Corporate responsibility at Novartis

At Novartis, our mission is to discover new ways to improve and extend people’s lives. We use science-based innovation to address some of society’s biggest healthcare challenges. We discover and develop breakthrough treatments and find new ways to deliver them to as many people as possible. We also aim to provide a shareholder return that rewards those who invest their money, time and ideas in our company. Our vision is to be a trusted leader in changing the practice of medicine.

Our corporate responsibility (CR) strategy fundamentally supports this company mission and vision, with a focus on expanding access to healthcare and doing business responsibly.

Novartis and the UN Sustainable Development Goals

We have long experience in supporting the United Nations in achieving its development goals, starting with the Millennium Development Goals and more recently with the Sustainable Development Goals (SDGs). As a leading healthcare company, ensuring good health and well-being (goal 3) is at the core of our business and is aligned with our mission to improve and extend people’s lives. Through our business operations and ongoing activities, we make essential contributions to goal 8 (good jobs and economic growth), goal 9 (innovation and infrastructure), and goal 13 (climate action). We harness the power of partnerships (goal 17) to discover and develop breakthrough treatments and deliver them to as many people as possible.

A mapping of our activities against the SDGs can be found in the GRI Content Index on page 49 of this report.

Governance of our corporate responsibility activities

Our governance model for corporate responsibility remains unchanged, with CR being ingrained in the highest levels of our company. The Governance, Nomination and Corporate Responsibilities Committee (GNCRC) of the Board of Directors oversees the company’s strategy and governance on CR topics that may affect the company’s business and reputation. The Global Head of Corporate Responsibility updates the GNCRC regularly on CR strategy and performance.

Senior management commitment remains strong, and the Executive Committee of Novartis (ECN) has updated its 2018 balanced scorecard to include the topic of access in the non-financial targets (see page 144 of the 2017 Novartis Annual Report). The CEO continues to have specific personal CR objectives. In 2018, the CEO and ECN members will have an access objective as part of their individual objectives.

We appointed a new Global Head of Corporate Responsibility in late 2017. This role continues to report to the CEO, and works to incorporate CR activities into the business across the company in collaboration with relevant functions and all divisions.

Key committees are together responsible for driving our CR efforts across the company. Our broader efforts are guided by a team of senior leaders comprising the Corporate Responsibility Board, which meets three times per year. Led by the Global Head of Corporate Responsibility, the CR Board has a focused mandate to advance strategy and programs in our two focus areas: expanding access to healthcare and doing business responsibly. It coordinates companywide activities through representation from all relevant functions and

Novartis corporate responsibility strategy

- **Expanding access to healthcare**
  - Control and eliminate diseases
  - Pioneer new business approaches and healthcare delivery models
  - Find new treatments

- **Doing business responsibly**
  - Care for our associates
  - Promote ethics and strengthen governance
  - Strive for environmental sustainability
divisions, and is responsible for making recommendations to the ECN on strategy, targets, policies, materiality and stakeholder engagement. The CR Board is also tasked with facilitating information-sharing between other CR-related governance bodies.

Specific areas of key importance have their own governing committees. The Access to Medicine Committee, chaired by the CEO, governs the topic of access to Novartis medicines and treatments, while the Health, Safety and Environment (HSE) Steering Committee is responsible for providing overall guidance within its functional portfolio.

We take our responsibility for environmental impacts seriously, and we will continue to do what we can to reduce or mitigate our environmental impacts:
- We apply a precautionary approach in all operations to minimize environmental impacts (emissions to air and water, waste to landfill, and efficient use of water and energy resources).
- We manage risks proactively by implementing appropriate preventive and contingency measures.

This risk management process is designed to identify potential hazards and take action to reduce the risk of an event – the likelihood of occurrence and severity of consequences – to an acceptable minimum level. Risk portfolios are elaborated on the sites, consolidated at divisional and corporate levels, and reviewed by senior management:
- We identify and manage HSE risks through site analyses and audits conducted by corporate HSE and Business Continuity (BC), and the HSE and BC organizations of the divisions and business units.

In general, we take a precautionary approach to the innovation and development of new products and technologies. We follow a step-by-step approach, engage in scientific peer reviews, and consider the benefits and risks of innovation in a scientific and transparent manner.

For more information about managing risk and ensuring continuity, see our website.

For our environmental data and our health and safety data, see our Environmental Data Supplement and our Health & Safety Data Supplement.

We also have an Anti-Counterfeiting Steering Committee to guide the strategic direction of our anti-counterfeiting approach worldwide, and a Third-Party Risk Management Committee to drive an integrated approach to responsible management of our supply chain.

