Innovation: R&D and Business Development

NEC's Technological Capabilities

NEC possesses many of the world's leading technologies in the fields of AI, security, and networks. These technologies are among NEC's greatest strengths. As proof of this, we boast one of the world's highest numbers of patents held and papers accepted by leading international academic conferences. In particular, in the field of face recognition, we have been ranked No. 1 in global benchmark testing multiple times[1]. These advanced technological capabilities are key assets that will lead to NEC's future growth.

1 Ranked No. 1 multiple times in face recognition benchmark testing held by the U.S. National Institute of Standards and Technology (NIST)
https://www.nec.com/en/global/solutions/biometrics/index.html

Note: NIST testing results do not constitute an endorsement by the U.S. government of any particular system, product, service, or company.

AI (including biometrics)	Machine learning: The number of papers accepted by leading international academic conferences[2]: **Ranked 10th in the world**
	Video and image processing: The number of papers accepted by leading international academic conferences[3]: **Ranked 1st in Japan**
	For third-party evaluations of NEC biometric authentication, please visit the website below. https://www.nec.com/en/global/solutions/biometrics/index.html
Communication	Optical communication: Acceptance of papers in top academic conferences[4] for **48th consecutive year**
Security	**45 papers**[5] accepted by leading international academic conferences
Patents	Top 100 Global Innovators global survey of patent activities[6]: Selected for **14 consecutive years**
	Biometric authentication, video analytics, and analysis/prescription AI: Number of international patent applications[7]: **No. 1 in the world**

2 NeurIPS, ICML, ECML-PKDD, KDD, ICDM
3 CVPR, ICCV, ECCV, ACCV, ICPR
4 Communication: OFC/ECOC, and others
5 Security: ACM CCS, IEEE S&P, EuroS&P, USENIX Security, Crypto, Eurocrypt, Asiacrypt, TCHES, FSE (2015–2024 results)
6 Top 100 Global Innovators: https://clarivate.com/top-100-innovators/
7 Number of international patent applications: Cumulative number of applications as of October 2024 (NEC Corporation)

For the latest information on our R&D initiatives, please refer to the presentations from NEC Innovation Day available on the Management Strategy Meeting / Business Briefing section of our website.
https://www.nec.com/en/global/ir/events/pr/others.html

Approach to R&D Investment

NEC sustains a consistent level of R&D investment to maintain and improve its R&D capabilities over the medium to long term, independent of any external trends. We are focusing our R&D efforts on the three technology areas of AI, security, and networks. We will support the sustainable growth of the NEC Group by creating technologies that enhance existing businesses central to our social value creation, as well as advanced technologies for new businesses that can provide new value to society, while accelerating their commercialization.

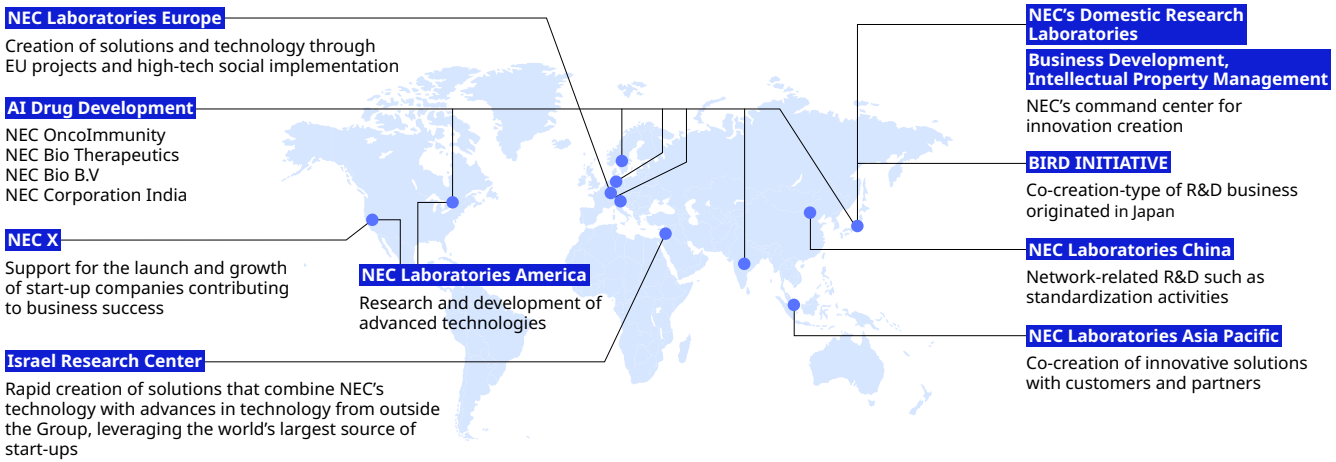
Developing People and Environments to Drive Innovation

