



**Nissan Chemical**  
CORPORATION  
日産化学株式会社

# **Mid-term Business Plan Vista2021 Stage II (2019~2021)**

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Representative Director, President & CEO**

Translation of presentation materials for the investor meeting held in Tokyo on May 15, 2019

**May 15, 2019**

## ◆ Review of Vista2021 Stage I

## ◆ Outline of Vista2021 Stage II

- Positioning of Stage II
- Financial Targets
- Basic Strategies

# Stage I (2016~2018) Financial Results(vs. Plan)

- ◆ Operating profit, ordinary income, and net income target was achieved 1 year ahead of schedule
- ◆ Operating profit and ordinary income renewed the highest results of a full year in 5 consecutive years.

(¥billion)

	FY2015 Actual	Stage I			FY2016 Plan	FY2018 Plan (B)	FY2018 Actual - Plan (A) - (B)
		FY2016 Actual	FY2017 Actual	FY2018 Actual (A)			
Sales	176.9	180.3	193.4	204.9	187.5	217.0	-12.1
Operating Profit	28.6	31.4	35.0	37.1	29.7	35.0	+2.1
Ordinary Income	29.5	31.7	36.2	39.1	30.4	35.6	+3.5
Net Income (*)	22.4	24.0	27.1	29.4	23.0	27.1	+2.3

\* Net income refers to net income attributable to owners of parent

EPS (¥/share)	143.37	156.97	180.30	197.67	150.36	-	-
ROE	14.6%	15.1%	16.1%	16.6%	14.3%	Above 14%	-
FX Rate (¥/\$)	120	108	111	111	115	115	-4
Naphtha (¥/kl)	42,800	35,100	42,100	49,700	35,400	51,100	-1,400

# Stage I (2016~2018) OP by Segment

(¥billion)

	FY2015 Actual	FY2018 Actual (A)	FY2018 Plan (B)	FY2018 Actual - Plan (A) - (B)	Factors for increase/decrease
Chemicals	3.9	3.0	4.0	-1.0	◆(Above target) nitric acid, melamine(export), sulfuric acid ◆(Below target) high purity ammonia, new TEPIC, other products
Performance Materials	12.0	15.0	15.4	-0.4	◆(Above target) photo-alignment IPS ◆(Below target) Rubbing IPS, multi layer process materials, new products ◆fixed cost above expectations
Agrochemicals	10.8	18.4	12.9	+5.5	◆(Above target) Fluralaner, ALTAIR, TARGA, ROUNUP AL, GRACIA, etc. ◆fixed cost below expectations
Pharma	2.0	1.0	2.0	-1.0	◆(Below target) LIVALO(domestic), up-front and milestone payments ◆(Custom Chemicals) in line with target
Others*	-0.1	-0.3	0.7	-1.0	◆Trading down
Total	28.6	37.1	35.0	+2.1	

# Stage I Allocation of Resources

	(¥billion)		(¥billion)		(Person)	
	R&D expenses		Capex		Researchers	
	FY2016- FY2018 Actual	FY2016- FY2018 Plan	FY2016- FY2018 Actual (i)	FY2016- FY2018 Plan (ii)	FY2018 Actual	FY2018 Plan
Chemicals	1.6	1.7	6.6	9.1	10	10
Performance Materials	24.3	24.3	18.9	20.8	200	194
Agrochemicals	12.6	15.2	8.3	9.8	95	95
Pharma	7.2	7.1	2.1	2.0	85	80
Others*	5.4	5.5	2.0	1.0	80	69
Total	51.1	53.8	37.9	42.7	470	448

\* Others : Trading, Others, Adjustment

(i) Acceptance basis

(ii) Production commencement basis

# Stage I Sources of Growth (A)

Segment		Details of Initiatives	Progress	Sales Growth Rate from 2015 to 2018
Chemicals	Fine Chemicals	TEPIC	△	↗
		New TEPIC	△	—
	Basic Chemicals	Melamine	○	↗
		AdBlue®*	△	↗
		High purity ammonia	△	↘
Performance Materials	Display	Display materials for photo-alignment IPS	◎	↗↗↗↗↗
		HYPERTECH	△	—
		Developing materials for OLED and growing sales	△	↘↘↘
	Semis	Bottom anti-reflective coating for semis	○	↗
		Multi layer process materials(OptiStack®*)	△	↗↗↗
		CMOS image sensor materials	△	↗↗↗
	Inorganic	Oilfield materials	△	↗↗↗↗↗
	Common	Enhancing production sites and customer services in overseas	○	—

0~24%	25~49%	50~74%	75~99%	Over 100%	+%
↗	↗↗	↗↗↗	↗↗↗↗	↗↗↗↗↗	↗
					-%

◎: More progress than planned; ○: Progress as planned;  
△: Delayed or underachieved

\*AdBlue® is a registered trademark of the Verband der Automobilindustrie.

\* OptiStack® is registered trade mark of Brewer Science, Inc.

