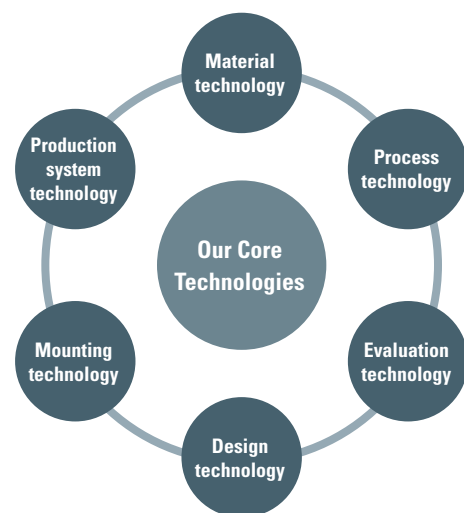


The Foundation of Our Research and Development Activities

Hikohachi Sato, the founder of TAIYO YUDEN, was a researcher in ceramic materials. Since its establishment, TAIYO YUDEN has believed that product commercialization should start from the development of materials. This has been one of the strengths of TAIYO YUDEN, and has resulted in us creating many products that have been “world firsts.”

The TAIYO YUDEN Group’s research and development activities are aimed at further honing the many elemental technologies it has so far developed to create products that are highly rated by its customers. In particular, the Group is focusing on the development of leading-edge products and high reliability products, as well as on creating new businesses by proposing solutions.

Over the past few years, we have been working to develop small all-solid-state batteries ideal for embedding in wearable and healthcare devices.



Achievement of Our Vision through Development of Smart Products

The TAIYO YUDEN Group aims to manufacture “smart products” and is actively working to develop and supply steadily such products.

We develop smart products to eliminate the three M’s—muda (wastefulness), mura (inconsistency) and muri (overburden)—over their entire life cycle from design through production, sales, and incorporation into the final product right up to final disposal, to add value for customers and local communities we serve as well as our employees.

Combining our “smart processes,” which utilized as development and promotional tools management systems for occupational health and safety, quality and the environment and other aspects, with our initiatives towards “smart products” that take usage and final disposal into consideration to reduce environmental impact, we strive to develop smart products.

We believe that our research and development activities

— Research and Development Principles —

“Innovative advance”

Technology precedence

Promote leading edge technological development as the precursor to innovative product development and become a global leader in technology

Reproducibility

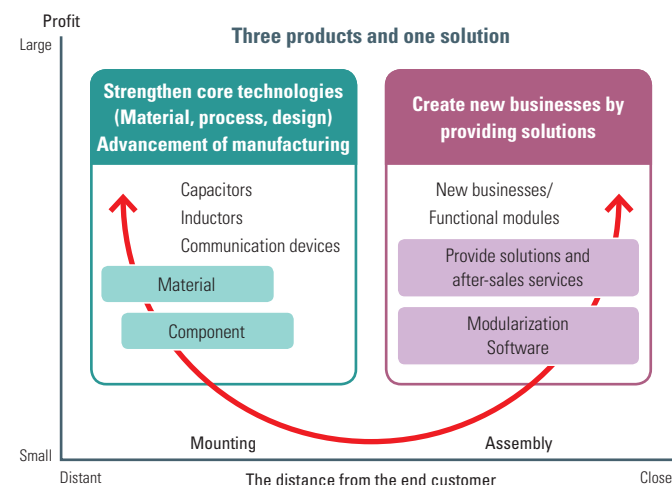
Logically verify the reproducibility of the technology we develop

Technological applicability

Develop technologies that are feasible and applicable economically to our manufacturing process and that meet critical environmental standards

Environmental consideration

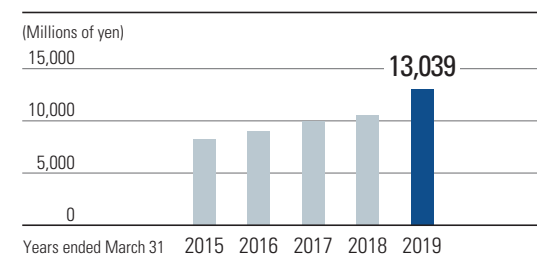
Devise technologies which can be applied not only to specific products but also to other areas useful to the markets we serve



aimed at creating a higher standard of smart products will enable us to realize our vision of “becoming an excellent company that enjoys the trust and highest regard from our customers.”

R&D expenses

We recognize that continuing innovations and advancement in our technologies through R&D is the foundation for the Group to create the future. With this belief, we will continue to invest in R&D activities and future development of our products.



R&D Center, TAIYO YUDEN’s Research Facility (Takasaki City, Gunma Prefecture)

As we were committed to continuing to create the world’s best products and uphold our claim to be “the TAIYO YUDEN of technology and the TAIYO YUDEN of development,” we opened the R&D Center in 1998. In 2003, we established an Anechoic Chamber Test Facility in the same complex, and accelerated our proactive R&D activities in the field of radio communication. Currently, the R&D Center of the TAIYO YUDEN Group drives development and technological progress and takes a role of a foundation of creativity focusing on the future.



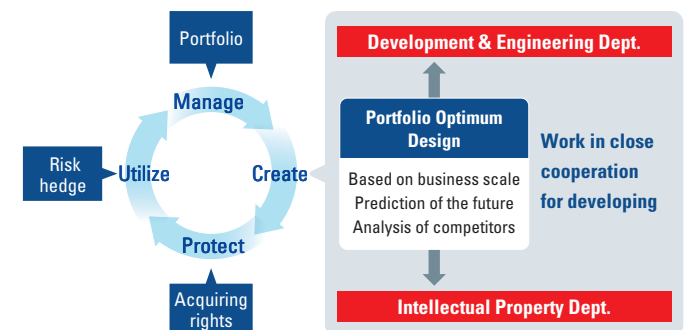
Activities on Intellectual Property Rights

Basic Policy

We, the TAIYO YUDEN Group, endeavor to obtain, maintain and protect intellectual property rights for proper use, and also to respect the intellectual property rights of third parties, in accordance with our CSR Code of Conduct.

Protection of Intellectual Property Rights

At TAIYO YUDEN, the Intellectual Property Department and the Development and Engineering Department work in close cooperation with each other from the early stages of developing new technologies and obtaining intellectual property rights. We have our own management system to create, protect and utilize the intellectual property rights that are suitable for each of our businesses.



Interview with the Head of the Intellectual Property Department

“Building an intellectual property portfolio based on design thinking”



Shigetoshi Akino
General Manager
Intellectual Property
Department

The TAIYO YUDEN Group’s intellectual property strategy is focused not on patent revenue, but on ensuring the freedom to operate. In other words, when creating its business strategy, the Company determines what intellectual properties are required, and then moves to secure the patents necessary to further enhance those properties.

Design thinking supports this as part of a new patent creation method. TAIYO YUDEN Group businesses are now expanding solution proposals in not only electronic components, but also in areas such as IoT. Using design thinking, we are focused on securing patents covering not just part structures and manufacturing methods, but also patents extending beyond the range of parts. Our goal in these efforts is to build an intellectual property portfolio closely in tune with our business strategies moving forward.

As a Companywide issue, I believe there is relatively little awareness of patents when intellectual property is created through the efforts of research and development. I would like to see a strengthening in this area and provide further support for employees involved in product development and operations to build their own intellectual property portfolios.