

Environmental, Social and Governance (ESG) Index

We welcome more interest from investors concerned with ESG topics and do our best to report comprehensively and transparently on our progress and objectives. To make things easier for ESG analysts sifting through our information, we have created the Novartis ESG Index to signpost where our key disclosures – content and KPIs – can be found across our publications and channels.

We plan to update this document regularly, as we publish new ESG information.

Statement from the CEO

“Building trust with society is fundamental to the success of our company in the long run. The better we do in this area, the better we will perform, getting our medicines to more people and having more impact around the globe.”

Vas Narasimhan, Chief Executive Officer, Novartis

Environmental	
Emissions, effluents and waste	
Environmental policy, strategy and governance	
Environmental policy	<ul style="list-style-type: none"> • Health, Safety and Environment Policy
Environmental management systems (EMS)	<ul style="list-style-type: none"> • Managerial and board-level responsibility for environmental issues: <ul style="list-style-type: none"> – Health, Safety and Environment Policy – CDP Climate 2019 (p.6) – CDP Water 2019 (p.23) • Identification of products, activities and services that have significant impacts on the environment: Health, Safety and Environment Policy • Compliance with environmental regulation: Health, Safety and Environment Policy • Objectives, targets and deadlines: 2025-2030 environmental targets • Environmental programs: <ul style="list-style-type: none"> – Climate – Water – Waste – CDP Climate 2019 – CDP Water 2019 • Roles and responsibilities: <ul style="list-style-type: none"> – Health, Safety and Environment Policy – CDP Climate 2019 (p.6) – CDP Water 2019 (p.23)

	<ul style="list-style-type: none"> • Training and awareness programs for employees: Health, Safety and Environment Policy • Internal and external communications on environmental management issues: <ul style="list-style-type: none"> – Health, Safety and Environment Policy – CDP Climate 2019 – CDP Water 2019 • Monitoring and measurement: <ul style="list-style-type: none"> – Novartis Health, Safety and Environment (HSE) Data 2019 – Novartis in Society 2019 (p.54) • Environmental performance records: Novartis Health, Safety and Environment (HSE) Data 2019 • External/Internal environmental audits: <ul style="list-style-type: none"> – Health, Safety and Environment Policy – Novartis HSE maintains a robust audit program comprising assessment of compliance with external legal standards and company internal HSE standards. The audit program also conducts themed reviews comprised of specific topics (e.g. process safety, industrial hygiene, contractor safety, etc.) based on the periodic need of the business. All Novartis sites are risk assessed to determine the audit frequency. The frequency varies between 2-5 years based on the risk assessment, prior audit results, emerging regulations and overall operational changes. In general, all manufacturing and laboratory sites are audited every 2-3 years for regulatory compliance and internal conformance. • Corrective actions to stimulate continual improvement: Health, Safety and Environment Policy
EMS certification	<ul style="list-style-type: none"> • Health, Safety and Environment Policy
Hazardous waste management	<ul style="list-style-type: none"> • Commitment to reducing hazardous waste • Monitoring and measurement
Air emissions	<ul style="list-style-type: none"> • Identification of relevant air emissions: Novartis Health, Safety and Environment (HSE) Data 2019 • Details of initiatives to reduce air emissions: <ul style="list-style-type: none"> – Novartis in Society 2019 (p.47-49) – CDP Climate 2019 • Monitoring and measurement: Novartis Health, Safety and Environment (HSE) Data 2019
GHG reduction programs	<ul style="list-style-type: none"> • Policy commitment to reduce GHG emissions: Climate • Managerial responsibility for GHG emissions: CDP Climate 2019 (p.6) • Initiatives to reduce GHG emissions: <ul style="list-style-type: none"> – Novartis carbon-sink forestry projects – Novartis in Society 2019 (p.47-49) – CDP Climate 2019 • GHG reduction targets and deadlines: 2025-2030 environmental targets

	<ul style="list-style-type: none"> • GHG emissions monitoring and measurement: <ul style="list-style-type: none"> – Novartis Health, Safety and Environment (HSE) Data 2019 – Novartis in Society 2019 (p.54) • Regular GHG audits or verification: CDP Climate 2019
Renewable energy programs and use of cleaner energy sources	<ul style="list-style-type: none"> • Current programs: <ul style="list-style-type: none"> – CDP Climate 2019 – Climate – Novartis in Society 2019 (p.47-49) • Targets and deadlines: <ul style="list-style-type: none"> – 2025-2030 environmental targets – Novartis Health, Safety and Environment (HSE) Data 2019 – Novartis in Society 2019 (p.54)
Green procurement policy and programs to reduce toxic release footprint associated with the supply chain	<ul style="list-style-type: none"> • Supplier programs (compliance): Novartis in Society 2019 (p.15) • Supplier programs (beyond compliance): Novartis in Society 2019 (p.43-45) • Policy addresses process and product-related requirements: <ul style="list-style-type: none"> – Novartis Third Party Code • Details and extent of supplier environmental screening and audits (p.64) • Responsible Supply Chain Management • Novartis in Society 2019 (p.15-16)
CDP participation	<ul style="list-style-type: none"> • CDP Climate 2019 • CDP Water 2019
Environmental performance and disclosures	
Greenhouse gas emissions (Scope 1, 2, and 3)	<ul style="list-style-type: none"> • Data (including historical data): <ul style="list-style-type: none"> – Novartis Health, Safety and Environment (HSE) Data 2019 – CDP Climate 2019 • Trends: Novartis Health, Safety and Environment (HSE) Data 2019 • Progress against targets (including track record of achieving previous targets): <ul style="list-style-type: none"> – Novartis in Society 2019 (p.47-49) – CDP Climate 2019 – Novartis Health, Safety and Environment (HSE) Data 2019 • Intensity: Novartis Health, Safety and Environment (HSE) Data 2019 • 3 year average intensity: Novartis Health, Safety and Environment (HSE) Data 2019 • Average annual % change: Novartis Health, Safety and Environment (HSE) Data 2019

Renewable energy usage	<ul style="list-style-type: none"> • Data (including historical data): <ul style="list-style-type: none"> – Novartis Health, Safety and Environment (HSE) Data 2019 – CDP Climate 2019
	<ul style="list-style-type: none"> • Trends: Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> • Progress against targets (including track record of achieving previous targets): <ul style="list-style-type: none"> – Novartis in Society 2019 (p.47-49) – CDP Climate 2019 – Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> • Average annual % change: Novartis Health, Safety and Environment (HSE) Data 2019
Waste targets (hazardous, non-hazardous waste)	<ul style="list-style-type: none"> • Data (including historical data): <ul style="list-style-type: none"> – Novartis Health, Safety and Environment (HSE) Data 2019 – CDP Climate 2019
	<ul style="list-style-type: none"> • Trends: Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> • Progress against targets (including track record of achieving previous targets): <ul style="list-style-type: none"> – Novartis in Society 2019 (p.46) – CDP Climate 2019 – Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> • Average annual % change: Novartis Health, Safety and Environment (HSE) Data 2019
Air emissions (SOx, NOx, VOC, Ozone depleting substances)	<ul style="list-style-type: none"> • Data (including historical data): <ul style="list-style-type: none"> – Novartis Health, Safety and Environment (HSE) Data 2019 – CDP Climate 2019
	<ul style="list-style-type: none"> • Trends: Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> • Progress against targets (including track record of achieving previous targets): <ul style="list-style-type: none"> – CDP Climate 2019 – Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> • Average annual % change: Novartis Health, Safety and Environment (HSE) Data 2019

Social

Product Governance and Product Quality and Safety

Product/service safety and quality policy, strategy and governance

Product/service safety and quality policy and program

- Policy commitment to help ensure product/service safety & quality:
 - [Novartis quality commitment](#)
 - [Code of Conduct](#)
 - [Novartis in Society 2019 \(p.40-42\)](#)
- Details of managerial responsibility for product/service safety & quality:
 - The Novartis Quality Manual describes the Novartis Quality Organization and Quality Management System including management responsibilities. Each Function/Local Quality Unit Head is responsible for ensuring compliance with the requirements listed in the Quality Manual. The Novartis Quality Organization (led by the Head of Global Quality who reports functionally to the CEO and operationally to the Global Head of Novartis Technical Operations, a member of the Novartis Executive Committee of Novartis) is an independent function that is responsible for the development, implementation and maintenance of the Novartis Quality Management System. It consists of a formal organization, as well as advisory and decision-making bodies and is responsible for both Quality Assurance and Quality Control throughout Novartis.
- Product/service safety risk management procedures:
 - [Risk management](#)
 - [Responsible Supply Chain Management](#)
 - Throughout the lifecycle of our medicines, we work to help ensure the best balance of benefit and risk by having a variety of systems and processes in place for a continuous and systematic review of the data collected for all products in our portfolio, including those on the market and those that are still in development. The Novartis safety risk management process begins early in the development of new products. Safety management teams develop safety monitoring and risk management plans for each product when it enters development. These plans are regularly updated as new safety information for a product becomes available. High-impact safety- and product-related risks are addressed for recommendation and advice to the Portfolio Stewardship Board (PSB). The PSB is a standing, cross-functional senior executive board that is chaired by the Head Chief Medical Office and Patient Safety Organization supported by the Head Portfolio Stewardship. Its decisions and recommendations are made independently of any business/financial considerations, with the intent to put patient safety first.



