

**AsahiKASEI**



Intellectual and  
Intangible Asset  
Governance Guidelines

# Intellectual Property Report 2025

Asahi Kasei Group

**Asahi Kasei Corporation**



**We, the Asahi Kasei Group,  
contribute to life and living for  
people around the world.**

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### Note

The scope of this report is Asahi Kasei Corp. and its consolidated subsidiaries.

The plans, forecasts, and strategies described in this report are based on information available at the time of its preparation and represent our future outlook. These plans are reviewed based on changes in the business environment and progress in technological innovation, and do not represent a commitment or guarantee of future plans or results.

# Message from the President

With the issuance of the Asahi Kasei Group's Intellectual Property Report 2025, I would like to convey my heartfelt greetings.

This fiscal year, the Asahi Kasei Group launched a new Medium-term Management Plan (MTP) "Trailblaze Together" for the 3-year period to fiscal 2027. Building on the challenges and results of the previous MTP, we will accelerate initiatives to open new paths in concert for enhanced corporate value toward 2030.

In the new MTP, we will further leverage Asahi Kasei's strengths of "Diversity × Specialty" for profit growth and improved capital efficiency. Particularly in the Material sector, we are moving beyond the conventional capital-intensive growth model and transitioning to an asset-light, high value-added business model. Our intellectual property and other intangible assets play a central role in this transformation.

Each wielding their own expertise, our Corporate IP and our Intellectual Property Intelligence Department work together in IP activities that contribute to value creation. Corporate IP supports business superiority by obtaining rights from the results of R&D and by advancing a "value maximization cycle" that connects to business. The Intellectual Property Intelligence Department enhances its role as an intelligence function supporting management decision-making through strategy proposals utilizing IP Landscaping (IPL), contributes to enhanced management judgment. The "Specialty" of Asahi Kasei's IP is formed through coordination between these two organizations with different functions.

Our IP know-how is shared across the three sectors of Healthcare, Homes, and Material as we advance flexible IP strategies in line with the transformation of our business portfolio. Based on our track record, we have built a foundation for sharing and applying IP and know-how across the different sectors, which connects to the "Diversity" that allows us to adapt to various business environments.

In this report, we describe how Asahi Kasei's IP activities contribute to the creation of corporate value with concrete examples. I hope that the report will help to deepen your understanding of Asahi Kasei's IP strategy.

President and Representative Director

**Koshiro Kudo**



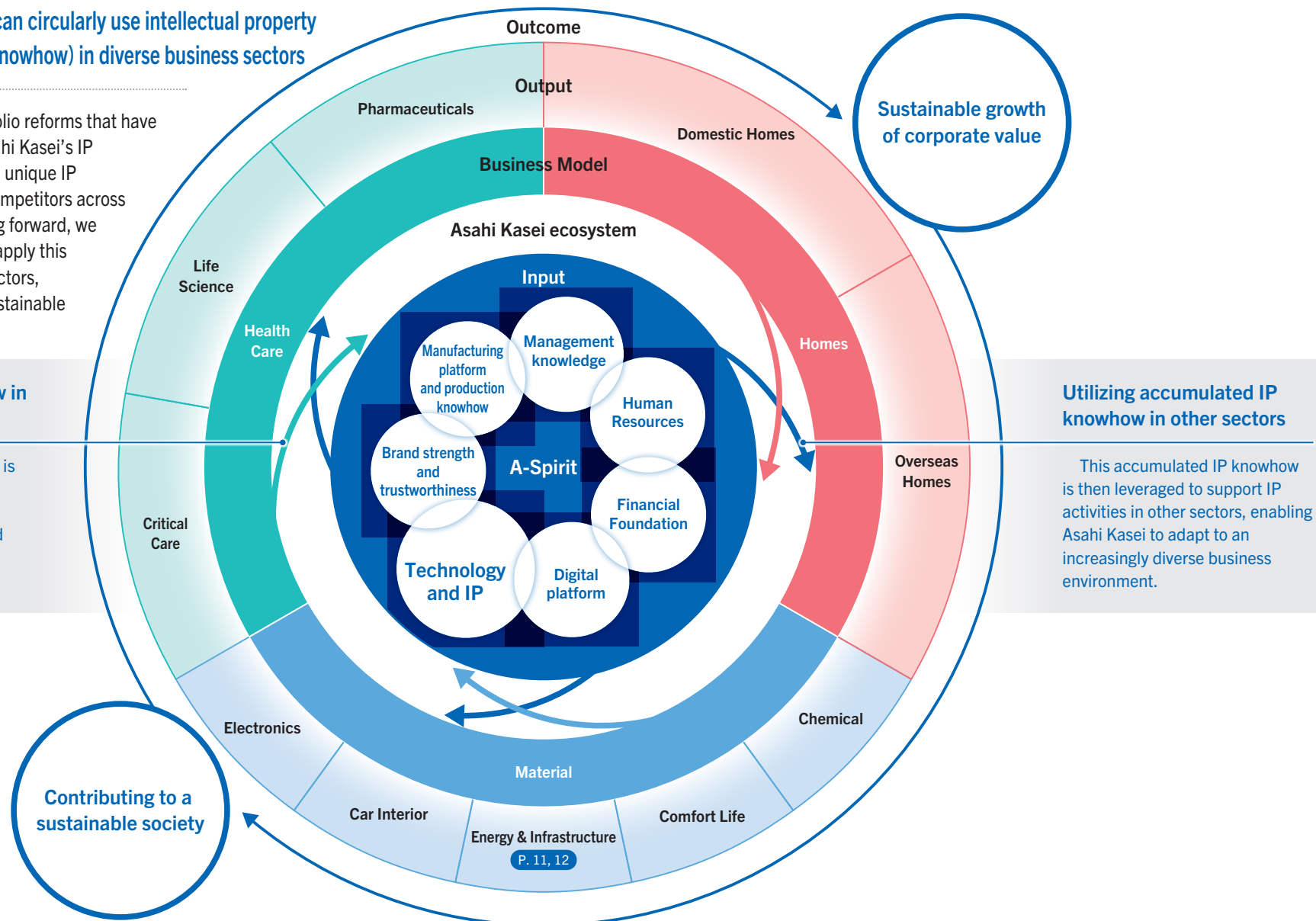
# Position of IP Within the Value Creation Model

## An IP organization that can circularly use intellectual property activities knowhow (IP knowhow) in diverse business sectors

Through the business portfolio reforms that have been undertaken thus far, Asahi Kasei's IP organization has accumulated unique IP knowhow not possessed by competitors across diverse business sectors. Going forward, we will continue to circulate and apply this diverse IP knowhow across sectors, thereby contributing to the sustainable growth of our corporate value.

## Accumulating IP knowhow in diverse sectors

Because our IP organization is consolidated at Corporate, IP knowhow cultivated in each sector is also accumulated and shared at the Corporate level.

