BUSINESS PLAN

SEA PONTOONS COMPLEX FOR DRINKING WATER AND ELECTRICITY PRODUCTION

Costa de la Luz International Investors, SL

Chiclana, Andalusia, Spain

CONTENT

1. PROBLEM STATEMENT AND TECHNOLOGICAL SOLUTION

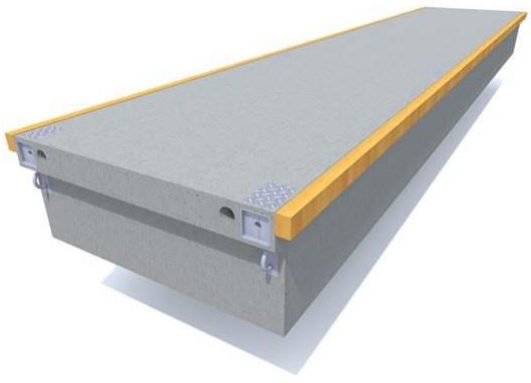
Company project**Costa de la Luz International Investors, SL**aimed at production of organic water, which is necessary to ensure the life of any person on Earth. About a quarter of the world's population suffers from a lack of drinking water. In some regions of the planet, freshwater sources account for less than 1% of total freshwater.

Despite the use of seawater desalination technologies, many countries experience shortages of drinking water. More than 50% of the world's desalination plants are concentrated in arid climates. But the water obtained in this way is used only for technical and household needs, since desalinated water contains heavy isotopes of deuterium and oxygen-18 that are dangerous to the body.

Desalination plants require significant operating costs. First of all, this is electricity, the share of which is at least 40% in the structure of such costs.

Our technology allows atmospheric water to be condensed where it is needed. You can get clean drinking water from the air anywhere in the world. At the same time, our installations generate electricity for their own operation and supply excess electricity to other consumers.

One of the conditions for placing equipment is the presence of expanses of water where there are waves. We use the energy of wave vibrations, as well as the energy of the sun. The main element of our technology is the pontoon. If we compare land and water, water production on pontoons has a flow rate 2.5 times greater than on land.



PONTOON is a product made of hydroconcrete reinforced with basalt fiber and manufactured by hot casting. The pontoon has a built-in system for pumping out humid atmospheric air with air valves, system heat exchangers, Where is happening water condensation.

Next, the water accumulates in the lower part of the pontoon and is pumped to shore through a pipeline using piston pumps, which are driven by wave energy.

Backup power in case of calm is provided by solar panels installed on the surface of the pontoon, as well as batteries that save excess electricity.

Our technological solution allows us to install two types of power plants on the surface of the pontoon:

1. Solar power plant made of glass facade panels with a capacity of 1.5 kW.

2. A compressed air power plant that drives a chain system with trays in a vertical pipe filled with water. The chain system drives the generator at low speed. Excess air after drying will be enough to generate electricity up to 20 kW from one pontoon.

Equipment with an area of just 10 m2 can produce 300 liters per day of high-quality drinking water. This water can be supplied to the local water supply, used to water plants, and packaged for further sale.