	<ul style="list-style-type: none">• Regularly tested emergency response procedures to help ensure product/service quality/safety: Business continuity<ul style="list-style-type: none">– Novartis operates in a highly regulated industry: Throughout the product lifecycle, all our operations require a cGxP certificate issued by the relevant health authorities, with a robust Quality Management System in place.– Novartis Emergency Management (NEM) procedures are established to ensure a quick, safe and coordinated response to emergencies across the Novartis Group. This compulsory, uniform system sets internal reporting and decision-making structures and procedures.– NEM is an integral element of Business Continuity Management (BCM). Trainings, including simulation trainings, are performed to develop and maintain emergency management skills, and an understanding of tools and processes.– Performance on NEM and BCM is reported quarterly and trainings are performed on a regular basis.
	<ul style="list-style-type: none">• Incident investigation and corrective action procedures:<ul style="list-style-type: none">– Responsible Supply Chain Management– Reporting side effects– Novartis in Society 2019 (p.40)
	<ul style="list-style-type: none">• Monitoring of product/service safety performance:<ul style="list-style-type: none">– Code of Conduct– Novartis in Society 2019 (p.40-42)
	<ul style="list-style-type: none">• Product/service objectives or targets<ul style="list-style-type: none">– Each product is tested with approved and validated analytical testing procedures before being released on the market and has registered specification limits approved by health authorities.– We have established the following indicators to measure our product quality and safety:<ul style="list-style-type: none">○ Number of ICSR (Individual Case Safety Report) reporting○ Number of HA (Health Authority) inspections without critical findings○ Audit performance○ Number of initiated recalls○ Number of regulatory warnings:<ul style="list-style-type: none">▪ Warning letters▪ FDA inspections with Form 483



	<ul style="list-style-type: none">• Regular external product/service safety audits (see below): Risk management<ul style="list-style-type: none">– We maintain a robust quality system with harmonized processes and procedures. These include providing integrated medical safety evaluations and benefit-risk assessments as well as monitoring the quality and safety of in-market and investigational products. This quality system is compliant with regulatory requirements and standards. Further, we are regularly subject to health authority inspections, which additionally ensure regulatory compliance and the highest product quality at our manufacturing sites.– 177 inspections were completed in 2019, and all but six were deemed good or acceptable (96.6%). The slight increase from 2018 is due to new acquisitions and increased inspections focused on our clinical activities. In each case, corrective and preventative actions (accepted by the local health authority) were taken to improve our systems in product quality, patient safety, clinical trial monitoring and manufacturing compliance.– Novartis also performs internal audits. The Novartis Quality Audit program conducts over 1 000 audits per year covering internal and external functions and sites. Audit reports are compiled, reviewed and approved, and corrective action plans set. Audits are closed upon successful completion of all corrective actions.– In 2019, acceptable audit outcomes for internal sites amounted to 97% (99% in 2018; 98% in 2017).• Public reporting on product/service safety issues:<ul style="list-style-type: none">– Novartis in Society 2019 (p.35;40)
Safety and quality in manufacturing and handling	
Extent and scope of product quality and safety testing and monitoring	<ul style="list-style-type: none">• Details on whether testing is done in-house (in-house is best practice):<ul style="list-style-type: none">– Global Drug Development– Novartis Clinical Trials– Investigator-Initiated Trials– Animals & Research– Novartis in Society 2019 (p.42)
Extent and scope of product quality and safety audits	<ul style="list-style-type: none">• Scope and frequency of audit program, and further details of internal and external audits<ul style="list-style-type: none">– The quality audit program is governed by global procedures covering internal and external sites across the product lifecycle. The scope of each audit is dependent upon the type of operations conducted. Audit frequency is based on activities performed and applicable risk assessments. The Novartis Quality Audit program executes over 1 000 audits per year covering internal and external functions.

<p>Extent and scope of product quality and safety training for employees</p>	<ul style="list-style-type: none"> • Proportion of employees trained: Learning and development <ul style="list-style-type: none"> – All internal and third-party personnel are required to take mandatory Safety and Quality (cGxP) trainings before executing a GxP relevant task. – Throughout the product lifecycle, all our operations require a cGxP certificate issued by the relevant health authorities, with a robust Quality Management System in place that incorporates all the relevant legal requirements and associated standards, including ISO. Against this background, regulators require we are able to prove that our employees are qualified, through education, training or experience, to perform any assigned task which has an impact on product quality or patient safety. – We have a very robust quality and safety training process (initial and continuous training) for our associates and we are regularly audited on our training procedures. Examples of topics covered in initial training for all employees include: Product Quality Reporting (adverse events), Information Management and Responsible Record Keeping, Novartis Group Quality Management Escalation, GxP on-boarding and HSE. – All associates in Novartis Technical Operations complete their initial role-specific training to ensure they can safely and compliantly perform their tasks, prior to performing them independently. All Novartis employees in Manufacturing and Quality Assurance are continuously trained to maintain the skills and knowledge needed to manufacture medicine safely, compliantly and effectively. These trainings include: Aseptic Operator, Enhanced Third-party Oversight, Investigation Certification Program and Quality Management Systems.
<p>Proportion of company facilities that have received external QMS or product safety/quality certification (e.g. ISO 9001, HACCP, or equivalent)</p>	<ul style="list-style-type: none"> • Proportion of own sites that are certified to relevant standard: Novartis in Society 2019 (p.41) <ul style="list-style-type: none"> – For the manufacture of medical devices, we hold the relevant certifications from ISO and other notified bodies. For all manufacturing, supply and distribution of Novartis pharmaceutical products, we hold the relevant manufacturing licenses and GMP/GxP certificates issued by the appropriate health authorities (FDA, EMEA, WHO, SwissMedic), that confirm after inspection that our duties, including our quality management systems, comply with their regulatory requirements.
<p>Responsible sales, promotion and marketing of products</p>	
<p>Policy for responsible sales, promotion and marketing</p>	<ul style="list-style-type: none"> • Novartis Professional Practices Policy

<p>Scope and depth of employee training on responsible marketing, promotion and interactions with healthcare professionals</p>	<ul style="list-style-type: none"> • Scope of training: <ul style="list-style-type: none"> – Novartis trains all new employees and new contractors on relevant policy topics ensuring compliance with ethical standards. E-trainings target associates with an email address. All remaining associates are required to be trained face-to-face or through shared kiosks. The Professional Practices Policy (P3) global mandatory compliance e-training course was launched in 2018. The P3 training (held every two years) had a 2018 completion rate of 99% (target was 95%). – In addition, in-depth training is available on a variety of topics related to responsible marketing, promotion and interactions with healthcare professionals, including promotional and non-promotional materials; events and professional meetings; external funding; engagement with healthcare professionals and healthcare organizations; interactions with patients and patient organizations; and market research. • Depth of training: <ul style="list-style-type: none"> – In-depth interactive scenario-based e-trainings are assigned to associates involved in sales, promotion and marketing activities based on functional/local needs and requirements. These trainings are also available face-to-face in classroom settings. – The objectives of the trainings are to: <ul style="list-style-type: none"> ○ Understand the purpose, content and specific global requirements of the P3 guidelines ○ Learn how to apply the underlying P3 principles for principles-based thinking ○ Overall duration: 1-2 hours
<p>Audit and control procedures on responsible marketing</p>	<ul style="list-style-type: none"> • Scope and depth of control procedures and frequency of audits: Novartis in Society 2019 (p.17) • Novartis has established a comprehensive compliance framework (P3), which addresses promotional and non-promotional materials; events; professional meetings; medical utility and cultural acknowledgements; external funding; HCP and HCO engagements; interactions with patients and patient organizations; and market research. • To ensure processes are implemented, Novartis has established a comprehensive monitoring and audit framework, which comprises three types of activities: <ul style="list-style-type: none"> ○ Local commercial country organizations make a compliance self-risk assessment vs. the established P3 compliance framework using the Risk Assessment & Monitoring tool, which highlights risk areas requiring further attention. ○ A central independent worldwide compliance monitoring team has been established in January 2020 and will conduct 70+ country monitoring reviews (Ethics, Risk & Compliance audits) in selected units in 2020. This team partners with local businesses to assess how effectively the Novartis compliance framework guides our associates. Each review is concluded with a report and agreed remediation actions. Remediation actions are defined to address identified gaps, and a dedicated Remediation Team has been established in February 2020 to strengthen follow-up.

