

# ***DAICEL VISION 4.0***

**The Fourth Long-Term Vision**

June 8, 2020



# ***DAICEL VISION 4.0***

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  - Four Domains for Happiness
  - Growth & Acceleration Strategy

# DAICEL VISION 4.0 – Thoughts on Formulation



DAICEL Group (hereinafter referred to as “the Group”) celebrated its 100th anniversary in 2019. The drastically changing world situation, means a sense of urgency that our company (hereinafter referred to as “the Company) must change and become a more flexible company with a greater sense of speed. I have promoted projects with each class of director and middle manager for a year and a half, and through a countrywide dialogue with the entire company, we have formulated “DAICEL VISION 4.0.”

In 1919, 8 celluloid companies related to domestic financial combines (zaibatsu) merged and from there DAICEL was established. Two pillars of “Enriching people’s lives” and “Prosperous co-existence with other companies,” were established with the merger beyond the framework of the original individual zaibatsu. In this way, not only the excessive competition of celluloid products was eliminated, but in addition, the competition for domestic market share was directed outward to the world. This prevented over-harvesting of camphor, the raw material in celluloid, and also, the integration and growth of the processing industry advanced, and the contribution to improvement of added-value of the overall supply chain was achieved. DAICEL Production Innovation is also based on the same concept, making it easier to unify/share information, not only solving technological issues which the Company should overcome, it aims to construct a value chain with customers and suppliers. This idea is the backbone of DAICEL as also indicated in our Basic Principle.

Throughout our long history, we have flexibly responded to various unpredictable events. However, currently the world has been undergoing further major changes with AI and the digital

revolution. Also, the new COVID-19 pandemic has resulted in the situation where we are forced to radically change our conventional way of thinking.

In the Basic Principle and Sustainable Management Policy we advocate: “Placing the highest priority on safety/quality/compliance which constitute the foundation of Company’s existence. We will work to achieve people-friendly manufacturing,” which we regard as unchangeable even during times of change. Also, we have made it clear “what we must boldly change” in the Long-Term Vision and Mid-Term Management Strategy and indicated it to Group employees and stakeholders. Thus this vision and strategy are formulated as a message to people who share the same principle and work in manufacturing.

The next 100 years of DAICEL Group can be realized only by cooperation between all employees, customers, suppliers, cooperative companies and shareholders.

Finally, in the future, we will continue to challenge and innovate, and would like to ask for your continued support.



Yoshimi Ogawa  
President and CEO



# Progress of DAICEL

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# The Start of DAICEL – DAY 1 –



Born through merger of 8 Japanese celluloid companies

# 1919

## Japan Celluloid Co., Ltd. Established



Tsuchiyama Studio.  
1917

# The Trajectory of DAICEL



Friction and fusion of different cultures (diversity) generated a variety of products

## 1928 **Enrichment of lives**

Started production of photographic material in parallel with the spread of hobbies such as amateur photographs and movies



## 1938 **Securing safety (flame-retardant)**

Started production of acetylcellulose in response to the major issue of nitrocellulose inflammability



## 1964 **Challenging resource/energy-saving (substitution of metal)**

Started production of polyacetal resin in order to reduce burden on the environment by reducing automotive weight



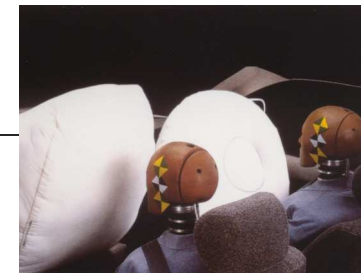
## 1982 **Provision of safe medicine**

Started production of optical isomer separation columns in order to separate substances which could lead to adverse side effects