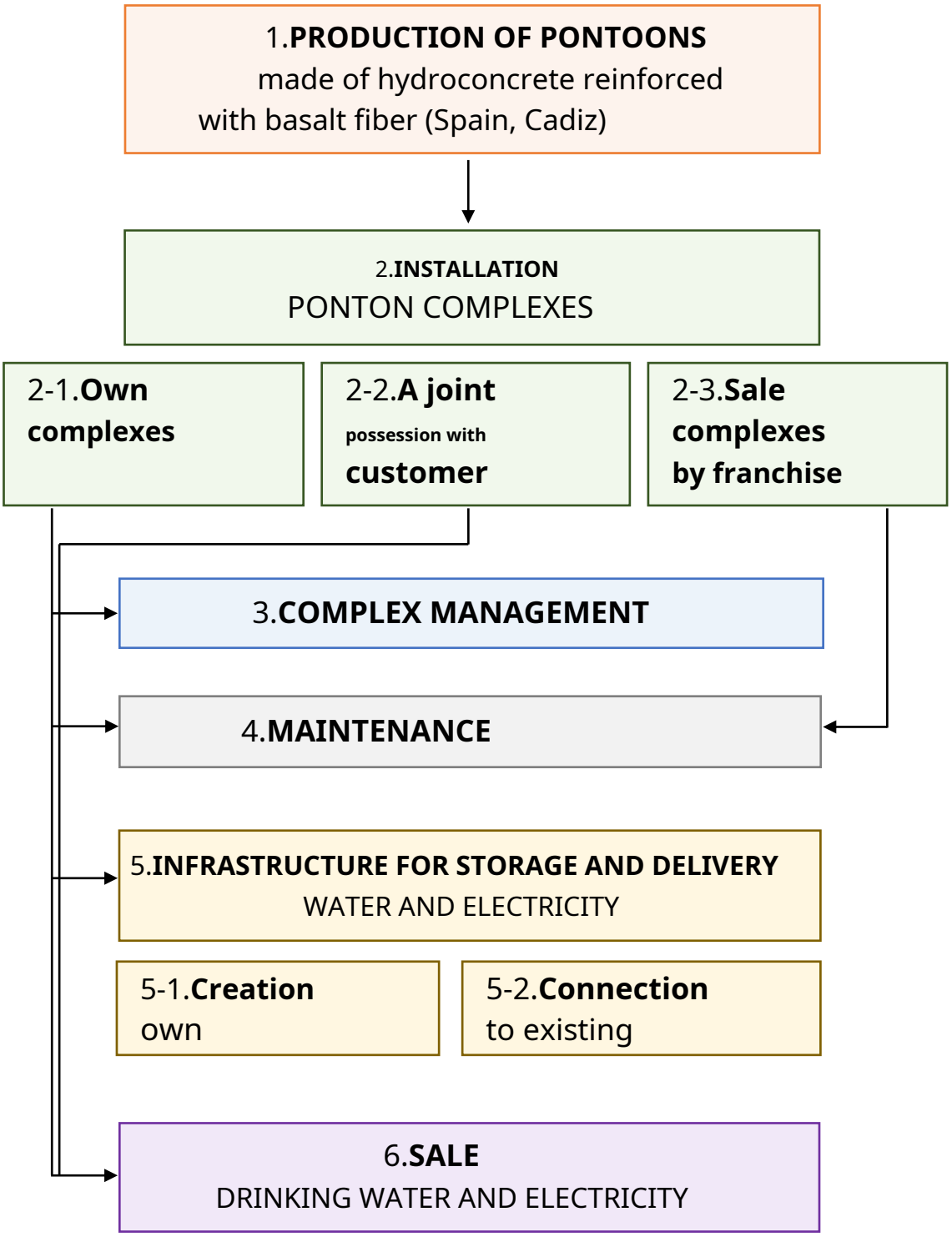
Pontoons can be installed in the open sea or directly off the coastline, performing the function of piers, moorings, technological platforms on the water, including small artificial islands - depending on the need at each specific site.

Thus, our patented technology makes it possible to supply drinking water and electricity to populated areas without occupying land.

For production pontoons our The company is launching a production line in the city of Chiclana in southern Spain, which will be located in a 3.6-hectare plant.

2. BUSINESS MODEL

The business model of this project involves the implementation of several independent stages: production, installation of ready-made pontoon complexes, creation of a new or connection of an existing communications system for each facility, management of the complexes and their maintenance, sale of finished products - drinking water and electricity, creation of a franchise network. The block diagram is shown below:

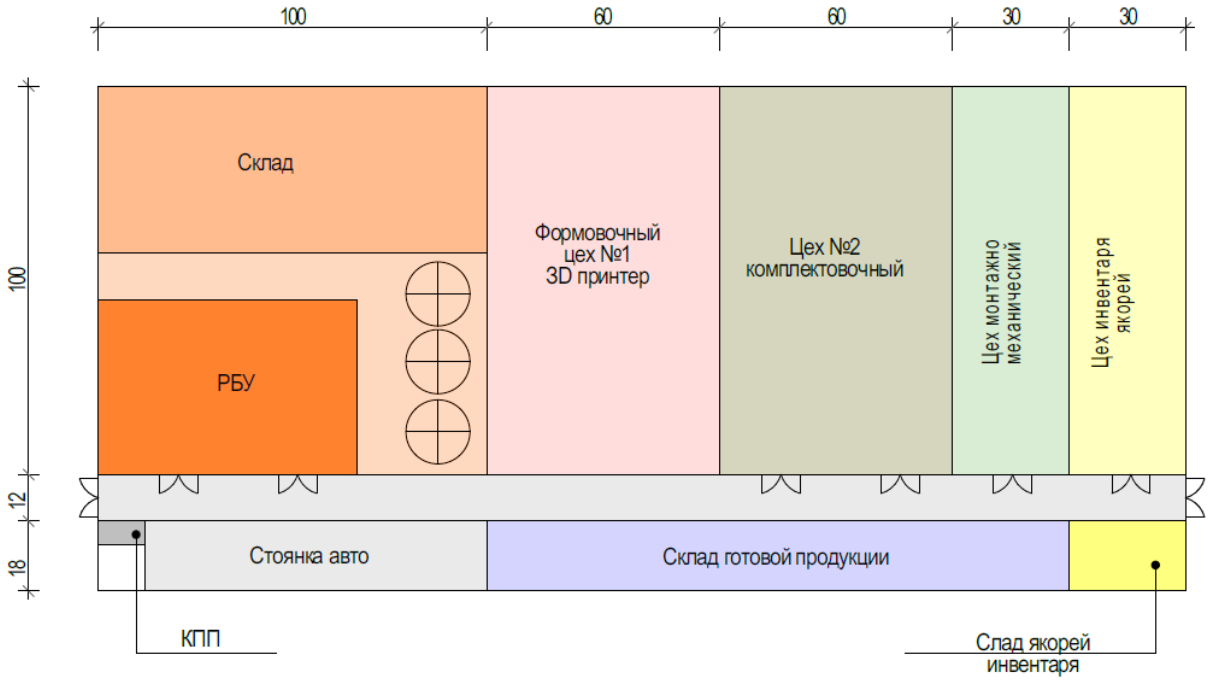


3. PRODUCTION OF PONTOONS

The optimal production scheme for a large-scale and stable demand for pontoons involves the construction of two factories: the production of basalt fiber and the production of pontoons directly from hydraulic concrete with basalt fiber.

The site for the installation of a plant for the production of pontoons is located in the industrial zone of the city of Chiclana de la Frontera (province of Cadiz, Spain).

Layout of workshops for the production of pontoons (280 x 130 meters):

