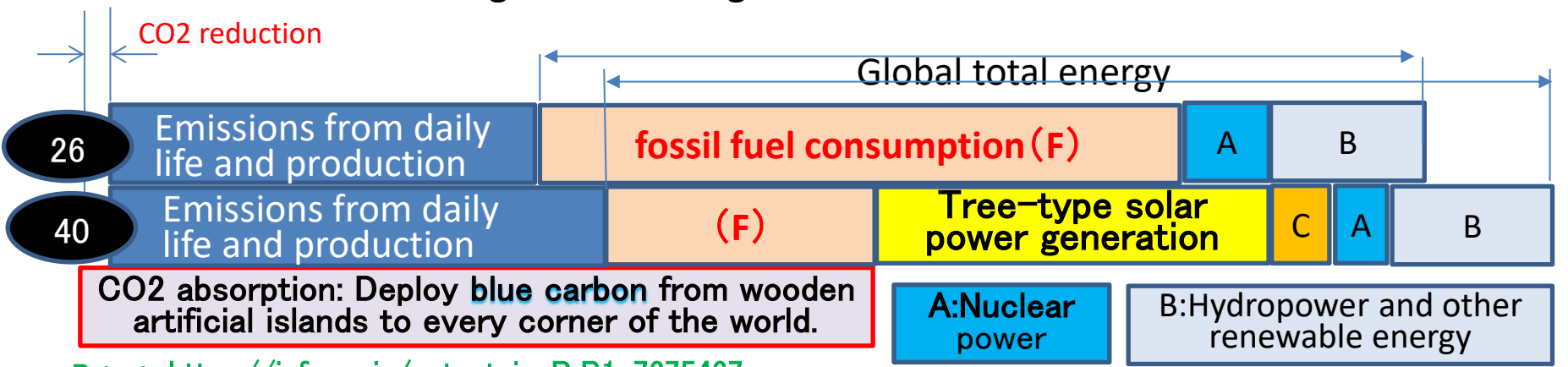


<The image is of net-negative CO2 emissions around 2040.>

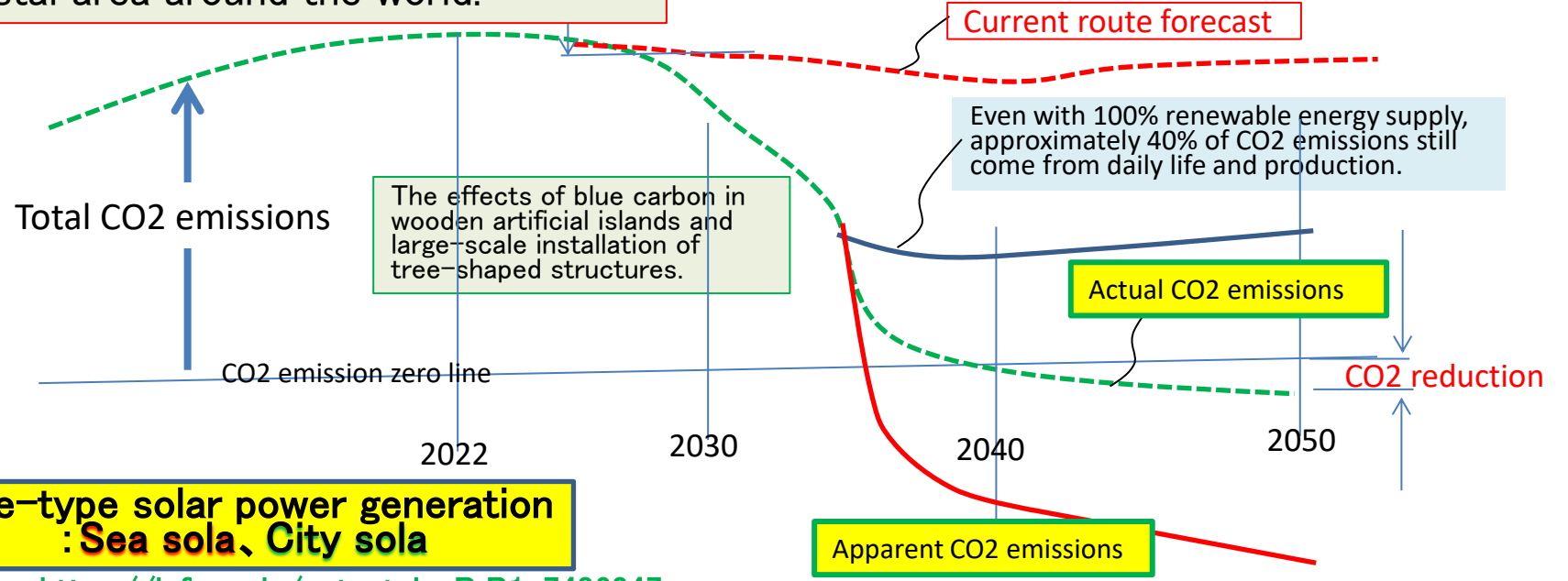


Patent: https://ipforce.jp/patent-jp-P_B1-7675467

Japan, the United States, and Europe will take the lead, seeking