

# HEXA STAR

## SYSTEM

This project presents a modular system of floating platforms designed for renewable energy generation on water, specifically developed with Japan in mind. Due to its mountainous terrain and limited available land, Japan relies heavily on offshore energy infrastructure, making floating solutions particularly relevant.

The system consists of two distinct module types: a hexagonal module for solar energy and a star-shaped module for wind turbines. The platforms float using recycled rotor blades from wind turbines, which are positioned vertically in the water to provide buoyancy. This approach not only promotes sustainability through reuse but also ensures high load-bearing capacity.

The star-shaped module is engineered to support wind turbines and can only be expanded by connecting to hexagonal modules. The hexagonal modules, in contrast, are fully scalable in any direction and can also be used to extend the star-shaped platform.

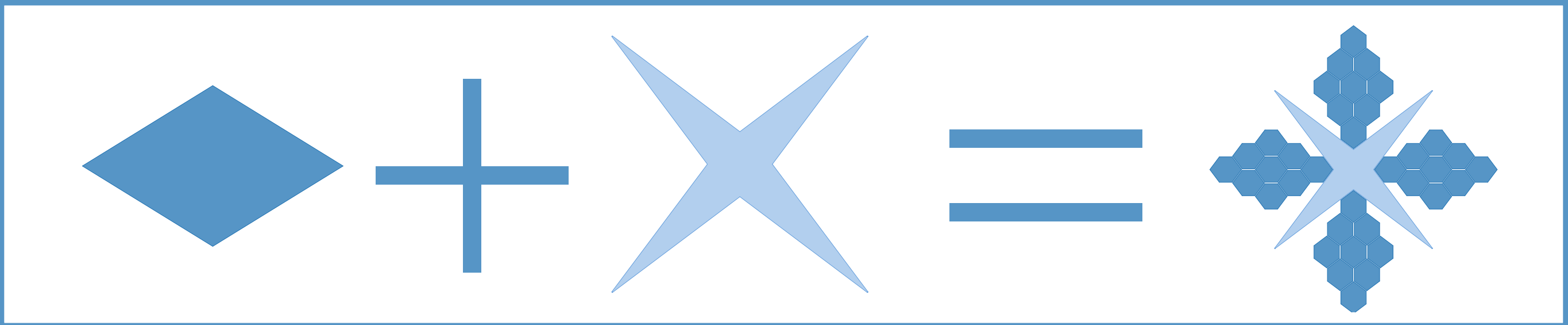
Thanks to this modularity, the system is highly adaptable and can withstand several tons of load, making it ideal for large-scale offshore renewable energy arrays – especially in coastal regions like Japan, where innovative floating solutions are key to meeting energy demands sustainably.



# Strategic Locations

The diagram highlights areas where offshore energy facilities have already been built and are currently in operation. These blue circles mark ideal locations for implementing the modular platform system.

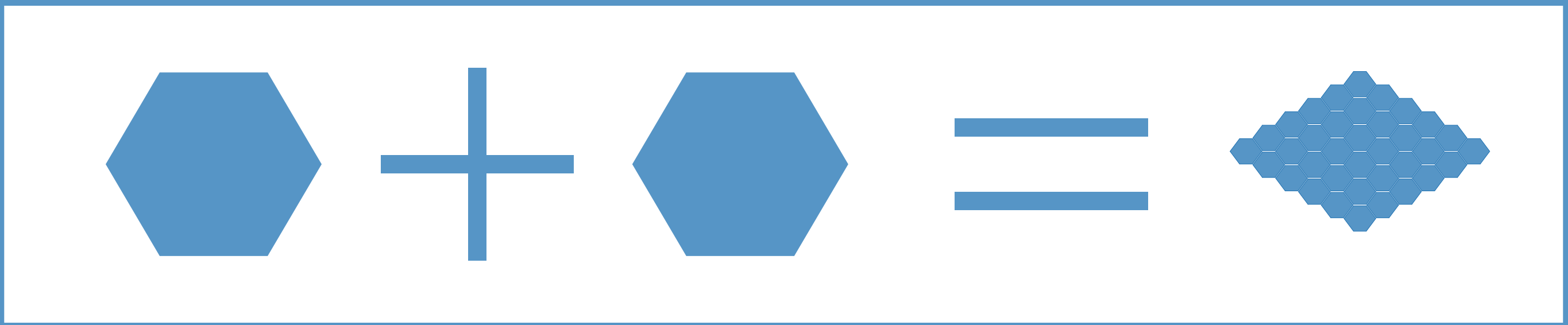
Given that sustainability is a core principle of this project, it would be counterproductive to transport the recycled rotor blades over long distances. Building the platforms near existing offshore infrastructure makes the most environmental and logistical sense. Establishing construction and deployment in one of these marked regions reduces emissions and supports a localized, circular approach to renewable energy development.



