

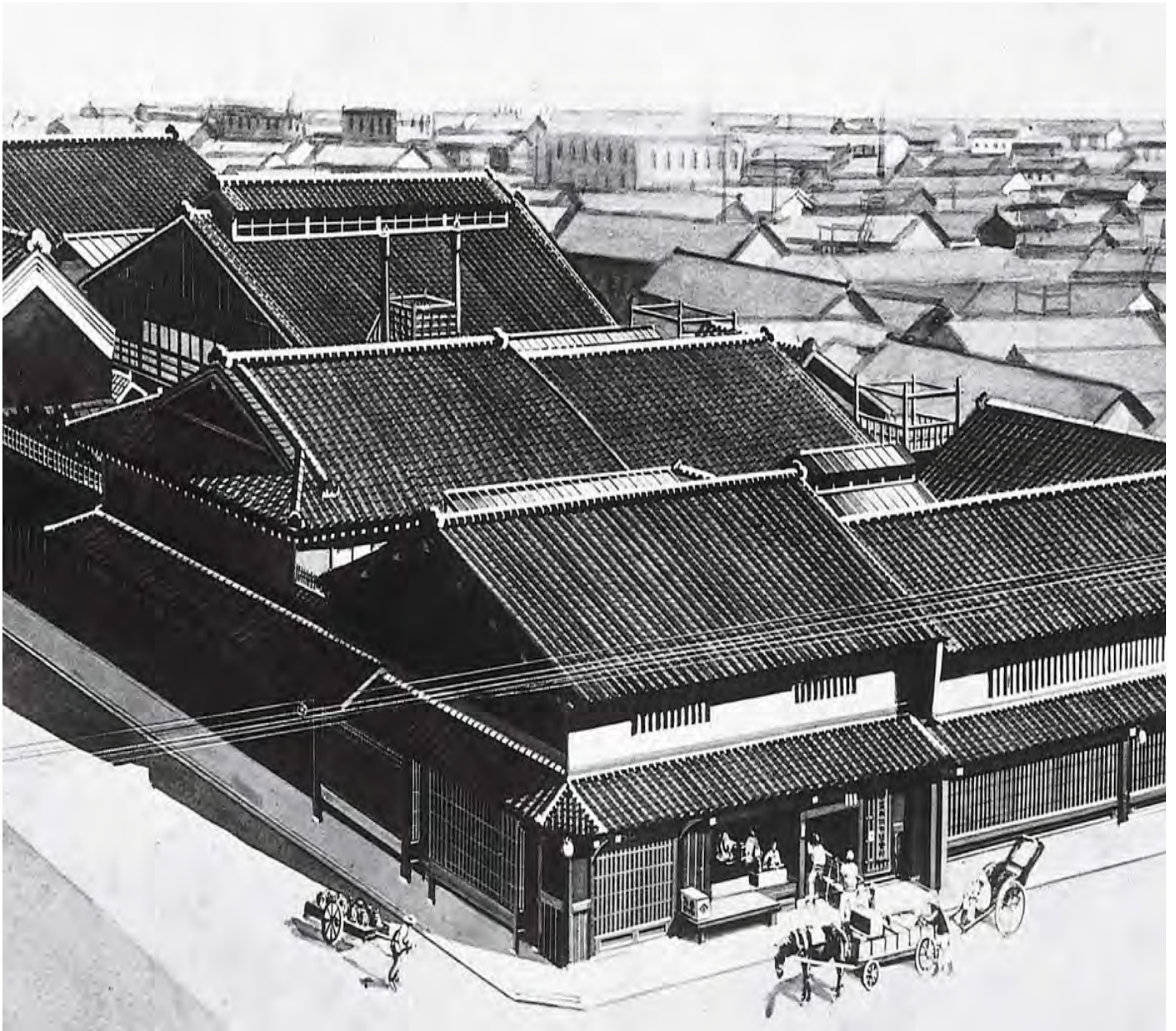


Better Health, Brighter Future



## 2019 SUSTAINABLE VALUE REPORT

Takeda Pharmaceutical Company Limited



Takeda traces its roots to 1781, when Chobei I began selling traditional herbal medicines in Osaka, Japan. Today, his legacy has evolved into a global, values-based, R&D-driven biopharmaceutical leader. Two different worlds, by one constant: our enduring values, which we call Takeda-ism. In this year's report, we invite you to learn how these values continue to guide us in creating sustainable value for society and our stakeholders, and improved healthcare for patients around the world.

## About This Report

The 2019 Sustainable Value Report explains Takeda Pharmaceutical Company Limited's ("Takeda") Initiative for sustainable value creation in the areas of healthcare, workforce management, environmental impact, and business governance. This report has been prepared according to the GRI Standards: Core Option. The report also aligns with United Nations Global Compact, with indexes for both included at the end of this document.

The report covers the operations of Takeda Pharmaceutical Company Limited and consolidated subsidiaries of Takeda. The reporting period covers Fiscal 2018 (April 1, 2018 to March 31, 2019). Some Fiscal 2019 activities are included. On January 8, 2019, Takeda completed its acquisition of Shire plc ("Shire"). Legacy Shire data have been consolidated into Takeda's results for the period from January 8, 2019 to March 31, 2019 unless otherwise stated. Activities related to the integration are discussed throughout the report.

- ✓ Legacy Takeda FY2018 data assured by KPMG. Legacy Shire data from January 1, 2019 through March 31, 2019 assured by Apex Companies, LLC. See pages 105-109 for independent assurance reports.

We welcome your comments and questions about our sustainable value activities at [sustainablevalue@takeda.com](mailto:sustainablevalue@takeda.com). For more information, visit [www.takeda.com](http://www.takeda.com)

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## Our Commitment is Built on Our Values with Integrity as Its Core

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Christophe Weber

Representative Director,  
President and CEO

For more than 230 years, our values have defined who we are and what we do, serving as the compass that guides us to act with integrity at all times. These values are a constant reminder that our role in society is to serve patients and to strive constantly for new and innovative solutions that address the world's unmet health challenges.

We accelerated that effort in 2019 with the acquisition of Shire plc, a global pharmaceutical company. This acquisition enhanced our international footprint, enabling us to have a greater impact on the lives of patients around the world. This journey will advance and expand our translation of science into highly innovative medicines while maintaining our agility as a global, values-based, R&D-driven biopharmaceutical leader headquartered in Japan, with an unwavering commitment to patients. Takeda is now a leader in developing innovative medicines for rare and orphan

diseases that are often underserved but can have devastating consequences for patients. We have bolstered our positions in Oncology, Gastroenterology, Rare Disease, and Neuroscience as well as our targeted efforts in Plasma-Derived Therapies and Vaccines.

As we discover and develop life-saving or life-transforming medicines, we take our responsibility to improve human health very seriously. It is a priority to increase access to our innovative medicines to everyone who needs them, regardless of where they live in the world, while also deepening our commitment to build and strengthen healthcare systems in a sustainable way, across the whole patient journey. Our patients trust us with their health. At Takeda, we strive to live up to — and exceed — those high expectations.

Our Global CSR Program prioritizes long-term commitments to disease prevention and capacity building

continued on page 5



in developing and emerging countries. From training community health workers to bringing children with serious diseases an opportunity to enjoy a camp experience, we are committed to improving the health and the lives of patients everywhere. We closely align our business and CSR activities with the United Nations Sustainable Development Goals (SDGs) and are long-standing members of the United Nations Global Compact (UNGC).

Building sustainable value is not merely a corporate concern at Takeda, but also extends to our approximately 50,000 employees in about 80 countries around the world. Our colleagues, for example, recently helped us select programs for our CSR portfolio through a company-wide vote. For World Environment Day, our facilities around the globe took part in a variety of environmental programs that included planting 40,000 trees in partnership with the Arbor Day Foundation. And, through our Employee Participation Program, Takeda staff make field visits to see first-hand the impact of our work on the lives of people around the globe.

Our goal is to provide every colleague in every office, manufacturing plant, and lab the opportunity to learn new skills and thrive in their careers, by being inclusive. Everyone at Takeda is recognized for the unique contributions they have to offer. Our people

platform and programs help build the right capabilities and create a workplace environment that brings our culture to life.

For example, our global Accelerator Program helps colleagues who are early in their careers develop skills by providing them with cross-regional assignments, mentorships, and learning events.

In the same way we strive constantly for new and innovative solutions that address the world's unmet health challenges, we are committed to reducing our carbon footprint. As

part of our vision we have set ambitious targets for reducing our CO<sub>2</sub> and other emissions, and we're setting milestones to track our progress.

For generations to come, our commitment to realizing Better Health and a Brighter Future for all — and doing so

with integrity — will remain steadfast. "How can we do more for patients?" You will find some of the ways we do this in the pages that follow.

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To support employees, we partner with them to build a culture of innovation and agility on a foundation of integrity.

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Christophe Weber  
Representative Director, President and CEO  
December 2019

# Corporate Philosophy

Takeda is a global, values-based, R&D-driven biopharmaceutical leader headquartered in Japan, committed to bringing Better Health and a Brighter Future to patients by translating science into highly innovative medicines.

## Our Mission

Our Mission is to strive towards Better Health and a Brighter Future for people worldwide through leading innovation in medicine.

## Our Values

Integrity, Fairness, Honesty, and Perseverance — what we call “Takeda-ism” — represent the foundation underpinning every aspect of our past, present, and future activities. They serve as constant reminders that our role in society is to serve patients as we seek new ways to advance health.



We take action and make decisions by focusing on our four priorities

- 1

**Putting the patient at the center**
- 2

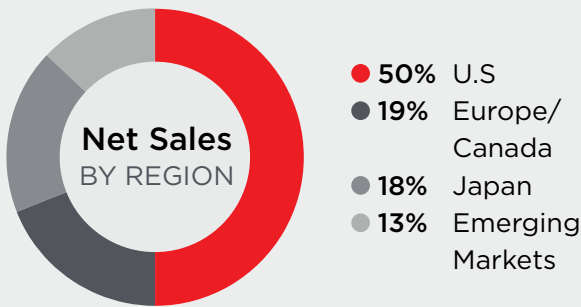
**Building trust with society**
- 3

**Reinforcing our reputation**
- 4

**Developing the business**

in this order.

# Global Scale and Scope



## Key Locations



~ US \$30B  
~ JPY 3.3T

FY2018 Pro-Forma Revenue<sup>1</sup>

~50,000

Employees

<sup>1</sup>PRO FORMA INFORMATION GIVING EFFECT TO THE SHIRE ACQUISITION AS IF IT HAD OCCURRED ON APRIL 1, 2018. THIS PRO FORMA INFORMATION HAS NOT BEEN PREPARED IN ACCORDANCE WITH ARTICLE 11 OF REGULATION S-X. THIS PRO FORMA INFORMATION IS PRESENTED FOR ILLUSTRATIVE PURPOSES AND IS BASED ON CERTAIN ASSUMPTIONS AND JUDGMENTS BASED ON INFORMATION AVAILABLE TO US AS OF THE DATE HEREOF, WHICH MAY NOT NECESSARILY HAVE BEEN APPLICABLE IF THE SHIRE ACQUISITION HAD ACTUALLY HAPPENED AS OF APRIL 1, 2018. THEREFORE, UNDUE RELIANCE SHOULD NOT BE PLACED ON THE PRO FORMA INFORMATION INCLUDED HEREIN.

## Our Strategic Roadmap

Our vision is an articulation of our values, goals, and commitments. Simply stated, we put the needs of patients at the center of all that we do. We aspire to be a best-in-class, agile, R&D-driven company that pushes the boundaries of innovation through collaboration with cutting-edge partners. We enable the success of our diverse workforce. We strive for consistent corporate performance. We work to earn the trust of society and our customers by living our values of Takeda-ism.

Our Strategic Roadmap sets out the steps we are taking to realize our goals. The Roadmap is organized around four broad areas: Values-Based; Empower our People to Shine; Dare to Discover; and Business. To hold ourselves accountable, we measure our progress through a series of key performance indicators aligned with our long-term goals. The Takeda Executive Team monitors and manages progress on each of these metrics.

## VISION

The future state of the company we aspire to become.

We serve the needs of our patients, wherever they are. We earn the trust of society and customers through Takeda-ism.

We are recognized as best-in-class because of our agility and innovation, qualities that help us build a steady pipeline and deliver growth, year-on-year.

# Our Products and Brands in Five Key Business Areas



## Gastroenterology

**Entyvio**  
vedolizumab

**DEXILANT**  
dexlansoprazole

**Takecab**

**Lialda**  
[mesalazine] 12g  
delayed release tablets

**ALOFISEL**  
[darvadstrocel]

**amitiza**  
lubiprostone

**Gattex**  
[ketoprofen] [DMA-argipin] for injection

**motegrity**  
[prucalopride] tablets 1mg, 2mg



## Rare Diseases

### RARE METABOLIC

**elaprase**  
(idursulfase)

**REPLAGAL**  
[agalsidase alpha]  
CHANGING THE FACE OF FABRY DISEASE

**VPRIV**

**Natpara**  
(parathyroid hormone)  
for injection

### RARE HEMATOLOGY

**ADVATE**  
[Antihemophilic Factor (Recombinant)]

**ADYNOVATE**  
[Antihemophilic Factor (Recombinant), PEGylated]

**vonvendi**  
[von Willebrand factor (Recombinant)]

**Obizur**  
[Antihemophilic Factor (Recombinant), Porcine Sequence]

**RIXUBIS**  
[COAGULATION FACTOR IX (RECOMBINANT)]

**AGRYLIN**  
[anagrelide hydrochloride]  
Capsules of 0.5 mg and 1 mg

### HEREDITARY ANGIOEDEMA

**TAKHZYRO**  
[lanadelumab subcutaneous injection]

**firazyr**  
(icatibant injection)

**KALBITOR**  
[ecalantide]



## Plasma-Derived Therapies

### RARE IMMUNOLOGY

**IMMUNINE**

**FEIBA**

**IMMUNATE**

**HEMOFIL M**

**IMMUSEVEN**

**CINRYZE**  
C1 inhibitor (human)

**GAMMAGARD LIQUID**  
[Immune Globulin intravenous (Human)] 10%

**HyQvia**  
Human Normal Immunoglobulin (0.5%)  
Recombinant Human Hyaluronidase

**Cuvitru**  
[Human Normal Immunoglobulin, 20%]  
for subcutaneous administration

**Flexbumin**  
(Human Albumin)

**HUMAN ALBUMIN**  
SOLUTION FOR INJECTION

**Glassia**

**Aralast NP**  
[BEPALOCHEMOPHENOL] (Kerning)

**kenketu glovenin-I**

**KENKETU NONTHRON**

**KENKETU ALBUMIN**



## Oncology

**NINLARO**  
(ixazomib) capsules

**ALUNBRIG**  
BRIGATINIB  
TABLETS

**VELCADE**  
[DOXETROTIN] FOR INJECTION

**ADCETRIS**  
[brentuximab vedotin] for injection

**ICLUSIG**



## Neuroscience

**Vyvanse**

**Trintellix**  
vortioxetine

**Mydayis**  
(mixed salts of a single-entity amphetamine product)

**AZILECT**

**intuniv**

**BUCCOLAM**



# Evaluation of Social Value\*

**Takeda creates value for society in many ways, including through strategies to help strengthen evolving healthcare systems and expand patient access to these systems.**

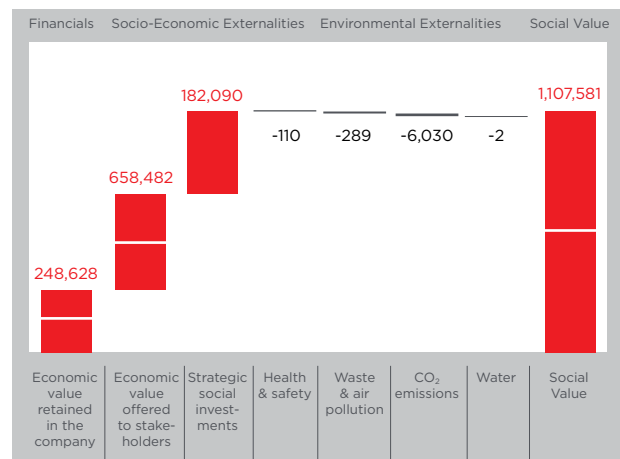
We are aware, however, that the value we create is offset to a degree by our own business impacts. To provide a more holistic view for our stakeholders, we have undertaken an evaluation that attempts to quantify the net impact, or valuation, of our environmental, social, and governance (ESG) performance. Integrated reporting principles, such as the International Integrated Reporting Council's price-book ratio (IIRC-PBR) model, have found that there is a positive correlation between the social and environmental value that a company creates and its market value.<sup>1</sup> Hence, this approach aims to offer more transparency between Takeda's business value and its societal benefits.

The multipliers used are based on academic literature and government studies. Compared to last year's exercise, which was conducted on a trial basis, several improvements have been made to the valuation methodology, making it difficult to directly compare year-over-year results.<sup>2</sup> This calculation is a first step in better understanding, managing, and demonstrating the value Takeda creates for stakeholders. As we have demonstrated this year, our approach is one of continuous improvement. In the future, we also intend to explore how this analysis links to wider business objectives and priorities and how it can be used to inform our strategy going forward.

## Our Approach

In order to quantify the value associated with Takeda's environmental and social efforts, societal valuation multipliers were applied to our financial, community spend, emissions, water use, and safety incident data. This measurement applies only to Takeda operations; our wider value chain impact was not quantified for the purposes of this year's evaluation. The analysis was prepared with the assistance of Ernst & Young in line with leading practices such as the Impact Valuation Roundtable.

## Results Overview<sup>1</sup> (unit: million yen)



<sup>1</sup> SEE SOCIAL VALUE REFERENCE LIST ON PAGE 89

<sup>1</sup> YANAGI, R (2018). CORPORATE GOVERNANCE AND VALUE CREATION JAPAN

<sup>2</sup> THE INPUT DATA INCLUDED IN THE ANALYSIS ENCOMPASSES ONLY TAKEDA'S DIRECT OPERATIONS. SUPPLY CHAIN DATA IS NOT CURRENTLY INCLUDED IN THIS YEAR'S CALCULATIONS. FINANCIAL, ENVIRONMENTAL, AND SAFETY DATA INCLUDES DATA OF FY2018 TAKEDA AND SHIRE FOR FY2018 Q4. STRATEGIC SOCIAL INVESTMENTS INCLUDE TAKEDA-ONLY DATA BUT DO NOT INCLUDE ACCESS TO MEDICINES DATA.

\* SOCIAL VALUE: CALCULATED USING THE TRUE VALUE METHODOLOGY

## Analysis

Based on the calculation of Social Value, Takeda's overall Social Value is approximately four times larger than the economic value retained by our company. The calculation of Social Value is smaller when compared to Takeda's total FY2018 revenue because the scope of results has yet to capture some of the key areas in which our business creates significant value — from our supply chain through our procurement spend, and for patients, through the benefits of our highly innovative medicines and Access to Medicines programs. As FY2018 Social Value calculation is a conservative view of how we create value for stakeholders, going forward we will continue to explore new ways to measure, understand, and communicate the full picture of our Social Value.

## Methodology

### FINANCIAL

#### Economic value retained in the company

- Revenues minus costs (including salaries and bonuses paid to employees) and payments to stakeholders (including corporate tax, dividends, and interest payments).
- Our financial performance for our 2018 fiscal year is discussed in more detail in our Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission.

### SOCIOECONOMIC

#### Economic values offered to stakeholders

- The direct contribution of salaries and bonuses paid to employees, corporate taxes, dividend payments to investors, and interest payments to creditors.
- We have seen our overall contribution increase due to overall growth of the company.

### Strategic social investments

- The positive social impacts of our Global CSR Program and Partnerships (e.g., reduced mortality, additional trained health workers, improved maternal health, treatment of noncommunicable diseases).
- Measured outcomes for strategic social investment programs use a Social Return on Investment (SROI) approach. The projects included in the analysis are World Vision, the United Nations Children's Fund (UNICEF), UN Foundation, Save the Children, Plan International, and Global Fund (Takeda Initiative).

### Health and safety

- Occupational injuries of our employees and the resulting loss of income-generating capacity, medical costs, and administrative costs.

## ENVIRONMENTAL

### Waste and air pollution

- Air pollution data measures the negative health and environmental effects of air pollutants (PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, VOC).
- Waste data encompasses the health impacts and public budget burden associated with waste incineration and landfilling and benefits of recycling.

### CO<sub>2</sub> emissions

- Carbon emissions data relates to the negative consequences of climate change, (e.g. impacts on agricultural productivity, human health, property damages from increased flood risk).
- A carbon price has been used to evaluate the economic impact on society and the environment.

### Water

- Water data relates to the social cost of water withdrawal correlated to water scarcity in the regions of operation.

For more information on the value created through our Global CSR Program and Partnerships, please refer to pages 32 – 41 of this Report, and for more information on how we are working to minimize our environmental footprint please refer to pages 51 – 65.

# Our Approach to Sustainable Value



**We exist because we help patients. This statement is fundamental to our commitment to transforming the pharmaceutical industry to improve its focus on patients and make more significant contributions to society.**

We do this by taking responsibility for our actions as a good corporate citizen while putting patients at the center of all that we do. We encourage positive impacts by engaging in activities related to the environment, our employees, communities, and other stakeholders, ultimately promoting the development of a sustainable society. As such, our work extends to building sustainable value that benefits everyone. The end goal is always the same: Better Health and a Brighter Future for patients worldwide. Our efforts to realize this goal help to build trust with society and reinforce our reputation with stakeholders.

We align our work to help build sustainable value with Takeda's long-term vision. We establish long-term relationships with partners locally and globally. Our Global CSR Program and Partnerships cover maternal, newborn, and child health, focusing on the prevention and treatment of communicable diseases, in combination with other company-wide programs, which may cover noncommunicable diseases. While our CSR initiatives do not necessarily relate to Takeda's commercial products, all of our work as a company seeks to help healthy people rather than waiting for them to get sick.









## Takeda's Business Activities from a Sustainability Perspective



## ESG Disclosure and Transparency

An important focus is transparent disclosure about our environmental, social, and governance (ESG) impacts. In particular, institutional investors are increasingly engaged with companies regarding the need to create long-term, sustainable value. As a result, the reports issued by ESG rating organizations are growing in importance. Takeda engages with both ESG-rating organizations and institutional investors to better understand their expectations and to reflect those priorities in our business activities and disclosures.



Name of Index or Rating	Company/Organization	Country	History of Inclusion
 MEMBER OF <b>Dow Jones Sustainability Indices</b> In collaboration with  RobecoSAM brand	S&P Dow Jones Indices	U.S.	Asia Pacific Index — 10 consecutive years  World Index — From September 2019
	Corporate Knights	CND	4th consecutive year
 FTSE4Good	FTSE Russell	UK	15th consecutive year
 2019 Constituent MSCI ESG Leaders Indexes	MSCI <sup>1</sup>	U.S.	10th consecutive year
	Forum Ethibel	BEL	From July 2017
	ISS-Oekom	GER	2nd consecutive year
	RobecoSAM	CHE	From February 2019

<sup>1</sup> THE INCLUSION OF TAKEDA IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS, OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT, OR PROMOTION OF TAKEDA BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

## Alignment with Sustainable Development Goals

Takeda evaluates its sustainability goals through international frameworks, such as the United Nations' Sustainable Development Goals (SDGs), international meetings such as the annual World Economic Forum in Davos, Switzerland, and discussions with foundations and nongovernmental organizations (NGOs). Understanding the needs of international civil society helps us calibrate our priorities toward the areas of highest need.



We align our CSR work primarily with two SDGs. Our engagement-based Global CSR Program focuses on Good Health and Well-Being (SDG #3) through disease prevention

to improve health and capacity building in developing and emerging countries. Individual programs are designed through collaboration with stakeholders and chosen by Takeda employees to foster a greater sense of ownership.



Our Global CSR Partnerships align with Partnerships for the Goals (SDG #17) and allow us to be strategic and agile. Through these partnerships, we can respond quickly

to health issues, such as HIV/AIDS, address the growing problem of noncommunicable diseases, and increase pharmaceutical industry support in the fight against communicable diseases.

See the [Global CSR Partnerships Section](#).

## Accelerating Time to Diagnosis for Children With a Rare Disease

The Global Commission to End the Diagnostic Odyssey for Children with a Rare Disease (the "Global Commission"), co-chaired by Takeda, Microsoft, and EURORDIS-Rare Diseases Europe, is a diverse group of patient advocates, physicians, and other experts in the field who provide unique expertise to solve challenges affecting the rare disease community. The partnership is committed to harnessing the power of technology and supporting policies to dramatically accelerate the time to diagnosis for children with a rare disease, which can be the key to a longer, healthier life.



### GLOBAL COMMISSION

to End the Diagnostic Odyssey for Children with a Rare Disease

In early 2019, the Global Commission released an [actionable roadmap](#) to help end the multi-year diagnostic odyssey, outlining current technology pilot projects that use tools such as blockchain and facial recognition, and policy recommendations to ensure patient privacy is protected while encouraging the sharing of data for analysis and decision-making. The Global Commission is also working with Takeda's Center for Scientific Leadership and Innovation to identify and advance innovative, concrete solutions that could empower patients and their families to work more collaboratively with physicians to think differently about rare diseases. The efforts of the Global Commission support Takeda's vision to serve the needs of patients, wherever they are, earn the trust of society and customers through Takeda-ism, and be recognized as best in class because of agility and innovation.

# Governance

**Just as we do with our business activities, we aim to create as many positive impacts as possible in our sustainability efforts.**

This requires a disciplined approach in choosing which initiatives to take on and ensuring they are carried out with maximum effectiveness. There are four steps in our sustainability governance process:

1. **Decision-making** Important sustainability-related matters receive consideration from Takeda's top leadership. Typically, these matters are elevated to Takeda's Business Review Committee (BRC), the Takeda Executive Team (TET), or the Board of Directors.
2. **Due diligence** Sustainability is an important factor in our business decisions. For example, we identify any impacts, or potential impacts, that our business activities might have on society and the environment. Relevant divisions lead efforts to take appropriate measures to manage these impacts and to sustain corporate value.
3. **Implementation** Once we identify material issues, we categorize them into quality, human rights, labor, environment, procurement, supply-chain management, compliance, or community issues. We then assign them as projects to the appropriate teams.
4. **Disclosure** A dedicated team within Takeda's Corporate Communications and Public Affairs function helps communicate sustainability-related information, referencing the UNGC Advanced Level criteria, Global Reporting Initiative (GRI) Standards, the International Integrated Reporting Council (IIRC) International Integrated Reporting Framework, the Sustainability Accounting Standards, and other guidelines.

# Materiality

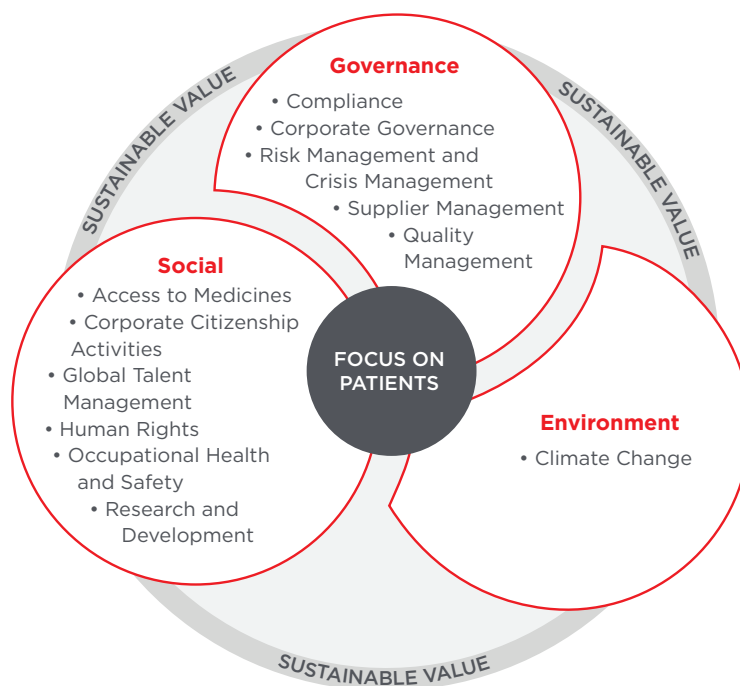


**In all of our activities, whether working in the lab to formulate a new compound or working to reduce our carbon footprint, we strive to ensure that our work results in real impact and real value.**

We apply that same approach to sustainable value creation. Takeda conducted a comprehensive review process to select ESG areas of focus based on importance to society, investors, and our employees, with a focus on those that align with Takeda’s business strengths.

This process included a review of Takeda corporate strategies, international guidelines such as the SDGs, respected disclosure standards such as GRI, Sustainability Accounting Standards Board (SASB) standards and several ESG rating organizations.