## 1988 **Provision of safety/security**

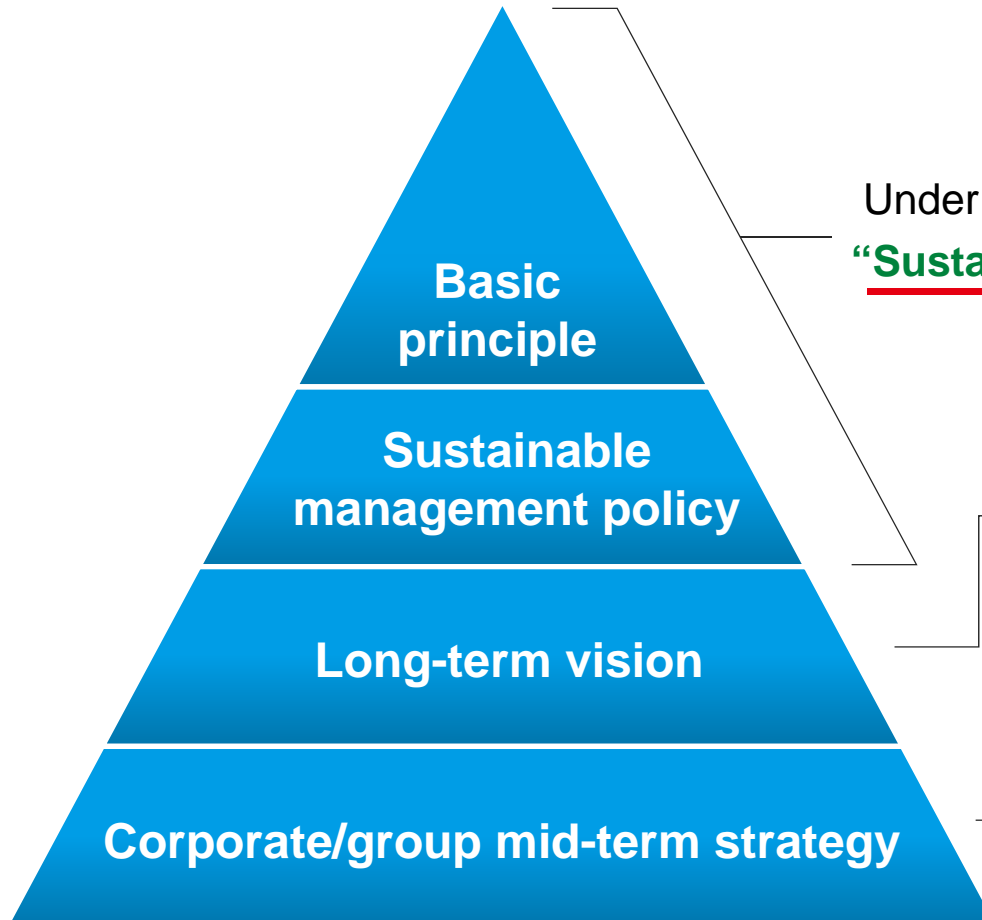
Started production of air bag inflators for protection of automobile occupants



# Management Policy

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Under Basic Principle

“Sustainable Management Policy” set

As Long-Term Vision

“DAICEL VISION 4.0” formulated

Mid-term Management Strategy drafted by the corporation and each business unit.

The term of Mid-Term Strategy is set by each strategic business unit

- Shift from former “Building-up” to “Future Vision”



We place great importance on the Basic Principle concept, and in future will continue to hold this concept without being influenced by changing times.

## The company making lives better by co-creating value

*Sustainable Value Together*

Co-creating value ●●●

Understanding and communicating together with various partners, to jointly create new value

## Sustainable Management Policy



- ▶ The Daicel Group's basic philosophy is the Company making people's lives better by co-creating value. The values of people are changing significantly day by day toward the realization of a sustainable society.
- ▶ With safety, quality and compliance set as the most important foundation, the Daicel Group hereby establishes its Sustainable Management Policy to concurrently achieve a sustainable society and the Company's business expansion with integrity, tireless efforts and self-transformation.

**We create and provide people with new values to achieve better quality of life.**

**We construct a circular process with all our stakeholders to make harmonious coexistence with the environment.**

**We promote "human-centered business management" that enables diverse employees to grow while establishing their own presence and achieving fulfillment.**

# Sustainable Management Policy (Conceptual diagram)

## Corporate value: Overall improvement



Healthy, safe and good quality life



Partnership in value chain



Diversity & Inclusion

**Happiness for society and people**  
Sustainable Product

**Environment that offers happiness**  
Sustainable Process

**Happiness for workers**  
Sustainable People

Spiral loop – Growth of organization





Long-Term Vision

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# ***DAICEL VISION 4.0***

# What we aim for

## Sustainable Product



## Contributing to happiness of people and society

### ▶ Pursuing happiness

- Creating needs together with customers
- Not limited to our own products, providing good products even when produced externally
- All of us are part of sales force!