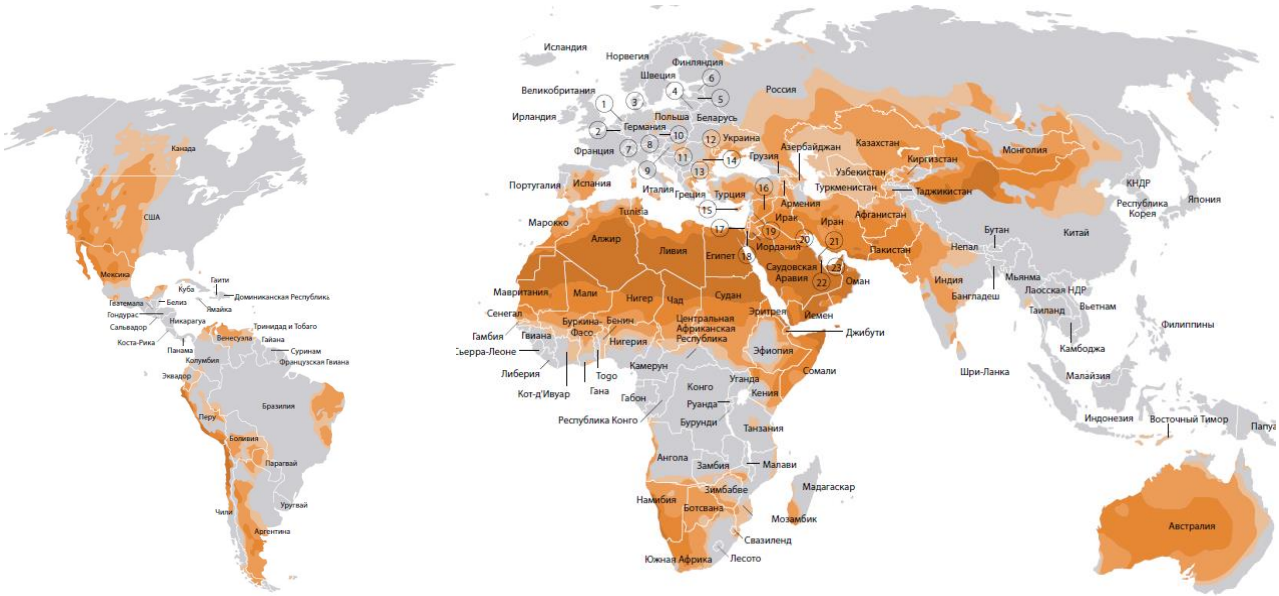


The production of basalt fiber is advisable directly at the sites of basalt mining in order to eliminate the expensive logistics of primary raw materials. Also, such a plant requires significant additional investments and guaranteed sales of excess fiber, which will not be fully in demand in the production of pontoons. Therefore, at this stage of the project's development, it was decided to buy ready-made basalt fiber from third-party manufacturers, which is already on the market. This approach will save financial resources and time for the production of the main product - the pontoons themselves, which generate clean water and electricity.

4. SALES MARKET

According to the United Nations, 41% of the entire Earth's territory is classified as drylands, where more than 2 billion people live, 44% of crops are grown and half of the livestock is found. Further deterioration of the water supply situation is likely to lead to widespread hunger, disease and high mortality, primarily on the African continent.

Drylands on the world map



As we see on this map, a significant number of areas with an arid climate and a lack of drinking water are located along the sea coast. Thus, our technology for producing clean water is in more demand than**1 billion people**in different countries of the world.

The recommended average daily consumption of drinking water is 5 liters per person. Moreover, the total water consumption per person per day is 150 - 200 liters (for all needs), so even a small city with a population of 100 thousand people needs 20,000 cubic meters of tap water per day.

Mediterranean countries in Europe are already massively introducing restrictions on the use of water by the population, industry and agriculture.

Tourism and the hotel industry, which in many southern EU countries are the most important sectors of the economy, are also forced to limit the supply of water to hotel rooms (Malaga, Barcelona, etc.), which leads to tourists refusing tours.

According to our information, only one municipality of the city of Malaga in southern Spain with a population of more than 500 thousand people plans to allocate 2 billion euros in the next five years to install seawater desalination systems, which have significant disadvantages in efficiency, cost and environmental friendliness compared to ours technology.

A unique characteristic of pontoon technology is the simultaneous production of potable water and environmentally friendly electrical energy from wave energy. Considering the global trend away from electricity generation, which has a carbon footprint, and the transition to green types of electricity supply, pontoon complexes are an advanced solution to this problem.

One pontoon with an area of only 10 square meters. meters produces 300 liters of drinking water and 20 kW/h of electricity per day, which is enough to provide tap water and electricity to one household consisting of 2 - 4 people, or 150 people with drinking water (2 liters per day/person).

5. COMPETITION

IN world There is small quantity alternative technologies, which aimed at obtaining fresh water from the air. For example, the installation of the Israeli startup H2oll, the main problem of which is to provide it with electricity:

Wonthaggi Desalination Plant is the world's largest membrane water desalination plant, located in Melbourne. It is capable of processing 440 thousand cubic meters of water per day. In the Israeli city of Ashkelon there is a plant where water is purified from salts using reverse osmosis. It processes 330 thousand cubic meters of water per day.


These plants produce quite a lot of fresh water, but require hundreds of megawatts of electricity and also produce waste in the form of sea salt.

