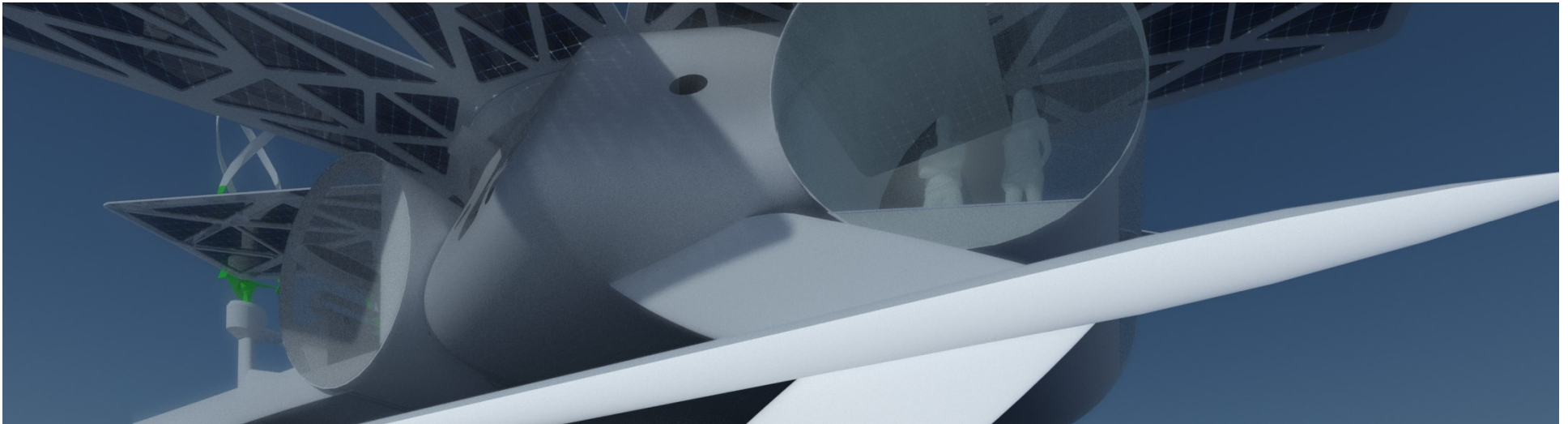# barge

We design the future of coastal and maritime mobility and tourism

coastal and maritime mobility and tourism - the problem

involve personnel onboard

using chemicals for production and use

expensive

needs infrastructure

very polluting. non environmentally friendly

old technology

high costs for fuel and maintenance

low efficiency

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coastal and maritime mobility and tourism - the solution

autonomous self driving watercrafts. no personnel onboard

controlled by application

affordable

GPS and internet satellite direct connection

sustainable – just renewable energy. environmentally friendly

efficiency by low resistance of air and low water contact (SWATH)

