These presentation materials are available on our website in PDF format:

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Forward-looking statements such as earnings forecasts and other projections contained in this release are based on information available at this time and assumptions that management believes to be reasonable, and do not constitute guarantees of future performance. Actual results may differ materially from those expectations due to various factors.

Aiming for **Precision Life Care** **(Life, Everyday lives, Ecology)** that proposes optimized solutions for **unresolved issues**

Monitoring

Precision monitoring

- **Human body**

- **Activities**

- **Environment**

Identifying the cause **precisely**

Products

Precision solutions

- **Health care and beauty products**

- **Other household and personal care products**

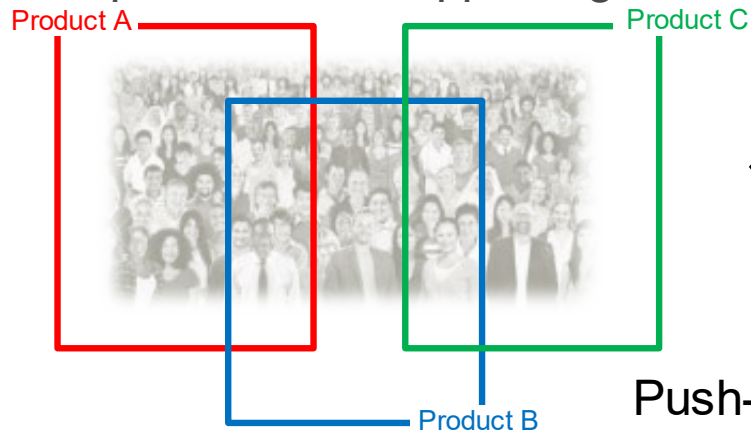- **Industrial domains**

Solving the cause **appropriately**

The future of building customer relations

Kao's dilemma

Kao's future choices

Products in
many types and large quantities

Large advertising costs

Intense competition to make one's products look appealing

Product A

Product C

Product B

Consumers

Push-oriented

🗑 **Large amounts of** inventory and product waste

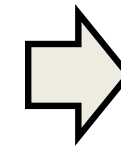🪙 Deteriorating quality of products and brands that only guarantee **low price**

Precisely selected products

Trusted information that **precisely** matches the user

Competition in which products get chosen because they match each user

Product A

Product B

Product C

Pull-oriented

🌱 **Significant reduction of** product waste

💎 Evolving products and brands that **matches people's individuality**

Examples of Precision Life Care business partners

istyle

Initiatives with a website company

MILBON

a manufacturer of products for hair salons

NTT docomo

Initiatives with a telecommunications company

Kao × **istyle** **@cosme**

[Skin-RNA-types × @cosme]
Encounter with cosmetics that suit one's skin

Choosing cosmetics until now

- Number of monthly unique users on @cosme

  16.3 million (as of December 2021)

- Top beauty platform in Japan

  ✓ Beauty media
    Monthly active users: **14.3 million**
  ✓ Beauty-only e-commerce site
    Number of products: **45,000** SKU
  ✓ Specialized cosmetics store
    Annual sales of **10.4 billion** yen

The future of choosing cosmetics

Toward becoming a health care and beauty platform

- An evidence-based website for customers to find out their type

  ✓ **Identifying their skin type** on a genetic level

  ✓ Finding out their **group** in beauty + health care

  ✓ **Evolving** recommendation model site

RNA is a guidebook on skin health and beauty. However, it was commonly believed that RNA would be broken down immediately.

DNA

Does not change because it is a design diagram specific to the person

RNA

Changes due to environmental factors

(including from diet, exercise, stress, and UV-rays)

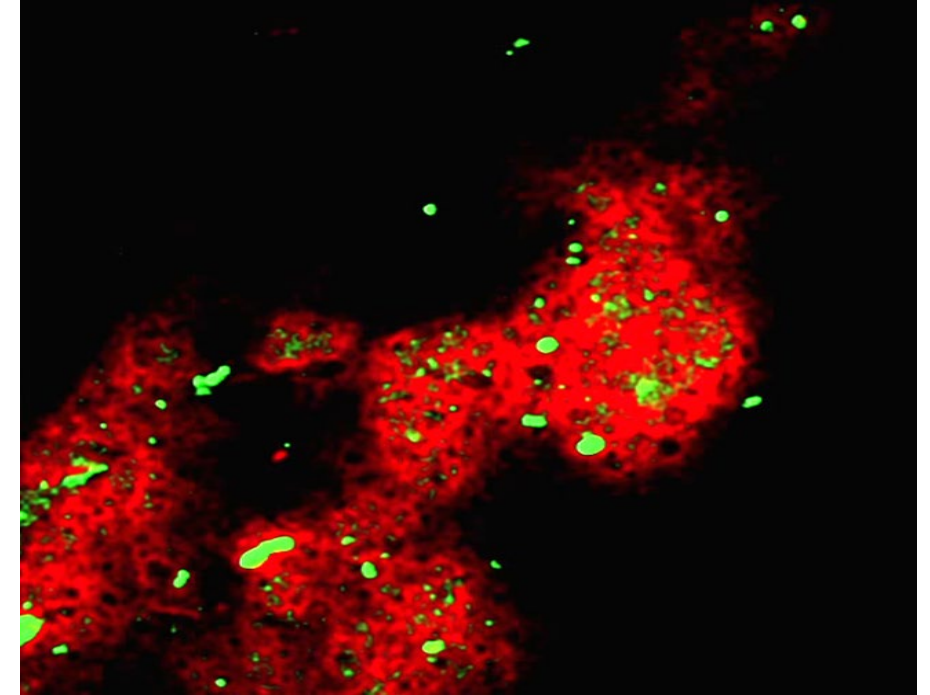**A coincidental discovery** during many years of dermatological research

Fluorescent-stained human sebum

Red: sebum   Green: RNA

13,000 types of RNA = genetic expression information

Can be collected **"anywhere, anytime, and by anyone"**

Developing an <u>skin-RNA-type matching system</u> that solves the problem of "not being able to find the right products even if they exist"

