AP-Related Business

We aim to become a one-and-only top manufacturer by leveraging our technology and service capabilities and establishing technologies for decarbonization, remote operation, and automation.

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SWOT analysis	Details	Countermeasures by Nikko
Strengths	Overwhelming share and presence in the Japanese market	Offering of new values such as environmentally friendly production and subscription-based maintenance service
	Full support of customer plants including MS	
Weaknesses	Price competitiveness	Re-analysis of user needs and introduction of semi-custom-made units
Opportunities	Sales expansion of environmentally friendly products towards a carbon-free society	Development of products that run on hydrogen and ammonia
	Workstyle reform at customers and remote operation and automation needs	MS proposal utilizing data analysis and DX
Threats	Development of similar products by rival companies	Strengthening of product development capability and quality of human resources
	Entry of foreign rival companies	Maintaining an overwhelming maintenance service structure

PEST analysis	Details	Countermeasures by Nikko
Political factors	Risk of changes in public investment policy due to change of government	Strategy to stabilize revenue including subscription service
	Rising needs for environmentally friendly facilities for achieving decarbonization	Bolstering development of environmentally friendly products
	Expect the implementation of recycling laws in Thailand and China	Product development that satisfies local needs
Economic factors	Worsening performances and suppression of investment by road pavement companies due to soaring asphalt price	Offering of values for improving operating rate of customer plants
	Workstyle reform at customers and remote operation and automation needs	Offering of differentiated products and services that satisfy customer needs
	Soaring prices and difficulties in purchasing various materials and equipment	Revision of product prices
Social factors	Growing needs for saving manpower and remote operation reflecting a labor shortage	Promotion of remote operations and automation support
Technological factors	Data analysis utilizing control panels developed by Nikko	Decarbonization and strengthening of support for remote operation and automation
	Fuel transition using burner technology developed by Nikko	

Key points

- We aim to achieve net sales of 23.0 billion yen in FY 2024, operating income of 1.6 billion yen, and operating margin of 7.0%.
- We will support our customers' decarbonization efforts by strengthening the development and sales of carbon neutral products.
- We will support our customers' plant operations more than ever by establishing plant remote operation and automation technologies and offering services.
- We will start a full-fledged maintenance subscription service as a new service.
- We will strengthen the full-scale operation of the Thailand plant and the development of strategic standard models and pursue the establishment of a structure for entering into new markets.

Values to be realized

- We will offer asphalt plants that will ensure a secure, safe, comfortable, and sustainable road environment in Japan.
- We will contribute to the reduction of traffic accidents, easing of traffic congestion, and development of environmentally friendly road transportation network by supporting the road infrastructure development of emerging countries.
- We will contribute to the decarbonization efforts by the customers by developing and selling foamed equipment as well as burners that would allow fuel transition from heavy oil to natural gas and hydrogen.
- We will offer safe and highly operational plants that do not shut down and an employee-friendly work environment by offering predictive maintenance as well as remote operation and automation service.

Source of strength

- Quality asphalt that were produced at Nikko plants have been highly rated and we have a 100% market share in asphalt plants for expressways in Japan.
- We have an overwhelming market share and high in-house manufacturing ratio, and offer maintenance service for the entire plant of the customers, including recycle crushing plants. We have the capability to develop environmentally friendly products and to commercialize them ahead of our competition.

Business environment

- The road project expenditure, which was on a declining trend after peaking in FY 1995, bottomed out in FY 2012 under the Democratic Party of Japan administration and subsequently have been on a gradual recovery trend. However, as project budgets were allotted with emphasis on addressing the aging bridges and tunnels, asphalt mixture production continued to gradually decline. In FY 2021 it was down 1.8% from a year earlier to 40.71 million tons. The number of APs in operation also fell further to 1,040 units in FY 2021 from 1,652 units in FY 2000. Under such circumstances, total AP demand in FY 2021 declined 11 units from a year earlier to 42 units. The breakdown is 18 units of AP using virgin asphalt materials, up two units from a year earlier, and 24 units of recycling plants, down 13 units. This was primarily due to a decline in appetite for capital investment and postponement of investment projects caused by the deterioration in business performance of road pavement companies stemming from rising asphalt costs following the increase in crude oil price.

Business overview	Details
Products	Asphalt and recycling plants
Customer	Construction companies, road pavement companies
Market share	Static share in Japan: 78%
Sales breakdown	Sales breakdown: 47% (Japan: 78%, Thailand: 21%, China: 1%)
Operating margin	3.1% (FY 2021)
Ratio of MS net sales	48%
Production bases	Akashi head office factory, Thailand, and Shanghai, China

MS: maintenance service

- Nikko's steady-state share of APs operating in Japan in FY 2021 came to 77.7%, down 0.3 pp from FY 2020.
- The orders in FY 2021 were limited to 18.2 billion yen, down 10% from a year earlier, and order backlog as of the end of the fiscal year stood at 7.7 billion yen. Net sales of plants declined 25% year on year to 4.9 billion yen and net sales of maintenance service also fell 6% to 8.8 billion yen. Operating margin declined 3.3 pp from a year earlier to 3.1% reflecting surging steel price, etc.