## Sustainable Process



## Achieving goals with environmentally and people friendly methods

### ▶ Remove the existing company/plant framework

- Constructing new optimal business group through pursuing value chain
- Seeking horizontal integration to complete cross-value chain

### ▶ Formation of biomass product tree

- From materials of natural origin to products returning to nature

### ▶ Energy offset process

## Sustainable People



## Giving employees a sense of fulfillment

### ▶ Boldly delegate authority

- Discover innovative leaders through bold transfer of authority and selection for promotion
- Outstanding professionals shall be trained through external experience
- A farewell to the past system

### ▶ Lighter corporate role

- Eventually, internal fund function only

# Four Domains for Happiness

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# Issues and needs from the perspective of social trends

## Social Trends

### Environment

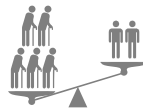


Realization of sustainable society/strengthening of regulations

### Social Economic Situation



Population increase (shortage of resources)



Aging progress



Changes in consumption behavior (subdivision of needs)



Economic growth of developing nations

### Technology



Evolution of digital technology (IoT/AI, etc.)



Evolution of energy technology (next-generation batteries, etc.)

## Social Issues/Needs

- Enhancement of health life expectancy
- Well aging
- Provision of high-quality medical care
- Provision of nursing-care service
- Correspondence to infections

- Easing of traffic congestion
- The widespread adoption of new mobility-supporting systems
- Eradication of road traffic accidents


- Improvement of educational environment in developing countries
- Enhancement of continuing education

- Provision of safe food
- Industrialization of agriculture
- Efficient food production
- Securing food supply
- Reduction/utilization of waste
- Securing safe water

- Formation of Circular Society
- Improvement of air/soil/water quality
- Development of innovative energy production/conversion technology
- Utilization of unused resources
- Emission reduction of greenhouse effect gases (GHG)

- Provision of safe evacuation
- Prompt rescue of disaster victims
- Strengthening of disaster prevention power
- Optimal distribution of goods
- Construction of strong infrastructure

# Four Domains and Market Focus

Domain	Health	Safety/Security	Convenience/Comfort (Smart)	Environment
Market Focus	<p>Cosmetics</p> 	<p>Mobility</p> 	<p>Display</p> 	<p>Water Processing</p> 
	<p>Health Food</p> 	<p>Industry</p> 	<p>IC/ Semiconductor</p> 	<p>Biodegradable Resin</p> 
	<p>Medical Care</p> 		<p>Sensing</p> 	

## DAICEL Strengths

- Unique bio-related organic synthesis technology
- Wide product line from super engineering plastics to general purpose resin
- Cellulose technology and pyrotechnics developed from celluloid
- A system to utilize know-how with AI and IoT (DAICEL Production Innovation)



The background of the slide is a dynamic, abstract image of a tunnel. The walls and floor of the tunnel are blurred into streaks of light and color, primarily in shades of blue and white, creating a sense of rapid motion and depth. The perspective is from the center of the tunnel, looking towards the vanishing point.

# Growth & Acceleration Strategy

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## Operation-I (OP-I)

### Original DAICEL

**(The area including domains on which we focus in addition to current business)**

- Transformation of the business structure  
(Selection and concentration of the business ⇒ Shifting to value providing type of organization)
  - Transformation to asset light
  - Structural reforms to accelerate the growth of OP-II/III
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## Operation-II (OP-II)