Encounters with unsuitable products

skin-RNA-type matching

Encountering, enjoying, and experiencing suitable products

Unsuitable products get discarded

12 RESPONSIBLE CONSUMPTION AND PRODUCT
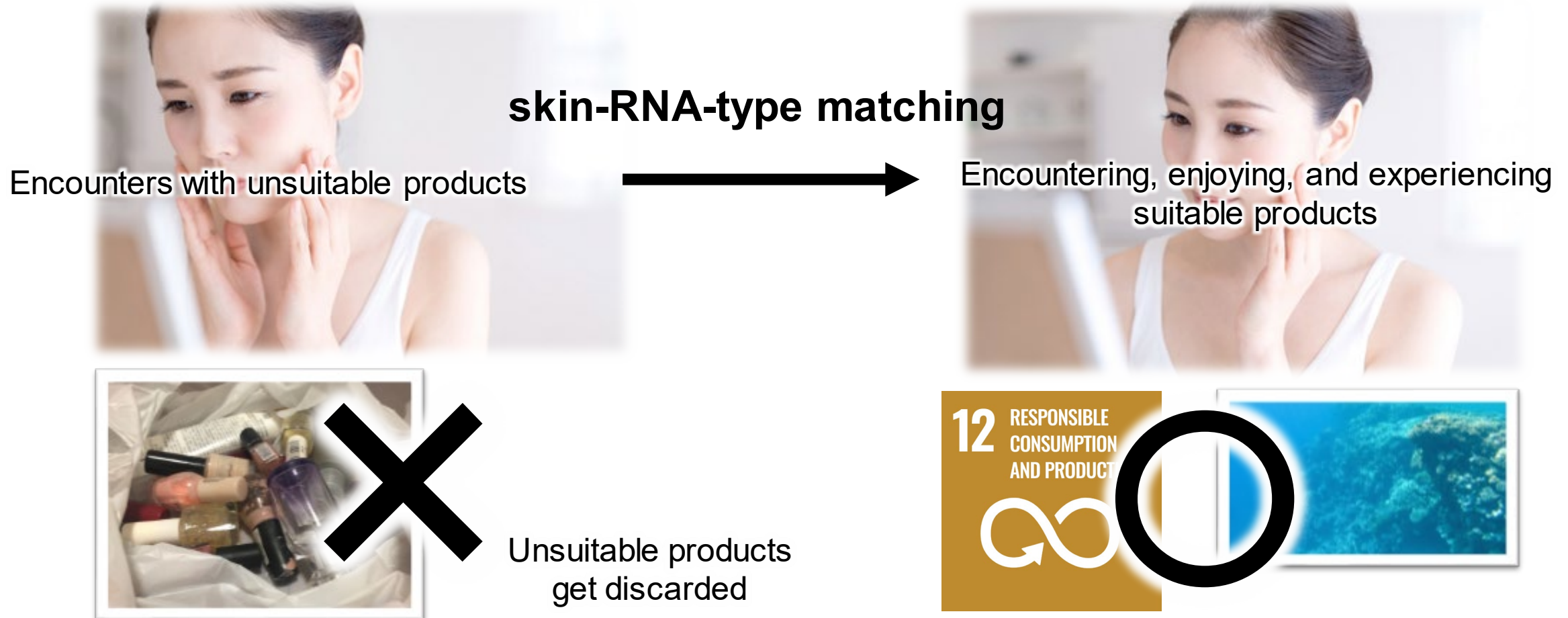
Creating a framework in which, through "skin RNA type," users can find cosmetics that suit their skin
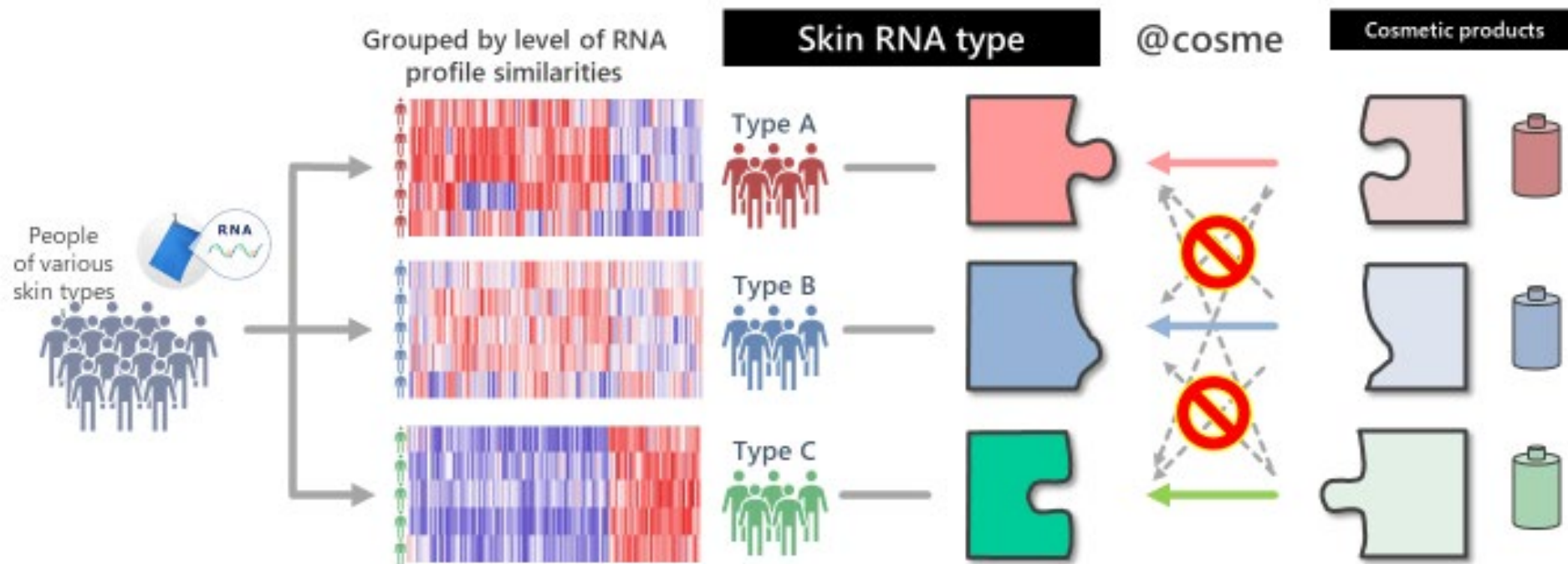
Image of matching cosmetics using skin RNA type

Skin-RNA-type matching system concept that answers the issue of "not being able to find products that suit oneself though they exist"

