

Research and Development Activities



Developing research topics and allocating resources from a perspective of who it is useful for

When conducting R&D, we place a greater focus on who can benefit from it and what issue it solves than novelty. Research topics tend to be proposed from a perspective of being “interesting” or “highly novel.” However, this makes it difficult to thoroughly research technology and link that to product development. The purpose of corporate R&D should ultimately be to contribute to the solution of market issues. Therefore, we promote R&D that keeps in mind balancing the creation of new technologies and the practical use of those technologies for business.

Furthermore, for corporate R&D, a necessity for business growth, it is important to raise investment efficiency. In other words, it is important to increase the probability that an R&D topic can be commercialized. Of course, this requires considering not only the above market trends but also portfolio

management. Therefore, we break markets and technology into existing ones and new ones for ROHM, which creates four quadrants and makes visible the allocation of R&D resources (see following figure). Using the numerical figures in the diagram below as targets, we run the Company so that research topics are not skewed toward novelty.

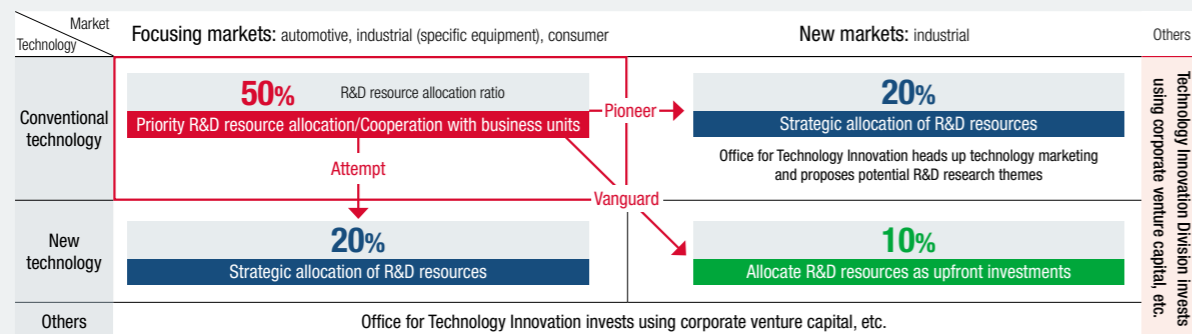
ROHM is not an extremely large semiconductor company as it is only about one-tenth the size of major global semiconductor companies. It is precisely because of this that we will increase the probability of R&D successes by concentrating resources on power and analog semiconductors, as is given in our Management Vision, and focusing on topics that contribute to solutions to social issues. In this way, we will steadily move forward in becoming a major global player.

Mechanisms that promote innovation

ROHM's R&D emphasizes linking individual efforts to recognition. Whether we can successfully compete against rivals is partially determined by whether technology we develop can be commercialized, and there are times when we are not successful in commercializing a technology, which means we lose to our rival. Even so, there is no losing or winning with the development of technology itself. All efforts related to technology, including failures, provide knowledge, and this knowledge can be used laterally in the Company in some way. Efforts that do not result in commercialization can also be beneficial if that

technology is made public and wins high praise. Winning praise from outside the Company stokes the enthusiasm of engineers, and thus is likely a steppingstone on our path to becoming a major global player. We are working to strengthen our R&D abilities that generate sustainable growth over the long term by not only actively releasing papers and making presentations at academic conferences but also forming partnerships with universities through our open research solicitation system and creating an environment in which researchers can possess a broad perspective.

