

R&D Leading the Next Generation



*Akira Fujisaki**

In 2024, the Furukawa Electric Group celebrated our 140th anniversary, and established the new Furukawa Electric Group Purpose: “Composing the core of a brighter world.”. This purpose reflects the Group’s reason for being, namely to build a core that will connect to a better future by engaging with and taking on the various issues that exist in society today. This effort will rely on the strengths in technology and proposal capabilities that we have honed since our founding. The Group has always defined the four core technologies of metals, polymers, photonics, and high frequency as our foundation, and has honed these as our strengths. And we have leveraged these technologies to develop many world-first and one-of-a-kind products.

The Group’s information-related products and services function as the infrastructure that supports today’s generative AI markets, which have recently undergone explosive growth. Given that the rapid evolution of generative AI is expanding data traffic at an accelerating rate, the information and communication networks essential for the next generation of AI will require greater capacity as a matter of course, as well as low power consumption and low latency. Meanwhile, photonics-electronics convergence technology and hollow core fiber technology will contribute significantly to solving this social issue.

In order to achieve our carbon neutral goals, the Group possesses unrivaled metals technology, of which our superior structure control technology for

copper alloys, in particular, have received high praise from our customers. In addition, our high-strength aluminum technology that applies these technologies and knowledge to developing aluminum alloys will contribute to light weight mobility.

As part of our efforts to reduce greenhouse gas emissions, we developed a cellulose fiber-reinforced resin called CELRe by leveraging our technologies for fully utilizing biomass materials. Our resin kneading technologies and dispersion blending processes cultivated through our cable manufacturing activities ensure that CELRe can also be recycled, all while achieving both strength and impact resistance at low cost.

We also apply our material technologies to metal catalysts. With the support of the Green Innovation Fund, we began constructing a demonstration test plant for our Green LP gas production technology in Shikaoi Town, Hokkaido, in August of last year, and are advancing preparations for real-world implementation.

Further expanding the activities reported in this issue, however, will require wide-ranging collaborations among industry, government, and academia, as well as stronger cooperation with our stakeholders. There is nothing more exciting than seeing someone who has picked up this issue take an interest in the Group, and share in our desire to work alongside each other for the future. Come and work together with the Group to realize “Composing the core of a brighter world.”.

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