cooperation from neighboring countries, and will install these facilities in every possible coastal area around the world.

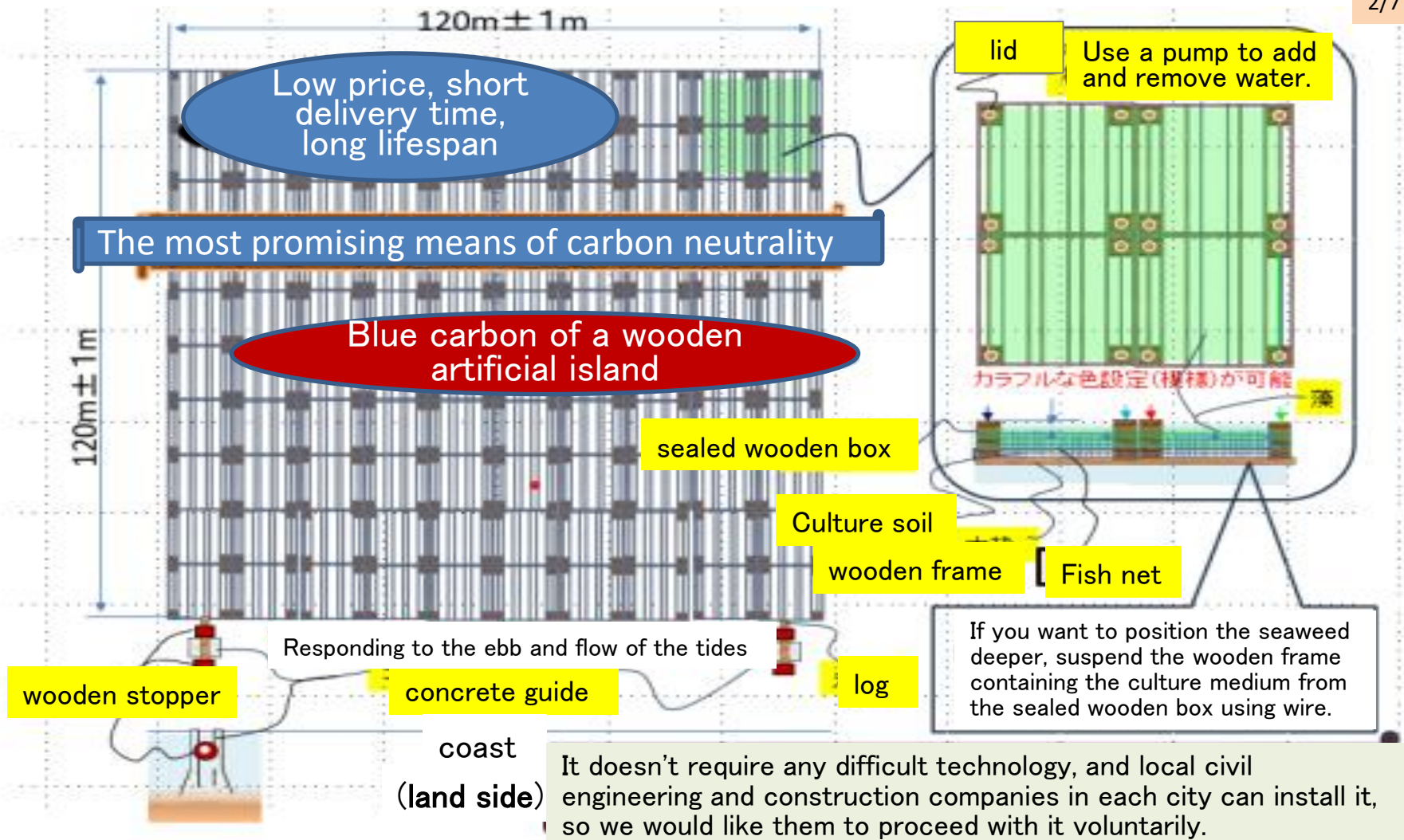
C: Water turbine power generation using pools set up in rivers (a future main source of renewable energy)

