

Aiming to develop new businesses and foster new markets through a broad range of co-creation projects with customers

Under the UACJ Vision 2030, announced in 2020, the UACJ Group is aiming to improve profitability by targeting growth markets and industries while broadening its business domains through new development. Toward this end, UACJ's Research and Development Division has been focusing on and becoming involved in further developing established businesses and fostering all-new businesses. For companies to survive today, pursuing new challenges is essential. From that standpoint, the division selects between 10 and 20 projects to work on from many important R&D topics identified each year. The projects include cutting-edge research with potential for international recognition if applications are eventually developed.

For UACJ, co-creation with customers will be increasingly important for R&D in the future. Many customers ask about whether aluminum can be used in certain applications. Making sure to capitalize on these new business opportunities, the Research and Development Division analyzes information and data provided by the Company's aluminum business departments, and assists those departments with the development of new applications in partnership with customers. Through this approach, UACJ has amassed experience in overcoming many technological challenges, enabling it to commercialize products and diversify businesses ahead of its competitors around the world. For instance, based on its track record in pharmaceutical packaging foil, which requires an extremely high level of reliability, UACJ was chosen as a partner in a project to jointly develop a foil that can detect whether a package has been opened, together with SAP Japan Co., Ltd., and Doctors, Inc.

Amid rising expectations for aluminum's environmental applications, opportunities for co-creation aimed at reducing

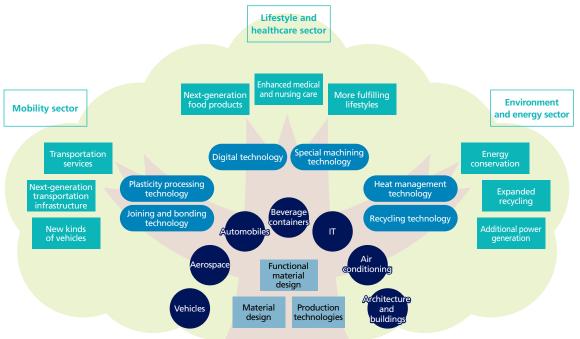
CO₂ emissions are also increasing. For example, UACJ is working together with Toyota Motor Corporation to develop automobile body panels made of recycled aluminum. Aluminum is highly recyclable, and since producing it from scrap emits only about 3% of the CO₂ emitted from the production of virgin aluminum, recycling aluminum is an extremely effective way of reducing CO₂ emissions. The aluminum panels developed with Toyota are made with scrap aluminum alloys of various types, and comprise about 50% of the finished materials. This will allow Toyota to decrease the new aluminum it has previously used by about 50%, thereby reducing CO₂ emissions from aluminum production by half. In addition to this project, UACJ is carrying out research on high-grade aluminum recycling, by which new aluminum is refined from low-grade alloys, together with Japan's New Energy and Industrial Technology Development Organization.

By building on such co-creation projects, UACJ aims to be a partner of choice and have aluminum chosen as a material for all kinds of applications. In this way, the Company will work to broaden its businesses and contribute to a more sustainable world in accordance with the UACJ Vision 2030.

A highly skilled team assembled to drive UACJ's digital transformation

UACJ has initiated various measures to promote a digital transformation of its operations. In fiscal 2016, the Company set up a laboratory in its R&D Center to conduct leading-edge research on production technologies, particularly independent research on advanced digital technologies and Al applications for the Group's manufacturing divisions. In 2021, UACJ established its Digital Innovation Department and Information Systems Department to launch company-wide projects.

Leveraging technological expertise to expand business areas



Characteristics of aluminum

- Surface processibility Usable at low temperatures Attractive appearance Highly corrosion-resistant Strong Lightweight
- Easy to recycle High thermal conductivity Excellent machinability Non-magnetic Non-toxic Highly electrical conductive

The goals of this digital transformation are to spark innovations in business organizations and processes throughout all operations, and to gain a competitive edge in the market. In manufacturing, this transformation involves integrating all operations, from receiving orders to shipping finished products. In management, integrated business management systems will be used to centralize information, thereby realizing data-driven management. To carry out a digital transformation, a very diverse range of operations are necessary besides digitalization, starting from the organization of work procedures through to the development of solutions for output-oriented tasks. Therefore, the Company's management recognizes that setting and systematically implementing priorities based on the procedural flow as a whole is essential. Over the span of a year, it has being clarifying key performance indicators for assessing the status and progress of measures for realizing the digital transformation.

While the departments in charge of promoting this transformation are not particularly large organizations, they are teaming up with members of various other departments who are keen to actively realize it on an interdepartmental level. This framework was adopted as a means to organically entrench the transformation across the Company's operations.

A digital transformation will enable accumulated expertise to be applied more easily and increase the potential for new discoveries, thereby dramatically improving the speed and performance of manufacturing and R&D. It can also greatly contribute to new business creation and solutions for issues facing society, which can lead to innovations within the Company. UACJ intends to leverage these benefits as it makes progress towards realizing a digital transformation with a view to maximize the potential of aluminum in the future.