



2020 | Since 1960

Nippon Paint Holdings Group Communication Magazine

KOZUCHI

 NIPPON PAINT HOLDINGS CO., LTD.

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PAINT.W NDER
Color the World with Brilliant Innovation

 **NIPPON PAINT HOLDINGS CO., LTD.**
Basic & New

PAINT.WONDER

Color the World with Brilliant Innovation

Paint and coating technologies are used in a wide variety of ways in every corner of society. Knowledge of the potential of paints and coatings and the great technological prowess of Nippon Paint Holdings Group will make you feel wonder at the surprisingly wide applications of paint and coating technologies. The paint, coating and surface treatment technologies of the Nippon Paint Holdings Group not only bring colors and joy to everyday life but also have the wonderful potential to provide solutions to various social issues.

“PAINT.WONDER” is a message designed to represent such a feeling of excitement, expectations for a wider spread of paint and coating technologies, and the Nippon Paint Holdings Group’s strong aspirations for a brighter future.

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TOP MESSAGE

The Time is Now to Utilize Paint and Coating Technologies to Solve Social Challenges



Masaaki Tanaka

Chairman, President & CEO,
Nippon Paint Holdings Co., Ltd.





Aiming for more technical innovation based on our history of addressing social challenges

Since its founding nearly 140 years ago, Nippon Paint Holdings Group (hereinafter called "NPHD") has used paint and coating technologies to bring color, comfort and security to peoples' lives in various fields. Our founder Jujiro Moteki, an alumnus of Kaisei School, the predecessor of the University of Tokyo, developed Japan's first non-toxic zinc-based white material in response to women being poisoned by the lead-based white substance in face powder at that time. That was the start of our history. I believe it is our social responsibility, and an important mission of mine, to respond with flexibility to various changes in society and provide solutions for social challenges.

Overcoming the COVID-19 crisis by using new ideas to continue providing new value

One of the challenges the world is currently facing is the COVID-19 pandemic, which started in January 2020 and is still running rampant without any signs of abating. I have established three basic policies to respond to this challenge. First, protect employees and their families from coronavirus infection. Second, secure funds to protect the NPHD Group's businesses around the world. Third, have a business continuity plan firmly in place to allow us to take the offensive when the COVID-19 pandemic is contained. We established a Novel Coronavirus Emergency Headquarters at the end of January

2020 to take measures to protect people from COVID-19 from a global perspective, as well as to formulate the New Normal Guidelines. In addition, in July of the same year our group started offering PCR tests at no charges for all employees who asked for this test to create a safe and secure workplace environment for employees. In association with the second and the third policies, we established commitment lines worth 200 billion yen in April to be prepared for the worst. It is vital to have access to sufficient funds reinforce to ensure business continuity and allow us to work on the reinforcement of our business foundation, including investments in production facilities and human resources, without worrying about funding. We will come through this time of difficulty by creating new ideas and continuing to provide value to society through radical changes.

Applying innovative thinking to contribute to society through paint and coating technologies that have immense possibilities

With the goal of solving social challenges that emerge one after another, we have reinforced R&D activities that form the basis of our businesses. Specifically, we concluded an industry-academia co-creation agreement in May 2020 with the University of Tokyo, with which our founder has a relationship. Based on this agreement, we will host an industry-academia co-creation course called "Construction of Innovative Coating Technologies" at the university in October of the same year. In addition, we will utilize the results of our collaborative research activities for the protection of the global environment and creation of a sustainable society through

collaboration with our partner companies around the world. These partners include NIPSEA Group, which is the largest paint manufacturer in Asia, and DuluxGroup, which is the largest paint manufacturer in Australia. The NPHD Group will thus make the most of the technological capabilities, expertise and business networks of the highly skilled engineers at our partner companies worldwide. Our anti-viral and anti-bacterial paint was developed using visible light-responsive photocatalyst technologies and is now in practical use. This paint is used in public facilities, various types of buildings, restaurants, dance studios and other locations. We are undertaking the development of products and services with new functionality that goes one step beyond visible light-responsive photocatalyst technologies at an accelerated pace.

Valuing customers and employees and creating value through quick decision-making and sound organizational capabilities

The NPHD Group places the Maximization of Shareholder Value (MSV) as its paramount management mission. MSV is predicated on fulfilling our duties to all stakeholders, which sets us apart from the so-called "Shareholder Primacy." Shareholder value is the residual value delivered to shareholders after a company fulfills its duties required by society and other stakeholders. Examples of these duties include investing in operating bases for sustainable growth, making proper payments to our partners and vendors, providing employees with suitable compensation and other benefits, supplying products to customers that meet their needs, and

reducing the environmental impact of our products. The essence of MSV is to maximize this residual value. Based on this management mission, we decided on August 21, 2020, to acquire the Asian JVs and the Indonesia business. After this transaction, NPHD will have 100% ownership of the Asian JVs and the Indonesia business, which are currently owned by Wuthelam Group. As part of this deal, Wuthelam Group will purchase 148.7 million shares of newly issued NPHD stock. As a result, Wuthelam Group's ownership of NPHD will increase to 58.7%. This transaction will simplify our ownership structure, which has been criticized for being too complex. The deal will also protect the interests of minority shareholders, thereby allowing a complete alignment of the interests of our major shareholder and minority shareholders. In addition, the transaction will increase NPHD Group's net income by approximately 60% and earnings per share by more than 10%, enabling us to create a strong financial base. For almost 60 years, NPHD and Wuthelam Group have used their partnership to build a strong relationship based on mutual trust. This partnership has made it possible to achieve dramatic growth. By leveraging the even stronger business structure and financial base resulting from this deal, we are determined to use "Spider-web management" to continue upgrading our comprehensive capabilities. "Spider-web management" allows NPHD Group companies in Japan and other countries to retain their autonomy while cooperating with each other. All companies are aiming for rapid progress in the Japanese and global markets as well as for the Maximization of Shareholder Value, which is the paramount management mission of NPHD Group. I believe a sound framework is in place for initiatives by our entire group for tackling a broad range of social challenges. There will be no changes to our management structure as a result of this transaction, and we will maintain our stock exchange listings.

Continuing to explore the possibilities of paint with "PAINT.WONDER" as our underlying spirit

Paint is a familiar material and plays a significant role in society. Paint is a source of wonder, joy and excitement. Paint and coating technologies have great prospects for providing solutions to various social issues. "PAINT.WONDER," which is the concept of this magazine, embodies these expectations for the continuing global dissemination of paint technology. In addition, we launched a TV commercial featuring the excitement and fascination of paint in October 2020. Furthermore, we will accelerate "Spider-web management" that allows NPHD Group companies in Japan and other countries to autonomously cooperate with each other to create synergies. By taking these actions, we will rapidly develop innovative paint and coating technologies that can contribute to solving social issues, a goal that reflects our founder Jujiro Moteki's commitment to society. Our entire group has a resolute dedication to providing safety and security to people around the world. In closing, I would like to ask everyone for your continued guidance and support in our future endeavors. Thank you very much.

TOP NEWS

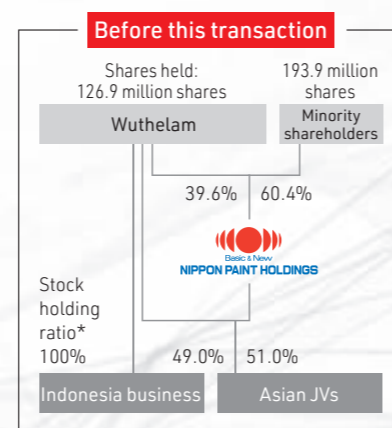
Establishing Dominance in Asia to Pursue Global Growth

Strong partnership continues with the common goal of "Maximization of Shareholder Value"

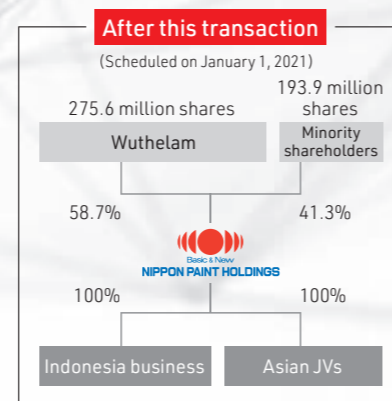
Acquisition of Asian JV Stake and Indonesia Business

Nippon Paint Holdings (NPHD), at its extraordinary board of directors meeting on August 21, 2020, resolved to increase its stake in its joint ventures with Wuthelam Group (Wuthelam) in Asia to 100% and acquire the Indonesia business owned by Wuthelam Group. Based on this resolution, Wuthelam will purchase newly issued NPHD stock through third-party allotment that will increase its ownership in NPHD to 58.7%. After this transaction, the Japan-Singapore partnership between NPHD and Wuthelam will advance to a new phase, allowing us to become integrated in name and reality. Prior to this transaction, Wuthelam held 39.6% of NPHD's shares, a 49% stake in the Asian JVs, and a 100% stake in the Indonesia business. This ownership structure had been criticized for being complex with outflows of profits from the Asian JVs, which are the engine of NPHD Group's growth, and a possibility of conflicts of interest in terms of governance. After this transaction, Wuthelam will own 58.7% of NPHD shares and NPHD will hold 100% of the Asian JVs and the Indonesia business, making the ownership structure simple and easy to understand. The expected benefits from this transaction include an approximately 60% increase in net income and more than 10% growth in earnings per share even after taking into consideration the third-party allotment. In addition, this transaction will allow us to establish a structure for business operations without potential conflicts of interest. The total cost of the acquisition of the Asian JVs and the Indonesia business will be 1,285.1 billion yen. In this transaction, 148.7 million new NPHD shares will be sold to Wuthelam through a third-party allotment, allowing us to reinforce our capital without equity impairment. As a result, the ideal conditions will be in place for strategic management initiatives. These actions include investments in production bases in Japan, product development with the goal of helping to resolve social issues, and M&As. As a result, we expect to accelerate our global growth while establishing a dominant "Asia x Construction" model.

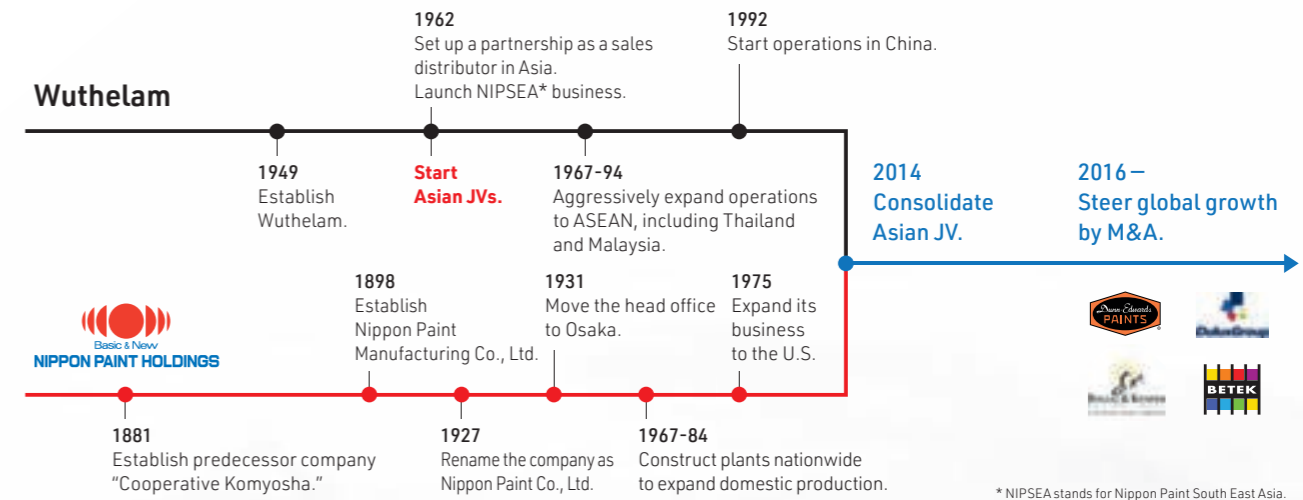
- ▶ Based on a strong partnership with Wuthelam that spans nearly 60 years, NPHD will speed up its growth through a streamlined governance structure to continue pursuing global growth opportunities.
- ▶ In addition, we will achieve a full alignment of shareholders' interests, enabling us to step up the pace of measures for the "Maximization of Shareholder Value."



* The stock holding ratio was calculated by using the number of shares issued (excluding treasury stock) as of the end of June 2020 as the denominator.



The History of Our Partnership with Wuthelam



NPHD and Wuthelam's partnership dates back 58 years, when the companies established a joint venture in Singapore in 1962 to start the NIPSEA business. By the 1970s, NPHD Group had expanded operations to other areas of Asia, including Thailand, Malaysia, and the Philippines. In 1992, operations started in China. By supplying an extensive product line and using highly effective sales and marketing strategies, the NPHD Group has consistently maintained top-ranking sales and market share gains. This growth was backed by the expansion of operations to 18 countries and regions, making NPHD Group the largest paint manufacturer in Asia with 16,000 employees. NIPON PAINT's red "N" on blue logo has become a well-known brand. Brand awareness throughout Asia is high because of exposure in various media coverage and advertising media. In 2014, NPHD reached a strategic agreement with Wuthelam that resulted in NPHD's

consolidation of the NIPSEA business and an increase in Wuthelam's ownership of NPHD from 14.5% to 39.6%. As a result, NPHD Group's revenue grew from 260 billion yen to more than 600 billion yen. This provided us with a solid foothold for the use of M&As to pursue global growth opportunities. On the operations front, our collaboration has deepened in the automotive coatings business, industrial coatings business and decorative paints business. This collaboration produced business synergies in many ways by leveraging our customer networks and product capabilities, two of our core strengths of ours. In addition, our partnership has led to technical collaboration in R&D activities and the sharing of knowledge about supply chain management, raw material procurement and marketing for decorative paints. As a result, our stock price has increased by an astounding 20-fold over the last 10 years.



Goh Hup Jin
 Profile/ Director of Nippon Paint Holdings and Managing Director of Wuthelam Group
 Mr. Goh, a Singapore citizen, was born in 1953. He graduated from the University of Tokyo with a chemical engineering degree in 1976 and earned an MBA from UCLA. He is both an engineer with 41 years of experience in the paint industry and an entrepreneur with a strong track record. He has been a director of NPHD since 2014.



Message

On August 21, 2020, Nippon Paint Holdings announced the acquisition of the Asian JVs and the Indonesia business previously owned by Wuthelam Group. Upon this announcement, President & CEO Masaaki Tanaka of Nippon Paint Holdings held a press conference and explained the details and our intention behind this transaction. In consonance, Mr. Goh shared, "I fully support what Mr. Tanaka had said at the press conference. In particular, I would like to emphasize that the increase in Wuthelam Group's shareholding in Nippon Paint Holdings is purely a result of our financial arrangements associated with the sale of the Asian JVs and Indonesia business. This transaction will amplify growth and improve financial soundness of Nippon Paint Holdings Group, including the NIPSEA Group. We can also look forward to a significant boost in profit and EPS accretion. I have no intention of making changes in the partnership between these two companies that is working so well and shall continue to have high expectations for the Maximization of Shareholder Value (MSV) following this transaction."

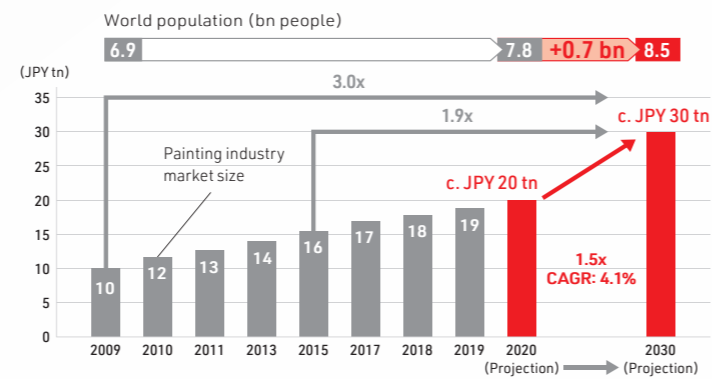


Photo taken on January 17, 2020 at Raffles Hotel / Mr. Goh Hup Jin (right), his father Mr. Goh Cheng Liang (center), and NPHD's President & CEO Tanaka (left)

Paint Demand Has Substantial Growth Potential Centered on Asia

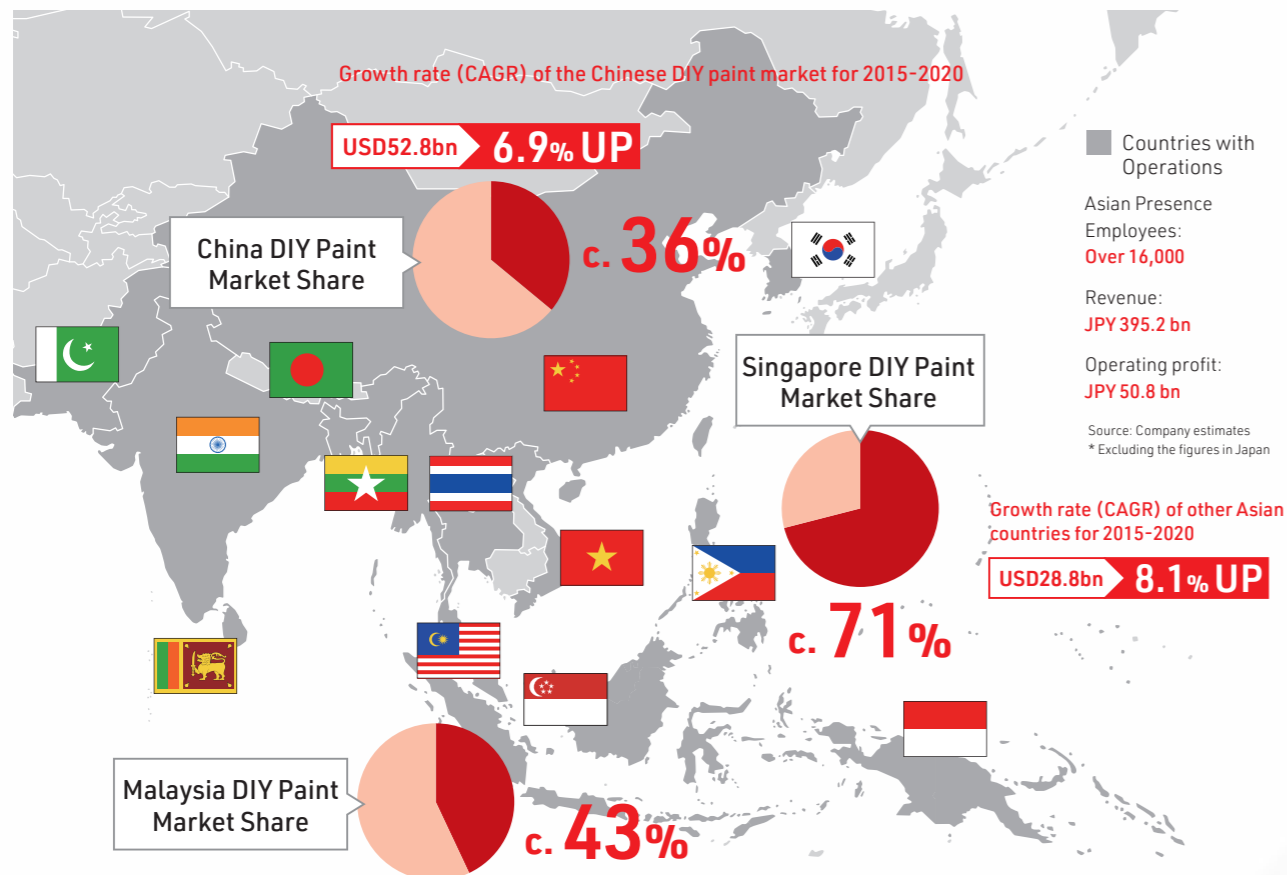
Global paint sales are projected to grow from about 20 trillion yen in 2020 to about 30 trillion yen in 2030. In particular, China and other Asian countries have a very high growth potential. The global paint market has grown in line with the increase in population. The world's population has increased from approximately 7.0 billion around in 2010 to approximately 7.8 billion as of 2020 and is projected to be 8.5 billion in 2030. The NPHD Group has established a dominant position in Asia and is focused on capitalizing on new business opportunities in the decorative paints business.

Paint market has high growth prospects globally



Source: Company estimates based on International Paint & Printing Ink Council Report, United Nations
* Application of currency rate of 110.0/USD

Operating the paint business in 18 countries and regions centering on China, Malaysia and Singapore



Indonesia Has Excellent Prospects for Growth

Indonesia has a population of 270 million and a land area of approximately 192 km², which is five times larger than Japan. Construction demand has been high in recent years. Furthermore, Indonesia's per capita GDP exceeded \$4,000 in 2018 and is likely to continue increasing. With the expansion of the

consuming class in this country, the paint market, especially the premium sector, is projected to remain on a steady growth trajectory starting in 2021, depending on the course of the COVID-19 pandemic.

Indonesia Business Has the Top Market Share

The Indonesia business has maintained the top market share for nearly 40 years. The business is performing well, with sales of 4.6 IDR trillion (about 35.3 billion yen at 0.0077 yen per rupiah) and an operating profit margin of 30% in FY2019. The business had a 27% market share in the decorative paints market and a 57% market share in the industrial coatings market in FY2019. The keys to achieving the strong performance and market presence of the Indonesia business are a powerful brand and a production structure and sales network covering the entire

country, which is a large area. The Computerized Color Matching (CCM) system, an automated color tinting machine, has already been installed at almost all major paint stores in Indonesia. In addition, the number of CCM support personnel in the Indonesia business is much larger than at our competitors. To further enhance our competitive edge, we plan to increase the number of CCM systems while utilizing more than 3,000 sales personnel nationwide.

