HelioRec

THE FLOATING SOLAR POWER PLANT

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www.heliorec.com

Interreg Europe

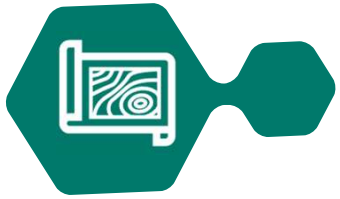
European Union | European Regional Development Fund

Sk Сколково

Problems

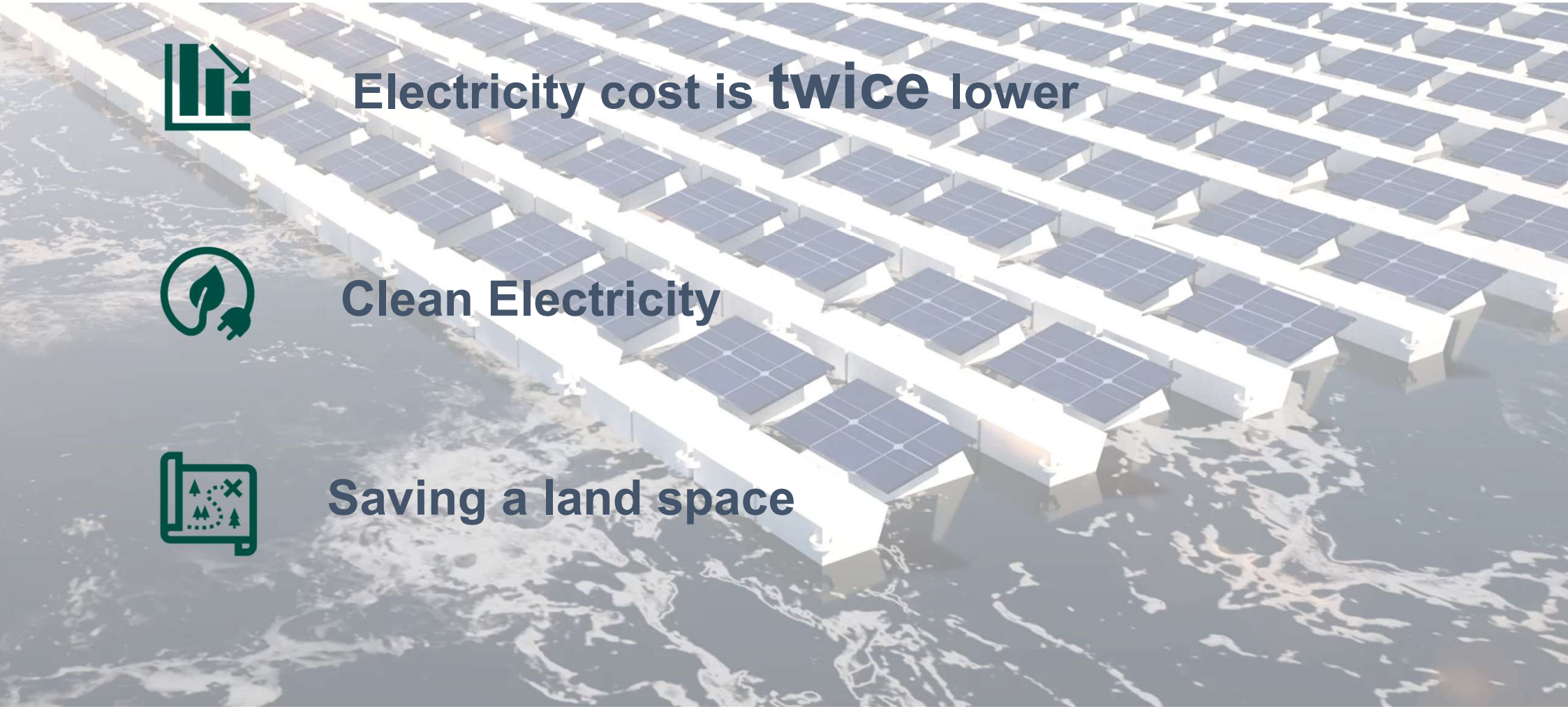
High Cost of Electricity at remote locations

