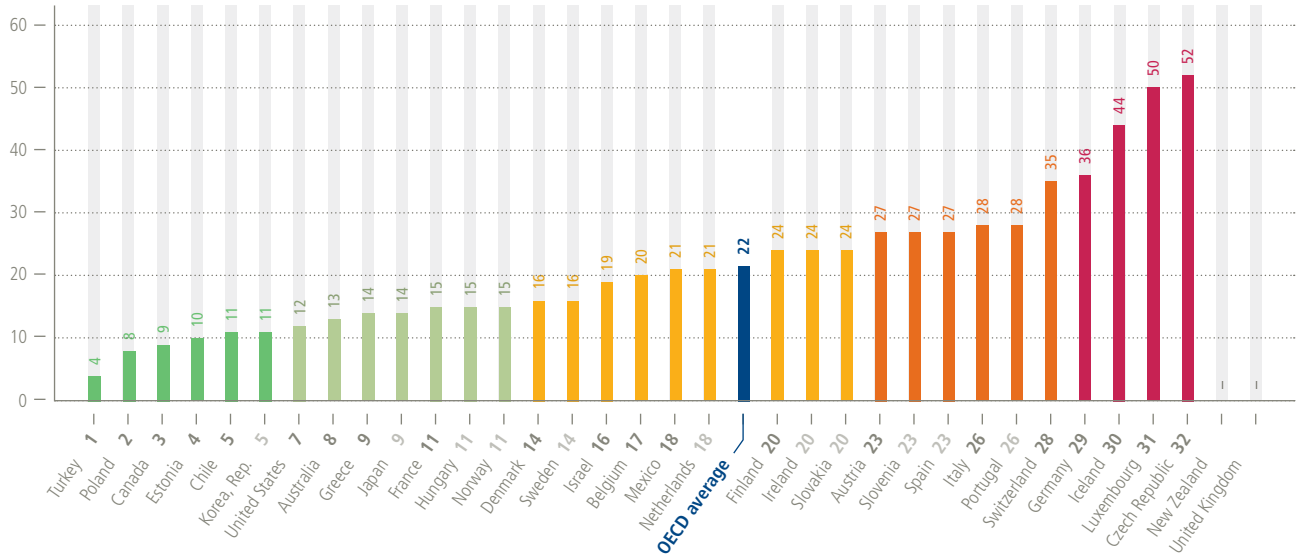
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss

Goal 15 is the direct counterpart to goal 14. Both goals highlight the importance of protecting and preserving the sustainability of natural resources and quality of the environment. The ecological dimension of sustainable development implies that governments and societies must shape effective policies to secure the natural foundation of human existence and leave an intact ecosystem for future generations. The two snapshot indicators used in our analysis refer to two very important aspects of goal 15: protecting terrestrial ecosystems and biodiversity.

With regard to the first indicator, figure 15.1 shows that the best-performing OECD countries have so far managed to protect 17 percent or more of their terrestrial biome areas. This benchmark group consists of Estonia, Germany, Luxembourg, the Netherlands, Poland, Slovenia, Switzerland, and the United Kingdom. While most countries have held these relatively high levels for a number of years now, the Netherlands only joined the top group recently with a further improvement compared to their 2009 level of 14.83 percent. However, there is still much room for improvement for these countries. The bottom four countries are Korea, Hungary, Turkey, and Ireland. Here, the respective share of protected terrestrial biome area is extremely small. In Ireland, for instance, only 1.76 percent of the country's terrestrial biome area counts as protected area. What is encouraging to see at least is that in no country examined here has the terrestrial biome area shrunk in recent years. In Estonia and Iceland, for instance, it was expanded by around a third between 2006 and 2009. The stagnation and low levels of expansion shown

15.2 Red List Index for birds



Unit: Percent, **Source:** OECD (data refer to latest available)

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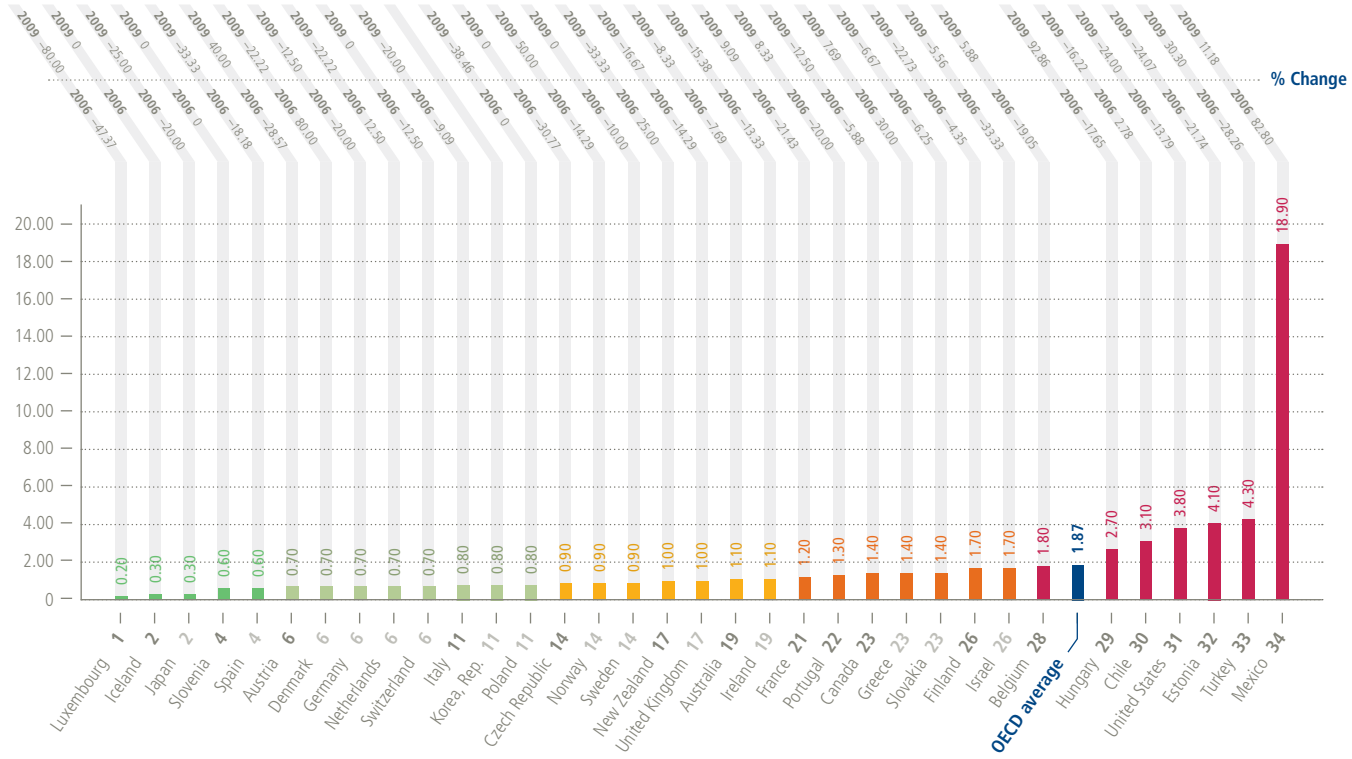
by many countries, however, will put goal 15 under strain in those places if policymakers do not act soon.

With regard to a country's performance on preventing biodiversity loss, figure 15.2 displays the OECD's Red List Index for Birds as a well-established proxy measure. Iceland, Luxembourg, and the Czech Republic show the strongest deficiencies on this indicator, and Switzerland and Germany also belong to the bottom group. Here, governments need to strengthen their efforts to protect the natural habitats of endangered species. By contrast, Turkey, Poland, Canada, Estonia, Chile, and Korea form the benchmark group. The percentage of threatened bird species in the top five countries ranges from 4 percent (Turkey) to 11 percent in Chile and Korea.

16. Institutions

16.1 Homicides



Unit: Per 100,000 inhabitants, **Source:** UNODC (data refer to 2013, except KOR, ISR, CHL, TUR: 2012) | BertelsmannStiftung