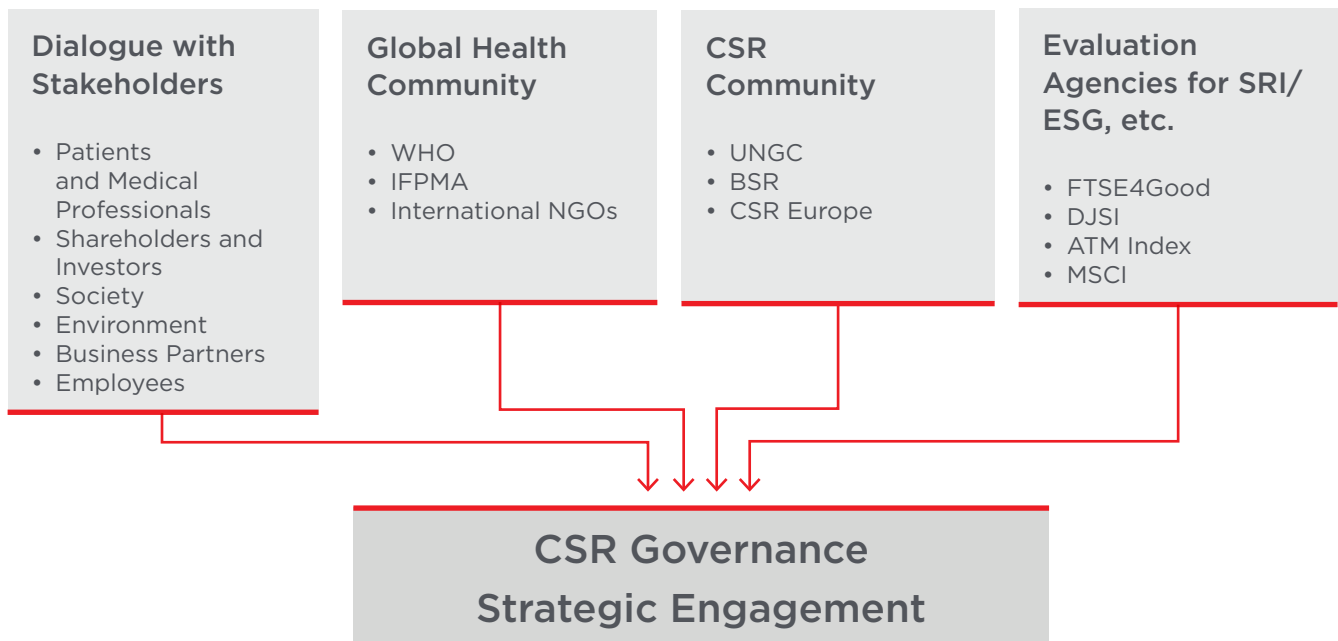
## Our Current Areas of Focus:



# Strategic Engagement

Takeda works to understand the issues that are of interest to diverse communities and stakeholders through strategic engagement. We monitor global sustainability trends by engaging with evaluation agencies, foundations, the global health community, and our stakeholders. We enhance the quality of that communication by using various frameworks, such as Japan's Corporate Governance Code, based on appropriate information disclosures and

dissemination. This interaction helps us to examine and organize issues that are of particular relevance to Takeda, enabling us to bring the same rigor and discipline to our sustainability work that we bring to our business. As an example, Takeda's CSR team conducted outreach to key external stakeholders in July 2019 to understand their current view and future expectations of Takeda's Sustainable Value strategy and to inform Takeda's reporting.



## Partnerships

Partnerships are a cornerstone of our strategy at Takeda, both to enable the growth of our business and to enhance our corporate citizenship. On the business side, we advance a wide range of partnerships with biotechnology ventures and academia. In our sustainability activities, we engage with the following international organizations and other bodies including:



Global CSR Program partners are listed in the [Health section](#) of this report on page 32.





## A Brighter Future Through Better Health

### IN THIS CHAPTER

- Research & Development
- Access to Medicines
- Global CSR Program and Partnerships

# Overview

**As a global, values-based R&D driven biopharmaceutical leader headquartered in Japan, we have an unwavering commitment to bringing Better Health and a Brighter Future to people around the world.**

We use our strengths, often in close collaboration with innovative partners, to improve healthcare for patients everywhere, from developing new medicines to helping patients afford quality care.

Our work intersects with the healthcare system in a variety of ways — and in each instance we strive to keep the patient at the center. First, our business is driven by science. In our labs today, we are focused on discovering and developing treatments and vaccines for some of the world's toughest medical challenges, including some of the most challenging diseases.

When healthcare access barriers arise, our Access to Medicines program helps patients overcome them by getting medicines into markets faster and helping to overcome financial, logistical, and other kinds of obstacles. We also collaborate with partners to help strengthen healthcare systems at every stage of the patient journey — from awareness and diagnosis to treatment and aftercare.

Finally, our Global Corporate Social Responsibility (CSR) Program is designed to help achieve Sustainable Development Goals (SDGs) #3, Good Health and Well-Being, and #17, Partnerships for the Goals. Across all of our activities, we are ever mindful of the challenges that face the global healthcare system, such as uneven access, disease prevention, ending epidemics/disease elimination, pandemic preparedness, and the inevitable impacts of climate change on human health.



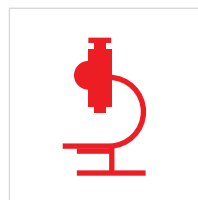
# Research & Development



**Research & development (R&D) is fundamental to our culture and is an element of our corporate strategic roadmap, along with values, people, and business performance.**

R&D drives innovation at Takeda. In labs around the world and in collaboration with our extensive network of partners, we focus on developing highly innovative medicines that make a tangible difference in patients' lives. Takeda has more than 4,400 R&D employees worldwide working together to advance new treatment options. We invested JPY 368.3 billion in research and development in FY2018.

We seek the best possible science, whether within the walls of our own laboratories or beyond, and invest for the long term. Rather than engaging in strict licensing agreements and traditional acquisitions, Takeda enters into mutually beneficial partnerships with biotech and pharmaceutical organizations, academic institutions, and nonprofit and government organizations that are focused on advancing innovation. As a result, we work collaboratively to advance a modality-diverse pipeline with potentially transformative medicines. By joining forces with others to address unmet medical needs, we achieve more for patients than we could alone, and with the speed and efficiency that today's competitive landscape requires. Currently, we have more than 200 active partnerships that keep us at the cutting edge of innovation.





Examples of recent R&D focus areas include:

- Advancing the next wave of innovation by striving to deliver pharmaceuticals that have transformational impact, rather than those that make only an incremental advancement.
  - Investing in new capabilities and next-generation technologies, including cell and gene therapy, immuno-oncology, data sciences, and translational medicine.
  - Delivering an industry-leading rare diseases pipeline as the largest rare diseases pharmaceutical company in the world. With that distinction comes a commitment to develop much-needed medicines for patient populations that are typically underserved. Our focus is to advance our late-stage rare diseases pipeline, redefine our leadership in current disease areas, and partner to expand into new rare diseases with emerging platforms and programs.
  - Leveraging R&D in vaccine development as a fundamental step toward improved access.
- Through the vaccine development process, we take the necessary steps toward the adoption of an access culture. Initiatives like embedding an access champion in each Global Program Team, including access provisions in working documents, adding KPI's and objectives on access, building access roadmaps, and standardizing access initiatives will help incorporate access as a business driver.
  - Improving patient access to medicines in countries with developing healthcare systems through an R&D-initiated Employee Fellowship Program, where employees contribute their knowledge and skills to help build local healthcare capabilities.
  - Partnering with patients, advocacy organizations, and key stakeholders to better understand the burden of disease and unmet needs. Partnerships like these help Takeda to shift from developing medicines *for* patients to developing medicines *with* patients. We can apply patient insights, leverage real-world data, and employ analytics to better develop treatments.



# A Conversation With Andrew Plump, M.D., Ph.D.

President, Research and Development

## WHAT MOST EXCITES YOU ABOUT THE WORK YOU ARE DOING TO CREATE SUSTAINABLE VALUE AT TAKEDA?

Our work through Takeda's Access to Medicines program is helping to deliver better healthcare to patients around the world. The program goes beyond simply donating medicine to communities that lack strong healthcare systems, but also helps build local healthcare capabilities. We're investing in local R&D, including in developing countries, to spur community discoveries and implement training and education programs for healthcare workers to improve care. These capabilities can have a lasting impact on the patients we serve.

## WHAT DO YOU SEE AS YOUR MOST SIGNIFICANT CHALLENGE AND OPPORTUNITY TO CREATING THAT VALUE?

Value isn't one size fits all for the patients and communities we serve. We need to ensure that our capacity-building programs are implemented efficiently and deliver the value we're seeking. To achieve that, we're engaging with governments,



local healthcare authorities, and other partners to understand the needs of communities and work to meet them.

## HOW DOES YOUR WORK HELP TAKEDA BETTER SERVE PATIENTS?

R&D is a global marketplace, and innovation is happening all around us at an incredible pace. The challenge for us is not only to stay current, but also to discover, develop, and deliver tomorrow's innovative medicines and solutions for patients quickly — and with conviction. We invest in our own labs and R&D capabilities, but we also collaborate with a rich partner network to unlock innovation wherever it resides.

## Strategic Priorities

We focus our R&D efforts on four therapeutic areas: Oncology, Gastroenterology (GI), Rare Diseases, and Neuroscience. We also make targeted investments in plasma-derived therapies and vaccines. Our world-class R&D engine has continued to execute on its strategic priorities, with key clinical trial results, new product approvals, and label expansions. In FY2018, we advanced our pipeline, achieving 15 new molecular entity stage-ups in 12 months, and accepted 17 new assets into our R&D portfolio.

In oncology, for example, Takeda received marketing authorization from the European Commission (EC) for ALUNBRIG (brigatinib) as a treatment for adult patients with certain kinds of non-small cell lung cancer. Takeda also received a label expansion for ADCETRIS (brentuximab vedotin) in Japan and the European Union (EU) for the treatment of adult patients with CD30+ Hodgkin lymphoma at increased risk of relapse or progression following autologous stem cell transplant. In gastroenterology, Takeda demonstrated that its drug ENTYVIO (vedolizumab) showed superior rates of clinical

remission vs. adalimumab in patients with moderately to severely active ulcerative colitis in a Phase 3b study. This was the first ever head-to-head biologic clinical study in ulcerative colitis — a chronic, relapsing, inflammatory condition of the gastrointestinal tract.

In rare diseases, the U.S. Food and Drug Administration (FDA) approved TAKHZYRO (lanadelumab), the first monoclonal antibody approved in the market to treat patients 12 years and older with types I and II hereditary angioedema (HAE), a genetic disorder that affects an estimated one in 50,000 men and women. And in neuroscience, Takeda received a U.S. label expansion for TRINTELLIX (vortioxetine), making it the first FDA-approved treatment for major depressive disorder, where the labeling includes data showing improvement in processing speed, an important aspect of cognitive function.



## New Milestones in Vaccine Development

Since their introduction in the late 18th century, vaccines have transformed public health, and today help to prevent more than 2-3 million deaths each year. At Takeda, we are developing new vaccines to address some of the world's most pressing public health needs. Our Vaccine Business Unit (VBU) has developed a pipeline that focuses on diseases that impact disproportionately low- and middle-income countries. All diseases addressed by our VBU — dengue, Zika, norovirus, and Chikungunya — are part of the Access to Medicines Index report, the leading industry resource for access to medicines performance evaluation and comparison.



Our mission is to make these vaccines available in countries with the highest unmet need, fully develop and register them, and build capacity within our facilities to produce the millions of doses that are required to improve global health. Currently, our vaccine research is focused in three areas:

- **Dengue** Approximately half of the world's population is at risk for dengue, the fastest-spreading mosquito-borne viral disease in the world, and one of the World Health Organization's (WHO) top 10 threats to global health in 2019. We are conducting a Phase 3 clinical trial for a dengue vaccine candidate involving more than 20,000 children and adolescents in dengue-endemic areas. The trial met its primary efficacy endpoint demonstrating that the vaccine candidate is effective at preventing dengue illness. To support our efforts, Takeda invested more than EUR 100 million to build a new manufacturing plant in Singen, Germany.
- **Zika** The U.S. government selected Takeda to develop a vaccine to support the Zika response globally. The FDA granted Takeda fast-track designation for its vaccine candidate, and we are now analyzing data from a Phase 1 trial.
- **Norovirus** Norovirus causes more than 685 million infections and an estimated 200,000 deaths each year. Our vaccine candidate recently completed a Phase 2b field efficacy trial, the results of which are expected to be published in 2020.



# A Conversation with Rajeev Venkayya

President, Global Vaccine Business Unit

## WHAT MOST EXCITES YOU ABOUT THE WORK YOU ARE DOING TO CREATE SUSTAINABLE VALUE AT TAKEDA?

In our vaccine business, we're tackling problems that affect the entire world. For me, this is the definition of creating sustainable value. We're working hard to develop vaccines for diseases such as dengue, which threatens approximately half the world's population, and norovirus, which can affect all people at multiple times in their lives. It's exciting to know that if we are successful in developing safe and effective vaccines for these diseases and others, our work could benefit countless people across multiple generations — leading not only to better health for individuals and their families, but also to greater productivity for society.



PHOTO: UN FOUNDATION

## WHAT DO YOU SEE AS YOUR MOST SIGNIFICANT CHALLENGE AND OPPORTUNITY TO CREATING THAT VALUE?

We are targeting high-burden diseases for which vaccines have been very difficult to develop from a scientific and technical perspective. And because vaccines are used in large numbers of healthy individuals, including children, the bar for safety and quality is extremely high and requires significant time and investment to ensure we are meeting those standards. There are few companies that have the resources and perseverance to take on this challenge. I'm proud that Takeda is one of them.

## HOW DOES YOUR WORK HELP TAKEDA BETTER SERVE PATIENTS?

Vaccines represent a new dimension of global impact for Takeda. We are awed by the potential to reach more people than ever in Takeda's history. This is an extraordinary privilege, responsibility, and opportunity for all of us.



PHOTO: UN FOUNDATION

# Access to Medicines



**Access to Medicines is a global cross-functional initiative that aims to increase access to our innovative and potentially life-saving medicines for complex and rare diseases in countries that lack strong healthcare systems.**

Our first priority at Takeda is to put the patient at the center. That's why we believe access to medicines should be universal. The past decade has seen major public health gains and scientific breakthroughs, but many people around the world, especially in low-and middle-income countries, still lack access to health services, treatments, and preventions. Historically, most access efforts to address this issue have focused on providing essential medicines, but there is a significant and growing burden of complex, noncommunicable diseases (NCDs). Globally, a substantial number of people have little or no access to healthcare for some of the biggest killers, including many forms of cancer.

This is a new frontier for medicine access, but there are significant challenges in addressing access for complex and rare diseases. These diseases are generally hard to diagnose, treat, and manage. In many parts of the world, there are unmet needs in the ability to screen, diagnose, and treat patients. Not enough healthcare workers, for example, are trained in specialized skills in awareness, prevention, and diagnosis. Gaps exist in both the scale and quality of the required facilities and equipment, and the supply chain for highly innovative medicines is underdeveloped. There are also greater affordability barriers. Complex and rare diseases require highly innovative medicines that can be developed only with significant investment. These expensive treatments can be lifelong, and there may be no alternative medicines.





## Strategy and Impact

Addressing these challenges requires a holistic view of the patient and the healthcare system. We look at the entire patient journey, from development of innovative medicines to treatment and beyond, as well as a view of the entire local health system and its capacity constraints. To drive the greatest possible impact for the patient, we are taking the following steps:

- **Sustainable and targeted partnerships** Addressing these challenges cannot be done alone. Takeda has lasting commitments and deep collaborations with partners across the public and private sectors, so that our collective efforts drive positive impacts in patients' lives.
- **Innovative partnership framework** We created the Blueprint for Innovative Access to guide all our Access to Medicines programs. It is a practical framework for a partnership approach to increase access to innovative medicines for complex and rare diseases, across the whole patient journey from awareness and prevention, through to ongoing patient support — including building capacity at every stage, and innovative affordability mechanisms for treatment.
- **Capacity building** We know that access to medicines is not enough. To provide adequate care, health systems must be able to screen, diagnose, and treat disease early. We are working with partners to improve entire healthcare systems across the whole patient journey.
- **Innovative patient access** We recognize the need to provide earlier access to our highly innovative medicines and, as a result, we prioritize early access planning and implementation throughout the life cycle of our medicines. We have also worked to develop innovative and collaborative financing models through Takeda's Patient Assistance Programs to provide greater access to treatments, while maximizing its medical benefits. This is done by making it possible for patients to complete their course of treatment even if they cannot afford to pay for it in full.
- **Impact measurement framework** To hold ourselves and our partners accountable, we are working with Duke University to develop an Impact Framework that provides a single, consistent way of measuring impact in improving the lives of patients.

We have made significant progress in our efforts to improve patient access by establishing programs in 52 countries and territories around the globe. But there is still much to do. We are building on this foundation to expand our programs to additional disease areas, more patients, and a greater number of countries to provide better health and a brighter future to more patients.

# 125,000+

patients supported with treatment to improve and extend their lives

# 4,000+

healthcare providers and community health workers trained to provide improved patient care

# 1.1+ Million

patients screened for noncommunicable diseases, including cancer, as a result of support for healthcare professionals

# #5

after climbing 10 place rankings — the biggest mover in the 2018 Access to Medicine Index, which recognized the quality and ambition of our strategy and the progress we are making

# 52

countries and territories implemented patient-focused access programs

## Sustainable and Targeted Partnerships

Sustainable and targeted partnerships are a cornerstone of our Access to Medicines initiatives. The task of improving complex health systems is too enormous for any single organization to take on alone. Through our work with leading global and local health experts, academics, development agencies, nongovernmental organizations (NGOs), government organizations, healthcare professionals, patient groups, and industry peers, we have learned that one of the most serious challenges access programs face is difficulty in gaining a view of the entire healthcare landscape. The result, in many cases, is overlapping and inefficient activities.



Our sustainable and targeted partnership approach enables us to work with experienced individuals and organizations in each country to either create programs that address tangible gaps or build on existing initiatives to efficiently deliver the greatest possible value to patients, healthcare systems, and communities. In doing this work, we actively look for partners who can provide us with new perspectives on local access challenges and support our long-term strategy of delivering sustainable change.

In 2018, Takeda, in partnership with Amref Health Africa, convened global leaders from governments, the UN's agencies, the donor community, NGOs, and the private sector to explore best practices for advancing universal healthcare (UHC) in Africa and Asia. A key outcome was an understanding that achieving the UN's goal globally by 2030 will require more effective partnerships to better mobilize and share knowledge, expertise, and financial responsibilities. We will continue working with Amref Health Africa and other leading organizations to strengthen healthcare systems and improve patient access through sustained engagement and long-lasting commitments.



## Building Capacity: Strengthening Cancer Care Across the Whole Patient Journey

Cancer is the third-largest cause of death in Kenya. Improving the speed of diagnosis is a critical factor in the fight against cancer throughout Sub-Saharan Africa. Takeda, together with our local partners, and the National Cancer Institute (NCI) under the National Ministry of Health of Kenya, identified gaps in cancer care training in Kenya in areas including diagnosis, treatment, and patient support.

In collaboration with local healthcare teaching institutions and NGOs, we established the Integrated Cancer Care Curriculum program to address these challenges. The number of trained professionals, the distance to clinics from patients' homes, public understanding of treatment options, and the importance of regular checkups are all areas that the curriculum specifically seeks to address.

Through innovative training courses and delivery methods that combine in-person training with mobile and online learning, healthcare workers receive training, mentorship, and knowledge sharing. The Integrated Cancer Care Curriculum aims to reach 10,000 healthcare workers by the end of 2019.

The sustainability of the program depends on the continued commitment of Takeda and our partners, which is why we are working closely with the government and have made sure that ownership of the program sits with the NCI.

Achieving UHC is a priority for Takeda, and we are committed to the long-term, continuous efforts it will require, including working to align policies and regulations, supporting the implementation of crucial health programs, and promoting multisector partnerships. To achieve UHC 2030 we need collaboration — sustainable partnership platforms with lasting commitments in which everybody is held accountable. Solving this complex challenge requires a collective effort, maximizing the expertise of the private sector and the mission of NGOs, under the leadership of government. The progress we have made in healthcare has already transformed thousands of lives, but millions more are at stake.

## Innovative Partnership Framework: the Blueprint for Innovative Access to Strengthen Healthcare Systems Across the Whole Patient Journey

We created the Blueprint for Innovative Access to guide our Access to Medicines programs. It provides a practical framework for a partnership approach to increasing access to innovative medicines for complex and rare diseases, across the entire patient journey.

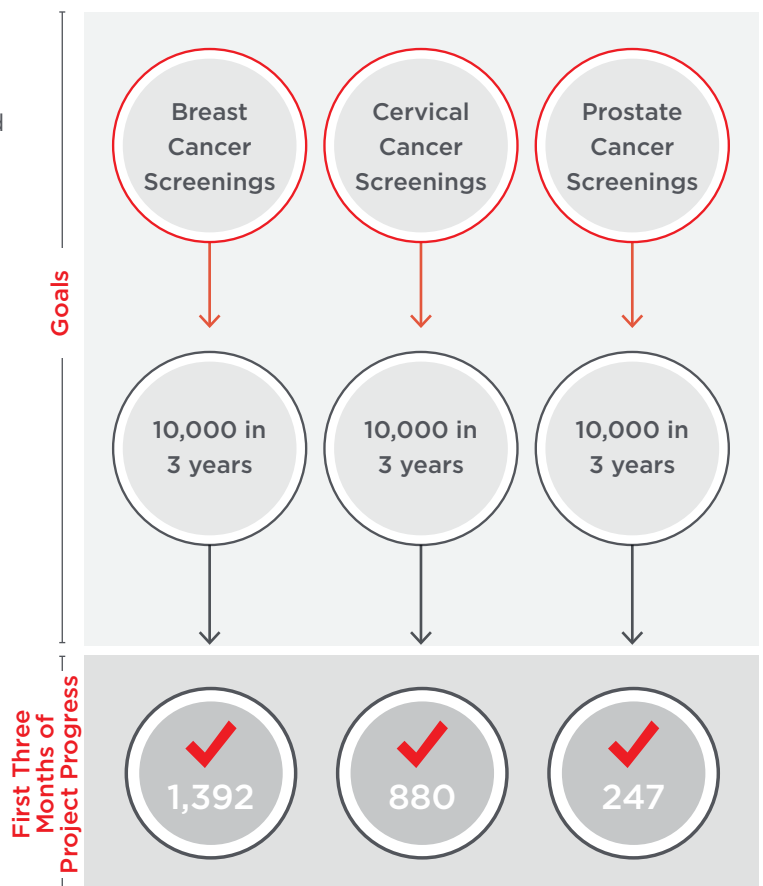
The Blueprint is designed to be sustainable by building a local consortium of partners who own and drive delivery. It starts by fully understanding the local healthcare environment, and it is applied in a tailored and targeted way, depending on the specific challenges or healthcare gaps in each therapeutic area or country.

Strong governance and a focus on ethics, compliance, and anticorruption is integral to our approach. We have strict processes to ensure due diligence and management of potential conflict of interests, and our partnerships are documented in formal agreements.



### Goals and Progress to Date

Meru County in Kenya was selected as the Blueprint pilot, launched in February 2019 by Amref Health Africa, International Cancer Institute, and Takeda, together with local and regional partners, to strengthen the healthcare systems for NCDs in the county and surrounding regions by tackling specific access barriers for patients through collaboration, coordination, and sharing resources and expertise.



## Impact Measurement Framework

Measuring impact is critical to meeting our goals in improving healthcare for patients everywhere. We recognize that measurement must be done in a consistent, transparent, and independent way to hold ourselves and our partners accountable. That's why Takeda has committed to developing an assessment framework that can be used across the industry, NGOs, and governments for independently measuring definitive impact to improve the lives of patients.

Takeda has partnered with Duke University to create the Access to Health Impact Measurement Framework so we can continuously assess and respond to patients' needs with agility and focus, but also monitor the impact that our programs are having on healthcare systems more broadly.

We have developed this measurement tool with inputs from our industry peers, healthcare organizations, governments, and NGOs. Takeda's ambition is for this to be implemented across healthcare industries to create a single and consistent way of measuring impact to improve the lives of patients.

One goal of the framework is to clearly identify complementary programs and areas for deeper collaboration and to help communities, societies, and healthcare providers strengthen their health systems across the entire patient journey and improve the effective and efficient deployment of resources. Together with our partners, we are currently testing the framework, with the goal of launching within the next two years and making it publicly available.



## Innovative Patient Access: Patient Assistance Program

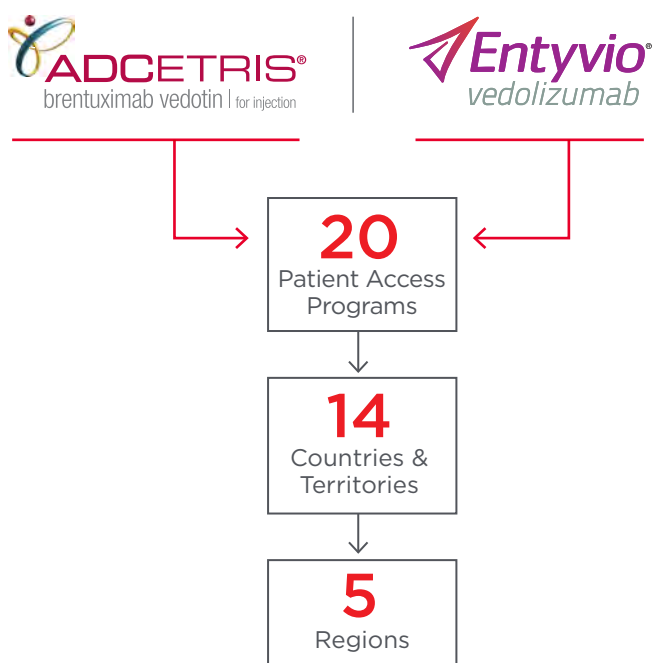
Takeda's Patient Assistance Programs (PAPs) are operating in 14 countries in Asia, Africa, Latin America, Middle East, and Europe, and use innovative and collaborative financing models to increase patients' access to treatment, while maximizing its medical benefits.

This is done by making it possible for patients to complete their course of treatment even if they cannot afford to pay for it in full.

Knowing that there are significant disparities in healthcare provisions both within and among countries, we have adopted a personalized affordability approach. Through our delivery partners, we have adopted an independent and advanced means-based assessment tool to determine the appropriate individual payment scheme for each patient to ensure they are able to complete their entire course of treatment, even if they cannot pay for it in full.



In select cases for patients with no ability to pay, we explore routes for them to access medicines included in our PAPs, through additional financial support from local medical societies, charities, and NGOs.



Improving access to our specialty care products for as many patients as possible while ensuring safety and ethical compliance requires the integrity of our programs to be robust. We have a detailed governance process for the consideration, approval, and implementation of new programs, and a dedicated governance committee responsible for reviewing and approving our collaborative financing initiatives.

Since inception, patients across 14 countries and territories have been treated with some of our most innovative medicines, including ADCETRIS for treating forms of Hodgkin lymphoma and large cell lymphoma and ENTYVIO for treating inflammatory bowel disease.

While our initial focus centered on ADCETRIS and ENTYVIO, we are also working to expand our PAP medicine portfolio to include other complex and rare diseases with a significant global burden.



The next step in our strategy is the development of a vaccine PAP in middle-income countries. These Vaccine Assistance Programs (VAPs), a variation of the standard PAPs, require a different approach due to the specific characteristics of vaccines. In this case, we're working with large volumes of lower-cost products during a short administration time. This adds a layer of complexity to the PAP, due to the challenge of offering personalized pricing to several thousand people. This innovation is a key part of Takeda's efforts to increase the impact of, and access to, our vaccines.



For more information on Takeda's innovative treatment access and programs, please see our [Access to Medicines Progress Report](#)

## Building R&D Capacity in Countries That Lack Strong Healthcare Systems

The lure of a career in more established countries that can offer more advanced R&D facilities and better career development options for young doctors and researchers is often a challenging issue for developing countries. Students may travel overseas to receive the best possible education at leading global institutions, but many do not return home due to the opportunities available abroad. This places an enormous strain on health systems in developing countries.

One key factor causing talented doctors and researchers to remain overseas is the lack of access to technology and lab equipment to further their biomedical research in the developing countries where they grew up. In 2018, Takeda established a partnership with NGO Seeding Labs to provide underutilized equipment and instruments from across Takeda to research institutions in developing countries in order to help them grow their research capabilities.

One participant in the Instrumental Access Program is the Natural Products Institute at the University of the West Indies in Jamaica. It is estimated that through participation in this initiative and the instruments provided, scientific advancement capabilities and teaching resources have closed a 10-year gap in research knowledge and sophistication.

Building R&D capabilities in developing countries can transform local healthcare systems. No one is better placed to solve the local challenges that societies face than medical professionals and researchers who live there, have been brought up there, and have a vested interest in solving the unique problems impacting the population. Takeda's Instrumental Access Program, therefore, does not stop at simply providing much-needed instruments. We help to train medical professionals in how to operate the equipment, are on hand to assist when they have questions, and share the experiences from which we and our partners have learned.