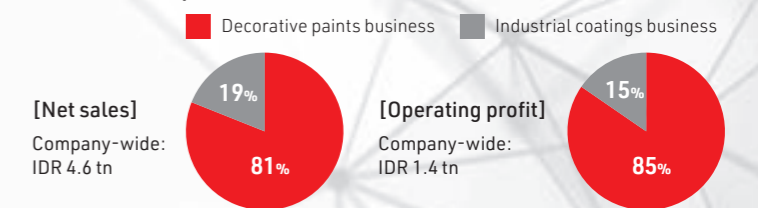
History

- 1969:** Established the first auto/industrial coatings plant in Jakarta
- 1970s:** Established plants in Medan and Surabaya
- 1980s:** Became the No.1 paint manufacturer with the largest production and distribution network, including four production bases and 30 distribution centers
- 1993:** Established the largest plant (80ha) in Purwakarta
- Around 2015:** Embarked on the complete reform of operations, which centered on reinforcing sales capabilities, streamlining the distribution network and CCM systems, and launching a high-profile brand advertising campaign

Primary business segments

Decorative paints Anti-fouling paint Automotive coatings Industrial coatings

Business composition (FY2019)



Expectations for Synergies through Spider-Web Management

Integrating the NPHD Group's industrial coatings business worldwide allows us to examine ways to integrate the group's automotive coatings business. This business has been spread out and individual units, at times, compete against each other around the world. In addition, business integration creates good prospects for horizontal business expansion using a single strategic direction for all operations rather than regional goals. Integration will also facilitate faster decision-making. In our decorative paints business, opportunities include the launch in Indonesia of the Selleys brand of the DuluxGroup, which has an

extensive range of high-performance adhesives and sealants. In the industrial coatings and fine chemicals businesses in Japan, we will have greater opportunities for the full-scale deployment of our technologies involving coils, construction machinery, and surface treatments in Indonesia. The acquisition of the Indonesia business will produce synergies involving paint, such as decorative paints, industrial coatings, automotive coatings, surface treatments and marine coatings, as well as many other business sectors. These synergies are expected to offer unlimited potential for sustainable growth.

Creating new business opportunities by targeting new regions and expanding management teams

<p>NPAC NIPPON PAINT AUTOMOTIVE COATINGS CO., LTD.</p>	<p>Achieving the Global Integration of the Automotive Coatings Business</p> <ul style="list-style-type: none"> Reorganizing operations based on businesses rather than regions to enable faster decision-making and business execution e.g. Integration of the automotive business across regions
<p>DuluxGroup</p>	<p>Selleys Launch of the Selleys brand in Indonesia</p> <ul style="list-style-type: none"> Increasing sales of DuluxGroup's Selleys brand (adhesives, sealants, etc.) by using the sales channels of NIPSEA Indonesia
<p>NPIU^{*2}</p>	<p>Expansion to other coating product categories in Indonesia</p> <ul style="list-style-type: none"> Start supplying products for coils, construction machinery and surface treatment by using collaboration with industrial and fine chemicals businesses in Japan
<p>NPSU^{*3}</p>	
<p>Indonesia Business</p>	<p>Management know-how sharing through collaboration with competent local management team</p> <ul style="list-style-type: none"> Create new growth opportunities by establishing management teams familiar with growing markets

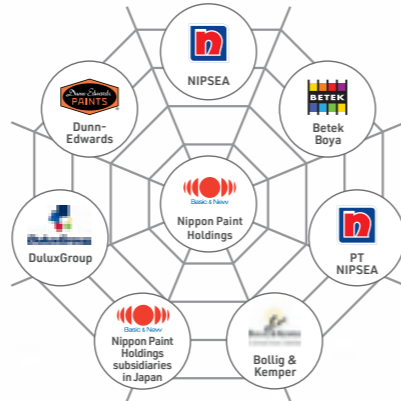
*1 Nippon Paint Automotive Coatings *2 Nippon Paint Industrial Coatings *3 Nippon Paint Surf Chemicals

Our Future Strategies

Strengthening the partnership between Wuthelam and NPHD, which recognize each other as excellent partners, has further solidified the NPHD Group's Spider-web management structure. This structure allows management teams in every area of the world to fully utilize their business operation skills, resulting in the growth of our group fueled by innovation backed by technology sharing and other activities. We must make the maximum use of our stronger capital position. With this in mind, we will continue making substantial investments for future growth. There will also be investments in the following three areas for improving of our production processes and technological capabilities. First is building a digital supply chain. We will visualize productivity and increase the sophistication of business processes at our production bases around the world. Second is research and development activities for anti-viral products. NPHD concluded an agreement on industry-academia co-creation with the University of Tokyo in May 2020. Based on this agreement, we are conducting joint research and development activities for coating technologies that have anti-viral properties. Third is growth through M&As. We will seek M&As that will contribute to the maximization of shareholder value and allow us to acquire businesses along with excellent human resources and highly trusted brands to create synergies that will produce benefits for NPHD Group. The acquisition of the Asian JV stake and the Indonesia business is an enormous step forward. By facilitating the creation and extensive utilization of synergies, this transaction signals the beginning of the transformation of Wuthelam and NPHD from Asia's leading paint manufacturer to the world's largest paint manufacturer as a Japan-Singapore global company.

Spider-web management allows seamless collaboration among our partner companies

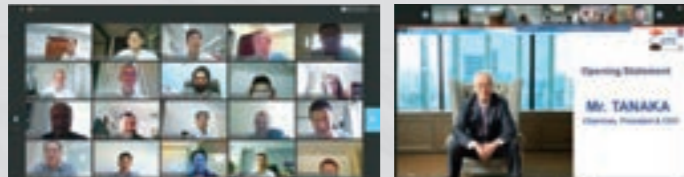
- 1 Minimizes profit outflows, enables optimization of resource allocation
- 2 Establishes a global platform for the industrial coatings business
- 3 Enhances cross-selling and sharing know-how among group companies
- 4 Acquires a competent management team with strong execution capabilities



TOPICS

General Management Meeting (GMM)

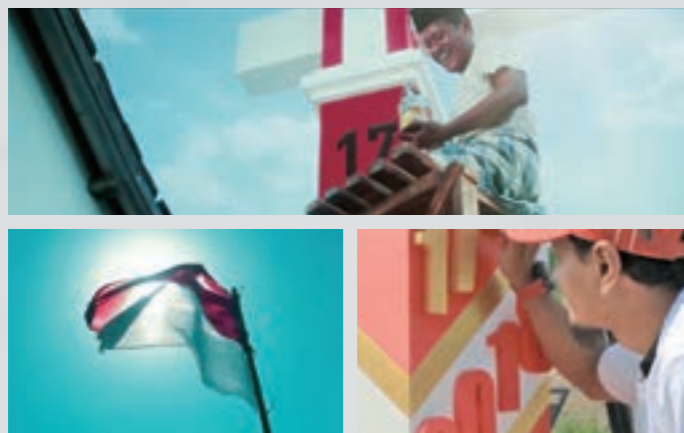
NPHD has periodically held a meeting with NIPSEA in which senior executives discuss business strategies. This year, an expanded GMM covering the entire NPHD Group was held in August and September. All the meetings were held online, placing priority on the safety of participants during the COVID-19 pandemic.



GMM held in Beijing in 2019

COLUMN

Volunteer painting activities to celebrate national day are rapidly gaining attention on social media



August 17 is Indonesia's Independence Day. It is customary for Indonesian people to celebrate this day by painting the gate at the entrance of their community with red and white stripes that resemble the national flag. Employees of Nippon Paint Indonesia started a volunteer activity in 2016 for painting red and white stripes on the gates of community entrance in various areas of the country as part of local social contribution projects. They created a video of this activity and shared it on social media. These videos attracted much interest and media coverage, giving this project exposure throughout Indonesia. Nippon Paint Indonesia employees have received numerous requests for painting from educational institutions and local governments and have received numerous awards. Nippon Paint Indonesia has created nearly 2,000 videos of this painting activity that can be viewed on social media. Its social media account has gained much attention, attracting over one million followers.

For information about other NIPSEA countries, please see p.41.

NEWS SPOTLIGHT

NEWS CATEGORY



NEWS
Notices



TOPICS
Social contribution



FISCAL
Financial results and
timely disclosure



R&D
Research and
development

NEWS HEADLINE

- Feb. 27, 2019: Notice of Change of Representative Directors
- Apr. 17, 2019: **Nippon Paint Holdings Announces Acquisition of Australian Paint Manufacturer DuluxGroup**
- Apr. 26, 2019: Notice regarding Establishment of a Governance Advisory Committee and Appointment of Chairpersons and Members of the New and Existing Advisory Committees
- Apr. 26, 2019: **Nippon Paint Holdings Announces Acquisition of Turkish Paint Manufacturer Betek Boya**
- May 7, 2019: Participation in the Highly Functional Paint & Coatings Expo
- July 8, 2019: Start of Acceptance of Entries for the Global Internship Program
- Sep. 20, 2019: Notice of Change of Representative Directors of the Board
- Sep. 24, 2019: Nippon Paint (USA) Inc., a Subsidiary of the Nippon Paint Holdings Group, Announces the Establishment of a New Plant in the Southern U.S.
- Oct. 2, 2019: Nippon Paint Holdings Donates Table Tennis Tables for Children to Kindergartens, Nursery Schools, etc. across Japan
- Oct. 25, 2019: Notice of Change of Representative Director on the Board and of Executive Officers
- Nov. 20, 2019: **Nippon Paint Holdings Makes Donation for Typhoon Relief in Japan**
- Jan. 17, 2020: **Nippon Paint Holdings Provides Aid for Australian Bushfire Damage Relief**
- Feb. 1, 2020: New System in the R&D Division: Smart R&D* Aimed at Innovating for the Future with the Power of Paints and Coatings
- Feb. 13, 2020: Consolidated Financial Results for the Fiscal Year Ended December 31, 2019
- Feb. 13, 2020: **Nippon Paint Holdings Donates a Total of RMB 4 Million (Approximately JPY 64 Million) to Three Chinese Red Cross Society Offices in Response to the COVID-19 Pandemic**
- Mar. 26, 2020: **Nippon Paint Holdings Shifts to a Company with a Three-committee Structure**
- Apr. 1, 2020: **Nippon Paint Holdings Establishes a Tokyo Head Office with a Global Headquarters Function**
- Apr. 10, 2020: **Notice of Establishment of Commitment Lines and Borrowing of Funds**
- Apr. 27, 2020: **Logo of "PAINT.WONDER-Color the World with Brilliant Innovation" and Corporate Movie Unveiled**
- Apr. 28, 2020: Special Website "STAY HOME & ENJOY PAINTING" Opened
- May 19, 2020: **Conclusion of Agreement on Industry-Academia Co-creation between the University of Tokyo and Nippon Paint Holdings**
- June 4, 2020: Nippon Paint Holdings Provides "Perfect Interior Air Clean" Anti-bacterial and Antivirus Coating Free of Charge
- July 31, 2020: **All Nippon Paint Holdings Group Employees in Japan Undergo COVID-19 PCR Tests on Application**
- Sep. 28, 2020: **Nippon Paint to Launch a New Company Commercial Featuring the Excitement and Fascination of Paint—Mikako Tabe to Serve as the Company's Brand Ambassador to Promote the Appeal of Paint**



2019

4.17

Announcement of Acquisition of Australian Paint Manufacturer DuluxGroup



Nippon Paint Holdings announced its decision to acquire DuluxGroup Limited ("DuluxGroup"), the top player in the decorative paint market in the Pacific region, which is expected to achieve steady economic growth and see continuously increasing demand for paints. On August 21 the same year, Nippon Paint Holdings completed all procedures for acquiring the shares of DuluxGroup at JPY 291.7 billion. As an excellent long-established company founded in 1918, DuluxGroup is recognized for its outstanding consumer brands in the Australian decorative paint market and has continuously and stably achieved profitable growth. The acquisition of DuluxGroup has enabled Nippon Paint Holdings to add the Pacific region to Asia as the geographical scope of its high competitiveness, further strengthen its No. 1 competitiveness in this integrated region, and establish a well-balanced regional portfolio that comprises the high-growth regions (China and the rest of Asia, excluding Japan) and the steady-growth regions (Japan, the Americas, Europe and the Pacific region).



2019

4.26

Announcement of Acquisition of Turkish Paint Manufacturer Betek Boya



Nippon Paint Holdings announced its decision to acquire Betek Boya ve Kimya Sanayi Anonim Sirketi ("Betek Boya"), the top player in the Turkish decorative paint market in Turkey, which is expected to achieve high growth in the future. On July 10 the same year, Nippon Paint Holdings completed all procedures for acquiring the shares of Betek Boya at about 1,407 million Turkish lira (exchange rate for reference: 1 Turkish lira = about JPY 20). Founded in 1988, Betek Boya has an about 25% share of the Turkish decorative paint and building material market. The acquisition of Betek Boya has enabled the Nippon Paint Holdings Group to take the No. 1 share in Turkey after doing so in Oceania by acquiring DuluxGroup (with the largest share in the region) with the aim of further strengthening the foundation for its business in line with its strategy of taking the No. 1 share in each region.



NEWS SPOTLIGHT

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FISCAL
Financial results and timely disclosure

R&D
Research and development

TOPICS 2019 | 11.20

Donation for Typhoons Relief in Japan

Japan was successively struck by Typhoons Faxai and Hagibis in September and October 2019. To support recovery efforts in the areas affected by the typhoons, which involved torrential down-pours, Nippon Paint Holdings donated JPY 10 million through Japan Platform, an international emergency humanitarian aid organization, of which Nippon Paint Holdings is a supporting member.



TOPICS 2020 | 1.17

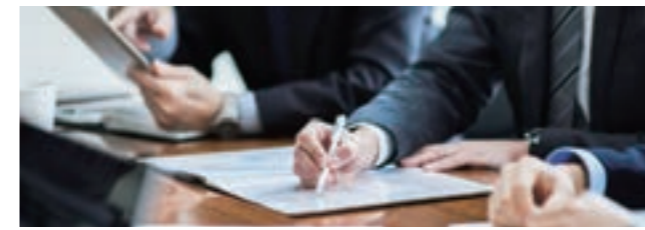
Aid for Australian Bushfire Damage Relief



To support local relief efforts in response to bushfires that had occurred in the neighboring states of New South Wales and Victoria of Australia in late 2019, Nippon Paint Holdings donated 100,000 Australian dollars (about JPY 7.6 million) through Australian Red Cross Disaster Relief and Recovery. In addition, DuluxGroup, a wholly owned subsidiary of Nippon Paint Holdings, also provided emergency supply of food, water and shelters and donated 100,000 Australian dollars to the same organization. DuluxGroup also asked for donations from its employees and added their donations to the company's donation within the upper limit of 100,000 Australian dollars to donate an additional amount of money to the same organization.

FISCAL 2020 | 3.26

Shift to a Company with a Three-committee Structure



With the aim of maximizing shareholder value by fulfilling its mission to "bring colors & joy to everyday life through innovative coating solutions," the Nippon Paint Holdings Group decided to adopt the policy of shifting to a company with a three-committee structure. The shift actually occurred after the Ordinary General Meeting of Shareholders on March 26, 2020 resolved to adopt the policy. The Group has pushed forward with its growth strategy both in Japan and overseas by strengthening its existing business while accelerating the expansion and enhancement of its regional portfolio through M&A and other initiatives. The Group shifted its governance structure as such in order to establish the optimum corporate governance framework for it as it looks ahead to further expansion of its global business going forward. The specific purposes of the shift are to (1) enhance management transparency, objectivity and fairness, (2) separate and enhance monitoring and executive functions, and (3) strengthen the global auditing framework.

FISCAL 2020 | 4.1

Establishment of a Tokyo Head Office with a Global Headquarters Function

The Nippon Paint Holdings Group has accelerated efforts to expand its business globally, focusing mainly on Asia. Based on the latest data, the Group's overseas sales account for 71% of its overall sales and its overseas employees account for 87% of its total number of employees. The Group also aims to maximize shareholder value by expanding and enhancing its business portfolio through proactive M&A. With the aim of establishing the optimum corporate governance framework for the Group in this situation, Nippon Paint Holdings established a Tokyo Head Office with a global headquarters function to strengthen the function of supervising its overall global business and push forward with its growth strategy. The Company is also planning to complete the redevelopment of the current Tokyo Business Office and relocate it to Shinagawa by 2023. The Group will accelerate its growth strategy and strengthen its governance by concentrating the management functions of supervising its global business.



TOPICS 2020 | 2.13

Donation of a Total of RMB 4 Million (About JPY 64 Million) to Three Chinese Red Cross Society Offices in Response to the COVID-19 Pandemic

■ Donation to three Chinese Red Cross Society offices

The Nippon Paint Holdings Group donated a total of RMB 4 million (approximately JPY 64 million) to support local combat against COVID-19. First, Nippon Paint Holdings' local subsidiary in China donated RMB 2 million (approximately JPY 32 million) to the branch of the Red Cross Society of China in Xianning, Hubei Province. In addition, Nippon Paint Holdings donated RMB 1 million each to the head office and Shanghai branch of the Red Cross Society of China, totaling RMB 2 million (approximately JPY 32 million).

■ Monetary and mask donations from current and former employees

Nippon Paint Holdings called for mask donations from employees in Japan and members of Shojukai, the organization of former employees, and conducted fundraising activities among employees. As a result, the Company sent a first batch of 60,000 masks and an additional batch of 40,000 masks, as well as other relief supplies, to China. Furthermore, Nippon Paint Holdings Group companies, including Betek Boya (Turkey) and Nippon Paint India (India), also sent a total of more than 200,000 masks to the Group's local subsidiaries in China.



(Upper) Masks were donated from Japan to Nippon Paint Marine (Zhangjiagang) Co., Ltd. (Lower) Certificate of appreciation from the Red Cross Society of China

FISCAL 2020 | 4.10

Notice of Establishment of Commitment Lines and Borrowing of Funds

To ensure liquidity on hand as a measure to strengthen its business foundation amid the COVID-19 pandemic, Nippon Paint Holdings entered into agreements with financial institutions for a commitment line of JPY 180 billion and for a loan of JPY 20 billion, to which a loan of JPY 30 billion was later added, totaling JPY 50 billion. We had already had a fund of over JPY 100 billion on hand, but we concluded these agreements to create a financial environment at a sufficient level for us to focus, without financial worry, on both ensuring subsequent business continuity and implementing measures to strengthen our business foundation.



(Upper) Entrance of the Tokyo Head Office (Lower) President Tanaka in his new office (Shot on April 1, 2020)

NEWS SPOTLIGHT

NEWS CATEGORY



NEWS 2020 | 4.27

Logo of "PAINT.WONDER-Color the World with Brilliant Innovation" and Corporate Movie Unveiled

Nippon Paint Holdings unveiled its new logo "PAINT.WONDER," which represents the Company's commitment to providing solutions to social issues through technological innovation in paints. At the same time, the Company also unveiled its new corporate movie. Paint is a familiar but miracle material that can color and protect everything and even provide new functions. The Company believes that the evolution of paint technology has potential to make the world more prosperous and to make paint itself a new culture of life. The Nippon Paint Holdings Group, which has been dedicated to providing solutions to social issues since its establishment in 1881, will communicate "wonder" to people around the world under the concept of "PAINT.WONDER."



(Upper) (Center) (Lower) Scenes from the corporate movie
The corporate movie can be viewed on Nippon Paint Holdings' official YouTube channel.

Nippon Paint corporate movie Search

R&D 2020 | 5.19

Conclusion of Agreement on Industry-Academia Co-creation between the University of Tokyo and Nippon Paint Holdings



University of Tokyo President Gonokami (left) and Nippon Paint Holdings President Tanaka (right) on the occasion of the conclusion of an industry-academia co-creation agreement

The University of Tokyo and Nippon Paint Holdings concluded an agreement on industry-academia co-creation in order to promote joint research and technological development that can contribute to solutions to various social issues by combining researchers at the University of Tokyo, who have excellent expertise and technologies and their research achievements, with Nippon Paint Holdings' paint and coating technologies. Through this agreement, both parties will focus on providing solutions underpinned by paint and coatings for the challenges the world currently faces and will face in the near future by developing technology that will help prevent the spread of the novel coronavirus, including antiviral technologies, and technology for solving new social problems that will emerge after the pandemic is over. This agreement will also help provide new technologies to both build a foundation for a smart/remote society and create a beautiful, attractive, and sustainable society. As a concrete initiative, a social cooperation course on "Construction of Innovative Coating Technologies" was launched in the School of Engineering at the University of Tokyo on October 1, 2020.

TOPICS 2020 | 7.31

All Nippon Paint Holdings Group Employees in Japan Undergo COVID-19 PCR Tests on Application

To ensure the safety and security of employees amid the nationwide spread of the COVID-19 pandemic, the Nippon Paint Holdings Group decided to have all Group employees in Japan undergo PCR tests on application with the full cost covered by the Group. Since the end of July, saliva-based PCR tests have been conducted for Group employees at partner medical institutions around Japan.



NEWS 2020 | 9.28

Nippon Paint to Launch a New Company Commercial Featuring the Excitement and Fascination of Paint-Mikako Tabe to Serve as the Company's Brand Ambassador to Promote the Appeal of Paint

On Saturday, October 3, Nippon Paint Holdings launched a new company TV commercial designed to promote PAIN.T.WONDER, a world of paint and coatings technology with fascinating possibilities for the entire world. Serving as the Company's brand ambassador, actress Mikako Tabe introduces the excellence, excitement and fascination of paint and its functions, which go beyond just adding color, from a Nippon Paint Room, which exhibits a miniature collection of objects, including

buildings, roads, bridges, ships and cars, all coated with the Company's paint. Playing in the background is a song titled "Flowers"-sung and written by Masayoshi Yamazaki-selected for its rhythmic beat guaranteed to bring out the best of the world of PAIN.T.WONDER. Through the commercial, Nippon Paint aims to show the ubiquity of paint, which can easily go unnoticed, and introduce its functions that provide our daily life with protection and a rich variety of vivid colors.



Main visual that represents the world of PAIN.T.WONDER

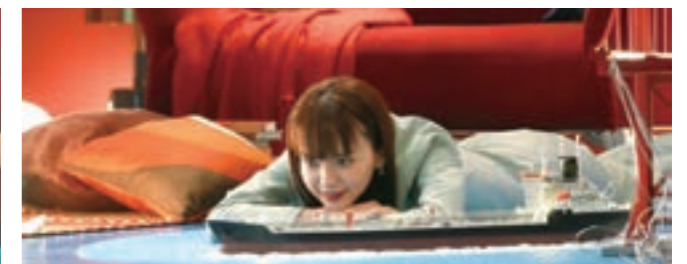
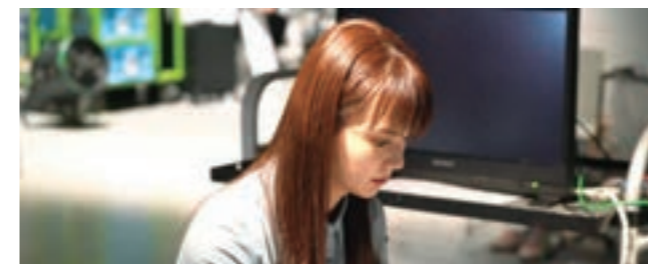


Singer-songwriter Masayoshi Yamazaki

The commercial can be viewed via the URL below. The special website featuring the TV commercial introduces the charms of paint, which the commercial alone cannot share. <https://www.nipponpaint-holdings.com/cm/>



Nippon Paint Holdings commercial Search





ESG STATEMENT

What is management with ESG at its core?