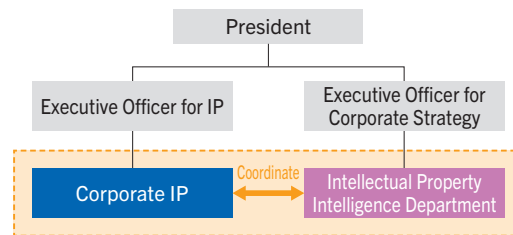


# Intellectual Property of the Asahi Kasei Group

## Activities of Our IP Organization

Our Company's IP organization comprises two bodies: Corporate IP, which is established under the Executive Officer for IP, and the Intellectual Property Intelligence Department, which is established under the Executive Officer for Corporate Strategy. These bodies cooperate under the mission of protecting profits and maximizing corporate value by providing support corresponding to evolving business environments with IP expertise.

IP Organization



## Activities to maximize our IP value

To contribute to the formulation of management and business strategy, the Intellectual Property Intelligence Department conducts business and IP information analysis, using IP and incorporating technology, and formulates and proposes strategies based on the interpretation of these results. The “technology-based strategy proposals” made by the Intellectual Property Intelligence Department contribute to higher level decision-making by offering technological perspectives to our management. Furthermore, by making strategy proposals that combine strategies to utilize our IP and intangible assets, we aim to maximize the value of that IP and intangible assets.

Corporate IP receives these proposals and formulates the necessary IP strategies to contribute to realizing our business strategy. By promoting a “value maximization cycle” to steadily implement our IP strategy together with the business departments, we contribute to maximizing the value of our IP and intangible assets.

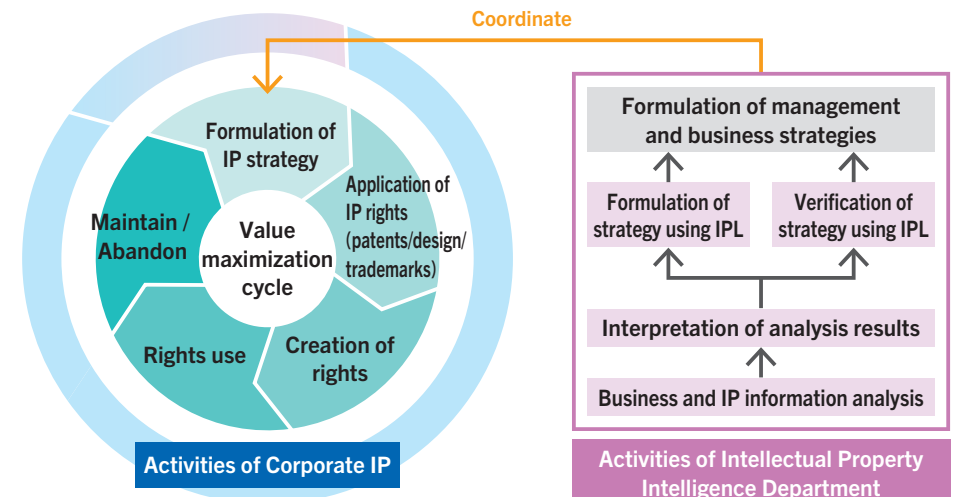
## Mission of Corporate IP

Corporate IP aims to strengthen the following focus activities.

0. Contributing to the formulation of business strategies and IP strategy
1. Construction of an IP network that contributes to businesses based on a scenario for IP rights utilization
2. IP clearance to protect business execution
3. Implementation of IP activities to support globalization of businesses
4. Contribution to business innovation, from the perspective of IP, by digital transformation
5. Implementation of systematic human resource development plans over the medium- to long-term

## Mission of the Intellectual Property Intelligence Department

Our Intellectual Property Intelligence Department acts as the core of our IP activities that contribute to our management and business strategy formulation and operates under the slogan “to realize further increase in corporate value through intangible assets.” Using IP Landscaping (IPL) as a tool, we are focused on 1) making IP contributions to our management and business strategy formulation by proposing strategies to utilize our intangible assets, and 2) strengthening relationships with our stakeholders through IP information disclosure.

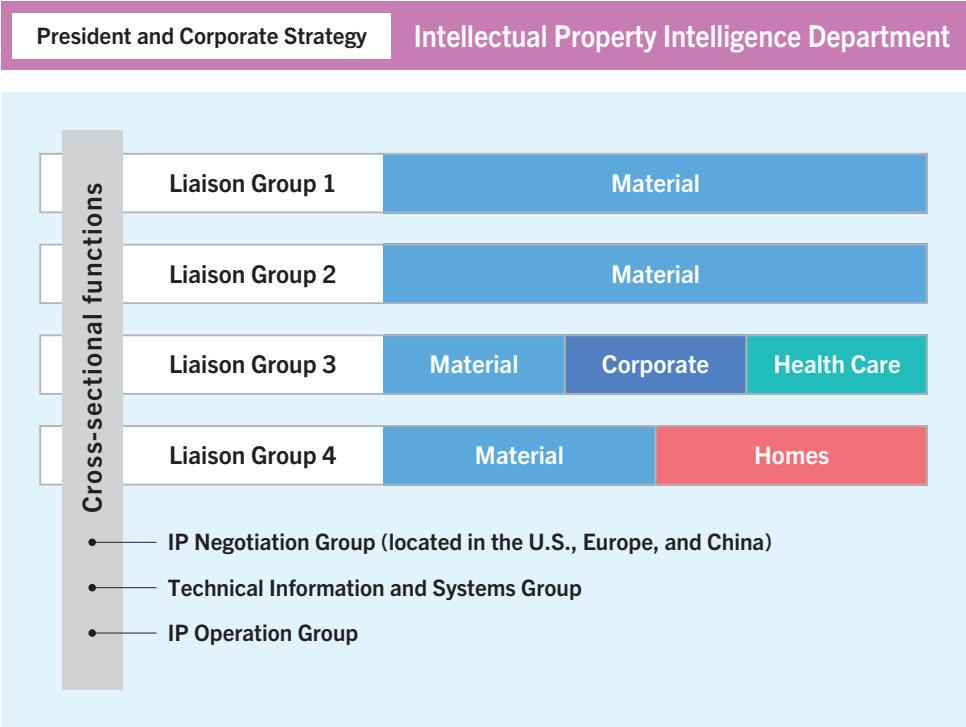


# Value Provision System of Our IP Organization

## IP organization structure

Corporate IP acts as the centralized IP organization for our Head Office divisions in assigning IP specialists to each business department and serving to interconnect our businesses. Through meetings with the leaders of our business departments, our IP personnel look over and review the IP activities of each business department and roll out our unified IP policy to each business department to strengthen IP governance throughout the Group.

The Intellectual Property Intelligence Department, as the body directly under the Executive Officer for Corporate Strategy, has the function of providing analysis results using IPL and incorporating technology mainly to our management. Through this process, we provide an environment in which our management can make effective decisions to ensure that the allocation of management resources, such as investment in intellectual property, and management strategies regarding the business portfolio contribute to Asahi Kasei's growth.



