Winbond Materiality Analysis
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Executive Summary
- Winbond’s Sustainability Management
- Defining Materiality
- Objectives

References
- Stakeholder Identification and Engagement
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Introduction

Winbond’s Sustainability Management

Winbond’s ESG vision was defined personally by the company’s Chairman, Arthur Yu-Cheng Chiao:

**E**: Carbon footprint as an index for evaluating innovation

**S**: Giving back to society with “benevolence, righteousness, propriety, wisdom, and trust”

**G**: Corporate governance with integrity

Winbond’s ESG vision, strategies, and action plans are a testament to the company’s commitment to sustainability. With the establishment of the Winbond ESG Committee, we are leveraging our collective strength in innovation to contribute our technical know-how to the world. Based on the philosophy of co-prosperity, we work closely with our clients, banks, investors, employees, and stakeholders to find a smarter way of doing business that benefits the Earth. Our ultimate vision is to work with our partners to build a better life for all.

Arthur Yu-Cheng Chiao
Winbond Chairman and CEO
Winbond conducts its materiality analyses based on *GRI 3: Material Topics* published by the Global Sustainability Standards Board (GSSB) in October 2021 and has delineated the following criteria for evaluating material topics:

- Major concerns raised by stakeholders
- Topics with significant impact on the Company’s operations
- Topics prioritized by Winbond in accordance with its sustainability management goals
Introduction

Objectives

Through materiality analyses, Winbond identifies material topics and addresses stakeholders’ expectations regarding important ESG issues. We prioritize topics in which we can make a significant difference. The purposes of the materiality analyses include the following:

- Understanding the importance attached to various sustainability topics by our stakeholders
- Identifying the likelihood and extent of positive and negative impacts
- Developing a blueprint for Winbond’s sustainable development
- Enhancing stakeholder engagement
- Preparing sustainability reports and disclosures
Executive Summary

This year, Winbond’s materiality analysis was conducted in accordance with the GRI Standards and SASB Guidelines, as well as current market and industry trends. We identified 19 ESG topics directly related to the Company’s operations and formulated a sustainability topics questionnaire through a systematic evaluation process. We asked 22 senior executives at the Company and 418 external stakeholders to evaluate the degree of positive/negative impact posed by each of the 19 topics. We score the topics based on survey results and their priority in our sustainability development goals to select nine material ESG topics, which will form the foundation of our sustainability blueprint and guide our prioritization of issues.

Winbond conducts a material analysis every three years to keep track of changes in the long-term trends of material topics. We will continue to ensure adequate communication with our stakeholders to stay on top of sustainability issues in an honest and transparent manner.
Basis for Stakeholder Relations and Material Topics

- Pursuant to Article 3 of TWSE’s Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies
- To satisfy the requirements of GRI 2-29 (stakeholder engagement) and GRI 3 (material topics), organizations must first identify their stakeholders and material topics before preparing a sustainability report.

GRI 2-29 Stakeholder Engagement
Organizations shall disclose their process for identifying stakeholder categories and the frequency of engagement with each stakeholder type.

GRI 3 Material Topics
Organizations shall disclose their process for determining material topics, provide a list of material topics identified, and explain how they plan to manage the items of disclosure for each material topic.

Identifying Stakeholders
- Senior executives fill out the stakeholder identification survey
- Produce a stakeholder engagement information collection sheet based on survey results

Identifying Material Topics
- Senior executives fill out internal impact survey
- Responsible units distribute topics of concern survey to stakeholders
- Produce a materiality matrix showing the positive/negative impacts and propose a list of recommendations based on survey results

*Article 3 of the Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies: “A TPEx listed company that meets the requirements of Article 2 herein shall each year prepare a sustainability report for the preceding year by referring to the Global Reporting Initiative (GRI) General Standards, Sector Standards, and Topic Standards issued by the GRI. The company’s report shall disclose its identified material economic, environmental, and/or social topics and impacts, its topic-specific disclosures for each material topic, and the reporting requirements for those disclosures.”
Mandated Material Topic Disclosures

• **GRI 3 Material Topics**: Delineating the process for identifying material topics to help the corporation more effectively analyze the impact of each topic, rank each topic, and prioritize topics for disclosure.

