

Creating new businesses steadily and swiftly

[Business Creation Sector]

“Help build a better future.” By taking on this challenge and making it come true, we will help improve the sustainability of society and enhance the corporate value of Mitsui Kinzoku Group.

We see the process of creating new businesses through market co-creation as the following.

- 1) Cultivating opportunities for co-creation by combining our technologies and external strengths, through communication and joint activities with external contributors such as partners, customers, startups, universities, and research institutions
- 2) Materializing new products through innovative technologies by leveraging and advancing our core technologies and know-how, and building a supply chain by taking full advantage of the sales channels we have cultivated

We have defined the following factors as the keys to the creation of new businesses through this process, and organized departments accordingly within the sector.

- i Co-creating markets
- ii Creation of new technologies
- iii Development of human resources capable of creating new businesses

The Market Co-creation Department drives the first key factor, co-creation with the market, as well as exploring and creating business opportunities. The department is currently working on the creation of potential partnerships that will lead to new businesses by broadening the scope of communication, mainly in the fields of the environment and energy such as battery materials and catalyst materials. Through these efforts, we aim to develop opportunities for co-creation with external contributors.

The R&D Center is responsible for creating new businesses, that will play a core role in the future, through creative research and development (R&D) of our core technologies.

By conducting R&D activities in line with market trends, we move forward with new business creation in a swift and timely manner. Specifically, R&D themes are grouped according to their stage of progress. We select those nearing commercialization as new priority themes, for which we introduce equipment for mass production, establish operational requirements, build a quality assurance system, and establish a supply system. The latest theme we are working on is solid electrolyte for all-solid-state batteries.

The Production Process Development Department breaks down the new business into highly competitive processes, adopting innovative equipment and production technologies.

By engaging in themes from the beginning, including not only R&D but also the cultivation of opportunities for co-creation, we can ensure that key mass-production technologies are incorporated in the processes. Through these efforts, we will swiftly develop mass-production technologies that can demonstrate the intended function, while also ensuring our competitiveness.

The department is already playing this critical role in our new themes: solid electrolyte for all-solid-state batteries (ASSBs) and special glass carrier for next-gen semiconductor chip mounting HRDP®.



Executive Officer,
Senior General Manager of Business Creation Sector

YASUDA Kiyotaka

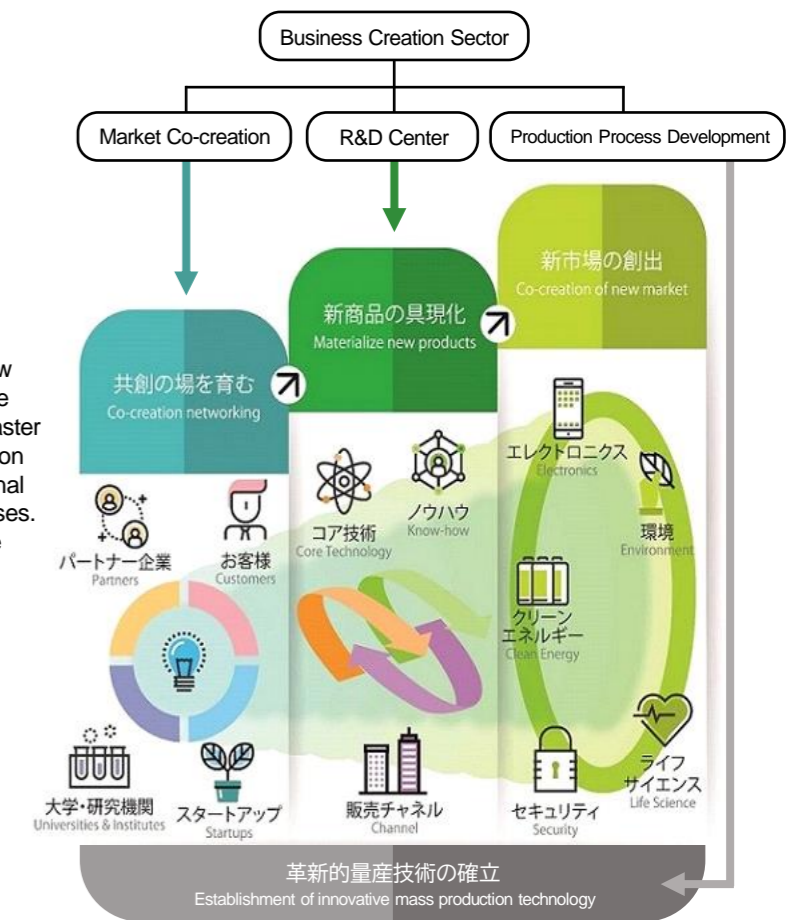
One year has passed since the Business Creation Sector was established under Corporate. Under the sector's mission to create profitable new products and businesses steadily and swiftly, we play a key role in “exploring new businesses” in the Group-wide efforts for ambidextrous management.

Road to creation of new businesses

While it takes considerable time to commercialize new materials and technologies, one thing is certain: In the next 10 years, the world will change drastically and faster than ever. We will further accelerate market co-creation activities, combining our core technologies and external strengths in an innovative manner, to create businesses. By striving to build a better future and making it come true, we will improve the sustainability of society and help enhance the corporate value of Mitsui Kinzoku.

[Figure on the right]

Creation of new businesses through market co-creation and the structure of the Business Creation Sector



Final year of the 2019 Medium-Term Management Plan

Our three priorities to accomplish in FY2021

1 Launching products on new priority themes

We are moving forward with sales and customer evaluation of solid electrolyte for all-solid-state batteries and HRDP® products. We will take steady steps toward their commercialization.

2 Preparing for the creation of future large-scale business opportunities

While we are making solid progress in acceleration of R&D and transformation to become a business creator, we can do much more in terms of large-scale themes for the future. This year, we will focus on societal needs, including environmental issues, work together as the entire sector to envision the future, and work on R&D and identification of new business themes to create large-scale business opportunities that can also contribute to the sustainability of Mitsui Kinzoku.

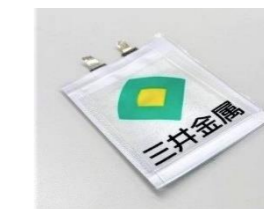
3 Completing the establishment of an autonomous and independent system and transformation to become committed individuals/organization

We will enhance our system in driving commercialization, particularly in the development of mass-production processes. We will also strengthen our network with universities and external research institutions to develop human resources capable of creating new businesses.

Progress on the new priority themes

Solid electrolyte for all-solid-state batteries (ASSBs)

- [Market development]
- Now shipping small ASSB samples to Maxell, Ltd.
 - Now shipping world-class ASSB samples to Hitachi Zosen Corporation
- [Mass production]
- Established a mass-production system on the existing production line and started shipping products
 - Completed scale-up mass-production test equipment, and working to establish mass-production technologies



Special glass carrier for next-gen semiconductor chip mounting HRDP®

- [Market development]
- Started shipping products to composite chip module manufacturers in Japan
 - Will start mass production for major overseas mount manufacturers in FY2021
- [Mass production]
- Established a mass-production system with Geomatec Co., Ltd. and started shipping products