Patent: https://ipforce.jp/patent-jp-P_B1-7199129



Tree-type solar power generation : Sea sola, City sola

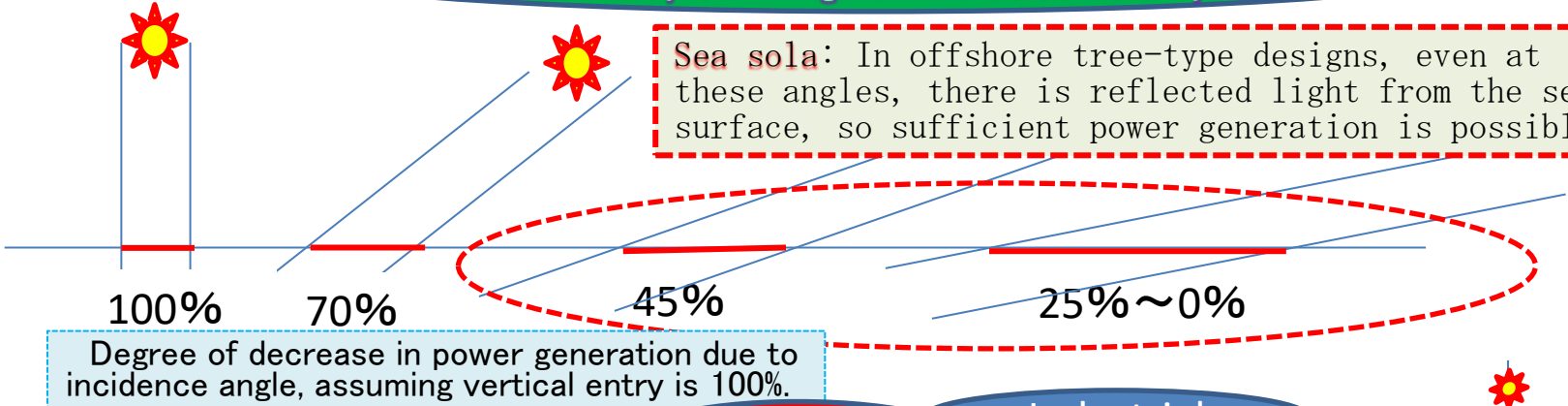
Patent: https://ipforce.jp/patent-jp-P_B1-7486247



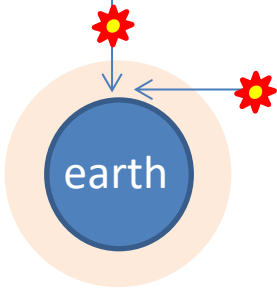
A wooden frame is constructed, a sheet is laid on top, and culture medium for algae cultivation is placed on top. Four sealed wooden boxes are then set up around the perimeter to maintain buoyancy. Furthermore, hatches are installed on the top of the sealed wooden boxes, and a pump can be secured to them. The depth is adjusted by pumping in and out seawater, positioning the box to maximize photosynthesis efficiency.

We use domestically produced panels because they offer high added value as a system.

Sea sola: In offshore tree-type designs, even at these angles, there is reflected light from the sea surface, so sufficient power generation is possible.



For housing complexes **Sea sola** Industrial Commercial



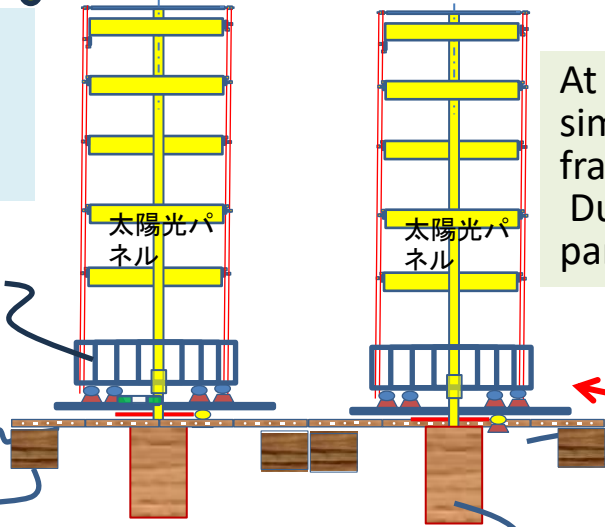
AI solar automatic tracking wooden artificial island

Offshore lake-mounted tree-type solar power generation system

At sea, both total internal reflection and diffuse reflection are received, so solar panels are installed on both sides.