	<ul style="list-style-type: none"> ○ Novartis has also established a comprehensive third-party risk management program, which among other risk areas, addresses anti-bribery risks. Once a third party is on-boarded, it can be subject to anti-bribery audits conducted by Novartis or an external audit company. • Further, Internal Audit, which is part of the Novartis Business Advisory & Audit function, performs 70+ audits spread over 6 blocks per year, including in-market audits and functional audits. In 2020, out of the 70+ audits, Internal Audit will complete 30+ in-market audits specifically on Sales, Marketing and Distribution, including ethical marketing. In 2019, 24 in-market audits on Sales, Marketing and Distribution, including ethical marketing, were completed. • Final audit reports are shared with members of the Executive Committee of Novartis (ECN) and other Novartis stakeholders. All high and medium observations from audits are reported, and they are rated based on their impact on the local, cross-divisional or group level. • The Audit and Compliance Committee (ACC) from the Board of Directors receives a summary of these reports every quarter. “Needs Major Improvement” (i.e. serious breaches or major deviations from regulations or policies putting the organization at risk) and “Leading” (i.e. effective and efficient controls, showing a continuous improvement cycle) reports are submitted to the ECN and the ACC.
Alignment with external guidelines on responsible marketing	<ul style="list-style-type: none"> • The Novartis P3 policy reflects several industry codes such as the Code of Practice of the International Federation of Pharmaceutical Manufacturers & Associations and the Ethical Criteria for Medicinal Drug Promotion established by the World Health Organization.
Supply chain and sourcing	
Scope of supplier qualification and training	<ul style="list-style-type: none"> • In accordance with health authority requirements and expectations, all third parties with whom Novartis does business, and who provide goods or services that fall within scope of GxP, including Good Manufacturing Practice (GMP) or Good Distribution Practice (GDP), undergo a formal and rigorous assessment, qualification and monitoring process. This includes initial and periodic audits of facilities and quality management processes, with over 1 000 audits of GMP third parties, both direct and indirect, performed each year. The clear definitions, specific expectations, requirements, obligations and responsibilities are established through the Novartis Third Party Code and quality agreements specific to the type of product or service provided. • All third parties providing materials or products manufactured to GMP are required by regulation to have their own Quality Assurance department and a formal training process. Novartis routinely assesses the capability and effectiveness of third-party training programs during audit, to confirm suitability for the provided service or product. Where transfer of product or technology occurs from Novartis to a third party, full knowledge transfer and associated technical skills training (e.g., quality-critical parameters, process steps) are provided by Novartis. The extent of training provided varies according to the complexity and risk of the associated product and process technology. For highly

	complex technologies, for example involving personalized medicine, Novartis uses a robust multi-step process with specialized training.
Membership of external bodies	<ul style="list-style-type: none"> Name of membership organization(s) and formality of involvement: Novartis in Society 2019 (p.63)
Trial data transparency	<i>Please refer to the business ethics section</i>
Product quality and safety performance	
Product recalls	<ul style="list-style-type: none"> Class I (severe), Class II (moderate) & Class III (minor) and details: <ul style="list-style-type: none"> Novartis statements Novartis Annual Report 2019 (p.57) In 2019, Novartis initiated 29 recalls (vs. 42 in 2018 and 47 in 2017); 27 of the initiated recalls only had a local impact. Out of these 29 recalls, Novartis initiated 2 global recalls, both for generic products: One for Ranitidine in 27 countries due to contamination with traces of N-Nitrosodimethylamine (NDMA) and one for Amoxicilline/Potassium Clavulanate powder for oral suspension in 18 countries, a precautionary recall due to sealing defects of a very small number of bottles.
Regulatory warnings	<ul style="list-style-type: none"> Number and details <ul style="list-style-type: none"> 177 inspections were completed in 2019, and all but six were deemed acceptable (96.6%). The slight increase from 2018 is due to new acquisitions and increased inspection focus on our clinical activities. In each case, corrective and preventative actions (accepted by the local health authority) were taken to improve our systems in product quality, patient safety, clinical trial monitoring and manufacturing compliance. Out of the 177 inspections, Novartis received 19 FDA inspections for which 10 resulted in a Form 483. In each case, corrective and preventative actions were taken. In 2018, Novartis received 18 FDA inspections, eight with Form 483. In 2017, Novartis received 30 FDA inspections, 14 with form 483. No warning letter was issued by the FDA in 2019 or 2018. FDA Form 483s: Novartis statements
Access to Healthcare	
Access to medicine program and access strategy	
Formal policy promoting access to medicine	<ul style="list-style-type: none"> Alignment with Novartis overall corporate strategy: <ul style="list-style-type: none"> Novartis position on access to medicines Novartis in Society 2019 (p.7;9-10) Alignment with national/international health priorities: Novartis in Society 2019 (p.11;20-38) Senior management or board responsibility for access to medicine: <ul style="list-style-type: none"> Novartis in Society 2019 (p.9-10) Novartis Annual Report 2019 (p.180)

	<ul style="list-style-type: none"> • CSR or other committee oversight of access to medicine: Novartis in Society 2019 (p.9-10) • Quantitative targets or qualitative objectives to enhancing access to medicine: Targets and results • Monitoring on progress of access initiatives: Novartis in Society 2019 (p.21;52) • Reporting on progress of access initiatives: <ul style="list-style-type: none"> – Expanding access to healthcare – Novartis in Society 2019 (p.20-38) • Participation in credible industry initiatives to enhance access to medicine: Novartis in Society 2019 (p.63)
Extent of access to healthcare strategy in Ems/developing Countries	<ul style="list-style-type: none"> • Presence in emerging markets via direct operations or majority-owned subsidiaries: <ul style="list-style-type: none"> – US Securities & Exchange Commission Form 20-F 2019 (p.F89-F90) – Novartis in Society 2019 (p.24-26) – Novartis Social Business
	<ul style="list-style-type: none"> • Plans to expand to emerging markets/developing countries: <ul style="list-style-type: none"> – Targets and results – Novartis in Society 2019 (p.24-26)
Company's disclosure of its Access to Healthcare-related lobbying activities	<ul style="list-style-type: none"> • Explicit support for generics competition: <ul style="list-style-type: none"> – Sandoz is a division of the Novartis Group and a global leader in generic pharmaceuticals and biosimilars. – Novartis Position on Competitive Off-Patent Markets • Explicit/general support of the TRIPS agreement: Novartis Position on Intellectual Property
Capacity advancement initiatives in developing countries	<ul style="list-style-type: none"> • Novartis in Society 2019 (p.28-31;33-36) • Expanding access to healthcare • Novartis Social Business
Value-based healthcare program	
Value-based healthcare policy	<ul style="list-style-type: none"> • Policy commitment to value-based approach: Novartis position on value-based healthcare • Managerial responsibility for value-based programs <ul style="list-style-type: none"> – The Executive Committee of Novartis reviews access strategies for all launches, including value-based programs, in the Innovative Medicines Division before their implementation. • Implementation of value-based initiatives: Novartis in Society 2019 (p.22-23) • Reporting on value-based outcome: Novartis in Society 2019 (p.22-23)

Drug/product donations policy and program	
Strategic long-term drug donation program	<ul style="list-style-type: none"> • Details of charity partnerships: <ul style="list-style-type: none"> – Donations – Novartis in Society 2019 (p.27-28) • Disaster relief approach: <ul style="list-style-type: none"> – Donation programs for disaster relief – Novartis in Society 2019 (p.27-28;31)
Drug donation policy	<ul style="list-style-type: none"> • Formal policy <ul style="list-style-type: none"> – Novartis has a policy and a clearly defined process for ad-hoc donations aimed at emergency relief efforts, which comply with the WHO Checklist and the requirements set forth in the WHO Guidelines for Medicine Donations.
Scope of product donations in developing countries	<ul style="list-style-type: none"> • Number (and details) of long-term drug donations programs: <ul style="list-style-type: none"> – Donations – Novartis in Society 2019 (p.27-28;31;52)
Value of drug donations	<ul style="list-style-type: none"> • Total amount: Novartis in Society 2019 (p.52)
Equitable pricing and availability	
Equitable pricing and availability policy	<ul style="list-style-type: none"> • Equitable pricing policy for developing countries: Novartis position on access to medicines • Commitment to register products in LIC(s): Novartis Access R&D principle • Defined criteria for selecting a country for equitable pricing: Novartis in Society 2019 (p.22) • Price strategy for developed markets: Novartis in Society 2019 (p.22)
Pricing transparency in developed and developing markets	<ul style="list-style-type: none"> • Novartis discloses the total year-over-year gross and net price changes across the US product portfolio: Novartis in Society US Report 2019 (p.9-10) • For the US, the manufacturer list price (Wholesaler Acquisition Cost) is published in the Red Book, and updated every year, including annual price increases. For other countries, if reimbursed, the list price is published in the official gazette, as well as on the authority/agency's website (e.g. G-BA in Germany, AIFA in Italy, and NICE in the England).
Approach to tiered pricing	<ul style="list-style-type: none"> • Inter-country tiered pricing in LICs and LMICs based on affordability: <ul style="list-style-type: none"> – Novartis in Society 2019 (p.22;24-25) – Access to Medicine report 2018 (p.139) • Intra-country tiered pricing in LICs and LMICs based on affordability: <ul style="list-style-type: none"> – Novartis in Society 2019 (p.22;24-25) – Access to Medicine report 2018 (p.139)
Products covered by equitable pricing policies	<ul style="list-style-type: none"> • Number of products: <ul style="list-style-type: none"> – Novartis in Society 2019 (p.24) – Access to Medicine report 2018 (p.139)