no fuel or maintenance costs

high efficiency electric motors and components

off grid. no need chargers or infrastructure
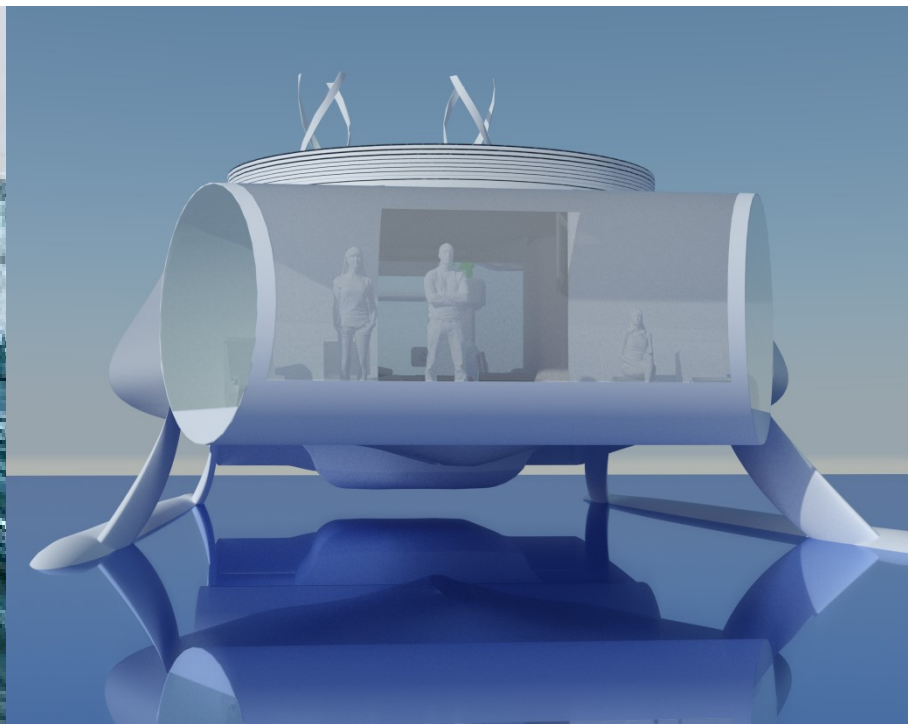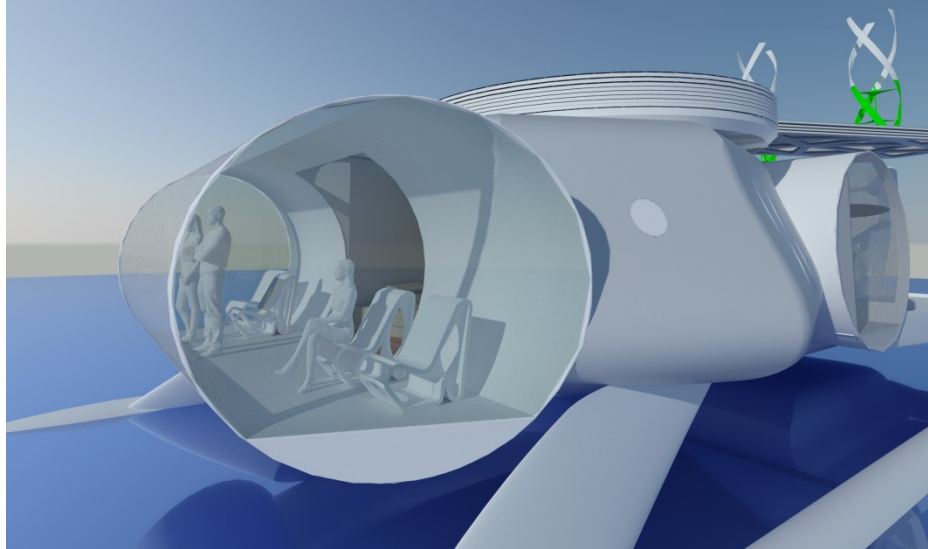
managed and self driving by AI
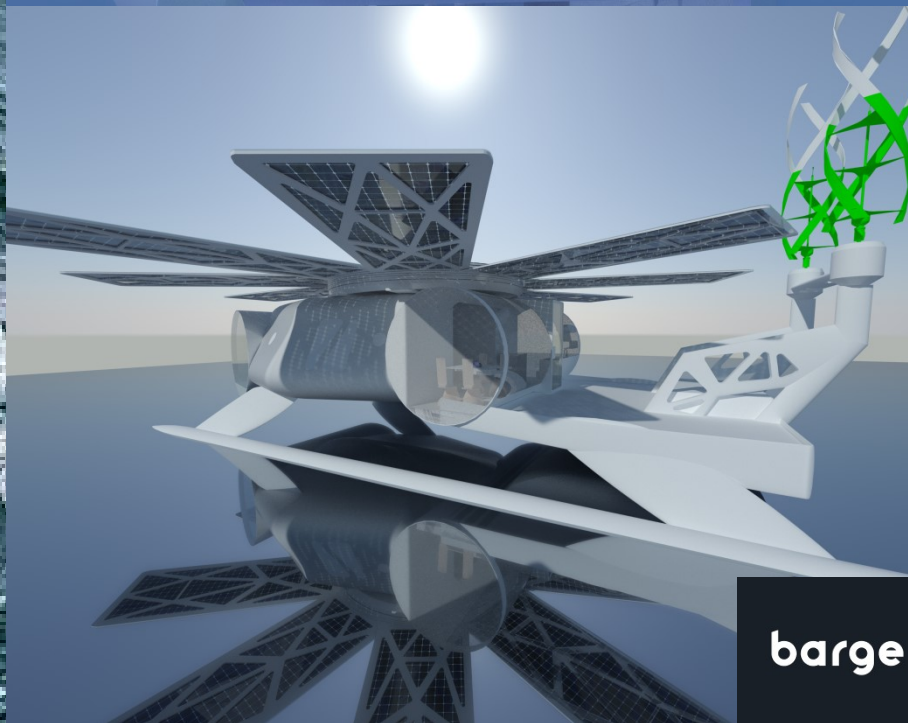
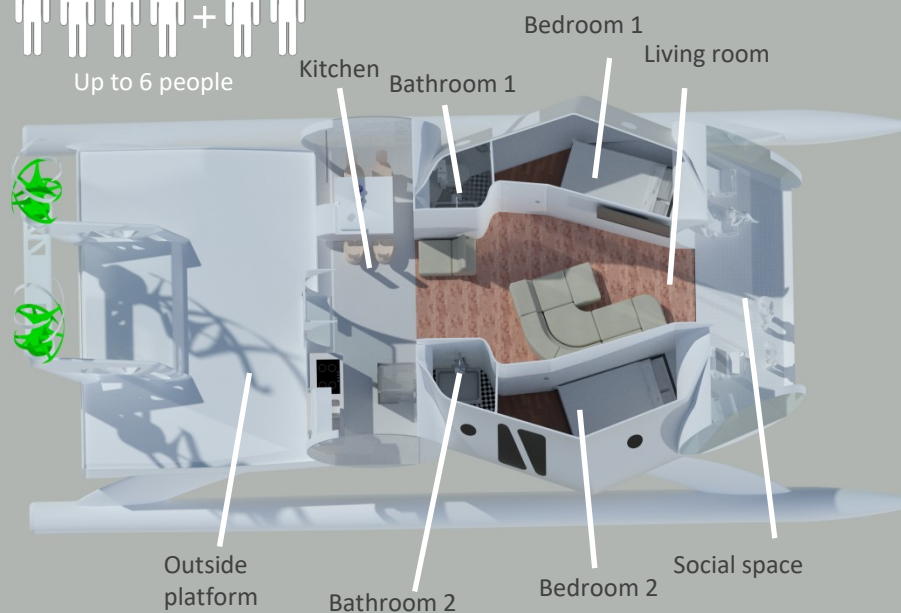biodegradable and non toxic materials

