"2030VISION"
MEDIUM-TERM BUSINESS PLAN 2025

May 14, 2021
Agenda

1. Concept of the "2030VISION" and the Medium-Term Business Plan 2025
2. Nippon Paper Group "2030VISION"
3. Sustainability Management
4. Reflection on FY2016 to FY2020
5. Medium-Term Business Plan 2025
Aim to achieve the Group Mission while the world has reached a great turning point.

Group Mission

"2030VISION"

Medium-Term Business Plan 2025

Outlines the significance and purpose of our Group in society. Provides an action agenda that will remain consistent over time.

Provides guidelines that clarify our goals to be achieved by 2030 and the management issues to be addressed in realizing the Group Mission.

Confirms the plan to be implemented in the next five years to support the realization of the "2030VISION".
Nippon Paper Group "2030VISION"
Realize sustainable growth as a comprehensive biomass company shaping the future with trees

◆ Definition of a comprehensive biomass company

A company group that consists of multiple businesses which generate stable profits and realize better living and cultural progress.

It achieves this by using diverse technologies and know-how to maximize the use of renewable woody resources. This provides a wide range of products that help form a circulation-oriented society, supporting profit growth.
# Relations of the "2030VISION" and the Medium-Term Business Plan 2025

## Group Mission

The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business.

## Nippon Paper Group "2030VISION"

Realize sustainable growth as a comprehensive biomass company shaping the future with trees

- Reallocate management resources to growing businesses
- Respond to the rapidly changing social landscape such as CO₂ reduction and environmental issues

## Medium-Term Business Plan 2025 (FY2021–FY2025)

Accelerate the business transformation

## (FY2026–FY2030)

Expand the business domain through new and growing businesses
The environment surrounding the world has changed greatly the past several years

**Social Issues**
- Digital transformation
- Declining birthrate and aging population
- Increased consumer awareness of health and hygiene
- Rise of e-commerce
- Population increase and economic growth in developing countries
- Movement for plastic reduction
- Shift to a low-carbon society
- Increase in demand for water
- Increase in natural disasters

**Impact on the Nippon Paper Group**
- Declining demand for graphic paper
- Increasing demand for sanitary goods
- Increasing demand for packaging materials
- Shift to environmentally friendly products
- Opportunities for business expansion in packaging, Household paper and Healthcare, Chemical and new materials
- Respond to climate change issues
- Review of forest resource values
- Activities to reduce GHG emissions
- Green strategy (maximization of forest values)
Basic Policies of the Nippon Paper Group "2030VISION"

1. **Reallocate management resources to growing businesses**
   - Continue to invest and reallocate human resources to growing businesses
   - Ensure new businesses and new materials make an early positive contribution
   - Rightsize the production structure of the foundation business to maintain competitiveness
   - Expand in overseas markets

2. **Respond to the rapidly changing social landscape including CO₂ emissions reduction and environmental issues**
   - Review the energy mix
   - Pursue a green strategy (maximize the values of forest resources)
Continue to Invest in Growing Businesses

◆ Out of 350 billion yen strategic investment, around 80% will be allocated to growing businesses
◆ Investment for Environmental Initiatives: 52 billion yen

Medium-Term Business Plan 2025: FY2021–2025

Strategic investment: 210 billion

FY2026–FY2030

Strategic investment: 140 billion

Growing businesses

Paper and Paperboard  Package  Household paper and Healthcare  Chemical  New Materials  Energy  Environmental Initiatives
New Business Profitable at an Early Stage and Rightsizing the Production Structure of the Foundation Business

◆ The sales Target for FY2030 for new business and new materials is 65 billion yen
◆ To establish technological development and organize mass-production for new business and new materials, human resources and infrastructure will be utilized from foundation businesses

Expand sales of innovative paper-based products
- Primary packaging material (SHIELDPLUS®)
  Leverage barrier coated paper materials to establish a new position in the market
- Secondary packaging materials (Lamina®, etc.)
  Meet the demand for recyclable and biodegradable materials