The power of human resources is essential to creating innovation. NEC attracts outstanding talent from all over the world, and approximately 40% of its researchers are global specialists. In addition, to translate innovation into social value and apply it to the real world, it is essential to have personnel who specialize in new business development and intellectual property (IP). We are working to expand our pool of specialized talent in all areas through external recruitment and internal training, while also promoting stronger collaboration in the areas of R&D, IP, and new business development. We are also working to improve the R&D environment so that talented human resources can fully demonstrate their abilities.

As a concrete initiative, NEC X, Inc., established in Silicon Valley, promotes open innovation by leveraging NEC's talent and technologies in collaboration with the local ecosystem, aiming to create new businesses that have an impact on society. In addition, we are accelerating value creation and new business development through BIRD INITIATIVE, Inc., a co-creative R&D joint venture with seven companies from different industries, a corporate venture capital fund, and business competitions. Details on talent acquisition and development for driving innovation are provided in the Human Resource Development Programs section of NEC ESG Databook 2025.[8]

8 https://www.nec.com/en/global/sustainability/pdf/esg_data2025_EN.pdf#page=52

Leveraging Global Strengths to Increase R&D and Business Development Opportunities



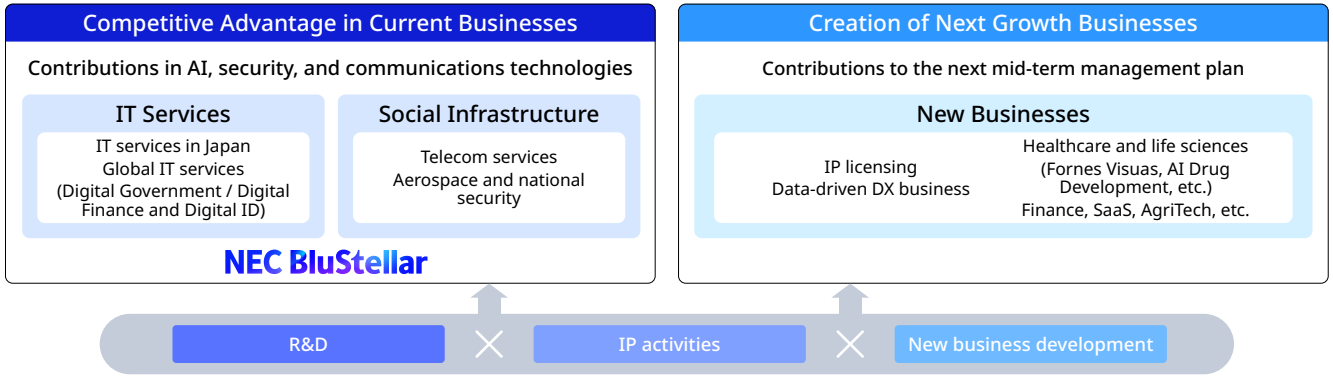
Converting R&D Results into Social Value

To quickly connect technologies accumulated through R&D to the resolution of social issues and the creation of other social value, NEC has integrated its R&D functions for realizing new value demanded by society and customers, its business development functions for delivering that value, and its IP strategy functions for creating and utilizing valuable IP, to form the Global Innovation Business Unit. Through this integrated structure, NEC aims to realize the creation of new social value.

1. R&D Capabilities Geared Toward Creating New Value to Meet Social and Customer Needs

In converting cutting-edge technologies into social value, it is important to incorporate them into society as quickly as possible. At NEC, we are making efforts to more quickly reflect customer needs and achieve product and service commercialization through the establishment of a seamless system of collaboration with business divisions from the R&D stage onward. In particular, in areas related to NEC BluStellar, which the Company is prioritizing, we are working to quickly provide customers with solutions based on numerous NEC technologies by incorporating them into BluStellar's menu of services. Through this framework, we help to secure a competitive advantage by swiftly proposing solutions that incorporate the latest technologies, while also improving profitability through the repeatable provision of services. In addition, to contribute to the advancement of infrastructure for realizing a safe and secure society, we are working on the development of advanced technologies such as next-generation high-speed, high-capacity telecommunications, quantum cryptography, and integrated networks in space, while discussing and sharing future concepts with the relevant government agencies and companies.