At Nippon Paint Holdings Group we aim to conduct our business activities to support and enable sustainable development everywhere we operate.

We aim to include the three dimensions – economic, social and environmental – in a balanced and integrated manner.

Creating paints and coatings to add color, comfort, and safety to people everywhere has been our mission since the company was founded.

Finding solutions to global sustainability challenges is our responsibility to future generations and is a driving force for our continued growth and success.

To achieve this, we will:

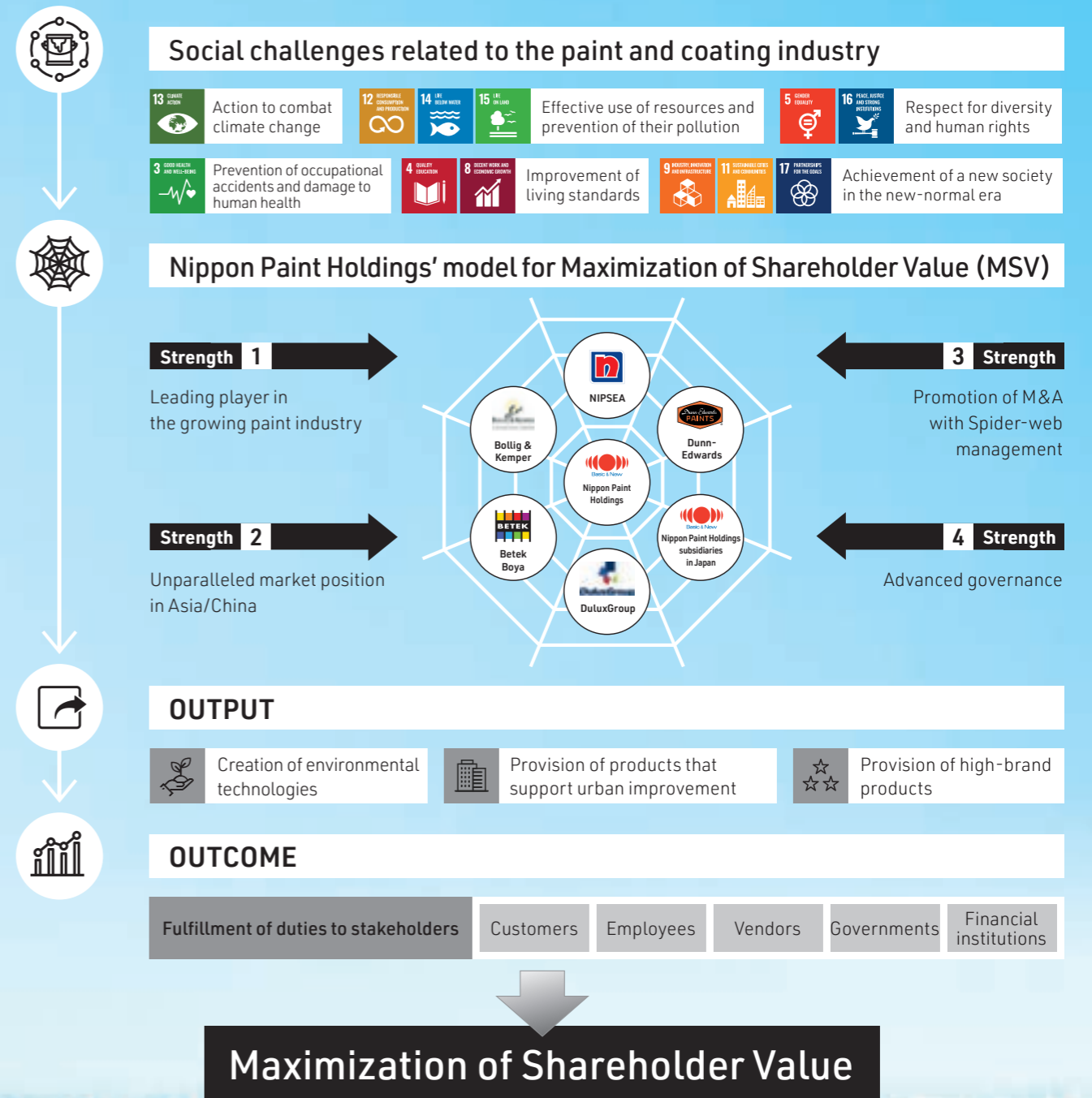
- Pursue technologies across the value chain to create sustainability benefits, through innovative products and services, and new business opportunities.
- Engage and work with our stakeholders to meet their expectations and together deliver on our shared sustainability commitments, responsibilities, and challenges.
- Establish effective governance frameworks to ensure transparency, objectivity, and fairness of the management of our company and earn society’s trust everywhere we operate.
- Respect, support, and enable our diverse employees and company associates to achieve their full potential and create innovative, sustainable value for all.
- Support the 2030 Agenda for Sustainable Development (SDGs) through delivery of sustainability improvement plans that create new business opportunities and maximize shareholder value. (MSV*).

*MSV is predicated on fulfillment of our duties to customers, employees, suppliers and society, setting us apart from the concept of “Shareholder Primacy.”

We will practice value creation with the SDGs and ESG at the core of management.

The Nippon Paint Holdings Group is committed to providing solutions to social challenges, especially social challenges related to the paint and coating industry, by demonstrating its overall prowess derived from its four key strengths and Spider-web management, in which global group companies are mutually connected.

The Group also places Maximization of Shareholder Value (MSV) as its paramount mission, which is predicated on fulfillment of the Group’s duties to customers, employees, suppliers and society.





Creating Innovative Ideas for Solving Social Issues

Nippon Paint Holdings (“NPHD”) Group has been dedicated to solving social issues since its founding, and this spirit is deeply ingrained in our technology development activities. As set out in our ESG Policy, we will utilize our comprehensive capabilities for solving social issues based on our value creation model centered on the SDGs and ESG. Social issues change with the times and from region to region, which is affected by various factors. Modern society is increasingly faced with global issues due to the cross-border movement of people and goods. Protecting surfaces is one of the critical functions of paint and coatings. Ships, vehicles, bridges, buildings and houses depend on paint and coatings for protection against aging and dirt. With a focus on further ensuring the safety and security of people’s lives, NPHD is determined to solve global social issues through innovation. We aim to remain a company that contributes to the quality of people’s lives through our products and our social contribution activities.

Living with Viruses

Humans have always lived with natural threats and viruses. To suppress the COVID-19 outbreak that started in early 2020, many drugs are under development. The best we can do at this time, worldwide, is to thoroughly implement infection prevention measures. In Japan, a second or even third wave of COVID-19 infections is anticipated. As a result, people must adapt to living with the COVID-19 virus for a prolonged period. The NPHD Group will make its best efforts in developing paint and coating technologies, in addition to pursuing business continuity while ensuring the safety of employees, and advance the contribution to society and business activities through the provision of new products and services. The NPHD Group is channeling substantial resources into the development of paint and coating technologies for

fighting COVID-19. Ensuring the continuity of our business is another priority, as well as the safety of our employees. We have a strong commitment to progress of our business activities and social contributions by supplying innovative new products and services. Specifically, we established a team dedicated to the speedy development of anti-viral products to provide safe and secure environments for people worldwide. Masks and disinfectants are still in short supply at medical institutions in Japan. As a social contribution initiative, we donated 180,000 N-95 medical masks (surgical-mask equivalent) produced by NPHD Group’s affiliated plants in China and 1,700 liters of ethanol disinfectant to 126 institutions, including medical institutions and public-sector institutions in Japan. While ensuring the continuity of our business operations, we will continue to conduct ESG-oriented support activities to the greatest extent possible.

Example: Provision of an anti-viral and anti-bacterial paint product for free



Terashima Bunko Building [Minerva Cafe]
Kudan-shita, Tokyo



in the house [Dance studio]
Takada-no-baba, Tokyo



Studio Somcha Club [Dance studio]
Tsukushino, Fukuoka Prefecture

Anti-viral and anti-bacterial product

Perfect Interior Air Clean

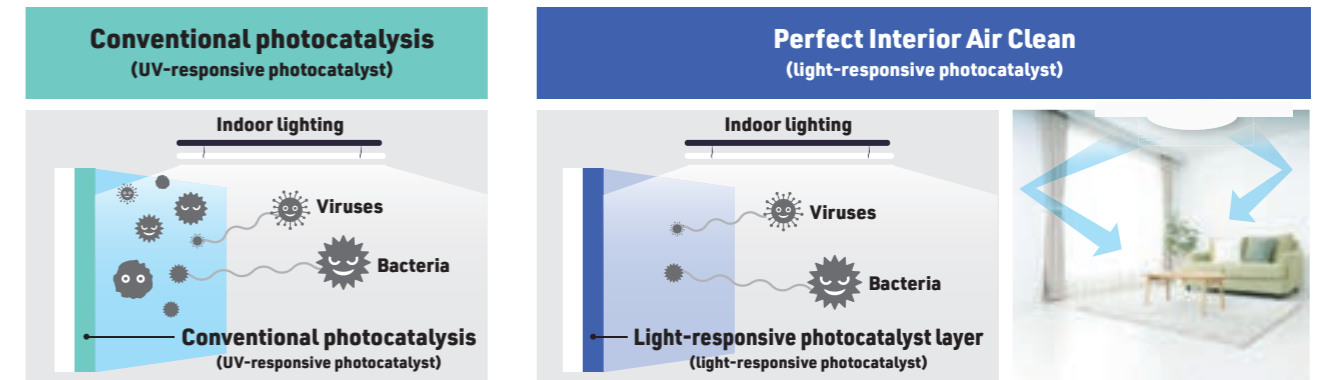
Perfect Interior Air Clean, an anti-bacterial and anti-viral paint product we introduced in 2017, has established a strong track record in many applications. Even before the COVID-19 crisis, this product was highly successful because of its ultra-low odor and air purification properties. Demand for paint with anti-viral properties, which are due to a photocatalytic reaction, has been growing rapidly since March as the COVID-19 outbreak spread worldwide. The main application has been public facilities used by many people, such as schools and hospitals.



Mechanism of anti-viral and anti-bacterial properties

*Based on test results using bacteriophage Qβ, JIS R 1756 (Certified by PIAJ)

A visible light-responsive photocatalyst layer suppresses bacteria and viruses on coated surfaces.



A conventional UV-responsive photocatalyst reacts under sunlight and other strong irradiation but does not react sufficiently to suppress viruses and bacteria under indoor light.

A light-responsive photocatalyst reacts even to weak indoor light and has anti-viral and anti-bacterial properties that suppress on coated surfaces bacteria and hazardous viruses that cause odors and mold.

*This product is not designed for medical applications (medical supplies and equipment). The product suppresses viruses that adhere to coated surfaces, but does not prevent infections.



DIY/home-use version

Japan’s first paint for homes for suppressing viruses and bacteria, released on September 4

PROTECTON Interior Paint Premium

Nippon Paint launched the PROTECTON brand for anti-viral and anti-bacterial paint products for DIY and home use. These products incorporate the paint technology used in our Perfect Interior Air Clean for public facilities and hospitals. Nippon Paint plans to add more anti-viral products under the PROTECTON brand.

Japan’s first paint for home use for suppressing viruses and bacteria by 99.9%* or more under indoor lighting

PROTECTON Interior Paint Premium is an ultra-low odor and anti-mold paint that reacts to indoor lighting and suppresses viruses and bacteria on coated surfaces by 99.9%* or more

- *This product does not suppress indoor airborne viruses.
- *This product is not designed for medical applications (medical supplies and equipment). The product suppresses viruses that adhere to a surface, but does not prevent infections.
- *Performance may vary depending on the shape of the object to be coated, the conditions of the base material, weather conditions, and construction conditions.
- *The Photocatalysis Industrial Association uses “Bacteriophage Qβ”, which is a non-enveloped virus with high accuracy and reproducibility, as a standard test for determining anti-viral performance. Non-enveloped viruses are generally considered to have high resistance to disinfectants. For more information, see the website of the Photocatalysis Industry Association. <https://www.piaj.gr.jp/roller/contents/entry/20090121>

Establishing a Safe and Secure Environment

Now that people are being required to adapt to the “new normal” lifestyle due to COVID-19, NPHD set up a team in May dedicated to the development of anti-viral products for safety and security during this crisis. I am responsible for supervising this team as it conducts research and development activities that include cooperation with the NPHD Group’s partner companies. The team is working diligently to develop products quickly by gathering all of the NPHD Group’s expertise. Nippon Paint Co., Ltd., where I serve as the President, is NPHD Group’s partner company engaged in the decorative paints business. One of our products is Perfect Interior Air Clean, a paint with anti-bacterial and anti-viral properties. The COVID-19 pandemic has given us a renewed awareness of the role this product plays in protecting people’s living environments. To utilize Perfect Interior Air Clean to contribute to society, we have supplied this product at no charge to locations that are considered at high risk of becoming COVID-19 clusters. Some examples are public facilities such as hospitals and leisure facilities such as dance studios. With the cooperation of painting contractors, we have been providing this paint to help create safe and secure interior spaces. In addition, we have released products for DIY use to make paint with anti-bacterial and anti-viral properties easily available to consumers. Over the course of human history, many social issues have emerged at different times. Human beings have used technology to overcome many of these challenges. Based on our conviction that it is our responsibility to society to solve new social issues as much as possible by our technologies, we will continue to supply products that contribute to society.



Masuo Kida
Nippon Paint Holdings Co., Ltd.
Managing Executive Officer
President of Nippon Paint

To promote comprehensive joint research and exchange of human resources, on May 18, 2020, Nippon Paint Holdings hereinafter, "Nippon Paint HD" and the University of Tokyo concluded an agreement on industry-academia co-creation. On that day, Makoto Gonokami, the president of the University of Tokyo, and President Masaaki Tanaka shared their ideas on how the foundations for a smart/remote society could be laid in today's new normal world, what kinds of technologies does building a sustainable society require, and what expectations they have for this agreement. The discussion centered around the roles of Nippon Paint and the University of Tokyo, the possibilities of paint and coatings technology, the SDGs, the Society 5.0 vision, and the post-coronavirus world.

Discussion

Creating a New Future

The University of Tokyo × Nippon Paint Holdings

Makoto Gonokami

30th President of the University of Tokyo

Profile: Born in 1957. Graduated from the University of Tokyo's Department of Physics in the Faculty of Science in 1980. Earned a PhD in physics (from the University of Tokyo). Specialized in photon physics. Served as professor at the University of Tokyo's Graduate School of Engineering, Director at the Photon Science Center of the University of Tokyo, professor of physics at the University of Tokyo's Graduate School of Science, Dean of the University of Tokyo's Graduate School/Faculty of Science, and Vice President of the University of Tokyo, before assuming his current position of the 30th President of the University of Tokyo in 2015. Also serves many other roles, including the following: Member of the Science Council of Japan, Member of the Growth Strategy Council—Investing for the Future, Member of the Council for Science and Technology, Member of the Intellectual Property Strategy Headquarters, and Advisor to the Japan Association of National Universities.

Masaaki Tanaka

Chairman, President, & CEO of Nippon Paint Holdings Co., Ltd.



Mastering the potential of paint opens up all kinds of possibilities

President Tanaka: I heard that our public relations lecture to be offered under the industry-academia co-creation agreement has been titled “Creating Innovative Coating Technology.” Thank you very much for the wonderful title. I consider it as reflecting a high level of expectation professors at the University of Tokyo must have for the possibilities inherent in the future of paint, coating, and surface treatment technologies. Personally, being given this industry-academia co-creation opportunity made me as excited as this one time in March when I was 17 and found out that I passed the University’s entrance examination. So, first of all, I would like to ask what value or significance the University of Tokyo sees in this agreement on co-creating paint and coatings technology.

President Gonokami: When I was invited to Nippon Paint Holdings’ Shinagawa office and learned about its paint and history December 2019, I was reminded of the ubiquity of paint and realized that the technology has always been an essential part of our life. The world is greatly changing today. But that is not only because of the novel coronavirus. This pandemic was unexpected. Rather, already before it, our world had begun shifting from trying to maintain the conventional model of mass producing and selling industrial products to searching for a different paradigm based on new value. The University of Tokyo developed this industry-academia co-creation system because it wanted to help the world take a big step toward creating such new value, and I am extremely excited to welcome Nippon Paint HD as its partner.

President Tanaka: The importance of this agreement’s three themes of research into coating technology, which are to develop anti-viral and virus spread prevention functions, the potential to serve as the foundation for building a smart society and help improve social efficiency, and the ability to reduce environmental burden and social cost, lies in their social significance. In addition, with the basic principle of the University of Tokyo’s Vision 2020, developed under your leadership, being “acting

as a global base for knowledge collaboration” by using as its driving force the “synergy between excellence and diversity” and Nippon Paint HD’s management policy being “helping resolve social issues with its paint, coating, and surface treatment technologies,” I believe our goals largely overlap and mesh just perfectly. The three research themes we formulated under this agreement will be adopted without any changes as Nippon Paint HD’s mission statement to guide the Company’s entire team of 1,000 engineers.

President Gonokami: Paint has always been part of the interaction between people and objects. Being a process that comprises physical and chemical aspects, academically, painting is given its own field of research that straddles both aspects. Science today has arrived at the point where cutting-edge research can be applied to such complex overlapping areas of interest, potentially opening up an extremely broad range of possibilities. Research into the interaction between people and objects needs to be based on data, and the importance of doing so has become widely recognized. We tend to become preoccupied with thinking about the possibilities of just cyberspace. However, the important thing is to create collaboration between the real and virtual worlds in ways that will allow switching between them with great ease. Therefore, the key to creating new value



lies in such forms of interaction between people and objects. So, I believe mastering the potential of paint will open up all kinds of possibilities.

Technologies that could grow by helping achieve major goals, including the SDGs and Society 5.0

President Tanaka: What kinds of global applications, roles, and possibilities would you say paint just by itself and coating have in helping achieve the SDGs and Society 5.0 vision?

President Gonokami: Society 5.0 is an original Japanese model developed and defined through a process of deepening globally cutting-edge discussions. With our daily life in today’s world greatly changing due to the rapid development of digital innovation—information and communications technology, including computers and other digital technology—the model was founded on the hope for creating a better future based on new services that have originated from digital innovation. In addition, Society 5.0 includes plans to gather real-life data, analyze it with artificial intelligence and other means, and apply the data to creating a more inclusive society where all people can participate equally. Enabling all people to participate equally

is new value that only comes into existence when actually felt by people. Therefore, being a part of the interaction between people and objects, paint has the potential to grow by helping achieve the SDGs and Society 5.0 vision, and this is particularly so because its application possibilities are extremely clear-cut. As I mentioned, during the Japanese economic miracle, circumstances required mass producing enough quality but affordably priced products for a large population. The industrial models of automation and product management could be said as having originated in Japan during that period. Although mass production boosted efficiency in many aspects, the miracle was at the sacrifice of individuality and diversity. However, with today’s advancements in ICT technology, the effective use of data now allows the provision of an increasing range of different services to different people. This feature of ICT technology could lead to new economic growth. The 17 SDGs set by the United Nations in 2015 have at their core the pursuit of inclusiveness. With the economic growth strategies based on business expansion approaching their limits, growth from here on essentially requires pursuing ways to engage equal participation of all people. The University of Tokyo looks forward to discussing with individual industrial sectors how they can collaborate with it to help Japan achieve its Society 5.0 vision. There must be many ways that the paint industry could help ensure the safety of self-driving cars, such as figuring out the best paint for marking white lines on roads and coating cars.

President Tanaka: I agree. In snowy regions, current sensors are unable to detect white road lines, so in such regions, self-driving cars require paint highly responsive to their sensors. In addition, steering wheels, or our current means of controlling self-driving cars, could become replaced by touchscreens. Touchscreens essentially require surface treatment technology, so incorporating anti-viral properties into our technology is one way that Nippon Paint could go.

President Gonokami: I agree. Road markings that require the human eye for proper detection are inadequate for self-driving cars. On the other hand, their colors will need to be soft enough for the human eye. So, paint has an extensive range of possibilities for producing many more research themes.



President Tanaka: In the context of the SDGs' climate change measures, the role of heat-resistant paint is becoming increasingly important. So, developing its heat-resistant-paint technology even further is one way that Nippon Paint HD could help stop global warming. With the world currently undergoing extremely great change, what my company must do is identify social needs and issues so that it can help address them.

Creating a safe, worry-free, and comfortable post-coronavirus world

President Gonokami: You earlier spoke of incorporating "anti-viral properties" into your technology. Now, with the concepts of "anti-bacterial" and "anti-viral" being two completely different things, defining what anti-viral properties are is essential to helping put an end to the ongoing novel coronavirus pandemic. To help the world arm itself with anti-viral products, a thorough discussion on the meaning of the term "anti-viral" is essential for the rational development of such products not only from the perspectives of chemistry and medicine but also sociology.

President Tanaka: Yes. I am keenly aware of the need for a clear technological distinction between the terms "anti-bacterial" and "anti-viral." Helping create a safe living environment in today's world requires developing products with not only anti-bacterial but also anti-viral properties because anti-bacterial substances are not necessarily effective against viruses. Viruses like COVID-19 have lipid and protein envelopes, the destruction of which with alcohols inactivates them. These envelopes can also be destroyed with photocatalysis, a technology discovered by researchers at the University of Tokyo, through the use of which our Company developed a product it calls the Perfect Interior Air Clean, the industry's first and only paint certified by the Photocatalysis Industry Association of Japan. The functional difference between anti-bacterial products, which reduce the number of E. coli, and anti-viral products needs to be made

widely known to the public.