Future business opportunities and strategies

- For FY 2022, asphalt mixture output is estimated to continue to decline to 39.90 million tons, down 2.0% from a year earlier, and AP demand is also estimated at 37 units, down five units year on year. The budgets of eight road pavement companies show a recovery trend in business performance. While there are concerns of soaring raw material prices and the impact of the depreciating yen, we are expecting the market to be firm, reflecting the consolidation of plants in operation and replacement demand for the plants delivered during the bubble economy era.
- Nikko has set forth three main strategies for achieving the medium-term plan and long-term vision. The first one is the development and sales expansion of products that support decarbonization by leveraging our technological prowess, which is the best in the industry. In FY 2021, sales volume of decarbonization-related products increased by seven units to nine (approx. 0.4 billion yen). Switch from heavy oil burners to natural gas and biomass burners, and demand for warm mix (foamed) equipment for asphalt are expected to increase until around FY 2025. From FY 2025 onwards, ammonia burners, new dryer models, and exhaust heat recycling systems are expected to contribute to sales and we expect a net sales of about 4.0 billion yen around FY 2028. The second strategy is the support of remote operation and automation of plants by leveraging the analysis of plant operation data and DX based on an ample track of supply records and control panels developed in-house. We will offer next-generation maintenance service that will solve the various issues faced by customers such as a shortage of engineers, workstyle reform, and improvement of production efficiency, and aim to improve profitability and become a one-and-only presence. The third point is capturing the ASEAN market by leveraging the Thailand manufacturing base, which began full-scale operation. Of the approximately 700 operating units in Thailand, some 240 are Nikko Group plants. Compared with the 100% pavement ratio of Japan, it is about 80% in Thailand. Stable growth in road pavement works is expected to continue and large-scale projects are planned from 2023. Nikko has concluded a contract as an asphalt plant agency with TIPCO ASPHALT, a major asphalt sales company. In addition to sales expansion, we plan to raise our price competitiveness by locally producing strategic standard models currently being developed while exploring replacement demand from high-end customers. Moreover, to achieve the 2030 long-term vision, we will start earnestly considering entering unexplored markets such as Vietnam and Indonesia, where imported second-hand plants are mainly used. The road pavement ratio of Indonesia and Vietnam is estimated to be low at 60% and the room for potential growth is attractive. We aim to establish a business base in the ASEAN market by laterally deploying the successful Thailand model, promoting the development of local agents, and supplying strategic standard models from the production base in Thailand.
- In the new medium-term plan, we will devote all our energy to improving profitability, an issue since the previous medium-term plan, while focusing on the development and sales expansion of environmentally friendly products, which will be at the core of the differentiation strategy for the future.

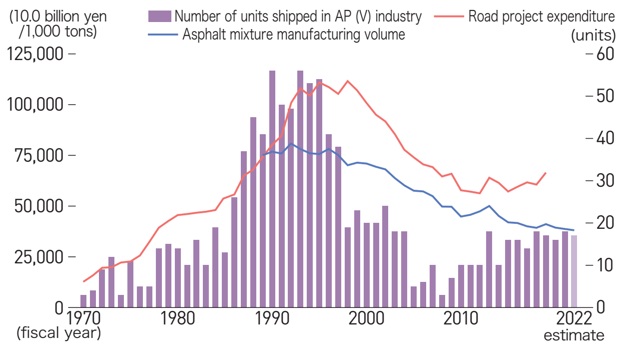
FY 2024 numerical targets

Net sales	Operating income	Operating margin
23.0 billion yen	1.6 billion yen	7.0%

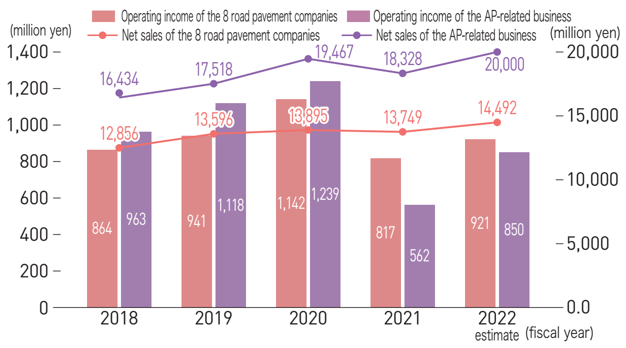
Business Strategies

- Support for decarbonization
- Remote operations and automation support
- Development of standard overseas models with competitive edge
- Build an organizational structure for business expansion in the ASEAN market

Number of units shipped in AP (V) industry and road project expenditure



Business performance trend of 8 road pavement companies in total and the AP-related business



Net sales by product, operating margin, medium-term plan numerical targets