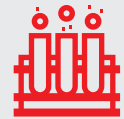


PHOTO: UN FOUNDATION

### Instrumental Access Program By-The-Numbers

# 250

pieces of equipment  
supplied



# 20

universities



# 13

countries





# A Conversation with Ricardo Marek

President, Growth & Emerging Markets

## WHAT MOST EXCITES YOU ABOUT THE WORK YOU ARE DOING TO CREATE SUSTAINABLE VALUE AT TAKEDA?

The most satisfying aspect of my work is playing a part in helping to have a positive impact on the lives of so many people. Takeda's Growth & Emerging Markets (GEM) business unit will cover 85 percent of the world's population by 2050. We're focused on delivering highly innovative medicines that can transform patient lives in nearly 50 countries and territories where, unfortunately, a substantial number of people have little or no access to healthcare. This is especially true for some of the biggest killers, including many forms of cancer, and a number of complex and rare diseases where Takeda has developed innovative medicines. I am incredibly proud of Takeda's Access to Medicines' focus on long-term commitments. Our approach drives decision-making right across Takeda and is deeply embedded throughout our organization.

## WHAT DO YOU SEE AS YOUR MOST SIGNIFICANT CHALLENGE AND OPPORTUNITY TO CREATING THAT VALUE?

The GEM region is characterized by diverse patient needs and country-specific healthcare gaps. Our goal is to increase patient access to innovative medicines for complex and rare diseases, which



are hard to diagnose, treat, and manage in the best of circumstances. In this region, there are great unmet needs in terms of the capacity to raise awareness and prevention, and the specialized clinical skills needed to screen, diagnose, and treat patients. There also are great affordability barriers; complex and rare diseases require highly innovative medicines, often without alternatives, and the treatment can be lifelong. But for me, the most complicated challenges demand the most innovative solutions, and provide Takeda with the opportunity to make the biggest positive impact to patients' lives. These are challenges that inspire me and the entire business to drive positive impact to patients' lives.

## HOW DOES YOUR WORK HELP TAKEDA BETTER SERVE PATIENTS?

Every program we develop is focused on strengthening countries' healthcare systems at every stage of the patient journey. This approach has enabled over 1.1 million patients to be screened for NCDs, including cancer; supported more than 125,000 patients to receive treatment; and trained over 4,000 healthcare providers and community health workers across our chosen therapeutic areas of focus. I am confident that as a result of GEM's broad geographic footprint, our highly innovative medicines, and the partnerships we have forged, we will be able to radically increase access and improve patients' lives.



# Global CSR Program and Partnerships



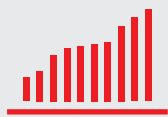
**Our Global CSR Program and Partnerships further extend the impact of our commercial business activities through philanthropic initiatives that promote the development of a sustainable society.**

Just as we do in our commercial business, we put the patient at the center of all our Corporate Social Responsibility (CSR) activities. Our flagship Global CSR Program focuses on disease prevention through capacity building, and healthcare access in developing and emerging countries through multiyear commitments in partnership with international NGOs and donor agencies. As such, Takeda's Global CSR Program looks at health along the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) spectrum. Improving the health of women and children around the world is a top priority for the international development community, as evidenced by the inclusion of specific health targets in the United Nations Sustainable Development Goals (SDGs). Through Takeda's flagship Global CSR Program, we want to help end preventable maternal and child deaths largely seen in low- and middle-income countries. Given the critical nature of this matter, we select new programs through a voting process that involves all Takeda employees around the world.

Since its launch in 2016, the Global CSR Program has been delivering tangible results that take into account priorities identified by international programs such as the SDGs. These results range from expanding patient access to quality diagnosis and treatment, to immunization in disease-endemic countries, to training healthcare workers and strengthening health systems around the world.

## 13

mid-to-long range Global CSR Programs



## 14

Global CSR Programs focused on disease prevention through capacity building in developing countries



## ~20,000

employees voted on Global CSR Programs in FY2019





Today, we manage a portfolio of 14 programs with funding support that ranges between three and 10 years. Going forward, we will continue to build up the health workforce in the fight to end preventable deaths, and push for sustainable public health supply chains so no patients are left untreated due to health commodity stock-out/or falsified/counterfeited medicines.



PHOTO: UN FOUNDATION

We will also refine our focus toward a stronger emphasis around communicable, maternal, perinatal, and nutritional conditions, which according to [WHO data](#), are still the largest burden in terms of mortality in low- and middle-income countries. Thus, we are truly putting patients with the highest burden and remaining unmet needs at the center of Takeda's Global CSR Program activities.

Beyond the Global CSR Program, the Global CSR Partnerships support public-private partnerships that aim to improve health around the world in order to achieve UHC for all. For example, we partner with The Global Fund to Fight AIDS, Tuberculosis and Malaria. Our intent is to continue to work with multilateral partners, NGOs, foundations, and intergovernmental organizations to build sustainable value that benefits everyone to achieve our ultimate goal of better health and brighter futures for patients worldwide.

## Employee Participation Programs

We also provide opportunities for selected employees to see first-hand how our innovative Global CSR Program works. Through our Employee Participation Program (EPP), colleagues from our offices around the world can apply to visit sites supported by Takeda's Global CSR Program. Applicants are selected based on a combination of a detailed review of the submitted online application and eligibility criteria, including diversity, that we use to choose the final group. In 2017, 10 Takeda employees selected went to Laos to monitor activity of "Global Measles Vaccination for Children" by the United Nations Foundation. For employees, these visits provide a unique and grassroots opportunity to understand the real power of what it means to put the patient at the center of everything we do.

## An Inclusive Selection Process

We bring as much rigor to our Global CSR Program decision-making as we do to our business activities, in order to ensure programs provide maximum benefit for patients. Crucially, we depend on our diverse workforce in about 80 countries to help select the right programs for Takeda. Our goal is to create a spillover effect that motivates participating employees and their colleagues. To create a pool of candidate programs, a dedicated CSR team selects various NGOs and intergovernmental organizations as potential partners. Then, we share the details for each candidate program through briefing sessions and on our company intranet. Finally, employees around the world are invited to vote on the candidate slate. In 2019, approximately 20,000 Takeda employees cast votes, resulting in the selection of the following five new Global CSR Programs.



PHOTO: UN FOUNDATION

## 2019 Global CSR Programs



**Partner:** City Cancer Challenge (C/Can) Foundation

**Area:** Global

**Budget:** JPY 1 billion

**Period:** 5 Years

**About City Cancer Challenge:** City Cancer Challenge is a city-based partnership initiative that aims to improve access to quality cancer care in cities around the world by transforming the way stakeholders, from the public and private sectors, collectively design, plan, and implement cancer solutions. The approach is built on the core principle that cities can drive impact at the national level by crafting data-driven solutions with the support of a network of global, regional, and local partners that reflect an understanding of the unique local context.

**Program Focus:** City Cancer Challenge's inclusive partnership approach brings together the public and private sectors to advance quality cancer care and treatment, and strengthen health systems. By supporting 10 cities with the design, planning, and implementation of sustainable cancer solutions, City Cancer Challenge is expected to positively impact 80 million people by 2023.



PHOTO: C/Can

# DNDi

Drugs for Neglected Diseases *initiative*

**Partner:** DNDi

**Area:** Africa, Asia, and South America

**Budget:** JPY 1 billion

**Period:** 5 Years

**About DNDi:** A not-for-profit research and development organization, DNDi works to deliver new treatments for neglected diseases, including leishmaniasis, filarial infections, sleeping sickness, Chagas disease, and mycetoma, and for neglected patients, including children with HIV and people living with hepatitis C virus. DNDi has delivered eight new treatments to date, including new drug combinations for visceral leishmaniasis, two fixed-dose antimalarials, and DNDi's first successfully developed new chemical entity, fexinidazole, approved in 2018 for the treatment of both stages of sleeping sickness.

**Program Focus:** Transforming the lives of children and their families. Expand neglected patients' access to quality diagnosis and treatment in disease-endemic countries, including in peripheral settings, and consequently helping to prevent disease progression while saving lives. DNDi targets five Neglected Tropical Diseases: sleeping sickness, Chagas disease, leishmaniasis, onchocerciasis and mycetoma that are characterized by significant morbidity and/or mortality and have been prioritized due to the current limited availability and accessibility of effective diagnostics and treatment.



PHOTO: DNDi



**Partner:** SeriousFun Children's Network

**Area:** Africa, Asia, the Caribbean, Europe, and the United States

**Budget:** JPY 1 billion

**Period:** 5 Years

**About SeriousFun Children's Network:** This global community of 30 camps and programs serves children with serious illnesses and their families, always free of charge. The Network is the leader in the field of medical specialty camps, delivering more than 1 million life-changing experiences to children and their families from more than 50 countries. Each member camp is an independent, not-for-profit organization, dependent on private funding to serve all children at no cost to families.

**Program Focus:** Develop and expand new and innovative programming for the global network; carry out research and evaluation efforts to track the impact that each member camp has on the lives of the children and families that the camps serve and further improve programs to meet their needs; and build medical capacity throughout the Network.



PHOTO: SeriousFun Children's Network



**Partner:** UNICEF

**Area:** Global

**Budget:** JPY 1 billion

**Period:** 5 Years

**About UNICEF:** The United Nations Children's Fund (UNICEF) works in some of the world's toughest places to reach the world's most disadvantaged children. Across more than 190 countries and territories, UNICEF works for every child, everywhere, to build a better world for everyone.

**Program Focus:** Investment in innovation and frontier technology. Invest in 25 health-focused and drone startups to develop, realize, and scale cutting-edge solutions for children, as well as scaling artificial intelligence-based epidemiological modeling to predict and help prevent infectious disease outbreaks.



PHOTO: UNICEF



**Partner:** United Nations Foundation

**Area:** Sub-Saharan Africa

**Budget:** JPY 550 million

**Period:** 5 Years

**About United Nations Foundation:** The UN Foundation supports the efforts to tackle global challenges and harness opportunities for the benefit of all humanity. The organization carries out its mission by building communities and incubating initiatives to support the UN and its priority issues, including achieving the Sustainable Development Goals (SDGs).

**Program Focus:** Immunization and universal health coverage. Strengthen health systems in Sub-Saharan Africa through improved disease surveillance and data utilization, enabling effective immunization planning and outbreak response. Stronger immunization programs will reach more children, strengthening primary healthcare and bringing these countries closer to achieving Universal Health Coverage.



PHOTO: UN FOUNDATION

## Leaders in Global Health Interview Series

Our Leaders in Global Health Interview Series captures the personal perspectives and forward-looking ideas of global health pioneers and thought leaders on key issues in the field and the significance of partnering with Takeda on a range of critical issues. The series raises awareness among Takeda's internal and external audiences of critical global health challenges and evolving solutions — now and in the future, the impact of the projects Takeda is supporting on the ground, and the value of Takeda's collaboration.



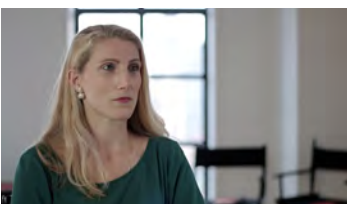
**DR. RAJ PANJABI,**  
CO-FOUNDER & CEO,  
LAST MILE HEALTH

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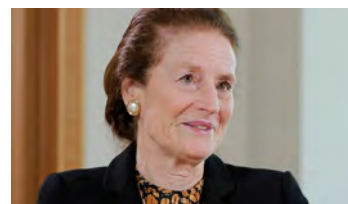
**PROFESSOR PETER PIOT,**  
DIRECTOR, LONDON SCHOOL OF  
HYGIENE & TROPICAL MEDICINE

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**DR. VANESSA KERRY,**  
CO-FOUNDER & CEO,  
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**MS. HENRIETTA FORE,**  
EXECUTIVE DIRECTOR,  
UNICEF

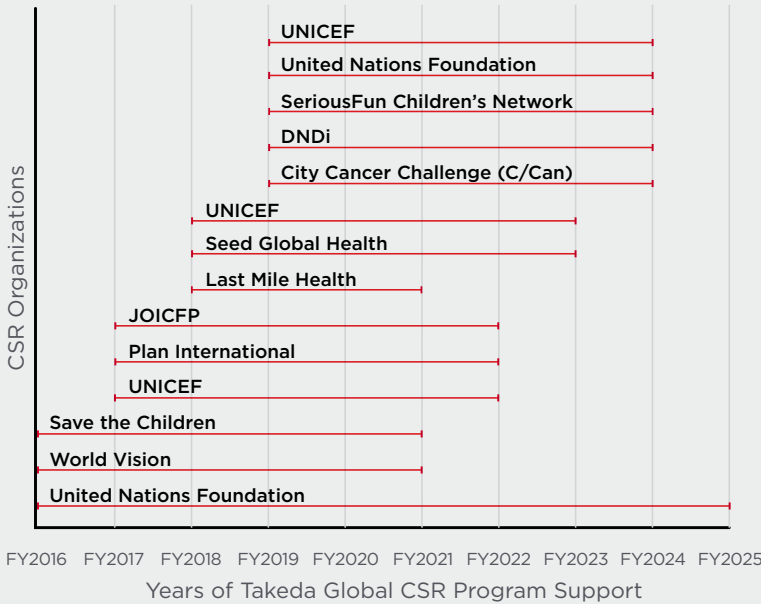
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## Global CSR Program

# Focused on Making a Difference

The five Global CSR Programs selected by employees for FY2019 join nine other previously selected Global CSR Programs that enjoy ongoing support as part of Takeda's Global CSR Program.



**Focus**  
**Disease Prevention**  
**Through Capacity**  
**Building in**  
**Developing and**  
**Emerging Countries**

We expect that  
 at least **17 Million**  
 people will be  
 positively impacted  
**2016-2025**

## Global CSR Programs



Global measles vaccination for children

Immunization and Universal Health Coverage Strengthen healthy system in Sub-Saharan Africa



Protecting the lives of pregnant women in Africa



Free camps and programs for children with serious illnesses



Holistic health program for refugees of South Sudan and Syria



The "First 1,000 Days" Health and Nutrition Program

Health Systems Strengthening in Sub-Saharan Africa

Investment in Innovation and Frontier Technology



Training 5,000 health professionals in Sub-Saharan Africa



Drugs for Neglected Diseases *initiative*

Expanding access to treatment and diagnostics for five neglected tropical diseases



Community health workers training for maternal and child health



Providing 387,500 populations with maternal and child health education, training, and service over five years



Supporting 10 cities with the design, planning, and implementation of sustainable cancer solutions



Training for 8,000 community health workers across the world

## Going Forward

Achieving Universal Health Coverage (UHC) for all requires a paradigm shift in the way we think about philanthropic approach. With our strategic CSR partners, we are exploring new innovative mechanisms in order to address issues at the local government level. By partnering with global health leaders through CSR, Takeda hopes to offer a sustainable flexible funding solution that would allow local governments to gain access to global networks of problem solvers, mentors, and platforms to innovation; provide a pathway to scalability; and rapidly grow the innovative solutions designed by and managed by the local governments, thus allowing more countries to move toward self-sufficiency.

## Other Global CSR Partnerships

Beyond our employee-selected philanthropic programs, we also provide ongoing support for the following:

**Takeda Initiative 2** Our pledge, starting in 2020, of JPY 1 billion over five years is intended to support the improvement of maternal and child health by integrating HIV, tuberculosis, and malaria service in antenatal and postnatal care in several priority countries in Africa. This commitment represents a renewal of Takeda Initiative 1, a 10-year program with The Global Fund to Fight AIDS, Tuberculosis and Malaria that provided JPY 1 billion to strengthen the capacity of healthcare workers in Africa.

The timing of Takeda's support could not be more critical. After years of remarkable progress in the fight against HIV, tuberculosis, and malaria, new threats such as shortfalls in funding and increasing drug resistance have slowed the progress allowing these diseases to gain ground, and undermining efforts to reach the SDG target of ending the epidemics by 2030. Nearly 1,000 adolescent girls and young women globally are infected with HIV every day. A child still dies of malaria every two minutes. And TB is now the world's deadliest infectious disease. By providing more pregnant women with better quality care, and reducing the cost of interventions, countries can move closer to achieving universal health coverage.

**Relay for Life (RFL)** is a global charity activity for fighting cancer. Takeda is collaborating with the American Cancer Society to increase RFL's footprint to more than 46 countries by 2020 and strengthen its support for cancer patients across the globe.

**Digital Birth Registration** is a partnership with Plan International Japan that aims to introduce digital birth registration through awareness-raising and proceeding periodical medical checkups with the use of digital card readers in rural areas of Kenya, where registration rates are low. The program will help to protect children's basic human rights and will contribute to improving healthcare access by providing a system that enables them to receive healthcare services, such as immunizations.



## Takeda Endows Chair in Global Child Health

We are committed to bringing our life-improving therapies and vaccines to patients worldwide through cutting-edge research. As part of that effort, we have endowed the "Takeda Chair in Global Child Health" at the London School of Hygiene & Tropical Medicine (LSHTM) with a £3 million donation. The Chair will support research into reducing some 5.3 million child deaths in low- and middle-income countries and will play a critical role in consolidating LSHTM's child-health research across more than 100 countries.





# A Conversation with Haruhiko Hirate

## Corporate Communications & Public Affairs Officer

### WHAT MOST EXCITES YOU ABOUT THE WORK YOU ARE DOING TO CREATE SUSTAINABLE VALUE AT TAKEDA?

For everyone associated with Takeda, the opportunity to contribute to the prevention of diseases is our driving force. It is very important to keep healthy people healthy, and health policy plays an important role. Takeda isn't afraid to take policy positions and propose healthcare system improvements that we know will help patients. Even when patients and healthcare systems implement the best prevention efforts, it is an unfortunate fact of life that people get sick. Japan achieved Universal Health Coverage (UHC) decades ago. There are still ongoing policies to shape, but every patient has access to healthcare in Japan. UHC is achieved when every person can access healthcare without suffering financial hardship. Access is essential. Through public-private partnerships as well as our NGO partnerships, Takeda does its utmost to help countries where access to healthcare remains an unsolved agenda. Our enduring values continue to provide clear guidance as to how we should behave. In honoring "Integrity" as the core of those values, we contribute to solutions worldwide.

### WHAT DO YOU SEE AS YOUR MOST SIGNIFICANT CHALLENGE AND OPPORTUNITY TO CREATING THAT VALUE?

I strongly believe that Takeda exists to help strengthen a sustainable society for patients—through our values, our people and culture, our innovative products, and our many partnerships across the world. As a professional healthcare products and solution provider, we are highly motivated to do all we can to support access to healthcare, health worker development, and water management; manage the impact of natural disasters (please see the Appendix



for further details); and prevent and mitigate pollution and global warming, which amplify the spread of infectious diseases, food and water shortages, antimicrobial resistance, and more. One of the most significant challenges we face is necessary scientific advancements for vaccines for prevention and innovative medicines for cures, while global healthcare systems in many countries are under heavy financial pressure.

### HOW DOES YOUR WORK HELP TAKEDA BETTER SERVE PATIENTS?

Our R&D is a key success factor for future solutions for patients. We also prioritize corporate social responsibility (CSR) to reinforce our patient-focused activities. For us, CSR is a critical component of our work, embedded into the very fabric of the company and supported at the highest levels of management. Our Global CSR Programs are selected by employees, and through the resulting partnerships with passionate, innovative organizations across the globe, we see tangible impacts on healthcare, disease prevention, health workforce development, and capacity building. Those activities complement Takeda's Access to Medicines initiative, where we provide solutions with our own products.

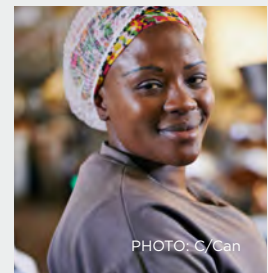


PHOTO: C/Can

## Global CSR Forum

Takeda's commitment to corporate social responsibility (CSR) was on full display at its first ever Global CSR Program and Partnership Forum in 2019. Representatives from 35 international NGO and donor agencies joined Takeda employees in an effort to learn and concretely discuss key areas in creating shared value and partnership opportunities. This Forum aimed to foster constructive dialogue between Takeda and key development partners to explore areas of collaboration. The two-way dialogue included Takeda introducing the vision and strategy behind its Global CSR Program to stakeholders. In turn, stakeholders provided input about global health priorities to inform Takeda's CSR Strategy 2020-2030. Program highlights included a knowledge-sharing panel with Plan International, Save the Children, Seed Global Health, and World Vision. Another panel discussed global health priorities with participants from the Bill and Melinda Gates Foundation, Gavi, UNICEF, and the World Food Programme.



## Our Commitment



TOTAL  
¥ **10.5 billion**

3 Years

10 Years



## CSR Town Hall Meetings

Takeda employees play an integral role in its Global CSR Program by selecting beneficiary partners each year. In order to further their knowledge about the good work undertaken by Takeda partners, the CSR team held a series of town hall meetings in Tokyo, Zurich, and Boston. The Tokyo event featured representatives of World Vision who presented information on their maternal and child health program in Afghanistan, while the meeting in Zurich was an opportunity to explain more about the 2019 Global CSR Program. Meanwhile, employees in Lexington and Cambridge, Massachusetts, heard from Seed Global Health and Last Mile Health about their work. Employee attendees expressed pride and appreciation for the work that Takeda is making possible around the world and look forward to additional meetings in FY2020.







PHOTO: TAKEDA/L HARA

## UN General Assembly Event

The UN General Assembly (UNGA) unites high-ranking leaders from around the world to deliberate on solutions to the most pressing global issues. In 2019, Takeda organized a side event that took place between the UNGA's high-level meetings on universal health coverage and financing, with the goal of capitalizing on the momentum and outcomes of these events. We co-convened a panel, "Universal Health Coverage (UHC) and the Power of People: The case for investing in a qualified health workforce," with Devex and Seed Global Health, a Global CSR Program partner. Approximately 180 people from governments, funding and philanthropic organizations, multilateral organizations, and media attended the event. Haruhiko Hirate, Takeda Corporate Communications and Public Affairs Officer, delivered opening remarks. Event panelists included global health leaders, including Rwanda Minister of Health Dr. Diane Gashumba; WHO Executive Director, Universal Health Coverage, Dr. Peter Salama; H.E. Ambassador Deborah L. Birx, U.S. Global AIDS Coordinator; and Seed Global Health CEO Dr. Vanessa Kerry.

Through our Global CSR Partnership mechanism, Takeda remains committed to further enhancing partnerships with global health leaders to achieve faster results of Better Health and a Brighter Future for all.

## Global Action Plan Launch

Our Global CSR Partnership aims to help accelerate the work on achieving the UN SDG #3: Good Health and Well-Being. As such, Takeda was invited to participate in the historic launch of the Global Action Plan (GAP) at the 74th Session of the United Nations General Assembly. During this event, 12 multilateral agencies officially announced a joint commitment to better support countries in meeting the SDG #3. The event featured remarks by leaders of Germany, Ghana, and Norway, as well as Gavi, the Global Financing Facility, The Global Fund, UNAIDS, UNDP, UNFPA, UNICEF, Unitaid, UN Women, World Bank, WFP, and WHO. Takeda was honored to be invited to this historic event.



UHC AND THE POWER OF THE PEOPLE PANELISTS AT UNGA.



## A Brighter Future Through a Better Workplace

### IN THIS CHAPTER

- Global Talent Management
- Diversity and Inclusion
- Occupational Health and Safety

# Overview



## Takeda today has grown to be a global biopharmaceutical leader with an unwavering commitment to patients.

The growth is made possible by our dedicated employees around the world. In order to continue our mission and thrive far into the future, we must attract, develop, and retain diverse purposeful leaders who are the best at what they do. This requires an inclusive, safe, and empowering work environment where each employee and their contributions are recognized. In doing so, we will continue to nurture our unique culture, firmly built on our values of Takeda-ism and Patient, Trust, Reputation, and Business.

We take an intentional approach to supporting our employees to maintain a vibrant workplace that provides opportunities for everyone to develop to their fullest potential while having a thriving career at Takeda. Our workforce spans about 80 countries. Together, we bring a rich mix of experiences, backgrounds, and perspectives, which we leverage to further the business of health innovation. This diversity is our core strength and, ultimately, an important benefit to the patients we serve.

Our efforts to nurture an outstanding workplace were recognized for the second consecutive year in 2019 when Takeda joined a select group of 14 companies awarded global Top Employer. This certification is awarded annually by the Top Employers Institute to companies with outstanding employee offerings. The program recognizes organizations that create an optimal environment for their employees to develop professionally and personally. Certification is based on an assessment over 10 areas.

### Criteria for Global Top Employers

- 1 Talent Strategy
- 2 Workforce Planning
- 3 Talent Acquisition
- 4 Onboarding
- 5 Learning and Development
- 6 Performance Management
- 7 Leadership Development
- 8 Career and Succession Management
- 9 Compensation and Benefits
- 10 Culture



# Global Talent Management



## As a research-driven enterprise, our people are our differentiator.

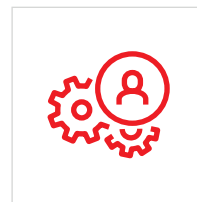
We manage our talent proactively. Everyone at Takeda is recognized for the unique contributions they have to offer. Nurturing our employees is a priority, from identifying high-potentials to engaging them in “Quality Conversations,” to preparing successors for new opportunities. Talent management is an ongoing partnership between human resources, managers, and employees.

Our success depends on an engaged workforce that thoroughly understands our goals and values — and their responsibilities. We have developed specific tools to empower managers and employees to set clear expectations and then communicate them clearly and frequently to build trust and move our business forward.

As an example, we have defined four distinct behaviors that Takeda leaders exhibit. Our leadership behaviors are:

- Demonstrate strategic enterprise thinking to find innovative ways to serve patients and build trust, reputation, and business.
- Create an environment that inspires and enables people to move the organization forward.
- Focus on the priorities that matter most and deliver superior results.
- Elevate the capabilities of the organization for both the present and the future.

Discussions about every employee’s performance is one of the important aspects of our talent

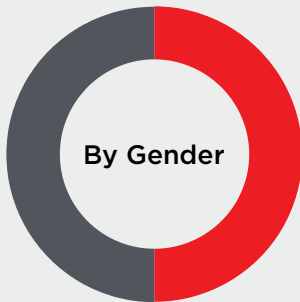


management process. We have a training program called “Quality Conversations” that helps our employees better provide and receive feedback. Through this Quality Conversations approach, we encourage ongoing two-way conversations between every employee and their manager, which touch on setting goals, leveraging strengths, identifying development areas, and building capabilities. We encourage frequent (or real-time) conversations where employees also provide feedback to their managers. This process helps our managers and employees excel and grow.

## Workforce AT A GLANCE

~50,000

Employees



50% Women  
50% Men

Another important tool is measurement of individual sentiment throughout an employee’s tenure at Takeda. We survey to know how our new joiners and leavers feel. We also administer frequent company-wide pulse surveys to collect and monitor feedback, as well as to identify areas for improvement.

## Talent Development

The success of our business depends on continuously pushing new boundaries. We are passionate about providing opportunities that enable our employees to learn and push their careers to new heights. This allows us to both excel in current initiatives and to prepare the company for the future.

We have developed the Takeda way to understand talent potential within the organization through a “Talking Talent” process in which each employee is evaluated not only on their current performance, but also their future potential. Along with the individually focused Quality Conversations approach, our robust talent review methodology helps us gauge the breadth and depth of our talent pool. This allows us to respond to immediate talent needs and plan for long-term needs to meet Takeda’s vision. We also leverage these reviews to assess internal talent mobility globally. All of this allows us to build bench strength and plan for succession, while helping our employees reach their aspirations.



We have a number of established development programs:

- **President’s Forum**, our centerpiece development program, brings together senior leaders from around the world to work on business challenges and present recommendations to the CEO and Takeda Executive Team (TET). The program is a key element in how we prepare the next generation of Takeda leaders.
- **Accelerator Program** is a cross-functional program directed at high-potential employees early in their careers. It provides opportunity for cross-regional assignments, mentoring, and learning events. Currently, we have a cohort of 30 participants, who are guided by TET sponsors.
- **Global Induction Forum** targets senior leaders who have joined Takeda from other organizations. This program is facilitated by our CEO and TET. It provides a deep dive into the company’s history, culture, values, and legacy and prepares these leaders for their responsibilities in protecting that legacy and building trust with society. As we integrate Shire and Takeda into one company culture, the Global Induction Forum is a way for leaders to align with each other on our shared values and business model.

As a global enterprise, it is critical that we remain attuned to unique talent needs in each of the regions in which we operate. To that end, we provide diverse learning opportunities across our about 80 countries. We partner with renowned institutions like the Massachusetts Institute of Technology and INSEAD, the graduate business school with campuses in Europe, Asia, and the Middle East.



