Appendix: corporate responsibility materiality assessment issue cluster and topic definitions

1. Access to healthcare
   1.1. Availability of medicines
   Efforts to manage barriers that may prevent, restrict or delay medicine availability for patients in need. Examples may include the registration process requirements, inefficient distribution and supply chain management, etc.

   1.2. Pricing
   Responsible pricing for innovative and generic medicines that takes into consideration affordable access, positive cost-benefit ratio, and overall healthcare costs. Examples may include pricing models such as tiered pricing, managed entry agreements, outcomes-based pricing and non-exclusive voluntary licensing.

   1.3. Healthcare system strengthening
   Efforts to improve healthcare infrastructure and deliver healthcare-related services “beyond the pill.” Examples may include capacity building, training and education, partnerships involving public and private actors to improve healthcare access in underserved areas, and contribution to reducing healthcare costs for payers, insurance companies and consumers.

   1.4. Intellectual property
   Responsible patent exclusivity management that balances IP protection with the provision of affordable drugs. Examples may include participation in IP-sharing arrangements and avoidance of compulsory licensing.

   1.5. Patient assistance programs
   Programs that support financially needy patients to either purchase their necessary medication at an affordable price or receive it for free.

2. Economic sustainability
   2.1. Recruitment and retention of employees
   Human resources management that aligns recruiting efforts with strategy and that provides talent management programs to engage and retain associates with relevant skill sets and ensure continuity through reduced associate turnover.

   2.2. Fair contribution to society
   Ensuring good relations and appropriate economic contribution in the areas in which the company operates. Examples may include payment of appropriate amount of tax and efforts to support the economy in countries of operation (e.g., local employment, local suppliers, active engagement in local initiatives).

   2.3. Financial health and performance
   Ensuring the company’s continued viability, financial health and performance. Examples may include M&A, divesture activities, risk/crisis management and financial liquidity.

3. Environmental protection
   3.1. Sustainable use of resources
   Measures to ensure efficient consumption of energy, water and other resources. This includes efforts to responsibly source, recycle and/or reuse natural resources; manage the company’s impact on plant and animal life; and preserve biodiversity.

   3.2. Pollution, waste and effluents
   Reduction and management of emissions, pollution, waste (including use of hazardous chemicals and ozone-depleting substances) and effluents. This includes activities to mitigate climate change and its impacts on human health.

   3.3. Pharmaceuticals in the environment
   Efforts to minimize the environmental impact of our activities and products over their lifecycle and to ensure proper and legal disposal of waste containing active pharmaceutical ingredients.

4. Ethical business practices
   4.1. Ethical and compliant behavior
   Processes and systems to ensure Novartis operates in line with high ethical standards, especially in regard to our interactions with healthcare professionals. Examples may include adherence to laws and regulations, anti-bribery, anti-corruption and anti-trust; responsible advocacy, lobbying and political contributions; and responsible incentive structures and compensation.

   4.2. Animal testing
   Measures to keep animal testing at a minimum and ensure tests are conducted according to the highest animal welfare standards.

   4.3. Respect for human rights
   Positions, policies and management systems to respect human rights across the business and direct supply chain. Examples may include implementation of responsible clinical trials in developed and developing countries, protection of personal data, and the right to health/healthcare.

   4.4. Responsible supply chain management
   Processes and systems to ensure a responsible supply chain and that our direct suppliers uphold appropriate standards on financial, social and environmental issues. Examples may include outsourcing, third-party manufacturing, the use of clinical research organizations, supplier audits and transparent reporting practices.

   4.5. Responsible use of new technologies
   Ensuring appropriate handling of and response to controversial ethical questions related to technological advancements. Examples may include cloning, human
genetic engineering (e.g., genome editing through CRISPR), nanotechnology, wearables and life extension.

5. Good governance
5.1. Corporate governance
Ensuring the company management structure balances the interests of its relevant stakeholders, and the company is transparent and discloses critical information to stakeholders. Examples may include rules and regulations to ensure board independence, shareholder rights and engagement, and levels of executive compensation and golden parachutes.

5.2. Transparency
Ensuring appropriate scope and quality of information disclosure and reporting, and engaging in dialogue with our stakeholders. Examples may include disclosing information that is critical to stakeholders such as the risk/safety profiles of products, misconduct cases, support of patient groups and political parties, and trial data.

5.3. Data privacy and security
Systems to ensure that the personally identifiable information of patients, employees, consumers and others is responsibly and securely collected, transferred and stored.

6. Innovation
6.1. R&D for unmet medical needs
Maintaining high investments in creating innovative medicines that address unmet medical needs, with a focus on maximizing patients’ outcomes before considering market potential. This includes the research of new compounds but also the modification of existing medicines (i.e., to improve access or efficacy for poor and specifically vulnerable patient groups).

6.2. R&D for neglected diseases
R&D for diseases that disproportionately affect people in low-income settings, for which little or no treatment options are available and where market failure limits research activities. This may include infectious and tropical diseases.

6.3. Business model innovation
Efforts to respond to emerging health needs and trends by changing the existing business model and/or developing new business models. Examples may include responding to the needs of low-income patients and to the growing healthcare burden of noncommunicable diseases (NCDs).

6.4. Innovative technologies
Making the most of advances in IT and digital connectivity to advance R&D for products and outcomes and to revolutionize the delivery of healthcare services. Examples may include using big data analysis or developing personalized healthcare solutions (e.g., products with companion diagnostic tests), and improving health solutions based on data collected by wearables.

6.5. Drug resistance
Contributing to the global response to drug resistance that is caused, for example, by inappropriate use and environmental pollution through antimicrobials.

7. Our people
7.1. Diversity and inclusion
Ensuring equal opportunities and fostering a diverse and inclusive workplace where each associate can contribute and be recognized. This applies in terms of age, ethnicity, gender, nationality, language, sexual orientation, physical ability, and religious and personal beliefs.

7.2. Health and safety
Ensuring the health and safety of associates. This includes efforts to reduce fatalities, injuries and sick leave, and to promote well-being through health programs.

7.3. Fair working conditions
Ensuring fair employment practices, including upholding labor rights to freedom of association and collective bargaining, labor relations and union practices, and fair compensation and benefits. This may also include work-life balance considerations.

8. Patient health and safety
8.1. Health education and prevention
Efforts to promote health literacy, disease prevention awareness, and the effective use of medicines. Examples may include treatment adherence, contributing to solutions to the rising burden of NCDs and chronic illnesses, and substance abuse prevention.

8.2. Counterfeit medicines
Using the company’s influence to fight counterfeit drugs around the world.

8.3. Pharmacovigilance, safety profile and quality of drugs
Ensuring healthcare products (patented pharmaceuticals and generics) are manufactured at the highest quality level and that the efficacy and safety features of a medicine outweigh its risks (e.g., side effects), as well as collecting and recording adverse event reports. This includes transparent and timely communication in the case of product safety or quality issues (e.g., prompt product recalls).