Skin type B

Product B

×

Woman B, age 32

Skin type A

Woman C, age 30

Skin type A

Product A

〇

Woman A, age 28

"Skin RNA type" matching using RNA monitoring technologies

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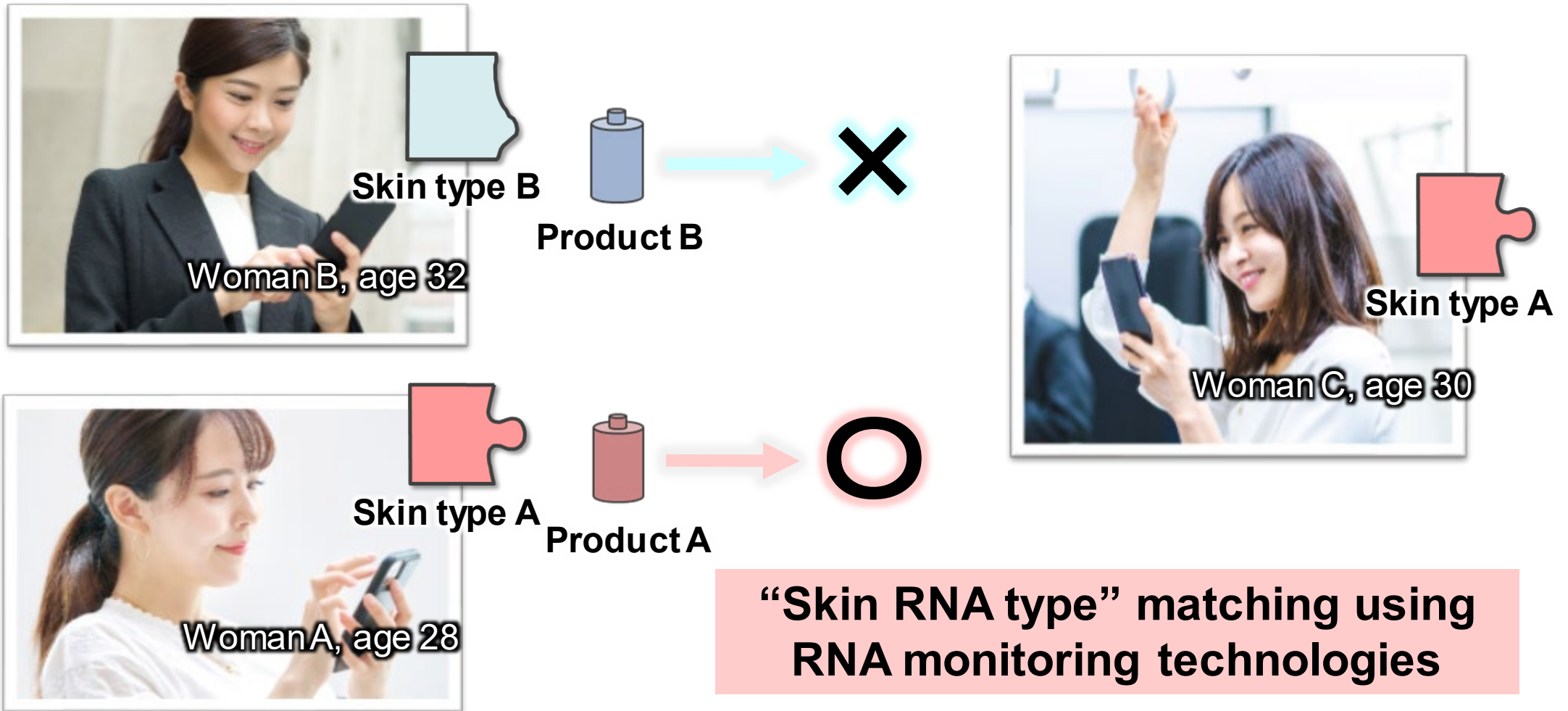
Proposing a use interface (UI) that tells users whether the products of interest suit them

Skin RNA type A
Woman C, age 30

Existing UI

Products
-> Recommended skin RNA type

Product review UI by RNA type

RNA type A ★★★★★ 6.1
RNA type B ★★★☆☆☆ 2.8
RNA type C ★★☆☆☆☆ 2.1
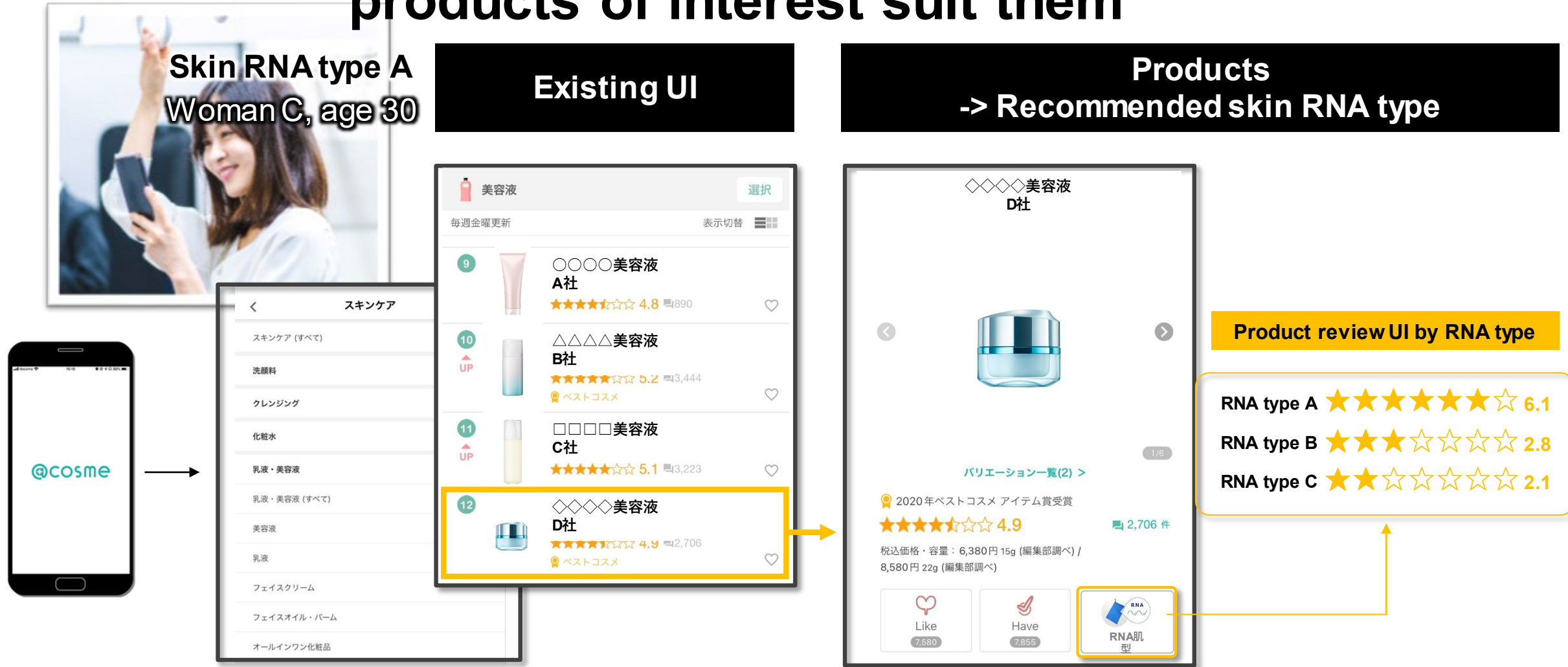
Shows reviews of products of interest by RNA type

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Initiatives with istyle Inc.

From 2022

Develop the database

Taking a sample with a test kit
From around 10,000 people

Kao × istyle

Grouping by skin RNA type x posted word-of-mouth reviews
↓
Evaluate relations with preferred cosmetics

From 2024 (plan)

Apply to services

Applying to @cosme product reviewing UI
Users can effortlessly view reviews
of the products that interest them, by RNA type

Aiming for instant diagnosis with means
such as camera features (plan)

◇◇◇◇美容液
D社

バリエーション一覧(2) >
2020年ベストコスメ アイテム賞受賞
★★★☆☆ 4.9   2,706 件
税込価格・容量：6,380円 15g (編集部調べ) /
8,580円 22g (編集部調べ)

Like   Have   RNA肌型

@cosme
product reviewing UI

RNA型別商品評価UI

RNA A型 ★★☆☆☆☆☆ 2.1
RNA B型 ★★★☆☆☆☆ 2.8
RNA C型 ★★★★★☆ 6.1

Instant RNA diagnosis
(plan)

Examples of Precision Life Care business partners

istyle

Initiatives with a website company

MILBON

a manufacturer of products for hair salons

NTT docomo

Initiatives with a telecommunications company

The future of building relations at hair salons

KAO × **MILBON**

[RNA × hair salons] Health care with hair salons as a platform

Hair salons until now

- **170,000 hair salons** across Japan (as opposed to 56,000 convenience stores)

- A place that customers continuously and regularly visit (*)
  - ✓ Average of **4.5** visits a year
  - ✓ **66.4%** of customers visit the same salon

- Average time spent **is around 1.5 hours***. Active communication is seen between customers and stylists.

