



Q5

How will you use intangible assets to improve corporate value?

A With mindsets changing throughout the company, employees are more keenly aware of the value of intangible assets, and business models are increasingly based on intangible assets as the central source of value.

- 58** **Special Feature**
A-Spirit: Contributing to the Maximization of Intangible Assets
- 60** Maximizing Use of Intangible Assets
- 61** Transformation of HR
- 66** Research and Development
- 69** Intellectual Property
- 70** Digital Transformation
- 73** Viewing Asahi Kasei's Intangible Assets from an External Perspective
Yuko Maeda, Outside Director

Special Feature A-Spirit: Contributing to the Maximization of Intangible Assets

The A-Spirit of Team Pimel: The force behind the adoption of Pimel™ in the world’s most cutting-edge technology

Intangible assets are the source of value creation for Asahi Kasei. Our greatest intangible assets are our human resources who enthusiastically take on a variety of businesses. They are driven by the “A-Spirit,” a spirit of undertaking challenges that is the core of our corporate culture. The flagship product of our electronic materials business, Pimel™ illustrates the strengths of our intangible assets fostered in an open-minded and dynamic organization as we took challenges at the world’s cutting-edge of technology.

Pimel™ as a product characteristic of Asahi Kasei’s high technological capability

Pimel™ is a photosensitive polyimide used to protect the surface of the chips on which the fine electronic circuits inside semiconductor devices are formed, and to insulate the redistribution layer that connects the chip to external terminals. When applied as a protective film on the surface of a chip, the film thickness is 5 to 10 μm, approximately one-tenth the diameter of a human hair. Because it needs to provide the specified performance under various conditions, this is an extremely challenging product in all aspects of technological development, manufacturing, and quality control.

Pimel™ was developed in 1988 utilizing Asahi Kasei’s unique technologies, such as photosensitive resins and polymer chemistry. Having overcome severe changes in the external environment, such as the bursting of the dot-com bubble and the global financial crisis, in recent years the Pimel™ unit has seen its business performance grow steadily with the spread of smartphones and data centers. Pimel™ plays an integral role in the evolution of cutting-edge semiconductor devices for smartphones, which require miniaturization, high integration, and high speed. This is truly a product that creates new value for tomorrow.

In materials business such as electronic materials, once a customer has chosen to use a given material, it

takes a long time to convince them to switch to another. Hence, one of the materials business’ defining characteristics is building relationships of trust over the long term and continuing to improve products collaboratively. “Taking on challenges swiftly, decisively, and ambitiously for the sake of our customers” is a culture that permeates the company. As a chemical company, this is a formidable strength of Asahi Kasei, and we have differentiated ourselves through our communication with customers and ability to make proposals.

Adoption by a major global foundry, and frustration at inability to meet customer needs

In 2015, Pimel™ was adopted by a global leader in semiconductor contract manufacturing. However, Asahi Kasei’s true strength was put to the test in August 2017, when the company was approached about being a candidate for a “key material” to protect cutting-edge semiconductor chips for use in completely new applications.

“We want to do whatever it takes to meet our customers’ expectations.” This was the sentiment shared by all members of the Pimel™ team at Asahi Kasei, including



Special Feature A-Spirit: Contributing to the Maximization of Intangible Assets

those in charge of marketing, technology development, quality control, and manufacturing. However, the quality inspection details required by the customer exceeded Asahi Kasei's conventional standards. Although the team came extremely close to meeting those standards, they were unable to clear the final performance criterion, and their development by trial-and-error continued for several years.

Their success or failure to seize this opportunity would have a major impact on future business growth for Pimel™. The department head at the time gave a rousing speech to the team members, convincing them to do whatever it took to win the project.

A-Spirit as the source of customer service capabilities

Members of the Technology Development Department visited the customer's plant overseas and made continual improvements to prototypes. Every day, from morning to night, questions and requests from the customer were immediately shared with team members in Japan. Asahi Kasei was able to bring together its technical capabilities and manufacturing expertise to provide prompt answers and solutions to problems. By repeating this process, department members finally completed a lab prototype that met all requirements.

"I just wanted to make a difference in some way," says Isao Sakata of the Quality Control Section, looking back on those turbulent days. When asked how the Pimel™ team were able to win out over their competitors, Shunji Ooi, Head



of the Electronic Materials Plant, remarks, "We all endured those tough times together and banded together to keep moving forward, which is why we have strong lateral ties that go beyond our individual duties. The driving force behind our speedy response to our customers is an organizational culture that naturally allows people to share what they need to do and what they require at a given time."

Actual mass production also presented challenges. Test production was started, but there were slight quality discrepancies between the prototype and the product. "After we have all worked so hard to get this far, we can't fail now." With that pinpoint focus, Masaki Honda of the Production Technology Section pushed through the establishment of manufacturing conditions and the creation of rules for work processes, and together with numerous on-site staff, he managed to complete a supply system capable of meeting the necessary quality standards. Regarding the many colleagues he worked with, Honda says, "No one ever said anything negative, and everyone earnestly provided constructive opinions."

As the Pimel™ team neared the end of the product adoption process, the inspection phase at the plant was also a constant source of challenges. Not only did inspection preparation, which usually takes more than three months, have to be completed in just one week, but the list of inspection criteria numbered in the hundreds, more than double the number that would normally be required. Sakata from the Quality Control Section and Chihiro Sakakibara from the Quality Assurance Section introduced new inspection equipment and significantly revised work processes and personnel deployment. Making matters worse was the outbreak of COVID-19, but progress forged ahead thanks to the flexible response and close communication of Reiko Mishima from the Marketing Department.

After that, the A-Spirit of the entire team in marketing, technology development, quality control, manufacturing, and the desire to meet customer needs have continued to drive the company forward, allowing it to continue to respond promptly to the exacting demands of a major

global foundry. As a result, the team has been able to bring to market a new Pimel™ product with higher performance.

Reinforcing technology, intellectual property, and brand strength together with the customer

In December 2020, Asahi Kasei was selected as an outstanding supplier by the major global foundry. This is a prestigious award that is only given to a dozen or so companies out of the hundreds that do business with that foundry.

"It's rewarding precisely because it's difficult. That is the prevailing view among the engineers and other human resources at Asahi Kasei. Each individual has a great deal of discretion, and they aren't bound by fixed methods. This allows us to exceed customer expectations," says Takahiro Sasaki, head of the Technology Development Department. Yoshito Ido, also from the Technology Development Department, further adds confidently, "Our strength lies not only in our technology and knowledge, but that the trust we have for our colleagues extends to the mindsets we hold. That teamwork will surely be conveyed to customers and help build trust." Asahi Kasei's human resources have the curiosity to not flinch from the challenges of the unknown. The curiosity of each individual creates an enterprising spirit, leading to unconventional, flexible thinking and the ability to take action, which in turn leads to high commendation from Asahi Kasei's customers.

Furthermore, what "Team Pimel" has achieved is not just a temporary recognition as an outstanding supplier. Being selected by the team's customers as a business partner means being able to quickly listen to their rapidly changing needs and constantly develop cutting-edge technology. By leading the electronic materials market in this



way, we will be able to accumulate further expertise and knowledge and obtain patents ahead of the competition. Competitiveness leads to customer trust and brand strength, which form a powerful multi-layer of intangible assets, and will lead to the next challenge to be undertaken as well as greater value for other businesses.

Further strengthening competitiveness through DX

Going forward, DX will form the driving force behind the Digital Solutions business including Pimel™. The company is now working to strengthen its quality competitiveness and customer responsiveness through a unique shared communications platform that centrally manages manufacturing information, quality control information, and customer inquiries from its various global sites. In addition, existing issues are also being resolved, such as by using generative AI to streamline business processes.

In these transformations as well, "human resources are everything." This is why Asahi Kasei, which attracts highly motivated human resources, is sure to be able to achieve a major transformation through DX.

Marketing, technological development, manufacturing, quality control, and quality assurance—these inimitable intangible assets, and the "A-Spirit" that underpins them, all contribute to the growth of the Pimel™ business.

Maximizing Use of Intangible Assets

Overview of Asahi Kasei’s intangible assets

The intangible assets of Asahi Kasei, the source of its growth, comprise 1) motivated human resources involved in various businesses, 2) wide-ranging technology, intellectual property, and manufacturing expertise, 3) contact points in various markets, and 4) digital platforms accelerating co-creativity and transformation.