Storage box (AI determines when to lower and store the panel during strong winds at night)

At sea, it requires no foundation; it simply needs to be fixed to the wooden frame of a wooden artificial island. During strong winds or at night, all panels can be lowered and stored.



Diffuse reflected light

Totally reflected light

Maintaining it for a thousand years with regular maintenance.

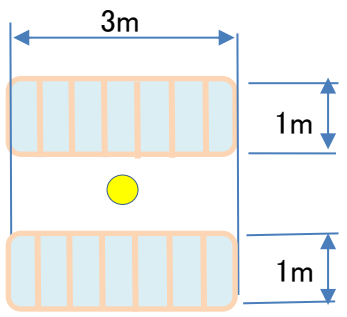
Airtight wooden box (Liquid glass coating)

Wooden bearing holder (Liquid glass coating)

Home-use tree-type solar power generation system

City sola

Floor plan



Strong against snow, strong winds, sandstorms, and earthquakes; easy to install and remove; can be installed very close to home; easy to clean and maintain; no environmental damage.

Designed for relatively high-latitude regions such as Ukraine: enough for 3-5 houses

Total panel area: $3\text{ m}^2 \times 10 = 30\text{ m}^2$ (5 panels in the front and 5 in the back,)

Thin panel & lightweight wooden frame

The wooden frame has rounded corners to prevent it from being blown away by strong winds and causing serious injury if it hits someone.

Power generation at a higher elevation than a typical house, and safe storage at a lower elevation than the roof.

The lower space can be effectively used as a parking lot, field, flower bed, garden, or pathway.

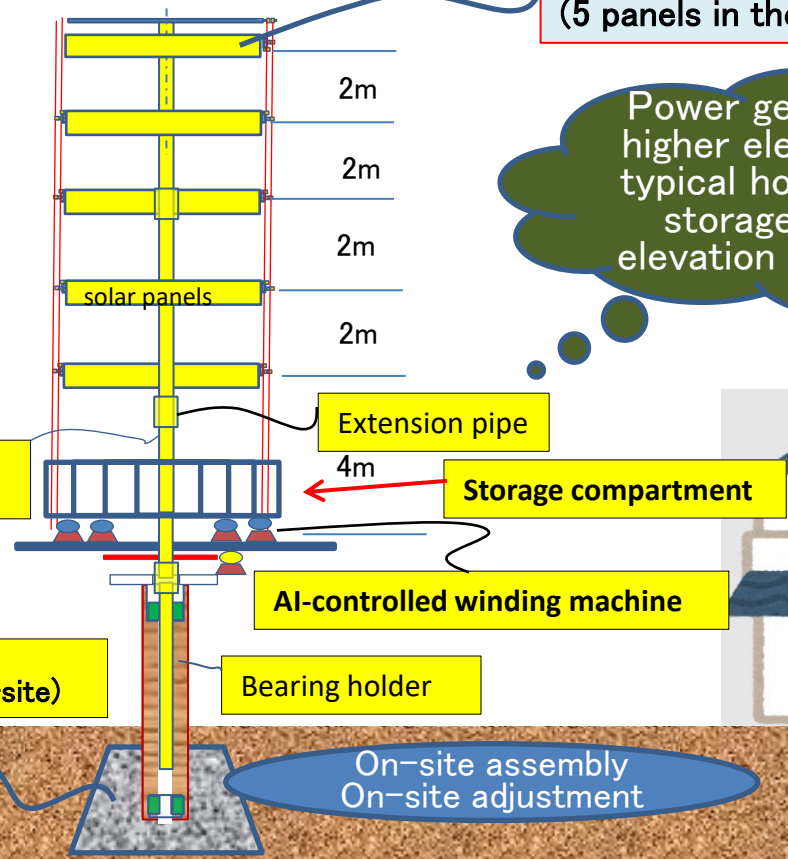


Image of the house (Size comparison)



Effective as aid to Ukraine's reconstruction. (Most power plants were destroyed in the Russian attack.)

