

# ENEOS and Toyota Come Together to Make Woven City the Most Hydrogen-Based Society

*The “human-centered” city of the future aims to become fully carbon-neutral*



Tokyo, Japan, May 10, 2021—ENEOS Corporation (ENEOS) and Toyota Motor Corporation (Toyota) announced that they have agreed on a new partnership to explore the utilization and application of hydrogen energy at Woven City, the prototype city of the future that Toyota has started to develop in Susono City, Shizuoka Prefecture. ENEOS and Toyota, together with Woven Planet Holdings (Woven Planet), a subsidiary of Toyota, leading the Woven City project, intend to conduct testing and demonstration in areas related to a hydrogen-based supply chain, from production, delivery to usage of hydrogen, in and around Woven City. Through this effort, they aim to help achieve a carbon-neutral society by 2050 as Japan and many other countries around the world have committed.

ENEOS is a leading company in the hydrogen business, operating 45 commercial hydrogen refueling stations in the four major metropolitan areas in Japan. In anticipation of a fully hydrogen mass-consumption society and to promote the overall low-carbon use of energy, ENEOS is also developing technologies that facilitate hydrogen production and building an entire supply chain based on CO<sub>2</sub>-free hydrogen.

Positioning hydrogen as one of the most viable clean energy sources in the future, Toyota has invested in hydrogen and fuel cell technology and its popularization through efforts to apply the technology in various mobility including passenger cars, commercial vehicles, industrial vehicles (e.g. forklifts), trains, and ships, as well as stationary generators.

The aim of this project is to build a society in which people can enjoy a happy, healthy, and sustainable life. Through this partnership, the companies are leveraging each other's expertise and experience to fully explore hydrogen's potential. At Woven City, they intend to promote carbon neutrality in everyday mobility, people's lives, and within the infrastructure of the city itself as well as to raise awareness of hydrogen among resident families and visitors.

Woven Planet is responsible for the planning of Woven City with Toyota and the following four areas are to be explored by the companies through this unprecedented collaboration:

- 1) ENEOS to establish and operate a hydrogen refueling station in close proximity to Woven City.
- 2) ENEOS to produce “green hydrogen,” hydrogen derived from renewable energy, at the aforementioned station and to supply Woven City using stationary fuel cell generators to be installed within the city by Toyota.

3) Promote the use of hydrogen-powered fuel cell mobility for logistics in and nearby Woven City. Validate a base unit\* of hydrogen demand for those mobility logistics as well as build a supply and demand management system.

4) Conduct joint advanced research on hydrogen supply at the demonstration hub to be established within Woven City.

Katsuyuki Ota, president of ENEOS said, "We strongly support Toyota's bold vision for demonstrating technologies of the future through Woven City and are delighted to participate in the project. We believe that hydrogen energy will play an integral role in the realization of carbon neutrality on a global scale and that Toyota is at the forefront of developing a fully hydrogen-based society. By working together with Toyota to fully explore hydrogen's potential, we believe we can make a significant contribution to the creation of new hydrogen-based lifestyles. I sincerely hope that by demonstrating Woven City's approach across the globe, we can accelerate our progress toward a new, more sustainable energy future."

Akio Toyoda, President and CEO of Toyota Motor Corporation, said, "We are very pleased to have ENEOS as our core partner to validate the hydrogen society in Woven City. As Japan's leading integrated energy company, ENEOS has demonstrated its valuable expertise in all vital processes from hydrogen production to sales and we are confident they have the holistic perspective we require for success. To realize a hydrogen-based society, in addition to the evolution of individual technologies, it is essential to seamlessly integrate all the processes of production, delivery, and use. We will continue to work with ENEOS and the local community to develop the base unit of hydrogen throughout Japan and around the world. Our "Human-Centered approach" to the real world of Woven City will help us fully explore the practical details of hydrogen-based lifestyles and technologies."

Woven City is pioneering a profound evolution in how societies of the future will live, work, and play. Three fundamental concepts are critical to its development; "Human-Centered" respect for individuals and prioritization of their needs and preferences; "Living Laboratory" which enables seamless real-world testing of new technologies such as hydrogen; and an "Ever-Evolving city" in which such new technologies and services continuously grow and improve.

Together with ENEOS and many other like-minded companies, researchers, and inventors around the world, Toyota and Woven Planet are working to accelerate their efforts to build a city for happiness.

\*The "base unit" is a standard of measurement required to ensure a result that is both practically valuable to users and commercially viable.

### **About ENEOS Corporation**

Under ENEOS Holdings, Inc., the ENEOS Group has developed businesses in the energy and nonferrous metals segments, from upstream to downstream. The Group's envisioned goals for 2040 are: becoming one of the most prominent and internationally-competitive energy and materials company groups in Asia, creating value by transforming our current business structure, and contributing to the development of a low-carbon, recycling-oriented society with the pursuit of carbon-neutral status in its own CO<sub>2</sub> emissions. ENEOS Corporation, one of the principal operating companies in the Group, is contributing to achievement of the Group's envisioned goals through a broad range of energy businesses.

<https://www.hd.eneos.co.jp/english/>

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### **About Toyota Motor Corporation**

Toyota Motor Corporation (Toyota) (NYSE: TM) is the global mobility company that introduced the Prius hybrid-electric car in 1997 and the first mass-produced fuel cell sedan, Mirai, in 2014. Headquartered in Toyota City, Japan, Toyota has been making cars since 1937. Today, Toyota proudly employs 370,000 employees in communities around the world. Together, they build around 10 million vehicles per year in 28 countries and regions, from mainstream cars and premium vehicles

to mini-vehicles and commercial trucks, and sell them in more than 170 countries and regions under the brands Toyota, Lexus, Daihatsu and Hino. For more information, please visit: <https://global.toyota/en>.

### **About Woven Planet**

At Woven Planet Group, we are on a mission to design a happier planet through secure, connected mobility solutions. Starting business in January 2021, Woven Planet Group is an expansion of the operations of Toyota Research Institute - Advanced Development, dedicated to bringing its vision, "Mobility to Love, Safety to Live" to life. Under this shared goal, our four companies, Woven Planet Holdings, Woven Core, Woven Alpha, and Woven Capital are transforming how people live, work, and move through new innovations and investment in automated driving, robotics, smart cities, and more.

For more information, please visit: <https://www.woven-planet.global/>