The commitment from senior management and our Board of Directors helps us make the strategic decisions necessary to successfully integrate CR into our business. The engagement and dedication of all our associates are essential to bring CR initiatives to life.

---

**Setting priorities – 2017 materiality assessment**

In 2017, we conducted a new CR materiality assessment comprising a comprehensive analysis of the most important CR issues for our industry and business. This is expected to be part of a regular four-year cycle to help us better understand those issues that matter most to our key internal and external stakeholders.

We asked stakeholders to rank issue clusters and rate individual CR topics based on their view of the topic’s impact on our business. By using a ranking method, stakeholders were required to differentiate between clusters, assigning each cluster a unique position in the ranking.

**CR ISSUE CLUSTER RANKING**

<table>
<thead>
<tr>
<th>Patient health and safety</th>
<th>Access to healthcare</th>
<th>Ethical business practices</th>
<th>Innovation</th>
<th>Our people</th>
<th>Economic sustainability</th>
<th>Good governance</th>
<th>Environmental protection</th>
</tr>
</thead>
</table>

1 Difference in perception between internal and external stakeholders based on the answers they provided to the following questions asked during the 2017 Novartis CR materiality survey: “Please rank the issue clusters based on their impact on Novartis overall” and “Please rank the issue clusters based on their impact on the global business of Novartis”
CR materiality analysis

In 2017, we conducted a new CR materiality analysis, prioritizing four issue clusters as our CR material clusters: access to healthcare, innovation, patient health and safety, and ethical business practices. Clusters receiving a lower rank are regarded as important but not CR material. All clusters and topics, together with their full definitions, can be found in the appendix on page 56.

This enabled us to clearly identify four issue clusters with the most impact, and we prioritized these as our CR material clusters: access to healthcare, innovation, patient health and safety, and ethical business practices. Clusters receiving a lower rank are regarded as important but not CR material. To ensure that our stakeholders are kept informed about our progress and challenges in the areas they identified as having most impact, these CR material clusters will frame our CR reporting and disclosure efforts, including the structure of this report. Within each CR material cluster, all topics are covered irrespective of impact, with topics of greater impact covered in more depth. Remaining topics that scored high in terms of impact but in clusters that received a lower ranking (e.g., people, environment) are either covered in our 2017 Annual Report or on our website. Cross-references to the relevant sections can be found in the GRI Content Index (see page 49 of this report).

The 2017 analysis included extensive desk research, online surveys with internal and external stakeholders, and meetings and phone interviews with internal and external topic experts. Approximately 200 external stakeholders – representing nongovernmental organizations (NGOs), academia, other companies (both pharmaceutical and non-pharmaceutical), investors and more – participated in the survey. Within Novartis, we received survey responses from nearly 1,400 senior employees representing R&D and commercial functions, finance and manufacturing. These surveys were supplemented with 60 follow-up interviews with selected individuals, in which stakeholders further explained their responses.

The first results of the materiality analysis were shared with the CR Board and relevant functions. While our CR strategy of expanding access to healthcare and doing business responsibly remains the same, we plan to use the analysis to shape our vision and inform and prioritize our actions. Additionally, we plan to use it to track issues of concern and to establish meaningful metrics against which to measure our CR performance.

As part of the ongoing granular analysis, we plan to develop our CR strategy going forward to focus more on individual topics; this shift will be reflected in our 2018 reporting where relevant. Full details of the materiality assessment can be found in the CR Materiality Assessment 2017: Results Report, available on our website in the first quarter of 2018.
CR MATERIAL TOPIC BOUNDARIES