President Gonokami: The University of Tokyo provides a wide variety of lectures on diverse academic disciplines, such as engineering, including cutting-edge public relations lectures like ours, medicine, social science, and law. It realizes that collaborating with companies is essential if it wants to put its diverse academic disciplines and expertise to practical use to increase the pace at which it can help the world arm itself with protective equipment. Another issue that needs to be addressed is how social activities can be resumed when the coronavirus eases off without causing subsequent waves of COVID-19 infection. Developing more effective technologies requires finding out what kinds of environments can use the help of paint and what functions paint will need to have by analyzing people's behavior and needs in relation to infection prevention measures. If today's digital revolution could provide us with some kind of technology that will allow us to study people's behavior and directly apply our findings as feedback to developing new products of paint, that would absolutely maximize our collaboration.

President Tanaka: Yes. Nippon Paint's product development policy prioritizes helping people worldwide create safe home environments. Another important perspective is helping create comfortable home environments in today's new normal world because many people must be finding having to stay home and restrict themselves to indoor activities stressful and suffocating. Nippon Paint HD offers a line of products and services that helps customize home environments because it wants to remind everyone that today's new normal life is also full of possibilities for enjoying new lifestyles. Already, in a number of countries, DIY products are selling like hotcakes, and demand is rapidly growing in Japan as well.

Values in today's new normal world

President Gonokami: Yes, I know. Just the other day, I saw a



Photographed at the Tokyo Business Office of Nippon Paint Holdings Co., Ltd. in December 2019

television program featuring the increasing popularity of DIY products and was immediately reminded of you (laughs). It made me actually consider doing some painting around my house, but then I remembered I'm not handy enough. In the new normal world, or should I say the post-coronavirus world, I believe that we will begin valuing real-life interactions even more highly than we had before. We may not pursue inexpensive international trips like we used to, but we cannot live without real-life interactions, and our demand for them will never cease. With improving safety with technology becoming increasingly important, safety technology has room for economic growth. We are more willing to pay for safety than before, so product development efforts should focus on ways to increase safety as extra added value.

President Tanaka: An example of such extra added value that Nippon Paint HD offers is its products' anti-viral function. One of the important stages of product development at Nippon Paint HD is choosing its target carefully, which means identifying places and aspects of our lifestyles with high infection risks. Everyday life is full of high infection risks. So, to identify daily life aspects with particularly high risks, there is this one principle I remind myself of, which is that those at high infection risk are usually the socially weakest. By that I mean children in nursery school, children receiving child and family services, and the elderly in nursing homes. Nippon Paint HD believes that safety technology needs to be taken a step further and that this could be done by pursuing approaches that will yield added value for those whose daily lives require being members of a group.

President Gonokami: That is exactly the kind of perspective that inclusive social progress requires. We may have reached the point where we need to come up with ways to systematically provide those whose lifestyles require coming into close contact with others with anti-infection protection at affordable prices. The University of Tokyo has recently begun incorporating such perspectives into discussions it regularly holds, and I would like to share some of its ideas with you if possible.

President Tanaka: Yes, please do. Although our company is a paint manufacturer, I have recently realized that if it wants to continue to evolve, it needs to change its mindset from one that restricts itself to paint production. For instance, Nippon Paint could apply its paint and coatings technology to coating protection clothing used at hospitals with anti-viral substances instead of paint. It needs to begin thinking of ways to add value to its existing paint and coatings technology. I aim to guide Nippon Paint's business practices from the perspective of applying its technology to addressing social issues and needs.

New forms of industry-academia collaboration and next-generation education based on academia and industrial expertise

President Gonokami: Some of the ideas you shared with me today illustrated the great uniqueness of Nippon Paint's global strategy. With paint being a liquid, I imagine many benefits arise from local production and consumption, but your company actively pursues global expansion. Since global strategies today need to consider the impact of restrictions placed on the flow of people and things due to the novel coronavirus, I would be grateful if you could provide us with some guidance by teaching us about some of the approaches Nippon Paint HD employed over the past couple decades. Global strategies are actually one of the aspects that I have been looking forward to working together on under this co-creation agreement.

President Tanaka: My company would also be extremely grateful if the University of Tokyo could help it share its Think Globally, Act Locally strategy with other companies by functioning as a hub that connects companies so that they can learn from one another through collaboration.

President Gonokami: At the moment, the University of Tokyo has still only concluded co-creation agreements with a limited number of companies. However, many of them seem extremely interested in collaborating with other companies, so I will certainly explore the possibility of the University serving as a hub. The University of Tokyo will not hesitate to ask Nippon Paint HD for help, so please do the same so that we can create a brighter future together.

President Tanaka: To achieve its aim of helping people worldwide create comfortable, safe and worry-free home environments, Nippon Paint HD will help engineers develop expertise in paint, coating, and surface treatment technology so that they can maximize their potential, regardless of age, gender, experience, and educational background, and the Company aims to respond to changes in the post-coronavirus world by improving its technology even further. In addition, Nippon Paint HD truly realizes the importance of passing on its expertise to the next generation both domestically and internationally, and it would like to ask the University of Tokyo to cultivate engineers with strong passion to carry on the Company's expertise.

Thank you very much for today. Please accept my deepest gratitude.

Research and Development

R & D

Collective Wisdom

A Future of People and Society that We Create

Now that the Nippon Paint Holdings Group has set out on a journey of global business, R&D is an essential operational area that underpins the Group's journey. Gain a clear picture of the current status and future of the Group's R&D from a dialogue between two key persons from the organizations that serve as sources of the Group's innovative technologies and a roundtable talk with next-generation leaders.



Special Feature "Collective Wisdom": I. Dialogue

A Dialogue on the Current Status and Future of R&D Organization Strategy and Group Collaboration

Satoshi Nishimura

Executive Officer and General Manager of the R&D Division
Nippon Paint Holdings Co., Ltd.
President and Representative Director
Nippon Paint Surf Chemicals Co., Ltd.



Dr. Jiang Hong

Chief Technology Officer (CTO), NIPSEA Group
President, Group Coil Coatings

Satoshi Nishimura, who is responsible for R&D at Nippon Paint Holdings, and Jiang Hong, who supervises the technologies of the NIPSEA Group as CTO, share the same aspirations for the creation of technologies that will lead the Nippon Paint Holdings Group to further development. What is necessary to create a favorable environment for chemists and engineers to readily take up new challenges? How can new technologies be spread across the entire organization? What do the two R&D leaders expect of young staff members as future leaders?—These two key persons discuss what direction we should take in a post-COVID-19 world.



Core Technologies for the Paint and Coatings Industry



CORE TECHNOLOGIES



NIPSEA Group's core technologies

Dr. Hong: While I have a 22-year career in the global paint industry, the first thing I did when I joined the NIPSEA Group four years ago was clearly defining my responsibilities as CTO. Specifically, I defined my responsibilities as formulating a vision and strategy for technology and innovation, leading and managing an organization for technology and innovation, and fostering a market-driven collaborative culture of innovation. In the other words, CTO is a leader of formulating a strategy for technological and product innovation as well as a leader of an organization that can achieve such innovation. This means helping employees take up new challenges without fear of risks in order to achieve innovation. CTO must declare his/her responsibilities because I recognized that the most important requirement for establishing a strong R&D organization would be creating an environment that inspires chemists and engineers to readily take up challenges without fear of failure even if they have to take risks. Moreover,



we defined an organizational vision for NIPSEA Technology as providing the highest level of customer satisfaction in the most cost-effective way and being a leader in paint and coating technologies who can maximize shareholder value. Since 2017, we have promoted the NIPSEA Technology and Innovation Strategy with the three pillars of "building an adaptive organization," "developing core competences," and "entering emerging markets and neighboring markets."

Mr. Nishimura: In 2014, Nippon Paint became a holding company, Nippon Paint Holdings (Nippon Paint HD), under which five Group companies were spun off, including R&D organizations, to increase our strengths in each business field. This move accelerated product development at those companies but made it difficult for us to build a strong Group-wide technological foundation and speed up our creation of future technologies. As a person responsible for the R&D Division, I aim to provide society with effective solutions by combining our technologies with technologies from our network with outside parties and fulfilling paints' potential to the maximum. To achieve this aim, we have established two organizations: Group Technology Management (GTM), which enhances strategy development and governance in our Group in Japan, and the Group Innovation Management Platform (GIMP), which provides society with solutions by commercializing innovations, which you

mentioned before, through close collaboration between Group companies around the world and their partners. To further increase the Group's comprehensive technological prowess with these two Group-wide organizations as drive, I have striven to enhance collaboration with NIPSEA in recognition of my own very important role as a leader in this field.

Dr. Hong: Nippon Paint HD also announced to acquire 100% of the Asia Joint Venture and Indonesia Business, August 21, 2020, and our collaboration will be accelerated. To introduce main responsibilities of NIPSEA's technological organization, it has six pillars: technology, innovation, product improvement, quality improvement, cost reduction, and an organization that enables them. The technological organization comprises two R&D Centers, one Innovation Center, and 26 Technical Centers. The R&D Centers conduct basic and applied research, while the Innovation Center translates it into innovative technologies and platforms. The Technical Centers are responsible for putting those technologies and platforms into products that can be provided as solutions for the end markets and customers. The NIPSEA technological organization currently has nearly 1,500 R&D projects for the period between 2020 and 2024. The progress of these projects is always monitored so that sufficient investment return can be earned.

Mr. Nishimura: Nippon Paint HD aims to provide innovative

solutions in the form of products and services while pursuing four policies: enhancing technological platforms, including basic paint technology; facilitating digital transformation (DX)^{*1} through technological innovation; creating innovations that lead to solutions for social issues; and accumulating the most advanced technologies and know-how through strategic partnership. The GTM and GIMP staffs play a central role in these initiatives with the participation of all engineers at Nippon Paint HD. In addition, we will engage NIPSEA in all our activities, from initial planning to final implementation, and share the results of those activities with our global partners with a view to exploring a global market.

* 1 Digital transformation (DX): Utilization of data and digital technologies with the aim of revolutionizing products, services and business models and reforming operations, organizations, processes and other factors to gain greater advantage

Dr. Hong: Here I expect that group collaboration between NIPSEA and Nippon Paint HD will produce good results. Reaching the expectation requires us to deepen our understanding of all organizations and strategies in the Nippon Paint HD Group, including consistency between global technological strategy and the roadmap, the sharing of the best practices, lessons drawn from past failures, and the optimization of technological resources through Spider-web management. We are currently

devoting energy to establishing a new organizational structure and fostering young human resources. I also recognize that nurturing next-generation talent is an important challenge. I believe young staff in particular have to know that latent customer needs exist globally, rather than locally.

Mr. Nishimura: My experience in cooperating with my colleagues from Japan and China when working as a technical manager in China is very valuable for me and still helps me immensely. We will provide young employees as future leaders of the Nippon Paint HD Group with opportunities to work around the world through our global Spider-web network. Needless to say, I believe not only young talent but also all engineers should strive to develop appropriate technologies, products and services as early as possible while focusing on global customer needs and monitoring moves made by our competitors in order to achieve the common goal of making the Group succeed in the global market.

Future vision for technologies in a post-COVID-19 world

Dr. Hong: The COVID-19 pandemic has put the world in an unprecedented crisis. Despite being in such a difficult situation, Nippon Paint HD and NIPSEA have been able to take up new challenges. For example, in China, we are striving to revitalize the economy by investing in the fields of 5G infrastructure, intercity rapid-transit railway networks, EV charging stations, and so forth. All of these fields require paints and coatings. In the mobility field, in particular, where we can provide appropriate technologies with good timing, there will be new needs for Nippon Paint HD's anti-viral and anti-bacterial paints for automotive interiors. Furthermore, in China, Baidu has launched a self-driving robotaxi service for general users. In the field of car-sharing, where vehicles are in common use by various people, providing a hygienic environment for users is essential. Our anti-viral and anti-bacterial paints for automotive interiors serve that purpose well. In addition, a wider spread of autonomous driving will offer us opportunities to contribute to the mobility field by providing road marking paints and top coat paints for onboard LiDAR*2 sensors.

* 2 LiDAR: A technology for sensing objects

Mr. Nishimura: As you pointed out, there is increasing interest in health and hygiene due to the growing COVID-19 pandemic,



so our anti-viral and anti-bacterial paints will surely be helpful for society. To develop the most advanced technologies, products and services that can contribute in various forms to a future smart society, we will collaborate with academia, including the University of Tokyo, to enhance technological development that can solve social issues. Specifically, we aim to mitigate environmental impact by reducing dependence on fossil fuels and greenhouse gas emissions and to cut social costs by making various items maintenance-free.

Dr. Hong: Prompt response to these changes with our technologies requires us to engage in co-creation with academia. An example of our initiatives for open innovation is our collaboration with A*Star*3 based in Singapore, Queen's University in Canada and other parties in developing dispersants. We are also looking forward very much for your collaboration with the University of Tokyo in order to accelerate development.

* 3 A*STAR: Agency for Science, Technology and Research, a government agency of Singapore

Mr. Nishimura: One of the themes we are pursuing in collaboration with the University of Tokyo is automatizing production and painting processes. The growing COVID-19 pandemic has had another impact: it has changed people's lifestyles and working environments. Our plants and painting work sites are no exceptions to these changes. This is because not only infection control but also population aging combined with the decreased birthrate have increased the importance of automatizing. For example, the color mixing process at paint plants, as well as painting and coating works at work sites.

Dr. Hong: Ongoing technological changes around the world will change the business structure of our overall industry. For example, the disruptive technology of autonomous driving will reduce the number of traffic accidents. That will result in a reduced number of vehicles involved in collisions and consequently in need of being repainted. This means that, against the backdrop of Google, Tesla and other companies' initiatives to promote the spread of autonomous vehicles, no one can tell what will happen to the vehicle repair business in 5-10 years. We have to keep a watchful eye on subsequent developments. In anticipation of such changes, NIPSEA has invested in frontier technologies and its own new businesses and venture capital to create new businesses in emerging and neighboring fields with the aim of achieving continued growth while exploring advanced and disruptive technologies.

Mr. Nishimura: In preparation for such social changes, we have to develop more advanced products. This is exactly one of the reasons why we formed the Global Technology Council (GTC), which comprises technological staff of our global partners. Dr. Hong and I will lead GTC's activities to strengthen our relationships with international partners with the aim of achieving the goal common to NIPSEA and Nippon Paint HD of becoming a global industry leader.



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Collective Wisdom II: Talk Session

Next-Generation Leaders' Views: How Will Paint and Coating Technologies Change in a World with New Values?

Since its founding, the Nippon Paint Holdings Group has sent out numerous products that benefit society in the paint and coating fields. Technological capability has always been at the core of the Group. In this feature article, the next-generation leaders in technology development at the Group discuss various themes, including the new normal world after COVID-19 and changes brought about through collaboration with the University of Tokyo, from the perspectives of how the company's technologies should change in the future and what behaviors are required of engineers.

How should we tackle challenges as engineers, with an eye on the post-COVID-19 world?

Inbe: As a company handling paints and coatings that add value to customers' products, we have taken the lead in the industry in terms of protection and aesthetic appeal. However, I think in the post-COVID-19 world and beyond, in addition to these existing features, we need to offer new innovative features that customers have not yet recognized or explicitly demanded.

Minato: With a passive attitude, we will never be able to develop new technologies that customers will need in the future. We must offer new value that goes beyond what customers would expect in paints.

Morita: Besides imparting colors and protecting materials, paints have numerous attractive functions. I think it's a waste if we do not communicate these functions to customers. In the future, in addition to communicating the value of paints to customers more effectively, we engineers should more actively work to understand what customers really want and develop products that meet the potential needs of customers.

Kawakami: Right now, we are in the midst of the COVID-19 pandemic, but if technical information on COVID-19 is easier to access and is presented in a more convincing way, people will find it easier to independently decide what to do and how to act. In that sense, it is very important to record the causes, countermeasures taken and verification results as evidence so that anyone can use and understand them. I think the same applies to the development of paints.

Onishi: For example, the protective function of paints has greatly improved the durability of infrastructures in emerging countries, contributing to the development of the world economy and enhancing the safety of society. I think paints are products that can enrich the world in various ways and contribute to the SDGs. In the post-COVID-19 society, with a renewed understanding of how much contribution such a thin coating film has made in solving social issues, we should actively pursue "aggressive development" to bring our ideas to life.

Kawamoto: I think that in the post-COVID-19 world, even greater attention will be given to environmental issues. Due to the sluggish economic activities caused by the COVID-19 pandemic, the world came close to achieving the goals of the Paris Agreement, a global framework to tackle global warming. However, we cannot forever sacrifice the economy for COVID-19. Eco-friendly technologies, such as heat shield technology under development, will play an increasingly important role.

Nagase: Unexpected things will happen in the future. So I think it is important to accurately understand the changes occurring in the world. As an engineer, I would like to keep my antenna high to gather information and think flexibly. I feel that in developing antivirus coatings that help combat the COVID-19



pandemic, it is important that people with diverse knowledge and expertise get together and discuss ideas. Participating in this discussion has made me realize anew how important it is to have such a discussion as it will inspire us and give us new ideas.

Theme2

How will paint and coating technologies develop in the future?

Inbe: I feel that the paint functionalities expected by general people have been changing lately. For example, an anti-reflection function can be added to an acrylic panel to prevent droplet infection by just applying coating that controls the refractive index. In addition to conventional functionalities, such as protection and aesthetic enhancement, these new functionalities are becoming little by little more common.

Minato: It is very difficult to realize both high functionality and environmental and social friendliness, but it is worth trying, and I think we can do it. In this sense, coating technologies are not just limited to those for improving film performance but include all technologies that make things that seem impossible possible. I think there is value in trying it.

Morita: In the future, the scope of coating technologies might go beyond the traditional framework of paints and coatings. For example, paints may become able to release fragrance or medical substances to cure diseases, to capture and exterminate insect pests, or to disinfect bacteria and viruses in the air. Or, paints may become able to generate energy freely wherever it is needed upon receiving stimulus from the surrounding environment, such as sunlight. I think what is needed are technologies that make these never-seen-before functionalities possible and thereby deliver new value to customers.

Onishi: Sometimes society does not articulate the need for a product before it is created. Even if the need for a certain product is not recognized before it is developed, if customers use it and find it useful, then that product will naturally gain wide market acceptance. Therefore, I think even if the technology has no market need at the moment, if we believe it can contribute to society, we should continue R&D efforts on that technology.

Morita: As a person who comes from outside the paint industry, I feel particularly strongly that paint manufacturers, among other chemical manufacturers, are required to have a broad knowledge of areas such as physics and chemistry as well as complex expertise. I think paint manufacturers, including our company, possess highly valuable strengths.

Inbe: I think another strength of our company is that we have a wide range of customers. Some customers use our products for rare parts that comprise the key elements of their products. We can create new added value by applying the knowledge accumulated in one business field to another field.

Kawakami: I have long been involved in trade-use paints, and I think that engineers' accumulated experience and know-how, or something like a craftsman's intuition, is our company's strength. I think we should strengthen our effort to codify the tacit knowledge and know-how into tangible procedures and processes and pass them onto future generations so that all the accumulated knowledge and know-how can be effectively harnessed.

Onishi: Paint is a complex system. Engineers who have a craftsman's intuition, which Mr. Kawakami has just mentioned, are really great. When I talked with an expert in macromolecular simulation, he said, "Since practical paints have too many parameters, academic exploration is impossible." However, computational science has made remarkable progress in recent years, and I feel the analysis of complex systems is on the

verge of being realized. I think now is a perfect time to combine our experience and know-how and academia's complex system analysis skills.

Theme3

Expectations for collaboration with the University of Tokyo

Minato: Mr. Onishi just mentioned collaboration with academia. I think it would be exciting if we could leverage cutting-edge technologies possessed by academia, such as the University of Tokyo, in manufacturing.

Nagase: Our company's technology has been established through our predecessors' thousands or tens of thousands of trial and error attempts in paint formulation. However, we have not yet understood all the details of how paint films are formed and how they exhibit their own properties. Academia has the capability to explore the mechanisms of all phenomena. I feel the great power of academia. By leveraging the cutting-edge academic knowledge possessed by academia, we might be able to produce something new that is one step ahead. I am looking forward to taking on a new challenge as an engineer.

Kawakami: We have been able to deliver high-quality trade-use paint products thanks to the technological know-how accumulated over the years. I think by working in cooperation with the University of Tokyo, we can aim to reach levels we have never reached before only with the know-how accumulated in the past. I am so thrilled.

Onishi: I think it is an engineer's role to apply the knowledge gained from academia in actual industrial settings. It is also the true joy of being an engineer. In that sense, I am greatly motivated to tackle this difficult yet exciting challenge.

Kawamoto: When discussing with the professors of the University of Tokyo, I was greatly impressed that they showed



great interest in paint technologies and they asked us many questions. Discussions with people outside the company made me realize anew the potential of paint technologies. I was also surprised that I could discuss paint technologies on equal terms with the professors of the University of Tokyo. As a paint and coating engineer, I feel I have a responsibility to thoroughly review our technologies accumulated over the years and provide an accurate explanation to them.

Inbe: Three key directions have been established for joint research with the University of Tokyo. I think we made great choices. But I wish to collaborate with the University of Tokyo not only in medium- to long-term research projects but also in projects to address priority needs in business and translate research findings into new technologies.

Onishi: Basically, I think that while conducting research with an eye on 10 or 20 years ahead, we should translate the research findings into the development of products to be released in the near future. While further broadening the base of paint technologies through collaboration with the University of Tokyo, I want to leverage research findings in product development at hand.

Minato: We are planning to hold events and exchange human resources not only in the field of engineering but also in other areas such as sales. I hope that the entire company can gain new knowledge and insights one after another through collaboration with the University of Tokyo.

Theme4

Reaching new heights by reinforcing partnership with NIPSEA

Minato: We are strengthening partnership with NIPSEA in various areas, including the development of technology platforms. How do you feel about partnership with NIPSEA?



Onishi: By being involved in a partnership project, I am astonished and inspired by the speed at which NIPSEA's engineering team is executing their projects. But of course, the Japanese team has also good points. I find it challenging and rewarding to manage the project in a way that allows both teams to work together efficiently.

Inbe: What amazed me most when working with Chinese members was their work speed and top management's flexibility and decisiveness. I also received the impression that they were skillfully executing the project by establishing medium-term themes, in addition to short- and long-term themes.

Kawamoto: I have an impression that NIPSEA's members put out their antenna in every direction and make decisions at a tremendous speed based on an enormous amount of information gained. I think that to deepen communication with members at NIPSEA and other overseas bases, we need to make efforts to get to know and understand them better. It is important to learn not only their language but also their history and culture. I am always happy to hear from foreign colleagues about their country.