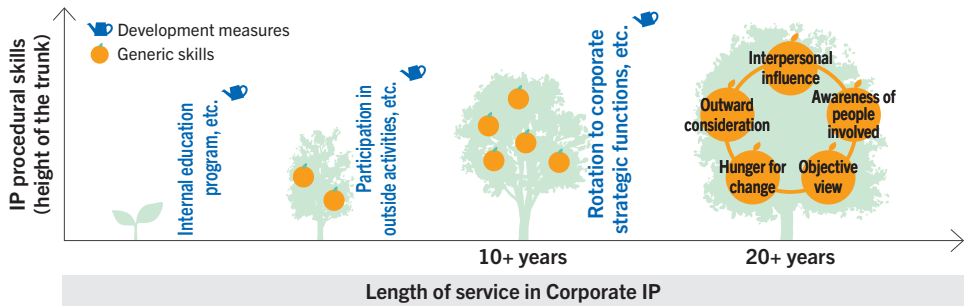
## Development of human resources to support our IP activities

Asahi Kasei's IP activities are supported by the IP personnel that belong to our IP organization and all our employees who create IP and intangible assets. To establish a system that can sustainably carry out our IP activities, we provide education to both Corporate IP members and all employees .

For our Corporate IP members to acquire IP expertise and general skills as IP specialists, we systematically and organizationally implement development measures. We are also working to further streamline and sophisticate our IP activities by promote the utilization of generative AI, which has evolved rapidly in recent years, among our Corporate IP members and IP analysts.

So that all our employees can acquire a level of knowledge that allows them to carry out basic IP activities on their own, we are creating an environment in which employees can learn when needed by providing online training courses.

### Development of Corporate IP members (development of IP specialists)



### Development of all employees (company-wide education)

Target		Group-wide training							Training by business field	
		In-person		E-learning					In-person	
Managers		Strategic Course		DX Inventions	Basic for technical Basic Course	Basic for business	Basic Knowledge	Patent Drafting	DX Inventions Basic Course (Newly established) Copyright Act (Newly established) Unfair Competition Prevention Act	Customized for each business field
Practical-level personnel <small>(including new employees)</small>	Technical	Basic for technical Information Survey Course								
	Clerical/ Technical									
In-person training for new employees		New employee training								

## Intellectual Property Activities as Seen from our Value Creation Model

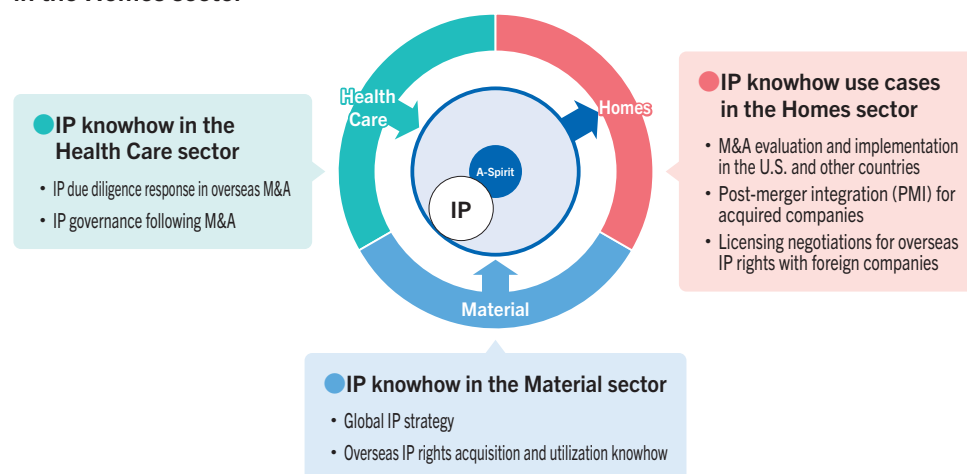
### Level of experience in intellectual property shared across sectors

The IP organization responds to changes in Asahi Kasei's business portfolio and has accumulated high-quality IP knowhow in diverse business sectors. We carry out organizational initiatives to mutually apply and share this IP knowhow across sectors.

One example of these results is the IP activities undertaken when the Homes sector began its overseas business (the investment in McDonald Jones in 2017). Throughout its long history, the Material sector has developed IP knowhow in acquiring and utilizing IP rights to respond to overseas markets, while the Health Care sector has developed IP knowhow in IP due diligence and PMI response in overseas M&A. These are consolidated at Corporate IP, which provides corporate functions. When the Homes sector expanded overseas, we were able to provide high-quality IP activities by reassigning human resources with IP knowhow to the Homes sector and by sharing information.

We are also working to mutually utilize IP knowhow, for example using IP knowhow from the Asian region of the Material sector in the Health Care sector, and toward the cross-sectional development of IP knowhow in the same business sector.

### Examples of IP knowhow in the Health Care sector and Material sector being used in the Homes sector



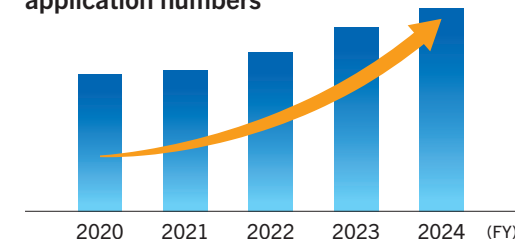
Asahi Kasei's intangible asset strategy includes solution businesses using diverse intangible assets and a licensing businesses. The IP knowhow possessed by Asahi Kasei's IP organization forms the IP foundation that supports businesses using these intangible assets.

### IP foundation for the promotion of our solution businesses

Centered on our products and services backed by superior technological capabilities, we provide solutions that capitalize on our intangible assets to address customer issues. A business model using DX technology is essential in providing these solutions.

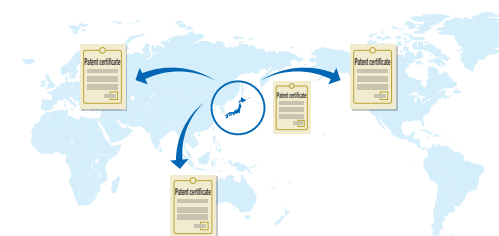
To strengthen DX-related patents, Corporate IP has created a specialized internal DX-related patent team, worked to improve the quality of Asahi Kasei's patents, and shared this initiative throughout the Company. As a result, the number of our DX-related patent applications has increased, and we will move forward with building the IP foundation for our solution businesses.

Trend in Asahi Kasei's DX-related patent application numbers



### IP foundation to promote licensing businesses

Asahi Kasei has a track record of realizing global IP licensing in diverse business sectors. This negotiating experience and ability to implement IP licensing represent an IP foundation that can be utilized in promoting future licensing businesses and building an appropriate IP network to realize those licensing businesses.