# Stage I Sources of Growth (B)

Segment	Details of Initiatives	Progress	Sales Growth Rate from 2015 to 2018
Agrochemicals	Fluralaner	◎	↗↗↗↗↗
	ROUNUP AL,ML	○	↗
	ALTAIR	◎	↗↗
	Growing sales in overseas	◎	↗↗↗
	Establishing overseas subsidiaries	○	—
Pharma	Expanding the business of custom chemicals	○	↗
	Licensing-out new API	△	—
	Enhancing the pipeline	△	—



◎ : More progress than planned; ○ : Progress as planned;  
△ : Delayed or underachieved

# Stage I Financial Indicators

	FY2018 Target	FY2018 Actual	
OP Margin	Above 15%	18.1%	Achieved
ROE	Above 14%	16.6%	Achieved
R&D Expenses/Sales	Above 8%	8.7%	Achieved
Dividend Payout Ratio	40%	41.5%	Achieved
Total Payout Ratio	Maintaining 70%	72.0%	Achieved



# Stage I Implementation of Measures based on Basic Strategies (A)

## Basic Strategy 1.

Maximizing the profit from existing products

- ◆ Expanded sales and reduced costs of Fluralaner
- ◆ Achieved growth of photo-alignment IPS through acquisition of new customers
- ◆ Expanded sales of ROUNDUP AL Series
- ◆ Expanded sales of ALTAIR
- ◆ Promoted cost reductions (reduced costs of raw materials, moved production in-house, etc.)

# Stage I Implementation of Measures based on Basic Strategies (B)

## Basic Strategy 2.

### Improving marketing power

- ◆ NCA Santa Clara Office: Gathered and evaluated information about cutting-edge technologies
- ◆ NCB(Brazil), NAI(India): Supported wide-spread use, sale and development of Agrochemicals
- ◆ NSU(Suzhou, China): Established R&D Center; Provided technical support

## Basic Strategy 3.

### Enhancing R&D capability

- ◆ Launched new insecticide GRACIA (in South Korea in 2018 and in Japan in 2019)
- ◆ Promoted development of photo-alignment IPS to meet customer needs and launched 3D packaging process materials and EUV under layer
- ◆ Improved evaluation capacity through introduction of semiconductor evaluation equipment
- ◆ Implemented initiatives to establish peptide and nucleic acid liquid-phase synthesis technology

# For Future Growth

## Problem



**Inclination toward certain products  
that drive profits**

**Delays in creation of new products**

**Response to risks  
that will hamper growth**

# Overview of Vista2021 Stage II

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# Positioning of Stage II

Environment  
Surrounding Business

Global  
environmental  
protection

Food  
shortages

2030 vision

**A corporate group which provides new values for helping to enrich people's lives by integrating internal and external knowledge with facing globally-changing society**

Energy  
problems

Speeding up  
data  
communication

Longevity  
/Aging

**A group of first-class pioneers who blaze a way to the future with enthusiasm by trusts they have built and skills they have cultivated**

Diversity

Medical  
inflation

Advanced  
medical care

Scale of  
Business

Net Sales ¥300 billion  
Operating profit ¥50 billion

# Mid-term Business Plan “Vista2021 Stage II” (A)

Clearly indicates the ideal situation at 2021, as a waypoint to achieving the Company Vision at 2030, and uses this as a signpost to growth

## Ideal Situation at 2021

“Performance Materials” and “Agrochemicals” are driving business results while the next growth engines are being created.

Organizations that enjoy challenges have been realized and diverse human resources demonstrate their abilities to achieve goals.

We contribute to the sustainable development of society through our business activities.

# Mid-term Business Plan “Vista2021 Stage II” (B)

## Basic Strategies

**Increase profitability of products that are sources of growth.**

**Strengthen ability to create new products.**

**Improve ability to adapt to social/market changes.**

# Stage II (2019~2021) Financial Target

(¥billion)

	FY2018 Actual (A)	FY2019 Outlook (B)	FY2021 Plan (C)	(C)-(A)	FY2021 Stage I (D)	(C)-(D)
Sales	204.9	210.5	235.0	+30.1	250.0	-15.0
Operating Profit	37.1	38.7	43.0	+5.9	40.0	+3.0
Ordinary Income	39.1	40.2	44.0	+4.9	40.8	+3.2
Net Income (*)	29.4	30.2	33.0	+3.6	31.0	+2.0

\* Net income refers to net income attributable to owners of parent

EPS (¥/share)	197.67	205.83	230.00	+32.33	-	-
ROE	16.6%	16.3%	Above 16%	-	Above 14%	-
FX Rate (¥/\$)	111	110	110	-1	115	-5
Naphtha (¥/kl)	49,700	43,000	43,000	-6,700	51,100	-8,100



# Stage II (2019~2021) Sales by Segment

(¥billion)

	FY2018 Actual (A)	FY2019 Outlook (B)	FY2021 Plan (C)	(C)-(A)	FY2021 Stage I (D)	(C)-(D)
Chemicals	35.7	39.0	43.1	+7.4	40.5	+2.6
Performance Materials	63.0	64.3	75.1	+12.1	82.9	-7.8
Agrochemicals	62.7	64.2	70.1	+7.4	67.0	+3.1
Pharma	7.0	7.0	7.5	+0.5	8.3	-0.8
Others*	36.5	36.0	39.2	+2.7	51.3	-12.1
Total	204.9	210.5	235.0	+30.1	250.0	-15.0