Nagase: Although our marine coating products are marketed in many overseas markets, technological development is conducted mainly in Japan while maintaining close communication with engineering staff members overseas. But as of now, we have had no opportunities to work with the NIPSEA Group. I would like to ask someone who is often involved in partnership projects with the NIPSEA Group about what differences there are between their company and NIPSEA.

Onishi: There are, of course, differences between decisions that can be made in a growth market like China and those that can be made in a stagnant market like Japan. Taking one step further, we ourselves should make proposals to quicken top management's decision-making. I think it's time for us to take on new challenges without fearing failure.

Ever-increasing needs for environmental friendliness, safety and economic efficiency

Powder Paints Closing in on the Attractiveness and Possibilities of Powder Paints

— Chiba Factory's New Endeavor to Embody ESG —

Powder paints are used everywhere in our lives, including for office desks, refrigerators, microwave ovens and guardrails.

The demand for powder paints is increasing year by year not only in Japan but also overseas.

This section introduces the unknown attractiveness of powder paints and the ESG Project, which focused on the conversion of a closed factory into a new powder paint manufacturing facility, which opened at the Chiba Factory.



Chiba Factory Data

Chiba Factory Overview

Location:	630, Sekishita, Togane-shi, Chiba, 283-0038, Japan
Ground area:	101,000 m ² (approx. 2.7 times as large as Koshien Baseball Stadium), New powder paint factory: 3,000 m ²
Production volume:	[2019 results] Paints: 34,300 t (including 4,600 t of powder paints), resins: 31,200 t
Production items:	solvent paints, water-based paints, electrodeposition paints, powder paints
Number of employees:	Approx. 300

Engineers' Views on Powder Paints

— Rapidly advancing world of colors —

Being VOC-free, powder paints are revolutionary paints that are friendly both to people and the environment. Their growth is remarkable, and we must meet the increasing needs. Let's take a look at how powder paints are currently perceived in the eyes of engineers who support leading-edge technologies.

VOC stands for Volatile Organic Compound. Solvents such as thinners, film-forming agents and additives contained in certain paints are VOCs. VOCs are emitted into the air when the paint dries and forms a film.

Worker friendly and VOC-free powder paints have overturned the accepted ideas of paints

"Powder paints are treated as a special genre in the paint industry," says Yuji Asami of the Quality Control Section. There are a large variety of paints, and liquid paints and powder paints have big differences in their properties, handling, production processes, etc. The production process will be detailed later in this section, but the main characteristics of powder paints are low environmental impact and high level of safety. Powder paint, which consists of solid particles of about 25 to 40 μm^* in average, does not contain organic solvent, which is contained in general liquid paint. Therefore, powder paints are VOC-free and have environmental benefits. VOCs emitted from painting are one of the major VOC sources in Japan; therefore, powder paints contribute to solving problems of the entire industry. In addition to environmental benefits, powder paints draw attention for their high level of safety. Liquid paints, which use organic solvents, are hazardous materials, for which storage and transportation requirements are stipulated in detail by the Fire Service Law, and there are some cases where only qualified personnel are allowed to handle liquid paints. "Since powder paints are non-hazardous materials, no special storage spaces are required. One thing to note regarding transportation is to take precautions to prevent powder from

* 1 μm = One 1,000th of 1 mm. The mean cedar pollen particle size is 30 μm .

curing due to heat in the hot periods of summer. Powder paints have significant benefits in terms of safety," Kazuto Asakura of the Quality Control Section says. Raw materials for powder paints are very simple—basically pigments, resins and curing agents only. This is another big advantage for powder paints. Then, what kind of paint is powder paint?

Labor saving, man-hour reduction, and resource recovery and recycling—high economic efficiency is another attractiveness of powder paints

Unlike liquid paints, which use organic solvents, powder paints require no viscosity adjusting and can achieve a uniform coating



Pellet production process in the powder paint factory. The mixed powder is cooled down to about 30°C by the cooling equipment.

thickness with a single application. "In the case of liquid paints, due to the properties of paints, it is difficult to achieve a beautiful finish if you do not have special painting skills like experienced craftsmen. However, with powder paints, you can achieve a professional looking finish even if you do not have high painting techniques," says Asami. This feature not only leads to reducing the number of work processes but also contributes significantly to labor saving and automation of painting operations. Amid a declining birthrate and aging population, it is increasingly difficult year after year to secure skilled workers. The features of labor-saving and ease of automation are attractive for many companies. Also, in the case of powder paints, paint that did not adhere to the substrate can be collected and recycled, thereby contributing to a reduction in running costs. On the other hand, in the case of liquid paints, except some types of water-based paint, recovery and recycling are difficult, and in many cases liquid paints are discarded after single application. "The ease of handling of paints, labor-saving at plants, and environmental friendliness are high on the list of priorities for any company. Powder paints have the potential to meet these three needs," says Asami.

Manufacturing process requires high technology

As mentioned so far, powder paints have significant benefits in terms of the environment, safety and the economy. Actually, the amount of demand for powder paints in Japan was increasing at an annual rate of 103% from 2017 to 2018, and powder paints have seen a steady growth among paints. To meet this demand, improvements are required in all processes, including manufacturing. The manufacturing process of powder paints is broadly divided into three processes: (1) mixing (mixing powder), (2) melt-kneading (melting and kneading the powder while applying heat, and converting the powder into solid form—thin slices of pellets—after drawing and cooling), (3) pulverization and classification (pulverizing the pellets into powder and making particle size uniform). Among these, the mixing process is a process that requires a high level of control technology. In the mixing process, it is necessary to mix raw material powder uniformly with a machine, but heat can be generated by friction. If heat is applied, powder paint will be cured. So the powder needs to be mixed in an efficient manner while being cooled to a certain temperature. To this end, the temperature, the number of revolutions, and the duration are minutely controlled for each type of paint. For powder paints, it is also important to prevent contamination by other powders or foreign matters throughout the manufacturing process. "If other powders or foreign matters are mixed in, even a little,

removing just them is difficult. If it is liquid, tiny dirt or impurities can be removed by filtration, but this is not possible for powder paints," says Asami. Due to these properties, the manufacture of powder paints requires high-level technologies. In addition, it is also required to design powder paints that meet specific customer needs. Nippon Paint Industrial Coatings Co., Ltd. (NPIU) manufactures powder paints mainly for industrial applications and produces powder paint formulations that conform to individual customers' specifications. At NPIU, engineers are not only involved in paint design, production control and quality control, but they are also responsible for adjusting the formulation according to the customer's specific needs and requirements, including the content of environmentally hazardous substances. In a way, all products are order-made. NPIU engineers, including Asami and Asakura, control all these processes.

Engineers see great potential in powder paints

Powder paints reflect today's needs not only for quality but also for safety to the environment and workers. What kind of attractiveness do engineers find in powder paints? Asami says: "Liquid paints have a long history of use and there are established technologies. However, many things still remain unelucidated regarding powder paints. I think it is fun to explore things that remain unknown." Powder paint manufacturing requires large facilities and equipment due to process-related factors, so the challenge is how to efficiently manufacture powder paints with minimum equipment. "The powder paint field still remains largely untapped in the industry, and there are many uncertain elements. But we see a huge potential for powder paints," says Asakura. The Chiba Factory has introduced IoT, through which production data will be accumulated in the future. Such accumulated data will further enhance manufacturing technologies for powder paints.

The engineers talking about powder paints



Yuji Asami
Quality Control Section, Production Division, Nippon Paint Industrial Coatings Co., Ltd.

Kazuto Asakura
Quality Control Section, Production Division, Nippon Paint Industrial Coatings Co., Ltd.

Ever-evolving Chiba Factory

Chiba Factory

Being a place that embodies and disseminates the entire

ESG is now an internationally accepted concept as a criterion for measuring corporate value. The new powder paint factory, which opened in June 2020, is indispensable in talking about Nippon Paint Industrial Coatings' ESG.

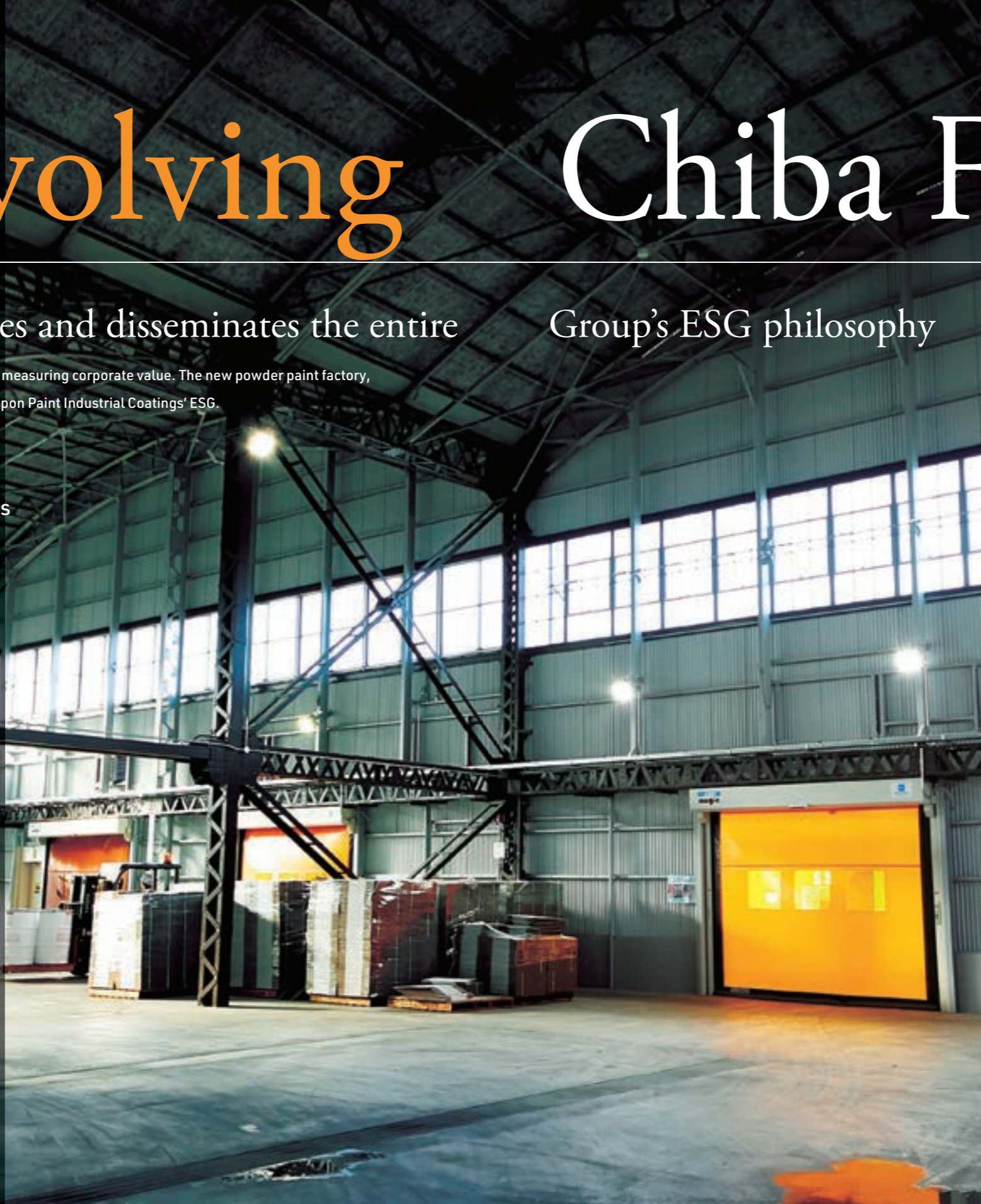
Reviving the old factory—foundation for “100-year factory”—with the power of paints

ESG is an acronym that stands for Environment, Social and Governance. In recent years, ESG investment, which considers these three factors in investment analysis and decision-making, has received increasing attention. ESG has now become an internationally accepted concept as a criterion for measuring balance in corporate management. However, ESG encompasses a wide range of areas, including but not limited to CO₂ emissions reduction, diversity promotion and information disclosure, and ESG approaches and priorities vary among companies. Then, what is ESG for Nippon Paint Industrial Coatings (NPIU)? “The new powder paint factory, which opened in June 2020, is a compilation of NPIU's technological capabilities. The factory's existence itself embodies the entire group's ESG,” says Akira Yamamoto, the General Manager of the Production Division. When it was completed in 1962, the Chiba Factory, outfitted with then state-of-the-art equipment, was hailed as the “greatest factory in the East.” However, the factory aged and became obsolete over time, and the No. 1 paint factory was closed in 2014. After that, the company initiated discussions on ESG, and in 2018 a plan was conceived to renovate the closed factory and turn it into a place that embodies the entire company's ESG. It was then decided to embody ESG by building a “100-year factory” by incorporating NPIU's technological and design prowess. Building on a long history of over half a century, the new factory is expected to create an even stronger future in the next half a century by generating innovation through eco-friendly and economical paint technologies. However, this was a completely new undertaking for NPIU, so everything was trial and error. “The factory has a pyramidal structure. None of us had experience creating one from zero, using creativity,” says Yamamoto. First, a team was formed by bringing together people of different genders and years of service from various departments. Thus, an unprecedented project was embarked upon in September 2018.

Group's ESG philosophy

The new powder paint factory completed after overcoming many difficulties

To transform the Chiba Factory into a new factory by making use of the existing building with a history of over half a century, there were many difficulties to overcome. A paint factory is a hazardous material manufacturing facility. Therefore, for example, when moving the pipes laid inside the building to outside, it was necessary to notify the relevant authorities, including the fire department. Inquiries and negotiations with them took more time than expected. Concurrently, purchasing of foreign-made equipment was carried out. It is often the case that Japanese plants are outfitted with Japanese-made equipment for maintenance and management reasons. With a view to future developments and taking into account the possibility of local procurement of equipment, it was decided to introduce foreign-made equipment in the new factory. Purchasing equipment from countries with different languages and cultures was a challenging experience. Often, the ordered equipment was not manufactured as per the design drawings, resulting in repeated contacts with the manufacturers. As Yamamoto says, “It was not as simple a thing as installing an electric appliance, such as a TV, in your room,” if the size of the equipment is smaller or larger by just a few centimeters, it is necessary to change the design of the whole factory, including the design of piping and layout of equipment. Every time the equipment was found to be not as per the ordered size, the design was redrawn. It was such a mind-boggling process. After repeating this process a number of times, the construction finally started in 2019. “During the construction work, we felt in constant danger of fire because hazardous substances remaining in the pipes might ignite, causing fire. We proceeded with construction carefully while discussing with construction workers how construction work should be advanced without causing an accident,” Ryosuke Kubo of the Safety Equipment Section says, looking back on those days. In March 2020, the new powder paint factory was finally completed. External walls have been clad with decorative panels coated with durable and eco-friendly paint, known as colored steel sheets pre-painted with coil coating, and the external appearance of the building built over half a century ago has changed so dramatically that it might be mistaken for a brand-new building. The new powder paint factory embodies not only NPIU's ESG but also its advanced technologies and the passion of people working there.



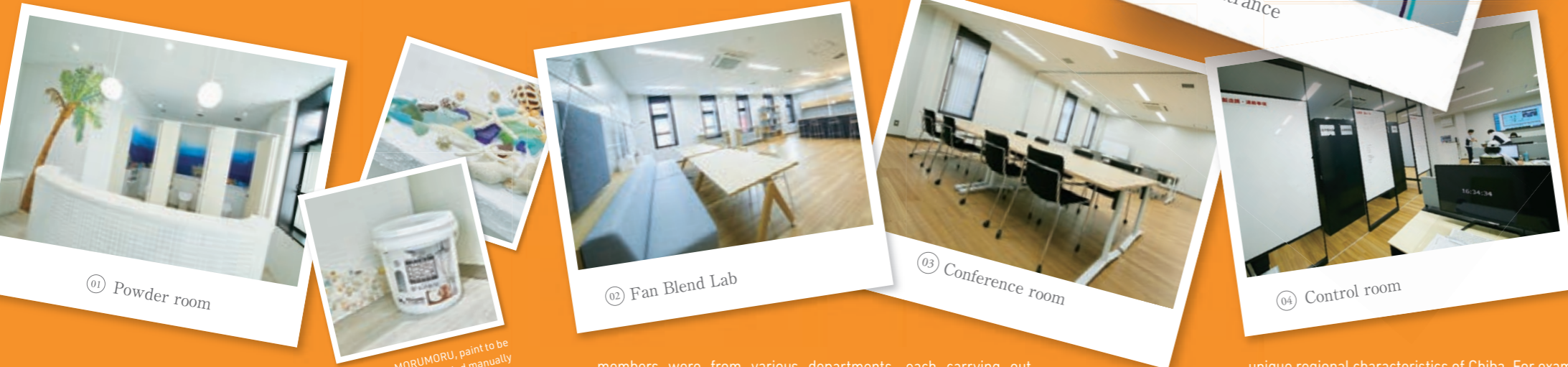
(Left) Inside the new factory (Center) Ryosuke Kubo of the Production Division, who was in charge of purchasing of foreign-made equipment and the overall design and layout of the factory (Right) Powder paints before the pulverization process





Looking Back on ESG Project

A total of 11 employees working at the factory participated in the ESG Project. They worked at full blast for about one and a half years, from planning to the opening of the factory. What they did first was to do a search for "ESG" on the Internet.



Starting with an Internet search to get an idea of what ESG is all about

The ESG Project, which focused on the renovation of the Chiba Factory in Japan, was participated in by a total of 11 employees as project members from Nippon Paint Industrial Coatings Co., Ltd. (hereinafter "NPIU"), including its affiliated company Nikko Techno Co., Ltd. For about one and a half years, the project members were involved in everything, from idea generation to implementation, under the supervision of the project leader, Mitsuki Ito of the Planning Section. ESG is often discussed from a management perspective, so it was an unfamiliar key word for the project members until they were involved in the project. "I think I have heard the term before, but I did not really know what ESG meant. So I first did an Internet search," says Shingo Imazeki of the Paint Manufacturing Section. The same was true of other members. The members gradually deepened their understanding of ESG while working on the project and kept thinking "What can be done as NPIU?"

A factory where workers can open their hearts

The theme is open communication

Meetings were held at a pace of once or twice a month, with each session lasting more than two hours. The key word that emerged from early discussions was "open communication." The project

members were from various departments, each carrying out different duties in their respective workplaces. At first, they were reserved with each other and hesitant to express their honest opinions. This same atmosphere was felt throughout the Chiba Factory. It did not take much time before they realized that the project team was a microcosm of the entire factory. "About 300 people are working in the Chiba Factory, but there were few opportunities for employees from different departments to meet and interact. Through an in-house questionnaire and discussions, we found what they wanted was communication," says Aimi Ishii of the Eastern Japan Operations Section. After realizing it, the members came up with new ideas one after another. Their ideas were not limited to the working environment in the factory but extended to building a relationship with local residents. The project team started working on the creation of a space that completely sweeps away the stereotypical image of a factory, such as dirty and dark. Reflecting back, Imazeki says: "The key point was to consolidate various opinions. We racked our brains on what should be done to make a place needed by everyone working here." The members came to the decision to create a space that can be used for any purpose. Thus, the "Fan Blend Lab" has been created. It is a simple and spacious room, with only counters and tables on both sides, and can cater to any type of meeting or event to meet anyone's needs by dividing it with partitions or preparing equipment as needed. The Fan Blend Lab is open not only to employees but also to local communities. The space is planned to be used as a venue for various events for local residents. Also, the project team tried to create a factory filled with

unique regional characteristics of Chiba. For example, the entrance is adorned with objects made of Sanbu-sugi (a cultivar of Japanese cedar), which is famous locally. As the factory is located near Kujukuri Beach, a palm-tree motif is used here and there, creating a relaxing atmosphere. The powder room, which is the biggest focus of the female members, has been designed on the theme of the sea. Its walls are covered with dynamic pictures painted by local artist Barusamikoyasu. Surrounded by pictures of beautiful beaches and the deep blue sea, the space has a mystical atmosphere. This unique powder room is a topic of conversation within the company.

Making changes where possible to create a workplace that employees can be proud of and share with their children and other family members

This project has changed the members' perception toward working style. The members looked back at the project and said, "One of the biggest benefits was becoming able to think about things from



ESG Project Member



Ryosuke Kubo
Safety Equipment Section, Production Division, NPIU

In the ESG Project, he was single-handedly in charge of all tasks related to equipment and facilities of the new factory, including infrastructure design and construction, by making full use of his knowledge and experience cultivated through work in the Safety Equipment Section. He was also in charge of purchasing equipment from overseas and associated negotiations.



Takafumi Hamada
Quality Control Section, Production Division, NPIU

He was in charge of collecting opinions about factory equipment and facilities from relevant employees. He was involved in the determination of the concept for equipment and the selection of equipment to be introduced. His normal duty is quality control of powder paints.



Aimi Ishii
Eastern Japan Operations Section, Production Division, NPIU

She is mainly in charge of production management in the Operations Section. In the project, she collected opinions from female employees working on the factory floor and contributed to creating a space that reflects women's perspectives, including a powder room.



Shingo Imazeki
Paint Manufacturing Section, Production Division, NPIU

He proposed a number of ideas from the perspective of a worker working on the production floor. He was the "life of the party" on the project team.



Koki Iwata
Safety Equipment Section, Production Division, NPIU

He participated in the project only six months after he joined the company. He was the youngest member of the team. He recorded the progress and activities of the project by taking photographs up to the completion of the new factory.



Chika Aihara
Operation and General Affairs Section, Nikko Techno

She served as an intermediary between Nikko Techno and NPIU. She worked to embody ESG while listening to opinions of the employees. Normally, she is in charge of clerical work, including issuance of work management sheets.



Yuka Yoshikawa
Operation and General Affairs Section, Nikko Techno

Normally she handles Nikko Techno's clerical work in general. She collected and consolidated ideas from female employees to create a space with a cute and natural atmosphere. She is dependable and played an older-sister-like role on the team.

*NPIU is the abbreviation for Nippon Paint Industrial Coatings.

another person's perspective and think of others' problems as our own problems by engaging in open communication throughout the project." "The term 'ESG' may sound grand, but I want people working here to be proud of their workplace. I was involved in the project in the hope of making the factory a workplace that employees can be proud of and share with their children and other family members," says Ishii. The completion of a new factory is a goal, but at the same time it is a start. The new initiative to embody ESG principles is about to start here at the Chiba Factory, involving employees and local residents.