*Hot Pepper Beauty
Beauty Census (first half of 2020)

The future of hair salons

Toward becoming a health care and beauty platform

- Salons as a place to offer continuous and regular counseling to customers
  - ✓ Recommending **the most suitable products and services** on a genetic level
  - ✓ **Comprehensive** health care and beauty **proposals**
  - ✓ Expanding solutions, such as recommending hair color products that are likely to not cause allergies in the future, as well as solutions for pre-symptomatic states and disease prevention to respond to the needs of an aging society

Precision Life Care by stable and quality data

Kao × **MILBON**

RNA monitoring service to be offered at Milbon's customer salons.
The framework to recommend the most suitable products for each customer on a genetic level will be developed jointly

Example **Kao** → **MILBON** Example

Providing hair care technologies and products

•Non-oxidizing hair colors (Dihydroxyindole, Rainbow)

•The best and most optimized products (premium brands)

Providing RNA monitoring services

Consumer data to be stored (Digital Platform)

Developing and selling health care and beauty products

Example

Recommending products and services based on RNA monitoring

•Identifying potential for allergies (allergy level and affinity)

Salon

Customer

Including those jointly developed with or receiving technological support from Kao

Possibility of precisely diagnosing infant atopic dermatitis (AD)

Kao's initiatives until now

Changes in sebum RNA molecules were detected in **infant atopic dermatitis**
https://www.kao.com/jp/corporate/news/rd/2020/20201016-001/

Exploring key RNA molecules for interpretation

Calculating variable importance with machine learning

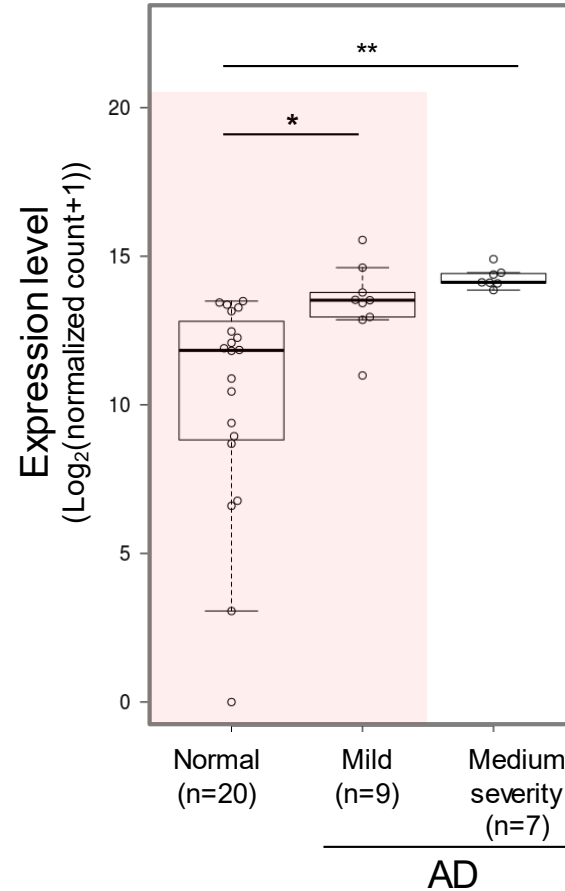High importance = significantly contributes to grouping

No. 1 TARC ▶

Top 50 genes by variable importance

Mean Decrease Accuracy (MDA)
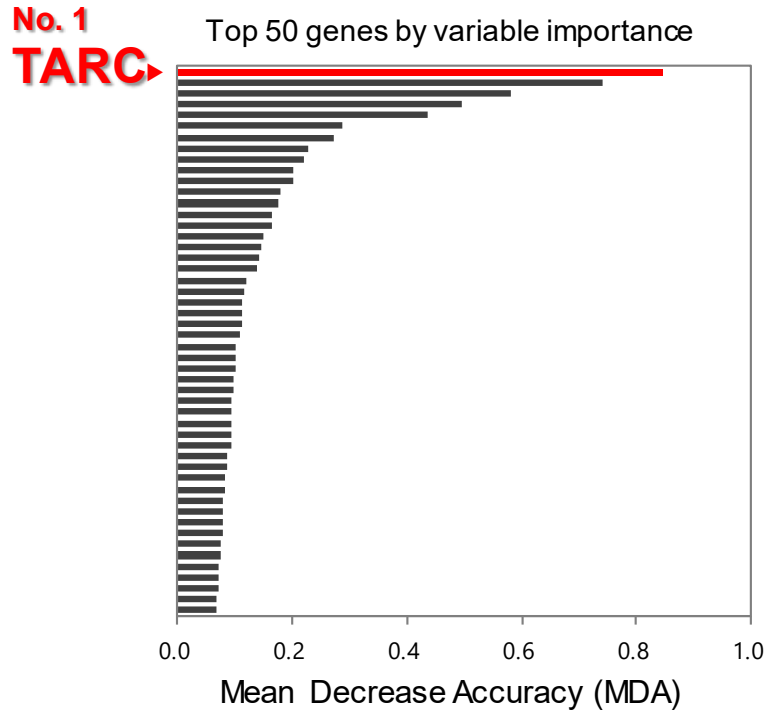
TARC showed largest contribution to the grouping

SSL-TARC mRNA expression level

*p < 0.05, ** p < 0.01 by Tukey's test

Expression level (Log_2(normalized count+1))

Normal (n=20)　Mild (n=9)　Medium severity (n=7)

AD

Successfully detected differences from mild AD too

Accuracy of distinguishing between normal and AD

Threshold 13.5	Forecast class	
	Healthy individuals	AD
Healthy individuals	20	0
AD	4	12

Correct-answer class

Healthy individuals identified: 100%

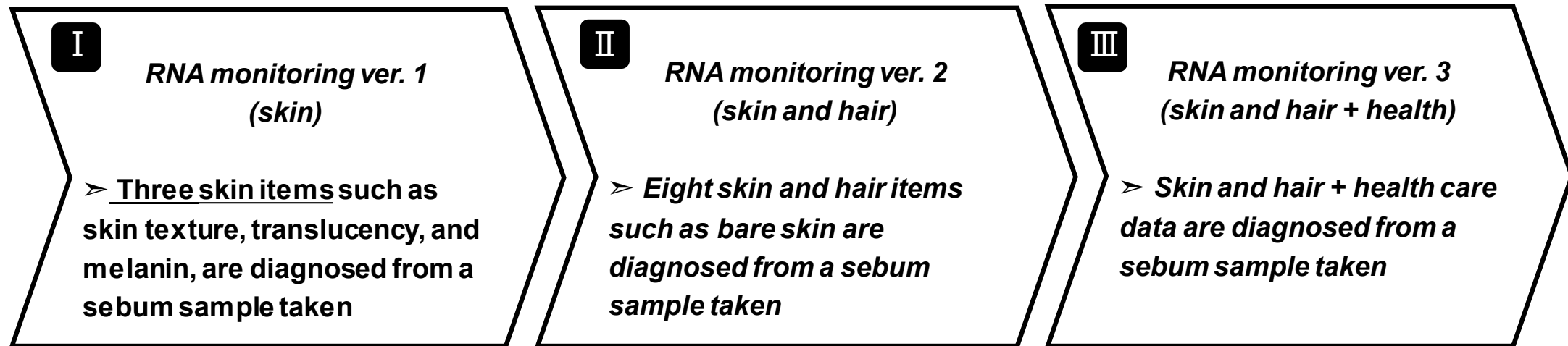**AD identified: 75%**

One of the world's highest levels of precision

Possibility of being able to diagnose AD just with the TARC in sebum RNA

Precision Life Care by stable and quality data

Kao × MILBON

Field testing to start from the health care and beauty domains, including for skin and hair, aiming to expand to hair color allergies, pre-symptomatic states and disease prevention.