\* Others : Trading, Others, Adjustment

# Stage II (2019~2021) OP by Segment

(¥billion)

	FY2018 Actual (A)	FY2019 Outlook (B)	FY2021 Plan (C)	(C)-(A)	FY2021 Stage I (D)	(C)-(D)
Chemicals	3.0	4.0	5.1	+2.1	4.5	+0.6
Performance Materials	15.0	15.0	17.3	+2.3	18.4	-1.1
Agrochemicals	18.4	19.0	21.1	+2.7	16.7	+4.4
Pharma	1.0	1.0	0.7	-0.3	2.4	-1.7
Others*	-0.3	-0.3	-1.2	-0.9	-2.0	+0.8
Total	37.1	38.7	43.0	+5.9	40.0	+3.0

\* Others : Trading, Others, Adjustment

# Stage II Allocation of Resources

(¥billion)

(¥billion)

(¥billion)

(Person)

	R&D expenses		Capex		Depreciation		Researchers	
	FY2016-FY2018 Actual	FY2019-FY2021 Plan	FY2016-FY2018 Actual (i)	FY2019-FY2021 Plan (ii)	FY2016-FY2018 Actual	FY2019-FY2021 Plan	FY2018 Actual	FY2021 Plan
Chemicals	1.6	1.4	6.6	14.7	5.2	9.4	10	10
Performance Materials	24.3	26.7	18.9	17.8	16.7	17.0	200	210
Agrochemicals	12.6	14.8	8.3	8.2	4.4	5.5	95	95
Pharma	7.2	7.1	2.1	1.7	2.1	1.8	85	90
Others*	5.4	8.0	2.0	2.3	1.9	3.1	80	75
Total	51.1	58.0	37.9	44.7	30.3	36.8	470	480

\* Others : Trading, Others, Adjustment

(i) Acceptance basis

(ii) Production commencement basis

	FY2018 Actual	FY2021 Plan
R&D Expenses/Sales	8.7%	9.0%

# Stage II Cash Flows

(¥billion)

	Total FY2016–FY2018 Actual	Total FY2019–FY2021 Plan(round number)
CF from operating activities	102.1	115.0
CF from investing activities	-39.2	-45.0
CF from financing activities	-62.0	-75.0
Total payout to shareholders	-55.6	-70.0
Repayment of borrowings	-6.4	-5.0

(¥billion)

	FY2018 Actual	FY2021 Plan(round number)
Cash at end of fiscal year	36.2	30.0

## Stage II Financial Indicators

	FY2018 Actual	FY2021 Target
OP Margin	18.1%	Above 18%
ROE	16.6%	Above 16%
Dividend Payout Ratio	41.5%	42.5% in FY2019, 45% in FY2020 and 2021
Total Payout Ratio	72.0%	72.5% in FY2019, 75% in FY2020 and 2021

# Mid-term Business Plan “Vista2021 Stage II”

## Basic Strategies 1.

**Increase profitability of products  
that are sources of growth.**

# Stage II Chemicals Segment

**<FY2021 Goal> Maximize profits by maintaining high rate of operation and quickly adapting to environmental changes**

## Opportunities and Risks

- ◆ Strong global demand for isocyanuric acid
- ◆ Rising social pressure for water sanitation
- ◆ Growing demand for products for ICT sector
- ◆ Increase in problems at plants associated with aging equipment

## Key Measures

- ◆ Expand sales of isocyanuric acid (\*), TEPIC, HI-LITE and high purity sulfuric acid
- ◆ Enhance maintenance technologies by introducing digital technologies

## Sources of Growth

- ◆ Isocyanuric acid (\*)
- TEPIC
- HI-LITE
- High purity sulfuric acid

\* See page 30 of financial results presentation materials

**<Major Investment Plans> ¥2.0 billion for expansion of isocyanuric acid and ¥0.5 billion for expansion of TEPIC electronic materials**

	FY2018 Actual	FY2019 Outlook	FY2021 Plan	vs. 2018 (¥billion)
Sales	35.7	39.0	43.1	+7.4
Operating Profit	3.0	4.0	5.1	+2.1
Capex	2.0	3.2	5.4	+3.4
Depreciation	1.8	2.0	4.1	+2.3
R&D expenses	0.6	0.5	0.5	-0.1

## Stage II Chemicals - Sales growth rate

Main Products		2018/ 2017	2019/ 2018	2021/ 2018*
Fine Chemicals	TEPIC	-6%	+19%	+40%
	Environmental related products	+7%	+6%	+35%
	<b>Total</b>	-2%	+14%	+35%
Basic Chemicals	Melamine	+15%	+16%	+30%
	Urea including AdBlue	-1%	+4%	+15%
	High purity sulfuric acid	-4%	+10%	+25%
	<b>Total</b>	+4%	+7%	+15%
<b>Chemicals</b>	<b>Total</b>	+2%	+9%	+20%