① Powder room: The interior is covered with pictures painted by local artist Barusamikoyasu. The powder space is adorned with shell decorations hand-made by female employees. ② Fan Blend Lab: A simple space with counters and tables on both sides. There is a plan to lend this space to local residents. Various events are also planned. ③ Conference room: The room is usually used as a conference room but can be used for various other purposes by dividing it with partitions. ④ Control room: This room controls the operation status of all equipment in the factory. The monitoring results are digitalized and accumulated in a database. It is a simple and functional space. ⑤ Entrance: Considering its location near Kujukuri Beach, the entrance is designed with a palm-tree motif, creating a relaxing atmosphere. The entrance space is filled with unique regional characteristics.





Colorful Paint Cultures in Asia, Underpinned by People's Empathy

Covering the entire Asian region, the NIPSEA (Nippon Paint South East Asia) Group has attracted the empathy of local people in the major countries and regions where it operates, including Singapore, and conducted a wide variety of businesses that help to add colors to people's lives. Here are reports from these countries about how Nippon Paint is loved by local people and how it helps their lives.

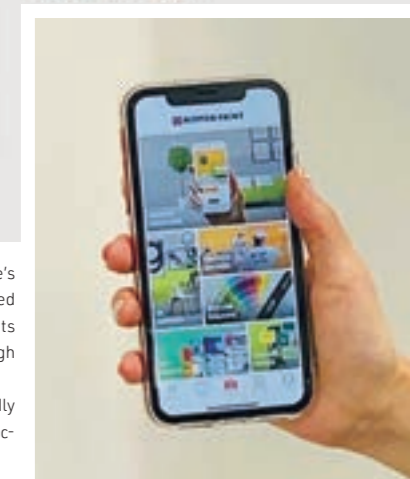
What is the NIPSEA Group?

The NIPSEA Group has been nurtured for a period longer than half a century jointly by Nippon Paint Holdings and the Wuthelam Group, a major paint and coating manufacturer in Singapore. The NIPSEA Group dates back to 1962, when its business operations were launched in Singapore. The Group then expanded into the markets in other countries, including Thailand, Malaysia and the Philippines, in the 1970s and in mainland China in 1992. The Group currently has its main bases in Singapore, Indonesia and China and operates in 18 countries/regions, with more than 20,000 employees working at over 70 Group companies around Asia. Since the culture of DIY, including painting exterior and interior walls, is rooted in people's lives in many Asian countries, the NIPSEA brand has permeated not only the business-to-business (B2B) markets but also the business-to-consumer (B2C) markets and the lives of local people.

Singapore

Online paint purchase is gaining traction as mobile penetration is very high.

Singapore's paint culture is dominated by DIFY (Do It For You), in which Painters are hired to do the painting. The painter will present a colorcard for consumer to select colors and products and then the Painters will purchase the paint and paint the home. E-commerce is generally popular due to the ease of purchase. For example, Nippon Paint Singapore's e-commerce site is popular because it has a great user experience that allows consumers to select colors and products, read recommendations and shorten the process by online, such as searching, selecting, and purchasing, without stress. The site is so easy to view that it is highly popular with DIY users as well.



[Upper] Nippon Paint Singapore's online store has been highly reputed for premium products and discounts available only online and thorough product explanations.

[Lower] The company's user-friendly mobile app has met with a good reaction from mobile device users.



Malaysia

Learn about hygiene while playing
Original items



[Upper] Ray Saves The Day storybook picture published by Nippon Paint Malaysia

[Lower] Children receiving hygiene education using the storybook

Raising awareness of cleanliness is essential to the further development of Malaysia, and original items with masks and Ray Saves The Day storybook that includes coloring and drawing activities are being utilized for hygiene education for children. This set is designed in a cute way with a Wellness mascot character, named Wellness Blobby and kindergarten teachers use them to teach children on the importance and ways to ensure wellness and hygiene, while being able to have the freedom to be creative through every stage of their development, from infancy, to toddlerhood, to childhood. Coloring and drawing encouraged children to express themselves through creating art, enabling a sense of innovation and critical thinking. This activation aims to educate the wellness and hygiene among children in a fun and exciting way, as wellness is happiness, and happiness for children is when they are healthy and having fun!



Asian people view paint as a household necessity, selecting colors and painting walls on their own

Paint cultures in Asian countries, excluding Japan, are distinctively different from Japanese paint culture in that paint is recognized as a household necessity in those countries. House owners select colors according to their own preferences and freely paint the exterior and interior walls of their houses as a kind of a DIY activity, instead of leaving it to professional painters. As a result, in those countries, many houses and their interior spaces look very unique, unlike in Japan. Many families even have painting tools, such as brushes and rollers, available on hand. DIY stores and other commercial facilities dedicate a certain amount of space to paints for household use, while stores specializing in paints can be easily found on many streets together with restaurants and other stores. Such stores specializing in paints deal in a wide variety of products, not only in terms of color and volume but also in terms of additional function—some paints are anti-viral and/or antimicrobial—and material—some are made of eco-friendly plant-based materials. In this way, many types of paints feature additional value. Moreover, paints that meet demand generated by climates particular to Asia, including humidity-resistant paints and mosquito repellent paints, are also developed and sold. Against this background, a wide range of local people are familiar with paint products from each NIPSEA Group company through TV commercials, social media, wall advertisements at stadiums, etc. In addition, NIPSEA Group companies are actively engaged in community-based social contribution initiatives, including painting activities aimed at celebrating national events together with local people and the distribution of original items helpful for hygiene education for children. The Nippon Paint brand is loved by local people as a brand close to their lives.



[Upper] Painted walls displayed at an IKEA store in Taiwan
[Lower] Nippon Paint Taiwan staff giving a lecture on paint to IKEA staff



Taiwan

World's largest furniture mass retailer
Joint planning with IKEA was well received

In Taiwan, you can see how you enjoy using coloring techniques to arrange the space itself for yourself. IKEA stores in Taiwan exhibit showrooms featuring IKEA's original colors from Nippon Paint Taiwan. Many consumers enjoy shopping with a sense of "buying the whole space." Unique paint services that change walls to match the atmosphere of purchased furniture are also popular. Partnerships with IKEA are also in Hong Kong and Macau.

China



In collaboration with popular brands
Fit to new generation

From the standpoint of "living" in China, there have been major changes in the consumer in these days. One of the core group is not a conservative lifestyle rooted in traditional values. They are a new middle class born after 1985, seeking a freer, more personal lifestyle and with quality. They have a strong preference for travel, beautiful and refined chic designs, the domestic brand "Shijo," which mainly handles daily necessities, is popular. Collaboration projects with Nippon Paint China were also popular. Like "Japan = Green," a video introducing the attractiveness of each country while linking travel and color images has been well received, and it has been frequently featured in SNS.



[Upper right and upper left] Advertisements targeting the new middle class
[Lower] An advertisement featuring a stylish design, aimed at emphasizing the novelty of the product



Hong Kong

Key Message: All-round protection
Safeguard for children

Every parent wants the best for their children. Providing best education and living environment are important for child's growth. Nippon Paint Hong Kong aims at providing eco-products with high technologies, such as odour-less, formaldehyde abatement, anti-bacterial and anti-stain. With these safe and eco-friendly products, kids can grow up in a healthy environment. For example, Nippon Paint Odour-less Kids Paint is formulated with first-grade anti-stain performance focusing on the needs & habits of children. It is easy to clean if children draw on a wall. With first-grade anti-bacterial function, it can provide an all-round protection to family and children.



A TV commercial that delivers the message that Nippon Paint Hong Kong protects the safety of children

Philippines

Through the power of paint! Revitalizing Communities and Supporting Local Artists

In the Philippines, streets and sports facilities in impoverished areas are decorated with paint to encourage the rebuild of communities. Undertaken jointly by artists, locals in the area, and Nippon Paint Philippines, the Color the City and Every Court Can Dream projects have inspired benefiting residents to revitalize their respective communities- through regular sport activities and opening of small businesses around the basketball courts. At the same time, these projects have provided a platform for local artists to explore and express their creativity.



(1.2) COLOR THE CITY PROJECT
(3.4) EVERY COURT CAN DREAM

Staying close to the lives of Asian people to continue adding brilliant colors to their days

The key to success in the paint markets in Asia, where paint cultures are deeply rooted, is empathy. Increasing importance has been placed on adopting the diverse viewpoints of consumers of all ages and satisfying their demand from the diverse viewpoints of users. The NIPSEA Group company in each country/region has built a good relationship with customers by producing original ideas from the perspectives of having a concrete vision of what customer satisfaction is, utilizing all kinds of media, whether old or new, and identifying added value other than paint. The good customer relationship has been supported not only by product development and promotion but also by the Group's close communication with customers through its active involvement in social contribution initiatives. Such communication has enabled each NIPSEA Group company to experience how customers react on specific occasions.

In Hong Kong, Nippon Paint Hong Kong's initiative to design the walls of the building of a special needs education school,

provide paints for that purpose, and send volunteers to paint the walls has met with a very favorable reaction. In Malaysia, Nippon Paint Malaysia distributed a set of masks and a coloring picture book to 5,000 children at 50 kindergartens. Like empathy, such initiatives for children provide a guideline for the Group's future business expansion in Asia.

The global population has continuously increased from 6.9 billion to 7.8 billion in the 11 years between 2009 and 2020 and is predicted to reach 8.5 billion in 10 years, by 2030. The global paint and coating market, which was worth 10 trillion yen in 2009, is also expected to continue growing as the global population increases, reaching 20 trillion yen in 2020 and 30 trillion yen in 2030. The regional composition of the overall Nippon Paint Holdings Group's net sales also has changed, and it will change, drastically: the Japanese market and the market of the rest of Asia accounted for 72% and 17% of the net sales, respectively, in FY2014, and 26% and 52%, respectively, in FY2019. This change can be seen as the clearest proof that the Nippon Paint brand is loved by Asian people as a brand that adds brilliant colors to their daily lives. In the future, where further acceleration of globalization is predicted, our efforts to both keep our eye on trends in Asia and promptly draw suggestions from such trends for application to the Japanese market will produce synergetic effects.

Japan



Current status and future of the Japanese paint market from the perspective of a paint dealer



« Interview »

Mr. Motohide Sei

President and Representative Director,
Fujimi Corporation (a special contract
distributor of Nippon Paint products)

Profile / The history of Fujimi Corporation began in 1966, when Fujimi Paint Store was founded in Odawara City, Kanagawa Prefecture. In 1988, Fujimi Paint Store was renamed Fujimi Corporation on the occasion of its business expansion. Mr. Sei assumed the position of the company's president in 2011 and was appointed as the first chairperson of the just-established Youth Division of the Paint Trade Association of Japan in 2017. He loves sports, and his company is an official sponsor of the Shonan Bellmare Futsal Club.

The key is highly original color designs and reliable ability in offering proposals

The Japanese paint market has long been placed in a difficult situation with the decline in housing supply due to the aging population combined with the decreased birthrate, the lack of successors to existing painting service providers and other problems. The balance between demand and supply in this industry has long remained at the same level, and I predict that we should wait for a certain length of time until the industry takes an upward turn.

However, given that contemporary Japanese society is experiencing the diversification of people's values concerning criteria for what happiness is, I believe there is considerable room for us to find new business opportunities in approaches targeting households. Most businesses in this industry, whether house or paint manufacturers, paint dealers like us or painting service providers, have long used the conventional way of proposing the coloring of houses just by selecting from already available choices. If we added new choices based on what customers value, their life plans and the characteristics of the areas where they live, the originality of such a choice would have as high value as its quality or cost has. That would require us to have a deep knowledge of paints in general and the reliable ability to offer proposals that deserve customer trust. We hope to strive for such knowledge and ability from our position as a

dealer close to customers with a view to organizing businesses in the industry so that they can share skills and experiences with each other and to building a system for specialized qualification.

I am keenly aware of the wide gap between Japan and the rest of Asia in how paint is positioned by general consumers. Meanwhile, it is an objective fact that Japan is outstanding in product quality and the underlying technological prowess in global terms. For example, I hope that, if Nippon Paint increases the presence of made-in-Japan products by developing durable and weatherable products that can enable painted objects to last longer and match warm and humid climates unique to Asia, such products will help immensely to invigorate the Asian markets and especially the Japanese market. From my personal viewpoint, Japan's status as a country that has faced various challenges ahead of other countries may serve as a favorable factor. Despite the global trend toward a population increase, many countries cannot avoid having an aging population combined with a decreased birthrate. If we are able to apply existing good practices in Japan to solutions, and especially solutions in the field of paint, for various housing problems that will occur in such countries, it will bring us an overwhelming advantage.

The Japanese market still has unfulfilled potential while the potential of the Asian markets is limitless. We hope to collaborate with Nippon Paint beyond the border between a manufacturer and a dealer in creating a brighter future.

DIY Home Improvement



Australian DIY from Dulux

What is Dulux? Australia's leading premium branded paint manufacturer

DuluxGroup, which became a wholly owned subsidiary of Japan Paint Holdings in August 2019, is Australia's leading marketer and manufacturer of premium branded paint products. Established in 1918, DuluxGroup has expanded its product portfolio beyond architectural paints, in which it is the clear market leader, to also include protective, powder, textured and wood coatings for both interior and exterior applications. In addition to Australia, it has paint businesses in New Zealand, Papua New Guinea, the United Kingdom and France. DuluxGroup is also home to Australia and New Zealand's leading brand of adhesives, sealants and fillers, as well as a range of other products, predominantly for the residential home improvement market.



Bunnings is Australia's

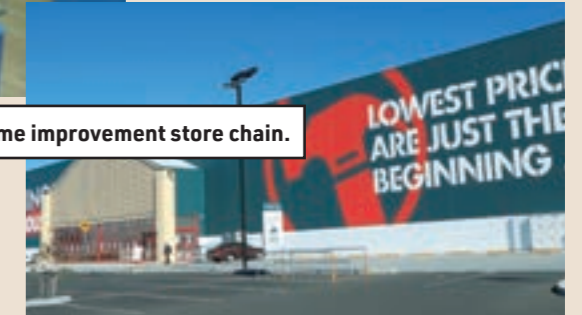
largest DIY home improvement store chain.

Dulux's retail customers, such as Bunnings, Mitre 10 and Inspirations are important partners in helping to reach DIY consumers. Australian DIY fans are familiar with the BUNNINGS Warehouse chain, which operates around the country. The store is so large that you could get lost, and it has all the materials, tools, and anything related to renovation. The paint aisles are lined with colorful paint. Workshop spaces are provided, and DIY classes for children are also held.



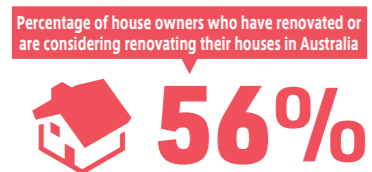
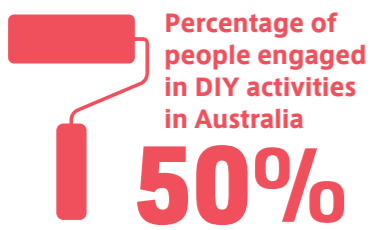
Instructions on how to paint are shown on the back of each paint can.

This year, the spread of the new coronavirus has lengthened the time many people spend at home in Australia, and the demand for DuluxGroup products, such as paints for interior and exterior use, especially for kitchen benchtops and cupboards, is increasing at BUNNINGS Warehouse stores.



How does innovation and R&D contribute to Dulux brand strength in DIY?

Dulux is the most recognized and most trusted paint brand for Australian consumers. Its strength in the DIY segment is built on the promise that "if it's worth doing, it's worth Dulux." This is supported by market leading advances in technological innovation and new product development at the Dulux Paints & Coatings Innovation and Technology Center at our headquarters.



*"Decorations" here mean altering the appearance of rooms by changing the colors of walls and other means.

* Source: Survey by DuluxGroup

Australians, as the DIY powerhouse, have a long tradition of doing their own home maintenance, repair and improvement, and painting would be one of the most common DIY tasks for Australian home owners. Perhaps this is because of the underlying culture that "my home is my castle," meaning that home owners take pride in their homes and like to see it looking its best. After assembling or repairing an object, many people naturally finish it themselves. "Do-it-yourself" has a long history with Australian home owners. Dulux creates products, advice and services to make it easy for home owners to "Take on anything".



Australian people enjoy

adding creative colors to their lives on their own.



DuluxGroup works closely with its retail customers, including Bunnings, and provides decoration advice services using a palette of more than 4,000 colors. Dulux Color Consultants also provide expert advice to consumers in their homes, which takes into account furniture and lighting.



Consumers can select from a wide choice of

paints on the advice of color consultants.



Take on Anything!

House improvement is quite a

common DIY activity of Australians!!

There are many color charts in the paint corner, and the customer selects the color of his or her preference and has the paint blended in a paint counter. Many DIY enthusiasts have come to see that various paint products are displayed according to their applications, so they are able to carefully select them.

DIY JAPAN



"#Sukazari" icon

Where "#Sukazari" comes from

In Japan, the word "sugomori" (nesting) is widely used to mean "staying at home." Now that an increasing number of people enjoy DIY while nesting, the Nippon Paint Holdings uses "#Sukazari" to advocate "sukazari" (nest decoration), or improvement of one's home by DIY, to share the joy and excitement of paint.



Waku Waku...



DIY paint as an invitation to update your own life

In Japan, demand for paint for DIY use is not so high as in other countries. The main reasons for that can be found in the fact that the majority of houses are sold as completed ready-built houses, that many house owners choose to use wallpaper to decorate the interior walls from the perspectives of cost and quality, and that, with artisanship deeply rooted in Japanese society, many people believe that professionals can finish decorative work better than they themselves can.

However, the permeation of the Internet, smartphones and social media has recently been changing the structure of demand. These communication tools have enabled a growing number of people in Japan to obtain information about overseas interior design, resulting in their interest in incorporating such design into their own lifestyles. In addition, although the COVID-19 pandemic has forced people to stay at home, it has motivated more and more people to begin DIY activities to spend their time at home in a worthwhile manner. Painting is an ideal first-step activity for DIY beginners, without the need for them to do heavy work, such as sawing wood or hammering nails. Repainting a wall alone can help completely change the atmosphere of a room.

Nippe Home Products Co., Ltd. provides products for painting beginners, including Hand Paint MORUMORU, a paint that can be applied with the hands, without using brushes, so that users can enjoy painting with their small children, as well as a complete set of painting tools. The online store NIPPE HOME ONLINE sells paints that can help users make original colors and provides the service of making customized blends of colors for color sprays, as well as displaying how-to videos. Such a variety of initiatives under the key word of "sukazari" (lit. "nest decoration," or home improvement) give various hints about how to color your life brilliantly.



(Upper) Paint that even children can enjoy applying (Center) Painting a wall freely is a joyful activity. (Lower) Challenge yourself to use very vivid colors!

Special DIY Website

Access the special DIY website via this QR code.



(Japanese only)

The website shows examples of simple DIY activities for adding brilliant colors to your time at home!



Videos help you easily understand how to paint

Painting beginners may not know how to paint or may be interested in painting but view it as probably difficult. The website features videos in which popular YouTubers demonstrate how to paint by really using MORUMORU and STYLE DIY Paint. How about watching the videos?



Why not visit the online store with a wide lineup of paints?

NIPPE HOME ONLINE

Access the online store via this QR code.



(Japanese only)



Anti-viral and anti-bacterial product for DIY and household use (For details, see page 18.)

Designed from a customer perspective, NIPPE HOME ONLINE comprises separate sections for DIY-use products and professional-use products and has met with favorable responses because customers can make an easy choice. The online store provides not only limited products but also various benefits, including same-day shipping and free shipping (for orders of 3,000 yen or more). Why not begin DIY with this online store?

Two examples presented on the special DIY website

Hand-painting MORUMORU



Paint walls with just your hands

MORUMORU is a finishing and repairing wall paint that can be applied with your hands. You can apply it in a playful way and finish walls in an authentic plastered-wall style. Even painting beginners can easily apply it with just their hands. The product is also attractive in that even children can enjoy using it with their hands. It is a multipurpose paint, suitable not only for interior walls but also for exterior use. It can be applied directly on any kinds of surface materials, even on wallpaper and concrete.

DIY Paint



Broaden the world of paint

STYLE DIY Paint is an easy-to-use paint for DIY use. When applied, it seldom becomes uneven. Since it can be applied directly on wallpaper, you can use the convenient paint easily without any preparations. The product has 68 color varieties, so you can also enjoy choosing from the wide range of colors.

About Nippe Home Products Co., Ltd.

A Nippon Paint Holdings Group company that deals in general lineups of paints, painting tools and related products for household and DIY use and runs the online store NIPPE HOME ONLINE

Two interviewees who helped write this article:



Koji Kadowaki
General Manager of the Sales Planning Department
Nippe Home Products Co., Ltd.



Miki Iwakiri
Sales Planning Department
Nippe Home Products Co., Ltd.

Identifying various social challenges from environmental, social and governance (ESG) perspectives and solving those challenges through business activities is now a global standard approach of corporate management that can lead to sustainable development. What ESG activities are Nippon Paint Holding Group companies engaged in? Here are 13 topics on the Group's ESG activities that have produced remarkable results in various fields around the world, including product development, work environment improvement and contribution to society.

TOPICS 1

ENVIRONMENT | Automotive Coatings / Nippon Paint Automotive Coatings Co., Ltd.



Applying automotive coating technologies to antifog and anti-reflection functions added to face guards



Face guard low-reflection type

Nippon Paint Automotive Coatings Co., Ltd. collaborated with PANAC CO., LTD. in developing an anti-reflective face guard with anti-fog and anti-reflection functions as an application of automotive coatings technologies. Despite rapidly growing demand for face guards as a tool for preventing droplet infection from COVID-19, many users have complained that face guards are easily fogged up by breaths, and reflections in them block users' views. As a solution to these problems, anti-fog and anti-reflective technologies long developed for automotive coatings have been applied to a coating on the inner surface of face guards to prevent them from fogging up by breaths and reflecting the user's mask. The face guards can be used repeatedly with the functions maintained even they are wiped with disinfectant.