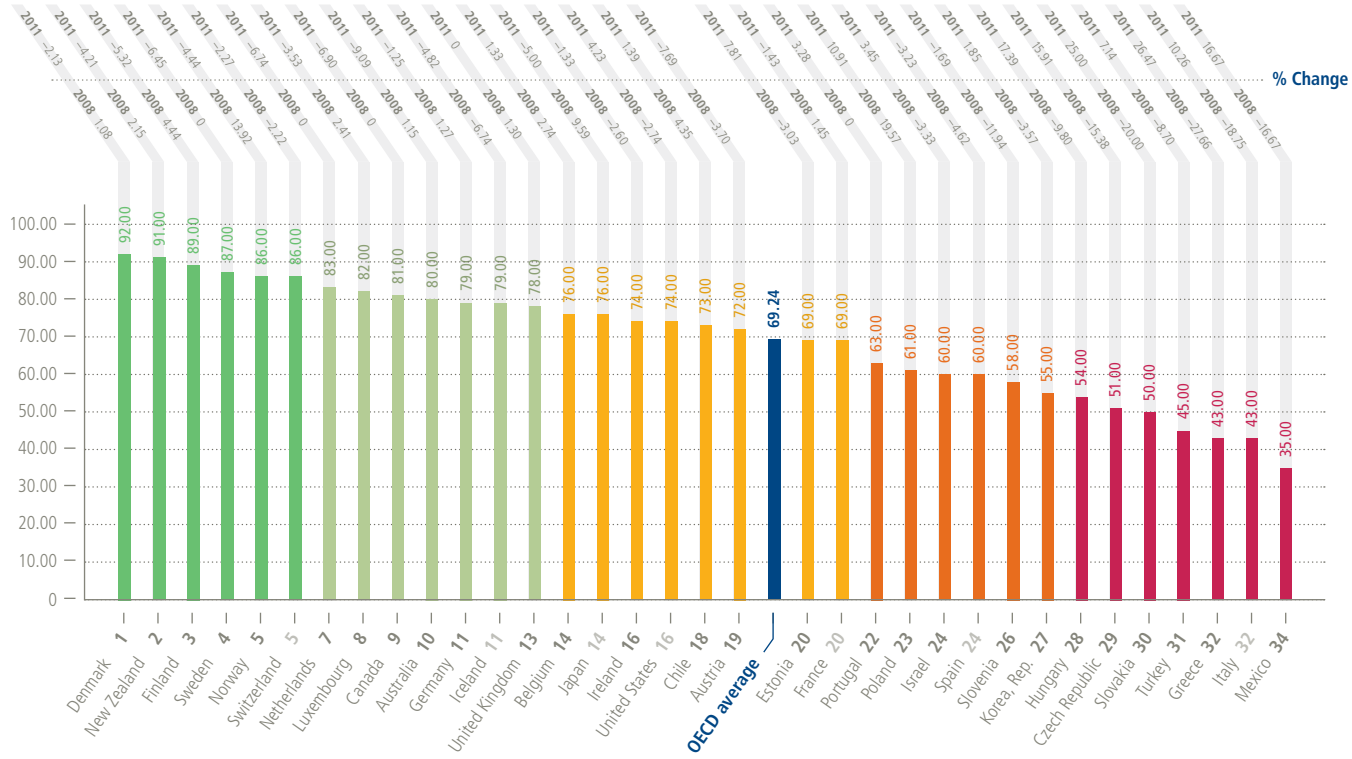
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels

There has been much discussion in the multi-stakeholder Post-2015 Development Agenda process on whether specific objectives on "good governance" could, for the first time, be incorporated into the SDGs. Several reports and contributions, among others the report of the High-Level Panel of eminent persons on the Post-2015 Development Agenda, rightly pointed out that good governance practices based on the rule of law are important "enablers" for sustainable development. Although the terms "good governance" and "rule of law" are not directly mentioned in goal 16, the objectives of building effective, accountable, and inclusive institutions as well as providing access to justice for all clearly reflect the underlying ideas of good governance. Sustainable development requires sound institutions, legal certainty, and peaceful and inclusive societies.[20]

With regard to the latter aspect, the rate of intentional homicides in figure 16.1 provides some information on whether societies can be considered peaceful, stable, and inclusive. These attributes can be assigned to the broad majority of OECD countries. Homicide rates are generally low in most of these nations. Less than one intentional homicide occurs per 100,000 inhabitants per year in Luxembourg, Iceland, Japan, Slovenia, Spain, Austria, Denmark, Germany, the Netherlands, Switzerland, Italy, Korea, Poland, the Czech Republic, Norway, and Sweden. However, there are also some countries, such as the United States (4.7 homicides) and Estonia (5.0), where homicide rates are clearly above average. Mexico is the biggest outlier in this regard with 18.9 homicides per 100,000 inhabitants per year. This underlines the country's massive

20 See for instance Schraad-Tischler, D. (2013): Enabling factors for sustainable development – strengthening rule of law and other key sustainable governance indicators. Available from *www.sgi-network.org*

16.2 Transparency Corruption Perceptions Index



Unit: Standardized index, **Source:** Transparency International (data refer to 2014)

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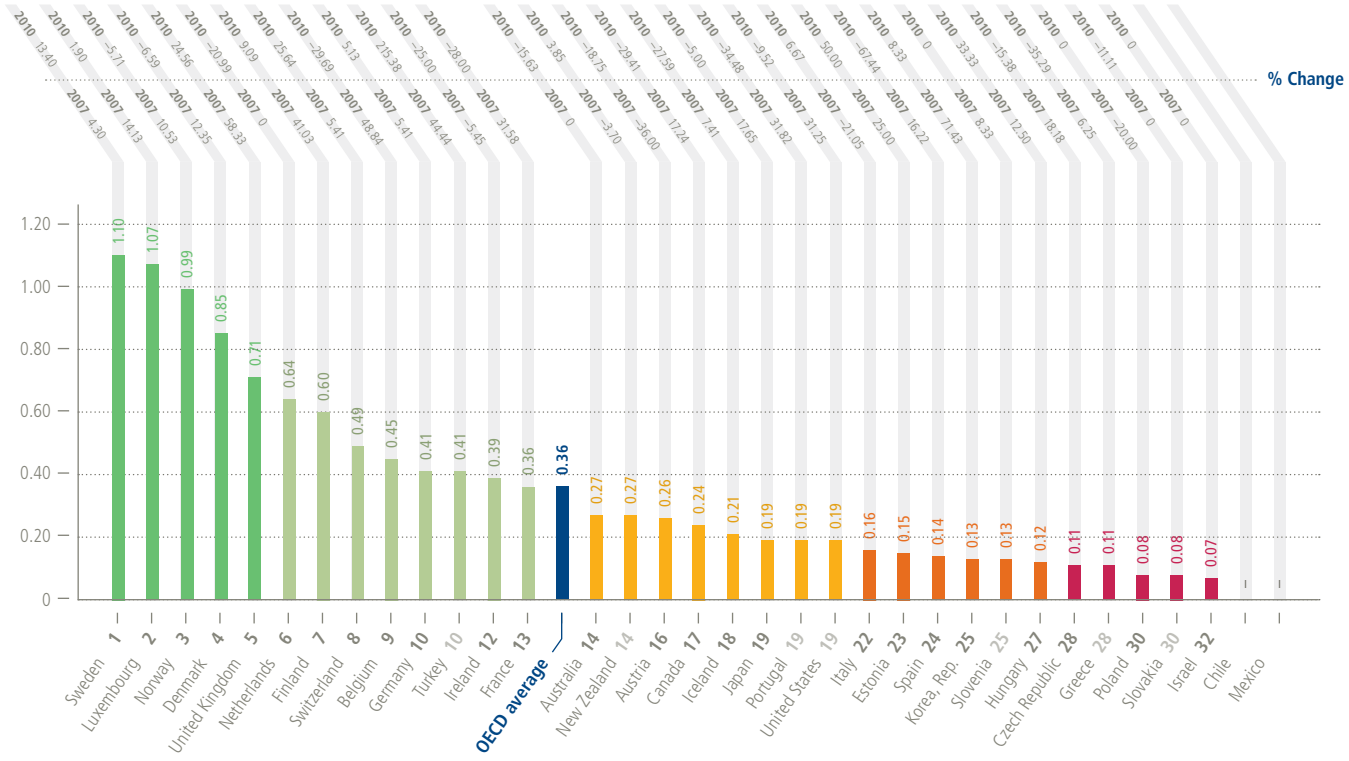
problems when it comes to guaranteeing safe living conditions for its population.

Mexico also ranks last on the second indicator shown in figure 16.2. The Corruption Perceptions Index (CPI) ranks countries and territories based on how corrupt their public sector is perceived to be. It is a composite index – a combination of polls and expert surveys – drawing on corruption-related data collected by a variety of reputable institutions. High levels of corruption undermine legal certainty, hamper effective policy implementation, and threaten the legitimacy of a political system as a whole. Governments must do more to strengthen mechanisms that prevent public servants and politicians from accepting bribes, such as providing spaces and ways that allow people to shame officials that accepted or even asked for bribes. Besides Mexico, Turkey, Italy, and Greece exhibit the strongest weaknesses in this regard. By contrast, the Nordic countries of Denmark, Finland, and Sweden feature traditionally in the CPI's top group and can be regarded as leading examples. New Zealand and Switzerland also belong to the top five. Countries such as the United States, Austria, and France only find themselves in the midfield together with Chile, Estonia, and Portugal.