# A Conversation with Padma Thiruvengadam

## Chief Human Resources Officer

### WHAT MOST EXCITES YOU ABOUT THE WORK YOU ARE DOING TO CREATE SUSTAINABLE VALUE AT TAKEDA?

Our people are key to our success. Our people platform helps build the right people capabilities and create a workplace environment that brings our culture to life. We strive to attract people with a deep sense of purpose and offer them unique experiences to help build their careers. This results in highly empowered employees who can focus on making a difference in the lives our patients and having a positive impact on the communities where we live and work.

### WHAT DO YOU SEE AS YOUR MOST SIGNIFICANT CHALLENGE AND OPPORTUNITY TO CREATING THAT VALUE?

With approximately 50,000 employees in about 80 countries, our talent is diverse in the skills and experience they bring to Takeda. This is a huge advantage because the viewpoints, ideas, and approaches our talent puts forward match the

diversity of our markets and the patients we serve. This diversity, however, challenges us to ensure we are not subscribing to a one-size-fits-all approach or limiting our people's potential. As leaders, we need to be cognizant that managing diverse teams is not easy and requires a higher level of skills.

### HOW DOES YOUR WORK HELP TAKEDA BETTER SERVE PATIENTS?

Our decision-making framework of Patient, Trust, Reputation, and Business is ingrained in a way that is unique and differentiates us in the way we conduct ourselves. We use this decision-making framework for everything we do, and that process always starts with us asking: Is this the right decision for the patient? This question is central to how we think about attracting, developing, and retaining talent at every level. It will continue to guide us as we shape our people platform to ensure employees can focus on the priorities that best serve our patients while reaching their fullest potential at Takeda.

## Integrating Shire

As we integrate Shire into Takeda, we are taking thoughtful measures to ensure that all our colleagues understand our values and decision-making framework; and how to apply them in the combined organization. This helps in our ambition to become One Takeda swiftly. One example of this is a half-day workshop for employees that is aimed at creating a shared understanding of our mission, vision, values, and operating principles. This program, along with select learning opportunities that are critical to succeed in a post-acquisition environment, is being implemented throughout the enterprise. Our Global Induction Forum is also providing an important opportunity to bring all our leaders together. To further accelerate our transition,

our CEO, together with local leadership teams, is continuing to hold regular on-site town halls to gain alignment on goals, our Strategic Roadmap, and the expectations of leaders.

We are well on our way to developing global frameworks in areas such as performance management, job levels, talent reviews, and compensation formulas. We are sensitive to nuances that meet local needs in each market. We are focused on harmonizing our talent development and learning programs, leveraging the best of both organizations while enhancing in other areas. In a new environment, employees want to know how their performance is being measured. We have laser focused on Quality Conversations as a pillar during these early months.

# Diversity and Inclusion



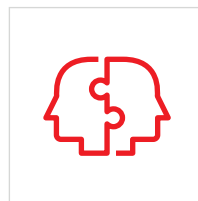
**Takeda strives for a workforce that is as diverse as the patients we serve to deliver greater creativity and innovation.**

Diversity in its fullest sense helps us respond more effectively to various global challenges. For this reason we foster an inclusive environment in which all employees are welcomed, empowered, and inspired to use their unique voices and capabilities. This enables us to find innovative approaches to serving our patients, customers, and communities while we reach our greatest potential, together.

Our aspiration is that every employee at Takeda enjoys the opportunity to thrive, develop, and grow based on merit, potential, and ambition, regardless of gender, age, nationality, race, religion, belief, disability, sexual orientation, gender identity, or lifestyle.

We have made strides, but we still have work to do. For example, our ambition is to continue to increase our female managerial ratio in Japan. We are accelerating diversity and inclusion activities in every part of the company. Some of our recent new initiatives are:

- Employee resource groups centered around common traits such as gender, race/ethnicity, sexual orientation and gender identity, and U.S. military status
- Diversity and inclusion training initiatives, including seminars, workshops, and employee projects



**38%**

global female manager ratio<sup>1</sup>



<sup>1</sup>EXCLUDES DATA FROM SHIRE ACQUISITION



- Flexible work arrangements
- Development programs for female colleagues
- Sponsoring and joining lesbian, gay, bisexual, transexual, queer (LGBTQ) events and hosting LGBTQ awareness sessions globally.

# Occupational Health and Safety

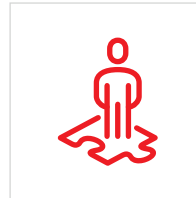


**We are committed to operating our business in a manner that protects the health, safety, and well-being of our employees and the communities in which we work, live, and serve.**

This supports our business priorities and mission of creating better health and a brighter future for patients worldwide.

Building trust with society begins with providing a healthy and safe workplace for our employees and partners. In carrying out that mission, we are guided by the following principles:

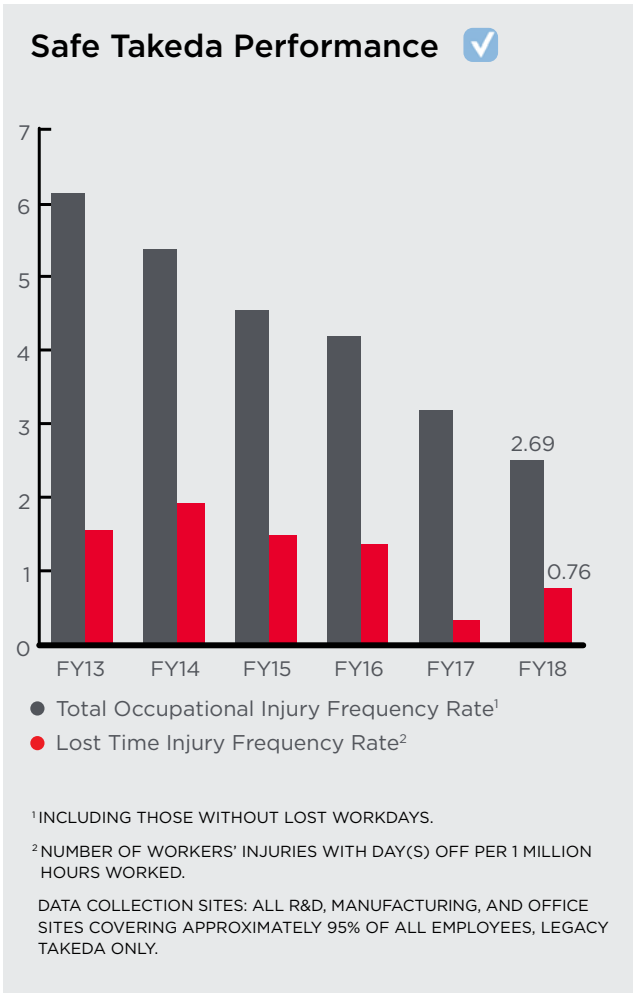
- We strive to be a global leader in health and safety by implementing innovative management practices, working to prevent motor vehicle incidents, and recognizing potential hazards and associated risks while working to eliminate them.
- We provide the tools, resources, and programs to support our employees in making healthy lifestyle choices.
- We embed Environment, Health, and Safety (EHS) values into Takeda’s culture through leadership involvement and accountability, as well as by empowering our employees to consider EHS in all aspects of their work and to actively contribute to the reduction of EHS risks.
- We ensure the participation and consultation of our employees, employee representatives, and partners, where appropriate, when developing and improving our processes.





## Safe Takeda

Safe Takeda is an initiative launched in 2015 to promote a safer workplace, with the goal of reducing our Lost Time Injury Frequency Rate (LTIFR) by 30 percent by 2020 against a FY2013 baseline. We achieved this goal in FY2017 but continue to push for further improvements.



us to understand the root cause of incidents and quickly take steps to mitigate them, in addition to EHS audits. We also set incident-reduction goals for sites. We are now expanding our scope to include ways to address work-related illnesses. Safe Takeda is designed to raise employees' safety awareness and to further strengthen our safety culture.

We know from our data that most events occur at manufacturing plants, where the most common work-related lost-time events involve workers being struck by moving objects, manual handling of materials, cutting tools, and slip/trip/fall incidents. Accordingly, our top priority under Safe Takeda is to address these hazards. Initiatives include awareness-raising activities during safety week, worksite inspections, safety resolution from managers and operators, and sharing of best practices among sites. Slip/trip/fall incidents and motor-vehicle incidents in offices and sales divisions remain major concerns in terms of lost-time injuries, and some local offices have launched initiatives to help reduce the frequency of these events.

In FY2018 we launched EHS Alert, an initiative to reduce the number of serious EHS events occurring at our sites. The initiative takes a two-step approach. First, EHS Alert informs managers of the most significant and relevant EHS events reported at our sites worldwide. The focus is on incidents and incidents with potentially serious consequences. In Step 2, managers communicate the risk to their teams, since most of these incidents could happen again at other sites. If applicable, they then perform a risk assessment and define an action plan to mitigate that risk. Thus, EHS Alert is both a communication and a preventive-management tool. Some examples shared during FY2018 involved machinery safety, falls from heights, lifting equipment, management of on-site contractors, and portable ladders.

Some of our most effective steps in improving safety include Flash and Follow-up Reports, which help

# EHS Alert: Communicating the Risk to Prevent Incidents

## SAFE TAKEDA

### EHS Alert 004

ASIA – GMS SITE; 22ND OCTOBER 2018

**SAFETY – Non Lost time injury: Unsafe chemical handling-Projections**

**Description**

The quality control operator was conducting a routine solution preparation, inside the laboratory fume hood (1), using a 250ml volumetric flask in order to mix Methylene Chloride with Dimethyl-2-butene and Methanol. During the manual stirring step (2), the stopper unexpectedly blew up and the solvents released reaching the operator and causing him/her some minor eyes injuries. The consequences could have been even worse because of hazardous properties of these substances (3) and the unsuitable protection.

**Immediate Causes**

- While mixing the solvents, the internal pressure increased causing the content being projected from the flask.
- The fume hood's front sash glass window was not moved down by operator before starting operations (2).
- The operator was wearing conventional corrective glasses, without protection against droplets projections.

**Contributory and Root Causes**

- Inadequate SOP: the use of corrective glasses was allowed for this task.
- Inadequate safety culture: general safety rules were not followed (fume hood glass window safe position)
- MoC (management of change) not applied: a minor modification of solvents concentration was introduced without considering it as a significant change, then the task risk assessment was not reviewed.

**Actions**

- Update SOP: use of safety glasses even while wearing eye correction glasses (4), and sealed goggles (5) when there is a risk of projection.
- Re-training workers on general safety rules and specific procedures
- Improve safety culture: safety gamba walks, unsafe situations report, ...

**Key Learning**

- Safety leadership, follow rules & SOPs.
- Proper risk assessment.
- MoC also for minor changes.

1

2

3

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EHS ALERT 004 – SAFETY (UNSAFE CHEMICAL HANDLING) – PROJECTIONS

## EHS ALERT MANAGEMENT

EHS Alert : 004 SAFETY  
Safety (unsafe chemical handling) -Projections

Date Analysis: 22<sup>nd</sup> OCTOBER 2018

Site: ..... Date Analysis: .....

→ **Communication Plan**

Action	Y/N	When	Who	Status	Comment
Translation into local language					
E-mail managers					
E-mail middle management					
E-mail employees					
Posted on EHS communication board					
Posted on workplaces boards					
Toolbox talk, Gemba Walk, Safety dialog, etc...					
EHS meetings					
Screens					
Other 1:					
Other 2:					

→ **Could it happen to us?**

Date Analysis: ..... Could it happen to us? Yes / No (if "No" skip the following analysis)

Where: Site Department's Workstation's .....

Action	Y/N	When	Who	Status	Comment
Risk Assessment Review					
Gap Analysis					
Engineering Actions					
Procedural Actions (SOP, etc.)					
Behavioural Actions (training, etc.)					
PPEs					
Other					
Other					
Other					
Other					
Other					

→ **Follow-up**

When has been the CAPA completed? Has been verified the effectiveness of action plan implementation? (Who, When, Conclusions) Key Learning

- 1 EHS Alert Title
- 5 Immediate Causes
- 2 Region, Classification
- 6 Contributory & Root Causes
- 3 Event Description
- 7 Corrective and Preventive Action (CAPA)
- 4 Event Pictures (40% minimum)
- 8 Site Head Key Learning

- 1 EHS Alert Record
- 4 CAPA
- 2 Communication Plan
- 5 Follow Up
- 3 Could It Happen To Us?

## Manufacturing Safety Initiatives

Initiatives to reduce employee and environmental harm from fires, explosions, and leaks in the manufacturing process are an important part of safety programs. All sites undergo risk assessments to identify latent hazards and then establish EHS targets and measures to mitigate risk. Some of the measures include:

- Rigorous plans for maintaining aging equipment.
- Safety measures to address static electricity, which can ignite flammable gases and dust in facilities.
- Safety education and training, including creation of safety manuals.
- Response procedures in the event of a disaster or emergency, including evacuation and emergency response drills.
- Thorough incident and disaster-prevention measures for large-scale construction work, including detailed safety management and sharing of safety information with support companies.

Preventing fires and explosions during manufacturing processes is of the highest priority. To improve safety, we identify the physicochemical characteristics of the chemical substances used and the pharmaceuticals manufactured to develop appropriate manufacturing processes and corresponding safety assessments for each of our products.

Additionally, many manufacturing sites have implemented a Serious Injury and Fatality (SIF) program, focusing on incidents or events that have the potential to be catastrophic in terms of injury or threat to life. The objective is to highlight and give visibility to potential SIF events and use the learnings to understand why they are happening and how to prevent them. This approach is currently being incorporated into all Takeda manufacturing sites.

Takeda | 2019 Sustainable Value Report

50



# A Brighter Future Through a Better Environment

## IN THIS CHAPTER

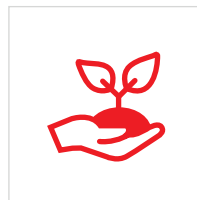
- Environmental Management
- Climate Change
- Environmental Impacts Beyond Emissions

# Overview



## Our commitment to the health of patients includes taking actions that contribute to the health of our planet.

Today, pressure on environmental health, as evidenced by degrading air quality, increasing scarcity of clean water and other natural resources, waning biodiversity, and impacts of climate change, increasingly poses threats to human health. Because of this connection between the health of the planet and our patients, we have made environmental stewardship and resource conservation inherent to our business operations and practices. Moreover, our employees, future employees, customers, investors, and other stakeholders expect us to set a high standard in this respect — to care for the environment and take actions that reduce our environmental impact throughout the entire life cycle of our products. This obligation to environmental stewardship and sustainable business directly aligns with our values of Takeda-ism and our priorities of patient, trust, reputation, and business. In this way, environmental stewardship becomes one more way that we work to fulfill our mission of better health and a brighter future for patients everywhere.



# Environmental Management



## Takeda has actively engaged in environmental stewardship initiatives for almost 50 years, since establishing an Environmental Protection Committee in 1970.

We marked another milestone in 2019 when we updated our Global Environment, Health & Safety (EHS) Policy to reflect the evolution of our business and to meet the expectations of stakeholders. The manner in which we go about protecting the environment — namely by conserving natural resources and reducing the environmental impact of our products and operations — will shape our reputation with employees, patients, regulators, and society for years to come.

The new EHS policy provides for the following:

- Strong alignment with our values of Takeda-ism and our priorities.
- A clear foundation for our EHS programs that sets out our aspiration for world-class EHS performance as we integrate the acquisition of Shire.
- Alignment with international standards for EHS management systems such as ISO 14001 for environment and ISO 45001 for health and safety.
- Our commitment to proactively minimize negative environmental impact throughout the entire product life cycle.
- Our dedication to advancing environmental sustainability in our operations and reducing our impact on climate change, e.g., by minimizing waste and reducing energy use, water consumption, and CO<sub>2</sub> emissions.



We are proud of the strides made in EHS management, but we have much more to do. Twenty of our manufacturing sites have achieved certification to the International Standards Organization (ISO) 14001 standard. Our intent is to have all 34 manufacturing sites certified within three years.

EHS strategies and activities are overseen by our Corporate EHS Council and chaired by our Global Manufacturing and Supply Officer, who is also a member of the Takeda Executive Team (TET). The Council, which approves company-wide EHS strategy and targets and monitors progress against it, includes members from all Takeda business functions. Council activities are reported to Takeda's Business Review

Committee, which is chaired by our President and CEO. Our governance structure also includes site-level sustainability teams, and specifically energy and water conservation global working groups.

All of our manufacturing, research, and BioLife sites are required to establish and operate an EHS management system based on our Global EHS standards. Each Takeda site assesses its risks and opportunities, then prioritizes actions to

mitigate them by aligning with a Plan-Do-Check-Act cycle. This process involves establishing goals based on risks and opportunities, developing and executing action plans to attain them, monitoring performance, and reviewing the outcomes for continuous improvement opportunities. The corporate EHS team continues to enhance EHS standards and the technical guidance to further reduce risk and improve EHS performance under the framework of the global EHS management system.

## Manufacturing EHS Certifications<sup>1</sup>

	Country	City	ISO 14001 Environmental Management Systems	ISO 50001 Energy Management Systems	OHSAS 18001 or ISO 45001 Occupational Health and Safety Management Systems <sup>2</sup>
1	Austria	Linz	X		
2	Austria	Orth an der Donau	X		X
3	Austria	Vienna	X		X
4	Belgium	Lessines	X		X
5	Brazil	Jaguariúna	X		
6	China	Tianjin	X		
7	Germany	Oranienburg	X		X
8	Germany	Singen	X		
9	India	Vashi, Navi Mumbai	X		X
10	Ireland	Grange Castle		X	
11	Italy	Pisa	X		X
12	Italy	Rieti	X		X
13	Japan	Fukuchiyama	X		
14	Japan	Hikari	X		
15	Japan	Osaka	X		
16	Singapore	Singapore	X		X
17	Switzerland	Neuchatel	X		X
18	United States	Los Angeles, CA	X		X
19	United States	Round Lake, IL	X		
20	United States	Social Circle, GA	X		X
21	United States	Thousand Oaks, CA	X		X

<sup>1</sup> LIST IS INCLUSIVE OF LEGACY SHIRE AND LEGACY TAKEDA MANUFACTURING LOCATIONS.

<sup>2</sup> TAKEDA IS CURRENTLY TRANSITIONING SITES CERTIFIED UNDER THE OHSAS 18001 TO THE EQUIVALENT ISO 45001 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM STANDARD.



# A Conversation with Thomas Wozniewski

Global Manufacturing & Supply Officer

## WHAT MOST EXCITES YOU ABOUT THE WORK YOU ARE DOING TO CREATE SUSTAINABLE VALUE AT TAKEDA?

I am proud that Takeda actively pursues ambitious environmental, health, and safety targets, and the steps we have taken to position the company for success. Throughout our global manufacturing operation and supply chain, we have strong levers to reduce the environmental impact of our production. In addition, all of our employees are very much motivated to significantly contribute to the sustainable growth of Takeda.



## WHAT DO YOU SEE AS YOUR MOST SIGNIFICANT CHALLENGE AND OPPORTUNITY TO CREATING THAT VALUE?

There are growing expectations from external stakeholders about how companies like Takeda can better manage their environmental and social impacts. To do so, we have a significant opportunity to foster the use of new technologies across Takeda. Digitalization, for example, enables us to better analyze and optimize the environmental impact of our production facilities. We also have programs in place to realize improvements in process safety, waste generation, and water consumption in our plants.

## HOW DOES YOUR WORK HELP TAKEDA BETTER SERVE PATIENTS?

It's not enough just to keep patients healthy; we also have to keep our planet healthy. By working to decrease our environmental footprint, we're contributing to a world that has cleaner air, cleaner water, and a more sustainable future.



## Goals and Progress

The Takeda Environmental Action Plan specifies environmental issues and targets for the medium- and long-term to combat global warming and promote responsible use of natural resources. We review targets annually and continuously promote activities to achieve them, such as the CO<sub>2</sub> roadmap created by our Energy Saving Working Group to increase sharing of environmental best practices among sites. Goals and progress against them for our business, excluding the recent acquisition of Shire, are set out below. Our intent is to set new goals by the end of FY2019 that reflect the integration of Takeda and Shire and our ambition to lead a world-class environmental sustainability strategy.



## Environmental Reduction Goals

Impact Area	Reduction Goal	Baseline Year	Reduction Through End of FY2018 <sup>2</sup>	Target Fiscal Year
CO <sub>2</sub> Emissions	30%	2015	7.8%	2030
CO <sub>2</sub> Emissions	25%	2005	33.7%	2020
NO <sub>x</sub> Emissions <sup>1</sup>	20%	2005	59%	2020
SO <sub>x</sub> Emissions <sup>1</sup>	75%	2005	99.1%	2020
Fresh Water Use	30%	2005	48%	2020
Waste Sent to Landfill (Japan only)	60%	2005	68.3%	2020

<sup>1</sup> SULFUR OXIDES (SO<sub>x</sub>) AND NITROGEN OXIDES (NO<sub>x</sub>) RESULTING FROM VARIOUS ON-SITE COMBUSTION PROCESSES.

<sup>2</sup> PERFORMANCE AGAINST GOALS EXCLUDES CONTRIBUTION FROM SHIRE ACQUISITION.





Another way we monitor our progress is through environmental protection investments and expenditures. Environmental protection investments refer to the costs of installation of new, and upgrading of existing, environmental equipment such as wastewater treatment solutions. Environmental expenditures refer to the purchase of goods and services for the maintenance of existing environmental equipment as well as materials used for environmental protection. In FY2018, environmental protection investments totaled JPY 1,956 million, and expenditures totaled JPY 5,086 million. The economic benefits of energy-saving measures for Takeda totaled approximately JPY 99 million.



### Environmental Protection Investments<sup>1</sup>

Category		Investments (million ¥)	Expenditures (million ¥)
Business area costs	Pollution prevention	855	3,863
	Environmental protection	920	208
Resources recycling		150	813
Administrative costs		31	202
<b>Total</b>		<b>1,956</b>	<b>5,086</b>

<sup>1</sup> ENVIRONMENTAL INVESTMENTS AND EXPENDITURES DATA EXCLUDES CONTRIBUTION FROM SHIRE ACQUISITION.



### Celebrating World Environment Day

For a week in 2019, Takeda employees around the world came together to collectively care for the planet in celebration of World Environment Day (WED) with the goal of raising awareness for the environment, as well as our obligation to protect it, while underscoring the connection to global health. Facilities around the world held activities supporting this goal, which became a top trending topic on our in-house message board. Based on employee participation in WED events, Takeda partnered with the Arbor Day Foundation to plant 40,000 trees. WED is one of the ways we engage our employees on the importance of Takeda’s environmental work and our progress toward goals.

## Centralized EHS Auditing

EHS audits serve as an important governance and oversight mechanism to assure that our EHS management systems are effective. A centralized global EHS audit function leads the program, which includes management systems and compliance audits. We engage independent external auditors who have expertise in the relevant national and regional regulations to work with internal auditors for the EHS legal-compliance audits. Through these audits, we verify each site has internal controls in place to meet Takeda management's expectations, Takeda standards and operating procedures, as well as regulatory requirements.



Based on the results of the audits, sites develop Corrective and Preventive Action (CAPA) plans, which the audit leader and regional EHS teams approve and track to completion. We also analyze audit trends and review them to identify areas of focus for the coming year and required support as a part of our EHS governance process. The Corporate Head of EHS, along with the Head of EHS Audit, reports audit results and CAPA progress to the Risk, Ethics, and Compliance Committee.

The EHS audit function determines audit frequency based on the level of EHS risk inherent in each operation, with manufacturing and research facilities typically audited every two to three years. Site EHS risk often depends on the type of operations, the complexity and size of the operation, past EHS performance, and other factors. In FY2018, we performed 27 EHS audits.



## Working Greener

Environmental sustainability efforts extend beyond our manufacturing operations to office buildings around the world. Recent initiatives include:

- Launching Takeda Goes Green, an initiative for sharing best practices in office settings. This program resulted in an 8.2 percent reduction in CO<sub>2</sub> emissions at our Osaka office and a 16.3 percent year-over-year reduction at our Takeda-operated office facilities in Japan.
- Instituting a new waste management concept at our building in Zurich to strengthen recycling habits. The building replaced individual wastebaskets at desks with centralized recycling stations on each floor with separate sections for general waste, aluminum, polyethylene terephthalate (PET), and mixed plastics. The new system is expected to save more than 90,000 plastic bin bags per year.
- Certifying our Takeda laboratory and office space on Binney Street in Cambridge, Massachusetts, to Leadership in Energy and Environmental Design (LEED) Gold by the U.S. Green Building Council.
- Forming green teams at many office locations to address sustainability goals for the coming year.

# Climate Change



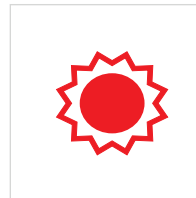
**The impacts of climate change and associated global warming continue to become increasingly visible and, if unabated, will have profound impacts on the health and well-being of people across the globe.**

That's why climate change has been a priority of our agenda since 1974, when we established an Energy Conservation Committee. Today, we continue to implement countermeasures globally to help mitigate the effects of our business activities on the natural environment, especially with respect to energy use and greenhouse gas emissions.

Takeda recognizes the importance of working with the international community on this global issue and is responding to global calls for action. We have joined the Paris Pledge for Action and the Science Based Targets Initiative, committing to doing our part in keeping the climate safe and stable in alignment with climate science. We also participate in Caring for Climate, the world's largest corporate-led initiative on climate change and publicly disclose our climate change strategy, initiatives, and impacts through annual participation in CDP.

## Governance

Oversight for climate change initiatives is managed at the highest levels of our company. Currently, the Global Manufacturing & Supply Officer (GMSO) — appointed by the president and CEO and a member of the TET — has ultimate responsibility. The GMSO chairs a cross-departmental committee, the Corporate EHS Council. This council approves corporate strategies and activities, as well as enterprise-wide targets. The GMSO also controls a fund for capital



expenditures directed at energy-saving projects. Sites can apply to the fund for projects, such as renewable-energy installations. In addition, a Global Energy-Saving Working Group, which includes members of all manufacturing and R&D sites, accelerates energy-saving activities by sharing best practices and undertaking initiatives to raise employee awareness.

## Responding to Climate Risks

Takeda recognizes that climate-related risks may have a major impact on our business activities. We manage this risk by establishing reporting lines to the Business Review Committee, made up of the President and CEO and the TET. Using internally developed guidelines, we have also worked to assess climate-related risks at manufacturing and R&D locations globally. When audits and other activities identify any new significant climate-related risks, these are reported to the Risk, Ethics, and Compliance Committee, which centralizes company-wide risk management. Takeda continues to enhance its disclosure in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Takeda is also developing vaccines and medicines for diseases likely to be exacerbated by climate change, such as dengue, a serious viral disease transmitted by mosquitos. About 50 percent of the global population is at risk for dengue, which is estimated to cause 390 million infections each year. We also participate in the World Intellectual Property Organization (WIPO) Research Consortium, a joint enterprise hosted by WIPO for promoting R&D on treatments and vaccines for Neglected Tropical Diseases (NTDs), malaria, and tuberculosis. As part of the consortium, we are taking steps to strengthen our healthcare platforms in developing countries. See the [Health](#) section for more information beginning on page 17.

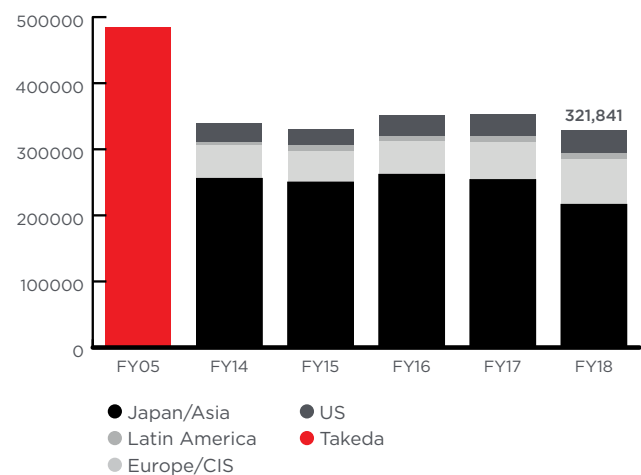
## Strategy and Performance

Responding to climate change — especially for a global enterprise — is a complex issue. Takeda’s strategy for managing it consists of multiple elements to reduce our carbon footprint and operate in a sustainable manner across our operations and throughout our supply chain.

Under the Takeda Environmental Action Plan (EAP) formulated in 2015, we have set a goal to reduce CO<sub>2</sub> emissions from energy sources by 25 percent by 2020. We met this target ahead of schedule, in 2017, and subsequently set a new goal, aligned with climate science, to reduce emissions by 30 percent from 2015 levels by 2030.

### CO<sub>2</sub> Emissions<sup>1,2</sup>

(Metric Tonnes CO<sub>2</sub>)



<sup>1</sup> DATA COLLECTION SITES: ALL PRODUCTION AND RESEARCH SITES (TAKEDA PHARMACEUTICAL COMPANY LIMITED INCLUDES ITS HEADQUARTERS AND SALES OFFICES). CONTRIBUTIONS FROM SHIRE ACQUISITION EXCLUDED.