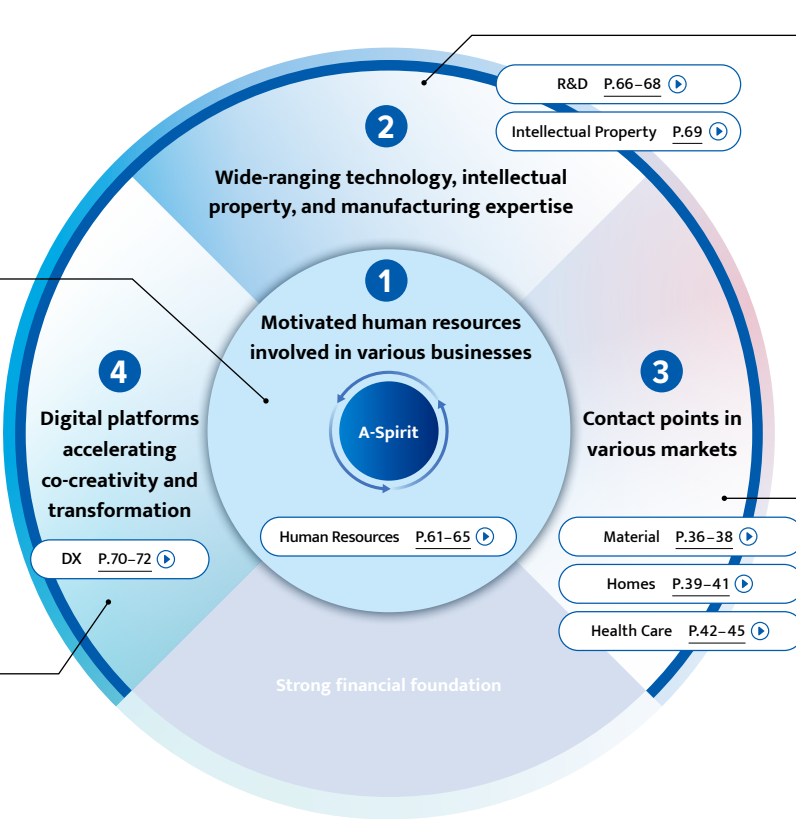
The motivated human resources involved in a diverse range of businesses around the world guided by “A-Spirit”—the spirit of taking on challenges that is at the core of the culture of Asahi Kasei—are our greatest intangible asset. The stimulation and co-creation arising from different cultures within the Asahi Kasei Group, including the rotation of human resources across sectors, connects these extensive intangible assets, thereby facilitating the creation of new value.

1 Motivated human resources involved in various businesses

Strengths	<ul style="list-style-type: none">Global human resources (percentage of overseas employees: >40%¹)Highly specialized human resources (number of Group Masters: 347¹)
Policy and Strategy	<ul style="list-style-type: none">Lifelong growth and co-creativity → Discovering the future with lifelong growth and co-creativity of diverse individuals

4 Digital platforms accelerating co-creativity and transformation

Strengths	<ul style="list-style-type: none">Management innovation through DX (DX-related investment [3-year total]: Approx. ¥30 billion)Number of digital professional human resources: 1,728¹
Policy and Strategy	<ul style="list-style-type: none">All members × on-site initiative × co-creation → Continuously sparking transformation through on-site initiative in using digital technology



2 Wide-ranging technology, intellectual property, and manufacturing expertise

Strengths	<ul style="list-style-type: none">Accumulated core technologies and patents (number of patents held: domestic, 6,807²; overseas, 7,818²)Strong R&D capabilities (R&D expenses: ¥106.6 billion¹)
Policy and Strategy	<ul style="list-style-type: none">Intellectual property: Safeguard business profit and contribute to maximizing business value through collaboration between Corporate IP and the Intellectual Property Intelligence DepartmentR&D: Create new value by integrating tangible and intangible assets

3 Contact points in various markets

Strengths	<ul style="list-style-type: none">Uncovering new needsInter-sector knowledge and dataBrands trusted by customers and partners
Policy and Strategy	<ul style="list-style-type: none">Create new business models and customer experience by utilizing expertise and marketing knowledge from diverse industries group-wide

¹ Fiscal 2023 or March 31, 2024
² December 2023

Transformation of HR

Message from the
Executive Officer for HR

“Leveraging Asahi Kasei’s strengths to empower diverse individuals”



Satoshi
Nishikawa
Lead Executive Officer
Executive Officer for
Human Resources,
Deputy Oversight for Health
& Productivity Management

Asahi Kasei’s heritage of “outstanding individuals and team strength”

To me, “A-Spirit,” which is the heritage of Asahi Kasei, is fully realized when each and every person’s individuality stands out and there is a strong sense of unity in taking on challenges. Since our founding, we have developed through the power of technology and people without the backing of any major conglomerate. Our organizational culture is steeped in the formative experiences of overcoming numerous challenges by maximizing the capabilities of individuals and bringing them together. This heritage has been passed down in everything from the commitment and tenacity of our people who developed the homes business and the semiconductor-related business, once new ventures for us, into their current prominent positions in industry; to the tireless spirit of inquiry shown by Honorary Fellow Akira Yoshino when he invented the lithium-ion battery; and to the “bold spirit of challenge” that resonated with overseas companies who have joined us through M&A—and we have these accomplishments as a springboard to aggressively expand our business.

I have performed various duties other than those related to human resources, with a particularly long post in the electronic materials business. Through my time in business planning, the operation of overseas manufacturing bases, and sales,

among other areas, I gained experience in overcoming many challenges by working together with diverse teams of colleagues to rapidly respond to market expansion and meet customer requests to the greatest extent possible. Everyone’s individuality truly stood out, and I would say that the more difficult the challenge, the stronger our bond became. I am sure that I would have felt the same sense of challenge that comes from working together with colleagues even if I had been involved in other areas of business.

When I talk to people outside the company, I often hear them say, “Asahi Kasei has a strong frontline presence.” I feel this comment refers to the fact that our frontline people think and act with initiative rather than waiting for instructions from above, as well as that senior management listens carefully to them when making decisions. It is precisely because of our frontline strengths, that is, by combining the power of individuals and using it to improve teamwork, that we have been able to respond quickly to changes in the business environment, and rapidly and effectively take on challenges in new business fields.

Discovering the future through lifelong growth and co-creativity of diverse individuals

As the underlying business and working environments undergo major changes, the key to our further development is whether we can demonstrate Asahi Kasei’s heritage and respond appropriately to such changes, and I believe that is the essence of our human resource strategies. The challenges and risks that companies face are becoming more complex and multifaceted, and companies are being called upon not only to face the realities on the ground head on, but also to respond in a way that takes into account a variety of perspectives, such as the SDGs and ESG. Given such circumstances, there is a danger that companies will become less ambitious out of fear of risk. A few years ago, when we had a company-wide discussion about the ideals of our human resources, it was pointed out that of Asahi Kasei’s values of “sincerity,” “challenge,” and “creativity,” the spirit of challenge was fading. Therefore, in our current MTP focused on the theme “Be a Trailblazer,” we included the term “A-Spirit” to reawaken the spirit of taking on challenges that is woven into our heritage. In addition, the values and behavior we expect from our employees have been redefined to reflect the new business environment and outlook on work: “lifelong growth and the co-creativity of diverse individuals.”

The term “lifelong growth” was coined with an awareness of how it dovetails with “lifetime employment.” Our goal is to evolve the static “employer-employee” relationship between the company and its personnel into an active relationship where the company supports the autonomous growth of its personnel and the company itself grows as its personnel grow, thereby creating a win-win relationship in this new era.

Our diverse business operations give us access to a wide variety of technologies and markets. In addition, the proportion of overseas markets and human resources has risen significantly, and the number of mid-career hires in Japan has increased dramatically. To be able to quickly seize opportunities while minimizing risks at each workplace, and to continue to generate innovations that address new social issues, we must maximize the potential of this diversity and apply it to our business.

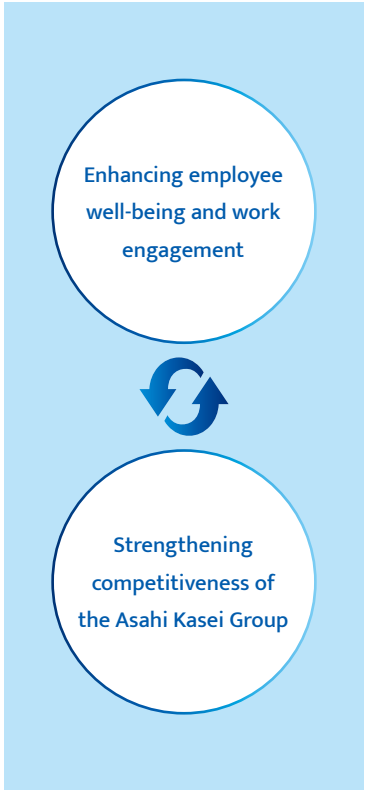
To that end, we are boldly and steadily pushing ahead with diversity in attributes such as nationality and gender while working closely with our frontline personnel to implement a variety of measures to strengthen “co-creativity” that connects and sparks chemistry among qualitatively diverse human resources.