17. Global partnership

17.1 Official development assistance



Unit: ODA as percentage of GNI, **Source:** OECD (data refer to 2014)

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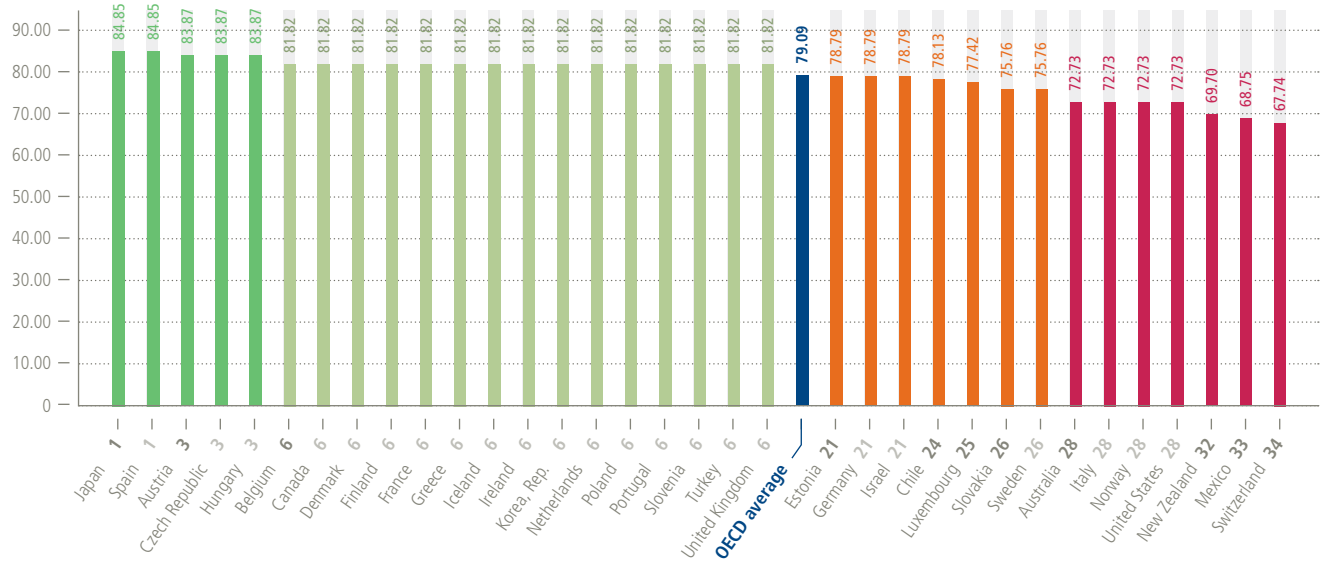
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

Revitalizing the global partnership for sustainable development depends crucially on the political will and the genuine commitment of developed countries to foster global public goods and to promote equal socioeconomic opportunities in developing countries. OECD countries must seek to ensure that their national policies are in alignment with international strategies in this regard. Policy coherence for development is thus a necessary condition for a truly global partnership.

In this context, the so-called donor countries also have to live up to their self-declared standards regarding official development assistance (ODA). ODA is defined as flows to developing countries and multilateral institutions provided by official agencies, including state and local governments, or by their executive agencies. Most OECD member states, however, have not managed to fulfill the target of providing at least 0.7 percent of their respective GNI for ODA. In fact, as figure 17.1 clearly shows, this target is far out of sight for the vast majority of OECD countries. There are only five countries meeting the target already: Norway, Sweden, Luxembourg, Denmark, and the United Kingdom. Luxembourg's and Sweden's spending on ODA even exceeds one percent of the two countries' respective GNI. By contrast, rich countries such as Japan and the United States only spend a mere 0.19 percent.

In addition to the aspect of revitalizing the global partnership for sustainable development, goal 17 also refers to the challenge of strengthening the means of implementation. An effective implementation of the new SDGs depends heavily on the availability, comparability, and quality of timely data for the



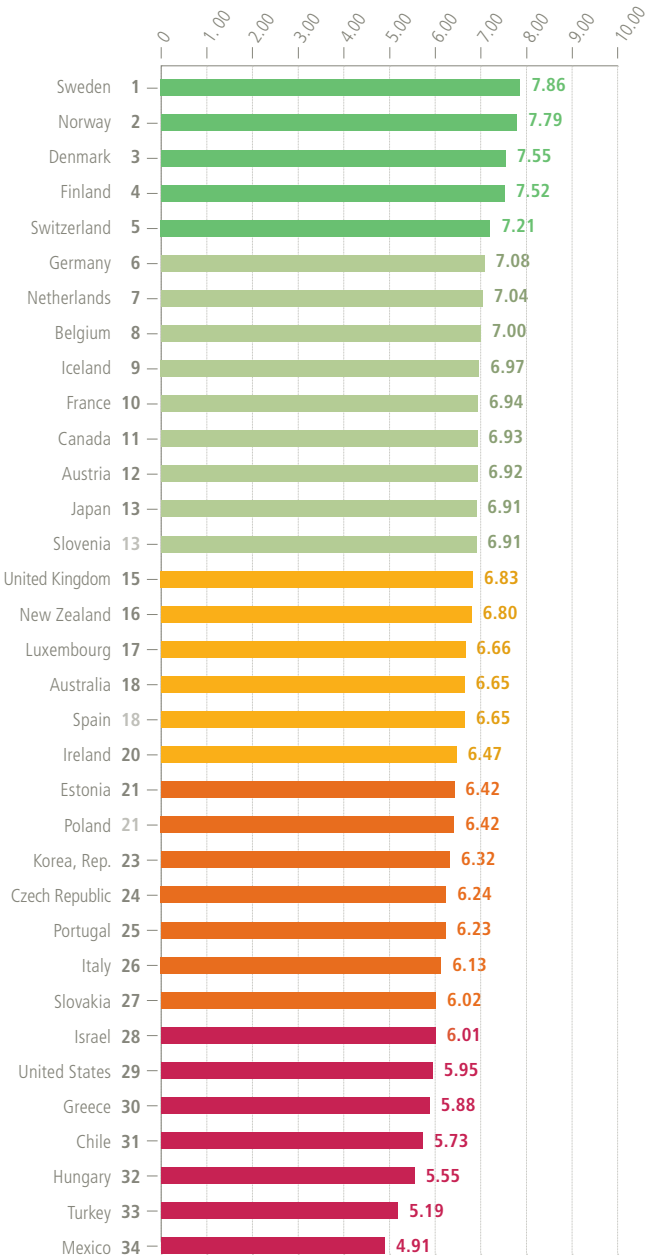
Unit: Percentage of SDG indicators used in this study that are reported annually with time lag no greater than three years, **Source:** Bertelsmann Stiftung (data refer to 2015) | BertelsmannStiftung

individual indicators. Countries therefore have to strengthen their statistical capacities to make sure that progress on the implementation of the SDGs can be tracked and monitored in a transparent and reliable way.

Against this backdrop, our second snapshot indicator refers to the percentage of SDG indicators used in this study that are reported annually with a time lag no greater than three years in the respective country. This indicator is calculated as the number of indicators reported divided by the number of indicators applicable for the respective country, multiplied by 100. Figure 17.2 shows that many OECD countries are already faring quite well on this indicator. Twenty out of 34 OECD member states provide timely data on an annual basis for more than 80 percent of the SDG indicators selected here. The top performers in this respect are Spain and Japan with nearly 85 percent. Switzerland, Mexico, and New Zealand, by contrast, have to improve their reporting standards. In the case of these three countries, the percentage of timely data regularly reported for the SDG indicators used in this study is still below 70 percent, showing that the demand for a data revolution actually extends beyond the poorest countries.

5. Conclusions: Who is fit for the goals?

Figure 1: The world's first SDG Index



5.1. Countries that are ready for the SDGs: The fit five

This stress test has shown that, of all OECD countries, Sweden, Norway, Denmark, Finland, and Switzerland are best prepared for the SDGs. They form the top five on the aggregated SDG Index which summarizes performance across all 34 indicators and 17 goals examined in this study.[21] These countries, the "fit five," are therefore in a strong position to foster further improvements in the SDGs in the future. They demonstrate that an economic and social model which is sustainable and inclusive is possible. Nonetheless, they must maintain their ambition since even these countries have their particular challenges, sometimes considerable in scope, as the country profiles have illustrated. Despite certain shortcomings, though, these countries have managed best overall so far in generating favorable results regarding economic, social, and environmental policy in the diverse fields we have examined. The 29 other OECD countries need to step up their policy efforts and follow the likes of Sweden and Norway if they are to reach the UN's ambitious set of goals by 2030.

Sweden, for instance, demonstrates how to achieve a strong yet low-carbon economy. The country leads the OECD nations with its low greenhouse gas emissions, while its fossil fuel energy production causes just 4.3 tons of carbon dioxide emissions per capita as well as a renewable energy share of over 47 percent (third place on both indicators). At the same time, the economy is among the strongest in the OECD with 74.9 percent of working-age Swedes in employment (fourth) and a GNI of USD 46,680 per capita (seventh).

The particular responsibility of high-income countries when it comes to the SDGs extends to three types of goals: 1) domestic sustainability targets to reform how societies in the OECD themselves are organized, 2) do-no-harm targets to minimize negative external effects of domestic policies for other countries, and finally 3) international responsibility targets related to the rich nations' commitment to fighting poverty in the developing world.[22]

21 For details of how the SDG Index was constructed, see Chapter 2, Methodology.
22 Typology by the Civil Society Reflection Group on Global Development Perspectives (2015): Goals for the rich. *https://www.globalpolicywatch.org/wp-content/uploads/2015/02/RG-Goals-for-the-Rich-Advaced-Unedited-Version.pdf*

Thus, next to strengthening the global partnership for development and reducing inequality within and between nations, this study has shown that the main challenges overall for the entire set of OECD countries in terms of the SDGs related to domestic reforms remain: a) fostering an inclusive economic model (goals 8 and 10) as well as b) sustainable consumption and production patterns (goal 12).

In the first respect, sadly the rich countries in this world are no exception to the trend of a growing gap between rich and poor. In most OECD nations, the richest 10 percent earn more than the poorest 40 percent combined. Inequality keeps rising across these countries, and the average income of the richest 10 percent of the population is now about nine times that of the poorest 10 percent. This trend will threaten not only social cohesion, but also economic growth.