Practical application of products made of new materials
- Establish the cost reduction technology of cellulose nanofibers (CNF)
- Expand applications for bio composite and improve manufacturing capabilities including facility upgrades
- Contribute to the reduction of CO₂ emissions by establishing mass production technology for new fuel

Rightsizing the Production Structure of the foundation business
- Utilizing human resources and infrastructures related to graphic paper is the key to making new business profitable at an early stage
- Forecast the long-term demand for graphic paper to identify the timing for new business realization and optimize production transition.
Expand in Overseas Markets

◆ Aim to expand in overseas markets, focusing on Southeast Asia and Oceania, where population growth and economic growth are expected following the impact of COVID-19 pandemic
◆ Aim to expand sales of chemical products associated with the growth in Electric Vehicles (EV)

Packaging
- Capture the strong demand for cardboard in growing market segments in Oceania.
- Aim to expand the flexible packaging business of TS Plastics (TSP) in Malaysia and grow sales of SHIELDPLUS®, Lamina®, etc.
- Aim to expand sales of liquid packaging through collaboration through the overseas business footprint.

Chemical
- Growth in EV
  Expand sales of high-functional cellulose (CMC) for lithium-ion batteries and improve manufacturing capabilities including facility upgrades.
  Expand the use of functional coating resin for paint designed for plastic materials and improve manufacturing capabilities including facility upgrades.
Reduction of GHG and Coal Consumption

Aim to go carbon-neutral in 2050

2021

Basic Policy

Reduction of fossil fuel usage through effective utilization of existing infrastructure

Inhouse Power Generation

Review energy mix
Decreased consumption through reorganization of production footprint

2030

Shift the energy usage foundation

Power Generation Business

Review energy mix

New utilization after the end of FIT
Decarbonization and shift to carbon-neutral

New Fuel

Development and implementation of biomass fuel

In-house utilization and sales of biomass fuel

FY2030 Target

- GHG emissions (Scope 1 and Scope 2)

45% reduction (compared with FY2013)
Green Strategy

Reinforce the business foundation while promoting the construction of a carbon-neutral society by maximizing forest values and expanding biomass products

<table>
<thead>
<tr>
<th>Maximization of forest values</th>
</tr>
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<tbody>
<tr>
<td>- Reinforce the business foundation through sustainable management of forests considering the economy, society, and the environment</td>
</tr>
<tr>
<td>- Stably secure resources and increase the CO₂ fixation amount by improving forest productivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expansion of biomass products</th>
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</thead>
<tbody>
<tr>
<td>- Develop and increase sales of diverse biomass products through varied use of woods</td>
</tr>
<tr>
<td>- Increase the CO₂ fixation amount by popularizing biomass products (Fixing CO₂ with HWP*)</td>
</tr>
</tbody>
</table>

◆ Green Strategy of the Nippon Paper Group

Maximization of forest values and expansion of biomass products = Reinforce the business foundation while helping to bring about a carbon-neutral society

*HWP (Harvested Wood Products/Woods logged and carried out of forests)
- Concept of evaluating the amount of carbon fixed to products and counting the change in the carbon content as the CO₂ absorption amount
- The rules after the Kyoto Protocol's second commitment period allow for counting of HWP derived from domestic materials as a forest sink measure.
Activities for Maximizing Forest Values

**Improve Forest Productivity**

- Efficient production and increase in the CO₂ fixation amount using breeding and proliferation technologies
  - Use proven breeding and proliferation technologies of Amcel in Brazil, etc.
  - Increase the CO₂ fixation amount per unit area (i.e. improve the CO₂ fixation efficiency)
  - Aim to secure plantations mainly in Asia (target is 100,000 ha)
  - Consider support to improve productivity in plantations of other parties as well

**FY2030 Target**

**CO₂ fixation efficiency**

(overseas plantations)

30% improvement

**Realize Public Benefits**

- Preservation of biodiversity and water resources, provision of the recreation function, etc.
  - Expand activities with other industries, environment NPOs, etc. for our domestic and overseas forests