<sup>2</sup> DUE TO DIVESTMENTS, PAST DATA HAS BEEN RESTATED.

#### CALCULATION METHOD

**EMISSIONS INCLUDED IN THE CALCULATION** CO<sub>2</sub> EMISSIONS REFER TO DIRECT EMISSIONS GENERATED BY COMBUSTION OF FOSSIL FUELS AND INDIRECT EMISSIONS FROM ENERGY SOURCES.

**CO<sub>2</sub> EMISSIONS FACTOR** EMISSIONS OF TAKEDA IN JAPAN ARE CALCULATED BASED ON THE “LAW CONCERNING THE RATIONAL USE OF ENERGY,” AND THE CO<sub>2</sub> EMISSION FACTOR FOR PURCHASED ELECTRICITY IS THE EMISSION FACTOR FOR EACH ELECTRIC POWER PROVIDER IN FISCAL FY2005. THE CO<sub>2</sub> EMISSION FACTORS FOR ELECTRICITY PURCHASED OUTSIDE JAPAN ARE BASED ON THE EMISSION FACTORS FOR EACH ELECTRIC POWER PROVIDER, OR THE EMISSION FACTORS PROVIDED BY THE INTERNATIONAL ENERGY AGENCY (IEA) FOR EACH COUNTRY.



## Managing Greenhouse Gas (GHG) Emissions From Our Operations

To promote energy conservation and CO<sub>2</sub> emissions reductions globally, we have begun to implement a company-wide standard on energy management systems that fulfills the requirements of the ISO 50001 standard. The Global Energy Saving Working Group will lead the implementation of this standard. Our Global Engineering team will support sites as they implement the new energy management system with the intent to reduce energy usage, improve energy efficiency, reduce CO<sub>2</sub> emissions, and optimize processes. All sites are required to establish an Energy Management Team as they implement the new system.

Sharing best practices can be a powerful tool in promoting sustainability and combating climate change. Even when a successful strategy is already based upon a common technology, seeing the evidence of its success can encourage others to adopt it. For example, a successful energy assessment project in Singen, Germany, has now been shared across our global manufacturing network. The plan resulting from the energy assessment includes 19 quick wins and projects that can lead to reductions in energy use, operating costs, and CO<sub>2</sub> emissions. We strongly encourage sites to engage in this way, and we have captured more than 75 such tips in a Best Practice booklet.

Increasing renewable energy use is also an important strategy in the pursuit of our long-term goals. Takeda promotes the use of low-carbon energy sources and continues to explore options for introducing on-site

solar power generation capacity when constructing new facilities. We have installed photovoltaic systems at several facilities, including our manufacturing facilities in China, Germany, Indonesia, and Japan, and we plan to introduce renewable energy at several more of our European manufacturing facilities in the future. At our Asker, Norway, manufacturing facility, we have successfully switched from fossil fuels to bio-fuels, thereby reducing CO<sub>2</sub> emissions and achieving zero SO<sub>x</sub> emissions.

### FY2018 CO<sub>2</sub> Emission Summary<sup>1</sup> ✓

**6% Scope 1 Direct emissions** (resulting from fossil fuel burned at Takeda facilities)  
157,958 t-CO<sub>2</sub>

**7% Scope 2 Indirect emissions** (resulting from the consumption of purchased electricity and steam)  
163,883 t-CO<sub>2</sub>

**87% Scope 3 Indirect emissions** (not including Scope 2, that occur in Takeda's value chain)  
2,224,643 t-CO<sub>2</sub>

- Scope 1 Direct emissions
- Scope 2 Indirect emissions
- Scope 3 Indirect emissions



#### Scope 3 Emissions detail

83%	Purchased goods and services
6%	Fuel and energy-related activities not included in Scope 1 and 2
4%	Upstream transportation & distribution
3%	Employee commuting
2%	Upstream leased assets

<sup>1</sup>GHG EMISSION GRAPHIC EXCLUDES CONTRIBUTION FROM SHIRE ACQUISITION.

## Working With Our Partners to Curb Climate Change


Beginning in 2018, we began to estimate global Scope 3 emissions for our entire value chain, which includes the activities of suppliers, customers, and others. The goal is to improve our understanding of our GHG emissions at each step in the value chain. To do so, we have partnered with Trucost, which has led to improved Scope 3 emissions data for FY2018. This detailed analysis of our downstream and upstream activities will help us assess the most significant GHG emissions sources, allowing us to establish targets for our Scope 3 emissions.

Finding ways to reduce the carbon footprint of product transportation is an important aspect of our GHG reduction efforts. Through several initiatives, Takeda has reduced CO<sub>2</sub> emissions from product transport by 14 percent in FY2018. For example, combining multiple transportation modes for a single shipment has decreased costs and overall GHG emissions. Takeda is advancing measures to achieve a modal shift in transportation from CO<sub>2</sub>-intensive transport modes, such as air freight, to lower CO<sub>2</sub> modes, such as sea freight. We have also optimized our regional distribution network in several ways, including load consolidation and better utilization of truck capacity. This work has reduced 100 tonnes of CO<sub>2</sub> emissions, equivalent to removing 21 passenger vehicles from the road for one year. We have also implemented the use of several innovative technologies, such as hybrid shipping containers that are lighter and keep a consistent temperature without a power source. These innovative technologies save time and money while improving environmental performance. We also work to reduce the weight and size of shipping containers and invest in reusable shipping solutions. As Takeda continues its integration with Shire, we expect greater synergies that will reduce costs and GHG emissions.

As we work to reduce our carbon footprint, we face several challenges, which we are working to overcome:

- Increasing energy usage and CO<sub>2</sub> emissions as a result of increased production demand, as well as acquisitions.
- Good Manufacturing Processes (GMPs) that impose limitations on process optimization opportunities, for example, cleaning operations and ventilation.
- The scarcity of green electricity for purchase in countries with low penetration and promotion of renewable energy.
- Incineration of high potent Active Pharmaceutical Ingredients (APIs) and other toxic substance wastewater streams rather than relying upon biodegradation or other low-energy alternatives.
- Challenges associated with reducing Scope 3 emissions and engaging our suppliers to set their own emissions reductions targets, which fall outside of our direct control.

## FY2018 Takeda Scope 3 Emissions<sup>1,2</sup>

	Value Chain (Scope 3) Category	Total GHG (tCO <sub>2</sub> e)	Scope 3 Share (%)
Upstream	1. Purchased goods and services	1,850,033	83%
	2. Capital goods	16,115	<1%
	3. Fuel- and energy-related activities	138,710	6%
	4. Upstream transportation and distribution	81,425	4%
	5. Waste generated in operations	1,155	<1%
	6. Business travel	17,613	<1%
	7. Employee commuting	61,385	3%
	8. Upstream leased assets	43,526	2%
Downstream	9. Downstream transportation and distribution	N/A	N/A
	10. Processing of sold products	7,464	<1%
	11. Use of sold products	N/A	N/A
	12. End-of-life treatment of sold products	6,123	<1%
	13. Downstream leased assets	N/A	N/A
	14. Franchises	N/A	N/A
	15. Investment	1,094	<1%
	<b>TOTAL</b> 	<b>2,224,643</b>	

<sup>1</sup> SCOPE 3 GHG EMISSIONS TABLE EXCLUDES CONTRIBUTION FROM SHIRE ACQUISITION.

<sup>2</sup> SEE APPENDIX PAGE 92 FOR THE METHODOLOGY WE USE TO CALCULATE SCOPE 3 EMISSIONS.

# Environmental Impacts Beyond Emissions



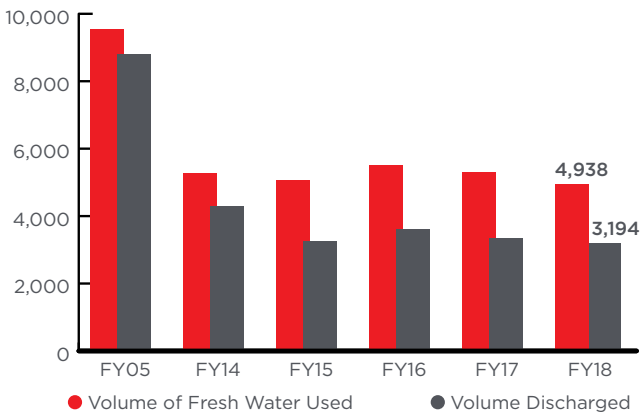
## Water

As water scarcity becomes a threat for more of the world’s population, Takeda has taken steps to better understand and reduce water usage at each of our manufacturing and research sites. Using the Global Water Tool<sup>1</sup> developed by the World Business Council for Sustainable Development, we have found that 45 percent of our manufacturing sites are located in areas considered to have “low” water risk; 28 percent of our manufacturing sites are located in areas considered to have “medium” water risk; and 27 percent of our manufacturing sites are located in areas considered to have “high or extremely high” water risk.

<sup>1</sup>A TOOL FOR INDEXING WATER-RELATED RISKS, PROVIDED BY THE WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT.



## Volume of Fresh Water Used and Discharged (1,000 m<sup>3</sup>)<sup>1,2</sup> ✓



<sup>1</sup>WATER CONSUMPTION AND DISCHARGE DATA INCLUDES ALL PRODUCTION AND RESEARCH SITES AND EXCLUDES CONTRIBUTION FROM SHIRE ACQUISITION. THE DATA DOES NOT INCLUDE NONCONTACT COOLING WATER.

<sup>2</sup>DUE TO DIVESTMENTS, PAST DATA HAS BEEN RESTATED.



Under the Takeda Environmental Action Plan, we have a target of reducing our fresh water usage by 30 percent from FY2005 levels by 2020. In FY2018, we used 4,938 thousand m<sup>3</sup> of fresh water, a reduction of 48 percent from FY2005, exceeding our goal.

Takeda manages the quality of effluent wastewater in line with the following principles:

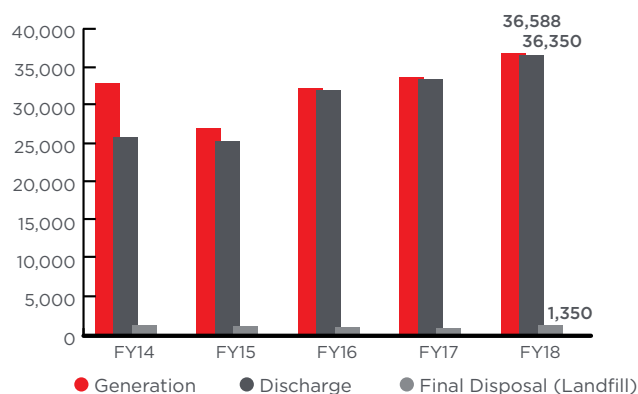
- Prevent negative effects on people and the ecosystem due to chemical substances in wastewater.
- Comply with relevant laws.
- Manage wastewater rationally based on scientific evidence, substance concentrations, and environmental toxicity.

We have programs and monitoring tools in place to ensure that these principles are upheld. For example, we collect and incinerate waste Active Pharmaceutical Ingredients (APIs) to prevent the release of harmful substances in wastewater and conduct Whole Effluent Toxicity testing at our facility in Hikari, Japan, to monitor the impact of treated wastewater released directly into the ocean. Takeda also works to prevent contamination of soil and groundwater through periodic groundwater monitoring at sites where this could be a concern.

## Waste Reduction

Takeda strives to reduce the amount of waste sent to landfill, first by curtailing the amount of waste generated and then by promoting on-site reuse and waste reduction with off-site recycling. Under the Takeda Environmental Action Plan, we have set a target to reduce the volume of waste sent to landfill in

## Trends in Waste Generation, Discharge, and Final Disposal (tonnes)<sup>1,2</sup> ✓



<sup>1</sup> WASTE DATA INCLUDES ALL PRODUCTION AND RESEARCH SITES AND EXCLUDES CONTRIBUTION FROM OFFICES AND SHIRE ACQUISITION.

<sup>2</sup> DUE TO DIVESTMENT, PAST DATA HAS BEEN RESTATED.

Japan by 60 percent compared with FY2005 levels by 2020 and are conducting ongoing activities to achieve this goal. Takeda in Japan sent 124 tonnes of waste for final disposal in FY2018, a decrease of 68 percent compared with FY2005, thus exceeding our 2020 goal through the prioritization of waste minimization and recycling activities at these locations.

## Chemical Substance Release Reduction

Takeda handles a wide variety of chemical substances, including our pharmaceutical products. We work to appropriately manage chemical substances in line with our policy of reducing environmental emissions of chemical substances by using risk assessments to prioritize emissions reduction efforts.



Takeda works to better understand and minimize the potential impact of APIs and the larger issue of pharmaceuticals in the environment (PiE) within our manufacturing and R&D operations.

We specifically manage requirements for PiE in our manufacturing facilities through robust waste management and wastewater treatment processes, while continuing to comply with federal, state, and local discharge regulatory obligations. Takeda partners and communicates EHS requirements to our contract management organizations (CMOs) to prevent the release of hazardous substances and byproducts into the environment.

We comply with regulatory requirements to perform environmental risk assessments and toxicological



and safety assessments to evaluate and ensure environmental and patient safety as part of our marketing authorization applications in the U.S. and internationally. Takeda continually reviews product regulatory requirements and impact on commercial products and those in development through its stage gate development processes, for products we manufacture internally and through CMOs, to minimize the impact on the environment. And finally, Takeda is part of the European Federation of Pharmaceutical Industries and Associations (EFPIA) consortium that is involved in developing a position and roadmap for addressing PiE at the industry level.

In FY2018, Takeda’s atmospheric volatile organic compounds (VOC) emissions were 104.8 tonnes . Takeda in Japan handled 12 Pollution Release and Transfer Register (PRTR)-designated substances, of which 7 tonnes  were released into the atmosphere.

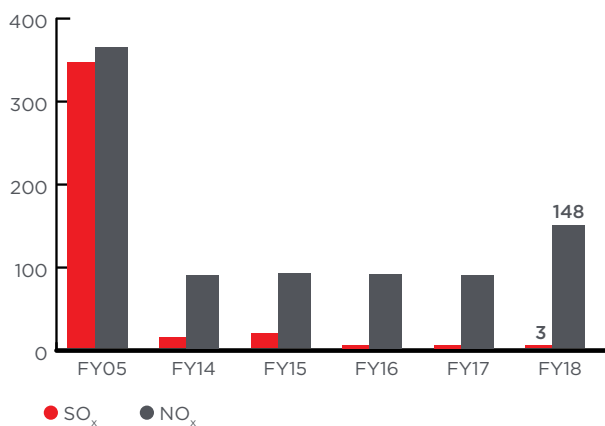


## Other Emissions

At each of our operating sites, Takeda has established a plan to reduce NO<sub>x</sub> (nitrogen oxides), SO<sub>x</sub> (sulfur oxides), dust emissions, and chemical oxygen demand (COD) load. Under the Takeda Group Environmental Action Plan, Takeda aims to reduce its NO<sub>x</sub> emissions by 20 percent from FY2005 levels and SO<sub>x</sub> emissions by 75 percent by FY2020. In FY2018, we reduced NO<sub>x</sub> emissions by 59 percent from 2005 levels and SO<sub>x</sub> emissions by 99 percent, well exceeding our 2020 goals.

### NO<sub>x</sub> and SO<sub>x</sub> Emissions<sup>1,2</sup>

(tonnes)



<sup>1</sup> NO<sub>x</sub> AND SO<sub>x</sub> EMISSIONS DATA INCLUDES ALL PRODUCTION AND RESEARCH SITES AND EXCLUDES CONTRIBUTION FROM SHIRE ACQUISITION.

<sup>2</sup> DUE TO DIVESTMENTS, PAST DATA HAS BEEN RESTATED.

## Biodiversity Conservation

Takeda recognizes the importance of biodiversity to the health of the planet. Our Global EHS Policy incorporates guidelines to protect biodiversity. Each of our business sites promotes initiatives that align with the objective of the Convention on Biological Diversity.

Takeda uses biological resources as ingredients for products and indirectly utilizes these resources in our R&D activities. These resources are used as ingredients in Chinese and other herbal medicines, which are over-the-counter drugs. Most ingredients are sourced from cultivated plants, but some are sourced from wild plants. We are studying the feasibility of switching to cultivated plants in order to ensure stable procurement, which should help conserve the biodiversity of natural habitats. When using genetic resources in R&D, we give consideration to the Convention on Biological Diversity.

Takeda was an early adopter of in-house cultivation of medicinal plants, putting less stress on plants in the wild. Licorice root, for example, is an important herbal medicine in Japan because it is present in many Japanese traditional herbal medicine formulas. As part of our efforts to ensure stable supplies of medicinal plants and to conserve the environment, Takeda has been conducting research into in-house cultivation of licorice since 1996. In 2014, we registered the first Japanese-produced variety. By 2020, we plan to start using Japanese-produced licorice in our products, eventually switching to Japanese-produced licorice in all Takeda products.



## A Brighter Future Through Better Business

### IN THIS CHAPTER

- Corporate Governance
- Quality Management
- Ethics and Compliance
- Medical Ethics
- Supply Chain Management

# Overview

**Our primary mission of putting the patient at the center requires a sound business as a competitive, values-based, R&D-driven global biopharmaceutical leader.**

Developing the right frameworks and systems to ensure the strength and integrity of our business is critical. We have established a system of governance that is optimized for a global enterprise. It includes well-crafted approaches to quality, ethics, compliance, codes of conduct, and supply chain management to ensure that, as we serve our stakeholders, we continue to serve the patient. These systems and controls provide transparency and allow us to make sound decisions quickly in our quest to maximize corporate value and positive impacts on patients.



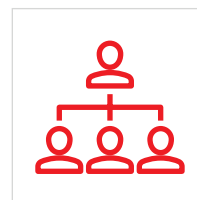
# Corporate Governance

**The Takeda Board of Directors determines the fundamental policies for the company, while the Takeda Executive Team (TET) executes management and business operations in accordance with those decisions.**

The Board currently consists of 15 members, 11 of whom are independent, external directors. Board members bring a deep knowledge of business and experience in large-scale integration. Our TET currently includes 19 leaders and is notable for its diversity in gender, age, and geography, with representatives from 11 nations. We believe external directors help us take business execution to a higher level by bringing valuable perspectives from both inside and outside the pharmaceutical industry — perspectives that enable sound decision-making.

The primary function of the Board is to observe and oversee business execution. Board members also engage in decision-making for strategic matters or other particularly important matters regarding company management. The TET, which consists of the president and chief executive officer and executives who manage each function of Takeda, has ultimate responsibility for managing business operations. This creates an efficient division of roles between the Board and the TET and also expedites decision-making in a rapidly changing business environment.

Other oversight matters are handled by a series of committees whose members consist of external Board members. The Audit and Supervisory Committee conducts audits of directors' performance of duties and performs any other duties stipulated in laws and regulations and in the articles of incorporation. The Nomination and Compensation Committees advise the Board.



The Board delegates responsibilities for decision-making regarding some of the important business decisions to management under the company's Articles of Incorporation. They are delegated to the directors through decision-making bodies such as the Business Review Committee; Portfolio Review Committee; and Risk, Ethics, and Compliance Committee. The Business Review Committee is responsible for general management matters, while the Portfolio Review Committee is responsible for R&D and product-related matters. In May 2019, the company changed the name of the Audit, Risk and Compliance Committee to the Risk, Ethics & Compliance Committee to reflect our goal of managing risk in a more effective manner. We also modified the committee structure, roles, and responsibilities. The Risk, Ethics & Compliance Committee is responsible for risk management, business ethics, and compliance matters.

Internal controls are also an important part of our governance system. Risks we face in the course of global business operations are managed by the risk management team within each business and function. We also clarify roles and responsibilities for each function, based on Takeda Group's Management Policy (T-MAP). We carry out periodic audits and apply our Compliance Monitoring Program to ensure compliance and appropriate business operations at each business and function in Takeda.



The Group Internal Audit and the Corporate Environment, Health and Safety (EHS) departments in the Global Manufacturing & Supply division conduct regular internal audits of each function of the company and each group company based on the "Group Internal Audit Charter" and "Global Policy and Guideline on EHS," respectively.

## Total Rewards Philosophy

Takeda strives to provide competitive total compensation to the TET and the global employee base, which rewards purposeful performance and delivers on our commitments to patients, employees, and shareholders.



To show our commitment to a successful integration, while building the company for the long term, we have structured our Key Performance Indicators (KPIs) for both the short- and long-term incentive plans for FY2019. This redesign appropriately aligns rewards for the CEO, TET, and our employees to the most critical business priorities for the company. [Further details on the company's FY2019 KPIs can be found here.](#)

## Director Compensation

To achieve our goal of becoming a best-in-class global, values-based, R&D-driven biopharmaceutical leader, it is essential that we attract diverse, highly skilled business leaders to serve on our Board of Directors. Compensation for our directors must be competitive on a global basis. The Compensation Committee, comprised of external directors, advises the Board on pay practices for the Board of Directors, including internal directors. Compensation for external directors and those who serve on the Audit and Supervisory Committee consists of basic compensation, which is paid in a fixed amount, and stock compensation. Equity pay is designed to strengthen the links between compensation, company performance, and share price, and to reinforce the commitment to increasing corporate value in the mid- and long-term.

In setting directors' compensation, the Compensation Committee is guided by the following principles and goals:

- To attract, retain, and motivate managerial talent to realize our vision.
- To increase corporate value through optimizing the company's mid- and long-term performance, while reinforcing our patient-focused values.
- To closely link compensation to company performance and be highly transparent and objective.
- To support a shared sense of profit with shareholders and improve the managerial mindset, focusing on shareholders.
- To encourage directors to challenge and persevere, and to be aligned with the values of Takeda-ism.
- To establish transparent and appropriate governance of directors' compensation to establish the credibility and support of our stakeholders.



## Risk Management

Takeda is committed to serving our patients, protecting our reputation, executing our strategy, managing risks, seizing opportunities, and minimizing disruption to business operations. In order to support these objectives, we emphasize sound risk management as an important pillar of our corporate governance and culture.

We view risk management as the responsibility of the Board of Directors, TET, business units, business functions, local operating companies, employees, and business partners.

Our Global Risk Management Policy provides a common set of principles to manage risk. The Policy covers the following areas, each supported by a relevant Standard Operating Procedure (SOP):

- Enterprise Risk Management (ERM)
- Business Continuity Management (BCM)
- IT Disaster Recovery (ITDR)

Risks that have materialized may be subject to further intervention by the Crisis Management Committee as referenced in the Global Crisis Management Policy. The ERM Program was designed to be consistent with prevailing industry practices and now is used to identify our principal risks that may impact our strategic and operational objectives. Understanding these risks, assessing their exposure, and taking appropriate action should help preserve and maximize our long-term value. Our ERM Program provides a consistent set of risk-related methods, tools, and approaches to support the business. We assess likelihood, impact, and risk-mitigation effectiveness over a three-year horizon, in line with our Mid-Range Planning. Principal risks are presented to the Risk, Ethics, & Compliance Committee, and Board of Directors on an annual basis.

Risk management is embedded in the business, and each relevant area is responsible for managing their major risks. Typical risk mitigation strategies may include, but are not limited to: business continuity planning, crisis planning, process redesign, management and technology implementation, monitoring, communications, training, and third-party engagement.

Risks in our industry may include R&D exposure, legal and regulatory compliance, intellectual property, patent expirations, adverse events, industry reforms, impacts associated with changing government policies, mergers and acquisitions (M&A) and integration-related issues, supply continuity, environmental compliance, competition, geopolitical events, cybersecurity, and natural- or man-made disasters.



## Crisis Management

Takeda also takes a proactive approach to crisis management. The Group Global Crisis Management Policy lays out basic policies, rules, and standards for crisis management. The Policy underpins the systems and operations we have in place to respond to each type of crisis swiftly and effectively, in order to minimize potential harm to employees, impact on Takeda’s finances, and any effect on society at large.

As with risk management, our businesses and functions are responsible for establishing their own crisis management systems, implementing preventive measures, and taking appropriate action if a crisis occurs. In the event of a crisis requiring company-wide action, a Global Crisis Management Committee chaired by the President and CEO of Takeda is charged with coordinating the response.

## Crisis Training

Takeda’s CEO, many TET members, and senior executives participate in robust crisis management training with a focus on different hypothetical topics each year including the following:

### 2016

- Large-scale earthquake in metropolitan area
- Cybercrisis

### 2017

- Disruption of production and supply chain caused by mega-quake in Japan
- Social media crisis

### 2018

- Armed gunman attacking Takeda sites in the U.S.

### 2019

- Global pandemic
- Product crisis stemming from misconduct at a subsidiary

## Taxation

Takeda’s operations incur a significant amount of business tax in a number of forms, including corporate income taxes, customer duties, excise taxes, property taxes, stamp duties, and employment taxes, such as those for public benefit and retirement plans. We also collect and remit employee taxes and indirect taxes such value-added tax. The taxes that we collect and pay are part of our contribution to local economies and their well-being.

We are committed to ensuring compliance with the prevailing tax laws where we do business and building transparent, professional, and constructive relationships with all relevant tax authorities globally. We support increasing public trust and transparency in national and international tax regimes. Regularly engaging and partnering with our stakeholders creates awareness of the consequences of business taxation everywhere we operate.

To comply with applicable disclosure regulations and to support our transparent approach to taxation, Takeda has published “Takeda’s Position on Taxation” on our external website. This document explains our approach to the following items:

- Governance, risk management, and compliance
- Transfer pricing policies
- Tax strategy
- Interactions with tax authorities
- Current framework of international taxation
- Level of tax risk we are prepared to accept

# Quality Management



**Quality, in the decisions we make and the medicines we produce, is the foundation for carrying out our vision, mission, and values.**

It is an essential element of how we serve the patient. Takeda’s Global Quality organization continually reinforces and supports the need for all quality decisions to align with our priorities of Patient, Trust, Reputation, and Business. Takeda’s focus on quality also helps to drive change throughout the business by incorporating innovation, continuous improvement, knowledge, and best-practice sharing as key components in the Takeda culture.



## Quality Governance

Quality governance is key to our quality program. Our Global Quality Organization is built on three pillars: Science, System, and People and is fully aligned with Takeda’s functions and business partners. The Quality organization is led by the Global Quality Officer, who reports to the president and CEO. The Global Quality Council provides oversight on global performance, trends, and opportunities. Importantly, Takeda has created a standard site structure for the Quality organizations in our manufacturing sites, in order to maintain consistent functions, roles, and responsibilities across the network and to align with global functions.



In keeping with our “as global as needed, as local as possible” approach, we have established local Quality Councils, which help to demonstrate governance, monitor quality and compliance, and ensure engagement of senior management.

Quality Councils allow for both escalation of information from sites via regional councils up to Global Quality Councils, as well as the cascading of information. This process drives engagement to resolve issues at the lowest possible level, while providing a mechanism to escalate for further visibility and review.



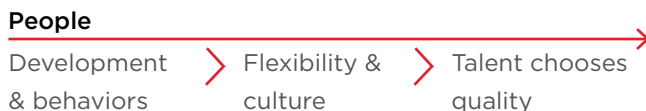
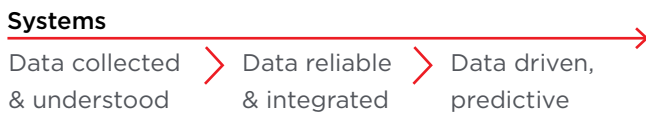
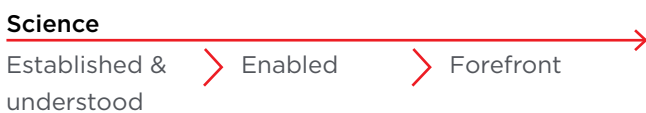
## Quality Strategy

We strive for consistency and excellence in our quality efforts. Global Quality continually reinforces that quality decisions throughout the company must always be aligned with Takeda’s priorities, commitment to compliance, and putting the patient at the center. Our single Quality Policy, the highest-level document in our Quality document architecture, reflects this approach.

Global Quality has made significant progress on its Quality roadmap in support of Takeda’s vision. The roadmap is both dynamic and strategic. It is reviewed annually and updated as needed to ensure that it reflects advancements in the regulatory and pharmaceutical environment and the company. In the past year, we have made significant progress in laboratory transformation, supplier quality management, and defining and clarifying global versus local strategies, all while maintaining a favorable regulatory profile and focusing on delivering innovative products to our patients.



## Quality Road Map to 2025



## Shire Integration

A significant task in 2019 for the integration of our companies is melding our well-performing Quality Management Systems (QMS) into one. During the integration process, we redesigned our proposed Global Quality organization with the combined business in mind. The revised architecture results in a single Quality Policy with focused global standards and procedures. This revised approach provides improved clarity and compliance with current industry expectations.

Throughout 2019, we are harmonizing a system of key metrics and beginning to integrate key Quality IT systems. To ensure a seamless transition, we created a QMS bridging document to help with governance as we integrate the two systems. At the same time, we have taken clear steps to ensure that integration activities do not distract attention from areas that are not involved in the integration, so they can remain focused on delivering products to our patients.