\*Every 5%



# Stage II Performance Materials Segment

- <FY2021 Goals>**
- ◆ Expand market share by turning key themes into actual demand
  - ◆ Create multiple new products that will become future engines of growth

## Opportunities and Risks

- ◆ Increased demand due to development of ICT sector
- ◆ Changes in shale oil demand caused by oil price fluctuation
- ◆ Emergence of innovative technologies
- ◆ Intensification of competition between companies

## Key Measures

- ◆ Develop and launch new products
- ◆ Improve existing products and expand their applications
- ◆ Strengthen expertise in evaluation technology
- ◆ Expand and maintain facilities

## Sources of Growth

- ◆ Alignment materials for TV
- ◆ Oilfield materials

**<Major Investment Plans>** ¥2.0 billion for new semiconductor analysis building, ¥1.3 billion for expansion of DP manufacturing facilities, and ¥1.0 billion for semiconductor evaluation equipment

	FY2018 Actual	FY2019 Outlook	FY2021 Plan	(¥billion) vs. 2018
Sales	63.0	64.3	75.1	+12.1
Operating Profit	15.0	15.0	17.3	+2.3
Capex	3.3	4.3	3.2	-0.1
Depreciation	6.0	5.5	5.9	-0.1
R&D expenses	8.2	8.6	9.3	+1.1

# Stage II Performance Materials – Sales Growth Rate

Main Products		2018/ 2017	2019/ 2018	2021/ 2018*
DP	TN	↘↘	↘↘↘	↘↘↘↘
	VA	↗	↗↗	↗↗↗↗↗
	IPS	↗	↘	↗
	Total SUNEVER	+ 7%	-0%	+10%
	HYPERTECH	↘↘↘↘↘	↗↗↗↗↗↗	↗↗↗↗↗↗↗
	Light control film materials	↘↘↘↘	↗↗↗↗↗↗	↗↗↗↗↗↗↗
Total		+ 7%	+0%	+15%
Semis	ARC®	+ 6%	-0%	+15%
	Other Semis Materials	+ 31%	+11%	+35%
	Total	+ 11%	+3%	+20%
Inorganic	SNOWTEX	+ 1%	+2%	+5%
	Organo/Monomersol	-1%	+5%	+50%
	Oilfield materials	-3%	+95%	+285%
	Total	+ 3%	+5%	+25%
Performance Materials Total		+7%	+2%	+20%

Sales Growth Rate

+50%~	↗↗↗↗↗
+30~+49%	↗↗↗↗
+20~+29%	↗↗↗
+10~+19%	↗↗
+0~+9%	↗
-0~-9%	↘
-10~-19%	↘↘
-20~-29%	↘↘↘
-30~-49%	↘↘↘↘
-50%~	↘↘↘↘↘

\*ARC® is registered trade mark of Brewer Science, Inc.

\*Every 5%

# Stage II Agrochemicals Segment

- <FY2021 Goals>**
- ◆ Expand sales to overseas markets and develop agricultural chemicals
  - ◆ Establish production system in anticipation of overseas demand and reduce manufacturing costs

## Opportunities and Risks

- ◆ Continuous expansion of global market for agricultural chemicals
- ◆ Labor shortages due to population decline in Japan
- ◆ Intensification of competition between companies
- ◆ Supply shortages of bulk chemicals and active ingredients

## Key Measures

- ◆ Quickly expand use/sales of GRACIA
- ◆ Strengthen initiatives for large farms/corporations and for general consumers
- ◆ Steadily develop NC-241(new fungicide) and NC-653(new herbicide), and create pipeline

## Sources of Growth

- ◆ GRACIA
- ◆ Fluralaner
- ◆ ROUNDUP

**<Major Investment Plans>** ¥2.7 billion for fungicide manufacturing facilities, and ¥2.7 billion for GRACIA manufacturing facilities

	FY2018 Actual	FY2019 Outlook	FY2021 Plan	(¥billion) vs. 2018
Sales	62.7	64.2	70.1	+7.4
Operating Profit	18.4	19.0	21.1	+2.7
Capex	3.3	0.7	6.5	+3.2
Depreciation	1.7	1.8	2.1	+0.4
R&D expenses	4.5	4.7	5.2	+0.7

# Stage II Agrochemicals – Sales Growth Rate (Before Discount)

Main Products		2018/ 2017	2019/ 2018	2021/ 2018*
Fluralaner	Animal health products	↗↗↗	↘	↗↗
ROUNDUP	Herbicide	-6%	+8%	+15%
ALTAIR	Herbicide	↗↗	↘	↗
TARGA	Herbicide	↗↗	↘	↘
PERMIT	Herbicide	↗	↗↗	↗
GRACIA	Insecticide	-	Over +600%	Over +700%
Total	-	+7%	+3%	+10%