bonus – autonomous drones for pictures & video

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Imagine a technology which can make possible the travel with unlimited range without fuel or maintenance costs, which offers full comfort and safety, quiet and perfectly integrated in environment, with a futuristic autonomous AI managed and self driving watercrafts.
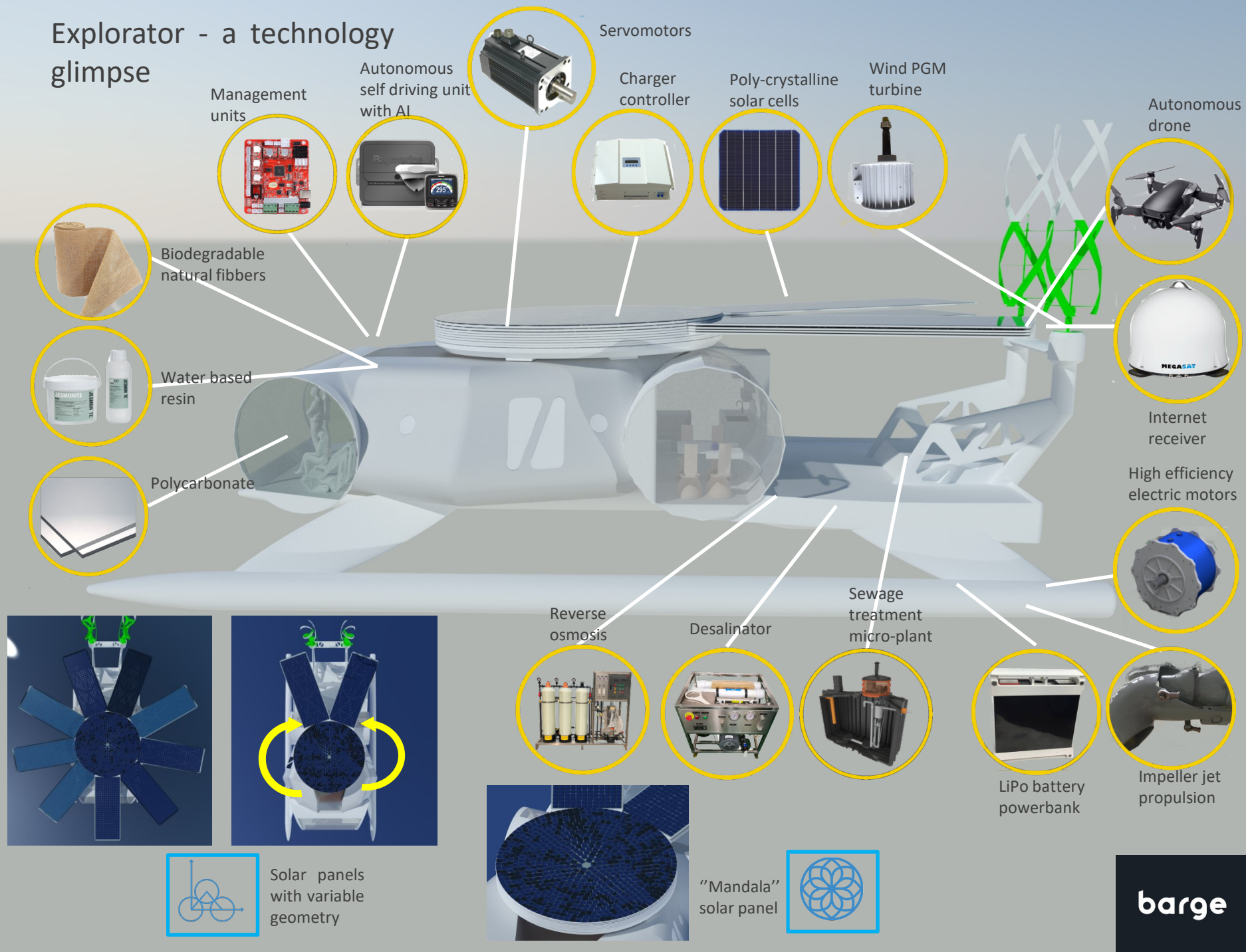
barge