# The Process from IP Activities to Corporate Value Increase

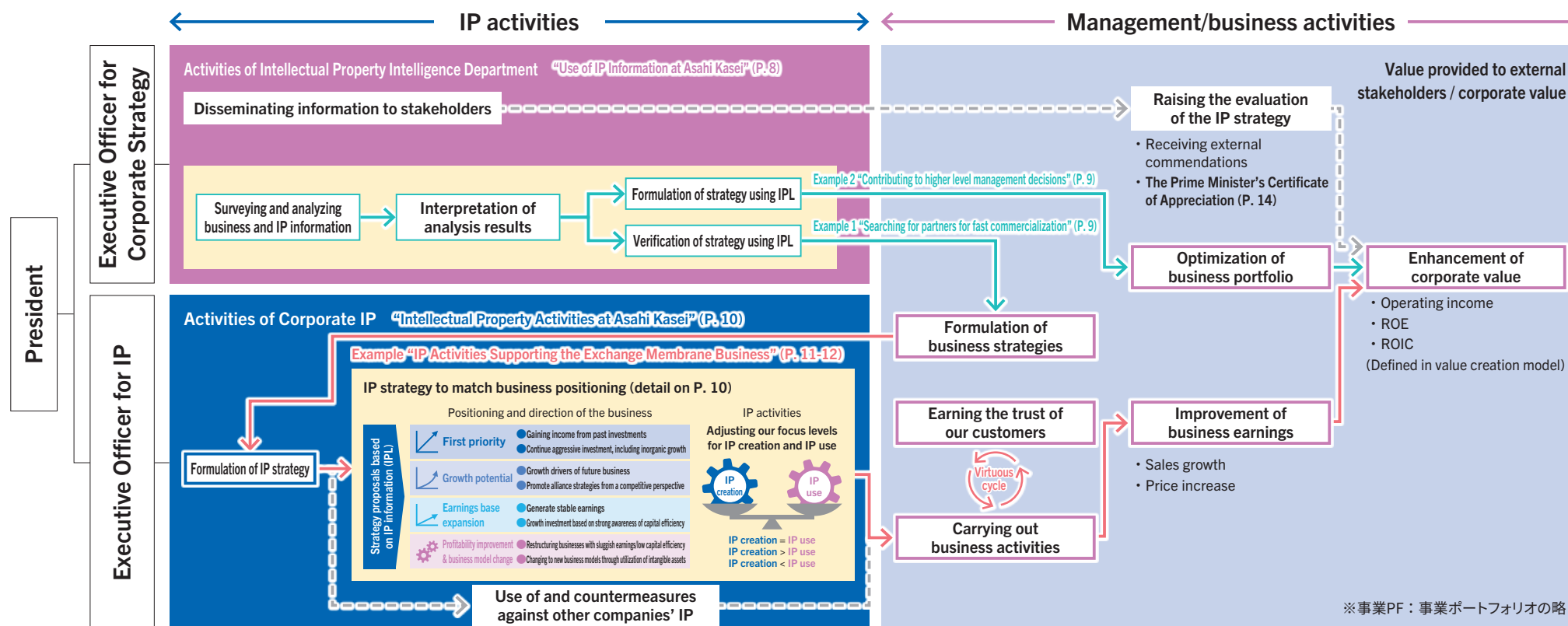
Activities related to IP and intangible assets (intellectual property activities) based on the mission of our IP organization are connected to corporate value through various business activities. To illuminate how this connection exists and contributes to increased corporate value, we have mapped out the process from our IP activities to increased corporate value (corporate value improvement process).

By examining our corporate value improvement process, it has become clear that our IP activities have a structure that contributes to improving our corporate value through management decisions and business activities. On the other hand, the process structure that leads from intellectual property activities to increased corporate value differs by business sector, meaning IP activities that fit each set of business activities are required.

## Verification of the process of increasing corporate value

To deepen understanding about this process, we have provided actual business examples and verified specifically how IP activities contribute to them.

By increasing the value provided to our customers through the formulation and implementation of our businesses strategies, we have earned both customer satisfaction and trust in Asahi Kasei, forming a virtuous cycle that leads to the acquisition of further business opportunities. By protecting our IP and intangible assets, our IP activities contribute to maintaining and expanding this virtuous cycle.





# Use of IP Information at Asahi Kasei

## IPL contributing to the formulation of business strategies

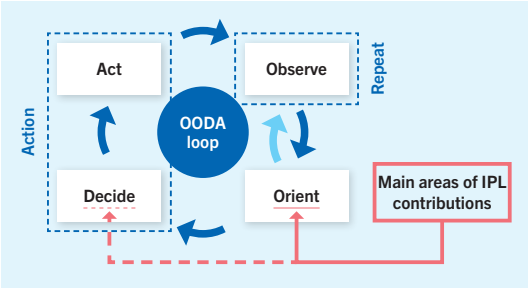
The Intellectual Property Intelligence Department provides high-level analysis and recommendations that directly inform management decisions and business strategy. At Asahi Kasei, which is engaged in a range of diverse businesses, we promote strategy formulation from an IP perspective centered on IP Landscaping (IPL) to address multi-dimensional challenges such as growth potential, profitability, and market competitiveness. By integrating internal and external technological and market data and combining quantitative analysis and qualitative analysis, we perform multi-faceted evaluations of internal and external technical information—including that of customers, markets, competitors, and co-creators—to make strategy proposals.

## Setting KPI to improve IPL output

We have set the two KPI of “action rate” and “repeat rate” as indicators that measure whether IPL output is actually contributing to enhanced corporate value and business value. By setting these specific target values, we are aiming for high-level contributions in terms of quality as well as quantity (number of projects). In designing KPI, we include the repeated OODA loop approach from fact-finding through action-taking.

IPL is mainly used in assessing conditions in management and business, and where its output connects directly to the next step of decision-making or implementation of measures, the results are assessed in terms of the “action rate.” Where we receive a request again from a business or division with which we have previously interacted, we consider this proof that our past proposal or analysis was positively received and assess the results in terms of the “repeat rate.” We monitor progress continuously throughout the year, and by creating measures for improvement where necessary, we continuously provide value.

Approach to IPL-related KPI  
Consideration based on the OODA loop



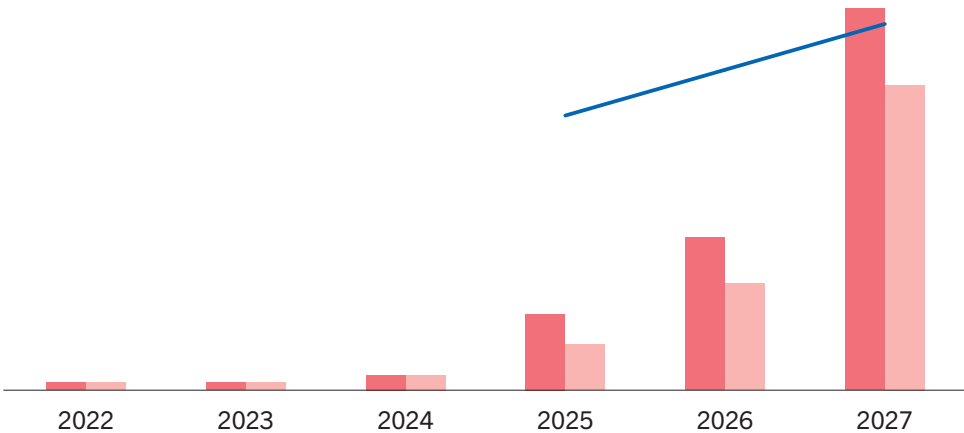
## Strengthening the functions of our management staff (intelligence) through IPL

Our IPL activities can be broadly divided into two types of activities. The first format involves cases where we receive a request originating from a frontline division, and the second format involves cases where the Intellectual Property Intelligence Department assesses conditions independently and proactively provides information. The second format plays an important role in early identification of signs of change and proactive strategy proposals.