There are also pilot projects to generate electricity from the movement of sea waves. For example, the British company Sea Wave Energy, Ltd (SWEL) has been working on a floating device that collects wave energy for about ten years. So far they have not reached the planned indicators and continue experiments:

A prototype wave energy generator is being built near Scotland. Australians are also testing their coastal power generator off the coast of Tasmania:


The main and most significant difference between the above technologies and our solution is the ability to obtain one type of

products - either water or electricity. No one offers complex technologies other than ours on the market.

The second important difference: our pontoon complexes do not consume external resources, but on the contrary, they provide both water and electricity. Accordingly, operating costs are limited solely by external control of the pontoons and communications.

In any case, the presence of albeit half-hearted, but functioning solutions from other companies for condensing water from their air, as well as generating electricity from wave energy, suggests that these sources (air and sea) are promising for obtaining much-needed resources.

6. RISK FACTORS AND RISK REDUCTION STRATEGIES

Despite the enormous existing and potential demand for cheap, clean water and electricity that can be produced by pontoon systems, there are some project risks that require analysis.

It is important to note once again that our technology has no analogues, since it allows us to produce both clean water and electricity based on a single technological complex; pontoons do not consume any external resources; there is no generation or release of physical waste into the environment.

No.	**Risks**	**Risk minimization factors**
1	Development of competitive technologies for obtaining fresh water will cover global demand for drinking water.	The total need for clean drinking water in coastal dry areas is approximately 100 million cubic meters of water per day (per 1 billion population). The plant's capacity of 10,000 pontoons per year will allow it to satisfy only 5% of global demand in 10 years. Alternative technologies today are less productive and more energy-consuming.

No.	**Risks**	**Risk minimization factors**
2	Administrative obstacles for placement of pontoon complexes nearby coast.	Creation joint enterprises With municipalities For their direct interest in implementing projects.
3	Difficulty of control remote objects (Southeast Asia, South America, Africa).	Sale of pontoon complexes by franchise. Management and resolution of administrative issues is carried out by local franchisees.
4	Obstacles for placement of large pontoon complexes with points of view shipping, fishing fishing, environmental objections to shading large water area surfaces.	Pontoons Can mount small in groups, including in the form of moorings and piers, as well as at a distance in the sea, around rocky and other islands, etc. The configuration and breakdown of groups of pontoons does not at all affect their efficiency in obtaining drinking water, and can only partially reduce the generation of electricity, which is significant for the consumer, but a by-product in this technology.

The surface of the pontoons can be used to place façade solar panels on them. This will make it possible to generate electricity for the pumps that pump drinking water to the shore, even in the event of a shutdown or absence (as a factory solution) in the pontoons of a system for generating electricity from the movement of waves.

Our company plans to use insurance instruments to minimize environmental and economic risks, as well as participate in social and environmental programs of the regions where facilities will be installed in order to maintain partnerships with local communities.

7. FINANCIAL INDICATORS

The total investment required to launch this project is 40 million Euros.

Directions and amounts of investment (million Euros)

No.	Name	Sum
1	Pontoon production plant, total	24.5
1.1	Headquarters, engineering management and warehouses	21.5
1.2	Workshop for the production and assembly of auxiliary equipment	3.0
2	Special land- and sea-based equipment for installation and maintenance of pontoon complexes	7.5
3	Marketing; Administrative Management; Training Center; other expenses (period 5 years)	5.5
4	Drinking water bottling workshop	2.5
	TOTAL	**40.0**

The cost of fixed assets is 60% of the investment in the main plant and 75% of the investment in the water bottling shop. Depreciation of fixed assets is planned to take place over 10 years.

Main products, produced according to this project:

Pontoon made of hydroconcrete, reinforced with basalt fiber, with an area of 10 sq.m. (2m x 5m), with a nominal generation volume of 300 liters of drinking water per day and generation of 20 kW/h of electricity.

The plant's productivity will gradually increase, in parallel with the increase in orders for the installation of pontoon complexes, and should reach 1000 pontoons per month in the second year of operation. The guaranteed service life of the pontoon is 5 years (equal to its depreciation period), the actual estimated period of operation is more than 15 years.