The Global Quality Leadership Team (GQLT) is the senior Quality leadership team that combines the two legacy quality organizations. This includes a world-class Global Pathogen Safety function, Manufacturing Sciences Quality, Plasma & BioLife Quality, and Product Quality & Incident Management – all led by leaders from the former Shire Quality leadership team. The GQLT has also updated and aligned with the Global Quality roadmap.

As part of integration, we prioritized aligning our processes and programs. We play a key role in AGILE, a Global Manufacturing and Supply and Global Quality (GMSGQ) program specifically driving Lab Excellence. We are continuing the program within the entire GMSGQ network of Takeda sites as a part of Agile 4.0. By applying Lean tools, we have been able to realize lab efficiencies as well as increased analyst engagement and empowerment.

Another top integration priority is our electronic Quality systems. We focus on standardization, simplicity, and alignment with industry best practices in order to accelerate integration, manage costs and complexity, and lay a foundation for advanced analytics. Integration planning is underway for our three key systems platforms. Each project will represent a partnership between Information Technology and Quality.



## Product Quality and Safety

We strive for consistency and excellence in our quality efforts. Global Quality continually reinforces those decisions throughout the company.

We employ best practices for research, development, and safety evaluation throughout the entire product life cycle. This focus enables Takeda to develop innovative, safe, and effective medicines.

Global Quality partners with R&D to ensure compliance with governing laws and regulations, as well as with our own internal rules and standards.

In research and nonclinical studies, we insist on high data integrity standards. Our clinical studies, regardless of the phase or market where they are conducted, are designed to protect the safety and well-being of our patients and the integrity of our clinical trial data. We ensure that our studies are

conducted in accordance with scientifically sound protocols and that data are collected, analyzed, and reported in a transparent and responsible manner.

As our products reach the production and distribution stage, standards are just as high. All investigational medicinal products and pharmaceutical products are produced and controlled in accordance with current Good Manufacturing Practice. The integrity and security of our products are protected by our compliance with Good Distribution Practice. Once products are released, we continue to ensure quality by collecting important information from clinical investigators and the market. In this way, we strive to detect potential quality issues at an early stage and build continuous improvement into our quality processes.

We monitor the safety of all Takeda products, continuously collecting safety information in the development phase of new drugs and throughout the time they are marketed. We use this information to detect any signals of safety problems. Should potential problems be identified, we promptly notify health authorities, healthcare providers, and companies marketing our products. We also provide information on appropriate product use.

## Regulatory Engagement

We strive to maintain and strengthen relationships with regulatory bodies. For example, we are active participants in a number of industry trade groups such as International Society for Pharmaceutical Engineering (ISPE), Parenteral Drug Association (PDA), Global Pharmaceutical Manufacturing Leadership Forum (GPMLF), and Pharmaceutical Research and Manufacturers of America (PhRMA). This involvement includes active contributions to working teams and proposals for improving overall current good manufacturing practices (cGMPs).

In addition, we participate in external conferences where global regulators, including the U.S. Food and Drug Administration (FDA), Brazilian Health Regulatory Agency (ANVISA), and European Medicines Agency (EMA), routinely present, and engage as applicable. Additionally, Takeda is recognized as a global leader in virology; our Global Quality Pathogen Safety team routinely engages with global regulatory and medical groups in addressing pathogen safety and proactive approaches to addressing emerging viral agents.

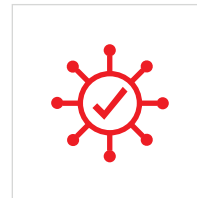
# Ethics and Compliance



**As a value-based company, we believe our obligation to meet ethical standards goes beyond compliance with laws and regulations.**

This is expressed through our priorities, Patient, Trust, Reputation, Business, which in turn are based on our values of “Takeda-ism” — Integrity, Fairness, Honesty, and Perseverance. To promote ethical behavior and provide guidance to our employees, we have created the Takeda Global Code of Conduct, which is available in 18 languages and lays out a core set of principles for conducting business at Takeda.

Promoting ethics and compliance across Takeda’s operations is the responsibility of the Chief Ethics & Compliance Officer and the Risk, Ethics & Compliance Committee. Both ensure a coordinated, company-level approach on ethics and compliance matters. Takeda group companies execute and reinforce their ethics and compliance programs in line with the Takeda Global Code of Conduct and applicable global policies. These policies are approved by the Business Review Committee (BRC).



Takeda aims to maintain the highest level of corporate ethics. The Takeda Ethics Line is available online and by phone to all employees around the world, 24 hours a day. Employees can contact the Takeda Ethics Line, which is available in 18 languages, and ask a question or voice a concern. In the first six months of FY2019, we received 94 calls and web entries through the Takeda Ethics Line. Takeda has a policy of nonretaliation for any employee who raises a concern in good faith.



## Anti-Corruption

Takeda is committed to conducting business with integrity at all times. This includes ensuring that our business practices and decisions are conducted in line with Takeda's values and in compliance with external regulations.

The Global Anti-Corruption Policy and the Global Policy on Interactions with Government Officials and Government Entities outline key principles that guide the conduct of Takeda employees. Illegal or improper inducements, bribes, or corrupt transfers of anything of value may not be offered or used. Facilitation payments may not be paid or authorized.

Our Global Anti-Corruption Policy prohibits Takeda from conducting, through third-party intermediaries, activities that Takeda is prohibited from conducting itself. Third-party intermediaries must adhere to the requirements of the Global Anti-Corruption Policy. Takeda must conduct a due diligence assessment of third-party intermediaries in order to identify and address issues that pose any actual or potential risks for Takeda.

We conduct regular internal audits to assess instances of bribery and corruption, and we also have in place a monitoring program through which we review a sample of high-risk transactions to ensure compliance. In 2019, Takeda is also deploying a new enterprise risk assessment process, which includes an assessment of compliance risks. Our Global Code of Conduct and internal policies require all employees to keep accurate books, records, and accounts in reasonable detail to ensure no payments are made for any purpose other than those that are accurately described.

# Medical Ethics

**A range of medical ethics issues arise during the course of research and development into new medicines, from the use of human tissue in research to providing protections for vulnerable populations.**

Takeda has developed policies and procedures that reflect our commitment to protect patients in our studies and adhere to the highest ethical standards in our research activities.

Medical research depends on the availability of human-derived specimens, such as blood, tissue, cells, and other substances in order to predict the safety and efficacy of new medicines. In line with our values and ethical standards, Takeda is particularly careful with regard to how these specimens are collected and used. Our Research Ethics Review Committee in Japan handles issues associated with human-derived specimens and confirms specimens are used in line with the Declaration of Helsinki.

In many cases animal studies are essential to determine the therapeutic relevance of novel treatments for a multitude of human diseases. Every proposal for the use of animals in research is thoroughly evaluated and approved by the site Institutional Animal Care and Use Committee.



Takeda is also committed to the 3R's of animal research and actively pursues their promotion:

- Refining research procedures to avoid or minimize pain or distress.
- Reducing the number of animals used in any study conducted to the minimum necessary for valid results.
- Replacing the need for animal research through non-animal research methods.

In addition, our Takeda R&D facilities that conduct animal research are fully accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC), a private, nonprofit organization that promotes the humane treatment of animals in science through voluntary programs.

We also apply our values and ethical standards to the design and conduct of clinical trials, informed consent processes, and stewardship of participant data. Clinical trials are designed to contribute to the well-being of research participants and patients, and to help build knowledge. Trials are conducted in compliance with legal and regulatory requirements and are consistent with the Declaration of Helsinki 2013; the Good Clinical Practice (GCP) Standard of the International Conference on Harmonization (ICH); EFPIA/PhRMA Principles, developed by the European Federation of Pharmaceutical Industries and Associations and Pharmaceutical Research and Manufacturers of America; and other applicable international principles and standards.

We take care to protect the rights of all participants in our clinical studies, paying particular attention to vulnerable populations, such as participants in developing and emerging countries, trial participants who are socially underprivileged, and other cases requiring special attention. We provide participants with a thorough explanation of expected benefits and potential side effects, and follow an informed-consent process that supports participants' ability to choose to participate in the trial. Processes are designed to ensure the well-being of research participants and to respect patient privacy and confidential information.

As the frontiers of research extend into new areas, such as research on the human genome, gene analysis, and stem cell research, additional ethical concerns may arise. We continually review our ethical guidelines to keep pace. For example, Takeda has developed a position on the use of stem cells from various sources that address key ethical issues. Our Research Ethics Review Committee and Bioethics Committee Concerning Human Genome and Gene Analysis Research ensure that we conduct our R&D activities with the highest standards of ethics and integrity.

Takeda stays ahead of emerging trends related to ethics and compliance in R&D by actively participating in pharmaceutical industry associations such as PhRMA and the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA). In addition, Global Ethics & Compliance function members regularly review media outlets such as the Foreign Corrupt Practices Act blog and BioCentury report.



## Ethical Sales and Marketing

Putting the interests of the patient first extends to marketing activities. Under the Takeda Global Code of Conduct, Takeda's first consideration when making any decisions about business activities is "putting the patient at the center," followed in order by "building trust with society," "reinforcing our reputation," and "developing the business." We do not exert unjustified influence over the prescription, use, administration, purchase, or recommendation of Takeda products. We do not promise, offer, or provide any money, gifts, services, hospitality, or other benefits as an inducement for using our products.

To underscore this position, Takeda has established various global policies, including the Global Policy on Interactions with Healthcare Professionals and Healthcare Entities, the Global Policy on Interactions with Patients and Patient Organizations, the Global Policy on Interactions with Government Officials and Government Entities, and the Global Anti-Corruption Policy. Our activities are conducted in compliance with the pharmaceutical laws of each country and the International Federation of Pharmaceutical Manufacturers & Associates (IFPMA) Code of Practice, and codes of practice established by local industry associations.

Medical information is provided in an accurate, fair, and balanced manner through appropriate channels. We conduct reviews of our promotional materials based on internal and external guidelines. These reviews may involve independent organizations, and regular monitoring also takes place. Reviews and monitoring are governed by separate Standard Operating Procedures (SOPs).

Training and education are an important part of our ethical marketing efforts. New employees receive training in the Code of Conduct, the Anti-Corruption policy, other policies and SOPs relevant to their position, and external requirements where applicable. Training needs for existing employees are assessed on an ongoing basis. Ethical decision-making exercises are organized on a regular basis for employees to practice putting our values into action.

## Product Stewardship

Product stewardship is an important part of our environment, health and safety strategy. We extend our responsibility for product stewardship throughout the entire value chain. We also give consideration to the impact of our products on the environment and on people's health and safety throughout the product life cycle, from research through consumption and disposal. We continue to advance product stewardship across all of our business activities by working to strengthen our efforts related to:

- Disclosure of risk information pertaining to product safety.
- Consideration of green chemistry in our R&D process.
- Chemical hazard assessments.

- Ensuring compliance with the growing body of regulations related to materials and articles used in pharmaceutical manufacturing.
- Establishment of work methods that reduce the impact on workers involved in product manufacturing.
- Occupational exposure management.
- Adoption of environmentally friendly packaging.
- Reduction of CO<sub>2</sub> emissions in product transport.
- Product environmental risk assessments.



## Product Anticounterfeiting Measures

The sale of counterfeit drugs is a growing problem, one that poses a significant threat to consumers and patients around the globe. As part of Takeda's mission to improve lives worldwide, our Global Product Protection (GPP) team is committed to protecting patients by securing the supply chain and taking measures to combat illegal activity.

We partner with international and local law enforcement, regulatory agencies, other pharmaceutical companies, and industry organizations to combat counterfeiting and illegal trading, while also educating patients, supply chain partners, and customers on the dangers associated with these activities. Through partnerships with such groups as the IFPMA "Fight the Fakes" Campaign, and Alliance for Safe Online Pharmacies (ASOP Global), we contribute to efforts that educate patients.

We set high security standards and requirements for supply chain partners worldwide, perform due diligence, and audit against these requirements. We have also developed innovative anticounterfeiting solutions for products and packaging to deter and detect counterfeiting, theft, diversion, and tampering.

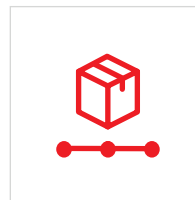
# Supply Chain Management



**As a global pharmaceutical company, Takeda procures materials that are needed to manufacture and distribute our products from some 60,000 suppliers around the world.**

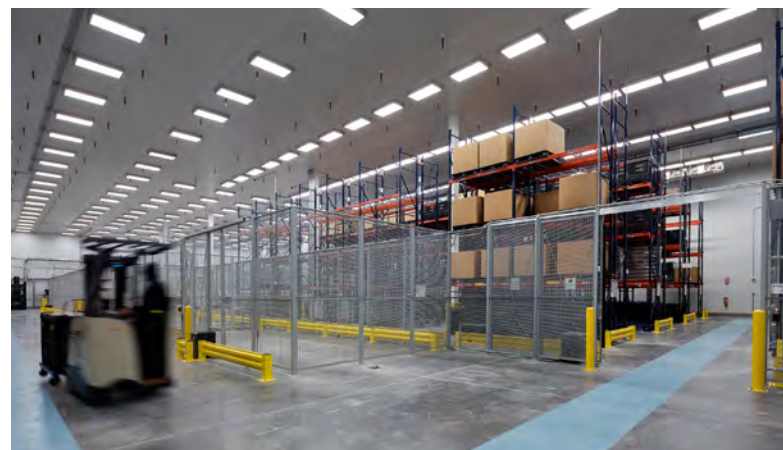
Managing supplier relationships, as well as the flow of materials through our supply chain, is critical to the sustainability, quality, and safety of our medicines — and the well-being of our patients.

Takeda's Ethical Sourcing and Supplier Risk Management efforts are based on our values of Takeda-ism and our business priorities of putting patients at the center while building trust with stakeholders and enhancing Takeda's reputation. Through Ethical Sourcing and Supplier Risk Management, we ensure that suppliers conduct business in the same manner we do.



## Ethical Sourcing and Supplier Risk Management Governance

The Procurement Center of Excellence is responsible for managing risk and enhancing sustainability in the supply chain while strengthening relationships with suppliers. The Center of Excellence has three focuses: Supplier Performance and Innovation (SP&I), Ethical Sourcing and Risk Management, and Supplier Diversity. The SP&I team facilitates supplier relationship management through a scorecard that uses objective data to measure and leverage supplier capabilities. This scorecard includes a KPI that measures social





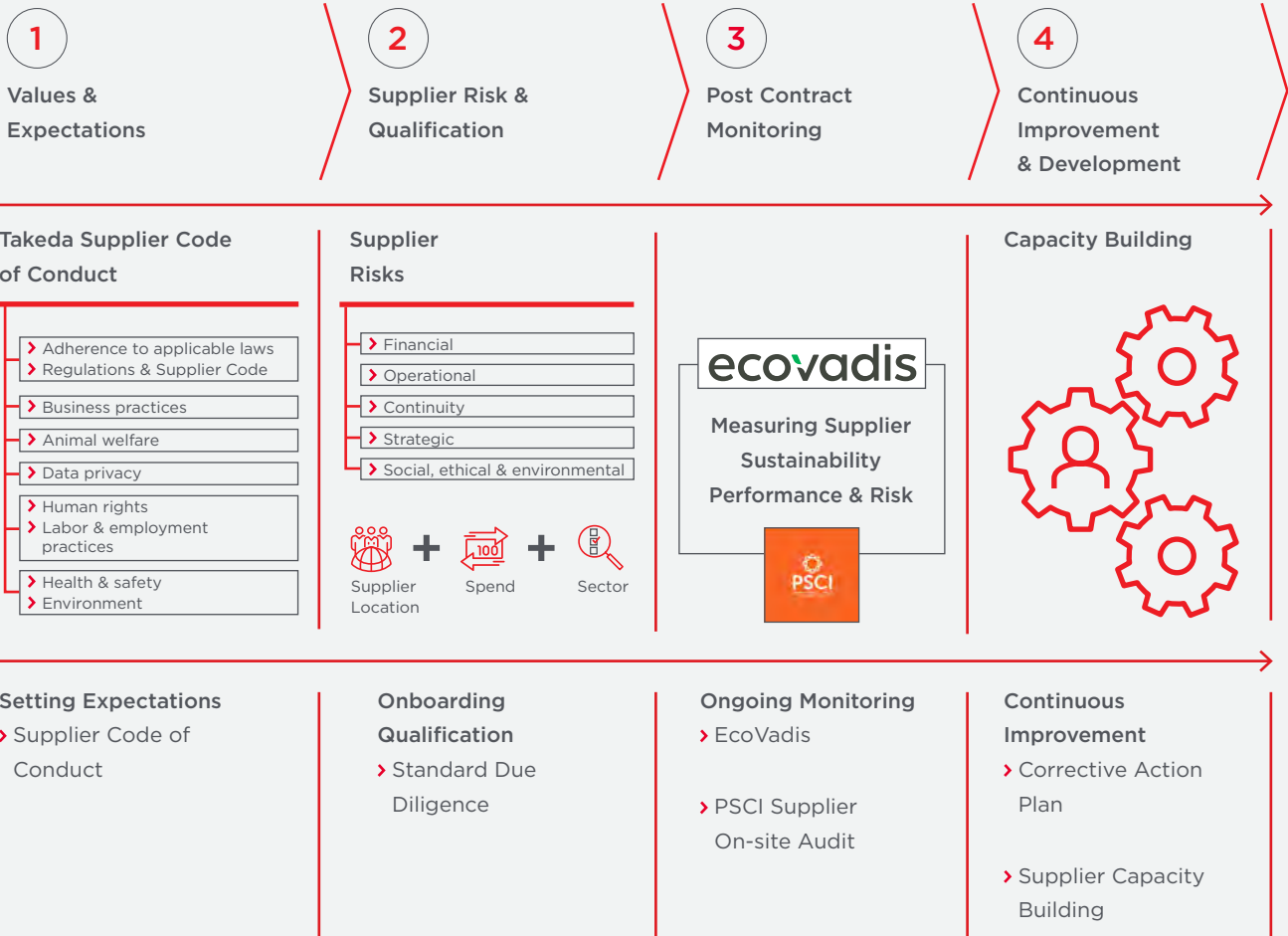
and environmental risk and performance. The SP&I team also works with suppliers to identify external sources of innovation, remediate performance issues, and provide continuous improvement opportunities, such as workshops.

In FY2018, the Ethical Sourcing and Supplier Risk Management program transitioned from a regional to a strategic approach as the organization introduced new sustainable procurement goals by supply category cluster. Each cluster agrees to, and is held accountable for, sustainable procurement goals that include:

- Acknowledgement of Supplier Code of Conduct by key and strategic suppliers.
- Completion of standard due diligence for key and strategic suppliers.
- On-site sustainable procurement audits of suppliers.
- Engagement with suppliers via the EcoVadis platform.
- Spend targets with small and diverse suppliers.

## Ethical Sourcing and Supplier Risk Management

Ethical Sourcing and Supplier Risk Management ensures that Takeda's suppliers conduct business in line with our expectations, avoid exposing the business to any unnecessary risk, and support the delivery of value beyond cost.



## FY2018 Performance

Our Ethical Sourcing and Supplier Risk Management program measures progress through an annual process that sets targets around a set of core KPIs focused on:

- Managing risks and enhancing the sustainability of the supply chain.
- Measuring and improving supplier CSR performance.
- Increasing business with small and diverse suppliers.



In FY2018, we were pleased to exceed all targets. In the past three years since the Ethical Sourcing and Supplier Risk Management Program began tracking performance, we have been able to apply the KPIs to 10 percent of our supplier base with procurement

managed addressable spend. Continued expansion into that base represents a significant opportunity to close gaps in the years ahead, especially working collaboratively through the integration of Shire.

## Ethical Sourcing & Supplier Risk Management KPIs

Program KPI	2016		2017		2018	
	Target	Achievement	Target	Achievement	Target	Achievement
<b>KPI 1</b> Number of Supplier Code of Conduct Acknowledgements Obtained from Top Spend, Strategic, and Preferred Suppliers	50	88	Add 50	92	Add 50	89
<b>KPI 2</b> Number of PSCI Sustainability Audits Conducted	30	28	40	40	40	47 <sup>1</sup>
<b>KPI 3</b> Number of EcoVadis CSR & Sustainability Scorecards Obtained	Successful Pilot	31	Add 100	131	Add 125	233
<b>KPI 4</b> Supplier Diversity Spend	No Official Target Set	\$137 million	\$131 million <sup>2</sup> \$190 million <sup>3</sup>	\$234 million <sup>2</sup> \$187 million <sup>3</sup>	\$162 million <sup>2</sup> \$190 million <sup>3</sup>	\$179 million <sup>2</sup> \$231 million <sup>3</sup>

<sup>1</sup> INCLUDES TWO EHS SUPPLIER ON-SITE ASSESSMENTS

<sup>2</sup> SMALL AND SMALL DIVERSE SUPPLIERS

<sup>3</sup> ALL DIVERSE CATEGORIES INCLUDING SMALL AND OTHER DIVERSE BUSINESSES

## Supplier Code of Conduct

Our Global Procurement Policy and Takeda Supplier Code of Conduct are foundational to our Ethical Sourcing Supplier Risk Management efforts and underscore our commitment to assess and improve oversight of supplier practices — with a focus on social, environmental, and economic good.

The Supplier Code of Conduct communicates Takeda's position on the performance standards suppliers are expected to work toward as a part of doing business with Takeda. The Code covers principles in business ethics and anti-corruption; human rights; fair labor and employment standards; data privacy; animal welfare; environment, health, and safety, as well as general management systems addressing the topics covered in the code. Takeda has incorporated the Supplier Code of Conduct as part of its procurement-managed supplier qualification process and uses its risk assessment model to prioritize suppliers for further review.

In FY2018, more than 4,700 suppliers, including 89 of the company's key and strategic suppliers, committed to advancing sustainable procurement at Takeda, based on the Supplier Code of Conduct. Cumulatively, 60 percent of Takeda's procurement-managed spend is addressed through the Supplier Code. We continue to monitor this metric with the goal of reaching 80 percent of spend.

## Industry Collaboration: PSCI

Our supplier code is consistent with the Pharmaceutical Supply Chain Initiative (PSCI) Principles, a set of industry supplier standards and expectations established and used by more than 39 member companies of the PSCI. The PSCI is committed to promoting responsible supply chain practices through both supplier audits and supplier capability-building conferences and webinar training sessions. In FY2018, Takeda, along with other member companies, organized PSCI Supplier Conferences in China and India. A total of 124 suppliers and member companies attended the China conference, and 77 suppliers and member companies attended the India conference.

## Supplier Due Diligence and Sustainability Engagement

As a crucial initiative for delivering high-quality pharmaceuticals to patients, Takeda has integrated

a six-step standard diligence process into the sourcing process to assess supplier risks from a holistic perspective, including sustainability and business continuity risks. The standard diligence process evaluates whether there are potential risks in the areas of animal welfare, EHS, labor and human rights, financial health, corruption and bribery, and data privacy and information security. While this is not a comprehensive list of the risks Takeda screens for, it provides a view of what type of information business stakeholders can expect to receive in order for them to make well-informed decisions when it comes to supplier selection.

If specific risks are identified during standard diligence, Takeda conducts enhanced diligence, with experts from across the company as well as external resources as required. In FY2018, Takeda conducted due diligence across 2,333 suppliers. We also partnered with Takeda Business Services to design a more efficient and effective process for supplier registration and qualification, better ensuring the completion of due diligence and flagging of potential risks.

We have also furthered the use of EcoVadis, a digital supplier-sustainability assessment and scorecard system to help monitor the sustainability performance of strategic, high-risk, or other types of suppliers. The platform enables us to monitor KPIs for suppliers as a basis for supplier engagement and improvement. In 2018, Takeda improved the utilization of the platform and gained access to an additional 233 scorecards. We see an opportunity to further advance supplier performance by increasing their ability to manage their own supply chain impacts.

When we identify supplier sustainability risks related to Takeda's Supplier Code of Conduct principles, or if a supplier receives a low score from EcoVadis, we begin a program of annual on-site labor, ethical, EHS, and management system assessments based on PSCI protocols using third-party audit companies. In FY2018, Takeda conducted on-site assessments at 47 suppliers in 13 countries. These assessments result in corrective action plans (CAPs) to improve a supplier's sustainability performance that are periodically reviewed by Takeda and the supplier. Since starting the supplier PSCI sustainability audit program in 2016, we have achieved a 55.8 percent CAP closure rate of all initial supplier audits, excluding any follow-up assessments.

## FY2018 Procurement Supplier Due Diligence Results & CSR Performance

Suppliers with Standard Diligence (SDD) Performed by Region n=2333

### Takeda Supplier Code of Conduct

FY18 - 4701 | Supplier Acknowledgments

#### Americas

- Suppliers w/SDD — 710
- PSCI Assessments — 10
- EcoVadis — 74 suppliers

#### EMEA

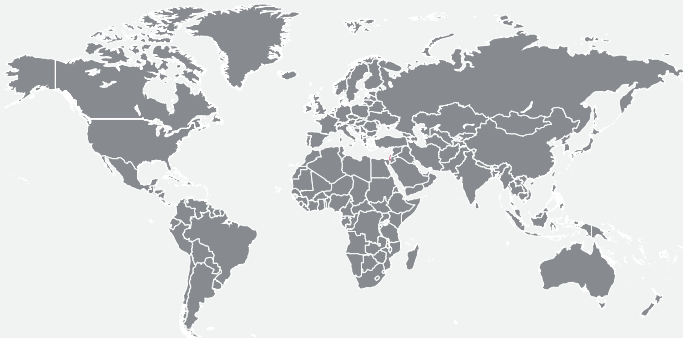
- Suppliers w/SDD — 811
- PSCI Assessments — 5
- EcoVadis — 117 suppliers

#### Japan

- Suppliers w/SDD — 185
- PSCI Assessments — 0
- EcoVadis — 25 suppliers

#### APAC

- Suppliers w/SDD — 627
- PSCI Assessments — 30
- EcoVadis — 17 suppliers



## Human Rights in the Supply Chain

Takeda's extensive supply chain reaches around the world, including emerging markets where protections for workers may not be robust. We realize that respecting human rights, including the rights of workers, is one of our greatest responsibilities with regard to our procurement activities and supplier relationships.

In markets where we have identified the potential for supply chain risks related to human rights, we use a number of enhanced assessment approaches. In FY2018, these assessments did not identify modern slavery risk in the form of forced or child labor, human trafficking, slavery, or servitude.

## Summary of PSCI Sustainability Audit for Suppliers Findings by Finding Type

(Excluding follow-up assessments)

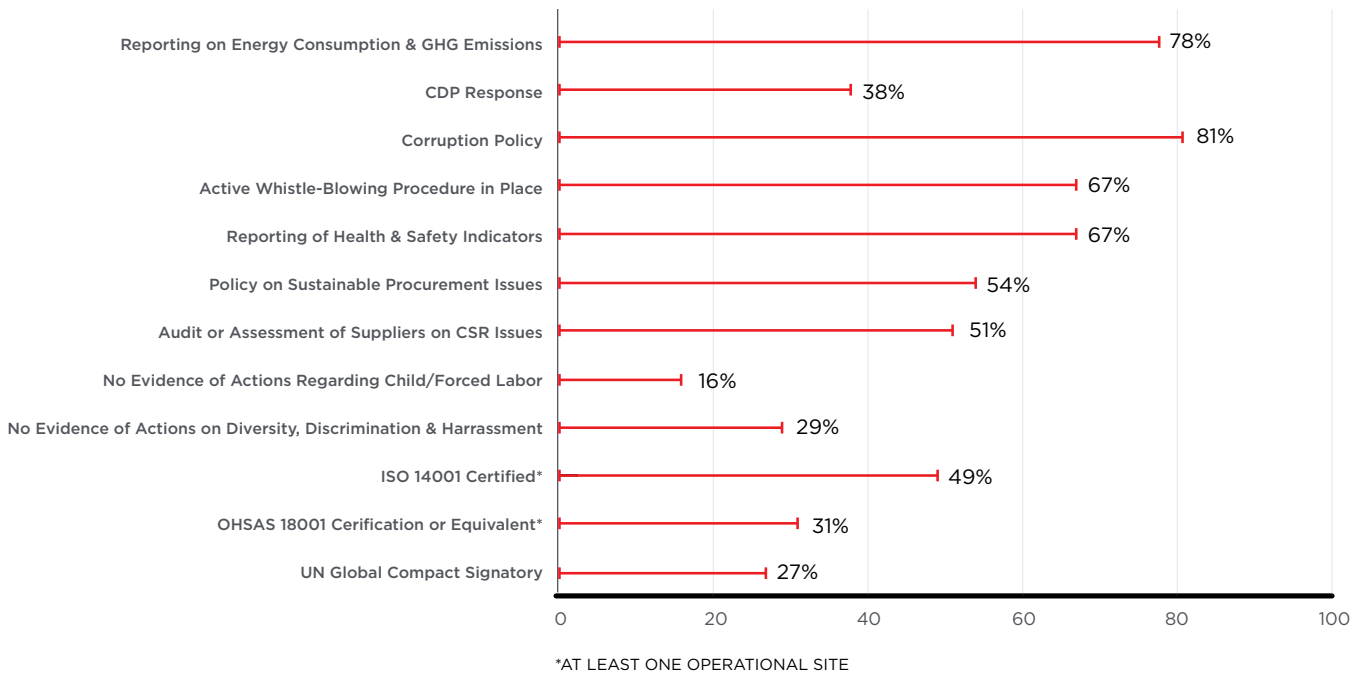


- 33% Health & Safety Compliance
- 25% Management System
- 16% Labor/Social Responsibility
- 14% Environmental Compliance
- 12% Ethics

Nevertheless, we are strengthening initiatives for responding to these and other issues across the entire value chain through our Global Procurement Policy and the Takeda Supplier Code of Conduct. Takeda also publishes [an annual statement in accordance with the United Kingdom's Modern Slavery Act of 2015](#)

## Supplier Sustainability Key Performance Indicators (EcoVadis)

Percentage of suppliers demonstrating evidence toward CSR aspect



## Top Product Risk

In addition to due diligence programs, Global Procurement has implemented a process for reviewing supplier-related risks for Takeda’s top products, with the goal of ensuring supply continuity for our patients. These products represent nearly 70 percent of Takeda revenue and cover Takeda’s core therapeutic areas. The risks reviewed include sourcing status, unique materials, financial health, sustainability & reputation risk, contractual terms & relationship strength, compliance risk, and quality risks. This allows us to prioritize risk mitigation activities, drive remediation plans, and ensure that our suppliers continually improve, innovate, and generate added value for Takeda’s patients.