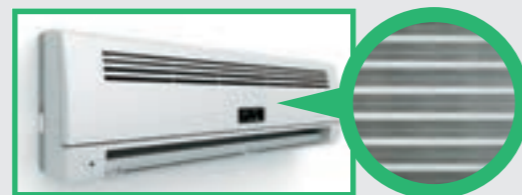
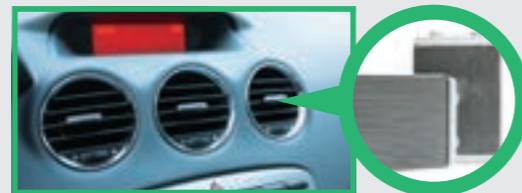
TOPICS 2

ENVIRONMENT | Surface Treatments / Nippon Paint Surf Chemicals Co., Ltd.



Utilizing hydrophilization technology to enhance energy efficiency

The hydrophilic coating of Nippon Paint Surf Chemicals Co., Ltd. is used to add an ultrathin coating—with a thickness of one micrometer or less—to the surface of the heat exchanger in an air conditioner for home and automotive use in order to prevent water condensation. Drops of water formed on the surface of the heat exchanger in an air conditioner at work can block the flow of air, resulting in reduced energy efficiency or water being scattered from air outlets. Hydrophilization technology prevents not only such problems but also odorous substances adhering to the heat exchanger and corrosion of the heat exchanger. Therefore, this technology helps eliminate unpleasant odors from an air conditioner at work and creates a comfortable interior space.



TOPICS 3

ENVIRONMENT | Marine Coatings / Nippon Paint Marine Coatings Co., Ltd.



Environmental technologies packed with know-how for coating technologies



Mr. Tetsuya Yagi, then Parliamentary Vice-Minister of the Environment (left), and Nippon Paint Marine Coatings President Seichiro Shirahata (right) on December 2, 2019



Nippon Paint Marine Coatings engineer checking the state of a FASTAR coating

Focusing on reducing the environmental impact on the seas and the air, Nippon Paint Marine Coatings Co., Ltd. has developed ship bottom antifouling paints that can both improve the navigational efficiency of ships and reduce the environmental impact. In 1991, the company launched the ECOLOFLEX SPC series, the world's first tin-free hydrolytic antifouling paints, contributing immensely to reducing the adverse impact of organotin, which had been suspected to be a harmful endocrine disruptor, on the marine environment. Based on suggestions drawn from the skin of tuna, the company also developed the world's first low-friction ship bottom paint LF-Sea in 2007 and its ultra-low-friction A-LF-Sea in 2013. These LF-Sea series products have proven to help reduce fuel consumption by 10% and been used for a total of over 3,300 ships. On December 2, 2019, the LF-Sea series received the 2019 Minister of the Environment Award for Global Warming Prevention Activity in the Countermeasure Technology Advanced Introduction Category, in recognition of the widely used product series' real contribution to reducing the CO₂ emissions of ships, their fuel consumption, and consequently their adverse impact on the atmospheric environment. Furthermore, in 2017, the company launched AQUATERRAS, the world's first biocide-free self-polishing antifouling paint, attracting public attention to repellent-free and biocide-free antifouling technology. Another antifouling paint based on a new concept, FASTAR, will be launched in 2021. To enhance the antifouling effect of FASTAR, Nippon Paint Marine Coatings has focused on the domain structure of coatings and aimed to ensure that the new product will be less dissoluble and more antifouling and will better help control marine pollution. In addition, the company will apply FASTAR coatings to a total of 10 large ships, mainly owned by Japanese shipping companies during the second half of 2020, with the sales and technical staffs collaborating as one team in giving clear explanations to customers and monitoring on-site works to further increase product reliability. International maritime transportation currently accounts for about 7.9 tons of annual CO₂ emissions, which is equal to the annual CO₂ emissions of Germany. Moreover, since 2020, new regulations have been introduced on sulfur oxides (SO_x) in marine fuels, requiring shipping companies to replace conventional fuels with expensive low-sulfur fuels. Amid the increasing economic burden of ships around the world and heightened expectations for improving the fuel consumption and navigational efficiency of ships, Nippon Paint Marine Coatings will propose ideal solutions through marine coatings.

A-LF-Sea, an ultra-low-friction ship bottom antifouling paint

As an improved version of LF-Sea, which was developed based on suggestions drawn from the skin of tuna, A-LF-Sea features the property of lower friction, realized by utilizing long-nurtured know-how in automotive coatings. This product has helped drastically enhance the fuel efficiency of ships. It received the Technical Innovation Award in the Seatrade Asia Awards 2014 and received the 2019 Minister of the Environment Award for Global Warming Prevention Activity in the Countermeasure Technology Advanced Introduction Category.

AQUATERRAS, a biocide free self-polishing ship bottom antifouling paint

Developed on the basis of HydrophiX®, a new hydrophilizing technology, this ship bottom antifouling paint features an antifouling effect without relying on any antifoulants or repellents, serving as a great savior of the global environment. This product, with a low-friction function as well, was developed based on inspirations drawn from anti-thrombogenic polymer materials.

FASTAR, a nanodomain structured self-polishing ship bottom antifouling paint

As the most advanced fruit of the company's original domain technology, this product will be launched into the market in 2021. A coating film of FASTAR has a nano-level domain structure, which can evenly diffuse antifouling substances emitted from the biocide, including copper ions, resulting in the product's less dissoluble and highly antifouling features. Utilizing know-how in the development of LF-Sea, FASTAR demonstrates its low-friction and fuel-saving effects (only with some products in the entire lineup).

SOCIAL | Nippon Paint Holdings Group

AYDA (Asia Young Designer Awards)



Theme for the FY2020 competition



FY2019 award-winners from Japan and Mr. Yuma Harada, the judge chair (second from right)



Winners of the fierce competition at the Asia Young Designer Summit



Students visiting famous buildings in Singapore during the Asia Young Designer Summit Study Tour

The Asia Young Designer Awards (AYDA) is an international architectural design competition for students, organized around Asia by the Nippon Paint Holdings Group. When the AYDA was launched in Malaysia in 2008, only 87 students submitted entries for it. However, the AYDA has now grown into an Asia-wide competition with over 8,400 entries from 18 Asian countries and regions and acquired well-deserved recognition among students and other members of the academia of each country. The AYDA is unique in that students from different Asian countries tackle the same theme and are subject to screening in each country. Although the theme differs year by year, the common aim of the competition is to encourage students to consider, from the perspectives of architecture and design, what approach they should take to build a society where diverse people can live fulfilling lives in their own ways. The current rapid progress in technological innovation and the globalization of economy and information has made the scope of human activities more and more borderless, but at the same time made social issues more complicated and their addressing solutions more difficult. Any endeavors to tackle various issues and build a sustainable society would need talent who can examine those issues. National-level Gold Award winners not only receive a cash prize but also are entitled to participate in the Asia Young Designer Summit to present their ideas in front of renowned architects and students who come together from various countries. The AYDA thus provides students not only with a cash prize but also with opportunities to understand human diversity through learning and discussions. Furthermore, the Asia Young Designer of the Year selected from the entire Asian region is invited to a summer school organized by the Harvard University Graduate School of Design.

SOCIAL | Industrial Coatings / Nippon Paint Industrial Coatings Co., Ltd.

Nippe Fun Farm established for the employment of people with disabilities

Nippon Paint Industrial Coatings Co., Ltd. has reviewed its way of employing people with disabilities and established Nippe Fun Farm as a place for them to work as members of society and prepare for independence. Located in Saitama City, Saitama Prefecture, Japan, the farm utilizes an agricultural employment plan provided by a private company as a employment support service for people with disabilities. The initiative was launched in October 2019 by preparing soil and a greenhouse for cultivation, and vegetables in the greenhouse are now ready for harvest, although in small amounts. Farms run by the support company have maintained an employee retention rate of 92% for these 10 years, proving that the farms provide a favorable work environment for people with disabilities. As its original endeavor, Nippe Fun Farm donates harvested vegetables to *kodomo shokudo* (cafeterias run mainly to help children in need) in Shinagawa-ku through the Shinagawa Ward Council on Social Welfare, broadening opportunities for social contribution. Employees of the farm enjoy working, although by rotation to control COVID-19 infection.



Nippe Fun Farm employees harvesting vegetables



Vegetables grown at the farm

SOCIAL | Industrial Coatings / Nippon Paint Industrial Coatings Co., Ltd.

"Waku² Co-creation" project to renovate the IU Osaka office in an ESG manner

Nippon Paint Industrial Coatings Co., Ltd. encourages staff members at various business sites to plan and carry out renovation of their offices and meeting rooms with the aim of offering them an opportunity to consider and create a favorable work environment on their own. In May 2020, the company's Osaka site completed renovation of the office of technical departments. The project team, formed by members selected from each department, designed a new work environment to help achieve their ideals of "excitement," "global communication beyond the conventional framework" and "creativity" under the concept of "waku² (exciting) co-creation." This initiative has helped strengthen relationships between staff members and invigorate communication.



Food (food and *fudo* [corporate culture]) Reform Project launched

The Nippon Paint Holdings Group promotes work environment reforms aimed at creating a favorable "3K" workplace environment that employees recognize as "*kirei*" (neat), "*kimochi-ii*" (comfortable) and "*kita*" (increasing their work motivation). As a reform measure, a Food (food and *fudo* [corporate culture]) Reform Project has been launched to improve staff cafeterias at the Group companies in Japan. By renewing the environments for all employees of the Group companies in Japan to have lunch and take a rest, this project aims to bring them greater mental and physical satisfaction, facilitate active communication between them, and foster a corporate culture of creating new value. The concept of the Food Reform Project is "Colorsol," coined by combining "color" as what we value and "sol," a Latin word for "the sun," which represents brightness and good health, meaning a colorful space where people with diverse individualities come together with vigor over colorful foods. The project team has defined the "3Cs" of "connect," "choose" and "charge" as key words for the functions of cafeterias, and it aims to enable employees to discover new connections to each other and to information at cafeterias, freely choose how to use cafeteria spaces, and charge themselves with energy for work in the afternoon. After the project was launched in the Osaka area (the Head Office and the Osaka Business Office) in 2019, an Aichi project was kicked off at the Takahama and Taketoyo Plants on February 7, 2020, with the cafeterias of both plants renovated and reopened in May. Despite a short period of nearly two months available after the kickoff in February until the completion of renovation and various limitations amid the COVID-19 pandemic, the project team formed by members from the Takahama and Taketoyo Plants strove to fulfill the needs of employees based on the concept of Food Reform. To add the individuality of the company and a stylish atmosphere to the renovated cafeterias, our paints in the Nippe Perfect Interior EMO series were used. Other Nippon Paint Holdings Group business sites have also formed project teams one after another to promote the Food Reform Project in a relay style with the aim of creating cafeterias that meet the needs of employees and utilize their diversity.



[Upper left] Osaka Head Office cafeteria completed through the first project [Upper right] Taketoyo Plant cafeteria [Lower] Takahama Plant cafeteria

Shifting to a Company with Three Committees Structure

The Nippon Paint Holdings Group shifted from a company with a board of company auditors to a Company with Three Committees Structure with the approval of the shareholders at the Ordinary General Meeting of Shareholders on March 26, 2020, with the aim of building an optimum corporate governance system for the Group in preparation for its subsequent global business expansion. Based on the latest data, the Group's overseas sales account for 71% of its overall sales, its overseas employees account for 87% of its total number of employees, and overseas investors hold 59% of its shares of stock. Given these facts, we should build a governance system that is understandable from a global perspective. The shift to a Company with Three Committees Structure means the establishment of a Nomination Committee, a Remuneration Committee and an Audit Committee, each of which is composed of a majority of independent outside directors and chaired by an independent outside director. The Nomination Committee nominates candidates for directors, and the Remuneration Committee builds a system for deciding on the amount of remuneration for directors and executive officers to enhance the transparency, objectivity and fairness of corporate governance. Moreover, we will pay due consideration to the interests of minority shareholders and strive for a better understanding among stakeholders around the world, including overseas institutional investors. Since 2015, we have delegated authority by dividing our businesses into Group companies and increased the number of independent outside directors in order to strengthen the supervising function of the Board of Directors and the executive function. However, responding promptly to rapid changes in our business environment requires us to further expand our delegation of authority and strengthen the executive function. This shift of the corporate governance structure includes the establishment of an Audit Committee that is composed of a majority of independent outside directors and chaired by an independent outside director. In addition, taking advantage of the opportunity of this structural shift, we will strengthen the function of internal auditing to enhance the effectiveness of audits. Collaboration between the Audit Committee and the internal auditing department in performing not only conventional legal compliance audits but also validation audits will help audit global corporate governance as a whole and consequently reduce risks concerned.



"Eco Essence Paint" bio-based paint using plant essence

Consumers are increasingly purchasing green products in China. Therefore, we developed an environmentally-friendly paint that contains 26% of plant essence, a renewable resource, instead of the conventional oil base. TÜV Rheinland certification and GREENGUARD Gold certification, which are strict standards for examining chemical substances, are also obtained. In addition to "Eco Essence Paint Anti-Formaldehyde," we offer a line of three products: the Eco Essence Kids Paint, which is particularly excellent in antifouling, and the dedicated primer.



SOCIAL | DuluxGroup (Australia)

Environmentally-friendly paint "Dulux enviro 2"

In Australia, consumer demand for more sustainable materials, both indoors and outdoors, is growing both in residential and commercial use and in new construction and renovation. Dulux Enviro2 has been developed as a more sustainable product with excellent weather resistance and high level performance in terms of very low VOC, ultra-low odor, anti-mould, and anti-pollution properties.



ENVIRONMENT | DuluxGroup (Australia)

Social Issue-Solutions "Dulux Envirosolutions®"

We have developed a range of products that provide responsible solutions for the daily brush and roller cleaning operations of painters. Water usage is minimized, water is cleaned without mineral turpentine, and paint waste is separated and disposed of to prevent water contamination. We also support the construction industry with our environmental responsibility by making every effort to minimize the amount of waste generated by recycling paint cans and to reduce problems related to waste disposal.



ENVIRONMENT | Betek Boya (Turkey)

Betek Boya "Filli Boya Momento Silan"

In Turkish household, it is very common to wipe up the walls with strong cleaning detergent every day. In order to do house cleaning with less effort, high performance paints are preferred to fight against stains. With the idea of turning functional benefits into emotional benefits, we launched a new paint series, Momento in February, 2020, which enhances durability and washability. In our production plant, we are also able to perform washability, cleanability and resistance to chemicals tests which are harder than the ones performed by Turkish Standard Institute, in our accredited laboratories. According to our novel technology tests, and as a result, it creates continuous improvement of the households' life quality.



SOCIAL | Nippon Paint Holdings Group

Support activities in response to the spread of the COVID-19 pandemic

In response to the COVID-19 pandemic, which began to spread globally around the end of January 2020, the Nippon Paint Holdings Group has been engaged in various support activities, including donations of money and masks to the Red Cross Society of China in the first instance. In Japan, we successively donated about 180,000 medical masks (surgical masks and N95 type masks) collected from our Group companies around the world and 1,700 liters of ethanol disinfectant to 76 medical institutions, municipalities, and research institutes of COVID-19 across the country, as well as PCR test centers in Tokyo and Osaka.



Making a donation to the Kariya Toyota General Hospital in Aichi Prefecture (March, 2020)

GLOBAL PROFESSIONALS

Here featured are 11 professionals around the world who fully demonstrate their talents in the business fields of the Nippon Paint Holdings (hereinafter, "Nippon Paint HD") Group. To bring colors and joy to everyday life, these professionals continue their efforts in self-development with a spirit of inquiry, rather than being contented with the careers they have built. Experience their motivation and passion through interviews with them.

01



Bollig & Kemper France SAS [France]

Amandine Gautier

02



DuluxGroup Limited. [Australia]

Brian Roulstone

03



Nippon Paint Automotive Coatings Co., Ltd. [Japan]

Takashi Yoshio

04



Nippon Paint Surf Chemicals Co., Ltd. [Japan]

Keisuke Yoshida

05



Nippon Paint (Malaysia) Sdn. Bhd. [Malaysia]

Wong Meng Lee

06



Dunn-Edwards Corporation [USA]

Lisa Kudukis

07



Betek Boya Ve Kimya Sanay Anonim Şirketi [Turkey]

Asli Ak

08



Nippon Paint Co., Ltd. [Japan]

Ryoma Kanno

09



Nippon Paint Industrial Coatings Co., Ltd. [Japan]

Yoshihiro Nakano

10



Nippon Paint Marine Coatings Co., Ltd. [China]

Akio Murota

11



Nippon Paint Holdings Co., Ltd. [Japan]

Hiroshi Wakumoto

Sharing Research Results Widely beyond National Borders – In View of the Entire Process, from Product Development to Customer Satisfaction

| Developing my knowledge and technological expertise in France and Japan

I started my career in the Nippon Paint HD Group in 2007, when I joined the R&D division of Bollig & Kemper France (hereinafter, "BK france") in the styling division. After that, I worked for industrialization and customer support. For two years before this August, I was in Japan as a member involved in the Product Development Division's primer and topcoat research project at the Hirakata R&D Center of Nippon Paint Automotive Coatings Co., Ltd. I was developing the next generation of short coating process for European automotive market, that can allow to reduce VOC emissions while improving quality, together with a team in charge of R&D for high-performance water-based coatings that can be applied on existing layers of coatings even when they are not completely dry.

| Leading a team in the field of automotive coatings

In August 2020, I returned to BK France. I'm now performing various duties as Manager of the Color Development and Styling Department. We develop new colors that can meet European OEM designers' requests. For new design development, we strive to build a good relationship with the D-Log Team at Nippon Paint Automotive Coatings Co., Ltd. BK team in charge of product development supports the total matching of automotive body colors that will be introduced into customers' production lines with automotive parts, including plastic ones. My current duties enable me to fully demonstrate my knowledge, expertise and experience, which I have

accumulated since my days in Grenoble. All these duties are challenging and ignite my passion for self-development.

| Making the most of individual capabilities for the organization

I always keep in mind at work to ensure that our team can do its work at a high level of perfection without reducing the speed of individual members' growth and to raise the level of customer satisfaction with the team's work achievements to continuously contribute to the global business expansion of Nippon Paint HD. I believe that valuable coloring and coating technologies can originate from scientific approaches and borderless organizational management, whether in France and other European countries or in Japan and other Asian countries. Keeping in mind my pride in being a member of the Nippon Paint HD Group and my gratitude to my fellow team members and customers, I will devote my efforts to research that can help us share delight with as many people as possible.

Bollig & Kemper France SAS - Laboratoire de R&D
Color development and styling department manager

Amandine Gautier [France]

After joining Bollig & Kemper France in 2007, Ms. Gautier worked in the style division and the industrialization division and for customer support. She then worked for four years in the division involved in water-based automotive primer coatings for PSA Peugeot-Citroën (currently Groupe PSA)'s first-generation short process system. After that, she assumed the position of technical manager in charge of various coatings exclusive to French automotive manufacturers, including electrodeposition coatings, primers and clear coats.



Members of the product development team in the R&D Division, Nippon Paint Automotive Coatings Co., Ltd.

Amandine Gautier

Brian Roulstone



Raising the Company's Business to a World-class Level through Innovation – Aiming for Growth through Collaboration among Various Fields and Enhancement of Technological Prowess

| Growth through innovation – meeting consumer needs

As the Technology Director, the largest part of my role is leading the technical function in support of our Decorative paints business. The Decorative business is the largest part of the DuluxGroup and comprises both a Retail, DIY focused business and a Trade, professional painter focused business. Our Decorative business has a very strong position in the market, built on powerful brands, good distribution and a strong reputation for product quality and innovation. Our R&D strategy can be summarised as "Delivering our growth ambitions through innovation and functional excellence whilst supporting the quality and competitive position of our current offering". We work closely with our colleagues in Marketing to build and deliver a compelling stream of consumer driven innovations. Our success comes from marrying the right technology and products with a deep understanding of our consumers and insights into their problems and unmet needs.

| Success through collaboration

R&D has strong interactions across many parts of the business. In addition to marketing we work closely with procurement, the manufacturing units, product stewardship, customer services and sales. This gives a great variety and breadth to our roles and allows us to engage in many aspects of the business, which is a great way to learn and add value!

| Creating opportunities through new technologies

There is an immense opportunity now to modernise the technical function. We need to collaborate more broadly in search of new technologies, going beyond our traditional sources and suppliers. Moving from the "art" to the "science" of formulation is critical for competitive advantage. In this digital age, the coatings industry is a late comer. With the power of automation, computing and analysis techniques, combined with a scientific and data-driven approach to product formulation, we have the opportunity to become a world class industry.

DuluxGroup Limited.
Technical Director DuluxGroup

Brian Roulstone [Australia]

Mr. Roulstone serves as technical director, leading the technological division that supports the company's decorative paint business. He also leads a team of technical managers in various business units at DuluxGroup and focuses his energy on achieving business growth through technology and innovation.



Mr. Roulstone with his colleague, Ms. Madeleine Always

Thoroughly Examining the Latest Information to Procure Good Materials from Around the World—Helping Engineers Fulfill Their Desire for Excellent Materials

| Fully utilizing information to make optimal decisions

I believe that the duty of procuring materials for paints and coatings from around the world is close to shopping while remembering items in your fridge and considering how to save money. Just as your selection of vegetables defines the quality of dishes you cook, your professional judgement about which materials meet engineers' needs is essential in procurement. The key to successful procurement is highly accurate information. I thoroughly read all local specialized websites and contact Group companies outside Japan to ask them questions. Based on the information that I thus collect, I compare various materials to determine appropriate prices and quality and then make the final decisions while taking economic trends into account.

| Clarity is the basic global rule

Many NPHD Group staff members acquired expert knowledge in chemistry, engineering or other disciplines before joining the Company. However, I'm different from them in this sense because I was enchanted by paints (colors) as an interior design student. What I can do as a person with such a background is try to have other people hope to work with me by clearly expressing my opinion and adopting an impartial, consistent attitude toward everyone. This is what I learned from the attitude of an executive of an automobile manufacturer, who treated me in a gentlemanly manner despite my status as a newcomer just after entering the Company. However, my duty of selecting and purchasing materials tends to put me in a superior position over suppliers. Therefore, I make it a rule to adopt a straightforward, consistent attitude and clearly state my intention. When communicating with suppliers in Europe, the Americas, Southeast Asia and other re-

gions, I feel that they want me to clearly answer them with yes or no, instead of answering vaguely with "maybe." Through interactions with staff of NIPSEA, with which we established a closer partnership through the TOB in FY2013, I found that vague answers tend to confuse them and slow down the business process. Since then, to spread awareness of this fact to other staff, I have become an active advocator for the importance of a flexible attitude toward changes.

| Aiming to become a more attractive work partner

My goal is to help engineers enjoy developing paints and coatings while avoiding overstocking in our "fridge." To achieve this goal, I hope to visit the countries in my charge and deepen the relationship of trust with people there in order to become a more attractive work partner for them. I hope to judge the sizes, newness, systems, etc. of plants with my own eyes to have a wider choice for comparison and procure materials in a more optimal manner.