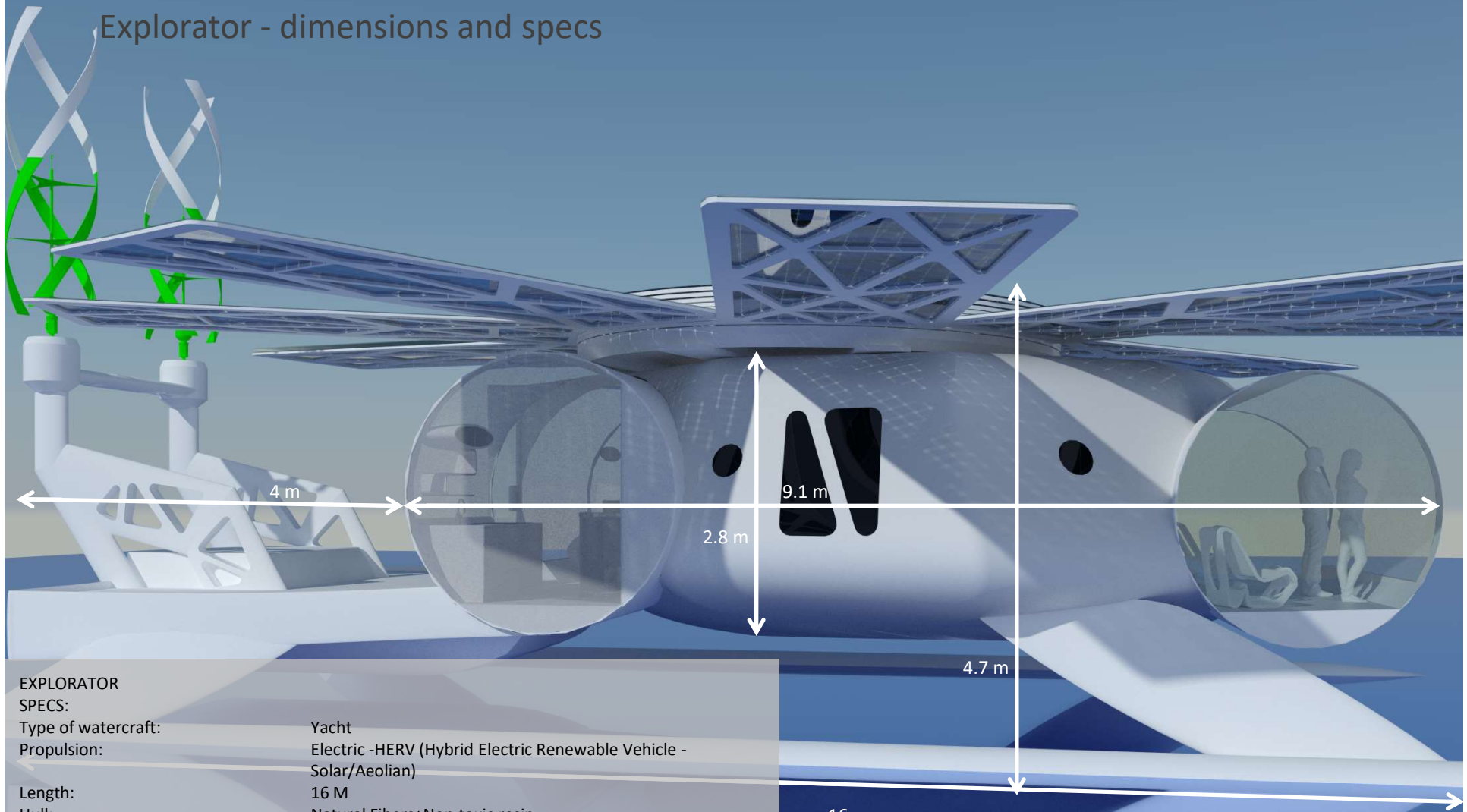barge solution - Explorator

Up to 6 people

Bedroom 1

Kitchen   Bathroom 1   Living room

Outside platform

Bathroom 2   Bedroom 2   Social space

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Explorator - a technology glimpse

Management units

Autonomous self driving unit with AI

Servomotors

Charger controller

Poly-crystalline solar cells

Wind PGM turbine

Autonomous drone

Biodegradable natural fibbers

Water based resin

Polycarbonate

Internet receiver

High efficiency electric motors

Reverse osmosis

Desalinator

Sewage treatment micro-plant

LiPo battery powerbank

Impeller jet propulsion

Solar panels with variable geometry

''Mandala'' solar panel

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Explorator - dimensions and specs

4 m

9.1 m

2.8 m

4.7 m

16 m

EXPLORATOR
SPECS:

|	
Type of watercraft:	Yacht
Propulsion:	Electric -HERV (Hybrid Electric Renewable Vehicle - Solar/Aeolian)
Length:	16 M
Hull:	Natural Fibers+Non toxic resin
Battery:	Li-Po, 200 kW
Motors:	2x5 kW - 24 vdc (compared with combustion engine = 55 hp)
Pollution cleaned:	15 l/CO2 per hour
Type of motor:	BLDC
Traction:	1000 lbs
Solar panels:	3950 cells x 5.1 W
Wind turbines:	2x3500 W
Energy from renewable:	max 27 kWh
Accommodation:	4-6 people
Range:	Unlimited

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competitors – solar boats and yachts
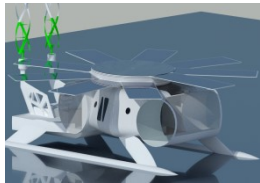
Explorator

Length: 16 m
Power: 2x5 kW
Renewable energy:
solar panels+wind
turbines: 27 kWh
Battery: 200 kW
Accommodation: 6
people
Price est.: 200.000 $

Aquawat 550
(Austria)

Length: 5,5 m
Power: 800/1600 W
Solar panels: 400 Wh
Payload: 4 people

SunCat 23
(Taiwan/Germany)

Length: 7 m
Power: 2.8 kW
Solar panels: 760 Wh
Payload: 12 people

Soelcat 12
(Netherlands)

Power 2x30 kW
Solar panels: 8.6
kWh
Battery 120 kW
Price: 560.000 $

Navalt - Solar ferry
(India)

Length: 24 m
Power 2x25 kW
Solar panels: 24 kWh
Battery: 2x40 kW
Payload: 100 people

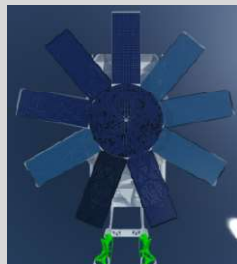**Solarwave 55/62**
(Switzerland)

Length: 16.7/18.9
Power 2x30 kW
Solar panels: 15
kWh
Battery 100 kW
Price: 2.5 M Euros
Will be will be
released in October
2019 in Asia for
touristic charters in
Myanmar

SunCat 46
(Taiwan/Germany)

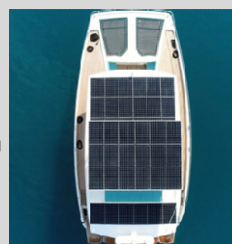Length 14 m
Power: 2x8 kW
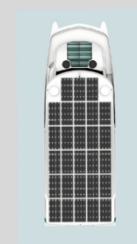Solar Panels: 3.2 kWh

renewable energy capacity vs competitors
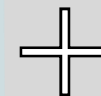

Explorator   =   **Soelcat 12**   +   **Solarwave 55**   +   **Suncat 46**   +   **Aquawatt 550**

We use a larger solar panel surface with the help of variable geometry system, to get more energy and also vertical wind turbines, helped by an organic design. Competitors use diesel engines to ensure propulsion when needed, we prefer Aeolian solution as efficient and sustainable. We have increased the capacity of batteries that can supply the energy for dozens of hours of operation, day or night, with all the comforts for the passengers. Also we can use the 97% efficiency electric motors (build in the house) but the most electric boats motor from the market have maximum of efficiency around 93%. Another thing that improves performance, lowers the weight of the watercrafts and makes less energy consumption and helps us to produce a low price compared to the competition is the use of natural materials, among which we notice the hemp fiber which in contact with resin becomes more resistant than steel at a fraction of the weight and price of the steel. Our watercraft are also fireproof, we using for that a water non toxic resin. The result should be: zero carbon emissions and 100% sustainable technology. Without any compromise.