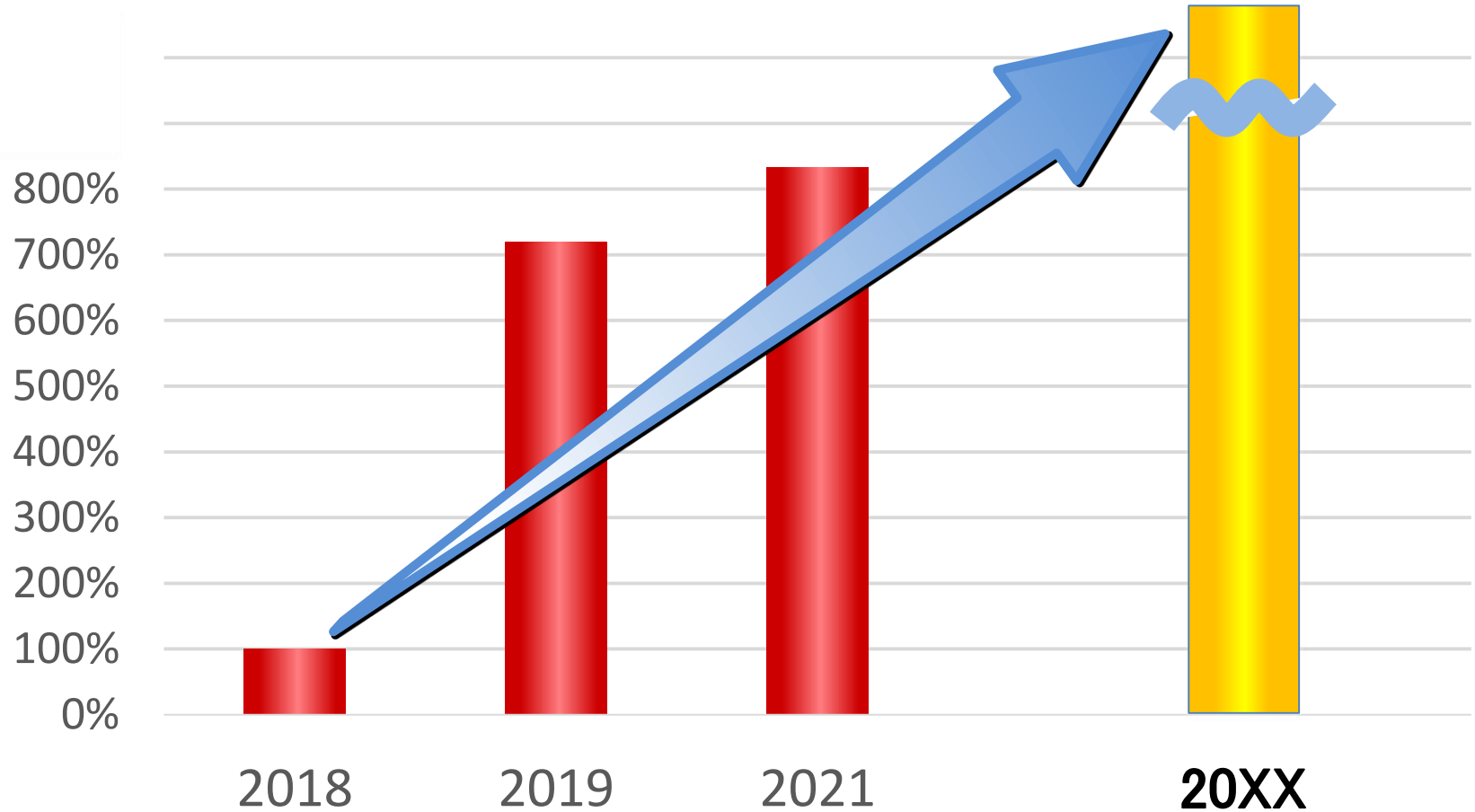
Sales Growth Rate

+40~+59%	↗↗↗↗
+30~+39%	↗↗↗
+20~+29%	↗↗
+10~+19%	↗
+0~+9%	↗
-0~-9%	↘
-10~-19%	↘↘
-20~-29%	↘↘↘
-30~-39%	↘↘↘↘

\*Every 5%

## Stage II Agrochemicals - GRACIA

Starting to become widely used, with launch in South Korea in 2018 and launch in Japan in May 2019