Human resource strategies for corporate value enhancement

Our “A-Spirit,” the heritage of Asahi Kasei passed on for generations, is the source of our transformative power, which is essential for driving our value creation. In order to reawaken the “A-Spirit,” our human resource strategies are based on “lifelong growth,” where each individual seeks out challenges and autonomous growth, and “co-creativity,” which encourages diversity.

“A-Spirit”			Ambitious motivation	Healthy sense of urgency	Quick decisions	Spirit of advancement
Human resource strategies		Main personnel initiatives		KPIs and FY2023 results*		
Lifelong growth P.63 ▶ We encourage each employee to take on new challenges and develop their own careers, and we work to strengthen our management capabilities to make the most of our ambitious human resources.	Autonomous career development and realization of growth	<ul style="list-style-type: none">Autonomous learning platform “CLAP”Open position posting systemPromotion of active participation of senior personnel, extension of retirement ageEnhancement of career development programs		Action driving growth (KSA survey score) 3.72 Amount invested in human resource development Results are available here ▶ Number of open position posting transfers Total of approximately 500 employees		
	Improvement of management capabilities to draw out the strengths of individuals and teams	<ul style="list-style-type: none">Cultivation of executives and next-generation leadersDevelopment of managerial staffExecutive remuneration linked to Human Resource KPIsOrganizational development activities at individual workplaces		Group Executive succession preparation rate 260% Workplace dialogue implementation rate 73.9%		
Co-creativity P.64–65 ▶ We have positioned diversity, equity & inclusion (DE&I) as one of our management strategies, and we are promoting the development and utilization of diverse human resources from the perspective of “expanding” and “connecting” diversity.	Expanding diversity	<ul style="list-style-type: none">Nurturing of professional human resources as “Group Masters”Promotion of active participation of womenCultivation of digital professional human resources P.71 ▶Strengthening of mid-career recruitmentFlexible workstyles not bound by time and placeAcquisition of human resources through overseas M&A		Number of Group Masters 347 Percentage of women in the total number of managers and the Group Masters program 4.4% Number of women working as managers 313 Number of digital professional human resources P.95 ▶ Mid-career hiring rate 45%		
	Connecting diversity	<ul style="list-style-type: none">Personnel transfers across business sectorsVisualization of human resources “CaMP”Employee (expert) recommendation systemActive recruitment of outstanding overseas human resources		Number of personnel transfers across business sectors Total of approximately 370 employees Diversity and psychological safety score (according to KSA survey) <ul style="list-style-type: none">Diversity 3.97Psychological safety 3.65		

* Results for employees of Asahi Kasei Corp., Asahi Kasei Microdevices Corp., Asahi Kasei Homes Corp., Asahi Kasei Construction Materials Corp., Asahi Kasei Pharma Corp., and Asahi Kasei Medical Co., Ltd., except for the number of digital professional human resources, which applies to all employees globally.



“Lifelong Growth” to take challenges for structural transformation and growth

To transform our business portfolio, which is the foundation of our value creation, it is essential that we create an environment that fosters human resources that are driven to grow and take on challenges, and that we utilize them in our business. By working toward lifelong growth from two perspectives—individual strength and team strength—we will enhance the corporate value of Asahi Kasei.

Supporting autonomous growth and career development

Reform of learning methods: expansion of online learning platforms

We are currently taking on the challenge of reforming our methods of learning. Under the concept of learning together, we are supporting our employees’ autonomous growth and career development by taking advantage of the open atmosphere that is unique to Asahi Kasei. It is said that Gen-Z employees, born between the late 1990s and the early 2010s, are characterized by their diversified career views and increasing anxiety about their careers due to sudden changes in the environment such as COVID-19. In June 2023, we opened Co-Learning Adventure Place (CLAP), an online autonomous learning platform, to support young employees in their autonomous career development. By having employees of the same generation interact through learning, younger employees have more time to study and less anxiety about their careers. We will continue to utilize the knowledge we have gained from this initiative to further reform the way we learn.

What is CLAP?

Co-Learning Adventure Place (CLAP) is an online autonomous learning platform that we introduced in 2022 to approximately 20,000 domestic employees. Users of the platform can choose the type of learning they need for their own expertise and career development from more than 10,000 content items from both inside and outside the company.



Expanding our open position posting system

To enable employees to autonomously develop their careers and grow, we have adopted an open position posting system that allows employees to take on new job challenges. Since introducing the system in fiscal 2003, a total of approximately 500 employees have voluntarily transferred across departments to take on new challenges in new environments. We plan to further improve the content of this program, for example by expanding the scope of in-house concurrent work, which allows employees to gain experience working in a department other than their own for a certain period of time.

Building organizations that promote vitality and growth, and improving management skills

Building organizations that promote vitality and growth

In organization building, we focus on visualizing the status of individuals and the organization to encourage effective PDCA management and bring out the best in teams. Once a year, we conduct KSA, a work engagement survey assessing employee empowerment and growth, to monitor “supervisor–subordinate relationships and workplace environments,” “employee empowerment,” and “action driving growth.” Notably, “action driving growth” refers to independent learning behavior and behavior that contributes to the organization, which is the foundation of Asahi Kasei’s traditional team strength, and it has been set as a major human resource KPI.

Fiscal 2023 Results

Action driving growth (5-point scale from 1 to 5):

3.72 (3.71 in FY2022, 3.69 in FY2021)

▶ About 70% of employees responded that they are taking actions conducive to growth.

Workplace dialogue as a source of vitality and growth

As an initiative unique to Asahi Kasei, which places importance on the capabilities of on-site personnel, we promote “workplace dialogue” in which each organization discusses its own challenges, what it aims to become, and initiatives going forward. An analysis of our internal data has shown that the quality of workplace dialogue and the quality of actions for improvement influence employee work engagement and empowerment. We view attentive listening as a fundamental management skill that improves the quality of these activities, and we work to strengthen this ability through measures such as hand-raising facilitation classes, one-on-one classes, and coaching. Courses in coaching were first offered to executives in fiscal 2017 and are now available to all those eligible for the newly appointed general managers training program.

Fiscal 2023 Results

Workplace dialogue implementation rate: **73.9%**,
51.9% of dialogue participants initiated actions
for improvement

Systematic training of executives

In parallel with our activities to improve on-site capabilities, we are also working to cultivate and acquire executive management personnel, who are key to organizational management. Since fiscal 2017, we have been implementing training program to strengthen leadership and teamwork in order to promote the development of next-generation leader candidates. Candidates are selected from among general managers and division heads, and several people enter these training programs each year and are promoted to Group Executive* positions.

Fiscal 2023 Results

Group Executive succession preparation rate:

260%

91 candidates selected for 35 Group Executive posts

* Group Executives are appointed by resolution of the Board of Directors from among Executive Officers as individuals with responsibility and authority for improving the corporate value of the Asahi Kasei Group as a whole. Specifically, Group Executives include Lead Executive Officers and above at Asahi Kasei Corporation and Executive Officers at equivalent positions in core operating companies.

Enhancing “Co-creativity” by leveraging diversity

Our greatest strength in terms of value creation is the diversity of our intangible assets, including the technologies, human resources, and market contacts we obtain in our three business sectors. We will expand this diversity, encourage connections, and thereby foster strong chemistry which drives the transformation of our business portfolio to increase corporate value.

Enhancing professional human resources

Personnel with doctoral degrees

As of April 2024, Asahi Kasei has 373 personnel with doctoral degrees, mainly in technical fields, working in a variety of positions, not only in R&D but also in business planning, technical services, and human resources. They contribute to business advancement by utilizing their specialized knowledge as well as their universal abilities and behavioral characteristics, such as logical thinking skills cultivated in doctoral courses, the ability to carry out fundamental research, advanced language skills, and the ability to encourage engagement. For example, technical doctoral human resources who work in HR departments make use of their high level of expertise in many different ways by recruiting talent and helping to find outstanding talent who can lead to value creation.

Mid-career recruitment

Amid dramatic changes in the business environment, it is extremely important for a company like ours that engages in many different businesses to be organizationally alert to and able to quickly pick up on business opportunities. Based on this understanding, we actively recruit human resources with diverse experience and backgrounds.

Fiscal 2023 Results

Mid-career hires (mid-career hire rate): **362** (45%)
Percentage of managerial positions held by full-time employees* in Japan: **16.3%**

* Full-time employees at Asahi Kasei, Asahi Kasei Microdevices, Asahi Kasei Homes, Asahi Kasei Construction Materials, Asahi Kasei Pharma, and Asahi Kasei Medical

Personnel transfers across sectors and talent management system to visualize human resources

We actively transfer personnel across business sectors to enhance co-creativity. In 2023, approximately 370 employees were transferred, excluding transfers resulting from organizational changes and the like. To further advance these efforts, we have introduced Career Management Place, or CaMP, a talent management system that visualizes human resources and centrally manages information on employee careers, expertise, and other details. Going forward, we will continue to utilize CaMP to ensure appropriate allocation and training of human resources to leverage co-creativity through interaction among diverse human resources.