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sharing boat services (apps)
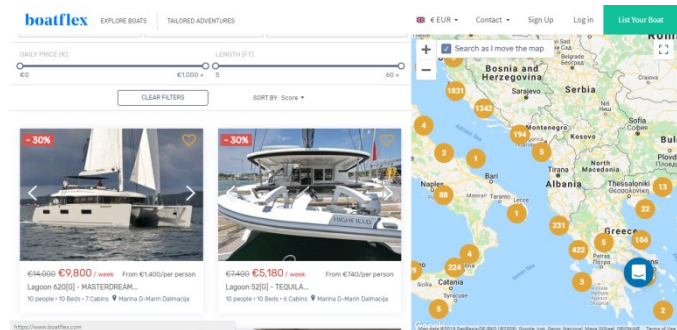
Boatflex, is a Denmark start-up what use a peer to peer application for boat sharing, Have many offers in Europe Mediterranean area, and limited in US, Africa and Asia.
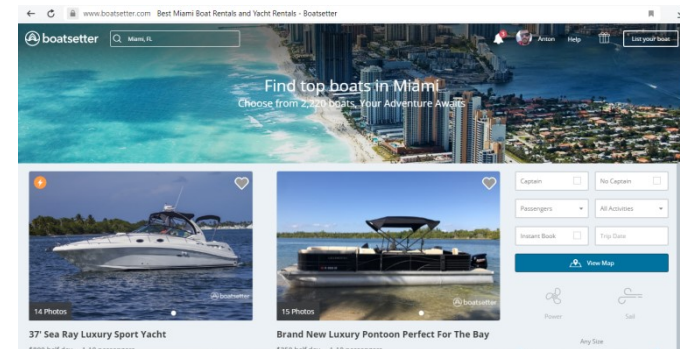
Boatfsetter is a growing company founded in 2013 that bough the competitors Cruzin and Boatbound, have offers for US started in Europe and they have global ambitions. They use also a peer to peer application.
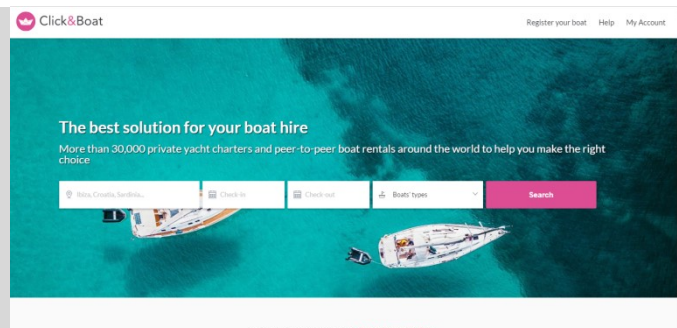
Click&Boat, also peer to peer application have many offers in Europe, especially in Mediterranean area and in US, but just few offer for Asia.
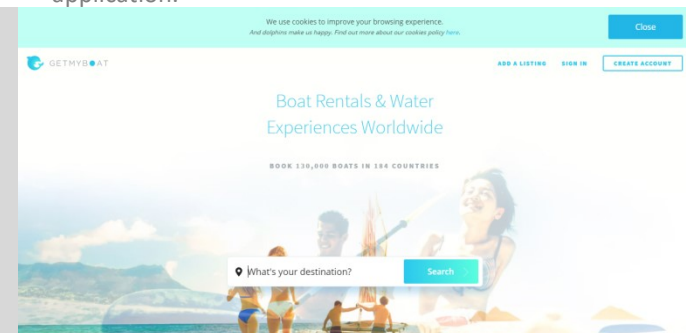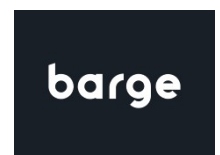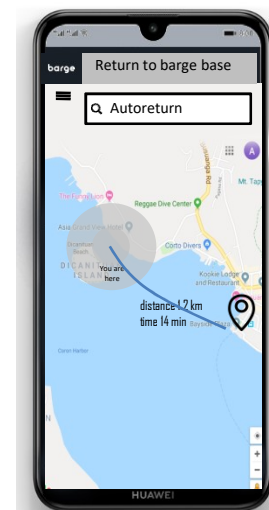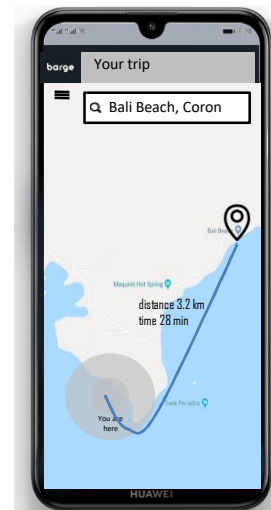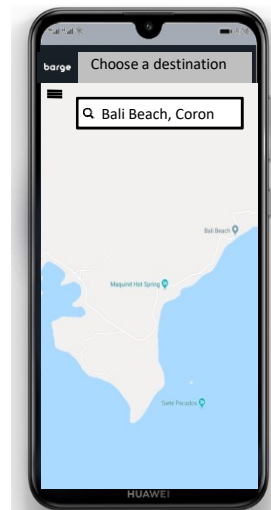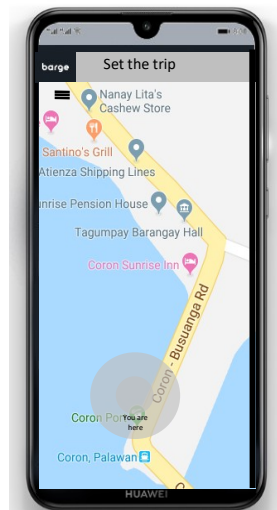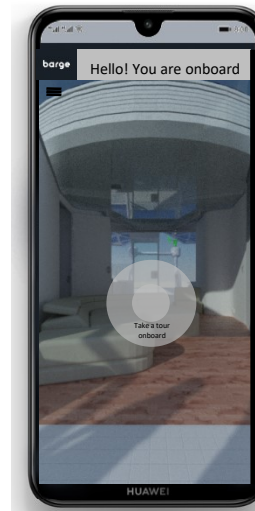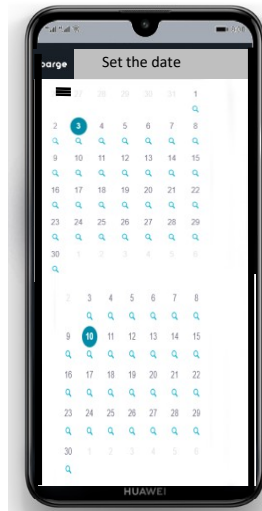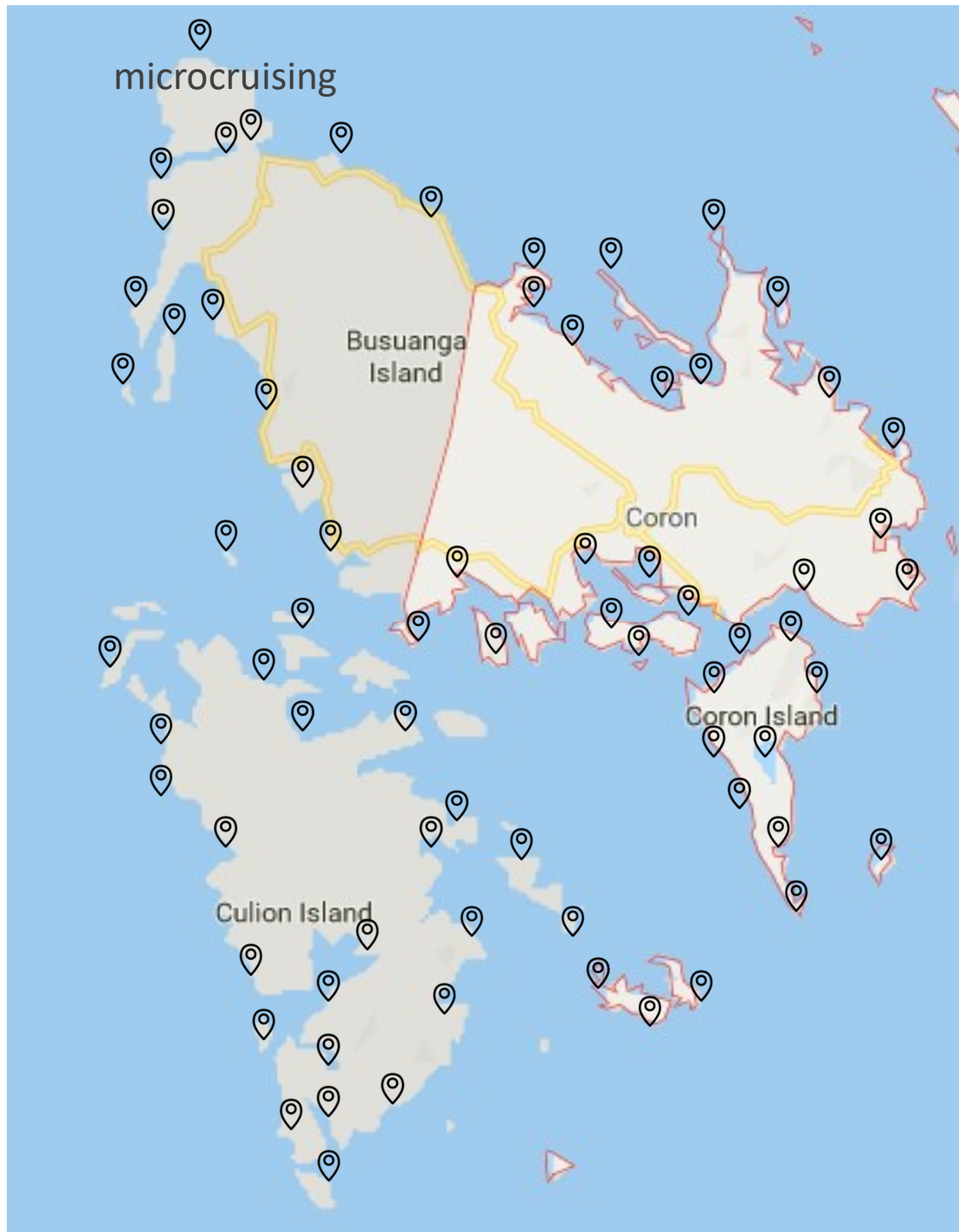