• **GRI 3 Mandated Disclosures**: Process for identifying material topics (i.e., materiality analysis), list of material topics, and management of material topics.

### Framework of Material Topic Disclosures

<table>
<thead>
<tr>
<th>Material Topic</th>
<th>Disclosure Requirements</th>
</tr>
</thead>
</table>
| #3-1          | • Process for determining material topics  
|               | • Details on how the identification process is informed by stakeholder and expert opinions |
| #3-2          | • List of material topics  
|               | • Change in material topics vs. previous reports |
| #3-3          | • Description of existing and potential positive/negative impacts on the economy, environment, humanity, and human rights  
|               | • Disclosure of negative impacts caused directly or indirectly by organizational or commercial activities, and description of said activities  
|               | • Description of material topic-related policies and commitments  
|               | • Description of measures taken to address material topics and their impacts  
|               | • Description of progress and tracking method for said measures  
|               | • Description of stakeholder engagement measures and progress |

* Based on GRI 3’s material topic analysis procedures and disclosure/reporting requirements.
The Five Aspects of Assessment Based on AA1000 Stakeholder Engagement Standards (SES)*

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependency</td>
<td>Stakeholders who directly or indirectly depend on the corporate entity’s activities and operations</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Stakeholders to whom the corporate entity is, or may potentially be, legally, economically, or managerially liable</td>
</tr>
<tr>
<td>Tension</td>
<td>Stakeholders to whom the corporate entity must pay immediate attention to due to financial, economic, social, or environmental concerns</td>
</tr>
<tr>
<td>Influence</td>
<td>Stakeholders who are capable of impacting or determining the corporate entity’s strategies</td>
</tr>
<tr>
<td>Diverse perspectives</td>
<td>Opinions from a wide range of stakeholders who can provide the corporate entity with new opportunities and a chance to see things from different perspectives</td>
</tr>
</tbody>
</table>

*AA1000 SES was formulated by AccountAbility, a global ESG consulting and standards-setting body. AA1000 is a series of principles and standards aimed at promoting organizational accountability, responsibility, and sustainability. It is widely adopted by international conglomerates, small- to medium-sized businesses, government agencies, and civil associations.
Results of Stakeholder Identification

Stakeholder Identification Survey

- Stakeholder identification survey designed in accordance with AA1000 SES (Stakeholder Engagement Standards)
- 22 senior executives filled out the stakeholder identification survey, in which they assigned a score of 1 to 5 to each stakeholder group based on the degree of impact. A (standardized) statistical tool is used to rank groups from the highest degree of impact to the lowest.
- 7 key stakeholder groups were identified:
  - employees, clients, suppliers/contractors, government agencies, shareholders/investors, society/local communities, and media.

Degree of impact

<table>
<thead>
<tr>
<th>Rank</th>
<th>Winbond’s key stakeholders in 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employees</td>
</tr>
<tr>
<td>2</td>
<td>Customers</td>
</tr>
<tr>
<td>3</td>
<td>Suppliers/Contractors</td>
</tr>
<tr>
<td>4</td>
<td>Government Agencies</td>
</tr>
<tr>
<td>5</td>
<td>Shareholders/Investors</td>
</tr>
<tr>
<td>6</td>
<td>Community</td>
</tr>
<tr>
<td>7</td>
<td>Media</td>
</tr>
</tbody>
</table>
Procedures for Analyzing Material Issues

Collecting sustainability issues
Understanding organizational background
- Sources of data collection:
  - GRI reporting standards
  - SASB (Sustainability Accounting Standards Board)
  - UN Sustainable Development Goals (SDGs)
  - Semiconductor industry benchmarks
  - Disclosures by competitors and industry development trends

List of sustainability issues
- 19 ESG issues were selected by senior executives for the materiality survey.