In the latter respect, countries such as the USA and Denmark generate 725 and 751 kilograms of municipal waste per person every year. Half of all OECD nations still have a share of renewable energy below 11 percent – clearly more efforts are needed there. The UK and Estonia overexploit their fish stock by 24 and 22 percent, respectively. One can only imagine what would happen if the likes of India and China followed the path that these countries have chosen.

In fact, their inability to fight the growing social divide coupled with their overuse of resources begs the question whether today's high-income countries really can still serve as role models for the developing world. In terms of sustainable development, all countries are now developing countries. Thus, a new – more inclusive and sustainable – social and economic model must be strived for in the future.

5.2. The great divide: Where OECD nations lie far apart

This comparison of OECD countries across all 17 SDGs has shown that in some areas, countries perform at a similar level. The range of scores is quite narrow for some indicators; in other words: OECD nations pretty much all play in the same league here. This is true, for instance, with regard to homicide rates, as captured by goal 16. All OECD countries are very safe places to live, with homicide rates ranging from 0.2 (Luxembourg) to 4.3 (Turkey) per 100,000 inhabitants. Mexico is the only drastic exception here, with a rate of 18.9. A similar picture emerges concerning the capacity to monitor the SDGs (goal 17). Although all countries will need to improve their statistical coverage, they currently all report between around 68 percent and around 85 percent of the indicators used in this study annually, with a time lag no greater than three years.

For a number of goals, however, high-income countries differ greatly in their performance on the SDGs. This is especially evident with respect to goals 12 (sustainable consumption and production) and 13 (tackling climate change). While in Estonia, Poland, and Slovakia, for instance, citizens generate below 310 kilograms of waste per capita every year, the figure is more than twice as high in Denmark (751 kilograms), the United States (725 kilograms), and Switzerland (712 kilograms). Likewise, greenhouse gas emissions amount to less than 110 tons of CO_2 equivalent as a percentage per million GDP in Sweden and Norway, while six countries each emit more than 500 tons (Mexico, Poland, South Korea, Canada, Australia – and Estonia with 680 tons). The share of renewable energy (goal 7) is around or above 50 percent in the top three countries Iceland, Norway and Sweden, while in 17 OECD countries it is below 11 percent – including in the Netherlands (3.56 percent), the United Kingdom (3.16 percent), and South Korea (1.29 percent). Finally, gender equality (goal 5) is in a good state, at least as indicated by the share of women in the national parliaments in Sweden, Finland, and Belgium with over 40 percent, while less than 15 percent of MPs in Turkey, Hungary, and Japan are female.

5.3. The ideal country: A vision for the future

Going forward, all nations will have to effectively handle potential trade-offs between the 17 goals, thus managing to foster a stronger economy and balanced social policies and protecting the environment at the same time. Governments and citizens must reconcile the manifold and often diverging policy goals with one another.

Building upon the benchmarking in this study, the ideal country in terms of the 17 goals for sustainable development would therefore be one that by 2030 will have managed to (1) tackle poverty even better than the Czech Republic and Finland, (2) promote sustainable agriculture and nutrition even better than Iceland and Japan, (3) ensure healthy lives and well-being for all even better than Japan and e.g. Denmark, (4) ensure inclusive and equitable quality education even better than Japan and Korea, (5) promote gender equality even better than Sweden and New Zealand, (6) ensure availability and sustainable management of water even better than Iceland and e.g. Austria, (7) ensure access to affordable and modern energy even better than Ireland and Iceland, (8) promote economic growth and employment even better than Norway and Iceland, (9) build resilient infrastructure and foster innovation even better than South Korea and Israel, (10) reduce inequality even better than Slovakia and Estonia, (11) make cities and settlements safe even

Table 1: The best and worst performers in all 17 goals and 34 indicators

Goal		Best countries	Worst countries
Poverty	1.1	Czech Republic	Mexico
	1.2	Finland	Italy
Agriculture and nutrition	2.1	Iceland	Korea, Rep.
	2.2	Japan	United States
Health	3.1	Japan	Turkey
	3.2	Denmark and others	Greece
Education	4.1	Japan	Turkey
	4.2	Korea, Rep.	Mexico
Gender equality	5.1	Sweden	Japan
	5.2	New Zealand	Korea, Rep.
Water	6.1	Iceland	Israel
	6.2	Austria and others	Turkey
Energy	7.1	Ireland	Iceland
	7.2	Iceland	Korea, Rep.
Economy and labor	8.1	Norway	Mexico
	8.2	Iceland	Greece
Infrastructure and innovation	9.1	Korea, Rep.	Greece
	9.2	Israel	Chile
Inequality	10.1	Slovakia	Chile
	10.2	Estonia	Slovakia
Cities	11.1	Australia and others	Belgium
	11.2	Canada	Mexico
Consumption and production	12.1	Estonia	Denmark
	12.2	Japan	Australia
Climate	13.1	Mexico	Luxembourg
	13.2	Sweden	Estonia
Oceans	14.1	Estonia	Turkey
	14.2	Japan	United Kingdom
Biodiversity	15.1	Estonia and others	Ireland
	15.2	Turkey	Czech Republic
Institutions	16.1	Luxembourg	Mexico
	16.2	Denmark	Mexico
Global partnership	17.1	Sweden	Israel
	17.2	Japan, Spain	Switzerland

better than e.g. Australia and Canada, (12) ensure sustainable consumption and production patterns even better than Estonia and Japan, (13) cut emissions even better than Mexico and Sweden, and combat climate change, (14) conserve oceans even better than Estonia and Japan, (15) protect terrestrial ecosystems and halt biodiversity loss even better than e.g. Estonia and Turkey, (16) promote peaceful societies and effective institutions even better than Luxembourg and Denmark, and finally (17) revitalize the global partnership for sustainable development and strengthen the means of implementation of the SDGs through monitoring even better than Sweden, Japan, and Spain (see Table 1 for details).

5.4. Lessons from rising stars

If countries are trying to get serious about learning from each other, then the most promising way to facilitate such peer learning is to look at the success (and failures) that other nations have displayed. Tables 2 and 3 illustrate the biggest improvements and the worst deteriorations in the 17 SDGs over the past few years – both in terms of percentage change[23] on all respective indicators and with regard to rank change. There are too many lessons for them all to be spelled out here, and they will need to be analyzed in depth going forward. Reform debates need to focus on which policies can be transferred successfully to other nations, taking into account differing contexts and particular challenges.

For example, Sweden has managed to cut its already outstandingly low levels of greenhouse gas emissions relative to GDP by another third (35.1 percent) since 2006. Such enormous progress at an already high level puts other countries to shame and is worthy of emulation. By contrast, countries such as Canada, Australia, and Estonia emit eight to ten times as much as Sweden relative to GDP. Concrete policy instruments which have fostered this success in Sweden include the carbon tax on the use of coal, oil, natural gas, petrol, and aviation fuel. It set the right financial incentives for the use of biomass, such as waste from forests and forest industries, in heating systems instead of using carbon. Furthermore, it encouraged the growth of non-energy-intensive industries, such as the service sector, which grew stronger than energy-intensive industries over the last few years. Even countries in which environmentally conscious mindsets are still less common than in Sweden, such measures can lead to significant objective improvements in a range of areas without necessarily harming economic growth, and consequently bring about much-needed changes in public awareness of these issues.[24]

23 The levels at which the respective countries perform need to be taken into account when interpreting the table of improvements in percentage. The fact that the UK, for instance, managed to increase its share of renewable energy by 170 percent might seem impressive at first sight, but must be seen in context of the country still being second to last in this regard. Much stronger efforts from one of Europe's leading economies are needed here.

24 The policy instrument of sustainability strategies must also play a more prominent role in the future. A global comparison of sustainability strategies can be found in: Bertelsmann Stiftung (ed.) (2013). Winning Strategies for a Sustainable Future. Gütersloh: Bertelsmann Stiftung

Likewise, fighting inequality is an issue that many OECD countries are not addressing successfully enough: Turning the tide with regard to the growing gap between rich and poor will require more focused policy efforts. One can see, for instance, that over the last few years, Slovakia managed to narrow the income gap between rich and poor more than any other country, cutting the Palma ratio by 23.4 percent and consequently climbing up 13 places in the ranking. This does not allow the country's government to slow down their efforts, however, since a growing gap in education in Slovakia could lay the foundation for future inequalities to rise and jeopardize past success, as becomes evident in the dramatically worsening performance over the last few years with regard to the country's PISA Social Justice Index ranking. In contrast, for all its deficiencies regarding income inequality, the United States managed to lower the gap in terms of educational performance between students from high and low socioeconomic backgrounds, climbing up 18 places on the aforementioned PISA Social Justice Index and thereby giving reason to be cautiously optimistic. Overall, however, such disparities illustrate that for a challenge as complex as inequality, a holistic approach that captures multiple dimensions will be required.

Aside from domestic reform with regard to problems at home, this study has made clear that fighting extreme poverty in the poorest regions of the world must remain the top priority for high-income countries over the period of the SDGs. It will therefore be necessary for nations at similar income levels such as Turkey to step up their ODA at least as much (given Turkey's significant increase that led to an improvement in the ranking by 17 places) and finally reach the eventual goal of 0.7 percent. For all its domestic problems, Spain should therefore take inspiration from those nations which have kept their ODA levels at least constant despite significant domestic problems – rather than cutting their ODA level by 62 percent.