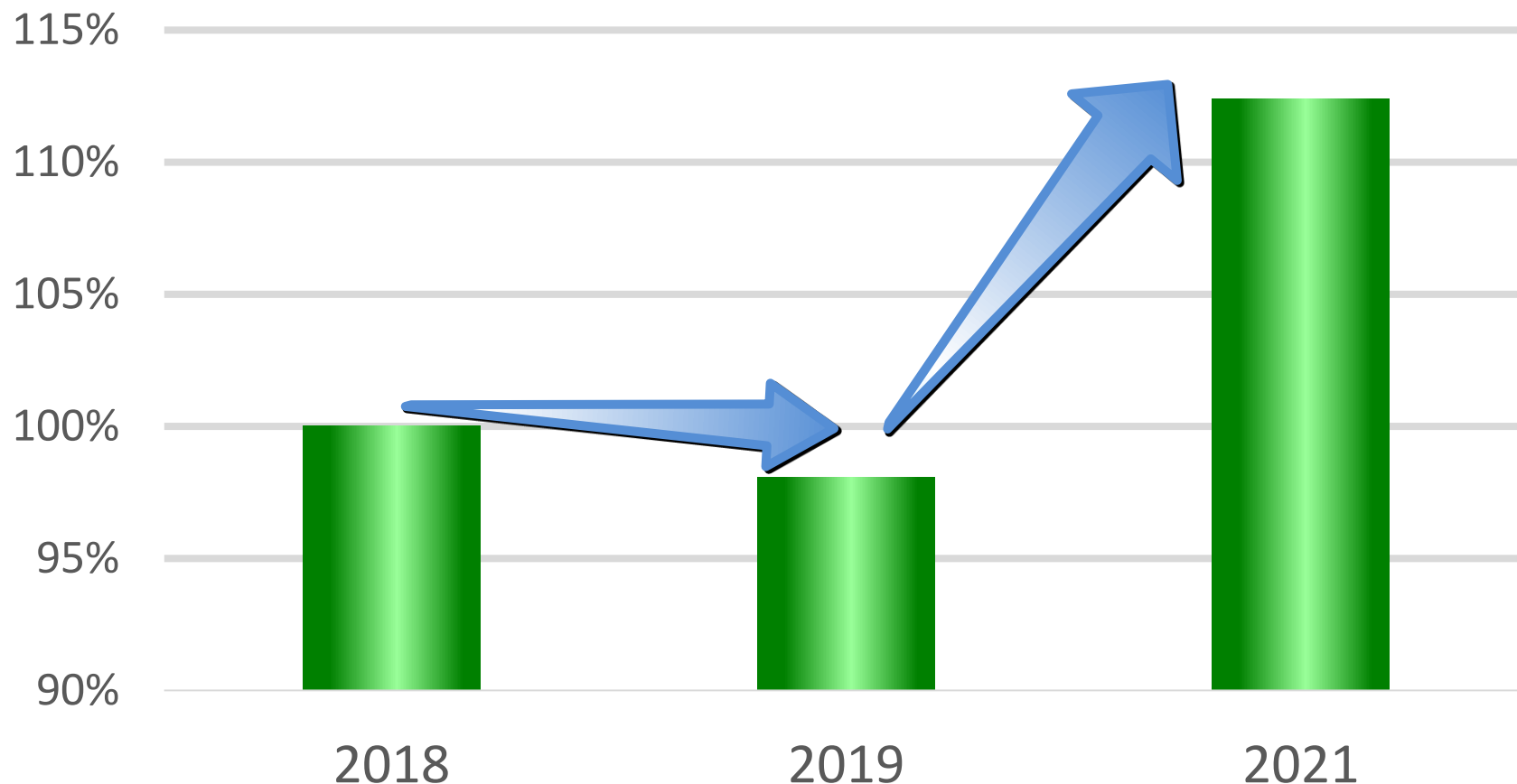


\* FY2018 = 100

**Sales target 10 billion yen**

## Stage II Agrochemicals - Fluralaner

**Sales will fall in FY2019 due to inventory adjustments but are expected to recover and grow from FY2020.**



\* FY2018 = 100

# Stage II Pharmaceuticals Segment

## <FY2021 Goals>

- ◆ Create pipeline
- ◆ Expand Custom Chemicals business through new generic drugs and entry to medium-molecule drugs

### Opportunities and Risks

- ◆ Increase in medium molecule drug discovery research
- ◆ Rise of generic drugs
- ◆ Intensification of competition between companies

### Key Measures

- ◆ Create development candidates and move them to the next stage
- ◆ Expand contract and manufacturing business and improve profitability

### Sources of Growth

- ◆ Expansion of sales of generics
- ◆ Peptide CMO

	FY2018 Actual	FY2019 Outlook	FY2021 Plan	(¥billion) vs. 2018
Sales	7.0	7.0	7.5	+0.5
Operating Profit	1.0	1.0	0.7	-0.3
Capex	0.5	0.5	0.6	+0.1
Depreciation	0.6	0.6	0.6	-0.0
R&D expenses	2.5	2.5	2.3	-0.2

# Stage II Pharmaceuticals – Sales Growth Rate

Main Products		2018/ 2017	2019/ 2018	2021/ 2018*
Pharma	LIVALO Total	-11%	-5%	-50%
	Domestic	-53%	+59%	+30%
	Export	-6%	-9%	-55%
	Total	-12%	-5%	-45%
Custom Chemicals Total		+ 3%	+8%	+95%
Pharmaceuticals Total		-7%	-0%	+10%

\*Every 5%



# Overview of Pharmaceuticals Segment Pipeline

## ◆ Clinical development

	Mechanism of action	Expected indication	Partner, etc.
NIP-022	- Thrombopoietin (TPO) receptor activation	- Thrombocytopenia	- Entered into the license agreement with Yakult in October 2015 - Completed a Phase I clinical trial in Japan in July 2017
NTC-801	- Acetylcholine-activated K <sup>+</sup> channel current (IKACH) inhibition	- Arrhythmia (Atrial fibrillation)	- Adopted as AMED* program in September 2018 - Preparing for an investigator initiated clinical trial conducted by Osaka University - Under consideration regarding seeking new partners