From 2022 Field testing started

I
RNA monitoring ver. 1 (skin)

➢ *Three skin items such as skin texture, translucency, and melanin, are diagnosed from a sebum sample taken*

II
RNA monitoring ver. 2 (skin and hair)

➢ *Eight skin and hair items such as bare skin are diagnosed from a sebum sample taken*

III
RNA monitoring ver. 3 (skin and hair + health)

➢ *Skin and hair + health care data are diagnosed from a sebum sample taken*

Precise product recommendations based on RNA monitoring

Milbon's health care and beauty products

Kao to develop products and provide technological support

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a manufacturer of products for hair salons

NTT docomo

Initiatives with a telecommunications company

Toward **Precision Life Care** **(Life, Everyday lives, Ecology)** which provides solutions that are optimized for each person

General purpose
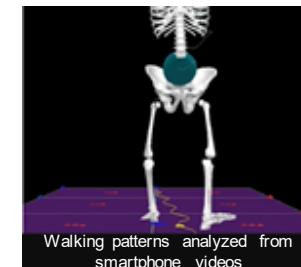
Virtual Human Body Generative Model

A diverse range of items are comprehensively estimated

+

Precision

Precision monitoring

Sebum-removal film

Sebum RNA monitoring

RNA

Walking patterns analyzed from smartphone videos

Future technologies enabling observation of inner skin without cutting in

CT-Skin

Analyzing inner skin without cutting in
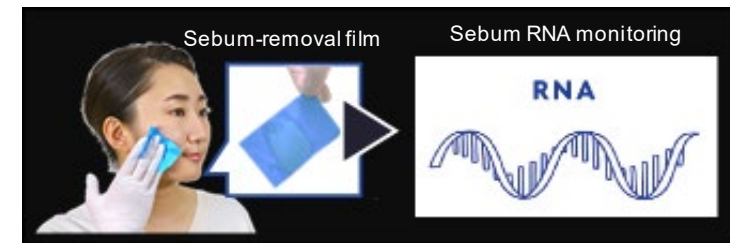
Precisely identifies the state of an individual

Core technologies for Precision Life Care

KaO × **docomo**

[Virtual Human Body Generative Model x d Health care app]
Optimized health care solutions for each person

Health care apps **today**

- **Users do not know which one of** the various products and services **suits me**

- **Users cannot continue using the product or service** until I see results. If I cannot continue using them, there will be no results, which will create a vicious cycle

- **Enclosing our customers** could eventually narrow down the range of solutions

Ideal Life Care apps

- The user can select the **products and services he/she/they wants** just using a smartphone, **judging from many angles and related elements**

- Aiming for solutions **that can be continued daily** through close user touchpoints (collaborating with d Health care app)

- The apps will be applicable to not just us but **wide-ranging companies**

Smartphones as a platform for data aggregation and value models

Consumers

Apps

Optimized matching

Solutions
(products and services)

Precision monitoring

The mental, physical and lifestyle
data is obtained

| Medical checkups | Movements Walking | Facial expressions, Speech | Bloodstream, Foul odor |

Precision solutions

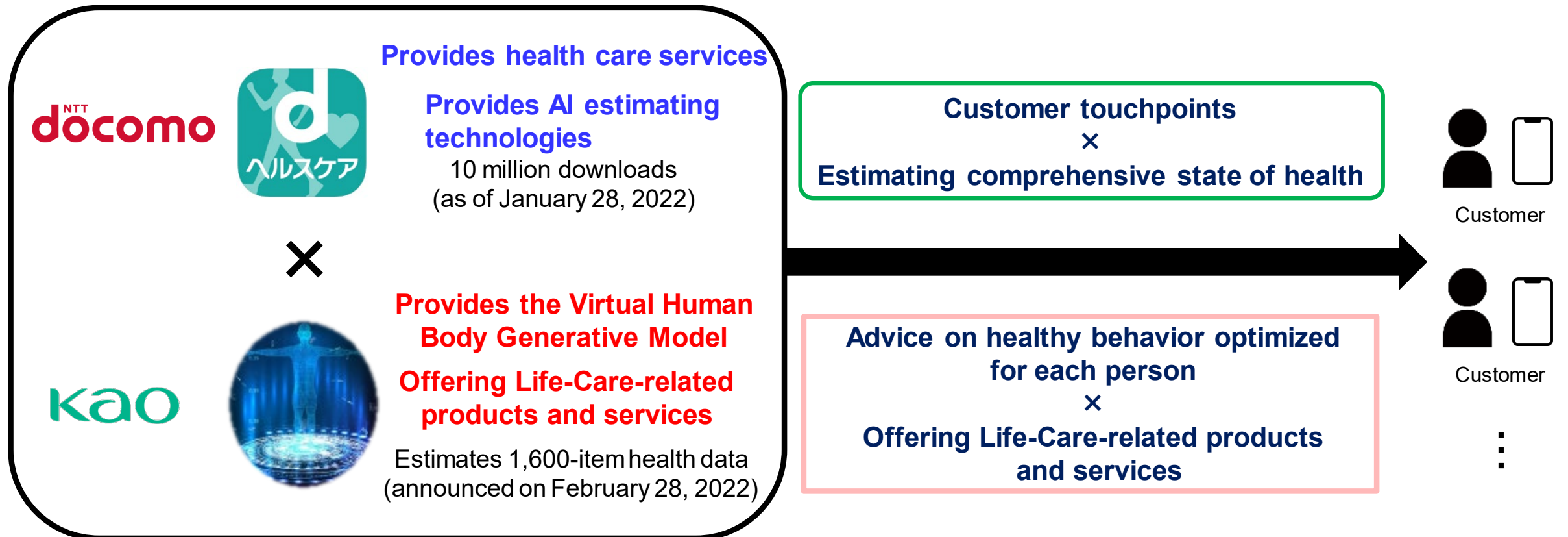## The best solutions are matched
and delivered

| Diet | Exercise | Cosmetics care | Pharmaceuticals |

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Case examples

Kao × **docomo** (NTT)

Providing health care solutions optimized for each person, by combining Kao's "Virtual Human Body Generative Model" (*) **and docomo's "d Health care" app and digital technologies**

Provides health care services

docomo (NTT) / d ヘルスケア

Provides AI estimating technologies
10 million downloads
(as of January 28, 2022)

×

Provides the Virtual Human Body Generative Model

Offering Life-Care-related products and services

Kao

Estimates 1,600-item health data
(announced on February 28, 2022)

**Customer touchpoints
×
Estimating comprehensive state of health**

Customer

**Advice on healthy behavior optimized for each person
×
Offering Life-Care-related products and services**

Customer

⋮

* Jointly developed by Kao and Preferred Networks

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Aiming for **Precision Life Care** **(Life, Everyday lives, Ecology)** that proposes optimized solutions for **unresolved issues**