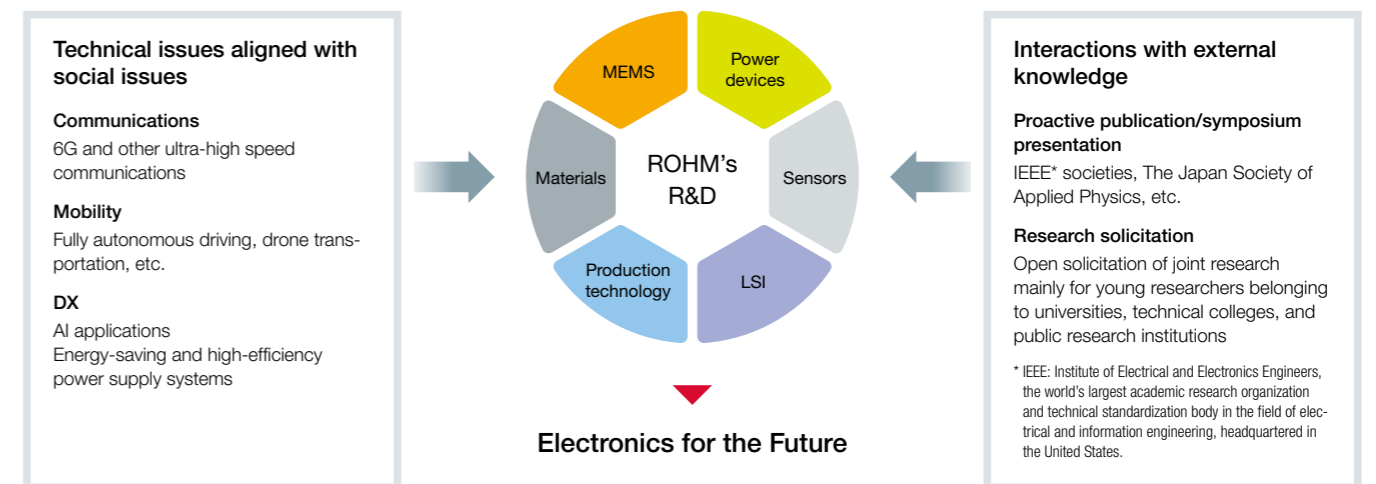
ROHM's R&D System and Resource Allocation



Research and Development System

The R&D Center conducts research to solve technological issues and advance existing products mainly in the areas of communications, mobility, and DX. As part of our open innovation efforts, we are also building stronger and broader partnerships with external research institutions through joint

research with universities in Japan and overseas, as well as through our open research solicitation system. In addition to key areas for ROHM, such as automotive and industrial equipment, we will continue to capture technology trends in new areas and exert our influence on innovation in targeted areas.



Cases Examples of R&D

1 Participating in Integrated Green-niX Consortium for Research and Human-Resource Development

We joined the Integrated Consortium for Research and Human-Resource Development (Green-niX), which was launched in March 2023 and is centered on three universities—Tokyo Institute of Technology, Toyohashi University of Technology, and Hiroshima University. Through this consortium, which brings together leading researchers on Si electronics at these three universities, we aim to create green semiconductors that have little environmental burden by conducting R&D related to 2D materials and ferroelectric materials, future semiconductor materials, and similar activities while incorporating the R&D needs of companies.

ROHM has clearly stated that it will contribute to the consortium on the two fronts of R&D and human resource development. We are working to establish new collaborations by not only providing educational opportunities to the undergraduate and graduate students of consortium member universities through ROHM original lectures but also promoting exchanges between undergraduate students, graduate students, and professors and ROHM engineers and researchers, who have until now had little contact with each other.

2 Incorporating new independent perspectives through open research solicitation

At ROHM, we solicit joint research topics through our open research solicitation system, which targets researchers who belong to universities, technical colleges, and public research institutes. ROHM indicates needs related to advanced analysis methods, principle analysis, and undeveloped technologies, and in response, research institutes make proposals related to corresponding research results, technology they possess, and new ideas. If there is a match, we provide up to 2.5 million yen annually to conduct joint research for up to three years. This joint research with universities is strongly stimulating for various reasons, including giving birth to ideas from a perspective of “why does this happen,” a question often not examined when a company conducts research on its own, and an overall academic perspective. These exchanges also have secondary benefits, such as instilling in students an interest in ROHM.