## Supplier Diversity

Our commitment to enabling a better future for people everywhere extends to our communities and to people of every background. As a global enterprise, sourcing materials from around the world, we build diversity and inclusion into our supplier network as a way to make a difference through the power of our spend.

We show this commitment in a variety of ways. For example, our Procurement Policy calls for including at least one small or diverse supplier in each request for proposal. In the U.S., we continue to work toward a goal to increase our spend with small and diverse businesses. In FY2018, we achieved \$179 million in spend with small businesses, and with all diverse businesses (small and large) we achieved \$231 million. We completed an economic impact study and video showing the impact Takeda has made by engaging with small and diverse suppliers, particularly the

impact on communities, through our supplier diversity program. The video was screened at our 2018 Supplier Day and broadcast to all employees as well. We provide internal training courses explaining what supplier diversity is to Takeda, and internal updates and stories about our supplier diversity program that highlight our small and diverse suppliers.

To find small and diverse suppliers that meet our needs, representatives from Takeda's Supplier Diversity Program and Procurement leaders participate in a variety of advocacy events. In 2018, Takeda participated in Diversity Alliance for Science, Women's Business Enterprise National Council (WBENC), National Minority Supplier Development Council (NMSDC), Massachusetts LGBT Chamber of Commerce, Center for Women and Enterprise, and others. Takeda was also a founding sponsor in the 2018 launch of the Massachusetts LGBT Chamber of Commerce.

One barrier to increasing business with small and diverse suppliers is suppliers' lack of knowledge about Takeda's needs and the daunting task of

supplying a large, global enterprise. A number of initiatives have addressed this challenge including:

- A supplier diversity day for R&D and Vaccines for current and potential suppliers to engage with our Procurement staff and internal stakeholders.
- A one-day, on-site session to give small and diverse suppliers the opportunity to present their capabilities to U.S. marketing stakeholders.
- A supplier diversity mentorship program, with Procurement and internal Takeda stakeholder participation. In 2018, Takeda mentored three small or diverse businesses.
- Providing one-on-one training or other resources for our small or diverse businesses, to assist them in navigating Takeda supplier requirements.

In recognition of these and other efforts, Takeda received the Program Manager of the Year Award in 2018 for our Supplier Diversity Program from Diversity Alliance for Science.



## Appendix

### IN THIS CHAPTER

- Disaster Relief
- Social Value Reference List
- Scope 3 Methodology
- Environment, Health & Safety Performance Data
- UNGC Advanced Level CoP Reference Table
- GRI Standards Reference Table
- Independent Assurance
- Legal Disclaimers

## Disaster Relief

When natural disasters strike in areas where our employees live and work, Takeda empowers its regions to respond as they see most appropriate. This can range from financial giving to employee volunteerism. For example, in our home market of Japan, Takeda is an active supporter of disaster relief, particularly for the victims of earthquakes. Our Takeda Life and Livelihood Reconstruction Program is a donation program to benefit victims of the Great East Japan Earthquake of 2011. Currently, the program is in the last phase, which is expected to run through 2021. We donate part of the profits from sales of ALINAMIN to the program. Other initiatives include support for employee volunteers and in-house marketplace events, in which products from disaster-affected local businesses are available for purchase by employees. Marketplace events are operated jointly by management and employees.

## Support for Disaster-Affected Areas of the Kumamoto Earthquake

Takeda supported the areas affected by the April 2016 Kumamoto Earthquake with a donation of JPY 22.3 million to an aid organization, including a donation by employees with a matching gift from the company as well as provision of over the counter products and other support supplies during the emergency response period immediately following the earthquake.

We also implemented matching gifts through labor-management cooperation for the heavy rain event of July 2018 in West Japan and donated JPY 8.2 million to Central Community Chest of Japan, a social welfare corporation.

## Recipients in the “Support for Japan’s Vitality and Recovery” Program

	Program	Recipient	Timeframes	Donation Amount
Life and Livelihood	 Takeda Life and Livelihood Reconstruction Program	Japan NPO Center	10 years (2011–2021)	¥1,200 million
	 Takeda-Akailhane Nationwide Evacuee Support Program	Central Community Chest of Japan	5 years (2014–2018)	¥290,087,207
	 Disaster Relief Volunteer & NPO Support Fund	Central Community Chest of Japan	7th donation (2012)	¥20 million
	 Takeda Capacity Building Initiative	Japan Earthquake Local NPO Support Fund	3 years (2012–2014)	¥20 million
	 Psychological support by CliniClowns in Tohoku	Japan CliniClowns Association	6 years (2013–2018)	¥10,522,223
Industrial Revitalization	 IPPO IPPO NIPPON Project	Keizai Doyukai (Japan Association of Corporate Executives)	4 years (2011–2015)	¥829,720,912
	 Tohoku Future Creation Initiative	Tohoku New Business Council	5 years (2012–2016)	¥20 million
Empowering the Next Generation	 TOMODACHI	U.S.-Japan Council	10 years (2011–2020)	¥180 million
	 BEYOND Tomorrow	Global Fund for Education Assistance	3 years (2011–2013)	¥60 million
	 ARK NOVA Music Program for Children	ARK NOVA Project	3 years (2013–2015)	¥40 million
	 OECD TOHOKU SCHOOL	Fukushima University	1 year (2013)	¥10 million
Policy Proposals	 Rebuild Japan Initiative	Rebuild Japan Initiative Foundation	10 years (2011–2020)	¥500 million
	 Integrated Health and Lifestyle Support Project for Elderly People Living in Yamada Town, Iwate Prefecture	Health and Global Policy Institute	2 years (2012–2014)	¥25 million



## Social Value Reference List

Indicator	Valuation Approach	Multiplier	Source	Link
Economic value retained in the company	Net profit – dividend + depreciation, amortization, and impairment losses	N/A	Takeda Annual Securities Report [p.136]	<a href="https://www.takeda.com/investors/reports/quarterly-announcements/quarterly-announcements-2018/">https://www.takeda.com/investors/reports/quarterly-announcements/quarterly-announcements-2018/</a>
Economic value offered to stakeholders	Salaries and bonus, interest on loans, taxes paid, and dividends	N/A	Takeda Annual Securities Report [p.136]	<a href="https://www.takeda.com/investors/reports/quarterly-announcements/quarterly-announcements-2018/">https://www.takeda.com/investors/reports/quarterly-announcements/quarterly-announcements-2018/</a>
Strategic social investments	Amount invested in community projects multiplied by a specific social return on investment (SROI) multiplier based on project characteristics	22.6	Masters R, Anwar E, Collins B, et al. (2017). Return on investment of public health interventions: a systematic review. J Epidemiol Community Health. 71:827-834.	<a href="https://jech.bmj.com/content/71/8/827">https://jech.bmj.com/content/71/8/827</a>
		11.8	Hutton, Guy. (2012). Global costs and benefits of reaching universal coverage of sanitation and drinking-water supply. Journal of Water and Health. 11. 1-12.	<a href="https://iwaponline.com/jwh/article/11/1/1/2773/Global-costs-and-benefits-of-reaching-universal">https://iwaponline.com/jwh/article/11/1/1/2773/Global-costs-and-benefits-of-reaching-universal</a>
	The SROI is dependent per project	3.2	Montenegro, C. & Patrinos, H. (2014). Comparable Estimates of Returns to Schooling Around the World. Policy Research working paper; no. WPS 7020. Washington, DC: World Bank Group.	<a href="http://documents.worldbank.org/curated/en/830831468147839247/pdf/WPS7020.pdf">http://documents.worldbank.org/curated/en/830831468147839247/pdf/WPS7020.pdf</a>
		22.6	Masters R, Anwar E, Collins B, et al. (2017). Return on investment of public health interventions: a systematic review. J Epidemiol Community Health. 71:827-834.	<a href="https://jech.bmj.com/content/71/8/827">https://jech.bmj.com/content/71/8/827</a>

## Social Value Reference List (continued)

Indicator	Valuation Approach	Multiplier	Source	Link
Strategic social investments	Amount invested in community projects multiplied by a specific social return on investment (SROI) multiplier based on project characteristics	21.48	White et al. (2011). Costs and cost-effectiveness of malaria control interventions – a systematic review. <i>Malaria Journal</i> , 10. 337	<a href="https://malariajournal.biomedcentral.com/articles/10.1186/1475-2875-10-337">https://malariajournal.biomedcentral.com/articles/10.1186/1475-2875-10-337</a>
		21.48	White et al. (2011). Costs and cost-effectiveness of malaria control interventions – a systematic review. <i>Malaria Journal</i> , 10. 337	<a href="https://malariajournal.biomedcentral.com/articles/10.1186/1475-2875-10-337">https://malariajournal.biomedcentral.com/articles/10.1186/1475-2875-10-337</a>
	\$27	Resch, S. et al. (2011). Economic returns to investment in AIDS treatment in low and middle income countries. <i>Plos one</i> , 6. 10.	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3187775/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3187775/</a>	
	2.87	Masters R, Anwar E, Collins B, et al. (2017). Return on investment of public health interventions: a systematic review. <i>J Epidemiol Community Health</i> . 71:827-834.	<a href="https://jech.bmj.com/content/71/8/827">https://jech.bmj.com/content/71/8/827</a>	
	22.6	"Safe Work Australia (2012). The cost of work-related injury and illness for Australian employers, workers and the community: 2008-2009.  HSE (2016-2017). Costs to Great Britain of workplace injuries and new cases of work-related Ill Health – 2016/17	<a href="https://www.safeworkaustralia.gov.au/system/files/documents/1702/cost-of-work-related-injury-and-disease-2012-13.docx.pdf">https://www.safeworkaustralia.gov.au/system/files/documents/1702/cost-of-work-related-injury-and-disease-2012-13.docx.pdf</a>  <a href="http://www.hse.gov.uk/statistics/pdf/cost-to-britain.pdf">http://www.hse.gov.uk/statistics/pdf/cost-to-britain.pdf</a>	

## Social Value Reference List (continued)

Indicator	Valuation Approach	Multiplier	Source	Link
Health & safety	Number & type of occupational incidents multiplied by employee & community cost per incident	3,300 – 3,550,000 USD/incident	Safe Work Australia (2012). The cost of work-related injury and illness for Australian employers, workers and the community: 2008-2009.  HSE (2016-2017). Costs to Great Britain of workplace injuries and new cases of work-related ill health – 2016/17	<a href="https://www.safeworkaustralia.gov.au/system/files/documents/1702/cost-of-work-related-injury-and-disease-2012-13.docx.pdf">https://www.safeworkaustralia.gov.au/system/files/documents/1702/cost-of-work-related-injury-and-disease-2012-13.docx.pdf</a>  <a href="http://www.hse.gov.uk/statistics/pdf/cost-to-britain.pdf">http://www.hse.gov.uk/statistics/pdf/cost-to-britain.pdf</a>
Waste	Total waste sent to landfill with energy recovery (tonnes) multiplied by shadow price for waste and correction coefficient impact waste disposal method	Dependent on waste disposal method between 24 USD/tonne 250 USD/tonne	CE Delft (2017) Handbook Environmental Prices. Dijkgraaf, Elbert & Herman R.J. Vollebergh (2003) Burn or Bury?: A Social Cost Comparison of Final Waste Disposal Methods	<a href="https://www.cedelft.eu/en/publications/2012/environmental-pricing-manual-2017">https://www.cedelft.eu/en/publications/2012/environmental-pricing-manual-2017</a>
Air Pollution	Tonnes of pollutants multiplied by shadow price of air pollutants and correction coefficient population density	Dependent on air pollutant	Department for Environment and Rural Affairs (2019). Air Quality Damage Costs	<a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770576/air-quality-damage-cost-guidance.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770576/air-quality-damage-cost-guidance.pdf</a>
Carbon Emissions	Total GHG emissions multiplied by internal carbon price	\$137.40/tCO <sub>2</sub> e	N/A	N/A
Water	Direct net water consumption [per level of scarcity] multiplied by social cost of water	0.12-17.79 USD/m <sup>3</sup>	TEEB for Business Coalition (2013) Natural Capital at Risk: the top 100 externalities of business.	<a href="https://www.trucost.com/publication/natural-capital-risk-top-100-externalities-business/">https://www.trucost.com/publication/natural-capital-risk-top-100-externalities-business/</a>

## Takeda Pharmaceutical Scope 3 Emissions Calculation Methodology per Category

Source of Scope 3 Emissions	Evaluation Status	Emissions Calculation Methodology
1) Purchased goods and services	Relevant, calculated	Takeda's business sectors and revenue data are multiplied by an emission factor for each sector/supplier derived from the Trucost economic input output (EEI-O) model, to calculate the supply chain GHG emissions of suppliers through all tiers up to and including raw material extraction. For fuel- and energy-related activities, only emissions related to fuel extraction and distribution/transmission loss are included.
2) Capital goods	Relevant, calculated	
3) Fuel- and energy-related activities	Relevant, calculated	
4) Upstream transportation and distribution	Relevant, calculated	
5) Waste generated in operations	Relevant, calculated	Emissions are calculated by using Takeda's waste data and emission factors from Defra (2018) – UK Government GHG Conversion Factors for Company Reporting.
6) Business travel	Relevant, calculated	Takeda's spend data by mode of transport, which are captured by a business travel arrangement system, are multiplied by an emission factor for each mode of transport derived from the Trucost EEI-O model.
7) Employee commuting	Relevant, calculated	Takeda's global employee head count by country is used, combined with OECD's published country averages for commuting time and other publicly available data on transportation mode and distance, to calculate GHG emissions from employee commuting.
8) Upstream leased assets	Relevant, calculated	Using Takeda data on leased office space square footage, average intensities for energy consumption (US Energy Information Administration data) are applied to estimate total consumption by energy source for each office. Emissions from fuel consumption for leased cars are also included in this category. Country-specific electricity grid factor from IEA and fuel emission factors from Defra (2018) UK Government GHG Conversion Factors for Company Reporting are used.
9) Downstream transportation and distribution	Not relevant, not calculated	N/A <sup>1</sup>
10) Processing of sold products	Relevant, calculated	Emissions are calculated by multiplying electricity and steam used for processing products sold, which are estimated based on energy required to process a unit of each product sold, by IEA grid electricity factors (country-specific) and a steam emissions factor specified in the Japanese Global Warming Countermeasures law.
11) Use of sold products	Not relevant, not calculated	N/A
12) End-of-life treatment of sold products	Relevant, calculated	Using packaging materials spend data, weight of those materials are estimated based on average price of material (e.g. plastic, metals, paper) gathered from metals exchange and B2B platforms. World waste treatment and disposal percentages published by World Bank and emission factors from Defra (2018) – UK Government GHG Conversion Factors for Company Reporting are used.
13) Downstream leased assets	Not relevant, not calculated	N/A
14) Franchises	Not relevant, not calculated,	N/A
15) Investment	Relevant, calculated	Sum of Scope 1 and Scope 2 emissions* <sup>2</sup> of the equity investment* <sup>3</sup> multiplied by the share of equity (%) held by Takeda.

<sup>1</sup> BASED ON MATERIALITY RE-ASSESSMENT. EVALUATION OF THIS CATEGORY MIGHT BE CHANGED IN SUBSEQUENT YEARS

<sup>2</sup> THE ADJUSTED EMISSIONS IN FISCAL 2015 DISCLOSED UNDER THE ACT ON PROMOTION OF GLOBAL WARMING COUNTERMEASURES ARE USED

<sup>3</sup> THE INVESTEE COMPANIES FOR WHICH THE COMPANY'S SHAREHOLDING RATIOS ARE 5 PERCENT OR ABOVE ARE COVERED

## Environment, Health & Safety Performance Data

Indicator or Metric	Units	Takeda Operations (FY 2018)	KPMG Verified	Shire Operations (Jan 2019 – Mar 2019)	Apex Companies LLC Verified	Total (FY 2018)
Total Energy Used	Tera Joules	7,469 <sup>1</sup> 	X	957	X	8,425
Scope 1 GHG Emissions	Metric Tonnes	157,958 <sup>2</sup>	X	37,100 <sup>3</sup>	X	195,058
Scope 2 GHG Emissions, Market Based	Metric Tonnes	163,883 <sup>4</sup>	X	24,500 <sup>5</sup>	X	188,333
Scope 2 GHG Emissions, Location Based	Metric Tonnes	204,125 <sup>6</sup>		29,500 <sup>7</sup>	X	233,625
Scope 3 GHG Emissions	Metric Tonnes	2,224,643	X	425,700 <sup>8</sup>		2,654,343
Fresh Water Used	Thousand Cubic Meters	4,938 <sup>9</sup>	X	1,082	X	6,020
Chemical Oxygen Demand (COD) Load	Metric Tonnes	19 <sup>10</sup> 	X	—		
Nitrous Oxides (NOx) Emissions	Metric Tonnes	148	X	11 <sup>11</sup>	X	159
Sulphur Oxides (SOx) Emissions	Metric Tonnes	3	X	<1 <sup>11</sup>	X	<4
Volatile Organic Compound (VOC) Emissions	Metric Tonnes	104.8	X	—		
Dust Emissions	Metric Tonnes	3				
Total Waste Generated	Metric Tonnes	36,588	X	7,449	X	44,355
Regulated Waste Generated	Metric Tonnes	25,922 <sup>12</sup>		2,553	X	28,521
Non-Regulated Waste Generated	Metric Tonnes	10,666 <sup>13</sup>		4,896	X	15,934
Total Waste Recycled	Percentage	83%		64%	X	78%
Total Occupational Injury Frequency Rate	Per Million Hours Worked	2.69	X	7.38	X	3.48
Lost Time Injury Frequency Rate	Per Million Hours Worked	0.76	X	1.00	X	0.80

THE SCOPE OF TAKEDA OPERATIONS IS AS FOLLOWS:

- FOR TOTAL ENERGY USED, SCOPE 1 AND SCOPE 2 MARKET, AND LOCATION-BASED GHG EMISSIONS, THE SCOPE OF TAKEDA OPERATIONS INCLUDES ALL MANUFACTURING AND R&D SITES (TAKEDA PHARMACEUTICAL COMPANY LIMITED INCLUDES ITS HEADQUARTER AND SALES OFFICE LOCATIONS). CONTRIBUTIONS FROM THE SHIRE ACQUISITION NOT INCLUDED.
- FOR ALL OTHER ENVIRONMENTAL PERFORMANCE INDICATORS THE SCOPE OF TAKEDA OPERATIONS INCLUDES ALL MANUFACTURING AND R&D SITES. CONTRIBUTIONS FROM OFFICE LOCATIONS AND THE SHIRE ACQUISITION ARE NOT INCLUDED.
- FOR SAFETY PERFORMANCE INDICATORS THE SCOPE OF TAKEDA OPERATIONS INCLUDES ALL MANUFACTURING, R&D, AND OFFICE SITES COVERING APPROXIMATELY 95 PERCENT OF ALL EMPLOYEES. CONTRIBUTIONS FROM THE SHIRE ACQUISITION NOT INCLUDED.

## Environment, Health & Safety Performance Data Footnotes

- <sup>1</sup> ENERGY FROM PURCHASED ELECTRICITY CONVERTED INTO PRIMARY ENERGY INPUT USING CONVERSION FACTORS FROM THE JAPAN "LAW CONCERNING THE RATIONAL USE OF ENERGY."
- <sup>2</sup> SCOPE 1 EMISSIONS ASSOCIATED WITH COMBUSTION OF FOSSIL FUELS CALCULATED USING EMISSIONS FACTORS FROM THE JAPAN "LAW CONCERNING THE RATIONAL USE OF ENERGY."
- <sup>3</sup> SCOPE 1 EMISSIONS ASSOCIATED WITH COMBUSTION OF FOSSIL FUELS CALCULATED USING EMISSIONS FACTORS FROM THE GREENHOUSE GAS PROTOCOL "CROSS-SECTOR TOOLS – STATIONARY COMBUSTION – (APRIL 2014)."
- <sup>4</sup> SCOPE 2 MARKET-BASED EMISSIONS CALCULATED USING AN EMISSION FACTOR FOR EACH ELECTRIC POWER PROVIDER IN JAPAN FOR FY2005 AND THE EMISSION FACTORS PROVIDED BY THE INTERNATIONAL ENERGY AGENCY (IEA) FOR ALL OTHER LOCATIONS.
- <sup>5</sup> SCOPE 2 MARKET-BASED EMISSIONS CALCULATED USING EMISSION FACTORS PUBLISHED IN THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY "EMISSIONS & GENERATION RESOURCE INTEGRATED DATABASE 2016" FOR UNITED STATES OPERATIONS; EUROPEAN ASSOCIATION OF ISSUING BODIES' "EUROPEAN RESIDUAL MIXES 2017" FOR EUROPEAN OPERATIONS; AND EMISSION FACTORS PROVIDED BY THE IEA FOR ALL OTHER LOCATIONS.
- <sup>6</sup> SCOPE 2 LOCATION-BASED EMISSIONS CALCULATED USING AN EMISSION FACTOR PROVIDED BY THE IEA FOR EACH COUNTRY.
- <sup>7</sup> SCOPE 2 LOCATION EMISSIONS CALCULATED USING EMISSION FACTORS PUBLISHED IN THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY "EMISSIONS & GENERATION RESOURCE INTEGRATED DATABASE 2016" FOR UNITED STATES OPERATIONS, AND EMISSION FACTORS PROVIDED BY THE IEA FOR ALL OTHER LOCATIONS.
- <sup>8</sup> SCOPE 3 EMISSIONS FOR JANUARY 2019 THROUGH MARCH 2019 ESTIMATED BASED ON CALCULATED SCOPE 3 EMISSIONS FOR CALENDAR YEAR 2018.
- <sup>9</sup> WATER USAGE DATA EXCLUDES WATER USED FOR NON-CONTACT COOLING PURPOSES.
- <sup>10</sup> COD EMISSION DATA REFLECTS COD LOADING ASSOCIATED WITH THE DIRECT DISCHARGE OF TAKEDA-TREATED WASTEWATER TO A RECEIVING WATERWAY.
- <sup>11</sup> NO<sub>x</sub> AND SO<sub>x</sub> EMISSIONS CALCULATED BASED ON FUEL CONSUMPTION AND EMISSION FACTORS FROM THE EPA PUBLICATION "COMPILATION OF AIR POLLUTANT EMISSION FACTORS, AP-42, FIFTH EDITION, VOLUME I: STATIONARY POINT AND AREA SOURCES."
- <sup>12</sup> WASTE GENERATED FROM JAPAN OPERATIONS AND CLASSIFIED AS INDUSTRIAL WASTE INCLUDED IN REGULATED WASTE TOTALS.
- <sup>13</sup> WASTE GENERATED FROM JAPAN OPERATIONS AND CLASSIFIED AS DOMESTIC WASTE INCLUDED IN NON-REGULATED WASTE TOTALS.

## United Nations Global Compact Advanced Level CoP Reference Table

Implementing the Ten Principles Into Strategies & Operations	
UNGC Principle	Report Links
Criterion 1: The Communication on Progress (CoP) describes mainstreaming into corporate functions and business units	<b>APPROACH</b> <a href="#">CEO Message</a> <a href="#">Corporate Philosophy</a> <a href="#">Global Scale and Scope — Our Strategic Roadmap</a> <a href="#">Governance</a>
Criterion 2: The CoP describes value chain implementation	<b>BUSINESS</b> <a href="#">Quality Management — Quality Strategy</a> <a href="#">Medical Ethics — Product Anticounterfeiting Measures</a> <a href="#">Supply Chain Management</a> <b>ENVIRONMENT</b> <a href="#">Climate Change — Working With Our Partners to Curb Climate Change</a>
Robust Human Rights Management Policies & Procedures	
UNGC Principle	Report Links
Criterion 3: The CoP describes robust commitments, strategies or policies in the area of human rights	<b>APPROACH</b> <a href="#">Materiality</a> <b>BUSINESS</b> <a href="#">Supply Chain Management — Supplier Code of Conduct, Ethical Sourcing and Supplier Risk Management Governance</a>
Criterion 4: The CoP describes effective management systems to integrate the human rights principles	<b>APPROACH</b> <a href="#">Governance</a> <b>BUSINESS</b> <a href="#">Supply Chain Management — Human Rights in the Supply Chain</a>
Criterion 5: The CoP describes effective monitoring and evaluation mechanisms of human rights integration	<b>BUSINESS</b> <a href="#">Supply Chain Management — Ethical Sourcing and Supplier Risk Management Governance — Ethical Sourcing &amp; Supplier Risk Management KPIs, Supplier Due Diligence and Sustainability Engagement, Supplier Sustainability KPIs (EcoVadis)</a>
Robust Labour Management Policies & Procedures	
UNGC Principle	Report Links
Criterion 6: The CoP describes robust commitments, strategies or policies in the area of labour	<b>WORKPLACE</b> <a href="#">A Brighter Future Through a Better Workplace — Overview</a> <a href="#">Diversity and Inclusion</a> <a href="#">Occupational Health and Safety</a> <b>BUSINESS</b> <a href="#">Supply Chain Management — Supplier Code of Conduct, Industry Collaboration: PSCI</a>
Criterion 7: The CoP describes effective management systems to integrate the labour principles	<b>WORKPLACE</b> <a href="#">Occupational Health and Safety — Safe Takeda, Manufacturing Safety Initiatives</a> <b>BUSINESS</b> <a href="#">Ethics and Compliance</a>
Criterion 8: The CoP describes effective monitoring and evaluation mechanisms of labour principles integration	<b>WORKPLACE</b> <a href="#">Occupational Health and Safety — Safe Takeda</a> <b>BUSINESS</b> <a href="#">Supply Chain Management — Ethical Sourcing and Supplier Risk Management, Ethical Sourcing &amp; Supplier Risk Management KPIs, Supplier Sustainability KPIs (EcoVadis)</a>

## United Nations Global Compact (continued)

Robust Environmental Management Policies & Procedures	
UNGC Principle	Report Links
Criterion 9: The CoP describes robust commitments, strategies or policies in the area of environmental stewardship	<p><b>ENVIRONMENT</b>  <a href="#">Overview</a>            Environmental Management — <a href="#">Environmental Protection Investments</a>, <a href="#">Working Greener Climate Change — Strategy and Performance</a></p> <p><b>BUSINESS</b>  <a href="#">Supply Chain Management — Supplier Code of Conduct</a></p>
Criterion 10: The CoP describes effective management systems to integrate the environmental principles	<p><b>ENVIRONMENT</b>            Environmental Management — <a href="#">Goals and Progress — Environmental Reduction Goals</a>            Climate Change — <a href="#">Governance, Responding to Climate Risks, Managing Greenhouse Gas Emissions From Our Operations, Working With Our Partners to Curb Climate Change</a></p>
Criterion 11: The CoP describes effective monitoring and evaluation mechanisms for environmental stewardship	<p><b>ENVIRONMENT</b>            Environmental Management — <a href="#">Centralized EHS Auditing</a>  <a href="#">Environmental Impacts Beyond Emissions</a></p> <p><b>BUSINESS</b>            Supply Chain Management — <a href="#">Supplier Due Diligence and Sustainability Engagement, Supplier Sustainability KPIs (EcoVadis)</a></p>
Robust Anti-Corruption Management Policies & Procedures	
UNGC Principle	Report Links
Criterion 12: The CoP describes robust commitments, strategies or policies in the area of anti-corruption	<p><b>BUSINESS</b>  <a href="#">Ethics and Compliance</a>  <a href="#">Medical Ethics</a>  <a href="#">Supply Chain Management — Supplier Code of Conduct</a></p> <p><b>HEALTH</b>            Access to Medicines — Innovative Partnership Framework: the Blueprint for Innovative Access to Strengthen Healthcare Systems Across the Whole Patient Journey</p>
Criterion 13: The CoP describes effective management systems to integrate the anti-corruption principle	<p><b>BUSINESS</b>  <a href="#">Ethics and Compliance</a>  <a href="#">Medical Ethics</a>  <a href="#">Supply Chain Management — Supplier Due Diligence and Sustainability Engagement</a></p>
Criterion 14: The CoP describes effective monitoring and evaluation mechanisms for the integration of anti-corruption	<p><b>BUSINESS</b>            Supply Chain Management — <a href="#">Supplier Due Diligence and Sustainability Engagement, Supplier Sustainability KPIs (EcoVadis)</a></p>