Monitoring

Precision monitoring

- **Human body**

- **Activities**

- **Environment**

Causes are **precisely** identified

→
←

Products

Precision solutions

- **Beauty and health products**

- **Consumer products**

- **Industrial domains**

Causes are **appropriately** resolved

Industrial domains for Precision Life Care

Aiming for **Precision Life Care** **(Life, Everyday lives, Ecology)** that proposes optimized solutions for **unresolved issues**

Monitoring

Precision monitoring

1. Pavements: Health status of pavements

2. Agriculture: Early detection of ill health

3. Infections: Identifying infected areas

Products

Precision solutions

1. Pavements: Selecting **high-durability pavements**

Chemical Business: Asphalt paving using waste PET

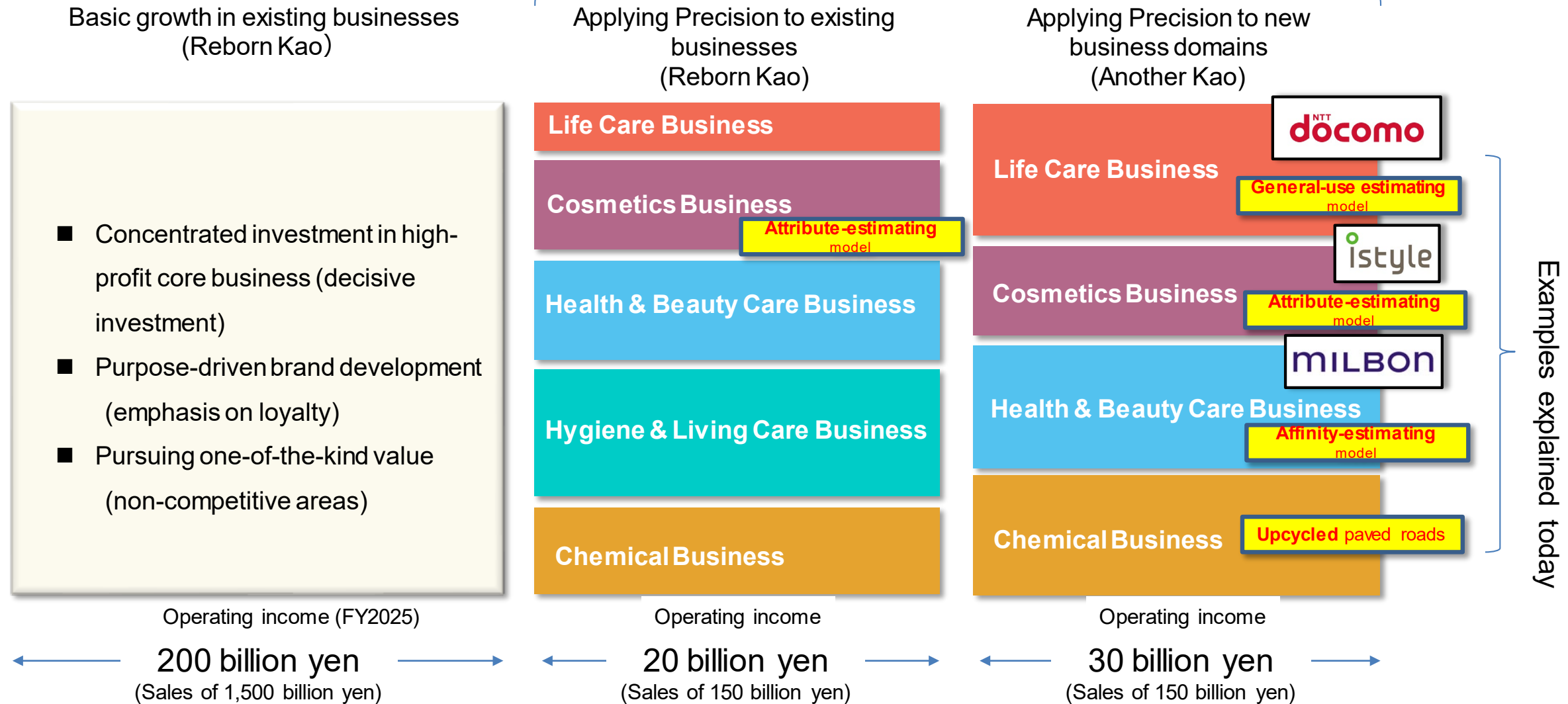**2. Agriculture: Intensive pest control** with predictive spraying

Chemical Business: Super pesticide-reduced agro-chemicals

3. Infections: Advanced **prevention and hygiene**

Commercial-use products and consumer product businesses: Controlling pandemics

Benchmarks for Reborn Kao in K25 (Forecast excluding "Another Kao")

Stable Earnings
High-profit core business/contribution to profit

Fabric care Home care

Personal health

FY2019 → K25
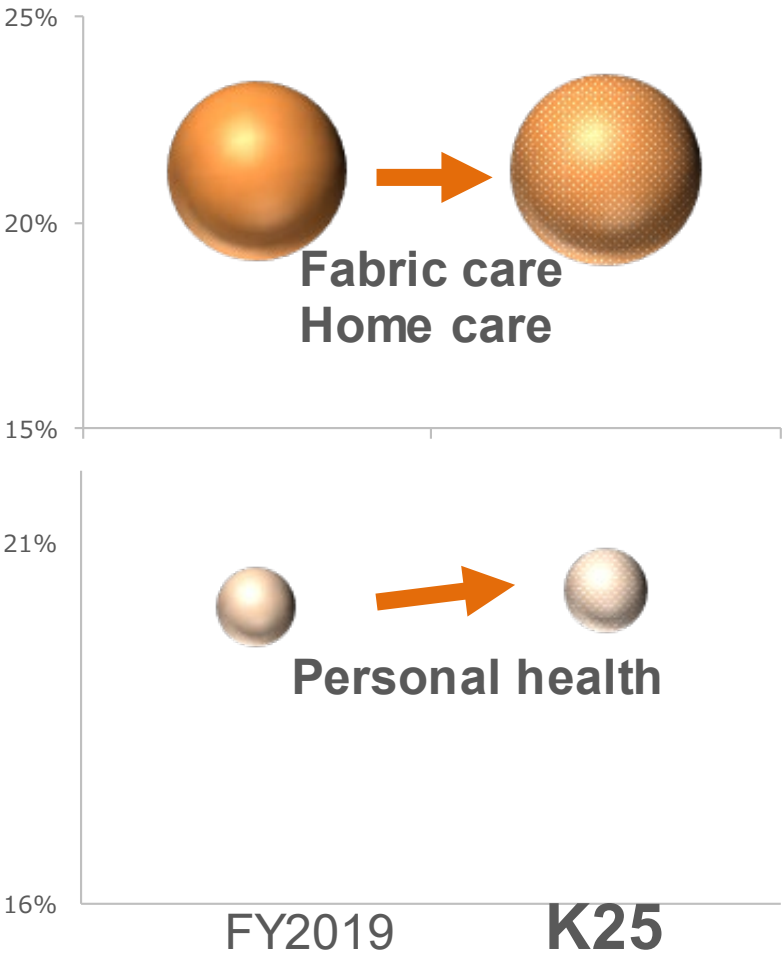
Growth Driver
Sales and profit expansion through investment