**Utilize Our Domestic Forests**

- Use our forests to revitalize domestic forestry
  - As a field for seeding production using proliferation technologies, large-scale forestry business complexes, trials of advanced forestry technologies, etc.
  - Cooperate with governments, research institutions, other industries, NPO, etc.
Achieve total sales of 1,300 billion yen with the Daily-life Products business accounting for 50% or more

FY2030 Targets

- **Net Sales**: 1,300 billion yen
  - Ratio of sales out of Daily-life Products business: 50% or more (Of this amount, 65 billion yen for new businesses is included)
  - Ratio of overseas sales: 30% or more

- **Operating Income per sales of Daily-life Products business**: 7% or more

- **ROE**: 8.0% or more

- **Green House Gas emissions**: 45% reduction (Scope 1 and Scope 2) (compared with FY2013 level)
Promotion of Sustainability Management
## Material Issues for the Realization of the Group Mission

### Mission

The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business.

### Vision

<table>
<thead>
<tr>
<th>1. Drive social sustainability through our business</th>
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</table>

### Materiality and SDGs

- Achieve the following through the value chain
  - Response to climate change
  - Utilization of sustainable forest resources
  - Preservation of biodiversity
  - Promotion of resource circulation
  - Reduction of environmental burden
  - Respect for human rights

- Response to changes in the social environment
  - Stable supply of products
  - Improvement in safety

- Realization of diverse work styles
  - Active participation of diverse human resources
  - Promotion of occupational safety and health

In addition to business growth achieved through activities 1 to 3 above, the following will be realized
  - Enhancement of governance
  - Communication with stakeholders
  - Coexistence with local communities and society

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**Promotion of sustainability management**
Business Development as a Comprehensive Biomass Company

Promotion of "three circulations" taking advantage of the characteristics of woody resources

Circulation of sustainable forest resources

Circulation of woody resources used for various purposes with technological capabilities

Fusion through mergers and integrations

Compliance and high ethical standards
Reinforcement of “Three Circulations”

Grow the business and help to bring about a circulation-oriented society by reinforcing “three circulations”, which take advantage of woody resources

<table>
<thead>
<tr>
<th>Circulation of Sustainable Forest Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Aim to maximize forest values by using our domestic and foreign plantations and forests (about 170,000 ha)</td>
</tr>
<tr>
<td>- We have developed unique breeding and proliferation technologies using plantations of Amcel as fields, greatly improving the productivity of the plantations of Amcel</td>
</tr>
<tr>
<td>- Apply the breeding and proliferation technologies to other forests to increase the CO₂ fixation amount per unit area and improve the productivity of forest management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circulation of Woody Resources Used for Various Purposes by Using Technological Abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Develop various environmentally friendly products using woody resources and increase the CO₂ fixation amount</td>
</tr>
<tr>
<td>- Aim to grow the business and circulate carbon through woody resources using biomass materials such as CNF and MinerPa® as well as new biomass fuel</td>
</tr>
<tr>
<td>- Reduce the CO₂ generation amount during transport using “Long lasting roll” of Nippon Paper Crecia and CNF reinforced resin, which enables weight reduction</td>
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</table>

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<thead>
<tr>
<th>Active Product Recycling</th>
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<tbody>
<tr>
<td>- Actively utilize unused wastepaper, which has so far been difficult to recycle (establish technologies and the collection system)</td>
</tr>
<tr>
<td>- Construct collection schemes for paper cups and liquid packaging products and barrier paper materials, and minimize environmental burden</td>
</tr>
</tbody>
</table>
Reinforcement of Corporate Governance

◆ Separation of supervision and business execution
  • Strengthen the function of outside directors

◆ Clarifying authority and responsibilities in business execution
  • Create Chief Officer positions
    (Technology, Raw Materials, R&D, Logistics)

◆ Addressing sustainability related issues
  • Disaster Response
    (Formulate and manage Business Continuity Plan)
    (Prepare for natural disasters such as earthquake or heavy rain)
  • Develop disclosure based on TCFD recommendations
Reflection on FY2016 to FY2020
The proportion of Daily-life Products business sales to total sales greatly increased from 22% in FY2016 to 32% in FY2020