Expanding the Group Masters program

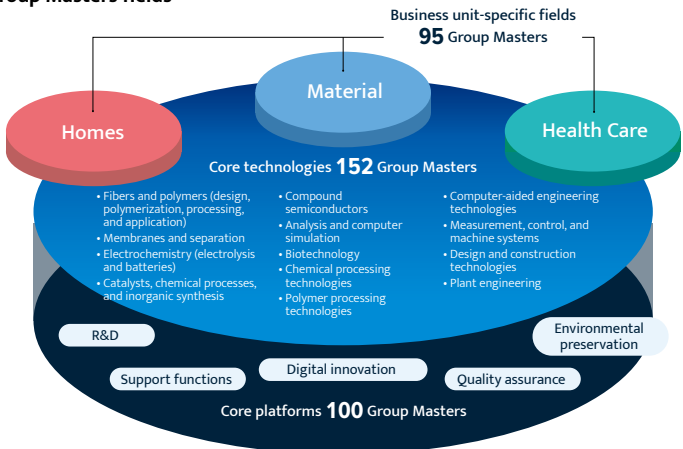
For Asahi Kasei, which has a diverse range of businesses, the development and acquisition of many experts in fields such as technology, marketing, sales, manufacturing, environmental protection, and intellectual property will lead to effective synergies

that will accelerate the creation of new businesses and the strengthening of existing businesses. Under the Group Masters program, we appoint, train, and treat as Group Masters human resources who are expected to not only deepen and demonstrate their own expertise but also contribute to a sector’s business, including nurturing the next generation of professionals. In this way, we build a pool of highly specialized human resources who are useful both inside and outside the company. The program originally started with R&D specialists in our Material sector, but now it includes highly specialized human resources in each of our three business sectors and in recent years has expanded to include clerical departments such as marketing. We will continue to review and enhance our areas of expertise every year in line with our business policies. The number of Group Masters, which we are closely monitoring as a major KPI, has steadily increased since the program began, reaching 347 in fiscal 2023, with a target of 360 in fiscal 2024.

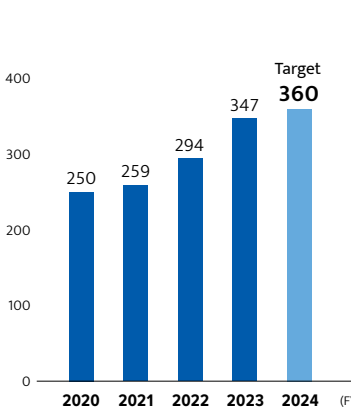
Group Master ranks and roles



Group Masters fields



Number of Group Masters



Pleasant and rewarding workplaces

Active participation of women

We believe that promoting women's participation in the workplace leads to the utilization of diverse human resources regardless of attributes such as gender or age. As such, we are working to create an environment in which it is easy for women to continue working as an important element of DE&I. Starting from fiscal 2022, we set a goal of increasing the percentage of women in management positions with leadership responsibilities and Group Master positions to more than 10% by fiscal 2030 as a KPI for measuring the performance of diverse human resources. As of June 2023, the percentage of women (number of women) in the total number of managers and the Group Masters program was 3.9% (309 women), and this figure increased to 4.4% (351 women) in June 2024.

As a means to continuously foster female leaders, we are implementing various initiatives to build a pool of candidates. Our mentor program, which provides newly appointed female managers with opportunities to proactively consider their career development together with superiors who do not report directly to them, has been participated in by a total of 132 women since we launched the initiative in 2013. We also hold roundtable discussions between female executives and managers to encourage female managers to aspire to further autonomous growth, broaden their perspectives, and change their mindset and behavior to take on future challenges and succeed.

A culture where diverse human resources thrive further

Given that understanding and cooperation in the workplace are important for leveraging the diversity of each employee, and to harness this diversity for organizational strength, we are working to promote employee understanding of diversity and to improve psychological safety.

1. Engagement monitoring

We use the KSA employee engagement survey to monitor the understanding of diversity and the permeation of psychological safety in the workplace. Diversity is measured in terms of whether the opinions of people from all standpoints are respected, and psychological safety is measured in terms of whether people feel comfortable discussing their concerns and differences of opinion and asking for help.

KSA diversity and psychological safety score (out of 5)				
	2020	2021	2022	2023
Diversity	3.87	3.91	3.95	3.97
Psychological safety	3.60	3.62	3.64	3.65

2. Unconscious bias training for executives and managers

Considering that for improving psychological safety in the workplace it is important to be aware of, and learn how to control, the unconscious biases inherent in every individual, we have implemented unconscious bias training for executives and managers since fiscal 2023. In fiscal 2024, the program will be expanded to include all section managers, with the aim of further enhancing psychological safety in the workplace and cultivating managers who can appropriately support employee success.

3. Partial Role Models

As a measure to support diverse working styles and career development, we launched a “Partial Role Model” intranet site, which introduces diverse human resources active within the company, such as female managers and men taking childcare leave. By introducing a variety of role models, the aim is to help employees with various lifestyles and career aspirations to visualize their medium- to long-term career development and increase their motivation to take on the challenge of career advancement.

Global human resources

As our overseas business expands, the ratio of overseas employees has increased to more than 40%, and the active participation of overseas human resources is essential to our value creation efforts. We are expanding the promotion of locally hired human resources to key positions at our overseas bases and nurturing outstanding human resources who can contribute to the entire Asahi Kasei Group.

In the United States, we have established a two-year program to develop the next generation of leaders. Under the program, candidates engage in a variety of endeavors, including global networks of personal connections and holding discussions with headquarters management.

In addition, we are actively promoting talented human resources who joined the company through overseas M&A to important positions and encouraging them to participate in group-wide management. As of March 31, 2024, Asahi Kasei Corp. has six non-Japanese Executive Officers.

Discussing “A-Spirit” with overseas colleagues

As a result of proactive overseas M&A in recent years, many overseas human resources have joined our organization, which presents a challenge in sharing our strengths and corporate culture and promoting increased engagement. In December 2023, we held an online event called “Asahi Kasei is...” for employees from around the world, asking participants “What is Asahi Kasei?” and providing them with the opportunity to contemplate this question. The event was a great opportunity to realize that even though our colleagues are of different nationalities and work in different businesses, we all share Asahi Kasei’s value creation and challenging spirit.



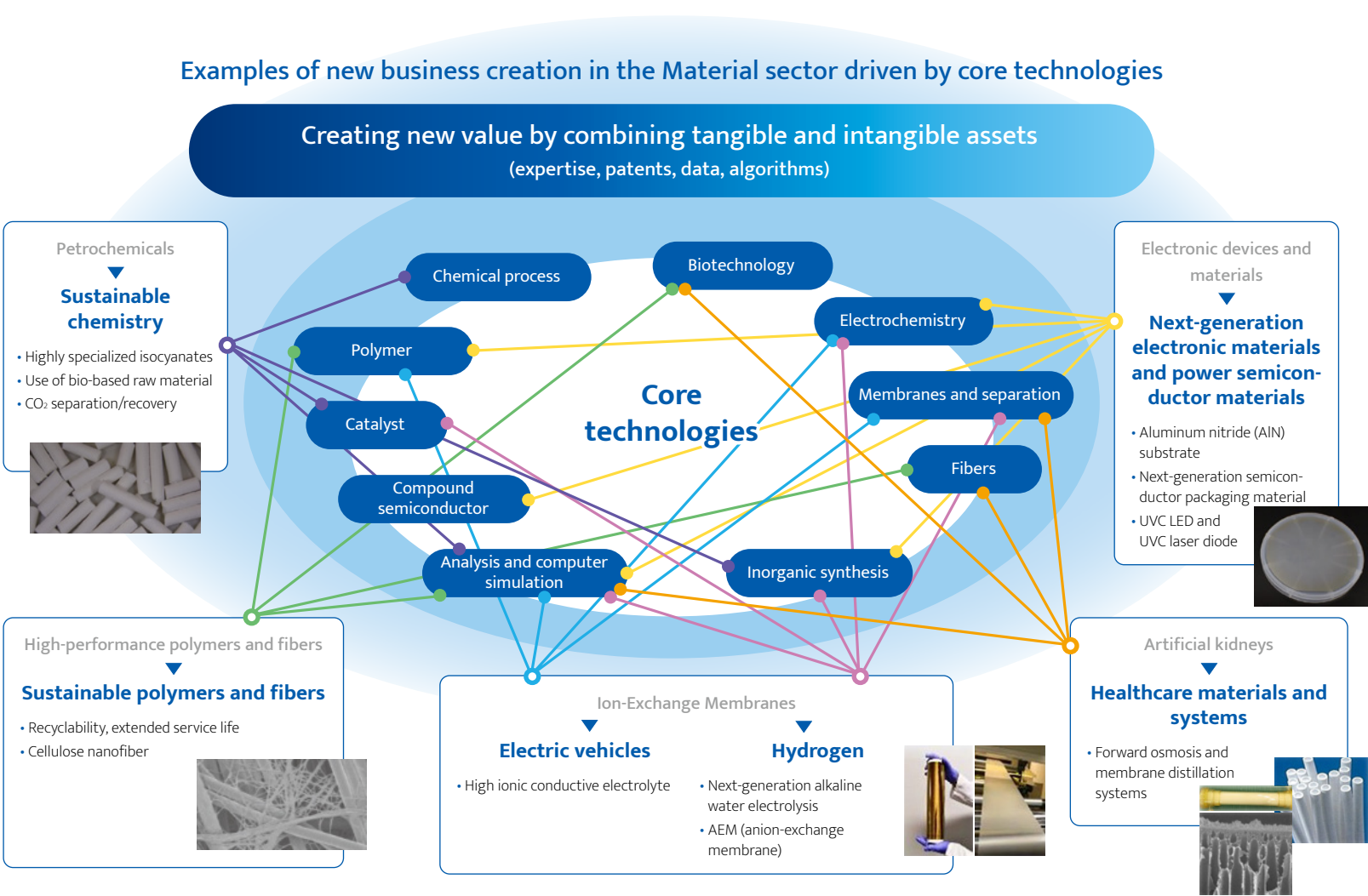
“Asahi Kasei is...” online event
The event was viewed by over 4,000 employees from 29 countries and regions around the world, more than 30% of whom were outside Japan.