Tabulating sustainability issues
- Stakeholders’ topics of concern survey
  - Questionnaires were distributed to stakeholders by the responsible department to understand how much importance they attach to each of the 19 ESG issues.
  - Response from 418 stakeholders
  - Response from 22 senior executives
- Positive/negative impact assessment survey
  - Winbond’s senior executives evaluated the degree of each ESG issue’s positive/negative impacts on the economy, society, humanity, and human rights.

Identifying actual and potential impacts
- Stakeholders’ topics of concern survey
  - Topics of concerns among stakeholders
    - Risk Management
    - Product and Service Quality
    - Regulatory Compliance
    - Business Integrity and Corporate Governance
    - Information Security and Personal Information Protection
    - Research, Development and Innovation
    - Occupational Health and Safety
    - Green Products
    - Manufacturing Capacity and Operations Performance
    - Equality and Human Rights
- Positive impacts and likelihood matrix
- Negative impacts and likelihood matrix

Assessing issue-specific impacts

Finalizing the list of material issues
- 9 final material issues selected by senior executives based on their importance to sustainable development.
- Comprehensive disclosures
  - Verifying that the 9 issues are 100% compliant with sustainability and comprehensive disclosure requirements

Formulating management guidelines
- Management guidelines formulated by senior executives

Preparation of sustainability report
- Material issues approved by EGS Committee

* Identification of material issues based on GRI3 procedures
Topics of Concerns Among Stakeholders

- Results: 418 responses were collected from stakeholders, and based on their completeness, 282 were determined to be valid responses.

Survey Response Statistics

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Responses</th>
<th>Valid responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders/investors</td>
<td>40</td>
<td>31</td>
</tr>
<tr>
<td>Government agencies</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Customers</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>Employees</td>
<td>220</td>
<td>141</td>
</tr>
<tr>
<td>Suppliers/Contractors</td>
<td>89</td>
<td>57</td>
</tr>
<tr>
<td>Media</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>community</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>418</td>
<td><strong>282</strong></td>
</tr>
</tbody>
</table>

*Responses from stakeholders who assigned the same score to every ESG issue were considered invalid for the lack of item discrimination.

Rate of valid response = 282 / 418 = 67%

Topics of Concern Among Stakeholders

<table>
<thead>
<tr>
<th>Rank</th>
<th>ESG issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Risk Management</td>
</tr>
<tr>
<td>2</td>
<td>Regulatory Compliance</td>
</tr>
<tr>
<td>3</td>
<td>Information Security and Personal Information Protection</td>
</tr>
<tr>
<td>4</td>
<td>Occupational Health and Safety</td>
</tr>
<tr>
<td>5</td>
<td>Productivity and Business Performance</td>
</tr>
<tr>
<td>6</td>
<td>Product and Service Quality</td>
</tr>
<tr>
<td>7</td>
<td>Business Integrity and Corporate Governance</td>
</tr>
<tr>
<td>8</td>
<td>Research, Development and Innovation</td>
</tr>
<tr>
<td>9</td>
<td>Green Product</td>
</tr>
<tr>
<td>10</td>
<td>Equality and Human Rights</td>
</tr>
</tbody>
</table>

Winbond—Materiality Analysis
Winbond’s senior executives evaluated the degree of each ESG issue’s positive impacts on the economy, society, humanity, and human rights.

**Definition of positive impacts:** ESG issues which, when responded with an effective policy, can positively impact the economy, environment, humanity, or human rights.