Traditional Source of Electricity is “dirty”



Land Scarcity

Solution



Electricity cost is **twice** lower

Clean Electricity

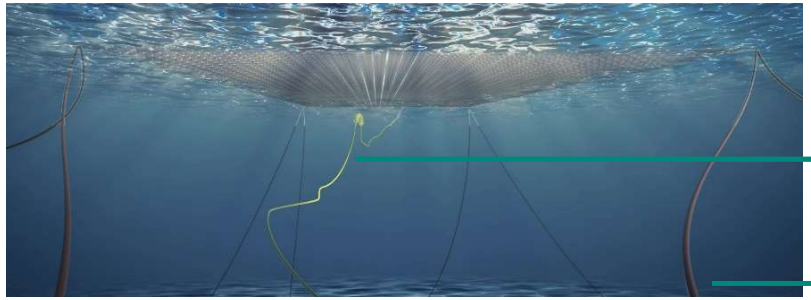
Saving a land space

Product

Innovative floating solar power plant*

PV module with coating

Floating system



Electrical sea-cable

Mooring line

**Current Stage - MVP*

Services

Main

- Engineering
- Procurement
- Construction
- O&M

Monitoring

- System monitoring
- CO_2 assessment etc.

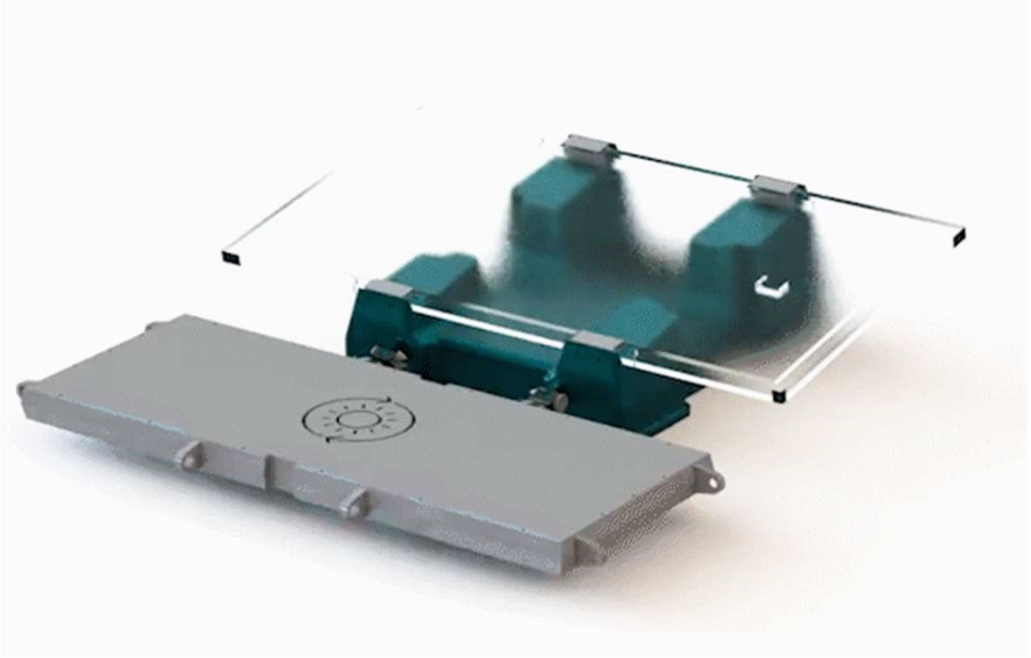
Data analysing via ML and AI tools

- ML to store a local data and energy production
- AI to predict water quality

Competitors – Sea Installation

Parameter	HelioRec	Oceans of Energy	SwimSol	Ocean Sun
High Efficiency (tilt + cooling system)	✓	✗	✗	−
Low cost	✓	✗	✗	−
Flexibility (modular)	✓	−	−	−
Fast Installation	✓	✗	✗	✓
Circular Economy	✓	✗	✗	✗
AI/ML	✓	✗	✗	✗
Go to market	Q3 - 2021	NL - Pilot 17 kW	Maldives – 442 kW	Norway – 220 kW