Getmyboat, also peer to peer application, covers 184 countries.

Just one players on boat sharing markets of Asia, Getmyboat. On electric watercrafts are just some isolated cases using electric solar or electric hybrid yachts for expensive charters. **Also the boat sharing is very expensive.**

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how works barge (the app)

microcruising

microcruising service

example: 7 days trip on Coron, Busuanga and Culian islands (Philippines).

trip: 350 km: 7 days = 50 km/day
• can visit: the best swimming zones, isolated beaches, cities, restaurants, resorts, museums, local markets, natural reservations, etc
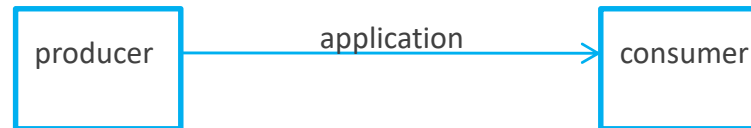• maximum flexibility to set a trip
• the watercraft can follow the shores of islands on autonomous self driving Autoskeeper from barge application
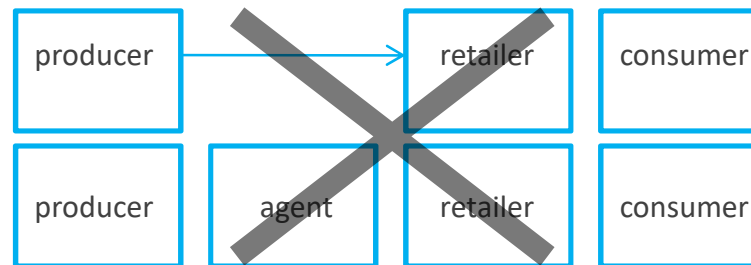
Your virtual skeeper

autoskeeper
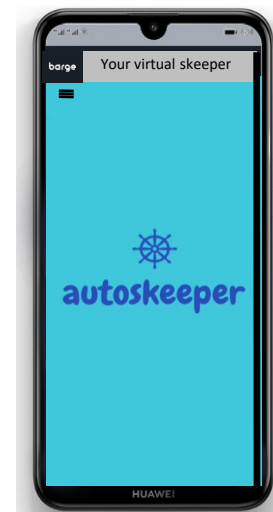
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the distribution channel

The best distribution channel is sharing the watercrafts as a service B2C provided by application.

```
┌──────────┐    application    ┌──────────┐
│ producer │ ───────────────→  │ consumer │
└──────────┘                   └──────────┘
```

Avoid the classic channels that imposes intermediaries:

```
┌──────────┐        ┌──────────┐   ┌──────────┐
│ producer │ ─────→ │ retailer │   │ consumer │
└──────────┘        └──────────┘   └──────────┘
          ╲       ╳        ╱
┌──────────┐  ┌──────────┐ ┌──────────┐   ┌──────────┐
│ producer │  │  agent   │ │ retailer │   │ consumer │
└──────────┘  └──────────┘ └──────────┘   └──────────┘
```

Also, the best way to revalue production is to rent, not to sell.