### Matrix of Positive Impacts and Likelihoods

<table>
<thead>
<tr>
<th>Rank</th>
<th>ESG issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product and Service Quality</td>
</tr>
<tr>
<td>2</td>
<td>Business Integrity and Corporate Governance</td>
</tr>
<tr>
<td>3</td>
<td>Information Security and Personal Information Protection</td>
</tr>
<tr>
<td>4</td>
<td>Salary, Benefits, and Employee Care</td>
</tr>
<tr>
<td>5</td>
<td>Supply Chain Management</td>
</tr>
<tr>
<td>6</td>
<td>Risk Management</td>
</tr>
<tr>
<td>7</td>
<td>Occupational Health and Safety</td>
</tr>
<tr>
<td>8</td>
<td>Regulatory Compliance</td>
</tr>
<tr>
<td>9</td>
<td>Research, Development and Innovation</td>
</tr>
<tr>
<td>10</td>
<td>Energy and Carbon Emissions Management</td>
</tr>
</tbody>
</table>

**Likelihood of occurrence**

- **High**: Product and Service Quality, Regulatory Compliance, Energy and Carbon Emissions Management
- **Medium**: Salary, Benefits, and Employee Care, Supply Chain Management, Industry Security and Personal Information Protection, Risk Management
- **Low**: Business Integrity and Corporate Governance, Occupational Health and Safety

**Level of positive impact**

- **High**: Product and Service Quality, Regulatory Compliance, Energy and Carbon Emissions Management
- **Medium**: Salary, Benefits, and Employee Care, Supply Chain Management, Information Security and Personal Information Protection, Risk Management
- **Low**: Business Integrity and Corporate Governance, Occupational Health and Safety

Winbond’s senior executives evaluated the degree of each ESG issue’s negative impacts on the economy, society, humanity, and human rights.

◆ **Definition of negative impact:** ESG issues which, if not dealt with properly or at all, may negatively impact the economy, environment, humanity, and human rights outside of the Company.

<table>
<thead>
<tr>
<th>Rank</th>
<th>ESG issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Research, Development and Innovation</td>
</tr>
<tr>
<td>2</td>
<td>Information Security and Personal Information Protection</td>
</tr>
<tr>
<td>3</td>
<td>Climate-related Risks and Opportunities</td>
</tr>
<tr>
<td>4</td>
<td>Risk Management</td>
</tr>
<tr>
<td>5</td>
<td>Talent Recruitment and Development</td>
</tr>
<tr>
<td>6</td>
<td>Salary, Benefits, and Employee Care</td>
</tr>
<tr>
<td>7</td>
<td>Green Product</td>
</tr>
<tr>
<td>8</td>
<td>Product and Service Quality</td>
</tr>
<tr>
<td>9</td>
<td>Energy and Carbon Emissions Management</td>
</tr>
<tr>
<td>10</td>
<td>Supply Chain Management</td>
</tr>
</tbody>
</table>

**Matrix of Negative Impacts and Likelihoods**

- Low
- Medium
- High

**Level of negative impact**

- Environmental (E)
- Social (S)
- Governance (G)
## Validation of Material Issues

Material topics were validated based on the **importance attached by stakeholders**, **significance of impact on company operations**, and **priority in corporate sustainable development**. In the end, 9 final material issues were selected:

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Issues</th>
<th>Validation Principles</th>
<th>Material Issues (9 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Importance among stakeholders</td>
<td>Impact on operations</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Business Integrity and Corporate Governance</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Regulatory Compliance</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Risk Management</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Information Security and Personal Information Protection</td>
<td>✔</td>
<td>✔</td>
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<td>Governance (G)</td>
<td>Research, Development and Innovation</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Productivity and Business Performance</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Supply Chain Management</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>Product and Service Quality</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Environment (E)</td>
<td>Green Product</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Environment (E)</td>
<td>Climate-related Risks and Opportunities</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Environment (E)</td>
<td>Waste Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment (E)</td>
<td>Water Resources Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Society (S)</td>
<td>Salary, Benefits, and Employee Care</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Society (S)</td>
<td>Talent Recruitment and Development</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Society (S)</td>
<td>Equality and Human Rights</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Society (S)</td>
<td>Employer-employee Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Society (S)</td>
<td>Occupational Health and Safety</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Society (S)</td>
<td>Social Engagement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Management Approach for Material Issues - Business Integrity and Corporate Governance

Commitment

Regulatory compliance is the bare minimum. Management with integrity is what we are truly after. We seek coprosperity with society.