The Intellectual Property Intelligence Department coordinates closely with our management planning functions and is working to expand information provision to our management (intelligence functions), as these opportunities for contribution had been limited in the past. We set IPL-related KPI and individual indicators related to intelligence functions. To achieve these KPI, rather than only waiting for requests from the management class, it is essential that we take a proactive approach by envisioning changes that could occur in the future, identifying issues, and taking proactive action. Through these initiatives, we will contribute to the further enhancement of our corporate value.

## KPI for intelligence function-related IPL

■ Number of IPL analyses conducted ■ Number of actions — Action rate



## Examples of Contributions through IPL

### Business contributions Partner identification for early commercialization

To realize our medium-term management plan, the early commercialization of businesses positioned for strategic development is essential. By using intangible assets, the Intellectual Property Intelligence Department contributes to accelerating the growth of these strategically developed businesses by leveraging intangible assets to both speed up new business creation and promote the development of asset-light businesses that limit investment in tangible assets.

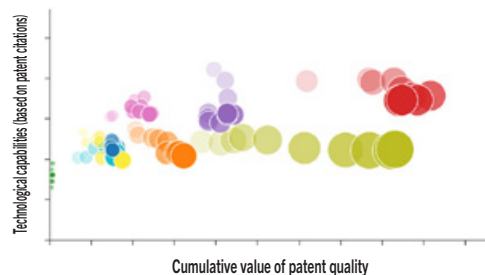
For example, in creating the strategy for our hydrogen-related business (water electrolysis), we organized the value chain for this business and evaluated the technological capabilities of upstream and downstream players (potential partners) through IPL. Based on these evaluations, we proposed upstream and downstream partners that would enable the business to be commercialized quickly.

Furthermore, by analyzing the patent portfolios of companies competing with Asahi Kasei in the water electrolysis business, we generate hypotheses regarding their development and business strategies and make strategy proposals that leverage Asahi Kasei's strengths in the water electrolysis business.

#### Hydrogen-related business value chain

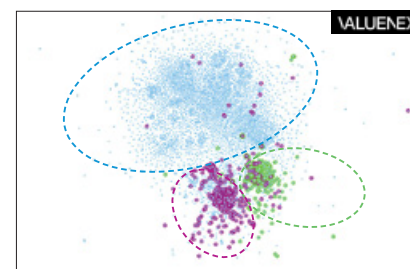


#### Evaluating the technological capabilities of partner candidates



Note: Calculated by Asahi Kasei using PatentSight+

#### Analysis of the business strategies of competitive players



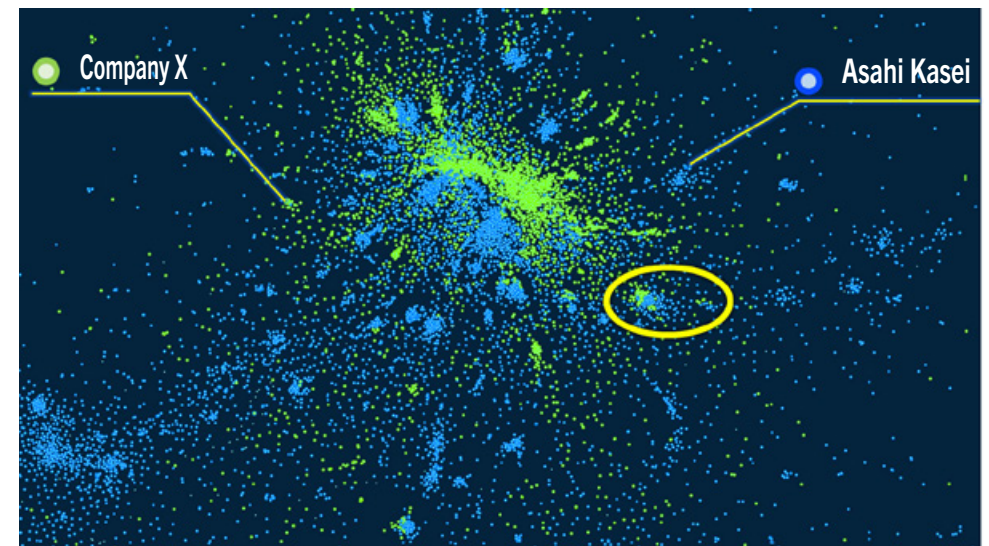
Note: Created by Asahi Kasei using VALUENEX Radar

### Improving management Contribution to enhancing management decision-making

The figure below is an overview visualizing the patents of Asahi Kasei and Company X created using a text-mining method. Each dot represents one patent, and the distance between dots represents the degree of similarity between patents. Areas in which dots are concentrated correspond to technology domains (i.e., businesses) with a high degree of similarity. In this case, the patents of the two companies formed an integrated cluster in the technology domain related to nonwovens, and by further examining the patents in this domain, we were able to clarify that the nonwovens field represents a synergy area for both companies.

Furthermore, by analyzing the nonwoven-related technological capabilities of both companies (patent scores), we were able to demonstrate that collaboration between the two companies could enable them to achieve a high level of competitiveness in the market. Based on the results of this analysis, we were able to demonstrate to management that, from an IP standpoint, the establishment of a joint venture with Company X in the nonwovens field was a highly promising option.

#### IPL related to the spunbond nonwovens business



Note: Created by Asahi Kasei using VALUENEX Radar

# Intellectual Property Activities at Asahi Kasei



As a unified group of IP specialists, Corporate IP and the Intellectual Property Intelligence Department cooperate to continuously support increasingly sophisticated businesses and engage in activities aimed at generating business profits.

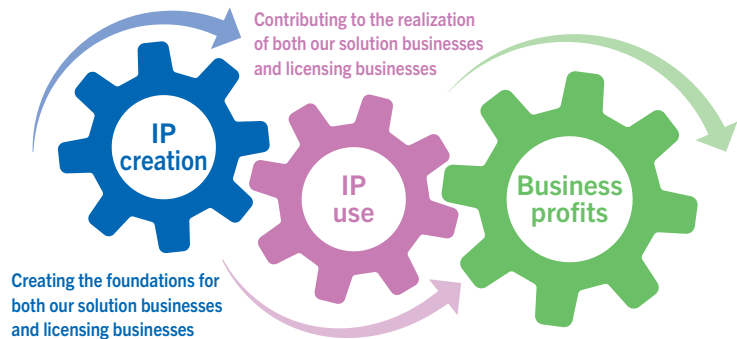
## Maximizing business value through IP creation and IP use

By incorporating the technologies generated through research and development into our strategic IP activities, we translate these technologies into greater business value and profits. It is important to formulate and implement an IP strategy composed of both “IP creation” in which IP rights are secured from R&D results with future application scenarios in mind, and “IP use,” in which those IP rights are applied directly to concrete business activities.

Both “solution businesses,” which leverage intangible assets, and “licensing businesses” at Asahi Kasei rely on IP creation and IP use as essential components. In our solution businesses, we create IP rights early and from multiple angles to secure target markets, and apply IP rights that help resolve customer issues to establish our competitiveness. Meanwhile, in our licensing businesses, we are reviewing whether our existing IP rights are suitable for licensing, create additional IP where necessary, and implement IP utilization through exclusive and non-exclusive licenses.