	<ul style="list-style-type: none"> Proportion of products for diseases in scope: <ul style="list-style-type: none"> Novartis in Society 2019 (p.24) Access to Medicine report 2018 (p.139)
Intellectual Property access	
Policy on enforcing patents in LICs, LDCs, and non-LICs	<ul style="list-style-type: none"> Policy not to file for or enforce patents in LICs or LDCs: <ul style="list-style-type: none"> Patents and Licensing Novartis Position on Intellectual Property Policy not to file for or enforce patents in some non-LICs: Patents and Licensing
Engagements in non-exclusive voluntary licensing (including those with quality checks)	<ul style="list-style-type: none"> Number of products with non-exclusive voluntary licensing: <ul style="list-style-type: none"> Patents and Licensing Novartis Position on Intellectual Property
	<ul style="list-style-type: none"> Number of non-exclusive voluntary licenses with (pre-manufacturing) quality checks: <ul style="list-style-type: none"> Patents and Licensing Novartis Position on Intellectual Property
Neglected diseases and orphan drugs R&D	
Novartis' approach to R&D neglected diseases	<ul style="list-style-type: none"> Direct and indirect initiatives: Novartis in Society 2019 (p.21-22;32-38) Membership of groups/consortiums on R&D and neglected disease research: Novartis in Society 2019 (p.63)
Extent of products in neglected disease areas / orphan drugs	<ul style="list-style-type: none"> Number of disease areas where Novartis has products: Novartis in Society 2019 (p.21-22;32-38)
Extent of ongoing R&D into orphan drugs and neglected diseases	<ul style="list-style-type: none"> Number of disease areas where Novartis is undertaking R&D: Novartis in Society 2019 (p.21-22;32-38)
Human Capital	
Employee training and development	
Employee development policy	<ul style="list-style-type: none"> Learning and development
Initiatives for talent development, recruitment and retention	<ul style="list-style-type: none"> Formal talent pipeline development strategy (forecasts hiring needs, actively develops new pools of talent): Annual Review 2019 (p.18-20) <ul style="list-style-type: none"> Our talent strategy aims to anticipate future business priorities, and we have adopted comprehensive succession planning and development programs at various levels to help ensure we have the right capabilities to execute on our business strategy. For our succession planning process, we include all Executive Leadership and senior management roles and include successors at various levels of readiness, typically down through middle management. There is a full-review with the CEO/ Chief People & Organization Officer annually. Summary succession plans, and talent metrics are captured/reported to the Board of Directors annually.

- The Executive Committee (ECN) has a standing “Talking Talent” topic on their monthly meeting during which all key open positions and key talents are being reviewed and discussed.
 - In partnership with the business, finance, strategy and People & Organization (P&O), we have identified more than 50 key roles across the Enterprise and more than 150 in our respective business areas, which will unlock significant future value for Novartis. We have built our capacity to design the roles and support talent to help ensure that we realize this value. Circa 30 associates were trained on the methodology with plans to increase to 90 in 2020. We aspire to have 0-days vacancy time in these roles. Therefore, the target is for 90% of these value roles to have at least 1 internal successor fully ready to take on the role and for 70% of these value roles to have 2 internal successors fully ready. Finally, we encourage continuous talent scouting externally, as well as targeted development for potential internal successors, to help ensure a healthy pipeline for these roles. At the end of 2019, 98% of these value roles were occupied, 65% of them had strong succession plans and 59% low retention risk.
 - Our talent and leadership development approach is grounded in our beliefs on 21st century leadership principles and is informed by external evidence into what factors influence performance for knowledge workers. Leaders are critical for driving culture change, and this means developing strong and self-aware managers who act in an inspired, curious, and unbossed way. In other words, they set clear priorities, empower their teams, and encourage employees to speak their mind and take smart risks.
 - At Novartis, we have three leadership development journeys to help enable leadership excellence at different stages and two talent development programs to develop the succession pipeline with early and emerging talent. In total more than 3900 leaders took part in one of our leadership and talent development journeys in 2019 to be prepared to transition to a new career stage and build sustainable performance in role.
- Partnering with educational institutions to develop or deliver joint training programs for staff:
 - [Learning and development](#)
 - [Novartis in Society 2019 \(p.44\)](#)
 - [Novartis Annual Review 2019 \(p.19\)](#)
 - Job-specific development training programs: [Novartis Annual Review 2019 \(p.19\)](#)
 - Dedicated divisional and functional training teams offer job-specific programs to all permanent employees and part-time employees. Engagement-specific trainings are also offered to contractors.
 - Global Oncology launched the OUTSMART program to strengthen the skills of marketing teams. Marketers have access to knowledge and best practices from more than 1 200 employees in 68 countries, enabling them to be at the forefront of marketing innovation.



	<ul style="list-style-type: none">• Following a guideline issued by the International Council for Harmonisation (November 2019) describing the estimand framework national regulatory agencies should adopt, Novartis launched a face-to-face training program in 2020. The program fosters cross-functional dialogue among clinicians, statisticians and regulatory affairs specialists to translate clinical trial objectives into scientific questions in order to improve the quality of clinical trial submissions.• Global Drug Development launched a three-level training program focused on the implementation of Patient Reported Outcomes (PROs) in our clinical development programs. PROs enable us to collect information directly from patients, hence measuring the impact of therapies on symptoms, health status and quality of life. To date, 436 associates are enrolled in fundamental level training and 60 associates have completed the intermediate level training.• Global Drug Development also launched a program on designing effective clinical study protocols with more than 77% of clinical development scientists describing it as highly beneficial to their roles, teaching them “Lean” principles they can apply to trial design and clinical protocols.• Sandoz, our generics division, launched the Medical Office Knowledge Academy to provide scientific updates to all new medical employees. To date, more than 1 000 employees have been trained virtually.• Sandoz also launched the Accelerate Biopharma Capabilities program to build understanding of biologics and biosimilars, underlying diseases and treatment options, and support clinical decision making. To date more than 280 medical employees and 650 sales representatives and key account managers in 90 countries have taken this first ever cross-functional biopharma training.• Novartis Business Services launched the Coach2Blue program to develop coaching skills and instill Unbossed leadership. To date, approximately 1 000 managers completed the program with over 90% improvement across skills, coaching, adaptability and performance on the job.• Onboarding is a key element of employee retention. Each year, Novartis on-boards approximately 17 000 associates. In order to make the onboarding process efficient, streamlined across global locations and seamless between the Novartis functions that deliver it, we are currently building a technology enabled end-to-end Hire-to-Onboard service, which is launching in 2020.
Scope and extent of performance reviews	<ul style="list-style-type: none">• Regular performance appraisals and feedback processes for all permanent employees aligned with career development: Novartis Annual Review 2019 (p.18)<ul style="list-style-type: none">– Novartis has employed a global approach to performance management which encompasses objective setting, a mid-year check-in and an end-year review with a formal rating of each individual employee’s performance.