Policy

- In integrity we trust, and in trust we delegate. We draw on employees’ knowledge and experience to maximize value.

Materiality

In a knowledge-based economy, integrity and governance are hi-tech companies’ key to survival.

Goals

- Protecting shareholders’ legitimate interest and the rights of other stakeholders is the responsibility of a prudent manager
- Fostering a corporate culture of integrity in our day-to-day operations to build trust with our clients

Tracking

- Systematic audits and internal control by a dedicated unit
- Establishing a whistleblower system in conjunction with the oversight by the Audit Committee under the Board of Directors
- Regular audits by third-party accountants and streamlined communication with the Audit Committee
Management Approach for Material Issues - Regulatory Compliance

Commitment
We are committed to full compliance with regulations pertaining to corporate governance, finance, trade, environmental protection, occupational safety and health, information security, intellectual property, labor rights, internal control, and risk management in our operations.

Materiality
Winbond places great importance on regulatory compliance in its operations because we believe in corporate sustainable development and vow to be a virtuous business.

Goals
- Improving the regulatory compliance system
- Organizing 12 regulatory compliance-related courses every year
- Complying with domestic and international regulations and avoid violations
- Two regulatory compliance audits per year

Policy
- Compliance with local law
- Full compliance with applicable regulations in our operations
- Minimizing direct/indirect operational risks
- Meeting stakeholders’ basic expectations

Tracking
- Reporting: Maintaining a list of government fines and keeping track of each regulatory violation until cases conclude
- Reviewing: Organizing annual regulatory compliance review meeting to help responsible units reflect on mistakes and prevent repeated offenses
- Escalating: Regulatory compliance status reported to the CEO at the annual review meeting and to the ESG Committee at its 1st meeting in the following year
- Equipping employees with the ability to learn and adapt to emerging laws and regulations around the world
Management Approach for Material Issues - Risk Management

Commitment
We are committed to achieving our corporate sustainability goals by creating a risk management system that takes into consideration any financial, environmental, information security, operational, and climate-related risks that may potentially threaten our operations and profitability.

Policy
- Information security management procedures
- Technical and confidential document management procedures
- Service disruption risk assessment
- EHS risk assessment procedures
- Inventory accounting system
- Regulations for the internal management of material disclosures
- Procedures and guidelines for transactions involving derivative financial instruments

Materiality
A comprehensive risk management system is the cornerstone of robust operations.

Goals
- Establishing a system for risk identification, analysis, assessment, response, oversight, and review

Tracking
- Using competitors’ risk identification process as a benchmark
- Determining and updating risk analysis indices and calculations in accordance with industry- or academia-recognized methods to ensure objectivity and accuracy
- Determining and regularly updating risk appetite in the business information system to produce risk statements and ensure adequate risk control
- Including risk management-related documents into internal control procedures and making the necessary disclosures in accordance with the law
Commitment

We are committed to providing the most competitive products and services in the markets we serve, and we vow to leverage new technologies to develop products and solutions that are energy efficient and low in carbon emissions.

Policy

- The IP Department and Patent Committee is responsible for formulating, promoting, implementing, auditing, and optimizing Winbond’s innovation policies and procedures.
- “Be a hidden champion in providing sustainable semiconductors to enrich human life” through R&D

Materiality

Winbond’s competitiveness and value can be attributed to constant R&D of innovative products, technologies, and business models. In fact, we believe that innovation and R&D are the most efficient way to conserve energy and reduce our carbon footprint.

Goals

- In markets where Winbond has a presence, we utilize our superlative technologies, designs, and manufacturing/assembly processes to exceed our clients’ expectations in terms of product performance and energy efficiency.
- We leverage both our own capabilities and the resources of our strategic partners to develop sustainable new technologies and products to enrich people’s lives.
- Winbond sets a >20% per-unit carbon reduction rate for each generation of new technology.
- We strive to achieve a >80% satisfaction rate for internal and external clients.
- Globally, 350 of our patent applications were approved in 2023.