5.5. Are the best performers in sustainable development also the most economically powerful or the happiest?

A widespread belief is that economic power is the basis upon which progress in other fields can build. The SDGs contain many dimensions of quality of life beyond merely the sum of goods and services produced in an economy in order to chart progress in a comprehensive way. Would a focus on strengthening the economy yield automatic rewards for sustainable development as defined by the SDGs and as measured by our 34 indicators? Figure 2 shows the relationship between GDP

Table 2: Biggest improvements and deteriorations in percentage

	Most improvement		Worst deterioration	
Goal	Country	Percentage change*	Country	Percentage change*
1.1	Ireland	–27.9	Sweden	83.0
1.2	New Zealand	–23.2	Ireland	55.5
2.1	Greece	– 61.3	Luxembourg	40.6
2.2	–	–	–	–
3.1	South Korea	7.4	–	–
3.2	Chile	17.2	Greece	–27.3
4.1	Portugal	45.8	Chile	–15.0
4.2	Turkey	7.1	Sweden	–4.4
5.1	Slovenia	150.4	Hungary	–16.2
5.2	Luxembourg	–58.1	Chile	304.2
6.1	Slovakia	–39.5	Slovenia	201.9
6.2	Ireland	41.2	Canada	– 1.0
7.1	Slovakia	–26.6	Iceland	36.8
7.2	United Kingdom	170.4	Turkey	–15.6
8.1	Chile	47.1	Luxembourg	–12.0
8.2	Israel	15.1	Greece	–19.5
9.1	Norway	10.6	Greece	–57.2
9.2	Slovakia	84.6	Luxembourg	–29.5
10.1	Slovakia	–23.4	Sweden	21.5
10.2	United States	–50.0	Slovakia	102.1
11.1	Slovakia	–76.1	Denmark	150.0
11.2	Turkey	22.2	Slovakia	–8.3
12.1	Iceland	–38.4	Greece	13.8
12.2	Ireland	–49.2	Poland	43.2
13.1	Denmark	–35.8	Chile	22.7
13.2	Sweden	–35.1	Estonia	51.5
14.1	United States	13.1	Greece	–6.9
14.2	Japan	–11.9	Italy	40.1
15.1	Estonia	35.2	–	–
15.2	–	–	–	–
16.1	Luxembourg	–89.5	Mexico	103.2
16.2	Poland	32.6	Slovenia	–13.4
17.1	Turkey	355.6	Spain	–62.2
17.2	–	–	–	–

* Change from oldest to latest year covered in the respective indicator.

Table 3: Biggest improvements and deteriorations in rank positions

	Most improvement		Worst deterioration	
Goal	Country	Rank change*	Country	Rank change*
1.1	Ireland	10	Sweden	–12
1.2	New Zealand	15	Austria	–14
2.1	Greece | Slovenia	5	Hungary | Luxembourg	–8
2.2	–	–	–	–
3.1	South Korea	19	United States	–5
3.2	Iceland	18	Greece	–12
4.1	Luxembourg	9	New Zealand	–6
4.2	Poland	13	Sweden	–14
5.1	Slovenia	18	Estonia	–7
5.2	Luxembourg	12	Chile	–17
6.1	Finland | Slovakia	1	Slovenia	–5
6.2	United Kingdom	14	Canada and others	–4
7.1	Poland | Slovakia	7	Greece	–8
7.2	Germany | Italy	6	Australia	–9
8.1	Germany	7	Ireland	–7
8.2	Germany | Israel	11	Ireland	–12
9.1	Canada	17	Greece | Iceland	–20
9.2	Estonia | Slovenia	9	Luxembourg	–10
10.1	Slovakia	13	Japan	–9
10.2	United States	18	Denmark	–14
11.1	United States	19	Israel	–20
11.2	Turkey	4	Mexico	–3
12.1	Iceland	16	Greece	–11
12.2	Hungary	16	Poland	–13
13.1	Denmark	11	South Korea	–6
13.2	Slovakia	10	Estonia	–12
14.1	South Korea	11	Greece	–7
14.2	Mexico	12	Finland	–15
15.1	Estonia	16	Austria and others	–3
15.2	–	–	–	–
16.1	Luxembourg	24	Greece	–14
16.2	Poland	9	Austria	–8
17.1	Turkey	17	Spain	–13
17.2	–	–	–	–

*Rank change from oldest to latest year covered in the respective indicator.

and the SDG Index that was produced in this study. Although the relationship is positive – meaning that economic power usually goes together with a stronger performance in all other dimensions of progress in the 17 SDGs – there are a number of interesting observations to be made here. For instance, Poland, Estonia, Portugal, and the Czech Republic are just as strong as the US with regard to sustainable development in the broad sense as captured by the SDG Index. However, they manage to generate those other goods deemed valuable for sustainable development with significantly fewer economic resources, as their GNI per capita is roughly half of that of the US. Given its economic power, the US should show leadership and do more to translate this strength into a more sustainable future – probably more so than any other nation in this study of OECD countries, given its size and important role on the global stage.

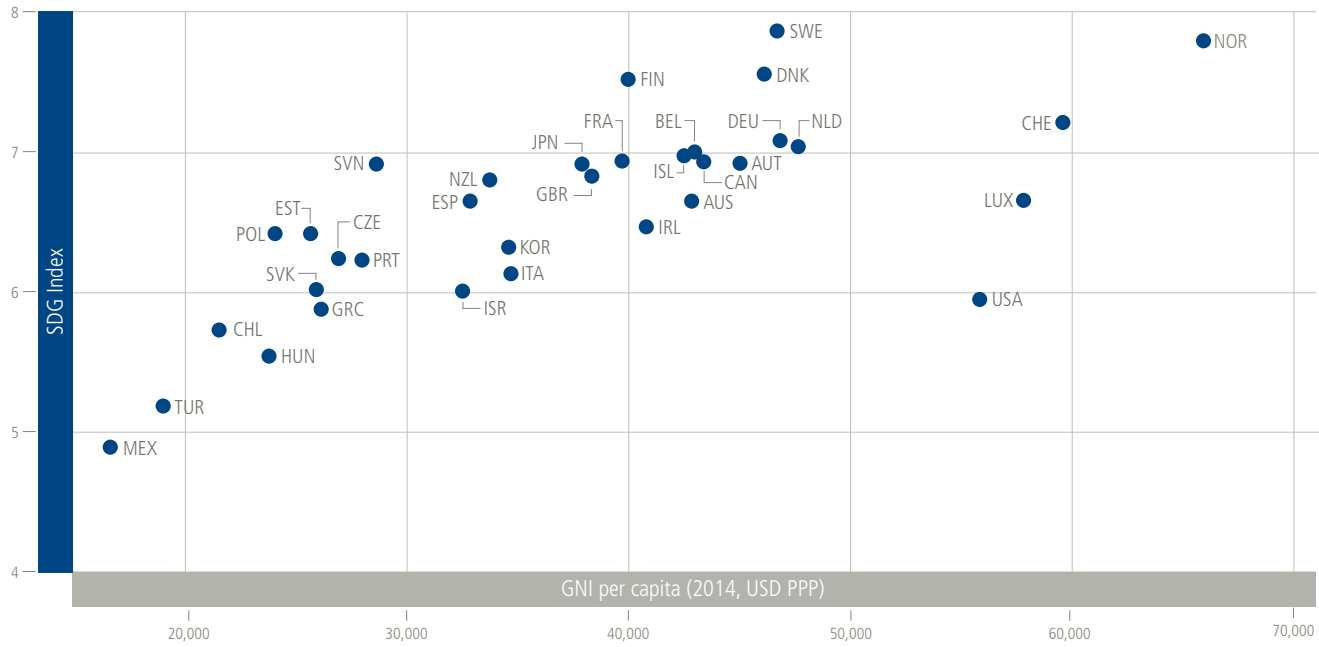
A related question concerns the relationship between how happy people are and how sustainable their lifestyle is. A widely held notion is that living in a sustainable fashion would force us to abandon habits in our day-to-day lives which were conducive to – or perhaps even invaluable to – our happiness. Figure 3 shows that this would not be the case, though. In fact, countries that do better in terms of sustainable development as measured by the SDG Index are also countries where people have a higher life satisfaction. The exceptions are Chile, Mexico, Israel, and the US, where deficits in sustainable development seem to affect people's life satisfaction less than in other countries. This finding leaves food for thought for those who are trying to strengthen public awareness of the need for sustainable development.

5.6. Governance and reform capacity outlook

Going forward, countries will need to increase their political efforts to foster progress on all dimensions of the SDGs. Which countries seem capable of managing policy reforms toward more sustainable development in the near future, though? The Sustainable Governance Indicators – an assessment framework of country performance involving a network of around 100 academics worldwide – contain both a Democracy Index and a Governance Index. The Democracy Index assesses how each country compares with regard to the quality of democracy and the rule of law, while the Governance Index examines how well developed reform and governance capacities are in the countries of the OECD.[25] Figures 4 and 5 show the correlations of the respective index with the SDG Index that captures country performance that was examined in this study.