Note: In its [corporate governance report](#), Asahi Kasei has stated its commitment to promoting women, non-Japanese personnel, and mid-career recruits to key positions. For information on initiatives and various data pertaining to the recruitment of people with disabilities, please refer to our [sustainability report](#).

Research and Development

Driving business portfolio transformation by combining diverse core technologies

Asahi Kasei’s unique technology portfolio, centered on the diverse core technologies developed over long years of business, has supported manufacturing and the creation of many new businesses. We will continue to pursue this unique characteristic of Asahi Kasei while effecting major evolution in the manufacturing industry. The key is creating new value by combining tangible and intangible assets.



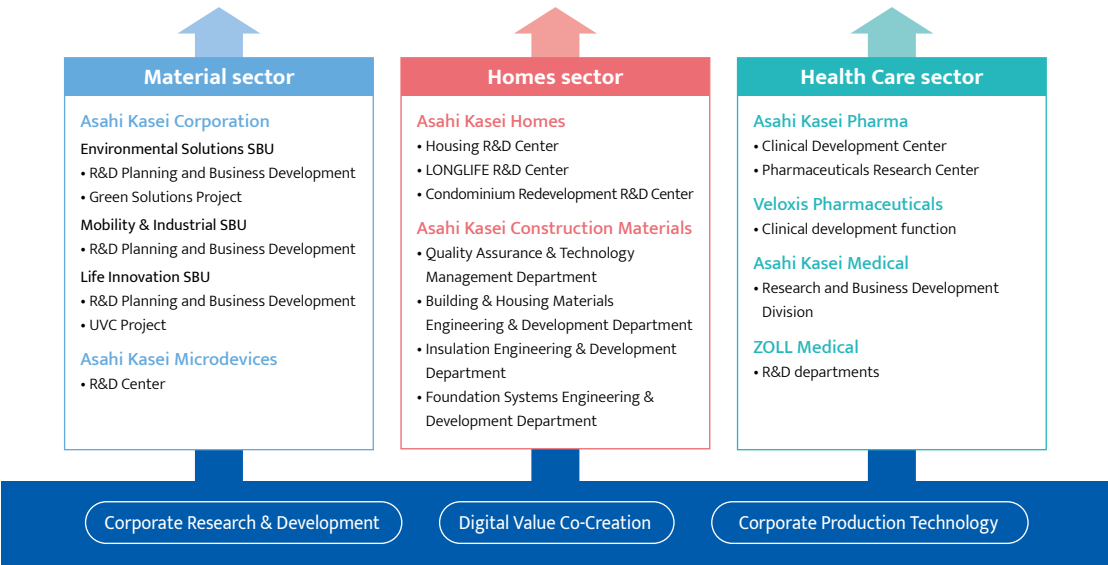
Business portfolio transformation driven by combinations of diverse core technologies

Over the course of more than 100 years of business activities, Asahi Kasei has flexibly transformed its business portfolio in response to changes in society’s needs and the market environment. This is supported by its unique technology portfolio, cultivated through continuous business operations, by which combinations of diverse core technologies has led to the creation of businesses unique to Asahi Kasei. As society moves forward at an ever-increasing rate of change, the value that Asahi Kasei should provide through its business will also change. One engine that will enable us to quickly deliver higher added value is the high-level combinations of technologies from different fields based on Asahi Kasei’s unique technology portfolio.

In addition, Asahi Kasei will effect major evolution in the way of manufacturing in the future. Our vision for the manufacturing industry is to proactively utilize intangible assets such as the expertise, patents, data, and algorithms used to create products in unprecedented ways, and to provide new value by combining tangible and intangible assets. In order to continue to be a company that remains essential to society, we will continue to take on the challenge of transforming our business portfolio by creating businesses that are unique to Asahi Kasei.

Strengthening existing businesses and creating new businesses for the future of society

At Asahi Kasei, R&D is conducted seamlessly between corporate R&D (cross-sectional functions), which explores medium-to-long-term projects group-wide with the aim of creating new businesses, and the research and technology development functions of each individual business (deep delving function), which delve deeper into subjects necessary to enhance business competitiveness.



Corporate R&D Mission

Asahi Kasei defines the mission of corporate R&D as follows, and our ideal vision is to transform various societal issues into opportunities that we can leverage to drive our sustainable growth.

Nurturing, acquiring, and cultivating core technologies	Deeping core technologies, and acquiring and cultivating external technologies to develop highly differentiated and superior products and services
Creating new businesses through innovation	Accelerating collaboration with external parties, including by corporate venture capital (CVC) and open innovation, in addition to strengthening our own R&D management
Platform technology functions	Further strengthening the platform technology functions that support the company

Strategic priority areas and key R&D activities of corporate R&D

We have established four key strategic areas for corporate R&D: 1) Carbon neutrality (decarbonization and hydrogen), 2) Circular economy, 3) Healthcare, and 4) Digital solutions, and are focusing resource allocation on related subjects. The main subjects in each field are as follows:

1) Carbon neutrality (decarbonization and hydrogen)

Verification of basic chemical production from bioethanol

We are currently developing and designing a process for producing basic chemicals from bioethanol, and are studying a 40,000–50,000 ton/year plant targeting start-up in 2027.

Development of alkaline water electrolysis system

We are currently developing an alkaline water electrolysis system that uses renewable energy to produce hydrogen (see [page 49](#)). In addition, we are also working on the development of membranes for anion-exchange water electrolysis equipment. This should yield next-generation membranes with the potential to bring about significant improvements in both performance and cost.

Development of CO₂ chemistry technology and CO₂ separation/recovery system

Asahi Kasei was the first in the world to establish a polycarbonate manufacturing process using CO₂ as raw material. We are applying the basic technology to develop a diphenyl carbonate manufacturing process using CO₂ as raw material and an isocyanate manufacturing process that uses CO₂ derivatives. We are also conducting verification trials on a CO₂ separation/recovery system using a zeolite adsorbent.

2) Circular economy

Development of cellulose nanofiber (CNF) composite materials

We aim to make highly functional biomass materials a reality by creating nanocomposites of bio-derived CNF and engineering resins. Leveraging our strengths in having an integrated manufacturing process from CNF to composites, we are working to develop and commercialize products that are low-cost, have low environmental impact, and are highly functional.

3) Healthcare

Forward osmosis (FO) membrane and membrane distillation (MD) for pharmaceutical manufacturing

We are working with multiple potential customers on demonstration trials on an innovative process to concentrate pharmaceutical ingredients using a hybrid system of FO membranes and MD. By achieving concentration without heating or pressurization, the system prevents denaturation of the ingredients, while allowing shorter freeze-drying time which further reduces the energy requirement.