Competitive Advantages*



Unique Design

- Efficiency higher on 14%
- Modular System; fast installation
- Cost is lower on 50%

Circular Economy Approach

- Lower carbon footprint

Using ML/AI

- Parameters forecast
- Recommendations for improvement

*Sea installation

Applications

Close waters: Reduce evaporation + electricity generation

- Hydropower stations
- Lakes

Oil&Gas companies: Image enhancement

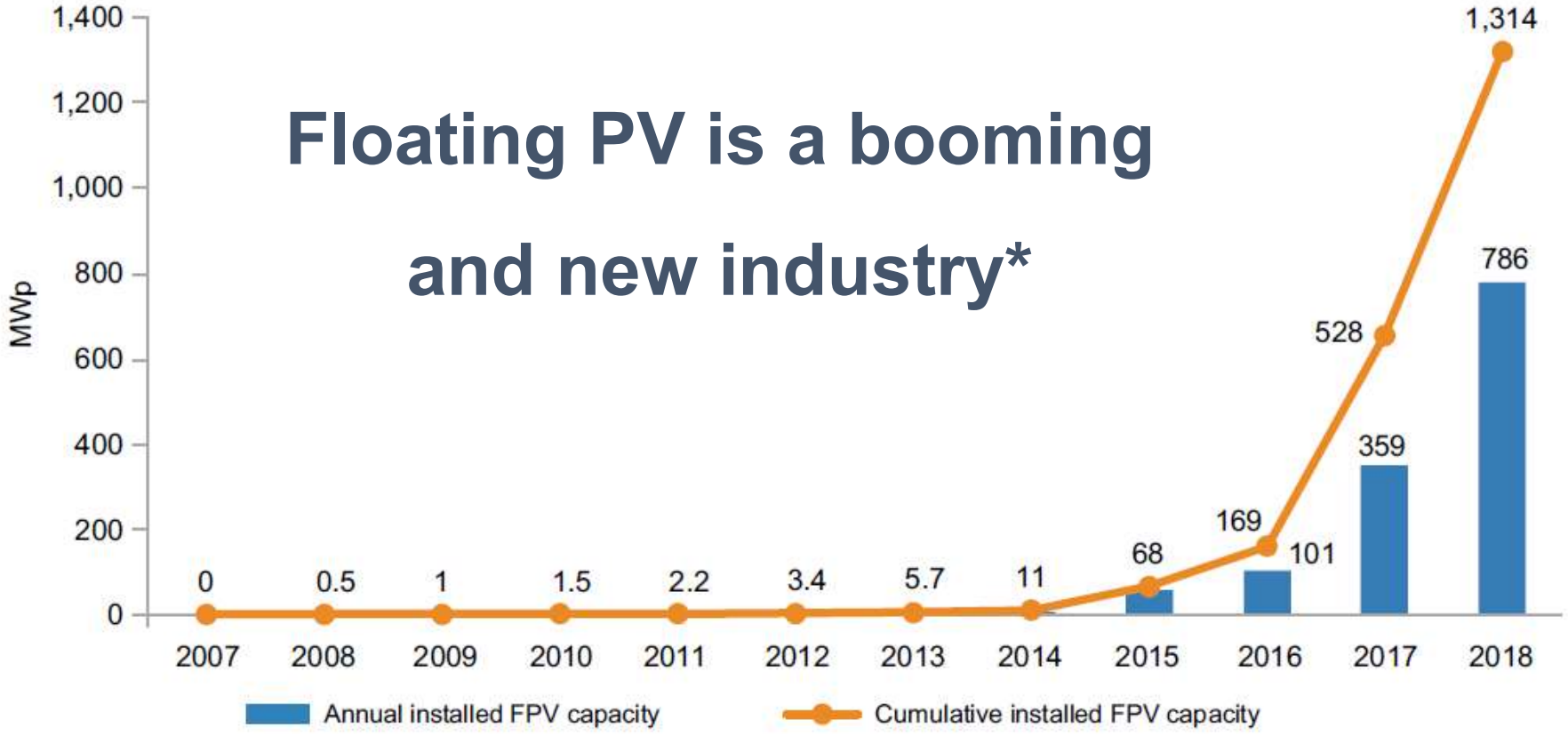
- Drilling rigs
- FLNG