As a company, the impacts we have and the value we create extend well beyond our own operations. Using the CR materiality assessment, we have analyzed all topics within the four CR material clusters (access to healthcare, innovation, patient health and safety, and ethical business practices) in the context of our value chain. The resulting diagram displays the boundaries of our impacts (indicated in blue), and helps us better leverage opportunities and manage risks.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Novartis simplified value chain¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supply chain</td>
</tr>
<tr>
<td>Access to healthcare</td>
<td></td>
</tr>
<tr>
<td>Availability of medicines</td>
<td></td>
</tr>
<tr>
<td>Pricing</td>
<td></td>
</tr>
<tr>
<td>Intellectual property</td>
<td></td>
</tr>
<tr>
<td>Healthcare system strengthening</td>
<td></td>
</tr>
<tr>
<td>Patient assistance programs</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td></td>
</tr>
<tr>
<td>R&amp;D for unmet medical needs</td>
<td></td>
</tr>
<tr>
<td>R&amp;D for neglected diseases</td>
<td></td>
</tr>
<tr>
<td>Drug resistance</td>
<td></td>
</tr>
<tr>
<td>Business model innovation</td>
<td></td>
</tr>
<tr>
<td>Innovative technologies</td>
<td></td>
</tr>
<tr>
<td>Patient health and safety</td>
<td></td>
</tr>
<tr>
<td>Pharmacovigilance, safety profile and quality of drugs</td>
<td></td>
</tr>
<tr>
<td>Health education and prevention</td>
<td></td>
</tr>
<tr>
<td>Counterfeit medicines</td>
<td></td>
</tr>
<tr>
<td>Ethical business practices</td>
<td></td>
</tr>
<tr>
<td>Ethical and compliant behavior</td>
<td></td>
</tr>
<tr>
<td>Responsible supply chain management</td>
<td></td>
</tr>
<tr>
<td>Respect for human rights</td>
<td></td>
</tr>
<tr>
<td>Responsible use of new technologies</td>
<td></td>
</tr>
<tr>
<td>Animal testing</td>
<td></td>
</tr>
</tbody>
</table>

¹ See Novartis full value chain on page 38

Stakeholder engagement

Consistent engagement with our increasingly complex range of stakeholders – who have diverse, sometimes conflicting, expectations on key CR issues – is one of our priorities. Throughout the year, our CR team, the Novartis Foundation and Novartis Social Business pursue formal and informal interactions with various stakeholders, including patients and caregivers, associates, healthcare providers, policymakers, NGOs, shareholders and other financial market participants, local communities, and partners from the pharmaceutical and other industries.

In 2017, our primary stakeholder engagement effort was our CR materiality analysis, which is detailed on page 12. In addition, we engaged with our stakeholders in a variety of ways.

In September, we held an investor call focused on creating value through responsible business. This call highlighted our corporate responsibility, integrity and compliance, and research and development efforts. Speakers included our Chief Ethics and Compliance Officer and Head of Litigation, and our Global Head of Drug Development and Chief Medical Officer. In addition, we participated in several sustainability-focused investor events throughout the year and hosted individual calls with certain investors.
In November, we hosted a dialogue on ways to improve access to healthcare in lower-income countries. More than 200 stakeholders from a cross-section of organizations attended this event at our Basel headquarters, including NGOs, patient groups, think tanks, private foundations and other pharmaceutical companies. We participated in a number of cross-industry events on access to medicines, including three events hosted by the Access to Medicine Foundation to discuss various topics such as antimicrobial resistance and access to cancer care. We also worked with the foundation and peers to share case studies and best practices. In November, we conducted a focus group and face-to-face interviews with approximately 20 stakeholders to gauge their views on our Access Principles.

Improving transparency

Our vision is to be a trusted leader in changing the practice of medicine. A big part of gaining this trust is transparency – being open and clearly disclosing what we do, how we work, where we are successful, and where we face challenges.

For many years, transparent reporting has been a central part of our CR commitment, and we continue to make progress in this area. In 2017, we published on our website a US Transparency and Patient Access Report, which highlights our approach to price adjustments, patient assistance, investment in research and development, and marketing in the US. This is in addition to our ongoing disclosures, including payments to healthcare professionals, organizations and patient groups, as well as clinical trial results. For example, in Europe, Novartis has a single, consistent transparency standard for disclosing transfers of value to healthcare professionals and organizations that goes beyond the requirements defined by the European Federation of Pharmaceutical Industries and Associations Disclosure Code.

The transparency landscape is rapidly evolving, with more countries – such as South Korea and Canada – starting to introduce legislation that requires public disclosure of payments to doctors. Novartis is keeping pace with the developments and is committed to meeting new transparency requirements.

We also aim to be transparent about the results, impact, challenges and key learnings from our access-to-medicine programs. For instance, Boston University, based in the US, is conducting an independent evaluation of our Novartis Access program and will publish baseline results on its website in 2018. We hope the methodology will also help inform the measurement of other access programs in the industry.

More disclosures are available on the transparency section of our website

Financial, environmental and social impact valuation

It is increasingly recognized that companies need new reporting mechanisms to better measure and communicate the value they create for their stakeholders beyond financial value. As businesses around the globe respond to calls to demonstrate their contribution to inclusive long-term value creation for all of society, the Coalition for Inclusive Capitalism is bringing together CEOs from more than 20 global companies, including Novartis, who together represent more than USD 20 trillion of assets under management. Through a project called the Embankment Project for Inclusive Capitalism, they will work on a proof of concept to encourage and measure long-term value creation.