25 For details of the composition of the two indices, see *http://www.sgi-network.org*

Figure 2



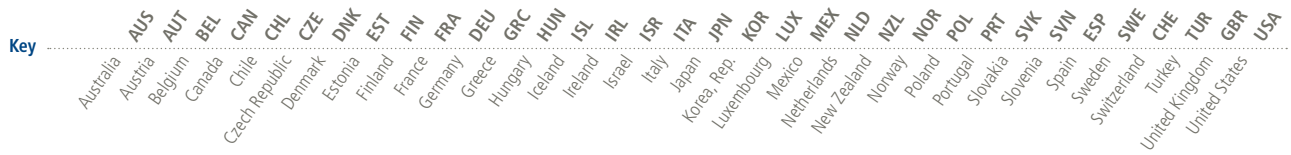
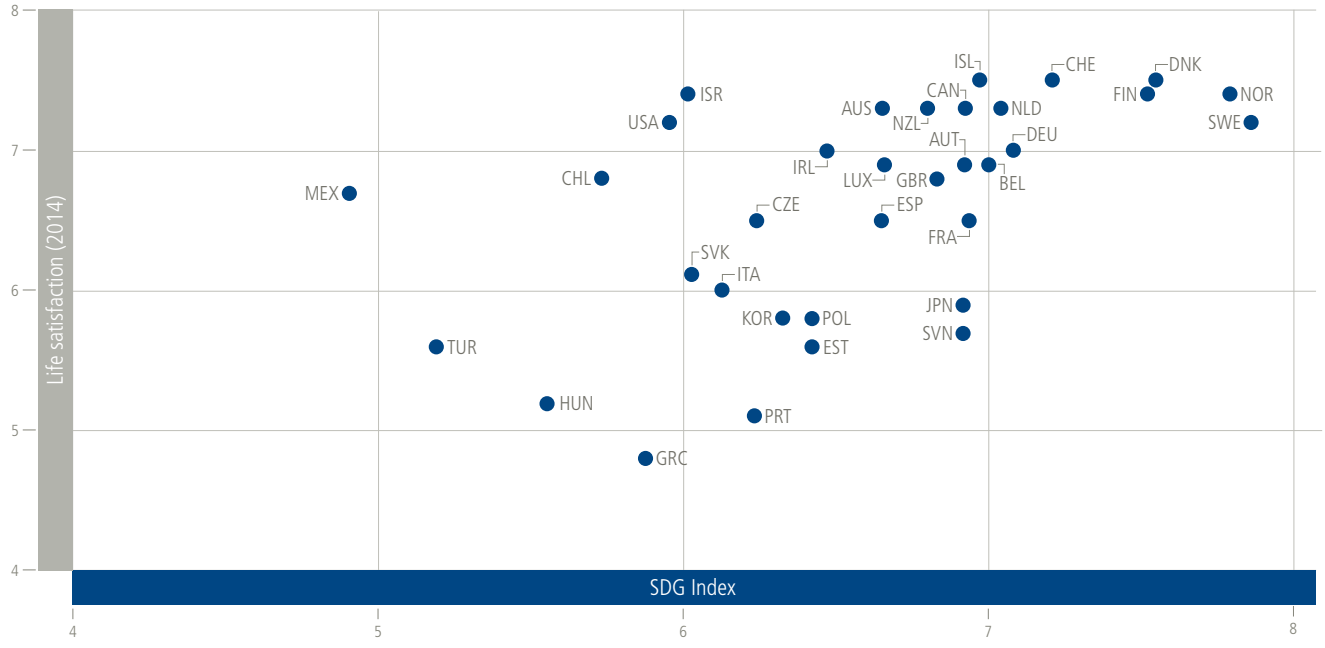


Figure 3



It becomes evident that in both cases the cross-country correlation is positive, indicating that sustainable development as defined by the 17 SDGs goes hand in hand with the quality of democracy and the governance capacities in OECD countries.
A closer look reveals interesting specifications, though. With regard to the quality of democracy, it emerges that Hungary, Turkey, Mexico, and South Korea display deficits which might jeopardize progress on the SDGs, even if those goals were widely accepted among the electorate. Likewise, in terms of governance capacities of political actors, the Governance Index shows that certain countries would have a harder time implementing change toward the SDGs, even if there was significant political will among policymakers to do so. Countries with such deficits regarding political steering capability include Hungary, Greece, Turkey, Slovakia, Portugal, and Mexico. The picture is different for the US, Poland, Ireland, and Australia. These countries may lag behind the front-runners in terms of truly sustainable development, such as the Scandinavian countries. However, a stronger performance with regard to governance gives reason to be optimistic that if the political will is there to improve a nation's performance regarding the SDGs, the implementation of the necessary policy changes appears more likely to be successful.

Governments alone, however, will not be able to generate sufficient progress in terms of the SDGs. Sustainable development is a challenge that requires policymakers as well as businesses and consumers to join forces and align business models, codes of practice, and modes of consumption with the needs of future generations.[26]

5.7. Country-specific priorities and trade-offs between the goals

Of course, the priorities and challenges differ to a certain extent for every nation. The country profiles in this study have shown in which areas countries lag behind and lead the way, respectively. In addition, however, people of every nation may prioritize certain goods more than others. Overarching development strategies such as the SDGs must therefore be complemented with country-specific goals. In other words, a mix of "Global Reporting Indicators" and "Complementary National Indicators"[27] seems appropriate to strike a balance between universal SDGs and "Customized Development Goals (CDGs)"[28] for every nation. Such country-specific priorities can be identified in an evidence-based manner, for instance, by examining the relationship between an objective good with people's life satisfaction.[29]

A related challenge is that there are certain trade-offs between the goals. Consequently, it will therefore be difficult to pursue all goals to the same extent all the time. The aforementioned country-specific priorities could therefore also inform the relative weights given to each SDG and the corresponding Global Reporting Indicators in every respective nation. Varying priorities can be reflected in a hierarchy of the different goals to enable handling trade-offs between policy choices and therefore guide policymakers in the allocation of resources.

5.8. We must remain ambitious because we can

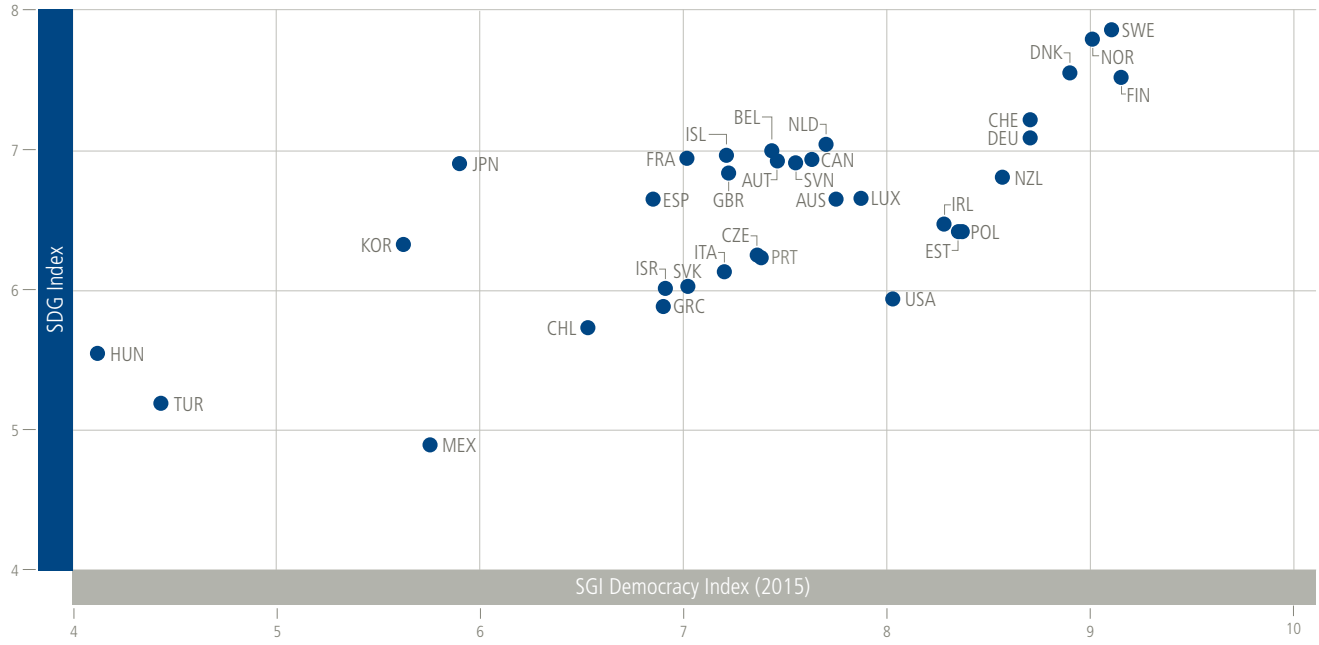
This study examined how high-income countries are currently performing with regard to the SDGs. It ought to be a first systematic assessment of developed nations on what are likely to become the global policy goals for the coming 15 years. It is the first "stress test" of rich countries for the SDGs.

An in-depth look at the performance in the proposed 17 goals revealed that OECD countries currently vary greatly in their capacity to meet these bold ambitions. It became evident that not all countries are fit for the goals, and indeed no country is showing a stellar performance in all goals. Each country has their own particular lessons to learn from the others.

It is now clear that rich nations must do more to achieve the SDGs goals both globally and domestically. The challenge is huge: Financing the SDGs will require an unprecedented effort. Nonetheless, we must remain ambitious with regard to the goals: If the MDGs helped developing countries to reduce mortality rates among children under five by half during the last 15 years, then we have every reason to demand that the SDGs enable high-income countries to manage the transition toward a more sustainable economic and social model. Going forward, civil society will have to put pressure on governments to hold them to account for what they pledge at the UN summit and accelerate the change over the next 15 years. This study shall be a start to make that happen.

