



Fun Lab creates innovation to realize a prosperous society

Broadcast the state-of -the-art technology to realize a sustainable society



<http://www.furukawa.co.jp/funlab/en>



In August 2016, an open laboratory named Fun Lab was established in Yokohama Works as a “place” to promote open innovations and to create new businesses by transmitting our technology. We are utilizing it as the platform to further strengthen open innovations through a Collaboration with customers and other companies, universities, public research institutions and others.

Assignment of the establishment in Yokohama is because it is Furukawa Electric was founded and it is where the core of research and development resides.



Scenery from Takashimadai in around Meiji 40.

The roots of Yokohama works is where the Yamada Cable Works was established at present Kinkocho in 1884 (Meiji 17), therefore Yokohama is one of the founding places of the Company. And, as a part of the events commemorating the 100th anniversary, the Central Laboratory which was located in Oimachi, was relocated to Yokohama, and where Yokohama R&D Laboratory was opened in 1987. Thus, Yokohama is also the central core of the technology for the Company. The fact that Fun Lab is opened in this land is the message that the Company that has continued its contribution to the society through the relentless technological innovation beyond the century, will further accelerate its technological innovation and will continuously contribute to the society.

Concept of Fun Lab

“The place” was used for communication with people outside the Company and for knowing each other, then facilitate open innovation in the following 3 stages.

COMPREHENSION

Recognize each other’s strength.

COOPERATION

Propose and share new senses of values utilizing each other’s strength.

COLLABORATION

The place to jointly expands and realizes the shared senses of values.

Feature of Fun Lab

- 1 On both sides of walls following the Fun Lab entrance, the history of the diversification of the technologies and the products are exhibited as a genealogy of the technologies. With these displays, we wish that visitors will deepen their understanding of our technologies and have a sense of trust and security.
- 2 Visitors can have a look at our technologies with the exhibits in each field of “superconductivity”, “nanotech” and “energy”, centered in our core technologies in “metals”, “polymers”, “photonics” and “high frequency electronics”. Weight reduction and fuel economy of automobiles, the latest information communication network and the state-of-the-art technologies, which are applicable to expansion of renewable energies and which contribute to the realization of a sustainable society, are exhibited.

- 3 The Collaboration area is surrounded by full-wall whiteboards, and idea matching boards. The area is designed to become a place where it is easy to create new values through discussions with people outside the Company.
- 4 The exhibition panels and the samples are displayed individually on portable display fixtures. While discussing in the Collaboration area, necessary panels can be moved and available to discuss while handling the sample.



Collaboration area

Usage status of Fun Lab - Towards realization of the sustainable society -

“The OneF car”, which is a small EV implementing the technology and the products of the Group Company, was exhibited. With this exhibition, the latest technology such as the millimeter wave radar that realizes automatic driving and the CNT electric wire leading to weight saving of automobiles, are made available to watch on a dynamic exhibition. (2017/8/2 press release)

As of the end of March 2018 which is about one and half year since its establishment, 189 groups (more than 800 people) from inside and outside the Company and 58 groups from the Group companies have participated and Fun Lab has been in rising popularity. Among the visitors are Yokohama Small and Medium Enterprise Support Center, Yokohama City Policy Bureau, local junior high school students, etc., and it is becoming recognized in the area. Also, media company’s people visited and reported our activities in a news release.



Appearance of the OneF car

Future Fun Lab

We are planning to expand the contents of discussions with visitors by increasing exhibit items and by carefully improving the means of displays. We will make further promotion for new application methods of Fun Lab, such as increasing foreign visitors, promoting of the use of the Group companies, holding workshops, and further open innovation will be pushed on.



The local junior high school students conducted scientific experiments

Students in Yokohama city Seya junior high school visited Fun Lab for their company experience on January 30 and 31, 2018.

They experimented the magnetic levitation from high-temperature superconductivity, along with acquiring their understanding about the principle of the near future superconducting linear Shinkansen. It was an opportunity for them to learn that the superconducting technology contributes to the realization of high energy efficient social infrastructures such as the electricity storage technology in the flywheel, the wind power generator.



Open the Social Cooperation Program at the University of Tokyo

On January 31, 2017, Professor Masayuki Nakao of the University of Tokyo Graduate School of Engineering Department of Mechanical Engineering visited Fun Lab and looked at our latest technology. Based on this initiative, and as a result of discussions, it is possible to develop diverse and innovative technologies through the integration of the unique technologies and know-how owned by the Company, the advanced technologies and the broad range of discernment of the University of Tokyo. As a result from February 2018 the Social Cooperation Program “Creation of the Next-Generation Signal and Power Transfer Technologies” was opened at the University of Tokyo.

Innovative technology with the open innovation

In the Social Cooperation Program being opened this time, by integrating the material research and the production technologies which have been developed over many years in the Company with the advanced academic expertise possessed by the University of Tokyo Graduate School of Engineering the themes in the following areas are implemented with the aim of improving quality and productivity, of creating new business and new products and of developing advanced professional human resources.

1. Utilization of the lot related technologies leading to MONOZUKURI innovation.
The lot and AI are key wards in the research and development contributing quality and productivity improvement.
2. New business and new products creation. (Products designing, Process designing, Control technology)
New materials research and development such as the carbon nanotube electric wire and the thermoelectric conversion element.



Left: President Gonokami (The University of Tokyo)
Right: President Kobayashi (Furukawa Electric)