Others: Additional generation + autonomy

- Marine Ports
- Desalination plants
- Sea farms

Market

Floating PV is a booming and new industry*



https://www.worldbank.org/en/topic/energy/publication/where-sun-meets-water
https://www.irena.org/Statistics/View-Data-by-Topic/Capacity-and-Generation/Statistics-Time-Series

* Land-based installation – 580 GW

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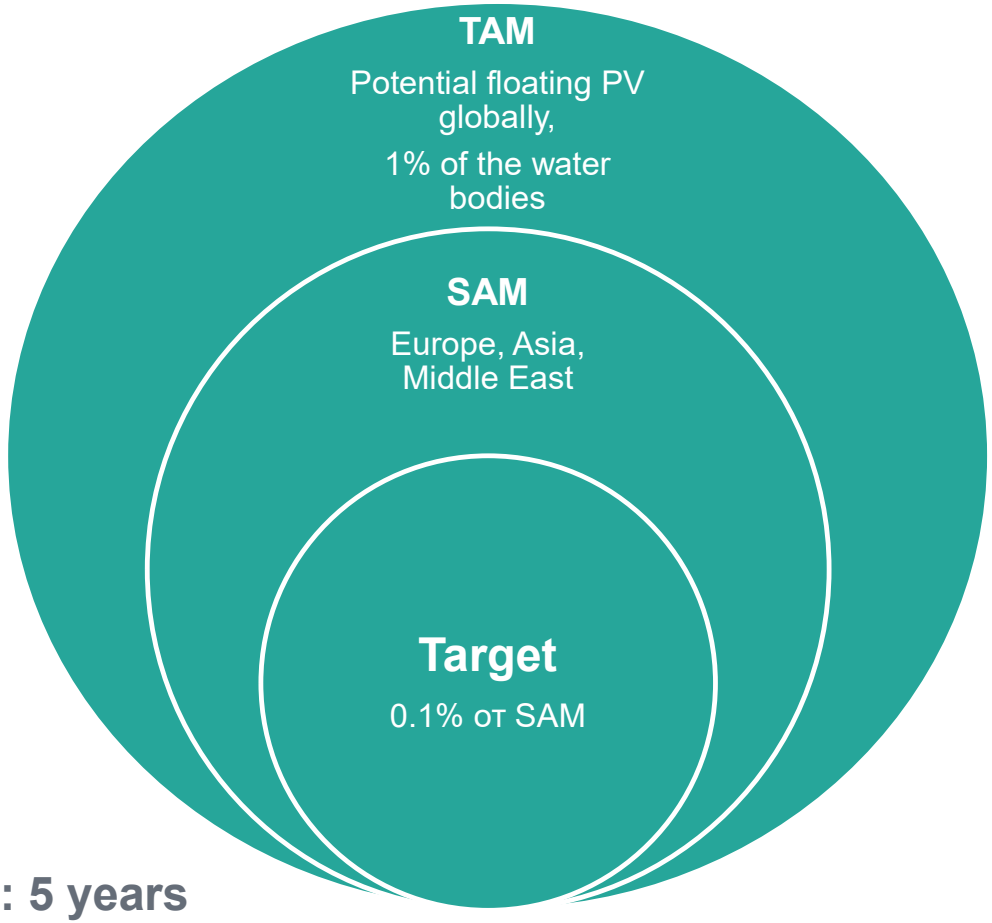
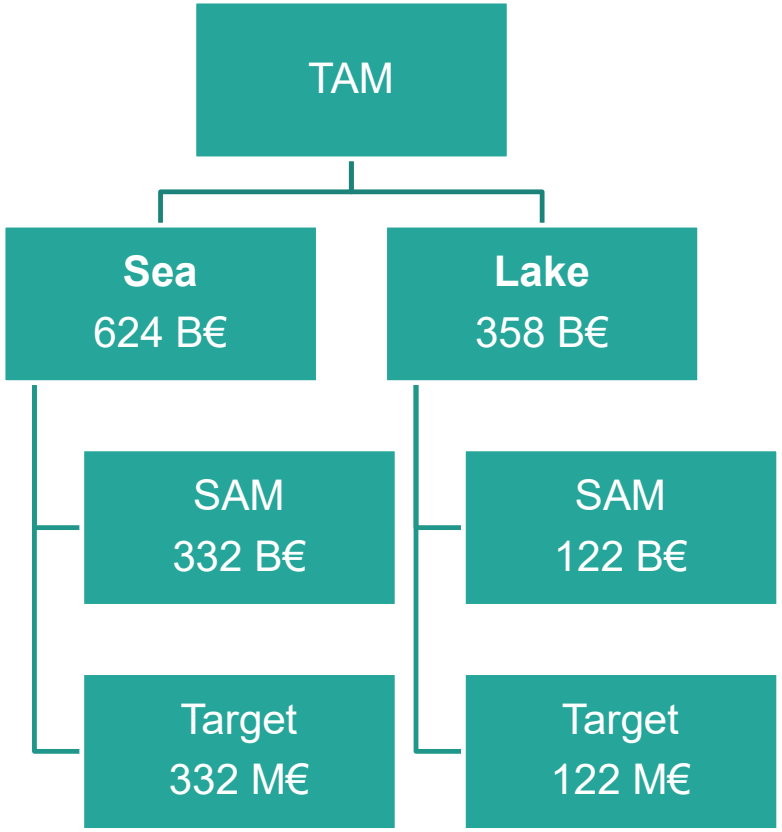
Market Size