Even if a major earthquake causes power outages and water supply disruptions, by transporting materials by helicopter and assembling them on-site, drinking water and electricity can be restored in about half a day.

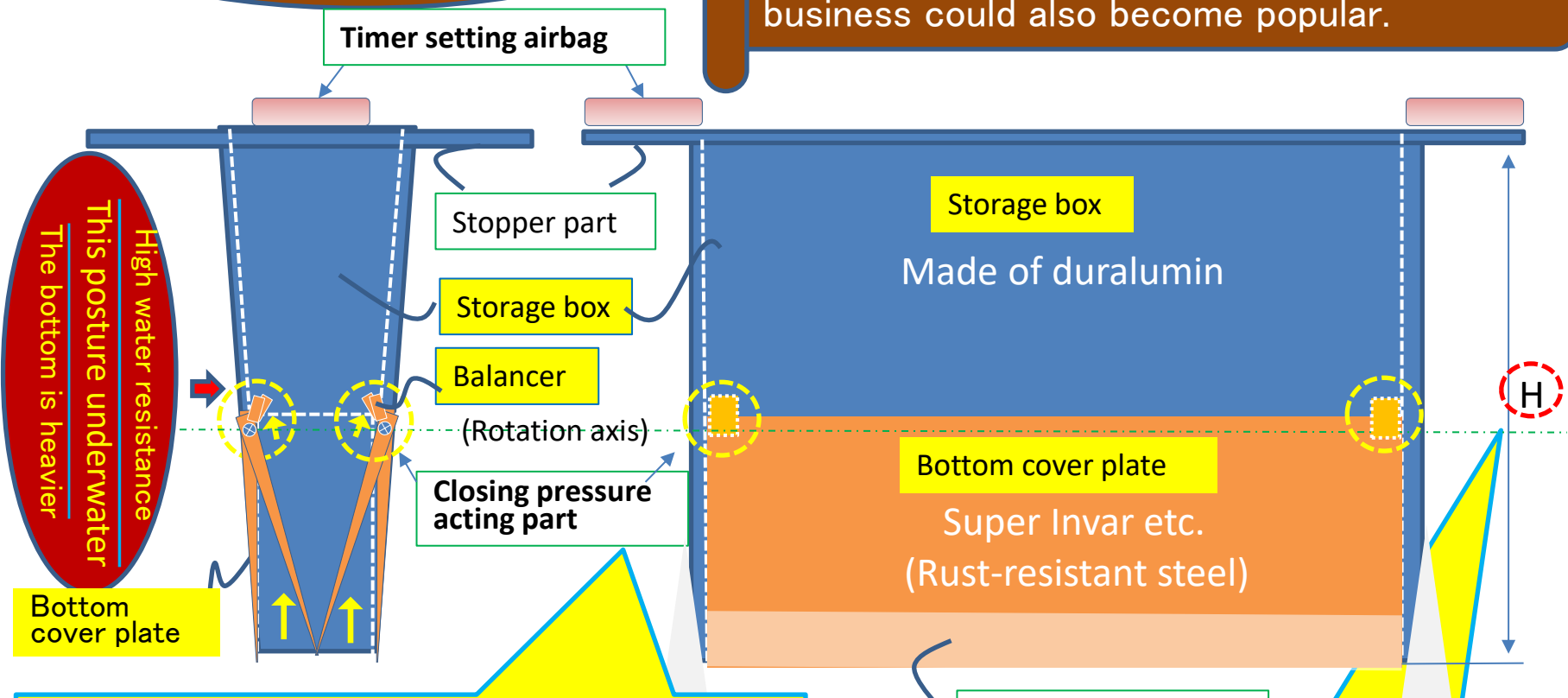
Recommended ancillary equipment includes AI-equipped PCs, surveillance cameras, storage batteries, generators for handling prolonged rain or equipment failures, and an "air-water system" for drinking water.

A smartphone app enables manual operation and is used during maintenance and cleaning. (You climb up to the storage area using a ladder.)

Seabed resource mining box

A technology for mass extraction of deep-sea mineral resources using the principles of gravity and buoyancy.

In the past, the maritime business flourished because ships could transport far more goods than land. Similarly, the deep seabed offers the potential for massive extraction compared to land, so the deep-sea mining business could also become popular.