Tracking

- Annual internal and external satisfaction surveys
- Annual product competitiveness analysis to ensure a competitive edge
- Annual product competitiveness analysis to meet energy efficiency and carbon reduction goals
- Quarterly engagements between senior executives and clients to understand product and service expectations
- Annual operating performance assessment of business groups to accurately appraise competitiveness
Management Approach for Material Issues - Productivity and Business Performance

Commitment
To achieve our ultimate goal of maximizing corporate value, we are committed to increasing productivity and performance, pursuing digital transformation, introducing frontier technologies, and expanding the use of data science and artificial intelligence. We will continue to optimize our operations strategies, management models, and employee training and incentives to improve competitiveness and increase market share.

Policy
- Comprehensive management systems and policies to ensure regulatory compliance in our manufacturing activities
- Enhancing employees’ capabilities and competitiveness through training, job rotation, and provision of ample career opportunities
- Comprehensive performance evaluation and performance-linked incentivization system to commend employees and teams with outstanding performance

Materiality
Manufacturing capacity and operations performance are key to Winbond’s continuing development. Increasing productivity can reduce costs and waste while increasing revenue and, in turn, corporate profitability and efficiency.

Goals
- Between 2023–2025, we plan to organize > 72 digital transformation training workshops.
- We plan to launch a productivity tracking system by 2025.
- By leveraging innovative technologies, optimal internal control, and a culture of digital transformation in line with leading players in the world, we will continue to improve Winbond’s productivity and performance.

Tracking
- Digital Transformation Committee: Full implementation of digital transformation to enhance productivity and efficiency; review of the planning and results of related initiatives; emphasis on employee competency training
- Benchmarking: Understanding our position in the industry and our strengths and weaknesses; discovering issues and opportunities and formulating improvement plans
- Stakeholder feedback: Collecting feedback on productivity and efficiency to further enhance our image as a socially conscious brand.
Management Approach for Material Issues - Supply Chain Management

Commitment

We are committed to ensuring the robustness and transparency of our supply chain and working closely with our suppliers to formulate and implement environmental protection and social responsibility policies so as to achieve regulatory compliance and sustainable development throughout the value chain.

Policy

- Winbond consolidated the RBA Code of Conduct, the Hazardous Substance Free (HSF) Policy, and conventional supplier management practices into a comprehensive Supplier Management Policy, which has since been expanded into the Winbond Sustainable Supply Chain Management Policy with the inclusion of the Sustainable Procurement Strategy and ESG Sustainability Risk Assessment.

Materiality

Constructing a resilient and sustainable supply chain that integrates logistics, manufacturing, procurement, and sales to maximize the value and efficiency of production and service.

Goals

- Short-term goal (2024): Enhancing supply chain reliability, optimizing inventory management, and tightening control of supply chain risks to ensure agility against emergencies and market volatility
- Medium-term goal (2026): Creating a comprehensive talent cultivation system, building a quality supply chain management team, and sharing and co-learning with suppliers to foster a green supply chain that accounts for environmental protection and social responsibility
- Long-term goal (2030): Continuing to expand the scope of our environmental and social responsibility by creating a global risk-distribution supply chain network, working with our suppliers to build trust and deepen collaboration, enhancing the sustainability of the entire supply chain, and asking our suppliers to follow suit

Tracking

- Winbond continues to perform internal and external quality assurance audits and conducts supplier evaluations to identify deficiencies and help our partners make improvements. In response to climate change and sustainability development trends, starting from 2022, we organize regular ESG workshops and surveys to produce low-carbon management investigative reports as a means to track our suppliers’ carbon reduction progress.
- We organize supplier’s conference and ESG workshops with our (key) suppliers to ensure direct communication.
Management Approach for Material Issues - Green Product

Commitment

In fulfilling our vision to “be a hidden champion in providing sustainable semiconductors to enrich human life,” we are committed to developing high-performance, small-footprint, and power-efficient green memory products with green manufacturing processes.

Policy

- Drawing from product lifecycles, we harness creativity to develop high-performance, power-efficient, and low-carbon products to protect the Earth and minimize environmental impact.