Overview of NEC's Efforts to Drive Innovation



Column **Contributing to Current Businesses Through World-leading Technologies**

Biometric Authentication Technologies

NEC has been engaged in the field of biometrics for half a century and has contributed to approximately 70 countries and regions with its world-class biometric technology. By combining biometric authentication technologies such as face recognition, iris, fingerprint, palmprint, finger vein, and ear acoustics, NEC aims to create a world where everyone can engage with digital technologies with peace of mind in an increasingly digital society. Through this approach, we will continue to deliver value that integrates safety, security, and convenience.

Using Satellite Data Analysis and AI to Contribute to Disaster Prevention and Infrastructure Resilience

Climate change has given rise to more frequent natural disasters around the world, causing severe damage. By leveraging advanced technologies such as AI, Earth observation data from satellites, and sophisticated image analysis, NEC will be able to predict disaster risks on a global scale. We aim to visualize the effectiveness of disaster prevention measures and climate change adaptation strategies for municipalities and companies, thereby contributing to both natural disaster preparedness and infrastructure resilience that supports daily life.

Agentic AI (AI agents)

Agentic AI is attracting significant attention in the generative AI market. NEC's agentic AI is capable of planning combinations of tasks according to specific objectives, enabling it to handle complex business processes, including decision-making. In addition to this capability, NEC leverages its extensive project experience with industry-leading clients and its strength in AI talent development, having produced thousands of AI professionals. By focusing on specific industries and business functions, NEC will promote the application of generative AI to highly specialized operations, thereby accelerating operational improvements for its customers.

2. Business Development Function for Providing Value

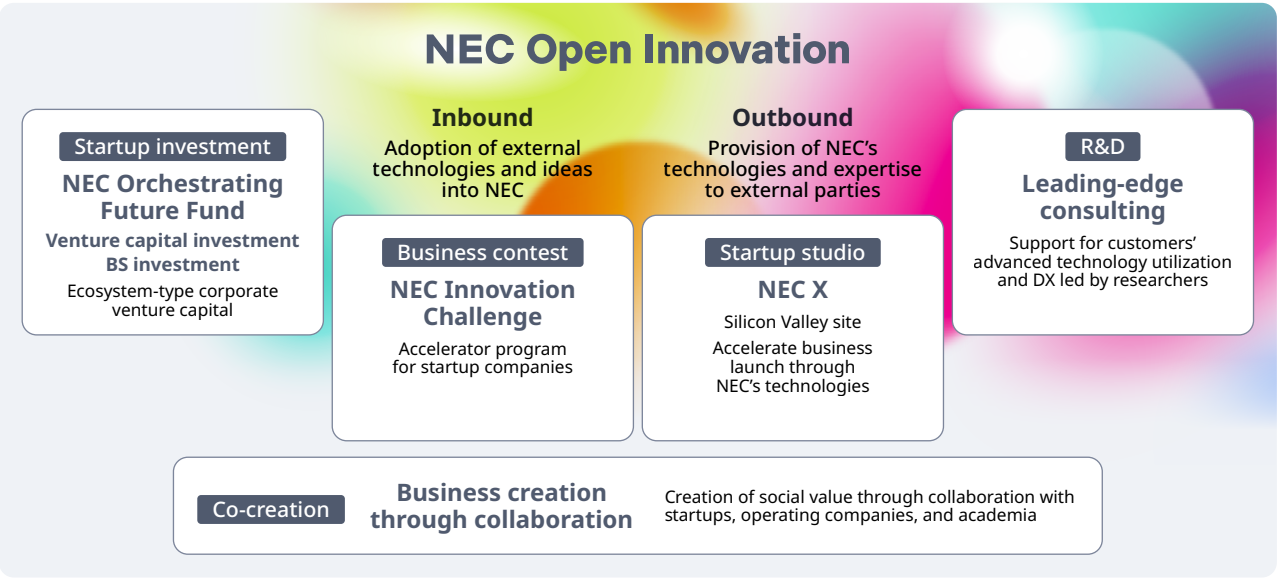
In terms of new business development, we aim to create business value of ¥300 billion by the end of March 2026, and we are taking on the challenge of creating new businesses based on social issues by utilizing various methods of co-creation. NEC is advancing commercialization in areas such as AI, healthcare and life sciences, and sustainability by leveraging its globally competitive technologies. This effort is supported through collaboration with domestic and international start-ups, partner companies, and research institutes, as well as by utilizing NEC's accumulated expertise in new business development.