26 How small and medium-sized companies can incorporate the notion of sustainability into their everyday practices was outlined, for example, in: Bertelsmann Stiftung and Council for Sustainable Development (2014). Leitfaden zum Deutschen Nachhaltigkeitskodex (Guidelines for the German Sustainability Code). Gütersloh: Bertelsmann Stiftung.
27 Sustainable Development Solutions Network (2015). Indicators and a monitoring framework for the Sustainable Development Goals. *http://indicators.report/*
28 Kroll, C. (2014). What makes people happy and why it matters for development. The Guardian. *http://www.theguardian.com/global-development-professionals-network/2013/sep/03/happiness-economics-wellbeing-mdgs*
29 Kroll, C. (2015). Global Development and Happiness: How can data on subjective well-being inform development theory and practice? Oxford Development Studies, Volume 43, Issue 3, p. 281 – 309. *http://www.tandfonline.com/doi/full/10.1080/13600818.2015.1067293#abstract*

Figure 4



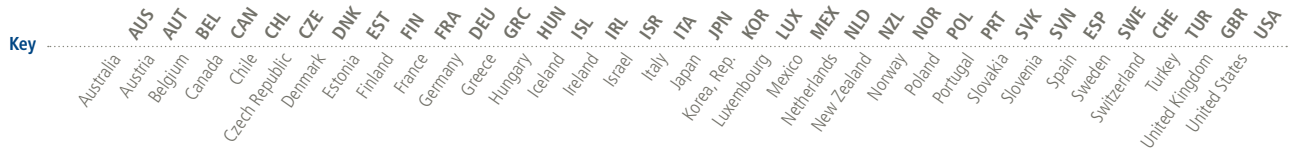
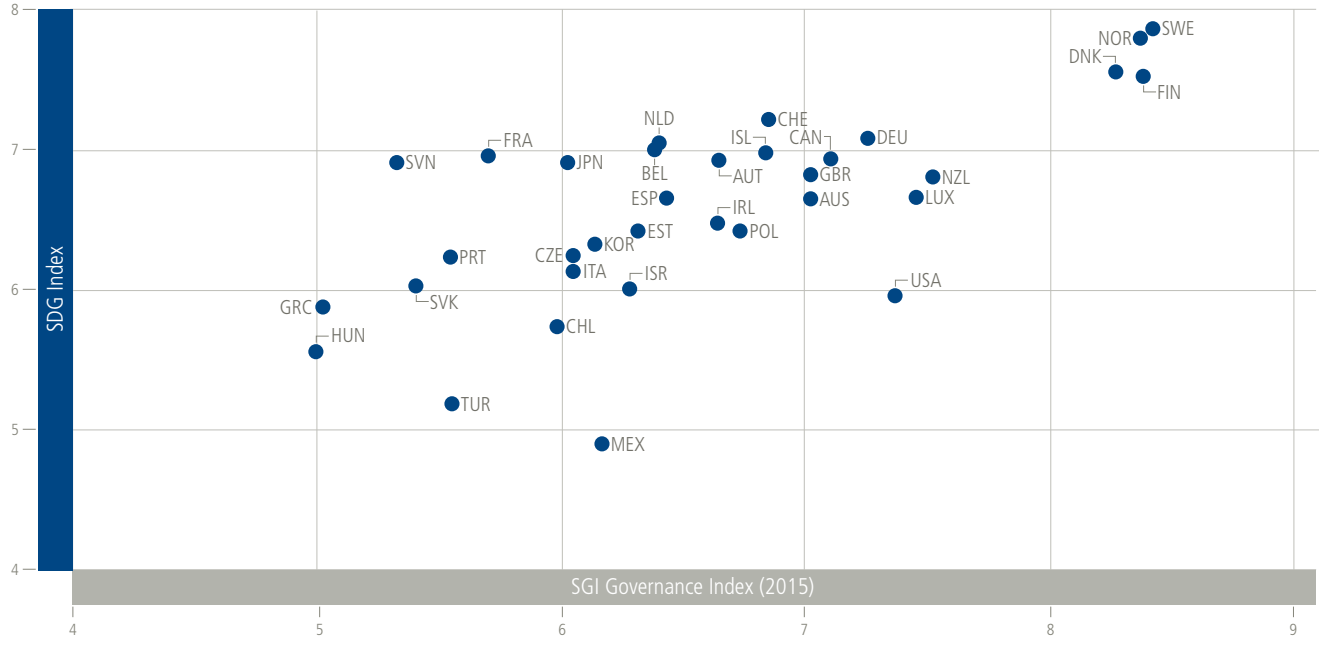


Figure 5



6. Bibliography

Bertelsmann Stiftung (ed.) (2013).
Winning Strategies for a Sustainable Future.
Gütersloh: Bertelsmann Stiftung.

https://www.bertelsmann-stiftung.de/de/publikationen/publikation/did winning-strategies-for-a-sustainable-future-1/

Bertelsmann Stiftung and German Council for Sustainable Development (2014).
Leitfaden zum Deutschen Nachhaltigkeitskodex
[Guidelines for the German Sustainability Code].
Gütersloh: Bertelsmann Stiftung.

https://www.bertelsmann-stiftung.de/fileadmin/files/Projekte/31_Nachhaltigkeitsstrategien/Leitfaden_zum_Deutschen_Nachhaltigkeitskodex.pdf

Civil Society Reflection Group on Global Development Perspectives (2015).
Goals for the rich.

https://www.globalpolicywatch.org/wp-content uploads/2015/02/RG-Goals-for-the-Rich-Advanced-Unedited-Version.pdf

Delhey, J., and Kroll, C. (2012).
A "Happiness Test" for the New Measures of National Well-Being: How Much Better than GDP are they?
WZB Discussion Paper SP I 2012-201, June 2012.

http://bibliothek.wzb.eu/pdf/2012/i12-201.pdf

Helliwell, J. F., Layard, R., and Sachs, J. (eds.) (2015).
World Happiness Report.
New York: Sustainable Development Solutions Network.

http://worldhappiness.report/wp-content/uploads/sites/2/2015/04/WHR15.pdf

Kassenböhmer, S. C., and Schmidt, C. M. (2011).
Beyond GDP and Back: What Is the Value-Added by Additional Components of Welfare Measurement?
SOEPpapers 351. DIW Berlin.

http://www.diw.de/documents/publikationen/73/diw_01.c.368539.de/diw_sp0351.pdf

Kroll, C. (2014).
What makes people happy and why it matters for development.
The Guardian.

http://www.theguardian.com/global-development-professionals-network/2013/sep/03/happiness-economics-wellbeing-mdgs

Kroll, C. (2015).
Global Development and Happiness: How can data on subjective well-being inform development theory and practice?
Oxford Development Studies, Volume 43, Issue 3, pp. 281–309

http://www.tandfonline.com/doi/full/10.1080/13600818.2015.1067293#abstract

OECD (2015).
In It Together: Why Less Inequality Benefits All.
OECD Publishing, Paris.

http://www.oecd.org/els/soc/OECD2015-In-It-Together-Chapter1-Overview-Inequality.pdf

Open Working Group Proposal for Sustainable Development Goals (2014).

https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=1579&menu=1300

Ostry, J. D., Berg, A., and Tsangarides C. G. (2014).
Redistribution, Inequality, and Growth.
IMF Staff Discussion Note.

https://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf

Outcome document for the UN summit on September 25–27, 2015.
"Transforming our world: the 2030 Agenda for Sustainable Development."

https://sustainabledevelopment.un.org/content/documents/7891Transforming%20Our%20World.pdf

Sachs, J. (2015).
The age of sustainable development.
New York: Columbia University Press.

Schraad-Tischler, D. (2013).
Enabling factors for sustainable development – strengthening rule of law and other key sustainable governance indicators.