Income and expense plan (thousand Euros)

Income items and expenses	1st year						
	1-6 months	7 months	8 months	9 months	10 months	11 months	12 months
Plant construction pontoons	- 16,000						
Purchase of special equipment	- 7,500						
Plant construction water bottling	- 2,500						
Admin. expenses, Center training, Marketing, other expenses	- 550	- 92	- 92	- 92	- 92	- 92	- 92
Release of pontoons		- 648	- 972	- 1,296	- 1.620	- 2,430	- 3,240
Purchase of generators Rocha		- 1,200	- 1,800	- 2,400	- 3,000	- 4,500	- 6,000
Logistics, installation			- 277	- 416	- 554	- 693	- 1,040
Sale of pontoons complexes (SP), 30%				1.109	1,386	2,079	2,772
Sale of pontoons complexes (franchise), 20%				961	1.201	1,802	2,402
Selling water					23,760	59,400	106,920
Selling electricity					38,016	95,040	171,072
BALANCE for the period	**- 26,550**	**- 1,940**	**- 3,141**	**- 2.134**	**59,097**	**150,606**	**272,795**
Cumulative balance	- 26,550	- 28,490	- 31,631	- 33,764	25,333	175,939	448,734
Production of pontoons, pcs.		40	60	80	100	150	200
Pontoons installed PC.				**40**	**100**	**180**	**280**
Water production, m3				360	900	1,620	2,520
Electricity generation, MW				576	1,440	2,592	4,032

This scenario of reaching the break-even point in 10 months is optimistic, calculated taking into account the technological capabilities of production and standard logistics. If there are delays in obtaining official permits, certifications and licenses in a particular location, the implementation timeline for this plan may be extended accordingly.

The realistic period for reaching the break-even point should be considered 12 months after receiving project financing, the pessimistic scenario is 15 months.

The estimated cost of delivery, installation and commissioning of pontoon complexes is 15% of their price.

Depending on the specifics of a particular object, pontoons can be equipped with additional and auxiliary equipment and devices, including: anchor and mooring systems, solar panels, navigation lights and other devices. Since it is not possible to take into account the specifics of future objects and, accordingly, the exact cost of additional equipment in advance, in economic calculations an average surcharge of 10% of the price of the pontoon was used to take into account the costs of auxiliary equipment.

Our company is focused on selling to corporate and municipal customers not the pontoon complexes themselves, but the final products: bulk drinking water and electricity, as well as our own bottled water.

In the case of a joint venture (50/50) in individual countries, investments in equipment are made by a local partner, and profits from the sale of water and electricity are divided in half.

When selling a franchise, the cost of equipment is taken into account with a 30% markup, and the franchisee also pays 5% from the sale of water and electricity.

Wholesale prices used in profit calculation:
Drinking water – 0.1 euros per 1 liter; Electricity – 100 euros per 1 megawatt.

The amount of funding for the project is**40 million Euro**.

At a discount rate of 7%,**NPV**(net present value) at in an optimistic scenario, by the end of the first year of project implementation it will amount to 416 million Euros.

If the pessimistic scenario is realized and the break-even point is reached in 15 months,**NPV**in two years it will be equal3270 million Euro, **IRR**(internal rate of return) for this period will be873%.

8. CONCLUSION

This project to obtain a cleandrinking water by condensing it from air masses with simultaneous generationelectrical energy due to wave energy is**innovative**And**unique**, makes it possible in a short time not only to demonstrate the possibility of solving the problem of providing water to the population of arid territories with a population of more than **1 billion people**, as well as the energy crisis in many regions of the world.

The only limitation for the installation of pontoon complexes is the availability of access to the sea area. This means that landlocked countries will not yet be able to directly use our technological solution, only through transit through their neighbors.

It is important to note that our engineers have the ability to install pontoons at depth, without the need to take up space on the water surface, which in some locations can be a significant additional advantage, facilitating navigation and the organization of coastal recreation areas.