### New DAICEL

**(Peripheral areas of existing business to be expanded through M&A or collaboration)**

- Business restructuring, drastic review of existing JV
  - Transformation to asset super-light
  - A company creating high added value which can aim at OP-III
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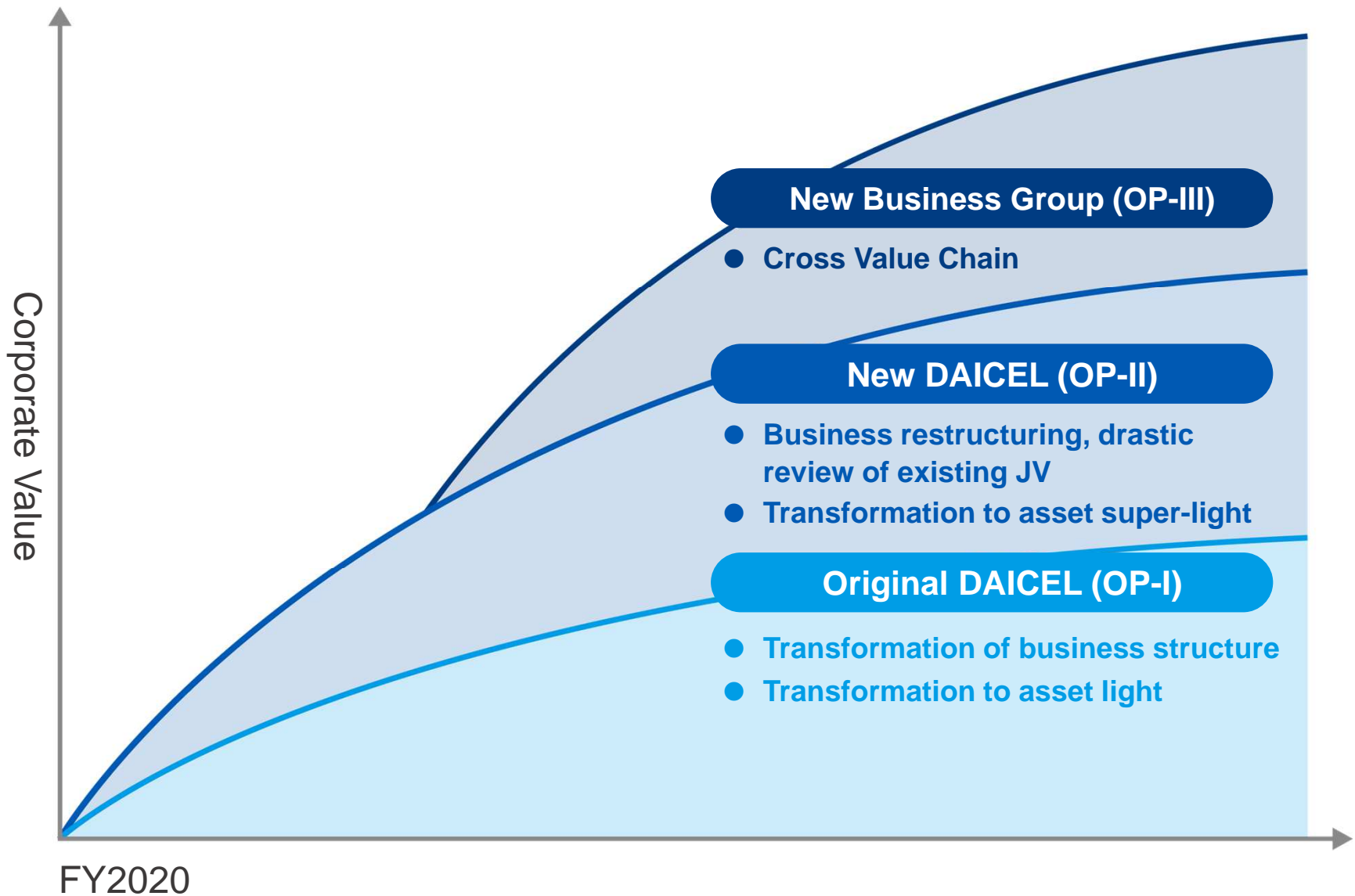
## Operation-III (OP-III)

### New Business Group

**(Cross-Value Chain which brings vertical integration type of supply chain along with horizontal integration)**

- Not limited to M&A, constructing No.1 supply chain with various connections

# Curve of Growth and Acceleration



Management and indexes we should aim for



## Management with stronger consciousness of Balance Sheet

### ▶ Indexes of growth and acceleration

- Corporate value: Equity spread (difference between ROIC and WACC)