Available from www.sgi-network.org

Schraad-Tischler, D., and Kroll, C. (2014).
Social Justice in the EU – A Cross-national Comparison.
Gütersloh: Bertelsmann Stiftung.

http://news.sgi-network.org/uploads/tx_amsgistudies/Social-Justice-in-the-EU-2014.pdf

Sustainable Development Solutions Network (2014).
Pathways to deep decarbonization.

http://unsdsn.org/wp-content/uploads/2014/09/DDPP_Digit.pdf

Sustainable Development Solutions Network (2015).
Indicators and a Monitoring Framework for the Sustainable Development Goals.

http://indicators.report/

UNDP (2015).
The Millennium Development Goals Report 2015.

http://www.undp.org/content/undp/en/home/librarypage/mdg/the-millennium-development-goals-report-2015.html

7. Appendix: Full list of indicators

Goal 1: Poverty

1.1 Poverty rate, cutoff point 50 percent of median disposable income

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015

1.2 Poverty gap, cutoff point 50 percent of median disposable income

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 6, 2015

Goal 2: Agriculture and nutrition

2.1 Gross agricultural nutrient balances, N and P surplus/deficit intensities per square kilometer of agricultural land, deviation from zero

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: May 1, 2015

2.2 Obesity rate

Source: OECD Obesity Update 2014
URL: http://www.oecd.org/health/obesity-update.htm
Date of retrieval: May 5, 2015

Goal 3: Health

3.1 Healthy life expectancy

Source: WHO Global Health Observatory Data Repository
URL: http://apps.who.int/gho/data/node.main.688
Date of retrieval: August 6, 2015 (first data point), March 3, 2015 (second and third data point)

3.2 Life satisfaction

Source: Gallup World Poll
URL: http://www.gallup.com/services/170945/world-poll.aspx

Goal 4: Education

4.1 Upper secondary attainment

Source: Eurostat online database, OECD online database (AUS, CAN, CHL, ISR, JPN, KOR, MEX, NZL, USA)
URL: http://ec.europa.eu/eurostat/data/database, stats.oecd.org
Date of retrieval: February 6, 2015

4.2 PISA results

Source: OECD PISA 2012 (first data point), OECD PISA 2009 (second data point), OECD PISA 2006 (third data point) except USA (OECD PISA 2003)
URL: http://www.oecd.org/pisa/pisaproducts/

Goal 5: Gender equality

5.1 Share of women in national parliaments

Source: World Bank Gender Statistics
URL: http://databank.worldbank.org/data/home.aspx
Date of retrieval: February 5, 2015

5.2 Gender pay gap

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015 (first data point), May 1, 2015 (second and third data point)

Goal 6: Water

6.1 Freshwater withdrawals as percent of total internal resources

Source: World Bank, World Development Indicators
URL: http://databank.worldbank.org/data/home.aspx
Date of retrieval: March 29, 2015

6.2 Percentage of population connected to wastewater treatment

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: May 13, 2015 (second and third data point)

Goal 7: Energy

7.1 Energy intensity

Source: IEA CO_2 Emissions Highlights 2014
URL: http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2014.html

7.2 Share of renewable energy in TFEC

Source: World Bank, Sustainable Energy For All
URL: http://databank.worldbank.org/data/home.aspx
Date of retrieval: February 6, 2015

Goal 8: Economy and labor

8.1 GNI per capita, PPP

Source: World Bank, World Development Indicators
URL: http://databank.worldbank.org/data/home.aspx
Date of retrieval: August 6, 2015 (first data point), March 6, 2015 (second and third data point)

8.2 Employment-to-population ratio

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 6, 2015 (first data point), February 6, 2015 (second and third data point)

Goal 9: Infrastructure and innovation

9.1 Gross fixed capital formation as percent of GDP

Source: IMF World Economic Outlook April 2013
URL: http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx
Date of retrieval: April 21, 2015

9.2 Research and development expenditure

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015 (first data point), February 6, 2015 (second and third data point)

Goal 10: Inequality

10.1 Palma ratio

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015

10.2 PISA Social Justice Index

Source: OECD PISA 2012 (first data point), OECD PISA 2009 (second data point), OECD PISA 2006 (third data point) except USA (OECD PISA 2003)
URL: http://www.oecd.org/pisa/pisaproducts/

Goal 11: Cities

11.1 Particulate matter, share of population exposed to >15 ug/cbm

Source: Environmental Performance Index, Yale University
URL: epi.yale.edu

11.2 Rooms per person

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7 (first data point), May 1 (second and third data point)

Goal 12: Consumption and production

12.1 Municipal waste generated

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 6, 2015 (first and second data point), February 6, 2015 (third data point)

12.2 Domestic material consumption

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: May 1, 2015

Goal 13: Climate

13.1 Production-based energy-related CO_2 emissions per capita

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: May 1, 2015

13.2 Greenhouse gas emissions per GDP

Source: UNFCCC (GHG), IEA CO_2 Emissions Highlights 2014 (GDP)
URL: http://unfccc.int/di/FlexibleQueries.do http://unfccc.int/ghg_data/ghg_data_unfccc/ghg_profiles/items/4626.php (CHL, ISR, KOR, MEX), http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2014.html
Date of retrieval: February 6, 2015 (UNFCCC)

Goal 14: Oceans

14.1 Ocean Health Index

Source: Ocean Health Index
URL: http://www.oceanhealthindex.org/Comparison/
Date of retrieval: May 13, 2015

14.2 Percentage of fish stocks overexploited and collapsed by exclusive economic zone

Source: Environmental Performance Index, Yale University
URL: epi.yale.edu

Goal 15: Biodiversity

15.1 Terrestrial protected areas

Source: Environmental Performance Index, Yale University
URL: epi.yale.edu

15.2 Red List Index for birds

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: May 5, 2015

Goal 16: Institutions

16.1 Homicides

Source: United Nations Office on Drugs and Crime (UNODC) Homicide Statistics
URL: https://data.unodc.org/ (first data point), http://www.unodc.org/documents/gsh/data/GSH2013_Homicide_count_and_rate.xlsx (second and third data point)
Date of retrieval: August 6, 2015 (first data point), February 6, 2015 (second and third data point)

16.2 Transparency Corruption Perceptions Index

Source: Transparency International
URL: http://www.transparency.org/research/cpi/

Goal 17: Global partnership

17.1 Official development assistance as percentage of GNI

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 6, 2015 (first data point), March 9, 2015 (second and third data point)

17.2 Percentage of SDG indicators used in this study that are reported annually with time lag no greater than three years in the respective country

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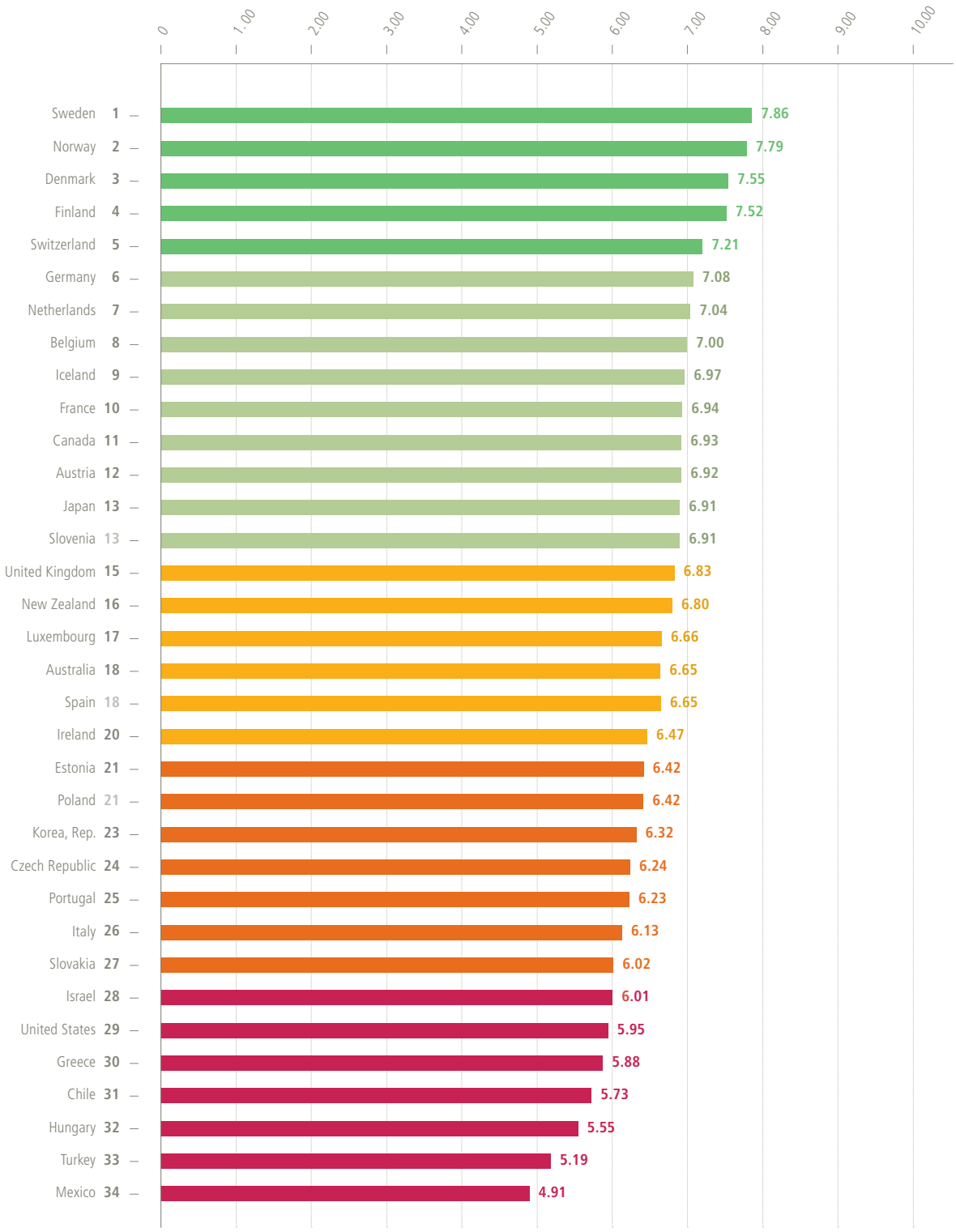
SDG Index

This figure displays the world's first SDG Index. It illustrates the overall performance of each OECD country based on the 17 goals and 34 indicators examined in the study. In sum, Sweden, Norway, Denmark, Finland, and Switzerland are best prepared to meet the SDGs and in a good position to foster sustainable development by 2030. However, even these countries are faced with particular challenges, as the country profiles in this study illustrate.



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