In this way, by taking into account the lifecycles of individual businesses and the backgrounds of the target markets for licensing, we combine IP creation and IP use in a manner appropriate to each situation and promote an optimal balance, which is the key to maximizing business profits.

Image of how IP creation and IP use together lead to business profits



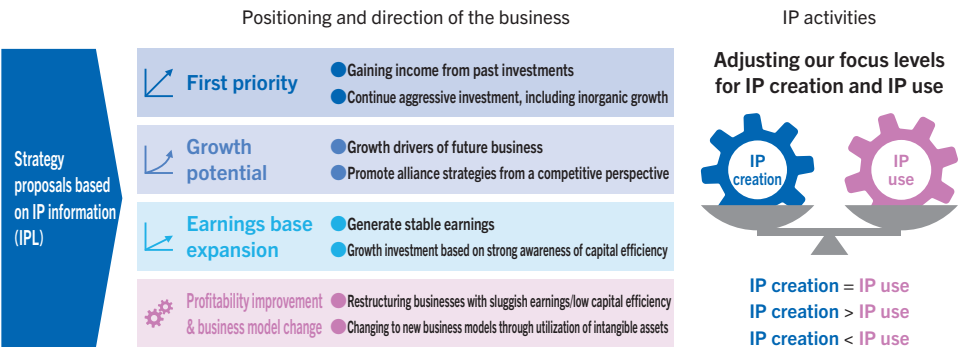
## Formulating a flexible IP strategy based on the positioning and direction of the business

Asahi Kasei is engaged in a wide range of businesses, and the positioning and direction of each business differ. At Asahi Kasei, in addition to considering the positioning and direction of each business, we take into account factors such as technological trends, market scale, and competitive structure, and design the optimal balance between IP creation and IP use to build flexible IP strategies. The chart below shows how IPL contributes to evaluating business positioning and direction, as well as the corresponding IP strategies, including the balance between IP creation and IP use.

For example, for businesses positioned as priority growth areas, we must focus on both IP creation and IP use. This process contributes to continuous business growth through contributions to business profit by maximizing profit based on IP rights created from past investment through IP use and by reliably linking the IP and intangible assets generated through proactive investment to future business profits through IP creation, thereby contributing to continuous business growth. Furthermore, strategy proposals from technological perspectives based on IPL contribute to more advanced investment decisions that enable inorganic growth.

Moreover, for businesses positioned to maintain and expand our earnings base, IP use helps maintain profitability and prevents competitor entry, thereby contributing to securing of stable revenue.

Image of IP activities based on the positioning and direction of the business



## Path to Success of the Ion-Exchange Membrane Business

In the ion-exchange membrane business, for many years we have provided high electrolysis efficiency and stability as a one-stop solution.

In recent years, by further evolving our after-sales service program, we have expanded our business beyond product sales into the service sector with the goal of enhancing both market competitiveness and customer value.

### The most venerable supplier and the only provider of one-stop solutions for chlor-alkali electrolysis

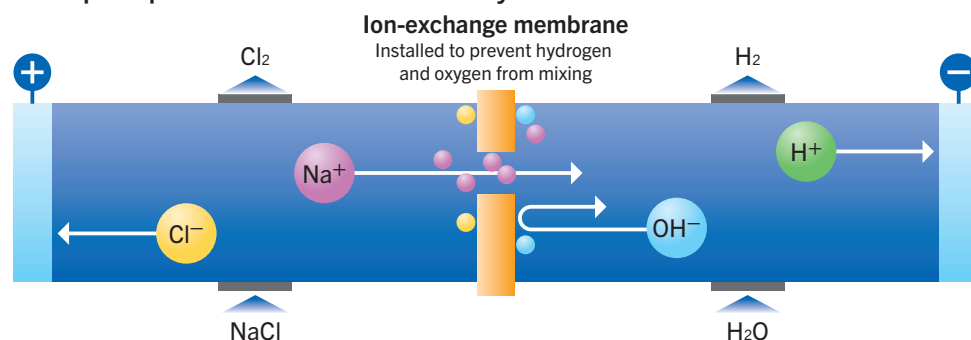
The ion-exchange membrane process for chlor-alkali electrolysis is a clean technology with a low environmental burden that produces basic chemicals such as caustic soda (NaOH) and chlorine (Cl<sub>2</sub>) through the electrolysis of brine (aqueous NaCl solution). Asahi Kasei developed this technology independently and was the first in the world to succeed in commercial operation. Asahi Kasei currently manufactures both chlor-alkali electrolysis systems and ion-exchange membranes, which are at the core, and is the only company that can supply everything needed for the chlor-alkali electrolysis process.

Through our in-house, one-stop chlor-alkali electrolysis process that includes development, manufacture, and sale, we are able to optimize the entire process and realize both high electrolytic efficiency and stable operation. Through this one-stop solution with a 50-year history we have built strong relationships of trust with our customers.

To further strengthen these relationships of trust, we formulated a logo and brand that are inspired by our strong determination to deliver “chlor-alkali solutions that bring customers, markets, and the world together” as we strive to increase the name recognition of our services.



### Basic principles of our chlor-alkali electrolysis



### Evolving our ion-exchange membrane business through our after-sales service program

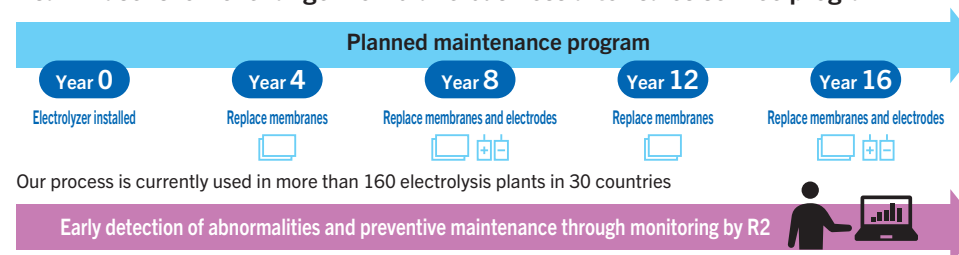
The main trend in the market has conventionally been to compete on electrolysis efficiency and performance stability of the main individual products, including membranes, electrodes, and cells. However, one of the most important points of value for customers is how much caustic soda an electrolyzer can produce in a year. Asahi Kasei has revisited this point, and rather than limiting ourselves to the performance of the individual main products, we have focused on the overall electrolysis efficiency of the entire chlor-alkali electrolysis process, in other words, “total electrolysis efficiency.” Based on this approach, we are expanding from providing the main products used in the process to improving our after-sales service program to comprehensively improve productivity for our customers.

Furthermore, making the most of R2 joining the Asahi Kasei Group, we have begun strengthening initiatives to support the maximization of total electrolysis efficiency, including a cell rental service and operating condition optimization services. Through these initiatives, we are now able to provide our customers concrete economic value, including increased operating efficiency and reduced energy costs.

