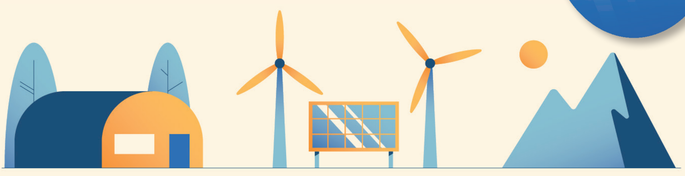
THE ANATOMY OF FLOATING CITIES

The ocean offers **a new frontier for our housing needs.** Below we're taking a glimpse at how floating city technology works, what features shape them, and how they might **benefit our urban future**

BENEFITS OF A FLOATING CITY

The design of a floating city has **smaller carbon footprint** and provide key benefits



Alternative housing

Renewable energy

Climate change solution

HOW FLOATING CITY WORK

A floating city is a **self -reliant community** built on water

01 Hexagonal platforms

Hexagons can cover a large area while minimizing the use of materials.

02 Renewable resources

Energy will be drawn from the ocean, rain, wind, humidity, sun, and waste.

03 Modular construction

Interlocking platforms are designed to be reconfigured and moved.

04 Low-rise buildings

Architecture lowers the city's center of gravity to resist winds.

05 Pontoon structures

Platforms are filled with air to provide buoyancy to the platforms.

06 Breakwaters

Structured barriers shelter city from rougher waters and waves.

WHATS INSIDE A FLOATING CITY

Each plateform is dedicated to a **specific function** that helps **sustain the city.**

FOOD

3D ocean farming

Vertical underwater habitats grow food and clean ocean waters.

Farms

A system of aeroponic and aquaponic systems help grow organic produce.

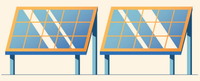
Biorock reefs

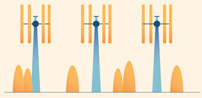
Man-made structures provide habitat regeneration, hurricane defense, and an ecosystem for seafood.

ENERGY

Solar panels

Light is collected on building tops to provide 20% more clean power.





Vertical wind turbines

Ocean winds are converted into energy.

Wave energy devices

The mechanical energy of waves is converted into electricity.

ZERO WASTE

Waste collection

Pneumatic chutes collect reusable items, recyclables, returns, laundry, and food waste.

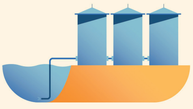
Washing centers and digestors

All waste can be converted into repurposed items or compost.

Exchange hubs

Treated items are gathered from waste for community sharing.

WATER



Renewable desalination

The system uses solar and wind power to make saltwater drinkable.

Dehumidifiers

Atmospheric moisture is collected and purified for later use.

Wave converters

Wave energy is transformed into heat energy.

Treatment centers

Wastewater is treated for later use instead of being released as pollution.

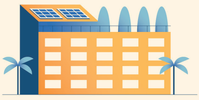
Heat exchange

Cold and warm water from the ocean can be used for HVAC systems.

Public collection

Rainfall is gathered through atmospheric water collectors, rooftops, and weather tiles in public areas.

DESIGN



Open rooftops

Fan-like design is used to self-cool and provides room for solar panels.

Shared mobility

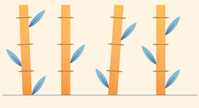
Shared roadways and service centers accommodate electric vehicles, robots, bikes, and pedestrians.

Close-knit hexagons

Design allows for 60% of trips to be made with eco-friendly transportation.

Mixed-used spaces

Each platform provides a space for living, working, and gathering.



Local materials

Building materials are sourced locally to create durable and carbon-negative infrastructure.

Net-zero design

A system of solar protectors and cross ventilation simplifies building cooling systems.

Sources available at:
https://www.bigrentz.com/blog/floating-cities