	<ul style="list-style-type: none"> - In 2019, to help ensure our people are inspired and unbossed, we made significant evolutionary changes to our Performance Management: Our crowdsourcing initiative Generate.Action conducted in early 2019 with participation of 30 000 employees showed that our associates see our current system is not enabling empowerment and inspired teams. In 2019, we moved toward real-time feedback and peer-to-peer appreciation and recognition. Employees are now encouraged to proactively schedule conversations with their managers to discuss strengths, receive feedback, focus on priority skills and secure support. - In pilot programs involving more than 16 000 employees in eight countries, we eliminated individual performance ratings, stressing instead the importance of teamwork and collaboration. Employees received regular feedback from peers as well as managers, and we increased the focus on coaching to improve performance. The experience we gained will inform how we extend the process across the company in the next two years.
<p>Scope and support for employee and contractor degree programs and certifications and traineeship / apprenticeship program</p>	<ul style="list-style-type: none"> • Programs covering all Novartis employees. We also make these available to part-time workers and contractors: <ul style="list-style-type: none"> - Learning and development - Career programs - Students & scholars - Novartis Quantitative Sciences Hackathon - AI innovation lab - Novartis in Society 2019 (p.29;44;46) - Novartis Annual Review 2019 (p.19)
<p>Disclosure of performance of employee training and development programs</p>	<ul style="list-style-type: none"> • Novartis in Society 2019 (p.44;53)
<p>Employee training and development metrics</p>	<ul style="list-style-type: none"> • Quantitative targets related to human capital development: <ul style="list-style-type: none"> - Novartis Annual Review 2019 (p.19) - Training and development targets • Reporting on human capital development metrics: Novartis in Society 2019 (p.53) • Our aspiration is for all employees to spend 100 hours a year on learning and personal development. Supporting an increase in learning hours in 2020 vs. 2019 to create time and space for employees to learn and grow is part of the annual objectives of each member of the Executive Committee of Novartis. This supports our employees in building skills to help them perform in their jobs today and to further develop their careers. In 2019, there was a 58% increase in learning hours to 35.8 hours per employee. During the COVID-19 pandemic, we extended our learning offerings to the families and

	friends of our employees (two additional Coursera licenses per employee) to foster a learning environment for the entire family.
External recognition as employer of choice	<ul style="list-style-type: none"> • Awards and Recognition • Novartis in Society 2019 (p.44;46)
Scope and extent of managerial development training	<ul style="list-style-type: none"> • Evidence of trainings: <ul style="list-style-type: none"> – Novartis Annual Review 2019 (p.18-20) – Novartis in Society 2019 (p.43-44) • In 2019, we continued our focus on building leadership capabilities: <ul style="list-style-type: none"> – More than 1 400 employees completed their Association for Talent Development award-winning Ready to Grow learning journey, which supports an associate's preparation or transition from an individual contributor to an associate who leads in some capacity. Building on the 2019 success, we will offer an additional 1 500 seats globally in 2020. – In 2019, more than 1 700 leaders in 25 countries completed M1 Lead the Way, a 9-month multiphase leadership journey that develops greater self-awareness and understanding of their impact on others while demonstrating and fostering Novartis values and leadership practice. The program will extend its reach to more than 1 600 leaders in 20 countries in 2020. – In 2019, 330 Novartis leaders completed IMPACT, a 17-week first-line leadership development program, which will be further scaled up to offer an additional 375 seats in 10 countries in 2020.
Formal mechanisms to promote an open feedback and development culture	<ul style="list-style-type: none"> • Our culture and values • People and culture • Novartis in Society 2019 (p.43-44)
Reporting on human capital risk assessment	<ul style="list-style-type: none"> • Novartis Annual Report 2019 (p.21)
Employee engagement and satisfaction	
Scope and frequency of employee survey	<ul style="list-style-type: none"> • Annual engagement surveys to monitor employee satisfaction: Novartis in Society 2019 (p.44) • Our employee engagement surveys are conducted quarterly and reviewed extensively by the ECN, the Risk Committee of the Board of Directors and by managers with their teams to define actions. Our current engagement score is at 80 points, which is 6 points above the global benchmark and 10 points above the pharma industry benchmark.
Procedures for grievance and escalation	<ul style="list-style-type: none"> • Formal grievance escalation/reporting (confidential): <ul style="list-style-type: none"> – Novartis in Society 2019 (p.17) – Handling complaints
Employee benefits	<ul style="list-style-type: none"> • Employee stock ownership plan (ESOP) or employee stock purchase plan (ESPP): Novartis Annual Report 2019 (p.F-70) • Non-salary benefits and work-life balance: Novartis in Society 2019 (p.44-45)



	<ul style="list-style-type: none"> - All Novartis associates (and or their families) are covered by a wide variety of benefits and flexible working arrangements. Benefits are locally competitive compared to benefits offered by other companies and in line with or exceeding statutory requirements. For example, around 85% of Novartis employees receive pension/ retirement scheme benefits in excess of statutory requirements; the corresponding figure for healthcare plans is 77% - Novartis is constantly reevaluating its benefit offerings adapting it to the diverse and changing needs of its employees, e.g.: <ul style="list-style-type: none"> o The Novartis healthcare plan in the US which includes cover for egg freezing and gender reassignment o The Chinese healthcare plan which allows employees to include their parents in the coverage - In 2019, we launched a number of key benefit initiatives: <ul style="list-style-type: none"> o A minimum of 14 weeks of paid parental leave regardless of gender. All associates are entitled to a minimum of 14 weeks of paid parental leave when they become a parent: Global Parental Leave Guideline o Global Financial Wellbeing: Global Financial Wellbeing (GFW) initiative supports our associates in confidently managing financial life today, while preparing for the future and anything unexpected along the way. Currently roughly 90% of our employees from ca. 40% of our countries have access to this offering with plans to expand access by the end of the year. o For mental wellbeing, we launched a mindfulness awareness campaign this year, offer facilitator guided meditation and train our own people to become trainers in the space. We also piloted an emotional well-being campaign in 2019 and trained 500 mental first aiders to teach them skills to respond to the signs of mental illness among their colleagues. - Benefits during global public health crisis: COVID-19
Employee Turnover Rate	<ul style="list-style-type: none"> • % of total employee turnover rate: Novartis in Society 2019 (p.53) <ul style="list-style-type: none"> - Retention of associates is a key focus area for Novartis. We benchmark turnover locally (2019 data source is Workforce Turnover Around the World). Voluntary Turnover (2019*) in key markets like US, Germany, India and Japan is significantly lower than the Industry and country turnover benchmark. • % of voluntary turnover: Novartis in Society 2019 (p.53)
Diversity and inclusion	
Managerial or board level responsibility for diversity initiatives	<ul style="list-style-type: none"> • Diversity & Inclusion strategy • Diversity & Inclusion Governance and Community • Novartis in Society 2019 (p.45) • Meet Elena Rodriguez, Global Head of Diversity & Inclusion at Novartis

	<ul style="list-style-type: none"> Executive Committee members have diversity aspirations as part of their individual strategic objectives. Diverse candidate slates and interview panels are required for senior positions and monitored as part of the monthly talent reviews at the executive level.
Promoting diversity learning within the workforce	<ul style="list-style-type: none"> Training and guidance regarding diversity: <ul style="list-style-type: none"> Unconscious bias training for recruiters currently in development with estimated launch and completion in Q4 2020. Annual, Novartis-wide mandatory Diversity & Inclusion training approved for development with planned global rollout in H1 2021. We offer inclusive leadership training to all associates through facilitated modules and self-paced learning materials. We train all new employees on the Diversity & Inclusion policy in our Novartis Code of Conduct as part of new-hire onboarding. Fostering inclusive behavior Novartis in Society 2019 (p.44-45) Employee affinity groups, diversity councils, or networking groups: <ul style="list-style-type: none"> Building internal communities Novartis in Society 2019 (p.46) Mentorship programs: Attracting and retaining diverse talent
Diversity and inclusion initiatives beyond legal compliance	<ul style="list-style-type: none"> Targeted recruitment: <ul style="list-style-type: none"> Nudging bias out of the organization Novartis in Society 2019 (p.53) Initiatives that support a diverse workforce: <ul style="list-style-type: none"> Diversity & Inclusion Pride @ Novartis 2019 Global parental leave guideline Novartis in Society 2019 (p.44-46) Novartis Equal Pay International Coalition (EPIC) pledge
Diversity monitoring and audits	<ul style="list-style-type: none"> Novartis in Society 2019 (p.53)
Commitment to inclusion	<ul style="list-style-type: none"> List of the types of discrimination the company is committed to eliminate: Human rights guideline (p.4) Commitment to help ensure equal opportunity: <ul style="list-style-type: none"> Novartis Equal Pay International Coalition (EPIC) pledge Pay equity and transparency Women's Empowerment Principles launched by the UNGC and the UN Development Fund for Women (UNIFEM)

	<ul style="list-style-type: none"> – United Nations’ workplace standards protecting the rights of lesbian, gay, bisexual, transgender and intersex people • Reference to the ILO conventions: Novartis in Society 2019 (p.63)
Employee representation	
Freedom of Association Policy	<ul style="list-style-type: none"> • Code of conduct and referral to the applicable conventions of the International Labor Association (ILO): <ul style="list-style-type: none"> – Code of Conduct – Human rights guideline (p.4) – Novartis Modern Slavery Statement (p.5)
Collective Bargaining Agreements	<ul style="list-style-type: none"> • % of Novartis employees represented by a trade union or covered by collective bargaining agreements (rating in bands of 25%): Novartis in Society 2019 (p.53) <ul style="list-style-type: none"> – At Novartis, more than 45% of our total non-management headcount are formally covered by a collective bargaining agreement and approx. 75% of employees are covered by formal employee consultation procedures and duties. – All employees are protected by written employment or similar contracts – All employees are covered by independent internal employee relations, counselors and resolutions. – Intensified social dialogue opportunities between senior (top) management and the Novartis European Works Council (NEF) – more than tripled in the year 2019 (11 face-to-face meetings) compared to (3) in 2015. – Awareness of associates towards their right to associate with trade unions or employee representatives reached 70% in 2019 • We engage in constructive dialogue with employees and employees’ representatives. In general, minimum notice periods regarding operational changes are defined by law, by collective bargaining agreements or by individual labor contracts in all countries. Where relevant, local legislation and collective bargaining agreement specifications on notice periods vary, ranging from 30 to 180 days and more. In general, Novartis Group company associates and their representatives are informed at the earliest possible time (usually between 30 and 180 days). In addition to regulations in collective bargaining agreements, social plans and balance of interests negotiated with employee representatives may allow longer pre-notice and notice periods, as well as severance pay, redeployment to other Novartis companies, outplacement services or transition assistance in compliance with the regulatory or bargaining agreement requirements. • More than 60% of Novartis Group company associates have access to an employee assistance program, i.e. Job Center support, which can include coaching, application training and social counselling. We also offer outplacement support to assist associates in their transition post-exit – the support we offer goes beyond the legally required minimum for more than a third of our workforce.