Chemical

Cosmetics

Skin care

FY2019 → K25
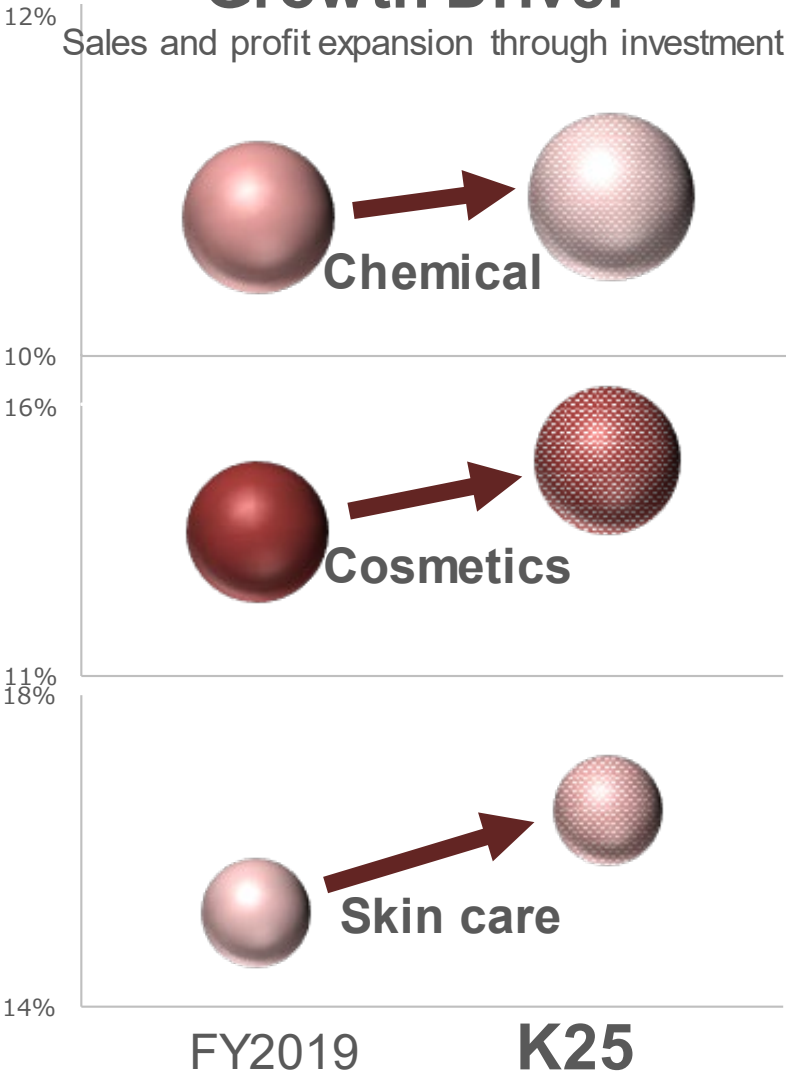
Business Transformation
One-of-a-kind value

Hair care

Products for hair salons

Sanitary products

FY2019 → K25
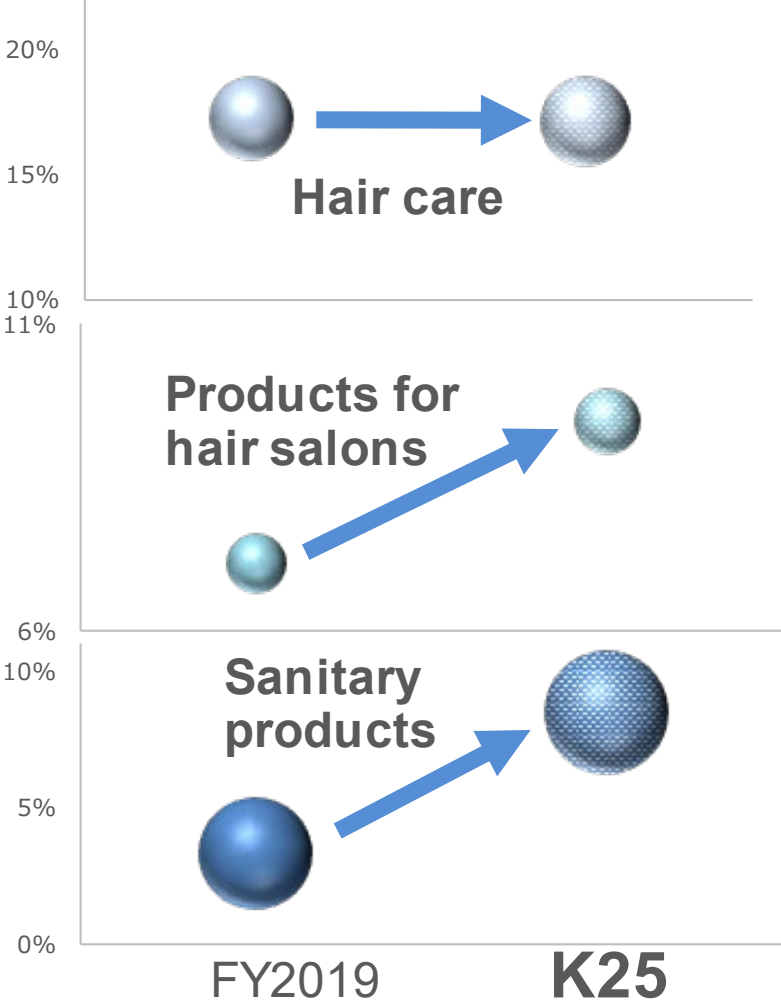
Vertical axis: Operating margin/Bubble size: Net sales (scale adjusted for each area)

Note: Fiscal 2019 was used as the base year to eliminate the special factor of the COVID-19 pandemic.

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Roadmap for Achieving K25

With EVA bottoming out in FY2021, return it to a growth trajectory by achieving K25

EVA (Billion yen)