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<tbody>
<tr>
<td>Paper and Paperboard</td>
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<td></td>
<td>659.2</td>
<td>675.8</td>
<td>674.0</td>
<td>646.7</td>
<td>568.3</td>
<td>-46.0</td>
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<tr>
<td>Overseas Business</td>
<td>19.4</td>
<td>17.1</td>
<td>18.5</td>
<td>16.8</td>
<td>14.1</td>
<td>-2.0</td>
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<tr>
<td>Daily-life Products</td>
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<td></td>
<td>224.2</td>
<td>258.4</td>
<td>266.2</td>
<td>270.2</td>
<td>317.9</td>
<td>-14.0</td>
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<tr>
<td>Overseas Business</td>
<td>74.8</td>
<td>100.2</td>
<td>102.8</td>
<td>97.2</td>
<td>146.0</td>
<td>-14.0</td>
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<tr>
<td>Energy</td>
<td></td>
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<td></td>
<td>14.6</td>
<td>17.8</td>
<td>36.2</td>
<td>33.0</td>
<td>33.4</td>
<td>0.0</td>
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<tr>
<td>Wood Products and</td>
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<tr>
<td>Construction Related</td>
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<tr>
<td></td>
<td>63.5</td>
<td>62.8</td>
<td>59.8</td>
<td>61.6</td>
<td>59.9</td>
<td>-4.0</td>
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<tr>
<td>Others</td>
<td>30.9</td>
<td>31.7</td>
<td>32.5</td>
<td>32.3</td>
<td>27.8</td>
<td>-5.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>992.4</td>
<td>1,046.5</td>
<td>1,068.7</td>
<td>1,043.9</td>
<td>1,007.3</td>
<td>-69.0</td>
</tr>
</tbody>
</table>

*FY2016 to FY2019 results are retroactively adjusted to FY2020 segment basis, as business segments were reclassified in FY2020.
Operating Income by Segment

Three Business Units achieved five billion yen of operating income, respectively from Household paper and Healthcare business unit in Daily-life Products, Energy business, and Wood Products and Construction Related. (¥billion)

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</thead>
<tbody>
<tr>
<td>Paper and Paperboard</td>
<td>1.1</td>
<td>-8.0</td>
<td>-9.1</td>
<td>6.2</td>
<td>2.5</td>
<td>-15.0</td>
</tr>
<tr>
<td>Overseas business</td>
<td>-2.5</td>
<td>0.1</td>
<td>1.1</td>
<td>-0.1</td>
<td>0.7</td>
<td>-0.5</td>
</tr>
<tr>
<td>Daily-life Products</td>
<td>13.0</td>
<td>13.7</td>
<td>12.6</td>
<td>12.9</td>
<td>7.9</td>
<td>-5.5</td>
</tr>
<tr>
<td>Overseas business</td>
<td>2.2</td>
<td>3.5</td>
<td>5.3</td>
<td>1.6</td>
<td>-4.8</td>
<td>-5.5</td>
</tr>
<tr>
<td>Energy</td>
<td>3.5</td>
<td>4.1</td>
<td>7.9</td>
<td>6.8</td>
<td>6.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Wood Products and</td>
<td>4.4</td>
<td>4.5</td>
<td>4.9</td>
<td>5.9</td>
<td>6.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>Construction Related</td>
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</tr>
<tr>
<td>Others</td>
<td>1.8</td>
<td>3.3</td>
<td>3.3</td>
<td>3.2</td>
<td>1.4</td>
<td>-1.0</td>
</tr>
<tr>
<td>Acquisition-related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-6.0</td>
</tr>
<tr>
<td>Expenses</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>23.8</td>
<td>17.6</td>
<td>19.6</td>
<td>35.0</td>
<td>19.2</td>
<td>-22.0</td>
</tr>
</tbody>
</table>

*FY2016 to FY2019 results are retroactively adjusted to FY2020 segment basis, as business segments were reclassified in FY2020.
Reflection on FY2016–FY2020 (Paper and Paperboard)

◆ Reinforced business by integrating the sales functions of Tokushu Tokai Paper corrugated board base paper/kraft paper business
◆ Reorganized the production organization of the paper business as planned
◆ The rate of reduction in demand increased in FY2020 due to COVID-19