Research and Development

4) Digital solutions

UVC LED and UVC laser diode

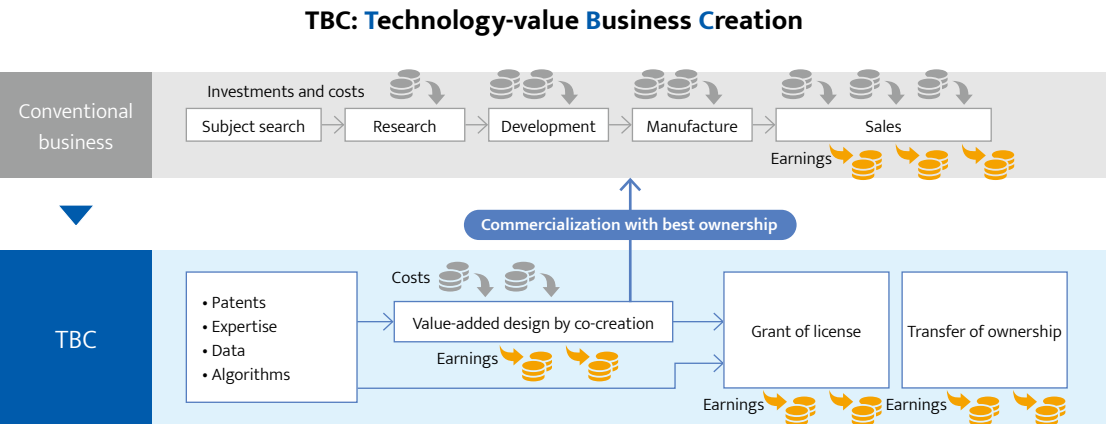
In addition to developing deep-ultraviolet (UVC) LEDs that can produce high-output UVC light with a wavelength of 265 nm, which is highly effective for sterilization and virus inactivation, we are also working on research to further increase output and to increase the diameter and quality of substrates. We are also developing UVC laser diodes in collaboration with Nagoya University, and in November 2022 the project achieved the world's first continuous room-temperature operation of a UVC semiconductor laser diode.

Aluminum nitride (AlN) substrate

AlN-based devices combine low power loss with high voltage resistance and have the potential to achieve higher energy efficiency than silicon carbide (SiC) and gallium nitride (GaN) devices. As such, they are expected to be used in next-generation power devices and radio frequency (RF) applications. In August 2023, our subsidiary Crystal IS, Inc. successfully manufactured a 4-inch diameter AlN single crystal substrate.

Creating new earnings models utilizing intangible assets

Asahi Kasei views intangible assets as important management resources and aims to increase corporate value through the organic combination of intangible assets. We are already seeing an increasing number of cases of successful monetization using intangible assets such as licenses and data, and in order to further accelerate our efforts, we established the Technology-value Business Creation (TBC) Project. This is a pioneering initiative that aims to add value to the vast amount of intangible technology assets (patents, expertise, data, algorithms, etc.) accumulated within the Asahi Kasei Group and generate revenue by providing them in various forms that are not limited to ordinary licenses.



Through the company-wide promotion of digital transformation, we are digitizing the vast amount of information and expertise that we have accumulated across a wide range of businesses, while also developing digital talent and fostering a culture of co-creation. Expertise that has been formalized in the form of data, AI, and other formats enables speedy, high value-added co-creation. By offering licenses and services that take advantage of these features, the TBC Project aims to enable early monetization through co-creation with minimal capital investment, and to respond quickly and accurately to increasingly complex and diverse needs and an uncertain business environment.

We are currently pursuing licensing activities for a variety of technologies, including lithium-ion capacitors, which combine a long service life with low cost, and high ionic conductive electrolytes, which enable low-cost, high-capacity lithium-ion batteries.

We are also advancing activities to make broad use of our patents in our three business sectors. We are taking our expertise in the Health Care sector, where we are a leader in the licensing business, and in the Homes sector, where our strength lies in our business model for intangible assets, and applying it to the Material sector. We are also accelerating our activities by appointing Dr. William R. LaFontaine, Jr., a pioneer in the IP business, as a Senior Advisor.



Dr. William R. LaFontaine, Jr.
Senior Advisor,
TBC Project

Co-creation to add value to diverse intangible assets

After serving as General Manager of Intellectual Property and Vice President of Research Business Development at IBM, and I began working for Asahi Kasei in 2024. At IBM Research Business Development brought in US\$1 billion in annual revenues by contributing to our partners' businesses through joint development, technology transfer, and licensing, as well as by continually enhancing IBM's own technologies. At Asahi Kasei I am leveraging this experience to propel business transformation using intangible assets in asset-light ways.

When I came to Asahi Kasei, I was surprised by the wide range of technologies and patents it has. These intangible assets not only strengthen the company's own competitiveness, but also have the potential to create new value for its partners. Currently, together with members of Asahi Kasei, I am thoroughly evaluating such value from the customer's perspective, and designing value from new perspectives.

It can be difficult for Asahi Kasei to quickly realize value using its own technology alone, so it is important for us to join with partners at an early stage to co-create value. Working with business units to spread the culture of co-creation, we are helping to integrate management strategy and technology strategy, which is essential for such efforts, as we develop next-generation businesses and foster specialists in the area of licensing.

Intellectual Property

Enhancing corporate value with intellectual property

Corporate IP and the Intellectual Property Intelligence Department work together as intellectual property (IP) experts who provide ongoing support to increasingly sophisticated businesses, protecting the interests of our businesses and working to maximize corporate value.

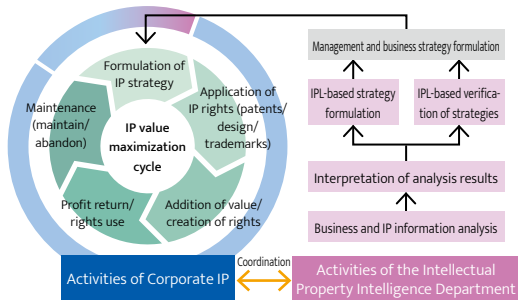
Asahi Kasei’s IP organization

Our IP organization comprises two bodies: Corporate IP, which is part of Corporate Research & Development, and the Intellectual Property Intelligence Department, which reports to the Executive Officer for Corporate Strategy. The mission of these organizations is as follows.

<p>Mission of Corporate IP</p> <p>Corporate IP aims to strengthen the following five key activities that have been performed conventionally:</p> <ol style="list-style-type: none">1) Construction of an IP network that contributes to businesses based on a scenario for IP rights utilization2) IP clearance to assure business execution3) Implementation of IP activities to support globalization of businesses4) Contribution to business innovation, from the perspective of IP, by digital transformation5) Implementation of systematic human resource development plans over the medium-to-long term	<p>Mission of the Intellectual Property Intelligence Department</p> <p>The Intellectual Property Intelligence Department focuses on contributing to management and business strategy formulation through activities related to IP and intangible assets (IP activities), under the theme of “achieving further increases in corporate value through intangible assets.” Using IP landscaping (IPL) as a tool, the department focuses on 1) contributing to management and business strategy formulation from an intellectual property perspective by proposing strategies for utilizing intangible assets, and 2) strengthening relationships with stakeholders through the disclosure of intellectual property information.</p>
--	---

Maximizing the value of intellectual property

The Intellectual Property Intelligence Department uses IPL to analyze the business environment from a technical perspective, and thereby contribute to management and business strategy formulation, and by providing new perspectives to management, it further contributes to more elaborate decision-making. Furthermore, by providing strategies for utilizing intellectual property and intangible assets, the department supports the formulation of business strategies that are predicated on such utilization.



Corporate IP formulates IP strategies necessary to contribute to the accomplishment of business strategies and to the maximization of the value of IP and intangible assets by implementing an “IP value maximization cycle” together with the business divisions to steadily implement these IP strategies.

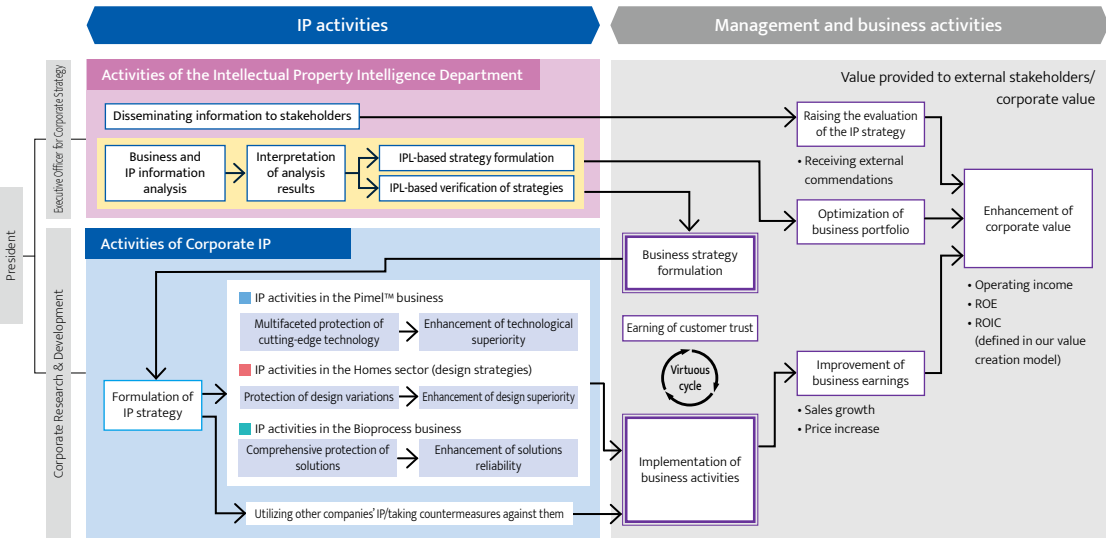
Process of corporate value enhancement through IP activities

To clarify how our mission-based IP activities lead to and contribute to enhanced corporate value through various business activities, we depicted the process of corporate value enhancement. Through examination of this depiction, it became clear that our IP activities have a structure that contributes to corporate value enhancement through management decisions and business activities. The content and effects of IP activities in this process also vary depending on the project. Our Intellectual Property Report 2024 presents the process of corporate value enhancement in our three business sectors.