	<ul style="list-style-type: none"> Novartis has paused globally any new restructuring-related notifications between March 20 and April 30, 2020 due to COVID-19, and has communicated to employee representatives accordingly.
Health & safety	
Health & safety management	
Health & safety policy	<ul style="list-style-type: none"> Health, Safety and Environment Policy
Managerial responsibility for health & safety issues	<ul style="list-style-type: none"> Health, Safety and Environment Policy
Operating guidelines & procedures	<ul style="list-style-type: none"> Operating guidelines or procedures that are relevant for the industry: <ul style="list-style-type: none"> Codes, policies and guidelines Positions Occupational Health & Safety Data Supplement 2017
Scope and extent of employee training	<ul style="list-style-type: none"> Regular health and safety training programs: <ul style="list-style-type: none"> Health, Safety and Environment Policy Occupational Health & Safety Data Supplement 2017 (p.2;5;6)
Health & safety performance tracking	<ul style="list-style-type: none"> Performance monitoring and measurement: Novartis Health, Safety and Environment (HSE) Data 2019
	<ul style="list-style-type: none"> Internal or external health and safety audits conducted at least every three years <ul style="list-style-type: none"> Novartis HSE maintains a robust audit program comprising assessment of compliance with external legal standards and company internal HSE standards. The audit program also conducts themed reviews comprised of specific topics (e.g. process safety, industrial hygiene, contractor safety, etc.) based on the periodic need of the business. All Novartis sites are risk assessed to determine the audit frequency. The frequency varies between 2-5 years based on the risk assessment, prior audit results, emerging regulations and overall operational changes. In general, all manufacturing and laboratory sites are audited every 2-3 years for regulatory compliance and internal conformance.
<ul style="list-style-type: none"> Reporting on health and safety programs and performance: Novartis in Society 2019 (p.45-46) 	
Contractor health & safety	
Contractor health and safety legal documents (policy, operating guidelines & contractual agreement)	<ul style="list-style-type: none"> Policy commitment to protect the safety of contractors: <ul style="list-style-type: none"> Novartis Third Party Code
	<ul style="list-style-type: none"> Operating guidelines on contractor safety management: <ul style="list-style-type: none"> Health, Safety and Environment Policy Novartis Third Party Code Safe workplace Occupational Health & Safety Data Supplement 2017

	<ul style="list-style-type: none"> Compliance with safety guidelines included in contractual agreements: <ul style="list-style-type: none"> Health, Safety and Environment Policy Novartis Third Party Code Occupational Health & Safety Data Supplement 2017
Contractor selection & follow-up	<ul style="list-style-type: none"> Pre-screening of contractors for safety performance and risks: <ul style="list-style-type: none"> Responsible Supply Chain Management Novartis in Society 2019 (p.15-16) Reporting on contractor safety management: Occupational Health & Safety Data Supplement 2017
Scope and extent of contractor safety training	<ul style="list-style-type: none"> The management of HSE risks associated with the use of Contractors and Third parties is a key requirement established into the HSE Management Manual: Contractors and Third Party Personnel are in scope of our Serious Injury and Fatality prevention program, we have an operating guideline on contractor safety management which is included in contracts, contractors are selected and valued on their safety performance, etc. Our target is to fully embed contractor safety management standards across the Novartis group by the end of 2020, however we do not make our GOPs and Guidelines publicly available.
Contractor health & safety tracking	<ul style="list-style-type: none"> Objectives or targets regarding contractor safety: Occupational Health & Safety Data Supplement 2017 Monitoring of contractor safety performance: Occupational Health & Safety Data Supplement 2017 Disclosure of contractor fatalities for the past three years: <ul style="list-style-type: none"> 2019: 0 serious injury and 0 fatality 2018: 1 serious injury and 0 fatality 2017: 0 serious injury and 0 fatality Our SIF prevention program covers Novartis associates, Third party Personnel and Contractors. We publicly report the number of Serious Injury or Fatality cases in the CR Targets and Results report, however we do not disclose details on cases.
Health & safety KPIs	
Lost time incident rate (LTIR)	<ul style="list-style-type: none"> Reported for the past four years: Novartis Health, Safety and Environment (HSE) Data 2019
Employee fatality rate	<ul style="list-style-type: none"> Reported for the past three years: <ul style="list-style-type: none"> 2019: 0 serious injury and 1 fatality 2018: 2 serious injuries and 0 fatality 2017: 0 serious injury and 1 fatality Our SIF prevention program covers Novartis associates, Third party Personnel and Contractors. We publicly report the number of Serious Injury or Fatality cases in the CR Targets and Results report, however we do not disclose details on cases.



External certifications of own sites (e.g. OHSAS 18001)	<ul style="list-style-type: none">• Up-to-date information of % of group sites that have received external certification for their occupational health and safety management systems<ul style="list-style-type: none">– In 2019, 21 out of 49 NTO sites (42%) received external certification to either OHSAS 18001 or ISO 45001.
Targets to reduce health & safety incidents	<ul style="list-style-type: none">• Occupational Health & Safety Data Supplement 2017

Governance

Corporate Governance

Board structure

Board/management quality & integrity	<ul style="list-style-type: none"> • Board Experience: <ul style="list-style-type: none"> – Board of Directors – Novartis Annual Report 2019 (p.171) • Director Track Record: Board of Directors • Board Capture: Novartis Annual Report 2019 (p.184) • Votes Against Board: <ul style="list-style-type: none"> – Novartis shareholders approve all resolutions proposed by the Board of Directors at the Annual General Meeting – Novartis Annual Report 2019 (p.169) – 2019 AGM voting results • Responsiveness to Shareholders: <ul style="list-style-type: none"> – Novartis shareholders approve all resolutions proposed by the Board of Directors at the Annual General Meeting – Novartis Annual Report 2019 (p.168, 193) – Annual General Meeting of Shareholders • Related Party Transactions: Novartis Annual Report 2019 (p.F-72) • Director Ownership & Remuneration: Novartis Annual Report 2019 (p.A9;129; 157-160) • Executive/Board Misconduct: Novartis Annual Report 2019 (p.132) • Overboarded Directors: <ul style="list-style-type: none"> – Novartis Annual Report 2019 (p.183) – Board of Directors
Board effectiveness	<ul style="list-style-type: none"> • Board Leadership: <ul style="list-style-type: none"> – Board of Directors – Novartis Annual Report 2019 (p.183) • Board Tenure: Novartis Annual Report 2019 (p.171) • Board and Chair independence: Novartis Annual Report 2019 (p.170) • Nominating Committee Effectiveness: Novartis Annual Report 2019 (p.180) • Voting Structures: Novartis Annual Report 2019 (p.168-169) • Directors not Elected by Shareholders:

	<ul style="list-style-type: none"> – Novartis shareholders approve all resolutions proposed by the Board of Directors at the Annual General Meeting – 2019 AGM voting results • Risk Oversight: Novartis Annual Report 2019 (p.182; 185) • Risk Management Expertise on Board: Board of Directors • Female directors (no. and total): <ul style="list-style-type: none"> – Board of Directors – Novartis Annual Report 2019 (p.171) – Novartis in Society 2019 (p.53) • Number of Board Members over 70: <ul style="list-style-type: none"> – Board of Directors – Novartis Annual Report 2019 (p.171)
Board and executive remuneration	
Structure of remuneration	<ul style="list-style-type: none"> • STI Performance Metrics: Novartis Annual Report 2019 (p.134-156;157-162) • LTI Performance Metrics: Novartis Annual Report 2019 (p.134-156;157-162) • Pay Magnitude: Novartis Annual Report 2019 (p.134-156;157-162) • Pay for Performance: Novartis Annual Report 2019 (p.134-156;157-162) • Pay for Failure: Novartis Annual Report 2019 (p.134-156;157-162) • Pay linked to sustainability: Novartis Annual Report 2019 (p.134-156;157-162) • Clawback & Malus Policy or Provision: Novartis Annual Report 2019 (p.132)
Remuneration Committee	<ul style="list-style-type: none"> • Remuneration Committee Effectiveness: Novartis Annual Report 2019 (p.179) • Remuneration Committee Independence: Novartis Annual Report 2019 (p.161; 170)
	<ul style="list-style-type: none"> • Overboarded remuneration committee members <ul style="list-style-type: none"> – Board of Directors – Novartis Annual Report 2019 (p.183)
Disclosure	<ul style="list-style-type: none"> • Remuneration Disclosure: Novartis Annual Report 2019 (p.134-156;157-162) • Disclosure on linking pay and performance: Novartis Annual Report 2019 (p.134-156;157-162)
Participation	<ul style="list-style-type: none"> • Say on Pay: <ul style="list-style-type: none"> – Novartis shareholders approve all resolutions proposed by Board of Directors at the Annual General Meeting – Annual General Meeting of Shareholders • Internal Pay Equity: Novartis Annual Report 2019 (p.146;158)

Ownership and shareholder rights	
Shareholder rights & involvement	<ul style="list-style-type: none"> • Proportionality - One Share/One Vote / Voting Rights Limits Shares Held: Novartis Annual Report 2019 (p.168-169) • Restrictions on legal action by shareholders: Novartis Annual Report 2019 (p.168-169) <ul style="list-style-type: none"> – Subject to Swiss law, mainly Art. 758 of the Swiss Code of Obligations • Shareholder Action: Novartis Annual Report 2019 (p.168-169)
Accounting indicators	
Auditor Committee Structure	<ul style="list-style-type: none"> • Audit Committee Structure: Novartis Annual Report 2019 (p.178)
Audit Committee Effectiveness	<ul style="list-style-type: none"> • Audit Committee Effectiveness: Novartis Annual Report 2019 (p.178) • Overboarded Audit Committee Members: <ul style="list-style-type: none"> – Board of Directors – Novartis Annual Report 2019 (p.183)
Audit-related fees	<ul style="list-style-type: none"> • Auditor Fees: Novartis Annual Report 2019 (p.192)
Stakeholder Governance	
Stakeholder Governance	<ul style="list-style-type: none"> • ESG Governance • Novartis in Society 2019 (p.9-10) • ESG Reporting Standards: Novartis in Society 2019 (p.50) • Verification of ESG Reporting: Novartis in Society 2019 (p.66-67) • Global Compact Signatory: <ul style="list-style-type: none"> – Novartis in Society 2019 (p.55-58) – Novartis UNGC Communication on Progress 2018 • ESG Performance Targets: Targets and results • Political Involvement Policy: Political engagement • Lobbying and Political Expenses: Political contributions • Anti-bribery & anti-corruption Policy: <ul style="list-style-type: none"> – Anti-bribery policy – Code of conduct – Novartis Professional Practices Policy – Conflicts of Interest Policy • Environmental Policy: Health, Safety and Environment Policy • Whistleblower Programs: <ul style="list-style-type: none"> – Handling complaints – Novartis in Society 2019 (p.17-18) • Tax Disclosure: Novartis Tax Policy Statement

	<ul style="list-style-type: none"> • Non-discrimination Policy: Human rights guideline (p.4) • Scope of Social Supplier Standards: Novartis Third Party Code
	<ul style="list-style-type: none"> • CDP Participation: <ul style="list-style-type: none"> – CDP Climate 2019 – CDP Water 2019 • GHG Reduction Program: <ul style="list-style-type: none"> – Climate – Novartis carbon-sink forestry projects – Novartis in Society 2019 (p.47-49) • Green Procurement Policy: Novartis Third Party Code
Business ethics	
Business ethics approach	
Whistleblower programs	<ul style="list-style-type: none"> • Available to suppliers, customers and other third parties: Handling complaints • An independent, reporting hotline available 24/7: Handling complaints • Possibility for anonymous reporting and reports are treated confidentially: Novartis in Society 2019 (p.17) • Non-retaliation policy: <ul style="list-style-type: none"> – Associates who report potential misconduct or who provide information or otherwise assist in any inquiry or investigation of potential misconduct will be protected against retaliatory action. – Novartis Code of Conduct (p. 8) – Human rights guideline (p.6) • Structures in place to process whistleblower reports: <ul style="list-style-type: none"> – Handling complaints – Novartis in Society 2019 (p.17-18)
Communication of whistleblower programs	<ul style="list-style-type: none"> • Proactively communicated to employees: <ul style="list-style-type: none"> – Handling complaints – Novartis in Society 2019 (p.17-18) • The SpeakUp process is communicated to employees on several occasions, for instance during Welcome Days, the annual anti-harassment and Code of Conduct trainings, and country visits and town halls by representatives of the SpeakUp office. There is also regular internal communication around trends, number of cases and root causes to learn from these cases and support prevention. • Disclosure on the number of reports received, the types of misconduct and measures taken: Novartis in Society 2019 (p.18) • Available in local languages: Handling complaints
Business ethics programs	<ul style="list-style-type: none"> • Commitment to address major business ethics risks: Ethics, Risk & Compliance

	<ul style="list-style-type: none"> • Operating guidelines: <ul style="list-style-type: none"> – Code of conduct – Anti-bribery policy – Novartis Professional Practices Policy – Human rights guideline – Conflicts of Interest Policy – Novartis Third Party Code – Novartis in Society 2019 (p.18) • Annual training of employees on the Code of Conduct: Novartis in Society 2019 (p.18)
Management responsibility for business ethics	<ul style="list-style-type: none"> • Board responsibility for business ethics issues: Novartis annual report 2019 (p.185) • Managerial responsibility for business ethics: <ul style="list-style-type: none"> – Klaus Moosmayer, Ph.D., Chief Ethics, Risk & Compliance Officer of Novartis – Ethics, Risk & Compliance
Risk management approach to business ethics risks	<ul style="list-style-type: none"> • Ethical risk assessments: <ul style="list-style-type: none"> – Novartis Risk Compass – Novartis in Society 2019 (p.15-17) – Novartis Annual Report 2019 (p.17) • Compliance Risk Assessment and Monitoring is an annual compliance risk management process. All Novartis legal entities are in scope and the focus is on the risk areas covered by the following Ethics, Risk & Compliance policies and guidelines: <ul style="list-style-type: none"> – The P3 Policy and all related guidelines – The Anti-bribery policy and the Anti-Bribery Third Party Guideline – The Conflict of Interest Policy • The process consists of three phases: <ul style="list-style-type: none"> – Scoping & Assessment: Review 31 pre-defined risk areas to determine relevance. Discuss, agree and finalize risk ratings and risk matrix. – Testing & Monitoring: Testing and monitoring is completed for all relevant activities within risk areas. This includes testing the design of the processes, and individual spot-checks via testing samples. There is no testing performed when a certain activity is not relevant to the organization or when the associated risk is very low. – Mitigation & Remediation: Based on the information collected and testing results, mitigation and remediation actions are defined and implemented. • Measures to deter non-compliance and reduce exposure to unethical opportunities: <ul style="list-style-type: none"> – Holding ourselves to the highest ethical standards – Novartis in Society 2019 (p.14)

	<ul style="list-style-type: none"> – Code of conduct – Anti-bribery policy – Novartis Professional Practices Policy – Human rights guideline – Conflicts of Interest Policy
	<ul style="list-style-type: none"> • Incident investigation and corrective actions: <ul style="list-style-type: none"> – Handling complaints – Novartis in Society 2019 (p.17-19)
Animal Welfare	
Animal testing policy	<ul style="list-style-type: none"> • Commitment not to use animal testing except where legally required: Animal welfare policy • Commitment to replace, reduce and refine animal testing: <ul style="list-style-type: none"> – Animal welfare policy – Animals & research – The Declaration of Helsinki states that it is unethical to give experimental treatments to humans that have not been tested first in laboratory animals. (World Medical Association Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects) • Reference to best practice standards or commitment to seek animal testing certification: Animals & research
Managerial or board responsibility for overseeing animal testing	<ul style="list-style-type: none"> • Animal welfare policy
Initiatives to replace, reduce, and refine animal testing	<ul style="list-style-type: none"> • Animals & research • Novartis in Society 2019 (p.49)
Regular audits of animal testing practices and reporting on animal testing issues	<ul style="list-style-type: none"> • Animal welfare policy
Emerging technologies	
Formal approach to emerging technologies	<ul style="list-style-type: none"> • Acknowledgement of risks or controversies associated with the use of emerging technologies <ul style="list-style-type: none"> – Emerging technology (3 pages) – Novartis annual report 2019 (p.16) – Novartis Position on Nanotechnology-based Medicine
Disclosures on the use of emerging technologies	<ul style="list-style-type: none"> • Commitment to report on the use of emerging technologies: Emerging technology (3 pages)
Approach to emerging technologies that covers	<ul style="list-style-type: none"> • Emerging technology (3 pages)

