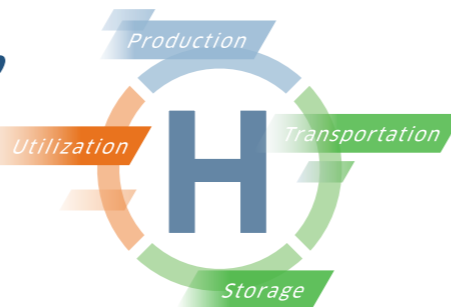




Hydrogen-Based Society Moving Forward!

GO! GO! Developers' Voices Hydrogen Road



That which drives forward Kawasaki's endeavors to realize a hydrogen-based society is a commitment to "pioneering the future," made by each employee involved in hydrogen projects. SCOPE's editorial team asked six employees who are at the forefront of various development projects to share their thoughts and aspirations regarding hydrogen as an energy source.

"Hydrogen is a 'clean' form of energy that produces no CO₂ when used. It can be produced from many different resources around the world via a variety of methods, and can be transported and stored in various forms. Since Japan is a country with limited natural resources, the use of hydrogen could contribute to enhancing its national energy security."

Sayaka Yagi
Project Development Department
Hydrogen Project Development Center
Corporate Technology Division



Ms. Yagi is in charge of liaising mainly with the Hydrogen Council, a global initiative of private companies promoting hydrogen deployment. She comments, "Collaboration on a global scale is a prerequisite to increasing the deployment of hydrogen. While each country and corporation has its own interest and focus, I would like to drive forward our hydrogen business by communicating to others the Company's vision and approach."



"Nature is irreplaceable. To pass it on to the world's future generations, I'd like to establish technologies for hydrogen use to realize a world where clean energy can be used freely!"

Yuichi Emi
Project Control Department
Hydrogen Project Development Center
Corporate Technology Division



Mr. Emi is in charge of project management for demonstration testing at the liquid hydrogen loading/unloading terminal on Kobe Airport Island. He thinks that using hydrogen allows us to transport energy over longer distances and store it for a longer term than electricity. "Because my wife and I both love to travel, we'd like to see the natural sceneries we've encountered in the world preserved, using clean hydrogen energy."

"When hydrogen is combusted, it becomes water, and when water is decomposed, hydrogen is once again released. This reversibility of hydrogen that allows for repeated use as an energy carrier, as well as its sustainability, is a true gift for the future."

Keisuke Nakagawa
Industrial and Hydrogen Plant Department
Industrial Plant Engineering Group
Energy System & Plant Engineering Company



Mr. Nakagawa is designing a hydrogen liquefaction plant. As the world increasingly shifts from mass consumption to practicing the 3R's (reduce, reuse, and recycle), he is concerned that the energy sector overall is lagging behind in the development of technology that improves reversibility in energy. "Hydrogen is reusable, semi-permanently, so we are working to realize its use on an industrial scale."

"In considering the future of my own two children, who were born recently, the use of hydrogen energy has become a theme that is a lot more relevant to me than it was before!"

Takuto Naoe
R&D Department of Liquefied Hydrogen Carrier
Engineering Division
Ship & Offshore Structure Company



Mr. Naoe is designing the electrical portion of the hydrogen-related equipment for our pilot liquefied hydrogen carrier currently being built. He and his wife lived in Hokkaido until they graduated from university, and he comments, "My children were born close together, and their births reminded me of how precious it is to live in Hokkaido where the beauties of nature and clean air are preserved. My approach toward my work changed dramatically at that time, too, because I had an increased desire to preserve the environment for the sake of our children's future."



"I think hydrogen energy leads to a brighter future. Because hydrogen-related equipment uses a variety of innovative technologies, their effects need to be carefully checked from different angles. Our checks are therefore performed in the context of actual hydrogen usage, which we do to realize a safe and clean hydrogen-based society."

Tetsuya Taguchi
HSE & Standard Promotion Department
Hydrogen Project Development Center
Corporate Technology Division



Mr. Taguchi is responsible for evaluating the safety of liquefied hydrogen carriers. He collaborates cross-divisionally to develop processes for safety evaluations. He says, "In the future, I'd like to apply to other Kawasaki products the methods we are currently developing to ensure the safe use of hydrogen."



"Some consumers still feel hesitant or have misunderstandings about the transition to hydrogen energy. Establishment of a reliable hydrogen supply chain should convince such people that hydrogen is the energy of the future."

Chie Komori
Project Development Department
Hydrogen Project Development Center
Corporate Technology Division



Ms. Komori is responsible for negotiating with our project partners in commercializing a series of liquefied hydrogen supply chains, in which hydrogen is produced and liquefied overseas and then transported to Japan by a liquefied hydrogen carrier where it is unloaded and distributed. She says, "My father was a solar power engineer, and he was very happy to hear that I was going to be involved in the hydrogen business. He has been supportive of me, and to carry out his wishes, I'd like to contribute to establishing a stable supply of clean energy."

NOW UPLOADED!

"カワル、サキへ。* Changing forward"
Check out our new video,
"Hydrogen-Based Society"!



"We wish to remain as an innovative creator, always changing, seeing one step ahead and transforming fast enough to keep up."

A series of short movies — "カワル、サキへ。Changing forward" — is on Kawasaki's official YouTube channel. They express the Company's strong determination to lead the world in times of change. In the "Hydrogen-Based Society" episode, we feature efforts made by our employees to realize a society reliant on hydrogen energy. Please enjoy this short movie, which contains rare footage, such as scenes from the construction of our liquefied hydrogen carrier.



"カワル、サキへ。Changing forward" Special Site

<https://global.kawasaki.com/en/stories/articles/vol47/#hydrogen>

* Reads KAWA-ru, SAKI-e