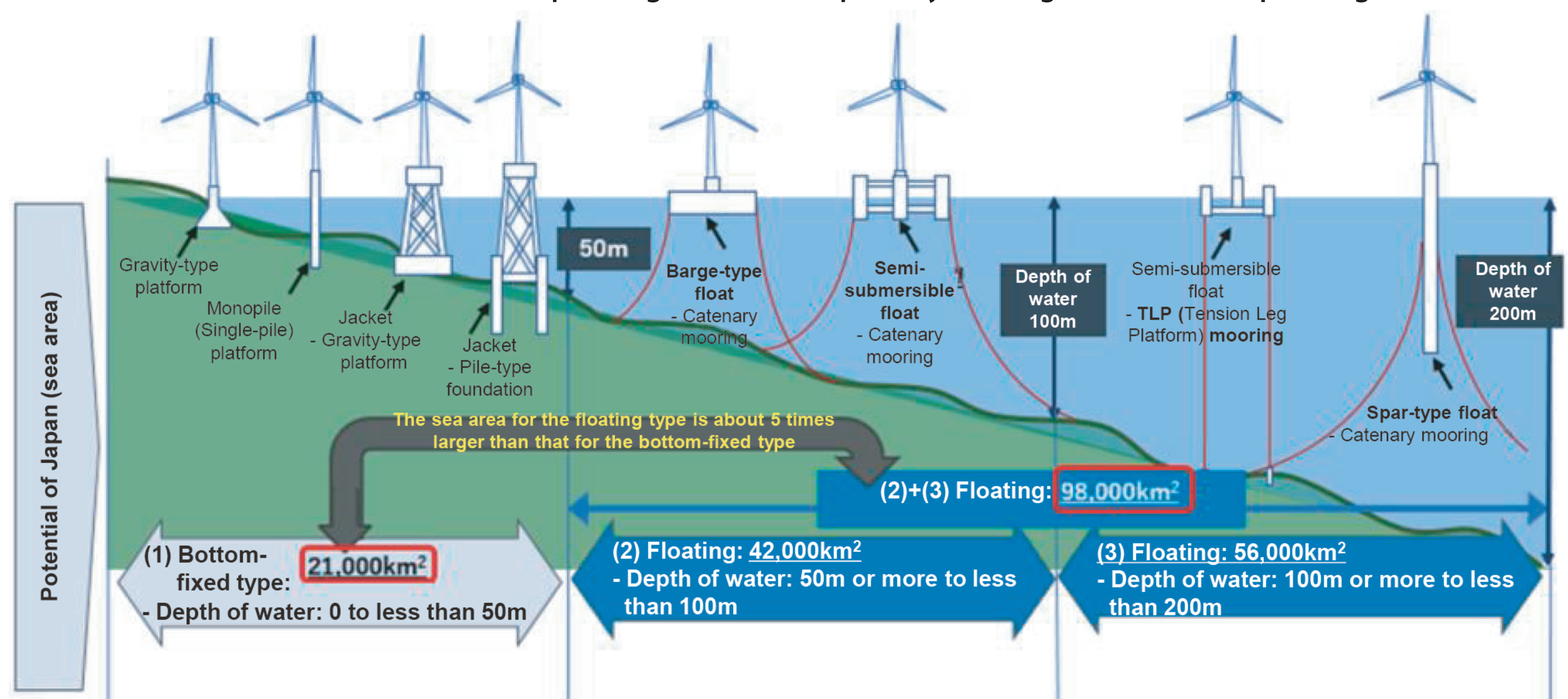




Overview of offshore wind power

Environment surrounding offshore wind power generation in Japan

The wind power generation market has been expanding rapidly worldwide; especially in Japan, which is surrounded by sea, the introduction of offshore wind power generation is expected to be encouraged. The enactment of the "Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities (Act on the Utilization of Sea Areas for Renewable Energy)" in 2019, and the setting of specific public-private goals by "2050 Carbon Neutrality Declaration" announced by the government in 2020, and "Vision for Offshore Wind Industry Vision (1st)" announced by the "Public-Private Council on Enhancement of Industrial Competitiveness for Offshore Wind Power Generation" are expected to encourage further expansion of the introduction of offshore wind power generation, especially floating offshore wind power generation.



Note 1) The sea area is estimated assuming that the distance from the shore is less than 30 km, there is no social constraint, and the annual average wind speed is 7 m/s or higher.

Note 2) The position of the floating type in the figure is not the applicable range or the optimal depth of water

▲Types of offshore wind power generation

NEDO's initiatives

For further expand prevalence of offshore wind power, NEDO is conducting research and development of offshore wind power generation technologies adapted to the severe weather conditions in Japan, and projects to support the introduction of offshore wind power. NEDO will further promote the development of low-cost technologies for offshore wind power generation, aiming to reduce the cost of power generation and reinforce the competitiveness of the industrial competitiveness.

In FY2021, NEDO launched the project for "Cost Reduction of Offshore Wind Power Generation" within the green innovation fund project, and firstly started the development of element technologies in the fields of "wind turbines," "manufacturing and installation of floating platforms," "electric systems," and "operation and maintenance."



◀ 100kW wind turbine installed on Miyake Island in the early 1980s



Bottom-fixed offshore wind power generation facility (off the coast of Choshi) ▶