## United Nations Global Compact (continued)

Taking Action in Support of Broader UN Goals and Issues	
UNGC Principle	Report Links
Criterion 15: The CoP describes core business contributions to UN goals and issues	<p><b>APPROACH</b>  <a href="#">Our Approach to Sustainable Value – How We Integrate ESG to Generate Sustainable Value</a>  <a href="#">Materiality</a></p> <p><b>HEALTH</b>  <a href="#">(entire section)</a></p> <p><b>WORKPLACE</b>  <a href="#">Diversity and Inclusion</a>  <a href="#">Occupational Health and Safety</a></p> <p><b>ENVIRONMENT</b>  <a href="#">Climate Change</a>  <a href="#">Environmental Impacts Beyond Emissions</a></p> <p><b>BUSINESS</b>  <a href="#">Ethics and Compliance</a></p>
Criterion 16: The CoP describes strategic social investments and philanthropy	<p><b>APPROACH</b>  <a href="#">Our Approach to Sustainable Value</a></p> <p><b>HEALTH</b>  <a href="#">Access to Medicines</a>  <a href="#">Global CSR Program and Partnerships</a></p>
Criterion 17: The CoP describes advocacy and public policy engagement	<p><b>APPROACH</b>  <a href="#">Our Approach to Sustainable Value</a></p> <p><b>HEALTH</b>  <a href="#">Global CSR Program and Partnerships</a></p>
Criterion 18: The CoP describes partnerships and collective action	<p><b>APPROACH</b>  <a href="#">Strategic Engagement</a></p> <p><b>HEALTH</b>  <a href="#">Global CSR Program and Partnerships</a></p>
Corporate Sustainability Governance and Leadership	
UNGC Principle	Report Links
Criterion 19: The CoP describes CEO commitment and leadership	<p><b>APPROACH</b>  <a href="#">CEO Message</a></p>
Criterion 20: The CoP describes Board adoption and oversight	<p><b>APPROACH</b>  <a href="#">Global Scale and Scope – Our Strategic Roadmap</a>  <a href="#">Governance</a></p> <p><b>BUSINESS</b>  <a href="#">Corporate Governance</a></p>
Criterion 21: The CoP describes stakeholder engagement	<p><b>APPROACH</b>  <a href="#">Evaluation of Social Value – Methodology</a>  <a href="#">Materiality</a>  <a href="#">Strategic Engagement</a></p>

## GRI Standards Reference Table

Disclosure Number	Description	2019 Reference/Response
<b>GRI 102: General Disclosures</b>		
<b>Organizational Profile</b>		
102-1	Name of the organization	Takeda Pharmaceutical Company Limited
102-2	Activities, brands, products, and services	<b>APPROACH</b> Our Products and Brands 2019 Annual Securities Report pages 8-18
102-3	Location of headquarters	Tokyo, Japan
102-4	Location of operations	<b>APPROACH</b> Global Scale and Scope 2019 Annual Securities Report pages 8-11
102-5	Ownership and legal form	2019 Annual Securities Report page 137
102-6	Markets served	We have presence in approximately 80 countries, with leading positions in Japan and the U.S.
102-7	Scale of the organization	<b>APPROACH</b> Global Scale and Scope 2019 Annual Securities Report pages 2-12
102-8	Information on employees and other workers	<b>APPROACH</b> Global Scale and Scope <b>WORKFORCE</b> Global Talent Management 2019 Annual Securities Report page 12
102-9	Supply chain	<b>BUSINESS</b> Supply Chain Management
102-10	Significant changes to the organization and its supply chain	2019 Annual Securities Report page 13
102-11	Precautionary Principle or approach	Takeda does not follow the precautionary approach, but has a comprehensive risk management plan in place.
102-12	External initiatives	<b>APPROACH</b> Our Approach to Sustainable Value – ESG Disclosure and Transparency Strategic Engagement <b>HEALTH</b> Access to Medicines – Sustainable and Targeted Partnerships Global CSR Program and Partnerships <b>ENVIRONMENT</b> Climate Change <b>BUSINESS</b> Supply Chain Management – Industry Collaboration: PSCI
102-13	Membership of associations	We work with biopharmaceutical industry groups in many countries in which we operate, including, but not limited to European Federation of Pharmaceutical Industries and Associations (EFPIA), Global Pharmaceutical Manufacturing Leadership Forum (GPMLF), International Federation of Pharmaceutical Manufacturers & Associates (IFPMA), International Society for Pharmaceutical Engineering (ISPE), Parenteral Drug Association (PDA), Pharmaceutical Research and Manufacturers of America (PhRMA), and the Pharmaceutical Supply Chain Initiative (PSCI).
<b>Strategy</b>		
102-14	Statement from senior decision-maker	<b>APPROACH</b> CEO Message

## GRI Standards Reference Table (continued)

Disclosure Number	Description	2019 Reference/Response
<b>Ethics and Integrity</b>		
102-16	Values, principles, standards, and norms of behavior	<b>APPROACH</b> Corporate Philosophy  <b>BUSINESS</b> Ethics and Compliance
102-17	Mechanisms for advice and concerns about ethics	<b>BUSINESS</b> Ethics and Compliance  The Takeda Ethics Line is available online and by phone to all employees around the world, 24 hours a day. Employees can contact the Takeda Ethics Line, which is available in 18 languages, and ask a question or voice a concern.  Takeda Code of Conduct — pages 36-37
<b>Governance</b>		
102-18	Governance structure	<b>BUSINESS</b> Corporate Governance
102-19	Delegating authority	<b>BUSINESS</b> Corporate Governance
102-21	Consulting stakeholders on economic, environmental, and social topics	<b>APPROACH</b> Strategic Engagement
102-22	Composition of the highest governance body and its committees	<b>BUSINESS</b> Corporate Governance  Executive Leadership: <a href="https://www.takeda.com/who-we-are/company-information/executive-leadership/">https://www.takeda.com/who-we-are/company-information/executive-leadership/</a>  Annual Securities Report pages 98, 103-110
102-23	Chair of the highest governance body	Executive Leadership: <a href="https://www.takeda.com/who-we-are/company-information/executive-leadership/">https://www.takeda.com/who-we-are/company-information/executive-leadership/</a>  Annual Securities Report pages 98, 103
102-24	Nominating and selecting the highest governance body	Annual Securities Report page 98
102-25	Conflicts of interest	Annual Securities Report page 113
102-26	Role of highest governance body in setting purpose, values, and strategy	<b>APPROACH</b> Governance
102-28	Evaluating the highest governance body's performance	Annual Securities Report page 101
102-29	Identifying and managing economic, environmental, and social impacts	<b>APPROACH</b> Governance
102-30	Effectiveness of risk management processes	Annual Securities Report page 98
102-31	Review of economic, environmental, and social topics	Annual Securities Report page 98
102-35	Remuneration policies	<b>BUSINESS</b> Director Compensation, Annual Securities Report page 118
102-36	Process for determining remuneration	Annual Securities Report pages 116-118
102-37	Stakeholders' involvement in remuneration	Annual Securities Report pages 116-118
<b>Stakeholder Engagement</b>		
102-40	List of stakeholder groups	<b>APPROACH</b> Our Approach to Sustainable Value  Strategic Engagement
102-41	Collective bargaining agreements	Annual Securities Report page 12
102-42	Identifying and selecting stakeholders	<b>APPROACH</b> Strategic Engagement

## GRI Standards Reference Table (continued)

Disclosure Number	Description	2019 Reference/Response
102-43	Approach to stakeholder engagement	<b>APPROACH</b> Strategic Engagement
102-44	Key topics and concerns raised	<b>APPROACH</b> Materiality
<b>Reporting Practice</b>		
102-45	Entities included in the consolidated financial statements	Annual Securities Report pages 8-11
102-46	Defining report content and topic Boundaries	About This Report
102-47	List of material topics	<b>APPROACH</b> Materiality
102-48	Restatements of information	Due to divestments, past Environment data has been restated: CO <sub>2</sub> Emissions, Volume of Fresh Water Used and Discharged, Trends in Waste Generation, Discharge and Final Disposal, NOx and SOx Emissions
102-49	Changes in reporting	About This Report
102-50	Reporting period	The reporting period covers Fiscal 2018 (April 1, 2018 to March 31, 2019).
102-51	Date of most recent report	Issue Date: October 2018
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	<a href="mailto:sustainablevalue@takeda.com">sustainablevalue@takeda.com</a>
102-54	Claims of reporting in accordance with the GRI Standards	Core Option
102-55	GRI content index	<b>APPENDIX</b> GRI Standards Reference Table
102-56	External assurance	<b>APPENDIX</b> Independent Assurance
<b>GRI 200: Economic</b>		
<b>GRI 203: Indirect Economic Impacts</b>		
103-1	Explanation of the material topic and its Boundary	<b>HEALTH</b> Access to Medicines
103-2	The management approach and its components	<b>HEALTH</b> Access to Medicines
103-3	Evaluation of the management approach	<b>HEALTH</b> Access to Medicines
203-1	Infrastructure investments and services supported	<b>HEALTH</b> Access to Medicines
203-2	Significant indirect economic impacts	<b>HEALTH</b> Access to Medicines, Global CSR Program and Partnerships
<b>GRI 205: Anti-corruption</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Ethics and Compliance
103-2	The management approach and its components	<b>BUSINESS</b> Ethics and Compliance

## GRI Standards Reference Table (continued)

Disclosure Number	Description	2019 Reference/Response								
103-3	Evaluation of the management approach	<b>BUSINESS</b> Ethics and Compliance								
205-2	Communication and training about anti-corruption policies and procedures	<b>BUSINESS</b> Ethics and Compliance								
<b>GRI 300: Environmental</b>										
<b>GRI 302: Energy</b>										
103-1	Explanation of the material topic and its Boundary	<b>ENVIRONMENT</b> Environmental Management – Goals and Progress  Climate Change								
103-2	The management approach and its components	<b>ENVIRONMENT</b> Environmental Management – Goals and Progress  Climate Change								
103-3	Evaluation of the management approach	<b>ENVIRONMENT</b> Environmental Management – Goals and Progress  Climate Change								
302-1	Energy consumption within the organization	<table border="1"> <thead> <tr> <th></th> <th>Mwh from renewable sources</th> <th>Mwh from nonrenewable sources</th> <th>Total Mwh</th> </tr> </thead> <tbody> <tr> <td>Total energy consumption</td> <td>42,887</td> <td>1,320,764</td> <td>1,363,651</td> </tr> </tbody> </table> <p>Excludes Shire plc.</p>		Mwh from renewable sources	Mwh from nonrenewable sources	Total Mwh	Total energy consumption	42,887	1,320,764	1,363,651
	Mwh from renewable sources	Mwh from nonrenewable sources	Total Mwh							
Total energy consumption	42,887	1,320,764	1,363,651							
<b>GRI 305: Emissions</b>										
103-1	Explanation of the material topic and its Boundary	<b>ENVIRONMENT</b> Climate Change								
103-2	The management approach and its components	<b>ENVIRONMENT</b> Climate Change								
103-3	Evaluation of the management approach	<b>ENVIRONMENT</b> Climate Change								
305-1	Direct (Scope 1) GHG emissions	<b>ENVIRONMENT</b> Climate Change – Managing Greenhouse Gas Emissions From Our Operations - FY2018 CO <sub>2</sub> Emission Summary								
305-2	Energy indirect (Scope 2) GHG emissions	<b>ENVIRONMENT</b> Climate Change – Managing Greenhouse Gas Emissions From Our Operations – FY2018 CO <sub>2</sub> Emission Summary								
305-3	Other indirect (Scope 3) GHG emissions	<b>ENVIRONMENT</b> Climate Change – Managing Greenhouse Gas Emissions From Our Operations – FY2018 CO <sub>2</sub> Emission FY2018 Summary, Working With Our Partners to Curb Climate Change – FY2018 Takeda Scope 3 Emissions								
305-5	Reduction of GHG emissions	<b>ENVIRONMENT</b> Climate Change – Strategy and Performance – CO <sub>2</sub> Emissions								
<b>GRI 307: Environmental Compliance</b>										
103-1	Explanation of the material topic and its Boundary	<b>ENVIRONMENT</b> Environmental Management								
103-2	The management approach and its components	<b>ENVIRONMENT</b> Environmental Management								
103-3	Evaluation of the management approach	<b>ENVIRONMENT</b> Environmental Management								
307-1	Non-compliance with environmental laws and regulations	No incidences of non-compliance with environmental laws and regulations to report.								

## GRI Standards Reference Table (continued)

Disclosure Number	Description	2019 Reference/Response
<b>GRI 308: Supplier Environmental Assessment</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Supply Chain Management
103-2	The management approach and its components	<b>BUSINESS</b> Supply Chain Management
103-3	Evaluation of the management approach	<b>BUSINESS</b> Supply Chain Management
308-2	Negative environmental impacts in the supply chain and actions taken	<b>BUSINESS</b> Supply Chain Management — Supplier Due Diligence and Sustainability Engagement
<b>GRI 400: Social</b>		
<b>GRI 403: Occupational Health and Safety</b>		
103-1	Explanation of the material topic and its Boundary	<b>WORKPLACE</b> Occupational Health and Safety
103-2	The management approach and its components	<b>WORKPLACE</b> Occupational Health and Safety
103-3	Evaluation of the management approach	<b>WORKPLACE</b> Occupational Health and Safety
403-1	Occupational health and safety management system	<b>WORKPLACE</b> Occupational Health and Safety — Safe Takeda
403-2	Hazard identification, risk assessment, and incident investigation	<b>WORKPLACE</b> Occupational Health and Safety — Safe Takeda, Manufacturing Safety Initiatives
403-3	Occupational health services	<b>WORKPLACE</b> Occupational Health and Safety — Safe Takeda, Manufacturing Safety Initiatives
403-4	Worker participation, consultation, and communication on occupational health and safety	We ensure the participation and consultation of our employees, employee representatives, and partners, where appropriate, when developing and improving our processes.
403-5	Worker training on occupational health and safety	<b>WORKPLACE</b> Occupational Health and Safety — Safe Takeda, Manufacturing Safety Initiatives
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<b>WORKPLACE</b> Occupational Health and Safety — Safe Takeda, Manufacturing Safety Initiatives
403-9	Work-related injuries	<b>WORKPLACE</b> Occupational Health and Safety — Safe Takeda — Safe Takeda Performance

## GRI Standards Reference Table (continued)

Disclosure Number	Description	2019 Reference/Response
<b>GRI 404: Training and Education</b>		
103-1	Explanation of the material topic and its Boundary	<b>WORKPLACE</b> Global Talent Management
103-2	The management approach and its components	<b>WORKPLACE</b> Global Talent Management
103-3	Evaluation of the management approach	<b>WORKPLACE</b> Global Talent Management
404-2	Percentage of employees receiving regular performance and career development reviews	<b>WORKPLACE</b> Regular performance reviews are given to 92 percent of Takeda employees.
<b>GRI 408: Child Labor</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
103-2	The management approach and its components	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
103-3	Evaluation of the management approach	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
408-1	Operations and suppliers at significant risk for incidents of child labor	In markets where we have identified the potential for supply chain risks related to human rights, we use a number of enhanced assessment approaches. In FY2018, these assessments did not identify modern slavery risks in the form of forced or child labor, human trafficking, slavery, or servitude.
<b>GRI 409: Forced or Compulsory Labor</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
103-2	The management approach and its components	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
103-3	Evaluation of the management approach	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	In markets where we have identified the potential for supply chain risks related to human rights, we use a number of enhanced assessment approaches. In FY2018, these assessments did not identify modern slavery risks in the form of forced or child labor, human trafficking, slavery, or servitude.
<b>GRI 412: Human Rights Assessment</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
103-2	The management approach and its components	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
103-3	Evaluation of the management approach	<b>BUSINESS</b> Supply Chain Management — Human Rights in the Supply Chain
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	<b>BUSINESS</b> Supply Chain Management — Ethical Sourcing & Supplier Risk Management KPIs, Supplier Code of Conduct
<b>GRI 413: Local Communities</b>		
103-1	Explanation of the material topic and its Boundary	<b>APPROACH</b> Our Approach to Sustainable Value
103-2	The management approach and its components	<b>APPROACH</b> Our Approach to Sustainable Value
103-3	Evaluation of the management approach	<b>APPROACH</b> Our Approach to Sustainable Value
413-1	Operations with local community engagement, impact assessments, and development programs	<b>APPENDIX</b> Disaster Relief

## GRI Standards Reference Table (continued)

Disclosure Number	Description	2019 Reference/Response
<b>GRI 414: Supplier Social Assessment</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Supply Chain Management
103-2	The management approach and its components	<b>BUSINESS</b> Supply Chain Management
103-3	Evaluation of the management approach	<b>BUSINESS</b> Supply Chain Management
414-1	New suppliers that were screened using social criteria	<b>BUSINESS</b> Supply Chain Management — Supplier Code of Conduct, Supplier Due Diligence and Sustainability Engagement
<b>GRI 416: Customer Health and Safety</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Quality Management — Product Quality and Safety
103-2	The management approach and its components	<b>BUSINESS</b> Quality Management — Product Quality and Safety
103-3	Evaluation of the management approach	<b>BUSINESS</b> Quality Management — Product Quality and Safety
416-1	Assessment of the health and safety impacts of product and service categories	<b>BUSINESS</b> Quality Management — Product Quality and Safety
<b>GRI 419: Socioeconomic Compliance</b>		
103-1	Explanation of the material topic and its Boundary	<b>BUSINESS</b> Ethics and Compliance Medical Ethics
103-2	The management approach and its components	<b>BUSINESS</b> Ethics and Compliance Medical Ethics
103-3	Evaluation of the management approach	<b>BUSINESS</b> Ethics and Compliance Medical Ethics
419-1	Non-compliance with laws and regulations in the social and economic area	There are no fines or nonmonetary sanctions for noncompliance to report.



## Independent Assurance



### Independent Assurance Report

To the President and CEO of Takeda Pharmaceutical Company Limited

We were engaged by Takeda Pharmaceutical Company Limited (the “Company”) to undertake a limited assurance engagement of the environmental and social performance indicators marked with  (the “Indicators”) for the period from April 1, 2018 to March 31, 2019 included in its 2019 Sustainable Value Report (the “Report”) for the fiscal year ended March 31, 2019.

#### The Company’s Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the “Company’s reporting criteria”), as described in the Report.

#### Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with ‘International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information’, ‘ISAE 3410, Assurance Engagements on Greenhouse Gas Statements’, issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company’s responsible personnel to obtain an understanding of its policy for preparing of the Report and reviewing the Company’s reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company’s reporting criteria, and recalculating the Indicators.
- Visiting the Grange Castle site of Takeda Ireland Limited selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

#### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company’s reporting criteria as described in the Report.

#### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.

Tokyo, Japan

November 11, 2019

## Independent Assurance (continued)

### INDEPENDENT ASSURANCE STATEMENT



#### Introduction and objectives of work

Apex Companies, LLC (Apex) was engaged to conduct an independent assurance of environmental, health and safety (EHS) data to be reported by Shire plc, now part of Takeda Pharmaceutical Company Ltd. for the first quarter of calendar year 2019 (January 1 through March 31, 2019). This Assurance Statement applies to the related information included within the scope of work described below.

#### Scope of work

The scope of our work was limited to assurance over the following EHS Data included within Takeda's Annual Sustainability Report ('the Report') for the first quarter of calendar year of 2019 (the 'Selected Information'):

- Air Emissions (NO<sub>x</sub> and SO<sub>x</sub> emissions from stationary equipment);
- Energy (consumption and renewable energy);
- Greenhouse Gas Emissions (Scope 1 emissions and Scope 2 emissions);
- Water consumption;
- Waste generation and disposition;
- Reportable Spills and Releases; and
- Health & Safety data.

#### Reporting Criteria

The Selected Information needs to be read and understood together with the Global Reporting Initiative (GRI) Standards and the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard used by Shire as the basis of their reporting.

#### Limitations and Exclusions

Excluded from the scope of our work is any assurance of information relating to:

- Data outside the defined assurance period, the first quarter of calendar year of 2019.
- Any financial data (e.g., revenues) previously audited by an external third party.

#### Responsibilities

The preparation and presentation of the Selected Information in the Report are the sole responsibility of the management of Shire.

Apex was not involved in the determination of the Selected Information. Our responsibilities were to:

- obtain limited assurance about whether the Selected Information has been prepared in accordance with the Reporting Criteria;
- form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- report our conclusions to Shire's management.

## Independent Assurance (continued)

### Assessment Standard

We performed our work in accordance with International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after December 15, 2015), issued by the International Auditing and Assurance Standards Board.

### Summary of work performed

As part of Apex's limited assurance, Apex undertook the following activities:

1. Assessing the appropriateness of the Reporting Criteria for the Selected Information;
2. Conducting interviews with relevant Shire personnel responsible for collecting and reporting EHS performance data. These interviews included discussions with staff members responsible for contributing data within the scope of this assurance;
3. Reviewing the data collection and consolidation processes used to compile Selected Information, including assessing assumptions made, and the data scope and reporting boundaries;
4. Reviewing documentary evidence produced by Shire to support EHS data within the scope of this assurance;
5. Comparing a selection of the Selected Information to the corresponding source documentation;
6. Reviewing Shire data and information systems used for collection, aggregation, analysis and review of the Selected Information;
7. Assessing the disclosure and presentation of the Selected Information to ensure consistency with assured information; and
8. Conducting other verification activities including:
  - a. conducting remote review of data from manufacturing sites located in Lexington, Massachusetts, USA; Los Angeles, California, USA; and Lessines, Belgium;
  - b. reperforming a selection of aggregation calculations of the Selected Information;
  - c. reperforming greenhouse gas emissions conversions and calculations;
  - d. comparing the Selected Information to the prior year amounts taking into consideration changes in business activities, acquisitions and divestitures; and
  - e. evaluating the design of internal systems, processes and controls to collect and report the Selected Information.

### Conclusion

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the Selected Information is not fairly stated in all material respects;
- It is our opinion that Shire has established appropriate systems for the collection, aggregation and quantitative analysis of EHS data within the scope of this assurance.

A summary of the Selected Information within the scope of this assurance is attached.

### **Statement of Independence, Integrity and Competence**

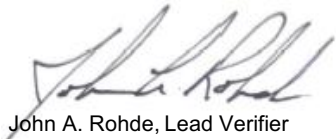
Apex is an independent professional services company that specialises in environmental, health, safety and social accountability with over 30 years history. Its assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

## Independent Assurance (continued)

No member of the assurance team has a business relationship with Shire, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.

The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has over 20 years combined experience in this field and an excellent understanding of Apex's standard methodology for the verification of environmental, social, ethical and health and safety information, systems, processes and data.



John A. Rohde, Lead Verifier  
Practice Line Leader  
Sustainability and Climate Change Services  
Health, Safety and Environmental Services



Trevor A. Donaghu, Technical Reviewer  
Principal Sustainability Consultant  
Sustainability and Climate Change Services  
Health, Safety and Environmental Services



**Apex Companies, LLC**  
Lakewood, Colorado  
November 5, 2019

## Legal Disclaimers

For the purposes of this notice, “report” means this document, any oral presentation, any question and answer session and any written or oral material discussed or distributed by Takeda Pharmaceutical Company Limited (“Takeda”) regarding this report. This report (including any oral briefing and any question-and-answer in connection with it) is not intended to, and does not constitute, represent or form part of any offer, invitation or solicitation of any offer to purchase, otherwise acquire, subscribe for, exchange, sell or otherwise dispose of, any securities or the solicitation of any vote or approval in any jurisdiction. No shares or other securities are being offered to the public by means of this report. No offering of securities shall be made in the United States except pursuant to registration under the U.S. Securities Act of 1933, as amended, or an exemption therefrom. This report is being given (together with any further information which may be provided to the recipient) on the condition that it is for use by the recipient for information purposes only (and not for the evaluation of any investment, acquisition, disposal or any other transaction). Any failure to comply with these restrictions may constitute a violation of applicable securities laws.

The companies in which Takeda directly and indirectly owns investments are separate entities. In this report, “Takeda” is sometimes used for convenience where references are made to Takeda and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies.

Takeda product names used herein are trademarks or registered trademarks of Takeda Pharmaceutical Company Limited or its affiliates.

### Forward-Looking Statements

This report and any materials distributed in connection with this report may contain forward-looking statements, beliefs or opinions regarding Takeda’s future business, future position and results of operations, including estimates, forecasts, targets and plans for Takeda. Without limitation, forward-looking statements often include words such as “targets”, “plans”, “believes”, “hopes”, “continues”, “expects”, “aims”, “intends”, “ensures”, “will”, “may”, “should”, “would”, “could” “anticipates”, “estimates”, “projects” or similar expressions or the negative thereof. Forward-looking statements in this document are based on Takeda’s estimates and assumptions only as of the date hereof. Such forward-looking statements do not represent any guarantee by Takeda or its management of future performance and involve known and unknown risks, uncertainties and other factors, including but not limited to: the economic circumstances surrounding Takeda’s global business, including general economic conditions in Japan and the United States; competitive pressures and developments; changes to applicable laws and regulations; the success of or failure of product development programs; decisions of regulatory authorities and the timing thereof; fluctuations in interest and currency exchange rates; claims or concerns regarding the safety or efficacy of marketed products or product candidates; the timing and impact of post-merger integration efforts with acquired companies; and the ability to divest assets that are not core to Takeda’s operations and the timing of any such divestment(s), any of which may cause Takeda’s actual results, performance, achievements or financial position to be materially different from any future results, performance, achievements or financial position expressed or implied by such forward-looking statements. For more information on these and other factors which may affect Takeda’s results, performance, achievements, or financial position, see “Item 3. Key Information—D. Risk Factors” in Takeda’s most recent Annual Report on Form 20-F and Takeda’s other reports filed with the U.S. Securities and Exchange Commission, available on Takeda’s website at: <https://www.takeda.com/investors/reports/sec-filings/> or at [www.sec.gov](http://www.sec.gov). Future results, performance, achievements or financial position of Takeda could differ materially from those expressed in or implied by the forward-looking statements. Persons receiving this report should not rely unduly on any forward-looking statements. Takeda undertakes no obligation to update any of the forward-looking statements contained in this report or any other forward-looking statements it may make, except as required by law or stock exchange rule. Past performance is not an indicator of future results and the results of Takeda in this report may not be indicative of, and are not an estimate, forecast or projection of Takeda’s future results.

### Medical information

This report contains information about products that may not be available in all countries, or may be available under different trademarks, for different indications, in different dosages, or in different strengths. Nothing contained herein should be considered a solicitation, promotion or advertisement for any prescription drugs including the ones under development.

### Financial information

Takeda’s financial statements are prepared in accordance with International Financial Reporting Standards (“IFRS”).

The revenue of Shire plc (“Shire”), which were presently, presented in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”), have been conformed to IFRS, without material difference.

The Shire acquisition closed on January 8, 2019, and our consolidated results for the fiscal year ended March 31, 2019 include Shire’s results from January 8, 2019 to March 31, 2019. References to “Legacy Takeda” businesses are to our businesses held prior to our acquisition of Shire. References to “Legacy Shire” businesses are to those businesses acquired through the Shire acquisition.

This report includes certain pro forma information giving effect to the Shire acquisition as if it had occurred on April 1, 2018. This pro forma information has not been prepared in accordance with Article 11 of Regulation S-X. This pro forma information is presented for illustrative purposes and is based on certain assumptions and judgments based on information available to us as of the date hereof, which may not necessarily have been applicable if the Shire acquisition had actually happened as of April 1, 2018. Moreover, this pro forma information gives effect to certain transactions and other events which are not directly attributable to the Shire acquisition and/or which happened subsequently to the Shire acquisition, such as divestitures and the effects of the purchase price allocation for the Shire acquisition, and therefore may not accurately reflect the effect on our financial condition and results of operations if the Shire acquisition had actually been completed on April 1, 2018. Therefore, undue reliance should not be placed on the pro forma information included herein.



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