Our comprehensive ability to develop and manufacture all three main products in-house is the source that allows us to pursue total electrolysis efficiency. We will continue to utilize this strength to provide proposals that further increase electrolysis solution value for our customers.



### Asahi Kasei's ion-exchange membrane business after-sales service program



Our process is currently used in more than 160 electrolysis plants in 30 countries



## IP Activities Supporting the Ion-Exchange Membrane Business

### IP activities supporting the competitiveness of our one-stop solution

Our one-stop solution, which is the pillar of Asahi Kasei's ion-exchange membrane business, is composed of our ion-exchange membranes and our electrolysis system (electrodes, cells, etc.). Asahi Kasei steadily creates IP from the cutting-edge technologies that we develop in each field, and the results are clearly represented in our patent score. Both our ion-exchange membranes and electrolysis system occupy top positions in the industry, and Asahi Kasei is the only supplier that has high-level IP in both technological areas. These technologies represent important intangible assets supporting the competitiveness of our one-stop solution.

Furthermore, we also ensure a high level of competitiveness when replacing the ion-exchange membranes and electrodes that form the earnings base of our exchange membrane business. The ion-exchange membranes, which have a high replacement frequency, have acquired a No. 1 patent score, and the electrodes a No. 2 patent score. The replacement of ion-exchange membranes represent a particularly important transaction that connects directly to our regular after-sales service program, contributing to stronger relationships with our customers. To further enhance the competitive superiority of these products, we continuously work to raise the barrier to entry through IP rights.

Patent score evaluation by constituent technology for the major chlor-alkali players (Patent Asset Index)

Player	Ion-exchange membrane	Electrolysis system		
		Electrode	Cell	O&M
Asahi Kasei	Good	Fair	Fair	Good
Membrane Company A	Fair	—	Poor	—
Membrane Company B	Poor	—	Poor	—
Electrolysis System Company C	—	Good	Good	Poor
Electrolysis System company D	—	Poor	Poor	Fair

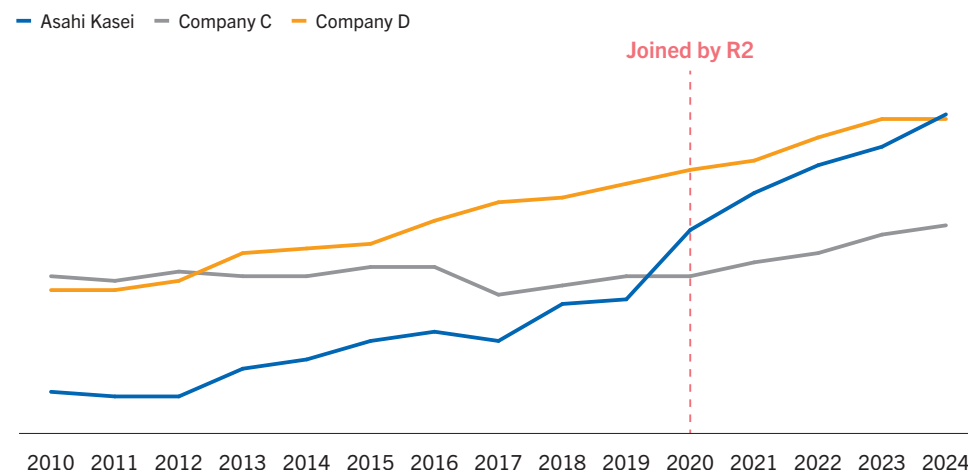
Note: Calculated by Asahi Kasei using PatentSight+

### IP activities to ensure the superiority of our after-sales service program

Asahi Kasei's ion-exchange membrane business has enjoyed the strength of providing added value through a one-stop solution since its launch. As part of this process, we have accumulated knowledge in electrolysis system operation and maintenance (O&M), but there has been reluctance, including among our competitors, to develop this knowledge into IP.

In 2020, with the goal of further evolving our one-stop solution, we acquired R2, which has technology for the early detection of abnormalities and preventive maintenance through the monitoring of electrolyzers. Gaining synergy with R2, we are accelerating improvements to O&M technologies, and along with this acceleration we are also placing a much greater focus on related IP creation. As a result of these efforts, as shown below, since 2020 we have secured the top position in the industry in terms of number of patents in the O&M-related patent family. Going forward, we will focus on the proactive use of O&M-related patents obtained through IP creation, further improving our after-sales service program, and contributing to stable profit generation.

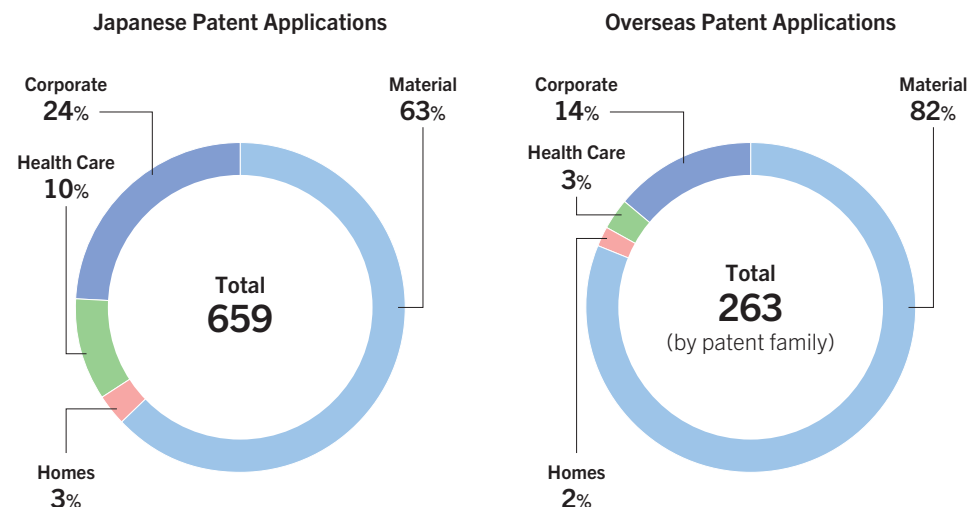
Number of patents in the O&M technology-related patent family



