The Nippon Steel Group creates value by long-term stable provision of diverse products and solutions through its business activities that harmonize with stakeholders and the natural environment in its mother mills in Japan, which are a source of its development and technological prowess, and its overseas manufacturing bases, which support Japanese customers’ overseas expansion and respond to local customer demand. The Group thereby contributes to industrial and social development.

**Value Creation Process and Nippon Steel’s Strengths**

**BUSINESS MODEL**

**INPUTS**
- Manufactured capital
  - Global steel production capacity: 90 mn tons/year
- Natural capital
  - Iron ore: 57.77 mn tons/year (FY2019 imports)
  - Coke coal: 26.24 mn tons/year (FY2019 imports)
  - Industrial water (Makeup water): 700 mn m³ (FY2019 makeup volume)
- Intellectual capital
  - R&D staff (non-consol.): 900
  - Patents (non-consol.):
    - Japan: 15,000
    - Overseas: 21,000
- Human capital
  - Number of employees (consol.): 106,999
  - Number of employees (non-consol.): 27,096
- Financial capital
  - Equity attributable to owners of the parent: ¥2.8 tn/year
  - Interest-bearing debt: ¥2.5 tn
  - D/E ratio: 0.74
- Social and relationship capital
  - Coexistence with communities
  - Relationship of trust and cooperation with customers

**BUSINESS ACTIVITIES**

**Domestic mother mills as sources of technological strength**
- Operational and facility technologies long accumulated based on the model of large blast furnaces and integrated steel mills
- High-grade steel product technologies in response to customers’ sophisticated needs

**Global production framework**
- Leveraging the strength developed in mother mills in Japan, the global production framework supports Japanese customers’ overseas expansion and respond to overseas growing demand

**Synergies between the steelmaking and three other segments**

**BUSINESS ACTIVITIES**

**OUTPUTS**

**Diverse steel products for and solution proposals for various applications**
- Steel slab products, coal chemical products
- Environment and energy; urban infrastructure, steelmaking plant, chemicals, functional materials, composite materials; IT consulting; DX promotion; IT outsourcing; modernization
- Steel slag products, coal chemical products
- Economic value creation
  - Enhancement of sustainable corporate value and return of profit
    - Securing of sustainable profit
    - Return of profit
    - Investment for further growth
    - Corporate value enhancement
- Products and technological solutions in growth areas
- Infrastructure to build in emerging countries and to rebuild in developed countries
- Education for employees and communities
- Contributes to SDGs in society
  - Jobs for employees (incl. subcontractors) and growth in community
  - Safe, reliable living (flood or key safe parts, railway, bridges, buildings, etc.)
  - Energy preservation, climate action, people-oriented society
  - Disaster prevention and reduction, National Resilience
  - Products and technological solutions in growth areas
- Minimal emissions
  - Curtailment of CO₂ emissions; 59% recycling of by-products; air, water, soil contamination risk management

**OUTCOMES**

**ECO PRODUCTS**
- What we produce is “eco-friendly”

**ECO SOLUTION**
- Sharing our “eco-solutions”

**Nippon Steel’s Strengths**

1. **Technology**
   - Products and solutions that contribute to customers’ value creation
     - A global steelmaker’s top-level R&D resources
     - Practical use of advanced technologies by R&D Centers and Steelworks R&D divisions
     - Joint development based on long-term relationships of trust with customers
     - A wide variety of products
     - Stable mass production technology of high-grade steel
     - Synergy with non-steel business segments

2. **Cost**
   - Cost competitiveness, enabled by our process technology and operational
     - The world’s top-class energy efficiency
     - The Top Runner method with multiple steelworks
     - Large blast furnace operational technologies

3. **Being global**
   - Global expansion in response to Japanese customers’ overseas expansion and local demand
     - Global production framework
     - Alliances with the world’s major steelmakers
     - A presence in growing Asia
     - High domestic shares; No.3 in the world in production volume

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