Production cost per item (Explorator):

$ 70.000

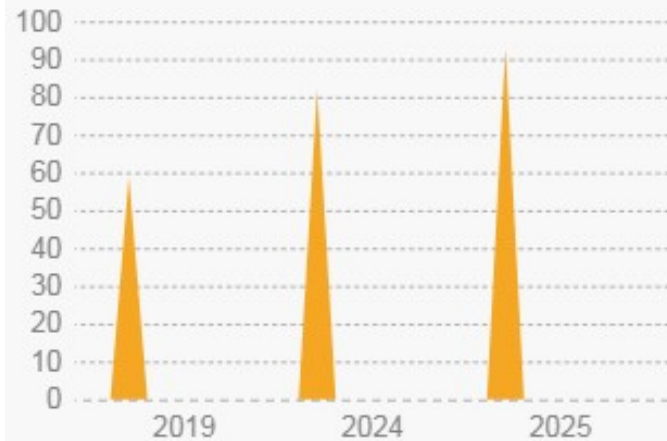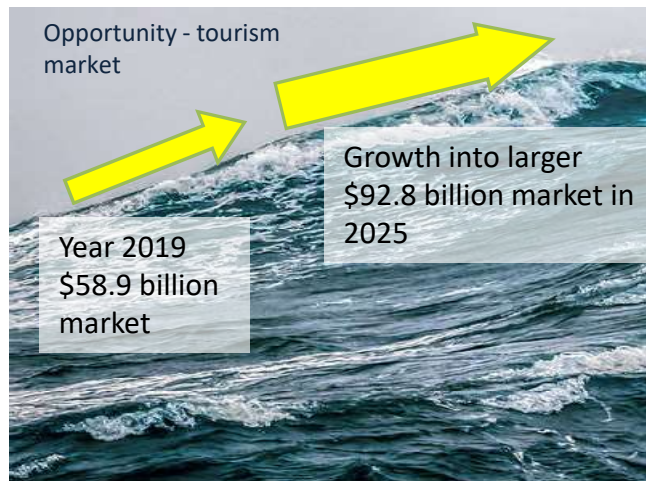| Selling price:	Net price (VAT exc.) :	Sharing price:
$ 200.000 (once)	$ 160.000	$ 400/day x 300 days/year = $ 120.000 using period of a watercraft is minimum 10 years: 120.000 x 10 years = $ 1.200.000

VAT exc.:
$ 800.000

Result: affordable –
$400:4/6 people = $100-67 cost per person/day

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coastal and maritime tourism market size (billion $)

CAGR: 6.7 % between 2019-2025
(Source: Global Marine Tourism Market Report, 2019)

Opportunity - tourism market

Growth into larger $92.8 billion market in 2025

Year 2019 $58.9 billion market

Barge is a project developed on two big markets: 1. tourism market (directly) and 2. recreational boating market (indirect). These markets will cumulate 322.8 billion in 2025.