Plan: 5 years

Business Model

- Margin on selling power plants: 30%
- Engineering services

450 mln. €

0.1% SAM*

1300 €/kW

Average Price

20 mln. €

Revenue in 2023 year (14.7 MW)

*Europe, Asia, Middle East

Reached Milestones

IP Application (Russia, France)

Trademark

R&D is finishing

Manufacturing is starting

4 LOIs + several verbal agreements

Investment Milestones

Round	Amount, €	Investor Profile
Pre-seed: R&D ▪ MVP, build a team and board of advisors, IP application, TM	208 500	Founder in cash – 15 000€ BA – 51 500€; Grants (INTERREG 75 000 €; BPI – 30 000€; Skolkovo– 37 000€)
Seed: The first sale ▪ Reach a first product/market fit, improve technology ▪ Market Focus: Russia, France, Portugal	600 000	**VCs (cleantech), Corporate ventures (energy)** Smart money with the marketing and customers focuses in energy sector
Series A: Expansion ▪ Market Expansion & Development ▪ Market Focus: Asia, Europe, Middle East	3 000 000	**VCs (cleantech), Corporate ventures (energy)** Smart money with the expansion in Asia and Middle East markets

Team

Polina Vasilenko

MEng. Chemical technology

MSc. Renewable Energy

Experience 18 years

Davide Padeletti

MEng. Electronics

Wave energy, hydrodynamics

Experience 12 years

Olga Antonova

MSSc. International Relation

Business development

Experience 14 years

Dmitry Averin

MEng. Automated Systems.

Entrepreneur skills

Experience 16 years

Grigory Troschenko

MSc. Aerospace Engineering,

Combustion and Propulsion

Experience 4 years

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Advisors

Alexey Morozov
Business Advisor

MEng. Mechanical Engineering

Cost control; Business and strategic planning

Experience 21 years

Inna Fusaro (Skvortsova)
Financial Advisor

PhD Accounting and Finance

Cost control and cost efficiency; Financial planning and budgeting;

Experience 16 years

Marco Alves
Technical Advisor

PhD. Mechanical Engineering

Hydrodynamics, interactions of ocean waves with objects

Experience 22 years

Partners

BUSINESSFRANCE

bpifrance

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