**Reinforced the corrugated board base paper/kraft paper business**

- Integrated the sales functions of Tokushu Tokai Paper and the corrugated board base paper/kraft paper business in 2016
- Founded Nippon Tokai Industrial Paper Supply to reinforce business

**Reorganized the production organization of the paper business**

- Reorganized the production organization of the paper business as planned from 2018 to 2019
- The biomass power generation business and the functional special material business are deployed in Yufutsu
- Fuji has shifted to a production site for household paper
- In 2020, we decided to withdraw from the paper and pulp business in Kushiro mill considering economic stagnation due to COVID-19

**Decrease in demand and price correction**

- The structural decrease in demand is still going on due to the progress of digitization, etc.
- The rate of reduction in demand increased in FY2020 due to COVID-19
- We corrected the prices of newsprint printing paper, communication paper, and corrugated board base paper. We maintained the corrected prices.
Reflection on FY2016–FY2020 (Daily-life Products - Packaging)

◆ Acquired the liquid packaging board business of Weyerhaeuser (NDP)
◆ Performed CAPEX to enhance the earning power of NDP
◆ Acquired the packaging division of Orora in Australia and NZ (Opal)
◆ As for domestic paper packs, expanded the sales of cartons by reinforcing sales of filling machines, etc.

NDP (Nippon Dynawave Packaging)
- In 2016, acquired the business of liquid packaging board of Weyerhaeuser
- In 2019, reinforced the earning power by installing new dry pulp machines and upgrading the dry end process of paper machines. The progress of construction is slower than planned due to COVID-19. The effect of construction will be realized through higher sales of pulp, etc.

Opal
- In 2020, acquired the fibre packaging division of Orora in Australia and NZ. The former Australian Paper was merged with this business, forming Opal.
- Severe business environment due to COVID-19 in FY2020
- Realize synergies and recover earnings post COVID-19 pandemic.

Domestic Paper-pak Business
- We have been reinforcing sales of filling machines since FY2018. Higher sales of cartons and closures
- Development of new filling machines and new systems is accelerated via a capital and business alliance with Shikoku Kakoki
Reflection on FY2016–FY2020 (Household Paper and Healthcare and Chemical)

◆ Two household paper machines operated as planned in Crecia Kasuga
◆ Established the production structure for making “long lasting rolls” for toilet rolls and rolled towels
◆ Decided to install new high-functional cellulose (CMC) manufacturing equipment

Household paper and Healthcare

- In 2016, “SCOTTIE Toilet Rolls FLOWERPACK 3times long use 4Rolls” was launched.
- In 2016, Nippon Paper Crecia and Kasuga Paper Industry Co., Ltd. agreed to establish a household paper joint venture. In 2018 and 2020, the first and second paper machines, respectively, started operation
- In 2018, healthcare processing machines was installed in Kyoto mill of Nippon Paper Crecia
- In 2019, Nippon Paper Crecia installed non-woven production facility in Fuji mill to start its domestic production.
- In 2020, the sales functions of the towel paper business of Nippon Paper Crecia and Try-Fu Co., Ltd. were integrated.
- In 2021, all products have been shifted to “long lasting rolls note1” as a pioneer in this industry

Chemical

- In 2019, decided to install new high-functional cellulose (CMC) manufacturing equipment in Gotsu mill
  The construction is expected to be completed in FY2021. Shift to fields of high-added value and high quality such as materials for lithium-ion batteries to respond to global demand increase.
- Performed construction to increase production for functional coating resin in Iwakuni mill.
  It is planned to be completed in FY2021. Aim to expand sales for areas related to car parts and packaging.

Note1: Products with the concept of “benefit for all four sides,” consumers, distributors, manufacturers, and global environment. Those brings benefits like more efficient logistics and storage, lower environmental burden, and so on.
Reflection on FY2016–FY2020 (New Business)

◆ For cellulose nano fibers (CNF), installed mass production machines in Ishinomaki mill and Gotsu mill and demonstration machines in Fuji mill. Adoption cases increased for a wide range of fields.
◆ The development of new materials such as SHIELDPLUS, Lamina, and MinerPa proceeded.
◆ Established an organization to expand sales by coordinating development, manufacturing, and sales.