- 90.4
- 93.5
- 87.4
- 62.3
- 45.1
- 100.0

Hikes in raw material prices

Political unrest

COVID-19

Ⓐ Ⓑ Ⓒ

Another Kao

Reborn Kao

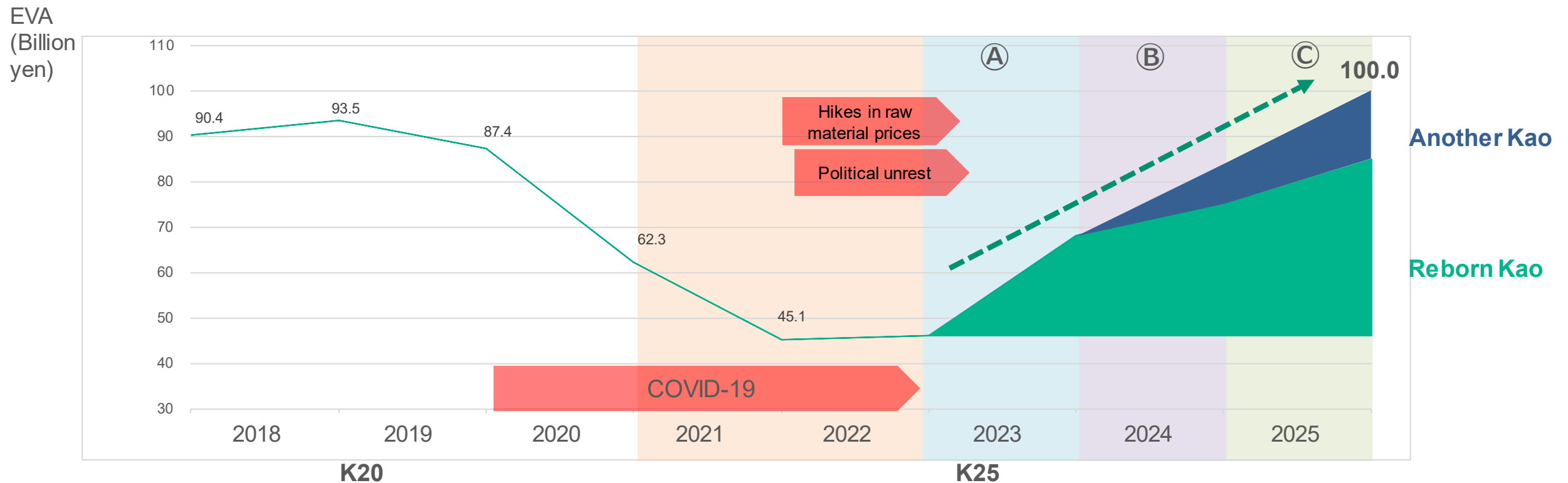2018 2019 2020 2021 2022 2023 2024 2025

K20   **K25**

Preparation period for regeneration
- Reorganization for a highly profitable structure
- Launch of Another Kao

Ⓐ **Entrench Reborn Kao**
- Reinforcement of core business + selective growth

Establish Another Kao
- Launch future core businesses
- Conduct M&A to develop new areas

Ⓑ **Extend Reborn Kao**
- Phase 2 of strategies for return to growth
- Conduct M&A for growth in existing areas

Generate results from Another Kao
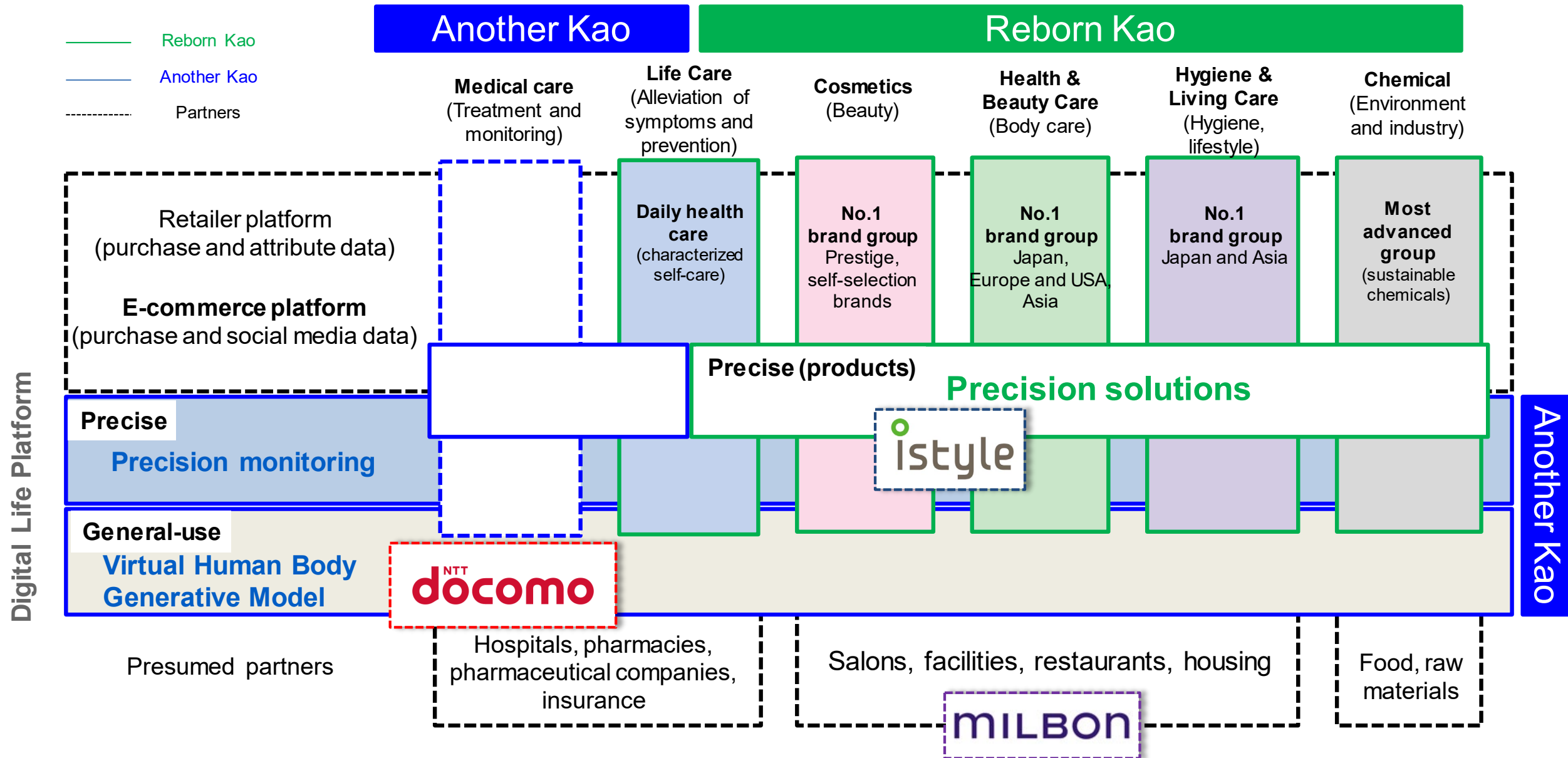- Phase 2 of growth strategy

Ⓒ **Leverage synergies between Reborn Kao and Another Kao**
- Phase 3 of growth strategy

Conduct M&A targeting companies with 100-200 billion yen in sales and an operating margin above 20%

Reborn Kao
Another Kao
Partners

Another Kao

Reborn Kao

| Medical care (Treatment and monitoring) | Life Care (Alleviation of symptoms and prevention) | Cosmetics (Beauty) | Health & Beauty Care (Body care) | Hygiene & Living Care (Hygiene, lifestyle) | Chemical (Environment and industry) |

Digital Life Platform

Retailer platform (purchase and attribute data)

E-commerce platform (purchase and social media data)

Daily health care (characterized self-care)

No.1 brand group Prestige, self-selection brands

No.1 brand group Japan, Europe and USA, Asia

No.1 brand group Japan and Asia

Most advanced group (sustainable chemicals)

Precise (products)

Precision solutions

istyle

Precise

Precision monitoring

General-use

Virtual Human Body Generative Model

Another Kao

NTT docomo

Presumed partners

Hospitals, pharmacies, pharmaceutical companies, insurance

Salons, facilities, restaurants, housing

Food, raw materials

miLBON

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Aiming for a **"World of precision"** in which **many authentic products and services** can contribute to helping people share **the truth** and meet their **personal best**

Precision monitoring

Unarguably fair and socially beneficial

benchmark

Identifying the cause **precisely**

Precision solutions

Socially beneficial and waste-free, best

solutions

Solving the cause **appropriately**