Bottom cover plate

The balancer's weight causes the bottom (lower side) to open, and as it reaches the seabed and sediment enters, the sediment pushes upward, creating a closing force at the bottom. Further pressure from the surrounding sediment also contributes to closing the bottom, and a powerful magnet maintains the bottom's closure.

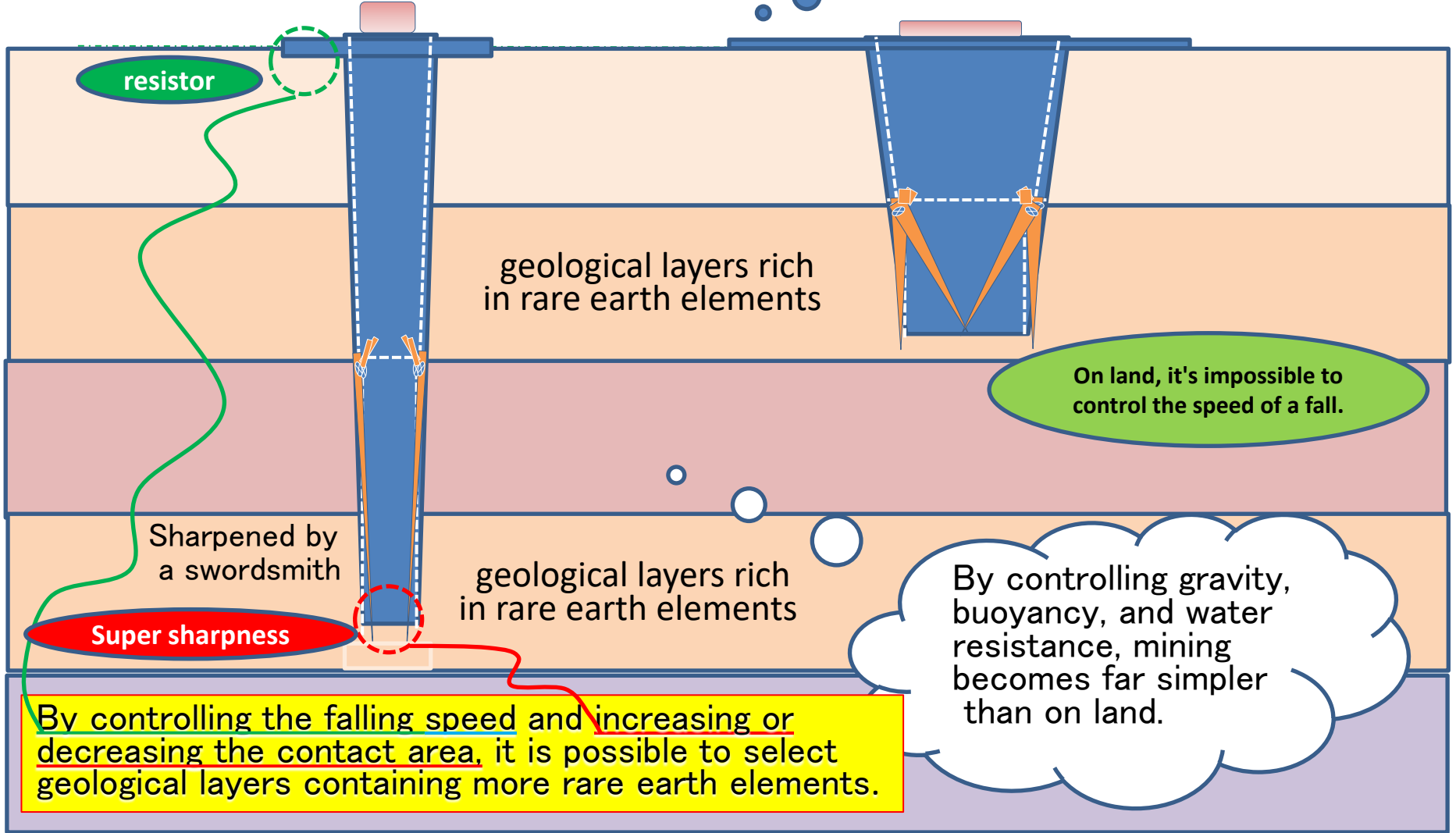
By changing the height (H) and shape, there is "seabed strata selectivity" within a range of approximately 0 meters.