**CNF (CELLENPIA®)**
- In 2017, mass production machines were in operation in Ishinomaki mill and Gotsu mill. Demonstration production machines of CNF reinforced resin were in operation in Fuji mill.
- In 2019, it was adopted for tires for the first time in the world.
- In 2020, modified cellulose (intermediate in CNF manufacturing) with an antivirus function was developed.
- In 2021, it has turned out that CNF stores electricity, and a light electric storage device development has been started.

**SHIELDPLUS®, Lamina®, etc.**
- In 2016, started reinforcing application development of the paper barrier packaging material “SHIELDPLUS®”.
- In 2019, acquired a soft package processing company in Malaysia (TSP).
- In 2019, developed the heat seal paper “Lamina®”.
- In 2020, completed the mass production equipment of SHIELDPLUS in Jujo Thermal Oy (JTOy).
- From 2020, the development and proposals of new packaging materials in cooperation with other industries increased.
Capital investment in growing fields was performed mostly as planned.

Acquired the fiber packaging division in Oceania (Orora) (¥ billion)

**Overview of the Investment Plan in the Sixth Medium Term Business Plan**

<table>
<thead>
<tr>
<th>Category</th>
<th>2018-2020 6th MTBP</th>
<th>2018-2020 Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic investments</td>
<td>230.0</td>
<td>323.5</td>
</tr>
<tr>
<td>Growing fields</td>
<td>82.0</td>
<td>92.3</td>
</tr>
<tr>
<td>Maintenance and replacement, etc.</td>
<td>123.0</td>
<td>117.7</td>
</tr>
<tr>
<td>Acquired the Paperboard Package division in Australia and New Zealand from Orora.</td>
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</tbody>
</table>
Medium Term Business Plan 2025
## Basic Strategy and Key Issues

### Basic strategy

- Accelerate the transformation of the business structure

### Key issues

- Reallocate management resources to the Growing Business
- Accelerate enhancing profitability of the New Business
- Reinforce the competitiveness of the Foundation Business
### Growing Business, New Business, and Foundation Business

#### Growing Business
- **Package**
  - Industrial paper
  - Paperboard/Corrugated board base paper
- **Household paper and Healthcare**
- **Chemical**
- **Energy**
- **Wood/Building material**

#### New Business
- **New material products** (CNF, etc.)

#### Foundation Business
- **Newsprint**
- **Printing/Communication paper**
- **Civil engineering and construction**

- Businesses to lead growth of our group with an eye on 2030
- Strategically allocate resources
- Businesses to be developed through new market cultivation and other measures beyond the existing business domains
- Businesses to support Growing Business and New Business in a multilateral manner including cash perspective

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<tbody>
<tr>
<td></td>
<td>FY2020 Result</td>
<td>MTBP 2025 Target</td>
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<tr>
<td><strong>Sales</strong></td>
<td>1,007.3 billion yen</td>
<td>1,100 billion yen</td>
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<tr>
<td><strong>Operating Income</strong></td>
<td>19.2 billion yen</td>
<td>40 billion yen or more at an early stage</td>
<td></td>
</tr>
<tr>
<td><strong>EBITDA</strong></td>
<td>86.9 billion yen</td>
<td>Stably 100 billion yen</td>
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<tr>
<td><strong>D/E ratio</strong></td>
<td>1.86</td>
<td>1.5 to 1.6 times</td>
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<tr>
<td><strong>ROE</strong></td>
<td>0.8%</td>
<td>5.0% or more</td>
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</tr>
</tbody>
</table>

※As for D/E ratio, the results in FY2020 is Adjusted to Net D/E ratio

Adjusted Net D/E ratio = (Net interest-bearing debt - Equity-type debt)/(Shareholders' Equity + Equity-type debt)