Validating the process of corporate value enhancement through case studies

To deepen understanding of the corporate value enhancement process, we examined actual business case studies and specifically the contribution of our IP activities.

Asahi Kasei enhances the value it provides to its customers by formulating and executing business strategies, which creates a virtuous cycle that increases customer satisfaction and trust in our company, leading to the acquisition of further business opportunities. IP activities contribute to maintaining and expanding this virtuous cycle by protecting and utilizing intellectual property and intangible assets.



Digital Transformation

Message from the
Executive Officer for DX

“Co-creating “healthy living” and “a future world full of smiles” through borderless connections enhanced by digital innovation”



Noriaki Harada
Lead Executive Officer
Executive Officer for DX
Senior General Manager,
Digital Value Co-Creation

The mission of DX in value creation for Asahi Kasei is to transform our business structure and accelerate the growth of GG10 businesses to drive future growth. A major key will be whether we can maximize the use of the vast amount of data we have accumulated, and master the use of digital technology, while we accelerate development, streamline production, and create new businesses to respond promptly to customer needs.

So far, we have advanced digital transformation from three perspectives: people, data, and organizational culture. One of the methods we have employed is a personnel training curriculum that utilizes the Asahi Kasei DX Open Badge Program. Asahi Kasei’s strength lies in the power of its human resources, which comes from its bottom-up organization. We believe that investing in people and continually improving the skills of each individual is the key to transformation. In fiscal 2021 we launched a plan to train and develop 40,000 personnel as digital human resources, and we are targeting 2,500 digital professionals globally.

To transition to the Digital Normal Period, a state in which reforms using digital technology can be continuously implemented through on-site initiative, we introduced three new key phrases for fiscal 2023: participation by all members, on-site

initiative, and co-creation. Now in the fourth year since we began developing digital human resources, we are beginning to see clear results as digital technology is used in a variety of areas and those human resources play an active role. The contribution of DX to profits growth has already reached a cumulative total of ¥7 billion as of fiscal 2023.

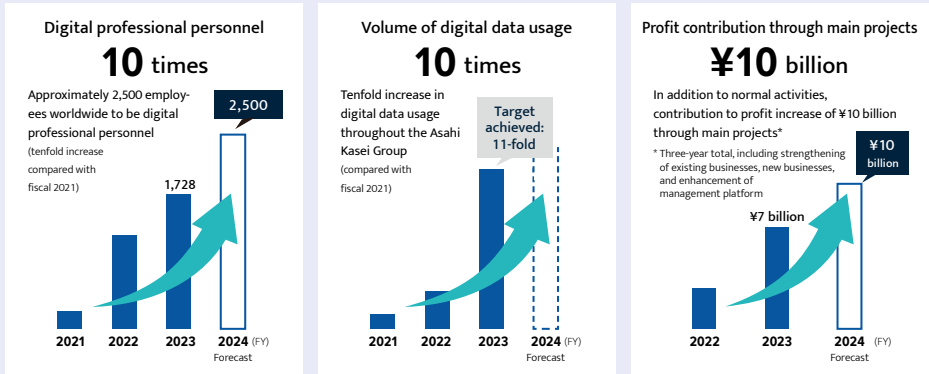
The business environment surrounding Asahi Kasei is changing rapidly, and the transformation of our business portfolio is now imperative. We must shift management resources to growth businesses as quickly as possible, with rapid decision-making and an agile approach. Furthermore, we will expand our solutions-based business by making the most of our abundant intangible assets through the Product-based Platform as a Service (P-PaaS) concept, which contributes to enhanced value for customers based on the added value of our materials and products. This is a new challenge that will not only advance the Asahi Kasei Group, but also the entire supply chain, which I see as the embodiment of our DX vision of “making borderless connections enhanced by digital innovation.” Asahi Kasei’s DX is evolving, deepening, and moving to a stage where it can demonstrate its true value and effect societal change.



Key DX initiatives

Enhancing management	
Group-wide projects	<ul style="list-style-type: none">DX for visualizing business conditions and carbon footprints
Shared value chain subjects	<ul style="list-style-type: none">DX related to sales, marketing, and customer supportDX related to research and development, such as promoting materials informatics (MI)
	<ul style="list-style-type: none">DX related to production and manufacturing, such as smart factoriesDX related to quality assurance
Reinforcing digital foundations	
HR/ organizations	<ul style="list-style-type: none">Planning and operation of program to foster digital personnelBuilding mechanisms and organizational culture to accelerate DX
Data/security	<ul style="list-style-type: none">Development and operation of core systemsConfiguration of company-wide security platform

Fiscal 2024 KPI: DX-Challenge 10-10-10



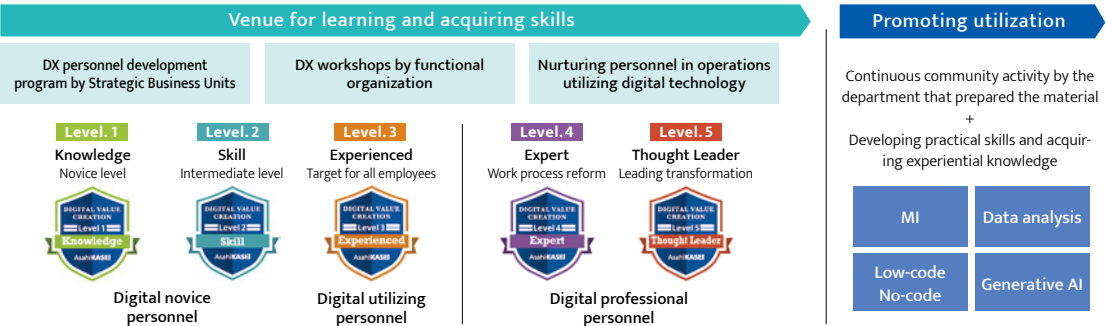
Note: Total DX-related investment of approximately ¥30 billion planned (IT investments and cloud usage fees for digital transformation)

Digital Normal Period with participation by all, on-site initiative, and co-creation

The “digital normal” we aim for is a state in which transformation using digital technology can continue to be driven by on-site initiative. In addition to developing all employees worldwide into “digital-utilizing personnel,” we are providing on-site support to develop digital professional personnel who can use advanced digital technologies and data to solve business issues and create business models.

Asahi Kasei DX Open Badge Program Personnel training

Since fiscal 2021 we have offered the Asahi Kasei DX Open Badge Program to all employees. In fiscal 2023 we established a new course on generative AI in response to the rapid spread of the technology. We are also working on opening new courses to cultivate digital professionals. Community activities that bring together employees eager to put what they have learned into practice are also gaining momentum, with some communities having more than 1,000 participants. Lively communication that transcends organizational boundaries is leading to business transformation and individual growth.



Future Digital Personnel Club External collaboration

The Future Digital Personnel Club, which commenced full-scale activities in December 2023, shares and discusses digital human resource development efforts among member companies. Through mutual cooperation and partnership, the club aims to achieve advanced digital human resource development and, in the future, contribute to the development of digital human resources throughout society.

Results of fostering power users

As we aim to turn out 2,500 digital professionals globally, we have prioritized the development of human resources that can lead practical data analysis at individual workplaces within the company, rather than simply attending courses.

Hence, we are focusing particular attention on our program to foster “power users” which was launched in fiscal 2019. Since previously, Asahi Kasei has provided materials informatics (MI) training to researchers in the fields of chemistry and materials, and data analysis training to engineers in the fields of production and manufacturing. Now, to promote group-wide data utilization, we are training employees in a wide range of functions, including quality assurance, logistics, sales, and intellectual property, to foster power users who can analyze and utilize data. This program is a six-month course in which on-site engineers who are potential power users work to analyze data on actual on-site issues on a three-party basis under the coaching of a data scientist from Digital Value Co-Creation who is an expert in data analysis, and an advisor on rules and principles who is well versed in on-site matters. The aim is to develop problem-solving skills through data analysis by identifying the causes of problems and taking action to improve them based on analysis results.