\* Japan Agency for Medical Research and Development

## ◆ Preclinical development/Candidate selection

	Indications, disease area, etc.	Outline
NIP-231	- Metabolic diseases	- Completed GLP toxicology studies, currently considering indication
NIP-301	- Epilepsy, essential tremor	- non- GLP toxicology studies ongoing
NIP-321	- Inflammatory pain	- non- GLP toxicology studies ongoing

## ◆ In-house research

- Focusing on cardiovascular disease and neurological disease as core therapeutic areas

## ◆ Collaborative research

- Conducting small molecule drug discovery programs (e.g. Shionogi & Co., Ltd.)
- Started oligonucleotides drug discovery programs (e.g. Luxna Biotech Co., Ltd.)

# Mid-term Business Plan “Vista2021 Stage II” (A)

## Basic Strategy 2.

### **Strengthen ability to create new products.**

- ◆ **Promote research and development based on customer/market information**
- ◆ **Improve analysis, evaluation and development capabilities through enhancement of global research infrastructure**
- ◆ **Achieve standardization of materials through participation in national projects**
- ◆ **Accelerate creation of actual demand through teamwork between R&D and manufacturing departments**

# Mid-term Business Plan “Vista2021 Stage II” (B)

## Basic Strategy 2.

### Strengthen ability to create new products.

- <FY2021 Goals>**
- ◆ Help solve problems faced by society and customers by providing unique materials that meet market needs
  - ◆ Create products that will lead to the establishment of new business in the future

#### Opportunities and Risks

- ◆ Expansion of regenerative medicine market
- ◆ Growth of beauty and health markets
- ◆ Acceleration of development of technologies for realization of low-carbon society
- ◆ Development delays and slower-than-anticipated arrival of new era

#### Key Measures

- ◆ Accelerate development through allocation of resources to priority themes
- ◆ Get closer to customers and strengthen solution proposals
- ◆ Achieve standardization of materials through participation in national projects

**<Major Investment Plans>** ¥0.6 billion for manufacturing facilities for cell culture medium materials

# FY2018 Sales Actual of Future Growth Engines

(1) Including R&D costs deduction due to the sample shipments

FY2018 Sales Actual Level (1)	Below ¥0.3 billion	¥0.3 to ¥0.6 billion	Above ¥0.6 billion	Total
<b>Chem</b>	<div>New TEPIC (Liquid type) (Fine Chemicals)</div> <div>Venus® Oilclean (Fine Chemicals)</div>			¥0.0 billion
<b>Performance Materials</b>	<div>HYPERTECH (High refractive)(Display)</div> <div>Light control film materials (Display)</div> <div>Hole injection layer materials for OLED (Display)</div> <div>Alignment materials for LC retarder (Display)</div> <div>Repellant bank layer materials (Display)</div> <div>CMOS image sensor materials (Semis)</div> <div>EUV under layer (Semis)</div> <div>Organosol(Insulation CTE) (Inorganic)</div> <div>Monomersol (3D-printing) (Inorganic)</div> <div>New high refractive materials (IM layer film) (Inorganic)</div>	<div>Oilfield materials (Inorganic)</div> <div>3D packaging process materials (Semis)</div>		¥1.9 billion
<b>Agro</b>	<div>NEXTER (Licensed-in)</div> <div>CLARE (In-house)</div> <div>TRANSFORM™/EXCEED™/VIRESCO™ (Licensed-in)</div>	<div>GRACIA (In-house)</div>	<div>ROUNDUP AL II / III (In-house)</div>	¥2.0 billion
<b>Pharma, Others</b>	<div>New GE API product (Custom Chemicals)</div> <div>3D Cell culture medium</div> <div>Eldecacitol (Custom Chemicals)</div>	<div>Maxacacitol (Custom Chemicals)</div>		¥0.7 billion

# FY2021 Sales Plan of Future Growth Engines

FY2021 Sales Plan Level (1)	(1) Including R&D costs deduction due to the sample shipments			
	Below ¥0.3 billion	¥0.3 to ¥0.6 billion	Above ¥0.6 billion	Total
Chem	Venus® Oilclean(Fine)	New TEPIC (Fine)		¥0.6 billion
Performance Materials	Repellant bank layer materials(DP) New high refractive materials (IM layer film) (Inorganic)	Light control film materials(DP) Repellant bank layer materials(DP) EUV under layer (Semis) Organosol (Insulation CTE) (Inorganic)	Alignment materials for TV (DP) HYPERTECH (High refractive)(DP) 3D packaging process materials (Semis) Monomersol (3D-printing)(Inorganic) Oilfield materials (Inorganic) CMOS image sensor materials (Semis) Hole injection layer materials for OLED (Display)	¥7.9 billion
Agro	NEXTER (Licensed-in) CLARE (In-house)	ALEILE (In-house)	GRACIA (In-house) ROUNDUP AL II / III (In-house) TRANSFORM™/EXCEED™/VIRESCO™ (Licensed-in)	¥7.8 billion
Pharma	New GE API product (Custom Chemicals) New GE API product (Custom Chemicals)		Eldecalcitol (Custom Chemicals) Peptide CMO (Custom Chemicals)	¥2.7 billion
New field	Functional cosmetic materials 3D Cell culture medium	Biocompatible materials Secondary battery materials		¥0.6 billion