In the meantime, over the past two years, Novartis has developed, tested and applied a methodology for valuing the financial, environmental and social (FES) impact its business activities have on society. The results are intended to reflect our social value beyond financial performance, taking into account benefits and costs to society in monetary terms. Our impact valuation is still evolving, with gaps in methodologies and data. However, we believe it is important to share our experiences to date, and we invite external partners and stakeholders to engage with us and advance this field of study.

Our FES impact valuation was initially co-developed with KPMG and builds on its True Value approach. We used our CR materiality assessment as the basis for identifying indicators to be included in the FES impact valuation. Methodologies were then developed to measure and value these indicators for our own operations and supply chain.

Our economic and environmental impact valuation methodologies are more developed than social impact valuation methodologies. For our social impact valuation, we cover key human capital impact elements of our own operations, the social impact of our products, and healthcare system strengthening initiatives. The human capital impact includes employee development, occupational safety and living wage.

Methodology

As a measure of wealth creation, we measured the gross domestic product (GDP) contribution of our operations, based on the Novartis income statement. GDP contributions and employment impacts from our supply chain were calculated based on a macroeconomic approach using the World Input-Output Database.

Environmental impacts were valued using shadow prices, mainly based on the damage costs published in the Shadow Prices Handbook of CE Delft. Our environmental impacts were calculated based on internal data, while our supply chain impacts were calculated based on the global input-output database from the Global Trade Analysis Project.
The social impacts of employee development were calculated for employees who voluntarily left Novartis, based on discounted incremental contributions to future earnings. The same methodology was applied to training and education of third-party healthcare professionals. The social impact of occupational safety was calculated based on the work done by Safe Work Australia. Quality-adjusted life-year (QALY) estimates were used to measure the social impact of living wages. One QALY equates to one year in perfect health.

How we perform
Overall, according to our analysis, the company’s activities in 2016 generated a contribution of USD 65 billion to the global economy, and created an estimated 260,000 jobs beyond those held by our own employees. Our activities generated a negative environmental impact valued at USD 913 million. In 2017, wages paid by Novartis created more than USD 1 billion of social value, while identified cases below living wage resulted in USD 1.4 million of negative social value.

Each year, Novartis voluntarily sets a minimum living wage around the world so that associates and their families can cover the costs of their basic living needs. At major operations where local minimum wage requirements (which tend to focus on poverty levels for individuals) exist, the Novartis living wage can be higher than the legal minimum standard. Country managers are tasked with ensuring that all associates, regardless of gender, are paid at least the confirmed living wage. They report any incidents of noncompliance to the global Human Resources (HR) function. In addition, in 2017, we conducted a living wage survey that covered 76 countries with 50 or more associates. Based on the results, our local HR teams have already adjusted or will adjust wages as relevant.

The key element of social impact valuation – and the most challenging one – is assessing the social impact of our products. A number of simplifying assumptions were needed to determine the health impacts expressed in QALYs and to calculate the resulting socio-economic value in a scientifically sound and scalable methodology. The social impact valuation for the Novartis Access portfolio was performed with the help of WifOR, an independent economic research institute. Focusing on Kenya in 2016, we found a positive impact equivalent to USD 632 million, resulting from, for example, participation in the workforce. Another example is Novartis South Africa, which has been particularly active in healthcare system strengthening by training healthcare professionals. In 2016, these 20 initiatives delivered an aggregated average social return on investment (SROI) of between 173% and 241%.

We are committed to expanding and adapting this methodology as more evidence and data become available. In particular, we hope to soon be able to measure the social impact of more parts of our product portfolio, as well as the social impact of living wages in our supply chain.
Indirect impacts in Switzerland
In Switzerland, where we are headquartered, Novartis offers jobs not only directly but also indirectly as a buyer of goods and services from suppliers, including many small- and medium-sized enterprises. In 2017, the company placed orders worth about CHF 2.3 billion with companies in the 26 Swiss cantons. Novartis indirectly secured more than 58,000 jobs in Switzerland through the procurement of products and services. Major areas of procurement include laboratory equipment, information technology products and services, raw materials, building costs, fixtures and fittings, and chemical products.

Photo Lab technician Niawanlou Dara prepares blood samples from malaria patients at a clinic in Bougoula-Hameau, in the African state of Mali. The samples are being collected for a wide-ranging clinical study to assess the efficacy and safety of an experimental new antimalarial compound called KAF156.