Further efforts to fostering power users

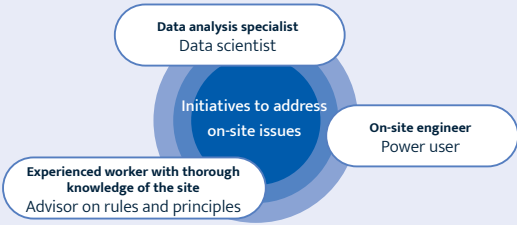
Nakajima We trained approximately 300 power users on 288 projects from fiscal 2019 to fiscal 2023, with approximately 80 people in fiscal 2023 alone, and we have expanded the scope of the program to accept participants from overseas subsidiaries. In addition, through the implementation of improvement actions, the cumulative benefits expected from the departments to which the power users belong amount to approximately ¥2 billion. It’s a wonderful experience to compare historically accumulated insight and knowledge with the data we analyze, and to work together to solve problems from various fundamental perspectives. Above all, this three-party structure is the most important element.

Ueda Initiatives aimed at reducing quality defects, improving yields, and raising operating rates have produced particularly significant results. Power users in individual departments take action within their departments, and, with our help, get even their superiors involved. In fiscal 2024, to solve the issues of creating data suitable for analysis and data processing, we plan to create training materials on key points of data processing and digitization using Excel, and launch courses aimed at a wider range of people.



Digital Value Co-Creation (data scientists)
Shinya Nakajima (left), Hiroyuki Ueda (right)

3-party data analysis activity



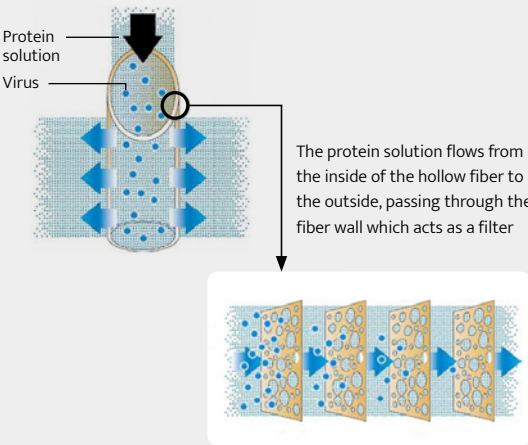
Example of R&D-based DX

Use of MI to improve performance of Planova™ virus removal filter

Asahi Kasei is implementing a wide variety of DX initiatives in the value chain, such as smart factories, marketing automation, and IP landscaping. Here is an example of how MI accelerated development and contributed to profits, enabled by improved on-site digital literacy through digital personnel training.

Difficulties of filter development

The development of virus removal filters for use in the manufacturing processes of biotherapeutics requires both excellent filtration flux and high virus removal performance. However, there is generally a trade-off between the two performance characteristics. Larger pore size results in increased flux, decreased ability to capture selected viruses. There were more than 20 manufacturing process conditions to explore in our search for potential means of improving these two characteristics in tandem, and even if we chose only three variations of each condition, the number of experiments required to confirm the results would be more than three to the power of 20—far too many to be practical.



Utilization of MI

In cases like this, MI can be extremely effective. We designed over 500 experiments for more than 20 process conditions, and discovered combinations of manufacturing process conditions that would not have been found through experimentation alone. This enabled us to develop a filter that offers more than twice the filtration flux while providing high virus removal performance.

The reason we were able to utilize MI was that there was a large amount of unbiased experimental data in important

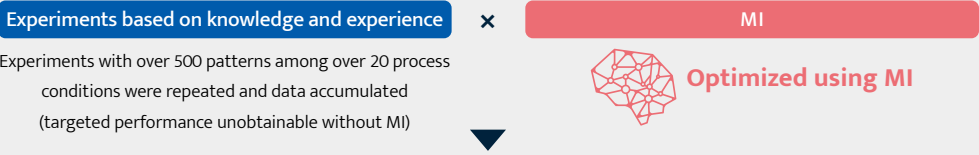
areas, which data scientists were able to analyze efficiently. The use of MI in this development produced remarkable results, significantly reducing the time spent on experiments compared to conventional methods.

Furthermore, clogging, which was not a target for MI, was also significantly improved, leading to the development of the highly competitive, high-performance Planova™ membrane.

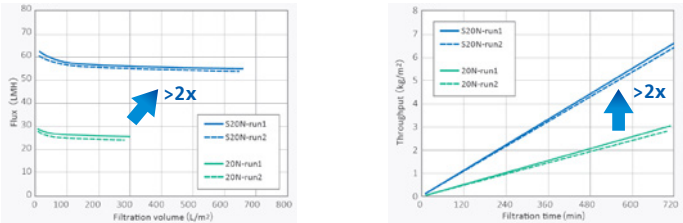
Comment from an engineer involved

At the time of this development, DX was still something new that had not yet been widely adopted in the company, and expectations for MI were not very high, so we were astonished by the surprisingly good results. There are a lot of digital tools available these days, and I think the most important thing is to give them a try. There are limits to what humans can think of when combining explanatory variables, and this project clearly showed that MI vastly expands possibilities.

We quickly got results that exceeded our expectations, and I am convinced that MI-driven development will become mainstream throughout society over the months and years ahead. There was a lot of interest within the department in this new product developed using cutting-edge MI technology, so we swiftly established an environment, including personnel training, to facilitate the use of MI in other development projects as well. MI has now become an indispensable part of development.



New product Planova™ S20N was created with more than double the flux of conventional products



Shota Nakashima
Bioprocess Division
Asahi Kasei Medical Co., Ltd.



Viewing Asahi Kasei's Intangible Assets from an External Perspective Yuko Maeda, Outside Director

Co-creation across different fields leveraging three-sector management



Yuko Maeda

Outside Director

Asahi Kasei's corporate culture of valuing people creates outstanding intangible assets

I would like to describe what I see as two particular strengths of the Asahi Kasei Group. The first is that it is a company where valuing people is deeply ingrained. Having witnessed a variety of initiatives that leverage the company's intangible assets to a high level in different fields since becoming an Outside Director, I am even more aware of this strength. The idea of valuing people is also epitomized by Honorary Fellow Dr. Akira Yoshino, laureate of the 2019 Nobel Prize in Chemistry for his invention of lithium-ion batteries, who has contributed to Asahi Kasei for many years.

The second is that Asahi Kasei has abundant intangible assets, which stem from its history of operating a diverse array of businesses. Its core technologies are an example. The polymer material technology developed in its Material sector is employed for various products in the medical business in the Health Care sector, where this technology helps strengthen the competitiveness of the business.

Continuous enhancement of core technologies and proactive use of them in different fields are only viable with the enthusiastic involvement of human

resources in each of these endeavors. The same can be said of all the company's intangible assets. Asahi Kasei's culture of valuing people serves as the basis for developing and maintaining these human resources, and I believe that its three-sector management allows them to promote intangible assets in different fields to make full use of the company's technologies.

A prime example of this culture serving as a powerful tool for strengthening intangible assets is the development of digital personnel. Asahi Kasei operates a digital personnel development program for all employees to enable them to acquire the skills necessary for promoting digital transformation (DX). Today, frontline employees leverage digital technology autonomously to engage in R&D, process control, productivity improvement, and other activities. Simply developing human resources in dedicated departments to promote DX will not advance DX on the front lines. I sense that Asahi Kasei is raising the level of the entire company by developing all employees as digital personnel based on its deeply ingrained idea of valuing its people.

Expanding intangible assets by combining different perspectives

I believe that these efforts make it all the more important for Asahi Kasei to promote strategies that better enable its abundant intangible assets to contribute to corporate value, fully leveraging its strengths going forward to transition from product sales—where the superiority of products determines results—to a solutions business that helps address issues from a customer-oriented perspective. For instance, I view the provision of data-driven services using the monitoring system of Recherche 2000 Inc., of Canada, which Asahi Kasei acquired in fiscal 2020, in the field of ion-exchange membrane chlor-alkali electrolysis, as a positive example of how transitioning to a solutions business produces results.

I know from my long experience of acting as a bridge between companies and universities that such interactions with different fields are the key to gaining fresh business perspectives. Original ideas, unconstrained by specialist knowledge, are indispensable to the creation of new businesses from different perspectives other than the pursuit of technology. In industry-academia collaboration, the involvement of academics in design thinking in the exchange of ideas can create unprecedented innovations, for example.

I believe that to capitalize fully on the advantages of operating businesses in three sectors, Asahi Kasei must collaborate with external parties more proactively while boldly invigorating the mobility of human resources within the company. For instance, I think that providing employees with the opportunity to gain new perspectives, such as enabling human resources from R&D to return there after gaining the experience of establishing businesses in business divisions, would further advance the strengthening and integration of intangible assets and the creation of new business models.

With that said, these initiatives are only possible thanks to other strengths of Asahi Kasei, such as its ongoing refinement of high-level basic research and technological capabilities. I look forward to seeing the company further utilize the advantages of its three-sector management to create new value by heightening efforts to promote co-creation and integration among human resources who contribute to continuous technological advancement by exhaustive research and those who spur business innovation through original ideas.