Seabed resource mining box

Deep-sea subsurface geological selectivity

By reducing the surface area of the pointed parts on the bottom four sides of the seabed resource extraction box, it can penetrate deeper.

Technology is needed to control water resistance by taking into account the hardness and abundance of rocks in the deep-sea subsurface geological layers.



resistor

geological layers rich in rare earth elements

On land, it's impossible to control the speed of a fall.

Sharpened by a swordsmith

geological layers rich in rare earth elements

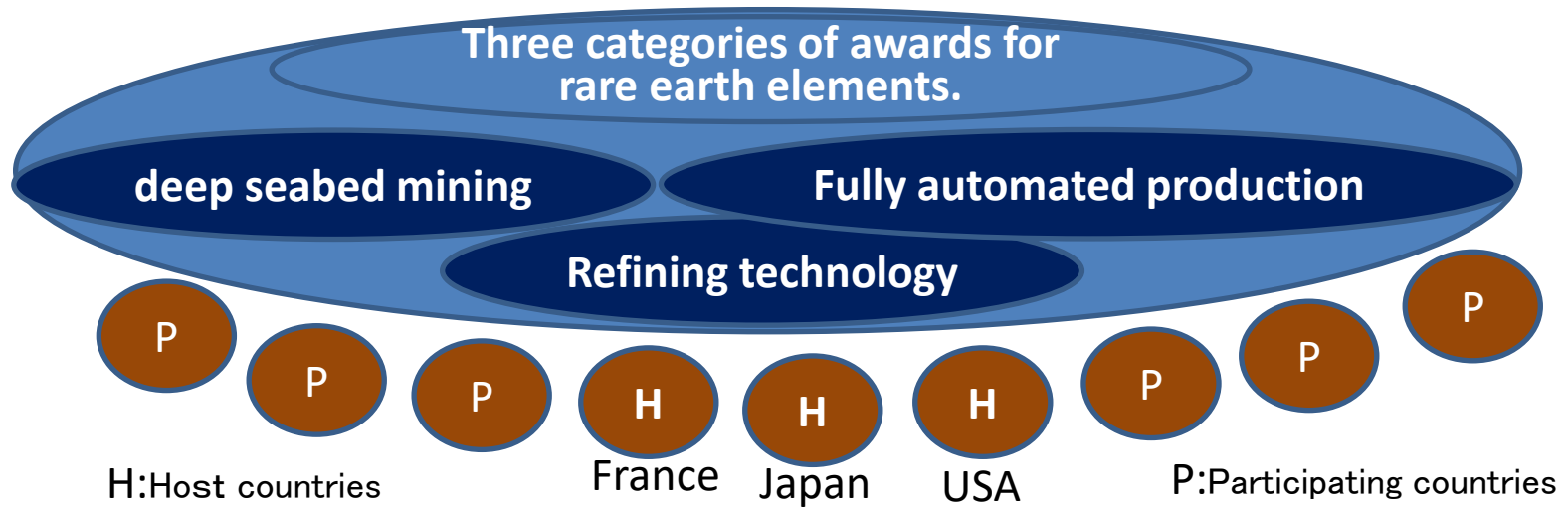
Super sharpness

By controlling gravity, buoyancy, and water resistance, mining becomes far simpler than on land.

By controlling the falling speed and increasing or decreasing the contact area, it is possible to select geological layers containing more rare earth elements.

While each participating country will proceed independently, they will share information from the initial stages, make adjustments to each other's plans, and share the most cost-effective and efficient systems to build a system that is safer and more efficient than China's.

Fully automated deep-sea resource extraction and refining plant



The organizing country will determine the basic procedures, and all participating countries will share information about their respective technologies at regular reporting meetings. (Participating countries will learn from each other's strengths and make necessary adjustments.) Countries lacking confidence can abandon development considerations at an early stage, pay their allocated participation fee, and attract their preferred fully automated factory at a relatively low cost.

Once fully automated production begins in multiple countries, a site visit will be held for all participating countries, followed by a vote by all participating countries to determine the top three companies in each of the three categories. Large rewards will be paid to each company. The top three companies will then collaborate to establish fully automated rare earth mining and production plants at a relatively low cost, tailored to the needs of each participating country.

Japan must break away from its decline caused by its "subsidy handout policy" and, through this process, become one of the top 10 in international competitiveness.

Even countries (companies) that were not selected can utilize the technologies cultivated through information sharing in many other fields.