Nippon Paint Automotive Coatings Co., Ltd.
Material Procurement, Procurement Department,
Safety, Quality and Procurement Division

Takashi Yoshio [Japan]

Mr. Yoshio noticed the charms of paints when he painted his own house while studying in North America. After joining the Company in 2006, he worked as a salesperson for automotive coatings before being assigned to the Design Center in 2007, where he worked to propose and provide custom paints. From 2011, he has belonged to Global Procurement, dealing with suppliers in Europe and North America.



Mr. Yoshio with staff members in charge of technology, production and procurement at NB Coatings, U.S.

Takashi Yoshio



Keisuke Yoshida

Highly Experienced Quality Control Specialist —Demonstrating His Great Coordination Skills beyond Departmental and National Borders

| Working with staff from various departments as one team

Streamlined quality control duties, whether for general-purpose paints or for AR paints, require collaboration with a wide range of staff members from most departments, in addition to Manufacturing Section members. Those duties require not only a certain level of knowledge about products themselves but also a good understanding of the specific operations of staff in charge of each manufacturing process, resulting in a huge amount of information to be handled. It is certainly hard for me to organize such information, but I have found great appeal in my current duties, which enable me to work with a wide range of staff members as one team beyond sectional borders to provide our customers with safe and secure products.

| Commitment to creating good products is universal

Against the backdrop of the recently growing presence of local production activities outside Japan, I have become more strongly aware of the importance of close information exchange. I can find myself in the frontline of manufacturing when exploring the best way of ensuring good product quality while deeply reconsidering the Japanese conventional way of thinking in consideration of diversity in values rooted in the respective countries and cultures. When I guided staff from Europe and China around plants in Japan, I was strongly impressed by their high motivation to absorb new knowledge, which made me happy that commitment to creating good products is universal regardless of diverse cultural backgrounds. I devote my energy to promoting various projects as planned by sharing information with staff around the world efficiently and promptly without being affected by time differences or language barriers.

| Maintaining excellent product quality with a strong sense of responsibility and from diverse perspectives

I place the highest importance at work on the following two things: having a strong sense of responsibility and viewing things from diverse perspectives. My responsibility to always work to increase product quality and customer satisfaction occupies an important position in the entire process of providing customers with products. I keep in mind to always consider what I can do while taking the perspectives of sales and technical staff and imagining what feelings customers have. Prejudice based on familiarity is our great enemy. I hope to become able to propose excellent ideas for constructing a global manufacturing system by fostering a bird's-eye perspective of my own position and a flexible way of thinking.

Nippon Paint Surf Chemicals Co., Ltd.
Okayama Quality Team, Quality Control Section, Production Department

Keisuke Yoshida [Japan]

In 2009, Mr. Yoshida was assigned to the Quality Control Section and performed quality control duties for general-purpose paints and AR paints at the Tochigi Plant. He then worked in the Surf Division (currently Nippon Paint Surf Chemicals Co., Ltd.) from 2012 to 2017 before returning to the Quality Control Section in 2018. He is currently in charge of quality control for the entire product lineup at the Okayama Plant and follow-up support for overseas production.



Highly Competent Marketer in the Malaysian Market – Striving to Increase Corporate Value by Adding National Character to Strategy

| A good brand image means affinity for the company

I serve as Assistant General Manager of the Marketing Department, Nippon Paint (Malaysia). The mission of our department is to enhance the company's brand value in Malaysia. Painting interior and exterior walls of one's own home is deeply rooted as a common DIY activity in the lifestyles of Malaysian people, and we can expect that there will be a certain level of demand for paint for household use in the country. The key to fulfilling the demand is how we can ensure that consumers feel affinity for us. We always strive to work out effective measures to continuously bolster our brand image while communicating not only with staff of other departments but also with all organizational and individual business partners related to our products, from the construction and real estate industries to architects and interior designers.

| Marketing requires the ability to detect trends

Marketing activities require a high level of ability to keep yourself updated quickly on trends in the market and industry. For example, this year, the COVID-19 pandemic has provided us with business suggestions. In Malaysia, just as in most other countries, the national government has imposed various regulations on people's lives, resulting in strong trends toward stay-at-home consumption during the month of Ramadan, when Muslims fast, and the period of Hari Raya, or Eid, the festival marking the end of the fast. In response to the trends, we put into practice an idea that could both provide people with pleasant topics and promote our products: we posted various videos, including those of lessons for household users on how to paint and live painting performances.

While keeping our eye on waves of the COVID-19 pandemic and trends toward relaxing the regulations, we also devoted our efforts to running a campaign focused on the joy of painting as a family event during Hari Raya, which is like the Bon festival in Japan.

| Tailoring marketing strategies to diverse values

Malaysia is a multiethnic country, in which cultural values and customs differ according to the region. What we must avoid first in order to establish our presence in such a market is sticking excessively to precedents and past results. We will continue to deliver messages about how innovative Nippon Paint products are through closer collaboration with the production and sales departments while accurately identifying changes in needs over time and regional differences in needs. In addition, we will devote our efforts to effective long-term corporate branding while continuously improving our promotion strategy.

Nippon Paint (Malaysia) Sdn. Bhd.
Assistant General Manager - Marketing
Marketing Department

Wong Meng Lee [Malaysia]

Joining Nippon Paint on January 1, 2007, Ms. Wong was appointed as assistant brand manager in charge of marketing. Since then, she has worked in marketing for 13 years. She transferred from the retail marketing section to the B2B (project marketing) section and was assigned to be responsible for supervising the entire Marketing Department.



Holding the award ceremony of the Asia Young Designer Awards (AYDA) in cooperation with staff members in charge of the AYDA at NIPSEA Group companies in Asian countries

Wong
Meng Lee

Lisa
Kudukis

Focused on Growth in the US – Improving the Brand to Be Chosen by Both Professionals and General Consumers

| Improving services to grow market share

Dunn-Edwards is a paint manufacturer that provides high-quality products and services for the paint industry. In my role as Vice President of Innovation & Consumer Strategy, I'm focused on growing the business in the US through collaboration and exploration of new business models and industry-first services that differentiate our brand in a sea of sameness. Another duty of mine is increasing our share of the consumer market. Currently, over 90% of our sales is concentrated in the market for professional-use products, while the consumer market accounts for only 5% of our sales. To improve this situation, we focus on simplifying the color selection process while selling our products at physical and newly launched online stores.

| Expanding the market with great organizational prowess

The strengths of our company lie in team members' great passion and high aspirations. All Dunn-Edwards team members share eagerness to win as a team, and this mindset has been demonstrated in the business we conduct jointly with global team members of Nippon. Last year, the Nippon Paint HD Group experienced the important event of the acquisition of DuluxGroup. With the US and Australian markets having many commonalities, this collaboration will help grow our businesses.

| Serving customers through innovation

Established in 1925, Dunn-Edwards has a nearly 100-year history as a regional paint company. From a North American market perspective, we are just getting started. To shift

Dunn-Edwards from a company trusted in the region and the paint industry to a company that can receive North America-wide recognition, we will begin by differentiating from other companies in the paint industry excellent services and simplified customer experiences that ensure our strong brand power will penetrate new markets where competitors dominate. In the field of DIY paint for consumer use, we will increase our presence by relaunching our Professional Color Advisor program and testing consumer concepts in store that provide personalized help so customers can easily choose their favorite colors. Highly talented, open-minded members, from store staff to management, will closely cooperate in serving all customers who need paint.

Dunn-Edwards Corporation
Vice President, Innovation & Consumer Strategy

Lisa Kudukis [USA]

Ms. Kudukis earned a Master's degree in Integrated Marketing Communications at Eastern Michigan University. Prior to joining Dunn-Edwards in July 2019, she worked for Masco Corporation, a US holding company of housing and building material brands, including Behr Paint and KILZ Primer, for 11 years.



Ms. Kudukis with other staff members in front of the new store in Menifee, California, on the day of the opening of the store

Demonstrating the Great Ability to Make Proposals Based on Vast Experience – Working Out Effective Strategies from a Broad Perspective of the Entire Market

| Winning market trust through multifaceted measures

As color marketing supervisor, I'm engaged in designing tools and formulating a color marketing strategy for each brand. A wide variety of tools are used for color marketing, including color cards, fan decks, color boards, trending color collections, and digital and social media contents. These tools, different in terms of form and use, are used to inform the general public on the great influence coloring has on the space. We work out measures for that purpose and to establish a leading position in all paint-related fields from a multifaceted perspective. We also research social trends, including this year's colors in fashion and popular coloring in Turkey. We have won market trust through effective promotion based on our understanding of demand and succeeded in color consultant services, including giving advice on the coloring of interior and exterior decoration.

| For brand penetration and customer attraction

Formulating marketing strategies requires us to collect accurate data. We not only monitor chronological changes in the sales and market share of each product in detail but also detect the tendency of each consumer segment, such as whether a customer segment values functions or prices, and put out our antenna for trends among competitors. We use the information we thus collect for promotion activities. In the Turkish paint market, the Nippon Paint brand is viewed relatively as a newcomer. Therefore, we aim to achieve brand penetration through yearlong long-term strategies and win customers

through targeted approaches based on customer analysis.

| Serving all customers closely through collaboration between various departments

I personally recognize that planning and implementing market measures and collecting and analyzing data that support such measures are opposite of each other in nature. These two duties are, so to speak, closely related to the start and finish of a business. I feel proud and honored to play a role that enables me to draw inspirations from both inside and outside the company. Since I often work on projects carried out through collaboration between various departments, including the R&D, production and sales departments, my key words are "a good sense of balance," "sharing" and "empathy." In addition, I believe that not only achieving self-development but also fostering younger talent are my important missions. I will contribute to establishing an image of the Nippon Paint brand as a brand that serves all customers closely, whether in B2B or B2C.

Betek Boya Ve Kimya Sanay Anonim Şirketi
Color Marketing Supervisor

Asli Ak [Turkey]

Ms. Ak has worked at Betek Boya in Turkey for these 11 years. Until January 2020, she served as color marketing supervisor, overseeing the division that aims to enhance customer attraction through coloring. Since Nippon Paint HD acquired Betek Boya, she has continuously worked in the same position.



Asli Ak

Ryoma Kanno



Making Our Brand the Best Choice for Heavy-Duty Anticorrosion Paints—Supporting "Work Recorded on Maps," Such as Projects to Construct Bridges and Plants

| Watching over the entire project, from design to completion

I deal with heavy-duty anticorrosion paints for large structures, including plants and buildings. Before joining this Company, I worked with a general contractor that constructs bridges. Therefore, I have especially strong affection for projects to construct bridges. When working in landmark projects, including the Irabu Bridge project in Okinawa Prefecture and the renovation of the Rainbow Bridge, I realized that I was taking part in "work recorded on maps." Since such structures are used for decades while receiving maintenance, I participate in projects from the design stage and propose paints in colors that match the project concept and with the required functions. Some projects last four to five years. After winning an order, I often visit the work site to check the progress. To construct a bridge, parts are painted at the plant and then assembled on-site. The process of assembling parts into a bridge always impresses me strongly, no matter how many times I have witnessed it.

| Proposing the best way in full consideration of conditions

As a professional in paint sales, we begin by fully understanding the structure of objects to be painted and then recommend particular paints suitable for particular parts in consideration of the customer's concept and budget. When the customer disagrees with me, I take advantage of that opportunity to have the customer learn about the good quality and high performance of Nippon Paint products. Taking examples of functions and effects, I carefully explain that the paints selected will surely serve the purposes. I also place high importance on obtaining knowledge from specialized magazines and keeping myself updated on the industry through the human network that I have built since joining the Company. These things are also the secret to beating our competitors. However, winning contracts for large projects is not easy. I feel the most bitter when I have

to report losing out to a competitor or a cancellation of a project to people in the Company. In such a case, I use mortification as a source of strong motivation for the next project.

| Differentiating the Company from competitors in sales skills

Work expertise, sales skills and relationships of trust with customers remain personal assets unless you pass them on to others. My current goal is to foster my juniors into full-fledged professionals and differentiate our Company from competitors in sales skills. That requires us to increase our knowledge, turn our experience into confidence, and have good relationships with customers so that we can talk with them as equal partners. I will guide my juniors so that Nippon Paint will become the best choice for heavy-duty anticorrosion paints.

Nippon Paint Co., Ltd.
Steel Group, Customer Promotion Department, Sales Division

Ryoma Kanno [Japan]

Since joining the Company mid-career in 2005, Mr. Kanno has worked to have Nippon Paint products selected by end users, including local governments, general contractors and painting service providers. He also serves as a coordinator for in-house departments engaged in manufacturing, logistics and technology, as well as sales outlets.



Create a One and Only Facility in the World—Imagining the Usage of Equipment and Devoting Sustained Efforts to Devising Effective Measures to Enhance Efficiency

| Elaborating details for the sake of customers

When supporting my seniors, I find in them a genuine technical commitment to a good balance between safety, cost and quality and a strong desire to provide better products for customers. I also visit customers for whom I design equipment to see the width of aisles with my own eyes and consider where to place the equipment, imagining whether it will interfere with workers' flow lines or whether it is easy to inspect. I am thrilled with the joy of contributing to our customers when a plant begins production without a hitch after various challenges in design, installation and renovation are overcome.

| Actively trying novel technologies

The Equipment Engineering Division is attractive to me because it is the only department in charge of the coating equipment business at a Japanese paint manufacturer and its staff members act as a kind of salespersons who respond to customers' requests despite being engineers. However, I was not confident when explaining things to customers in person, so I often found myself under pressure or felt anxiety soon after I joined the Company. A lack of communication can result in a poor understanding of customers' requests and their dissatisfaction with a gap between their requests and actual products. Then, I decided to always explain to customers in advance. If you explain before the project starts, you can share the vision with the customer and ask them for more details about their requests. A project sometimes includes unrealizable aspects from a technical or safety perspective. I have become able to satisfy customers by clearly showing the reasons why those aspects cannot be realized and doing my

best to realize the other aspects. Currently, rapid progress in the introduction of the IoT and the visualization of production is continuing at customers' production sites. There is an increasing demand for coating equipment that can visualize quality control and production efficiency. We are actually working to introduce visualizing functions in many types of coating equipment. I feel that Nippon Paint's great technological expertise is underpinned by its staff's positive attitude of continuing all-out efforts to provide the latest coating equipment through a repeated process of trial and error.

| Hoping to be a true professional

Coating equipment is interesting because all pieces of equipment are different. What I currently need to do is acquire basic to applied knowledge and skills and build good human relationships through closer communication with other staff members. I will continue my serious efforts to develop myself into a professional total supplier of painting and coating equipment and become more trustworthy to other people.

Nippon Paint Industrial Coatings Co., Ltd.
Plant Engineering Business Department, Technical Group, Osaka Group

Yoshihiro Nakano [Japan]

Mr. Nakano joined the Company mid-career in 2018. He is in charge of designing coating line equipment and managing line installation works. Since he designed conveyor equipment at his previous workplace, he demonstrates his designing skills especially in conveyor-related sections of coating equipment. While supporting his seniors too, he is striving to acquire sufficient knowledge and skills to be responsible for large-scale projects.



Mr. Nakano at a meeting with members of the Equipment Engineering Business Department

Yoshihiro Nakano

Akio Murota

Aiming to Make the Best Decision Through Active Discussions—Winning Contracts in Cooperation With Overseas Associates With Diverse Linguistic and Cultural Backgrounds

| Integrating conflicting opinions into one decision

Cargo ships usually receive maintenance every three to five years. They are recoated at repair docks in various countries that they visit during voyages. Since our customers are all over the world, customers outside of China account for about 70% of our sales. To grasp business opportunities around the world, we cooperate with overseas associates in Asia and Europe in developing strategies. We hold "sound" discussions, expressing frank opinions from our respective positions at global in-house meetings and in email communication. We can have a strong feeling of achievement when we succeed in grasping a business opportunity as an international team after heated discussions and compromises. This feeling serves as a source of my energy to be devoted to the next project.

| The key is the speed of decision making and implementation

I keep this in mind at work to maintain my determination. I try to always remember to be speedy, share information with others, and be responsible for my instructions. This attitude of mine originated 15 years ago, when I worked as a salesperson for automotive coatings and the president of a distributor reproved me, "Don't work with a path of retreat." Feeling bitter about his words, I began to reconsider my attitude toward work. Changes in the environment surrounding the China business gave real meaning to those words. Since the explosions in Tianjin, regulations on the handling of dangerous objects and environmental regulations have been tightened, and higher importance has been placed on corporate social responsibility. We have so far rapidly implemented measures to address a wide range of challenges, from making capital investment in installing organic solvent waste purifiers in plants to regional and national regulation-related challenges, such as limiting the PM 2.5 concentration within the standard value. We will continue our efforts toward environ-

mental conservation. Amid growing demand for paints and coatings, I firmly believe that the key to operating plants stably while responding to government requests and guidance is the speed of decision making and implementation.

| As a member of a team that pursues a big dream

Originally, I was not confident about my English proficiency, so working outside Japan was not considered in my career choice. However, I took the plunge and worked as a salesperson for automotive coatings in Thailand for four years. This experience served as a turning point in my career, leading me to do rewarding work at Nippon Paint Marine Coatings Co., Ltd. Nippon Paint boasts great capabilities for technological development, high product quality, and a solid foundation for business established not only in Japan and China but also around the world. My current goal and mission is to devote myself to my own work with a broad perspective of maximizing shareholder value and contributing to society as a member of a team with the high aspiration of attaining the No. 1 global share.

Director, Nippon Paint Marine Coatings Co., Ltd.
Representative Director, Nippon Paint Marine [China] Co., Ltd.

Akio Murota [China]

Mr. Murota joined the Company in 1992. As a salesperson for automotive coatings, he worked with automobile manufacturers' plants and development departments in Kitakyushu, Hiroshima and other areas in Japan. After that, he worked as a representative in Thailand. From 2010, he has belonged to NPMC's Global Business Division (Kobe) and has been working in Shanghai since 2017. He serves as Representative Director (supervisor of the China business) and leader of global SCM.



Hoping to Be the Greatest Supporter Behind the Scenes of Corporate Activities—Aiming to Build the Most Innovative System in the Japanese Paint Industry

Reducing the influence of personal characteristics through automation

Logistics is an important foundation for all corporate activities. My duty is to build a system that enables each Group company to visualize various logistics data. The system has beneficial effects, including helping check the quantity of goods on a screen, enabling management executives to make management decisions on the spot, and helping reduce the influence of personal characteristics on operations. The main objective of systemization is to help forecast inventory and sales and formulate delivery plans. To obtain accurate numerical data, I even visited a logistics site and tried operating a forklift and loading goods. I did so because some real data can be obtained only through hands-on experience. I add the data that the Company needs to the data obtained through experience and analyze them objectively to make the most of them for system building.

People's wisdom is indispensable for logistics

Logistics has an aspect of "delivering people's thoughts and desires." When performing my daily duties, I place the highest importance on uniting the thoughts and aspirations of staff of various departments into one. For example, some staff members may want to immediately deliver a two-ton container loaded with coatings to an automotive manufacturer. Some staff members may want to adopt an emergency measure to prevent a disaster, while other staff may want to reduce stock while avoiding goods shortages. No matter how much automation progresses, the wisdom and network of logistics personnel are valuable assets of the company. Communication with people in related fields or on-site is indispensable to fulfill logistics's mission to deliver goods in a reliable manner. To

prevent failure in delivery, missing goods, and mistakes with other goods, we monitor each work step and each process and always remain prepared to address problems promptly, if any.

Revolutionizing a system unique to Japan

The Japanese logistics system is unique in that a detailed logistics plan is designed for each shipper and a logistics company suitable for the level of the plan is selected. As the problem of labor shortage becomes more serious, I believe that we can revolutionize the entire industry by taking a step forward beyond response to shippers' requests and fostering a culture where logistics companies themselves propose plans. Logistics is an industry that is required to constantly change in line with social changes. In other words, logistics has the potential to change ways of conducting business itself. I aim to build the most innovative system in the Japanese paint industry. We will also work to train human resources to be future leaders so that the entire logistics process, from ordering to transportation and delivery, will be automated.

Nippon Paint Holdings Co., Ltd.
Supply Chain Planning Department

Hiroshi Wakumoto [Japan]

Mr. Wakumoto joined the Company in 2020 after working at a food manufacturer and a building material maker. He worked in the design of logistics facilities and management of their operations, as well as in M&A, for a logistics company and food and other manufacturers. For five years from 2005, he was engaged in SCM reforms at Nippon Paint (then). He currently promotes logistics digital transformation in the SC Planning Department.



Mr. Wakumoto picking up products to be shipped

Hiroshi Wakumoto

Actress Mikako Tabe serves as Nippon Paint brand ambassador.

A corporate TV commercial on the air now!

The commercial features a Nippon Paint Room, which represents the world of **PAINT.WONDER.**

TV programs sponsored by Nippon Paint Holdings

Sandwichman & Mana Ashida's Hakase-chan (lit. "Little Geniuses") 6:56 to 8:00 p.m. on Saturdays on TV Asahi MC'd by Mana Ashida and Sandwichman	Oshietemou mae to ato (lit. "Before and after Knowledge Is Shared with Us") 8:00 to 8:54 p.m. on Tuesdays on TBS MC'd by Christel Takigawa and Hakata Hanamaru-Daikichi
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Don't miss the commercial and programs!

Editorial Note

KOZUCHI

With a long history of being loved by Nippon Paint Holdings Group employees as the Group's in-house newsletter since its first publication in 1960, KOZUCHI has been renewed as a communication magazine. We would be very happy if KOZUCHI can share with readers the Group's resolute determination to work to solve social challenges and the excitement of PAINT.WONDER.

Public Relations, Nippon Paint Holdings

» Request for cooperation in a questionnaire survey

Please respond to the questionnaire on our questionnaire website or via the QR code on the right. One hundred randomly chosen winners will receive a wonderful gift! <https://enquete.cc/q/NPHD-KOZUCHI>



(Japanese only)