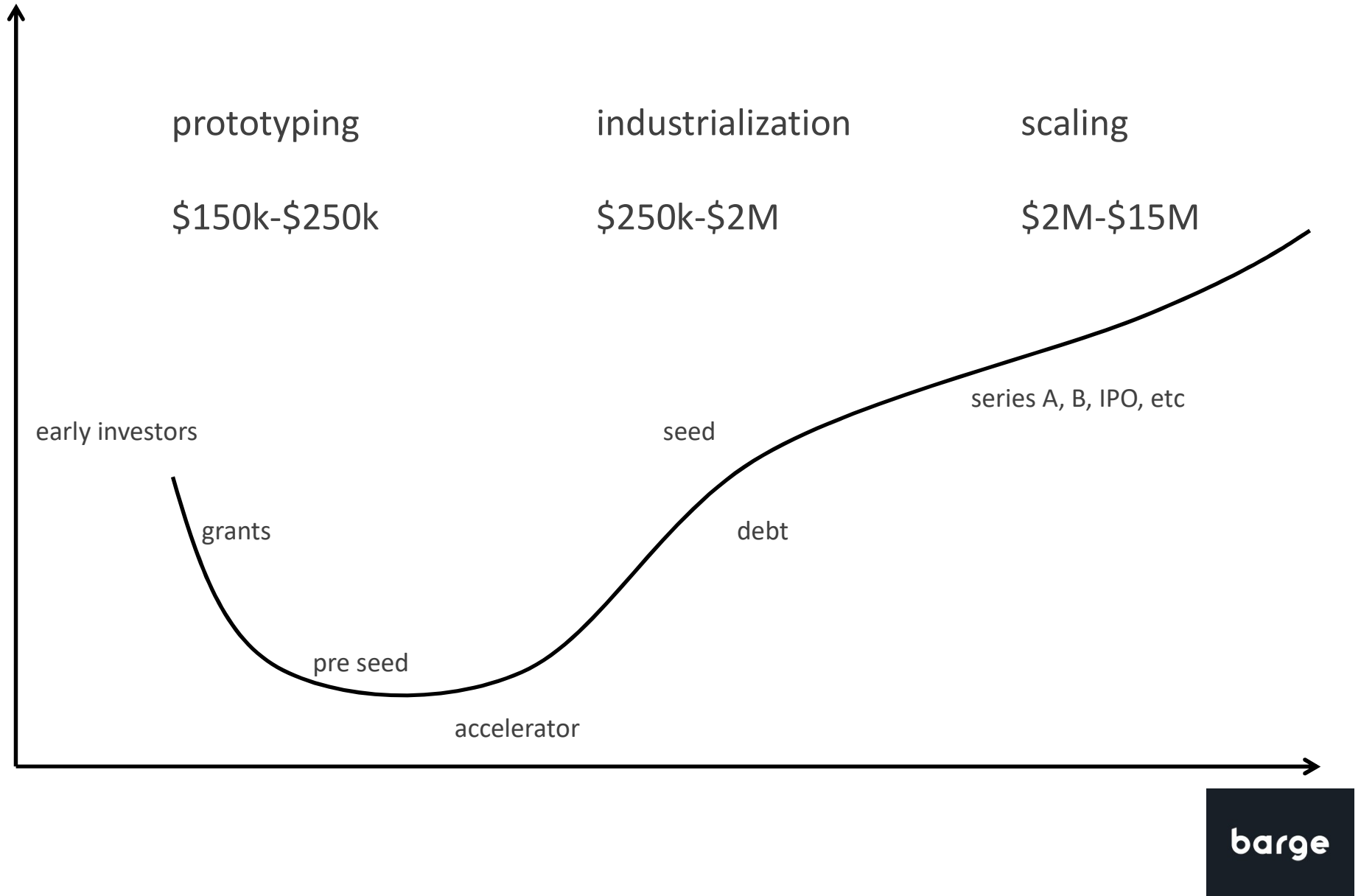## recreational boating market size (billion $)
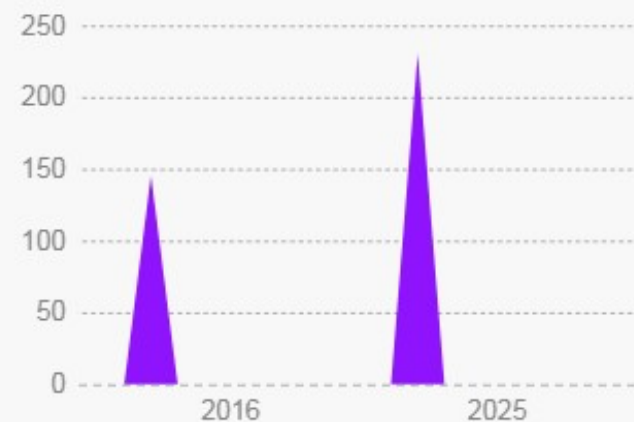
CAGR: 4 % between 2017-2024
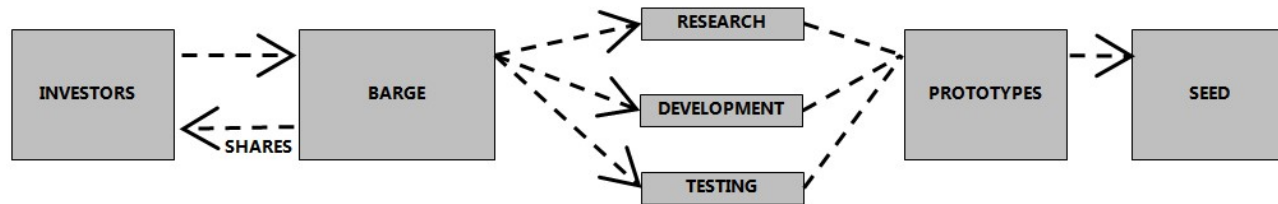(Source: Global Market Insight, 2018)

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why the funding is important?

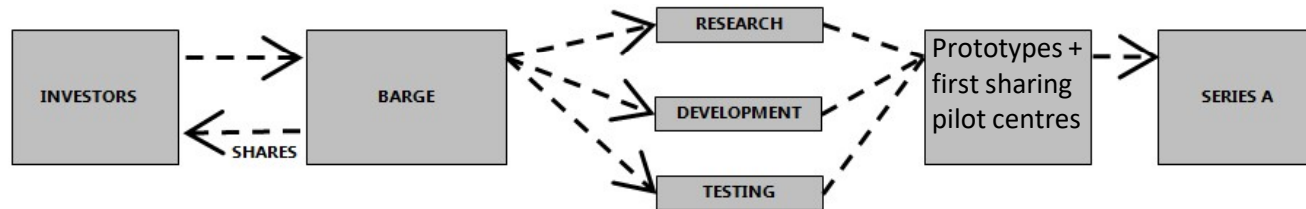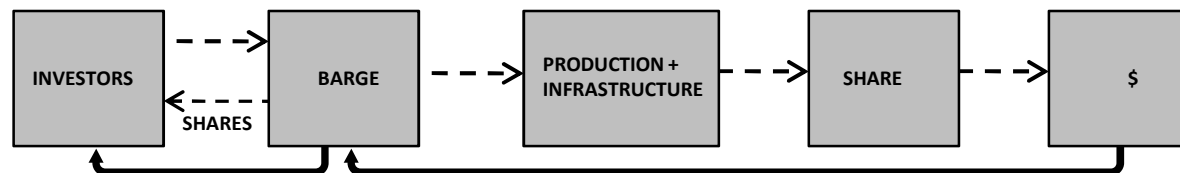|	prototyping	industrialization	scaling
funding need	$150k-$250k	$250k-$2M	$2M-$15M
funding use	components structure first design testing company creation	additive manufacturing moulds custom tools custom hardware test benches design&research hiring staff application build a small fleet pilot sharing centers	working capital hiring staff marketing production building a fleet sharing centers

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steps

prototyping

industrialization

scaling

$150k-$250k

$250k-$2M

$2M-$15M

series A, B, IPO, etc

early investors

seed

grants

debt

pre seed

accelerator

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36 months plan

year 1. pre seed

year 2. seed

year 3. series A

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team

Anton Toth, PhD, CEO, Founder.
Designer, CAD/CAM.

Iulian Berca, CTO, Co-Founder.
Hardware/Electrical Engineer&Inventor