Solar Platform

Wind Platform

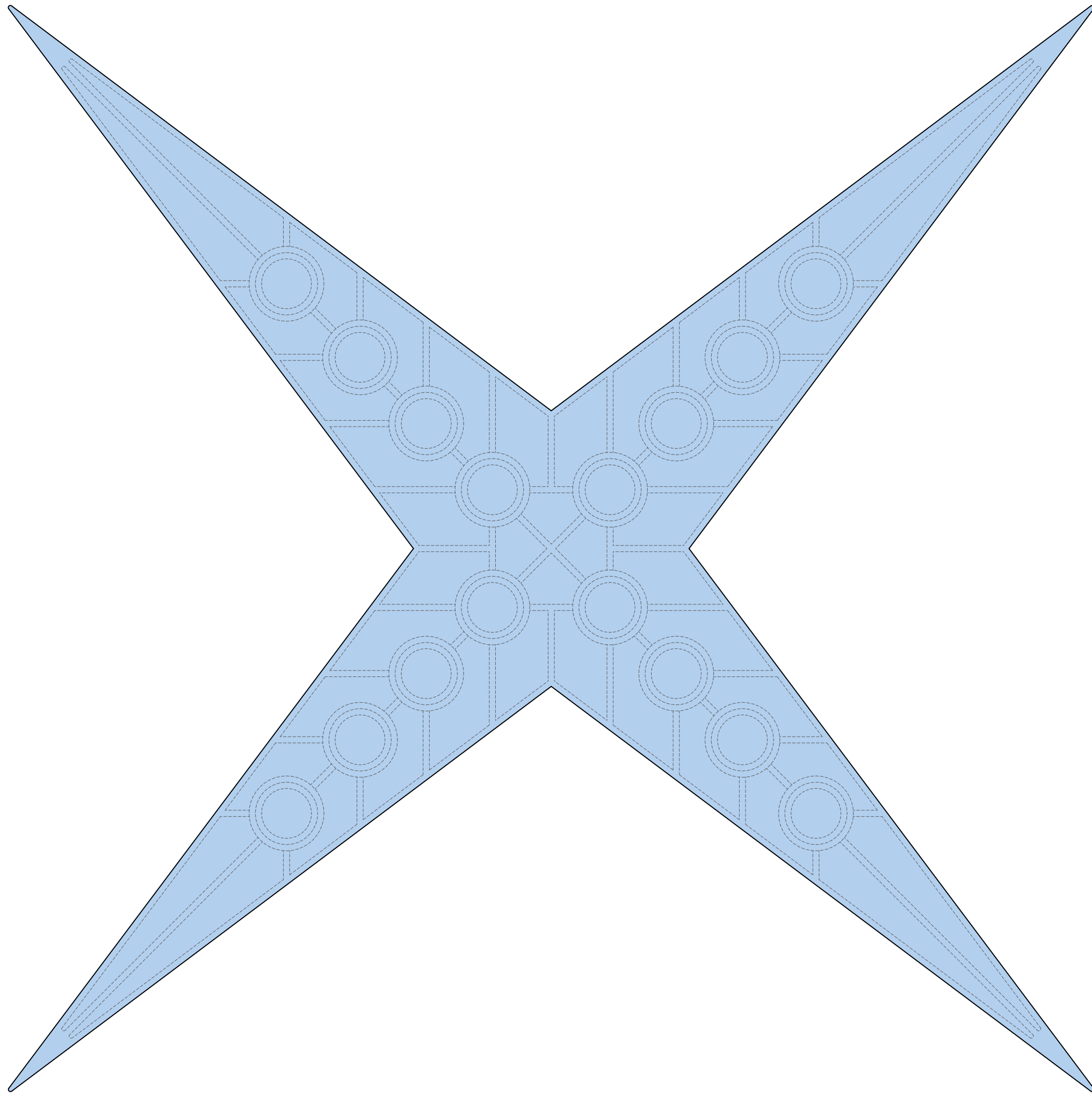
Wind and Solar combination



Solar Platform

Solar Platform

Solar Platform combination



Star Module Top View  
rethink\*rotor goes to Japan