O&M-related patent applications increased, spurred by R2

# Number of Patent Applications/Number of Patent Rights Held and Practiced

## Number of Patent Applications (2024)

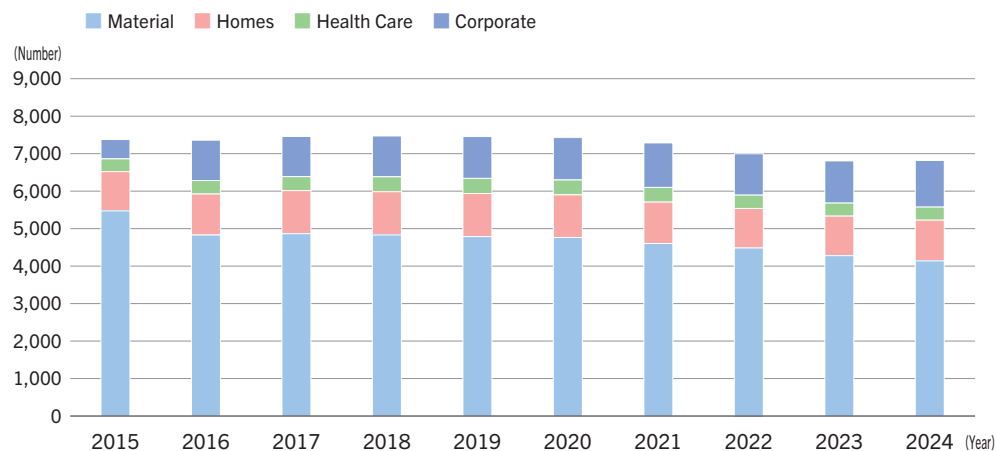


## Practice status of patent rights in Japan and overseas

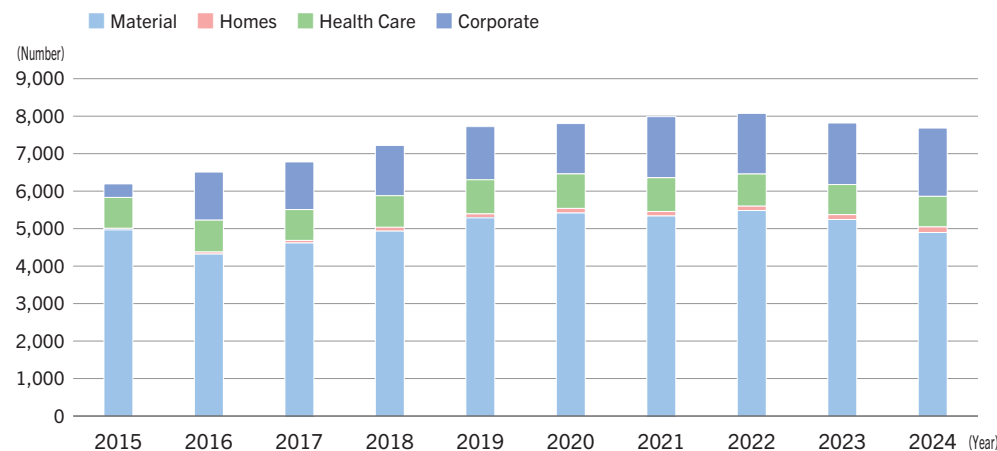
As of September 2025

		Material	Homes	Health Care	Corporate	Total
Japanese Patents	In practice (including licenses)	43%	36%	48%	28%	41%
	Scheduled to be in practice	21%	13%	8%	46%	21%
	Defensive & other	36%	51%	44%	26%	38%
Overseas Patents	In practice (including licenses)	45%	50%	27%	30%	41%
	Scheduled to be in practice	24%	43%	36%	38%	28%
	Defensive & other	31%	7%	37%	32%	31%

## Number of Japanese Patent Rights



## Number of Overseas Patent Rights



## Major External Commendations

### Receipt of the “The Prime Minister’s Certificate of Appreciation” in the FY2025 “Special Merit Enterprises for the Promotion and Development of the Industrial Property Rights System Awards”

The Japan Patent Office (JPO) of the Ministry of Economy, Trade and Industry (METI) annually presents the Minister of Economy, Trade and Industry Award and the Commissioner of the JPO Award to companies that have effectively utilized the system and contributed to its effective operation and further development as the “Award for Excellent Companies, etc. Utilizing the Intellectual Property Rights System.” This year also marks the 140th anniversary of the promulgation of the former Patent Ordinance (the current Patent Law), and to commemorate this milestone, the Prime Minister’s Certificate of Appreciation was presented to Asahi Kasei as a company that has made extremely significant contributions to the dissemination and development of the industrial property rights system.

Asahi Kasei won the Prime Minister’s Certificate of Appreciation based on a positive evaluation of the following points.

- As a leading company using IP Landscaping (IPL), Asahi Kasei set forth “maximizing the use of intangible assets” starting in 2022 as a key theme in its medium-term management plan and has promoted the use of IP and intangible assets through IPL.
- Aiming to build strategies and create new businesses that maximize the use of IP and intangible assets, in 2022, Asahi Kasei established the Intellectual Property Intelligence Department under direct supervision of the Executive Officer for Corporate Strategy with the goal of contributing to strategy building and new business creation. The Intellectual Property Intelligence Department is working together with Corporate IP to contribute to management-level decision-making and to maximize corporate value.
- Not only is Asahi Kasei promoting internal IP management, but also it is also working to spread the concept externally and to share information with the industry. Asahi Kasei led the establishment of the IP Landscape Promotion Council, which now has more than 100 members and managing companies spreading and developing IPL.

Asahi Kasei will continue to effectively use intellectual property and strive to further increase our corporate value through our intangible assets.



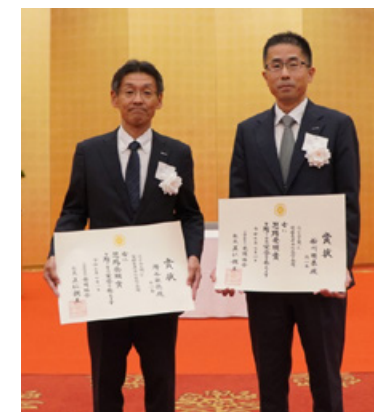
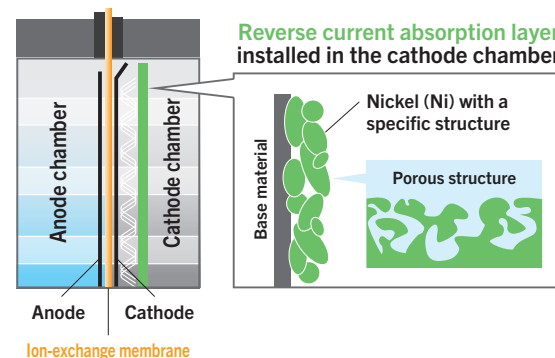
### Receipt of the Imperial Invention Prize for technology using nickel to extend electrode service life

The Invention is recognized for suppressing the deterioration of the electrodes used in the ion-exchange membrane process for chlor-alkali electrolysis (“the Process”), which enables long-term, stable operation. The Process is a system that uses an ion-exchange membrane to produce chlorine, caustic soda, and hydrogen through the electrolysis of brine. Since being commercialized by Asahi Kasei in 1975, the Process has been adopted at over 160 plants in more than 30 countries worldwide (as of December 2024) by leveraging our extensive experience over 50 years, and ability to supply a wide range of technology required for chlor-alkali electrolysis including materials, design, and operational support as a one-stop solution provider.

The Invention is based on a completely different concept to eliminate the need for mechanical equipment. By installing nickel with a porous structure as a reverse current absorption layer in the electrolysis equipment, it utilizes a chemical reaction of nickel to neutralize the effect of reverse current on the cathode.

Chlor-alkali electrolysis equipment incorporating the Invention has been sold to chemical manufacturers around the world, contributing to the stable production of chlorine and caustic soda which support the lives of people worldwide. Adoption of such equipment is expected to expand further. Asahi Kasei also expects the technology of the Invention to be applied and developed in other electrolysis processes such as alkaline water electrolysis for green hydrogen production.

#### Conceptual diagram of nickel with a specific structure



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