Equity-type debt : The amount of debt financed through Hybrid loans that has been recognized as equity credit by rating agencies (50% of the financed amount)
The Medium-Term Business Plan 2025 - Financial Targets (by Segment)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Sales (billion yen)</th>
<th>Operating Income (billion yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY2020 Result</td>
<td>MTBP 2025 Target</td>
</tr>
<tr>
<td>Paper and Paperboard</td>
<td>568.3</td>
<td>490</td>
</tr>
<tr>
<td>Daily-life Products</td>
<td>317.9</td>
<td>460</td>
</tr>
<tr>
<td>New Business</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Energy</td>
<td>33.4</td>
<td>45</td>
</tr>
<tr>
<td>Wood Products and Construction Related</td>
<td>59.9</td>
<td>75</td>
</tr>
<tr>
<td>Other Business</td>
<td>27.8</td>
<td>30</td>
</tr>
<tr>
<td>Energy Conversion*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1,007.3</td>
<td>1,100</td>
</tr>
</tbody>
</table>

*Energy Conversion: Reflected the increase in cost due to energy conversion from coal. The impact of carbon pricing is not assumed.
- Realize the value creation at Opal
- Proceed investments in response to the stronger demand in Oceania post COVID-19 pandemic
- As for NDP, revenue increase expected realizing the return of capital investments in dry pulp machines, etc.

◆ Target sales for FY2025: 260 billion yen (+70 billion yen compared with FY2020)

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2023</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper-pak</td>
<td>NSATOM® sales start (2021)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPOPS®, School POP® sales expansion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NDP</td>
<td>Realization of the capital investment return (2021)</td>
<td>(Sales expansion of dry pulp and stabilization of the operation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realization of value creation (2023)</td>
<td>(Optimization of organization, materials, and logistics)</td>
<td></td>
</tr>
<tr>
<td>Opal</td>
<td>Expansion of the Oceania business (2025) (recovery from the COVID-19 pandemic and enhancement of equipment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSP</td>
<td>Operation of new plant (2021)</td>
<td>Production increase (2023)</td>
<td>Top-class flexible packaging converter in Malaysia (2025)</td>
</tr>
</tbody>
</table>
Reallocation of Management Resources to Growing Fields: Household paper and Healthcare

- All toilet roll products have been shifted completely to “long lasting rolls”
- Meet new demands in response to changes in the lifestyle such as increased awareness of hygiene and aging society
- Develop the life-style leading products to meet customer needs
- Differentiate the product lines by unique technologies (non-woven and super long lasting roll)

◆ Target sales for FY2025: 125 billion yen (+40 billion yen compared with FY2020)

<table>
<thead>
<tr>
<th>Year</th>
<th>Household paper</th>
<th>Healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>Shift to “Long lasting rolls” (more efficient logistics, CO₂ reduction, and Environmental burden reduction)</td>
<td>Establish market presence (light incontinence products: No.2, adult diapers: increase the market share)</td>
</tr>
<tr>
<td>2023</td>
<td>Household paper business at Ishinomaki mill (from 2023)</td>
<td>Increase the number of processing machines in response to an increase in demand</td>
</tr>
<tr>
<td>2025</td>
<td>Develop and commercialize products for SDGs (such as products with paper packaging, long lasting rolls, etc.)</td>
<td>Materialize the returns from the past investments (Crecia Kasuga, non-woven facitliy, and hand towel processing machine)</td>
</tr>
<tr>
<td></td>
<td>Maximize the effect of partnership with Crecia Kasuga and Try-Fu (household paper and paper towel)</td>
<td></td>
</tr>
</tbody>
</table>

Household paper

Healthcare
Reallocation of Management Resources to Growing Fields: Chemical

- Early realization of the return of capital investments approved in the 6th Medium Term Business plan (functional coating resin and functional cellulose)
- Continuation of timely investments and arrangement of the research and development organization considering the demand trend

◆ Target sales for FY2025: 60 billion yen (+18 billion yen compared with FY2020)