### ▶ Corporate (future internal fund) indexes

- Corporate ROE, ROIC, ROA, WACC
- WACC by business (hurdle rate)
- Corporate Sales growth rate

### ▶ Business indexes

- Efficiency: ROIC, operating profit, EBITDA
- Growth: Business sales growth rate

Note- ROE: Return on Equity ROIC: Return on Invested Capital ROA: Return on Assets WACC: Weighted-Average Cost of Capital



## Appendix

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# Transformation of organization and business processes while accelerating growth

## From Original DAICEL to New DAICEL

### ▶ Value providing type organization

Market-in (identification of issues) type which groups together business units organized by market focus and discovers and resolves potential social needs

### ▶ Material providing type organization

Product-out type based on the chain of technology and materials cultivated over many years

### ▶ Corporate

Promoting corporate strategy

### ▶ Production company

Relentless pursuit of safety/quality  
Pursuit of optimal inventory and manpower commonality

### ▶ Customer center

Interface connecting market and manufacturing

## New Business Group

### ▶ Consultation organization

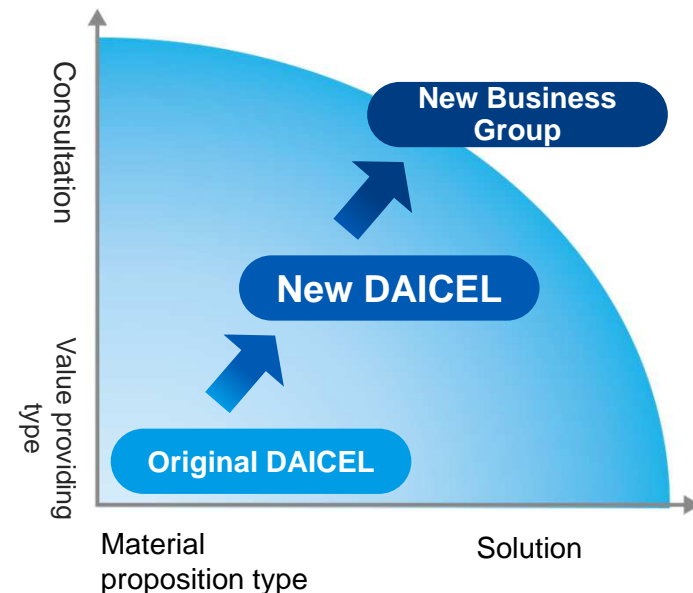
**Corporate, SBU, BU**

Creating needs/market together with customers  
Not limited to our own products, providing good products

### ▶ Solution organization

**Production company, customer center**

Resolving customer needs through manufacturing



# Required human resources and innovation of personnel system

## ▶ What is a strong group?

- Group with clear leadership and diverse professional groups

## ▶ Identifying leaders and fostering sharp professionals

- Selecting candidates for leadership who have strong awareness of problems and capability to think of overall optimization  
(ability to get a bird's eye view = ability to indicate future vision)
- Professionals may be divided into technological professionals (supported by logic) and skilled professionals (supported by training and practice)
- Technological professionals shall be improved through external activities (dispatched to customers, other companies or universities)
- Skilled professionals shall be improved at the workplace

## Aiming for (simple) system for fairer evaluation

Challenging Work (Input)

Good Results (Output)



Leader

Professional

## ▶ **Proposal of Cross-Value Chain**

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Beyond concept of company and plant, aiming for vertical and horizontal integration

## ▶ **Synergy effect of vertical and horizontal integration**

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Making asset super-light (manpower, inventories, investment, etc.)

Flexible manufacturing with higher speed (shortening lead time)

When necessary, buying/delivering necessary goods (warehouseless, thorough implementation of combined transportation of small shipments)

## ▶ **Independence of R and D**

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R to identify social needs from the perspective of customers

D to be achieved thorough perfection of SQDC from the perspective of manufacturers

(S: Safety, Q: Quality, D: Delivery term, C: Cost)

## ▶ **Providing new function added to existing material**

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Provision of safety/security function from pyrotechnics

From provision of material such as polymer, organic and cellulose,

→ addition of eco-function

→ high functionality with composite material with inorganic

→ high value added through combination with processing technique



# Notes regarding Forward-Looking Statements

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