New Business Creation Management Policy

NEC's new business creation starts by gathering a wide range of ideas both in-house and from external partner companies and research institutes, including technology seed- and market-oriented proposals. We will steadily nurture new business while controlling risk, based on a systemized new business creation process. In addition to in-house commercialization, we are also considering a variety of options based on the individual characteristics of each project, such as the establishment of start-ups and joint ventures with external partners. In addition, we are working to create further synergies by expanding the know-how gained through new business creation to external parties as consulting services.

Column **The Future Is Ours to Shape—NEC's Open Innovation Efforts**

In 2013, NEC established a dedicated department for new business development, marking the beginning of its efforts to promote open innovation. By integrating knowledge and technologies from both within and outside the Company, NEC has been working to implement new value in society. We have contributed to business growth through the creation of new businesses such as agricultural support solutions and personal financial services, the provision of new value through AI Drug Development, and the promotion of business activities through carve-outs. Equipped with the experience and know-how gained through these initiatives, in February 2025 NEC announced its open innovation activities under the name NEC Open Innovation, defining them into two models: the inbound model, which brings external technologies and ideas into NEC, and the outbound model, which provides NEC's technologies and expertise to external parties. With the key message "The future is ours to shape," NEC is moving away from the traditional Japanese corporate mindset of self-reliance and building cultures unique to one's own company, and is taking the lead in co-creation for new business creation.



For details on initiatives for developing new businesses, please visit the website below.
https://www.nec.com/en/global/innovation/index.html

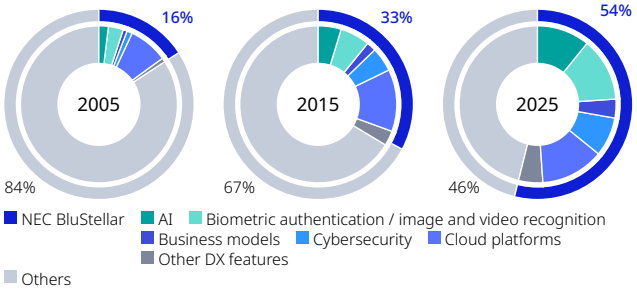
3. Business Contribution Through Utilization of IP

IP and International Standardization Strategies

NEC considers IP a key management resource. Under Mid-term Management Plan 2025, we are focusing on the following initiatives:

1) Optimize our patent portfolio in alignment with our business strategy, with a focus on securing patent rights for AI technologies that support NEC BluStellar. In anticipation of global expansion, we have increased our foreign application rate[1] from 52% to 71%[2] over the past 10 years.

Proportion of U.S. Patent Rights Acquired in Technological Fields



2) Focus our efforts on expanding our patent licensing activities to promote the real-world application of technologies. With the growing opportunities for the utilization of ICT, our cumulative patent licensing revenue during Mid-term Management Plan 2025 has more than doubled compared to the previous five-year period.
3) Strengthen our IP governance framework to support global business growth. By closely collaborating with subsidiaries in the United States, Europe, and China, we promote the creation and use of IP across the entire NEC Group, establish risk management frameworks, and share policies and expertise through training programs.
4) Promote an international standardization strategy to accelerate the adoption of advanced technologies by playing leading roles in key technological fields through participation in domestic and international standardization committees and government councils.

1 The foreign application rate is calculated as the proportion of foreign filings (Paris Convention filings and Patent Cooperation Treaty (PCT) publications) among the total number of Japanese publications and PCT publications.
2 Foreign application rate: 52% (fiscal 2016 publications) → 71% (fiscal 2025 publications)

Future Initiatives

We are developing a framework to illustrate how our IP initiatives convert our technologies and expertise into social value, thereby enhancing corporate value. We are actively advancing this transformation.