<table>
<thead>
<tr>
<th>Product</th>
<th>2021</th>
<th>2023</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissolving pulp</td>
<td>Expand sales of high value added products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional coating resin</td>
<td>Term I of production increase (2021)</td>
<td>Term II of production increase (2025)</td>
<td></td>
</tr>
<tr>
<td>Functional film</td>
<td>Supply the material to keep up with the trend of higher quality and larger screen</td>
<td>Add new coaters (2026)</td>
<td></td>
</tr>
<tr>
<td>Functional cellulose</td>
<td>CMC production increase (2021)</td>
<td></td>
<td>Overseas expansion (2025)</td>
</tr>
</tbody>
</table>

*For lithium-ion batteries and foods
# Accelerating profit contribution from the New Business

- **Sales target:** 15 billion yen in 2025 to 65 billion yen in 2030
- **Promote development and practical application of environmentally friendly products, mainly CNF**
- **SHIELDPLUS®/Lamina®:** Establish the position in the flexible packaging market

## New Organization

- Establish “Biomass Material Business Division” (June 2021)
  Reinforce analysis of customer needs and promote early commercialization of new materials and new products
- **Reinforce the functions of the “Paper Conversion Solution Promotion office” (utilize Group’s collective strength)**
- **Cultivate new customers using NP Trading and the existing commercial channels of each business category**

## Enhancing Production

- Establish the CNF mass production and manufacturing technology by 2023
- Establish bio composite manufacturing technologies and business schemes by 2023
- Establish new fuel manufacturing technologies and raw material procurement schemes by 2023
- Launch the bio refinery business by using existing pulp manufacturing capacity by 2024

## Expand Sales of Paperization Products

- Provide new value by expanding sales of SHIELDPLUS®, Lamina®, waterproof cardboard case, and hybrid materials with biodegradable resin
- Reinforce relationships with customers by promotion activities

## Promote Recycling

- Promote utilization of unused wastepaper by setting up the “Recycling Promotion Office” (June 2021)
- Establish the recycling system of paper cups (from 2022)
- Reinforce the BCP response and optimize the production organization from a long-term viewpoint matching with the demand trend (Optimum use of resources considering the shift to the Growing Business and New Business)
- Fulfill the supply responsibility by promoting stable operation

Optimization of Production Sites

- Establish the optimum production footprint which enables the maximum use of resources including human resources, equipment and land
  - Need to consider increase in the demand of Growing Business and commercialization of New Business
  - Assume the demand trend and make multiple scenarios of supply organizations of the Foundation Business up to 2030
- Establish Business Continuity Plan assuming natural disasters
  - Consider and promote multiple production sites and equipment preparation for main product types

Stable Operation

- Promote preventative maintenance and reduce workloads of plant operations by introducing AI, IoT, and DX technologies
- Reinforce the operation support organization with consolidated management of plant engineers

Domestic demand assumption in the Medium-Term Business Plan 2025 (YoY)
- Newsprint: -5% to -7% - Printing paper: -3% to -5%
- Copy paper: 0 to -2%

Policy for the optimal production footprint in 2030

- Respond to supply-demand gap
  Identify and respond to the impact of COVID-19

- Identify the future plans of production sites
  Work on Growing Business and New Business

- Reorganize the production sites
  Shift to a new organization which consists of Growing Business, New Business, and competitive Foundation Business

- Optimize production footprint
Shareholder return, EBITDA and capital efficiency

Shareholder return

No change in the basic policy to continue stable dividends

EBITDA

Stable earning 100 billion yen

Capital Efficiency

Aim to achieve 5.0% or more ROE in FY2025

◆Use of cash

- Prioritize investments for growth while monitoring financial discipline
- Focus on investments in Growing Business (174 billion yen in total in 5 years)
- Target D/E ratio 1.5 to 1.6 times

◆Capital efficiency: Take actions in the early stage to improve the capital efficiency and aim to achieve 5.0% or more ROE in FY2025

- Realize value creation at Opal quickly
- Implement investments in growing fields in a timely manner
- Consider taking further actions to resolve the supply-demand gap caused by COVID-19 pandemic

The actions may cause one-time loss but will be executed accordingly

◆ROE Image

ROE target
Take actions (≈2023)
To growth phase (2024~)

2020  2023  2025

Operating profit per sales
The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business.

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