Materiality

Creating value while minimizing risks through the development of sustainable technologies and products that enable mankind to live in a safe, smart, and energy-efficient manner.

Goals

- Through the development of new products and manufacturing processes:
  - For our flash memory line, we will reduce carbon emissions by 35,000 metric tons by 2025, and by 110,000 metric tons by 2030 (with 2021 as the base year).
  - Thanks to advancement in the fabrication process, our new dynamic random-access memory products require less operating current with each new generation. We are eyeing a 20% reduction in carbon emissions throughout the product lifecycle by 2030 as we move to the 16nm processes.

- Regarding application of new energy in our clients’ safety and health:
  - Our new-generation flash memory products reduce carbon emissions by 34% and power consumption by 27% per unit. They can be used for Internet of Things (IoT), machine learning (ML), the renewable energy industry, medical industry, and safety and health information systems, among other potential applications.

Tracking

Setting energy conservation goals for both the product and its manufacturing process in the new product development plan to keep track of actual reduction in carbon emissions.
Management Approach for Material Issues - Energy and Carbon Emissions Management

**Commitment**

We are committed to leveraging data science, professional knowledge, and the help of our plant management software and hardware providers to boost our energy efficiency. We vow to increase the percentage of green energy used in order to reduce greenhouse gas emissions.

**Policy**

- Use renewable energy
- Improve hardware performance & efficiency
- Reduce greenhouse gas emissions

**Materiality**

Extreme weather events are threatening ecological balance. As a leading player in the industry, Winbond must take responsibility for energy conservation and carbon footprint reduction.

**Goals**

- Reduce energy consumption by 2~3% year over year between 2023 and 2030
- Reduce GHG emissions by at least 5% year over year between 2023 and 2030
- Reduce per-unit product energy consumption by at least 1% year over year between 2023 and 2030
- ≥ 80% water reclamation rate for all plants combined every year between 2023 and 2030
- ≥ 90% waste recycling rate every year between 2023 and 2030
- ≥ 90% green energy ratio at the Taichung Plant by 2030
- Reduce carbon emissions at the Taichung Plant by 60% by 2030
- Reach company-wise carbon neutrality (net zero) by 2050

**Tracking**

- ISO 14067 Product carbon footprint audits
- ISO 14064-1 Greenhouse gas emissions audits
- ISO 50001 Energy management system audits
- Regular reports by the ESG Committee
Management Approach for Material Issues - Human Resources Management

**Commitment**
We are committed to providing a quality work environment and competitive compensation packages to attract, cultivate, retain, and incentivize employees.

**Policy**
- Human rights policy; CSR management procedures
- Profit-sharing and competitive compensation packages
- Regularly updated training programs to improve job performance
- Job rotation to place talent where they belong
- Talent selection based on both personality and competency

**Materiality**
Talent is the key to a company’s success. The selection, recruitment, cultivation, and retention of talent is crucial to the realization of a business’ long-term goals.

**Goals**
- ✓ Maintain overall compensation within the top 25% level in the industry
- ✓ Achieve an average of 48 hours of learning per employee per year
- ✓ ≥95% talent retention rate in the next five years
- ✓ 100% coverage rate for employee human rights training globally
- ✓ Annual donations to promote coproserpitivity with society

**Tracking**
- Periodic human rights due diligence (HRDD) review
- Periodic review of the Employee Core Value and Job Commitment Survey
- Labor market salary standards survey
- Periodic review of RBA Code of Conduct audits
- ISO 45001 Occupational health and safety management system certification
- Safety performance indices
## Appendix: Impact of Material Issues on Winbond’s Value Chain