In the creation and protection phase, we protect new technologies and expertise through multiple approaches (an "IP Mix"), extending beyond just patent protection. This is underpinned by a robust infrastructure of IP activities, including an IP governance framework and IP DX initiatives through our "Client Zero" model, which uses AI to enhance operational efficiency.

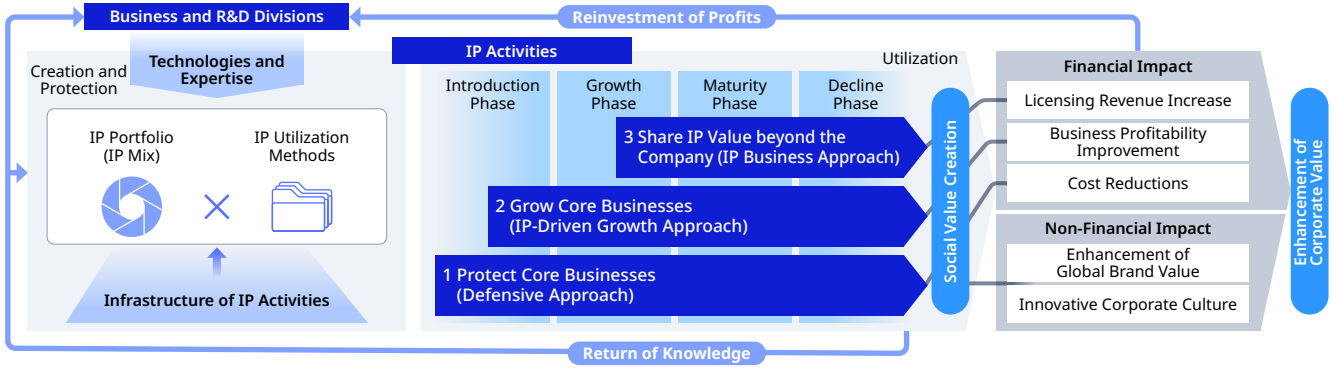
In the utilization phase, we draw on our accumulated IP utilization strategies to effectively use our IP portfolio in various forms throughout each stage of our business operations.

1) Defensive approach: Sustain competitive advantages and reduce costs by minimizing the risk of infringing on others' IP rights, thereby limiting licensing expenditures.
2) IP-driven growth approach: Increase business profitability by maximizing the value of growing business areas, including NEC BluStellar, through the strategic use of IP (please see below for more details).
3) IP business approach: Achieve stable growth of licensing revenue by promoting diverse forms of IP licensing, including licensing of know-how and other intangible assets.

Our goal is to enhance corporate value by driving an innovation cycle that reinvests profits and knowledge gained from IP utilization back into business and R&D activities.

For details on our IP-related policies and initiatives, please visit the websites below.
https://www.nec.com/en/global/intellectual-property/index.html
https://www.nec.com/en/global/sustainability/pdf/esg_data2025_EN.pdf#page=106

IP Activities as "Innovation Cycle Driver"



Column IP-Driven Growth Approach: Contributing to Business in the Biometric Authentication Domain

Regarding patents related to biometric authentication, NEC has secured a strong position against leading companies in both Japan and the United States.

To deliver technologies in the form of user-friendly products and services, NEC places importance on design elements such as face recognition devices and gates, as well as brands such as Bio-IDiom. Along with obtaining patents, we also protect these assets through design rights and trademark rights. Additionally, by implementing biometric authentication and digital ID technologies in-house, we are able to gain practical know-how in utilizing such advanced technologies, which in turn becomes an invaluable management asset. Moreover, we are also building a framework to effectively manage such know-how, and these initiatives have increasingly contributed to cases where customers choose our products and services.

Going forward, we will pursue initiatives that support business operations by designing business models, formulating pricing strategies, and developing partnerships that leverage IP. Through these efforts, we are working to enhance business profitability and convert our technologies and expertise into social value.

3 Patent Score is an index provided by Patent Result Co., Ltd., which evaluates the prominence of patents based on inspection history and other post-filing information. The graph was created by NEC using Patent Result's Biz Cruncher tool.

Biometric Authentication Technology: Overall Patent Score in the United States[3]

(Top 5 Companies)