# Mid-term Business Plan “Vista2021 Stage II”

## Basic Strategy 3.

**Improve ability to adapt to social/market changes.**

# Stage II Priorities for Corporate Survival

## Strengthen corporate governance

- Apr. 2019** ◆ Established Nomination and Remuneration Advisory Committee
- Jun. 2019** ◆ Plan to increase number of outside directors by two to three (outside directors will make up at least one-third of the board) (after a resolution at the general meeting of shareholders)
- Jun. 2019** ◆ Plan to introduce performance-linked stock remuneration plan (after a resolution at the general meeting of shareholders)

## Strengthen compliance

- ◆ Establish framework for autonomous ethics and compliance

## Strengthen risk management

- ◆ Lay foundations for enterprise risk management (ERM)
- ◆ Establish PDCA cycle for material Group risks

# Stage II Strengthening of Initiatives to Address Material Issues (A)

**Materiality-** Material issues, which in light of ESG and SDGs, need to be addressed to help solve social issues and realize Company vision at 2030

## **(i) Provision of new value for helping to enrich people's lives**

**Including helping to solve health and food security issues and contributing to a smart society**

## **(ii) Strengthening of Nissan Group's business base**

**Including strengthening R&D capabilities, improving product quality and creating a pleasant working environment**

## **(iii) Continuous improvement of responsible care activities**

**Including initiatives to mitigate climate change, promote work safety and health and protect biodiversity**



# Stage II Strengthening of Initiatives to Address Material Issues (B)

	Factor	FY2021 Goals
(i) Provide new value	Contribution to health issues	Out-license drug candidates Launch new medical materials
	Supply of environmentally friendly products and services	Launch new eco-friendly products
	Contribution to the improvement of the quality of life	Help by providing disinfectant for drinking water FY2021: 2,500,000 people per year (FY2018: 900,000 people per year)
	Contribution to smart society	Launch photoalignment materials for high-speed transmission of large volumes of data
	Contribution to the food issues	Increase net sales of Agrochemicals business by 10% compared to FY2018 level
(ii) Strengthening of Nissan Group's business base	Enhancement of R&D capability	File 1,350 patent applications in the three years from FY2019 to FY2021 (maintain status quo)
	Improvement of products quality	Conduct audits at 80% of manufacturing subcontractors in the three years from FY2019 to FY2021
	Maintenance and improvement of employees' health	Maintain "White 500" selection
	Creation of a comfortable workplace	Increase rate of taking annual paid leave to 80% or higher
	Personnel retention and trainings	Increase training hours per employee by 10% compared to FY2017 level
	Promotion of diversity	Increase percentage of female employees on managerial track to 10%
	Promotion of fair-trading	Hold legal consultation meetings at all parent company sites by FY2021
	Promotion of CSR procurement	Increase CSR questionnaire survey coverage to 90% (on a value basis)
	Adaption to climate change	Formulate BCP for products that account for 50% of ordinary income

# Stage II Strengthening of Initiatives to Address Material Issues (C)

	Factor	FY2021 Goals
(iii) Continuous improvement of responsible care activities	Mitigation of climate change	Reduce GHG emissions by 20% compared to FY2013 level Improve energy consumption rate by 20% compared to FY2013 level
	Promotion of occupational health and safety	Reduce accidents that required time off from work to zero
	Biodiversity conservation	In FY2018, initiatives were undertaken in 67% of all prefectures in which company has head office, plant or R&D site → Increase this percentage to 100% by FY2021
	Management of chemical substances	Prepare chemical safety summaries for products that account for 90% of total production volume
	Reduction of industrial waste and pollutant emissions	Increase rate of recycling to 99.5% or higher Reduce exhaust gas (SOx + NOx) emissions by 75% compared to FY2013 level

# Initiatives for Beyond Stage II

## Performance Materials

- ◆ Develop and create actual demand for flexible/5G materials
- ◆ Create next-generation display and semiconductor materials

## Agrochemicals

- ◆ Develop new insecticides and rice-field herbicides and veterinary medicines

## Pharmaceuticals

- ◆ Enhance drug development pipeline
- ◆ Expand contract research for high added value products (peptide products)

## New field

- ◆ Establish cell culture materials as global standard
- ◆ Expand use of functional cosmetic materials and secondary battery materials
- ◆ Create energy harvesting materials
- ◆ Establishment of technological and becoming de facto standard of all solid state battery materials

Strive for perpetual growth  
and become a company that  
carves out the future

# Forward Looking Statements

**The forward looking statements in this material are based on information available at the time of preparation of the material. Although they reflect our current expectations, these statements are not guarantees of future performance, but include a number of risks and uncertainties. Actual results may largely differ from these statements due to various factors which may be beyond company control.**

**No information in this material is provided as an offer to buy or sell the shares of the company. We urge users of the material to make investment decision based upon own judgment.**