<table>
<thead>
<tr>
<th>Material Issues</th>
<th>GRI Standard Topics/ Self-Identified Topics</th>
<th>Significance to Winbond</th>
<th>Value Chain Impact Boundaries</th>
</tr>
</thead>
</table>
| Business Integrity and Corporate Governance | GRI 205 Anti-corruption  
GRI 206 Anti-competitive behavior | Winbond values clients’ trust externally and employees’ self-discipline internally. We base our culture of corporate governance on compliance with government regulations and internal guidelines in order to exemplify our core value and safeguard the rights and interests of our stakeholders. | Winbond | Customers | Supply Chain |
| Regulatory Compliance                  | Regulatory compliance (self-identified topics) | Integrity is the ultimate moral compass in managing company operations. At Winbond, we continue to use the highest integrity standards to review our own business conduct to protect the reputation of our brand and establish ourselves a respectable and trustworthy company. | Winbond | Customers | Supply Chain |
| Risk Management                        | Risk management (self-identified topics) | To minimize the impact of external factors and internal issues on company operations, we have always taken a preemptive stance on risk prevention. Our efforts extend to the mitigation of disaster-related risks. Through the tight control of risks and the implementation of safety guidelines and standards, we are closer than ever to accomplishing our sustainable development goals. | Winbond | Customers | Supply Chain |
| Research & Development Innovation      | Research and development innovation (self-identified topics) | Winbond continues to devote its resources to markets where it has a competitive edge. In response to sustainable development trends, we are using the most advanced semiconductor design and manufacturing technologies to develop groundbreaking products and services, creating value for the company while responding quickly to market needs and industry changes. | Winbond | Customers | Supply Chain |
| Productivity and Business Performance  | GRI 201 Economic performance | With the ultimate goal of brand sustainability, we continue to strive for robust operations, revenue growth, and market leadership by providing our global clientele with comprehensive low- to middle-density specialty DRAM solutions. | Winbond | Customers | Supply Chain |
| Supply Chain Management                | GRI 308 Supplier environmental assessment | Winbond has a comprehensive planning and management system in place throughout its operating cycle—from materials sourcing and procurement to product delivery—to ensure a robust flow of capital, materials, and information. | Winbond | Customers | Supply Chain |
| Green Product                          | GRI 417 Marketing and labeling | Based on the lifecycle of each product, Winbond improves designs to achieve high performance, inclusion of recyclable materials, low resource intensity, minimal environmental impact, low carbon footprint, and minimum waste. We plan comprehensively to make sure that our products are sustainable. | Winbond | Customers | Supply Chain |
| Energy and Carbon Emissions Management | GRI 302 Energy  
GRI 305 Emissions | Winbond attaches great importance to environmentally conscious strategies and management guidelines in the use of raw materials, energy, water, and other resources, as well as in our effort to reduce carbon emissions and increase energy efficiency. We also closely monitor our greenhouse gas emissions to ensure that we meet our GHG reduction goals. | Winbond | Customers | Supply Chain |
| Human Resources Management             | GRI 401 Employment  
GRI 403 Occupational health/safety  
GRI 404 Training and education  
GRI 405 Diversity and equality | To fulfill the social responsibility of a world-class company, Winbond is committed to complying with international human rights conventions and providing reasonable and inclusive compensation packages, career planning resources, and most importantly, a welcoming work environment for all employees. | Winbond | Customers | Supply Chain |

Legend: ● Direct impact; ▲ Indirect impact through commercial relationships
## Appendix: Correspondence Between Material Issues and SDGs

<table>
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<th>Material Issues</th>
<th>SDGs</th>
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<tr>
<td>Human Resources Management</td>
<td>4, 6, 8, 12, 17</td>
</tr>
</tbody>
</table>
Definitions

• **Material Topics**
  The GRI Standards encompass three aspects to sustainability development topics—Economy (200), Environment (300), and Society (400). Under these standards, an organization selects topics which it believes may result in significant impact on the economy, environment, or humanity, or which may materially impact stakeholders’ assessment or decision pertaining to the organization.

• **Material Issues**
  Materials issues are ESG topics not stipulated in the GRI Standards but which are of importance to Winbond’s stakeholders, which may significantly impact the Company’s operations, and which correspond with the priority of our sustainability management goals.

References

• GSSB (2021), GRI Universal Standards 2021 - GRI 3: Material Topics 2021