genetic engineering, nanotechnology and stem cell research	<ul style="list-style-type: none"> • Novartis Position on Nanotechnology-based Medicine
Clinical Trials	
Registration & publication of clinical trials and results	<ul style="list-style-type: none"> • Prior registration of all clinical trials in credible and publicly available databases: Novartis Clinical Trials • Publication of all trial results in credible databases or peer reviewed journals: <ul style="list-style-type: none"> – Novartis Position on Clinical Study Transparency – Clinical Study Registration, Results Reporting and Data Sharing – Novartis Guidelines for the Publication of Results from Novartis-Sponsored Research • Publication of results of terminated trials: Clinical Trial Results
Commitment to timely results disclosure	<ul style="list-style-type: none"> • Commitment to specific timeframe for results disclosure: Novartis Position on Clinical Study Transparency – Clinical Study Registration, Results Reporting and Data Sharing • Novartis Guidelines for the Publication of Results from Novartis-Sponsored Research
Raw data availability to third parties	<ul style="list-style-type: none"> • Novartis Position on Clinical Study Transparency – Clinical Study Registration, Results Reporting and Data Sharing
Commitment to clinical trial standards	<ul style="list-style-type: none"> • Voluntary data sharing
	<ul style="list-style-type: none"> • Commitment to conduct trials in an ethical manner, to adhere to international best practice guidelines and to other international codes or principles: <ul style="list-style-type: none"> – Novartis Position on Responsible Clinical Trials – Novartis Clinical Trials – Human rights guideline (p.6) – Novartis Position on Ethical Principles for Transplantation Studies • These clinical trial standards must be applicable to offshore and/or outsourced trials or trials are not outsourced/conducted offshore: Novartis Position on Responsible Clinical Trials
	<ul style="list-style-type: none"> • Commitment to regular monitoring of outsourced trials: <ul style="list-style-type: none"> – Novartis Position on Responsible Clinical Trials – Clinical Trial Information Disclosure – Ethics in Clinical Trials
Managerial responsibility for ethical conduct and independent ethics committee	<ul style="list-style-type: none"> • Managerial responsibility for ethical conduct in clinical trials: Ethics in Clinical Trials • Independent ethics committee with authority to approve, modify or stop trials: Ethics in Clinical Trials
Clinical trials processes	<ul style="list-style-type: none"> • Procedure to obtain participants' free, prior and informed consent: Human rights guideline (p.6)

Political involvement	
Scope and approval of political involvement policy	<ul style="list-style-type: none"> • Policy partially or entirely prohibits political involvement (of any kind on the company's behalf): Novartis Global Guideline for conducting lobbying activities based on transparency, honesty and integrity • Policy is approved by senior management: Novartis Global Guideline for conducting lobbying activities based on transparency, honesty and integrity
Disclosure of lobbying & political expenses	<ul style="list-style-type: none"> • Political involvement policy commits the company to disclose political donations and/or lobbying expenditures: Public policy & Advocacy
Lobbying and political expenses	<ul style="list-style-type: none"> • Minimize the last three years of political contributions or political spending: Public policy & Advocacy
Anti-bribery and anti-corruption	
Policy & Commitments	
Responsibility for managing bribery and corruption issues	<ul style="list-style-type: none"> • Responsibility of a board-level committee: Novartis Annual Report 2019 (p.182;185) • The Board of Directors has established an Audit and Compliance Committee (ACC), which assists the Board of Directors in overseeing audit and compliance. The ACC reviews at least annually the processes and procedures used by management to execute an effective compliance program.
Bribery and anti-corruption policy	<ul style="list-style-type: none"> • Detailed formal policy against bribery and corruption: <ul style="list-style-type: none"> – Code of conduct – Anti-bribery policy – Conflicts of Interest Policy • Prohibition of bribery: Anti-bribery policy • Definition of bribery or corruption: Anti-bribery policy (p.3)
	<ul style="list-style-type: none"> • Prohibition and definition of facilitation payments and conflict of interest: <ul style="list-style-type: none"> – Anti-bribery policy (p.6) – Conflicts of Interest Policy • Guidelines of what is considered acceptable behavior: <ul style="list-style-type: none"> – Code of conduct – Novartis Professional Practices Policy (p.4) – Holding ourselves to the highest ethical standards – Our values • Require all suppliers to have anti-corruption policies and programs to verify compliance: Novartis Third Party Code (p.8-9)

Scope of business ethics policy	<ul style="list-style-type: none"> • Policy prohibits facilitation payments: <ul style="list-style-type: none"> – Anti-bribery policy (p.5). Novartis prohibits facilitation payments, irrespective of whether local law permits facilitation payments. Therefore, total value equals 0. – Novartis Third Party Code (p.8-9) • Policy covers all subsidiaries: Anti-bribery policy
External standards & anti-corruption initiatives	<ul style="list-style-type: none"> • Leading industry-specific anticorruption standards: Novartis in Society 2019 (p.63) • Membership in other external anti-corruption Initiatives: Novartis in Society 2019 (p.63) • As a signatory to the UN Global Compact, Novartis supports [...] the UN Convention Against Corruption and the OECD Convention on Combating Bribery of Foreign Public Officials • Signatory to the CEO Letter on the UN Convention Against Corruption • World Economic Forum's Partnering Against Corruption Initiative (PACI): Novartis used PACI principles to design and implement our anti-bribery compliance system including our Anti-bribery Policy. Novartis is currently in the process of evaluating a membership. • Transparency International's Business Principles for Countering Bribery: Novartis used Transparency International's principles to design and implement our anti-bribery compliance system including our Anti-bribery Policy.
Programs	
Scope and extent of employee and contractor training	<ul style="list-style-type: none"> • Regular training programs covering all employee (incl. part-time) and contractors: <ul style="list-style-type: none"> – Novartis Modern Slavery Statement (p.6) – Anti-bribery and anti-corruption – Anti-bribery policy • Compliance training scope covers all company-wide policies with regular e-trainings and refreshers
Employee engagement	<ul style="list-style-type: none"> • Mechanisms for employees to consult on ethical issues: Novartis in Society 2019 (p.18) • Associates are required to take the annual Code of Conduct training, which includes certification on the Anti-Bribery Policy. In addition, specific e-trainings target associates, including on Anti-Bribery. Launched in 2018, training on anti-bribery had a completion rate of 97% (period: October 2018-May 2019).
Compliance assurance/Regular bribery and corruption risk assessments	<ul style="list-style-type: none"> • Internal and external assurance of compliance with ethical standards: <ul style="list-style-type: none"> – Anti-bribery and anti-corruption • Novartis has implemented a formal and robust end-to-end due diligence process, from information gathering to monitoring, to establish the risk profile of third parties. Formal processes for screening, due diligence and monitoring of third-party intermediaries/agents with respect to corruption include: <ul style="list-style-type: none"> – Responsible Supply Chain Management – Novartis in Society 2019 (p.14-16)

	<ul style="list-style-type: none"> • Internal monitoring system to detect corruption: <ul style="list-style-type: none"> – Novartis in Society 2019 (p.17) – Ethics, Risk & Compliance
Operating guidelines	<ul style="list-style-type: none"> • Operating guidelines addressing record keeping, approval procedures and appropriate behavior <ul style="list-style-type: none"> – Novartis Third Party Code addresses record keeping for suppliers • Each risk function (i.e. ERC, HSE, Labor Rights) has guidelines, working instructions, SOPs, etc. (for instance the Anti-Bribery Third Party Guideline) that clearly define requirements and processes for assessing third parties before their engagement. • General record keeping requirements are defined by IT, Data Privacy and other functions but not necessarily by the risk function. The Third Party Code does not define record keeping but determines Novartis expectations with regards to third party behavior.
Whistleblower protection <i>Please refer to the business ethics section</i>	<ul style="list-style-type: none"> • Handling complaints • Novartis in Society 2019 (p.17) • Human rights guideline (p.6)
Total value of facilitation payments	Novartis prohibits facilitation payments, irrespective of whether local law permits facilitation payments. Total value equals 0.
Human Rights	
Company's policy indicating support for human rights	<ul style="list-style-type: none"> • Policy aligned with UN Declaration of Human Rights or equivalent: Human rights guideline
Commitment to external mandates & standards to protect human rights	<ul style="list-style-type: none"> • List of commitments to external mandates to protect human rights, e.g. Declaration of Helsinki, Good Clinical Practice: <ul style="list-style-type: none"> – Human rights guideline (p.3) – Novartis in Society 2019 (p.63)
	<ul style="list-style-type: none"> • Commitment to external standards to protect human rights: <ul style="list-style-type: none"> – Human rights guideline (p.3) – Novartis in Society 2019 (p.63)