



JAN 11TH 2022

THE COMPANY



WHO WE ARE

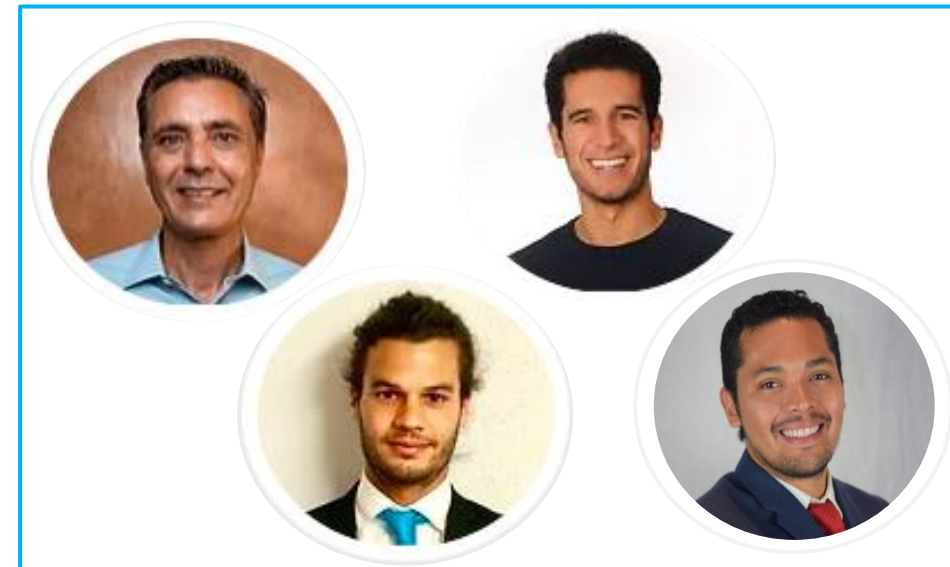
Team Gauting (GER)



Team Heraklion (GRE)



Team Americas



- Founded in 2014 in Gauting (greater Munich area), GER
- Mission: design innovative floating renewable energy solutions

Partners & Advisors

Umut Ertan, Prof. Martin Faulstich



- 8 patents on ModTroniX and Ocean Hybrid Platform (OHP)
- 28+ team members
- 9 awards & nominations

THE COMPANY

THE MANAGEMENT



Dr.- Ing. Philipp Sinn (CEO & Founder)
CEO SINN Power - since 2014

- Industry Consultancy (Renewables) – 8yrs
- Chairman of Munich Nr. 1 Private School - since 2017
- Rotary - since 2019
- Innovation support by the German Federal Government since 2013



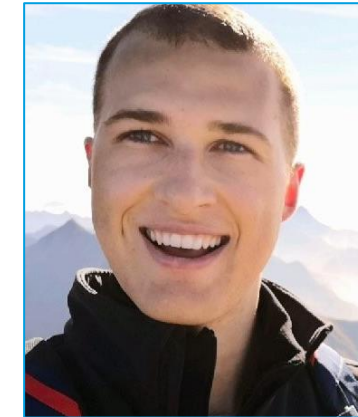
Tobias Völkel
(Sales)



Rafael Palacios
(Sales)



Doris Froitzheim
(Marketing)

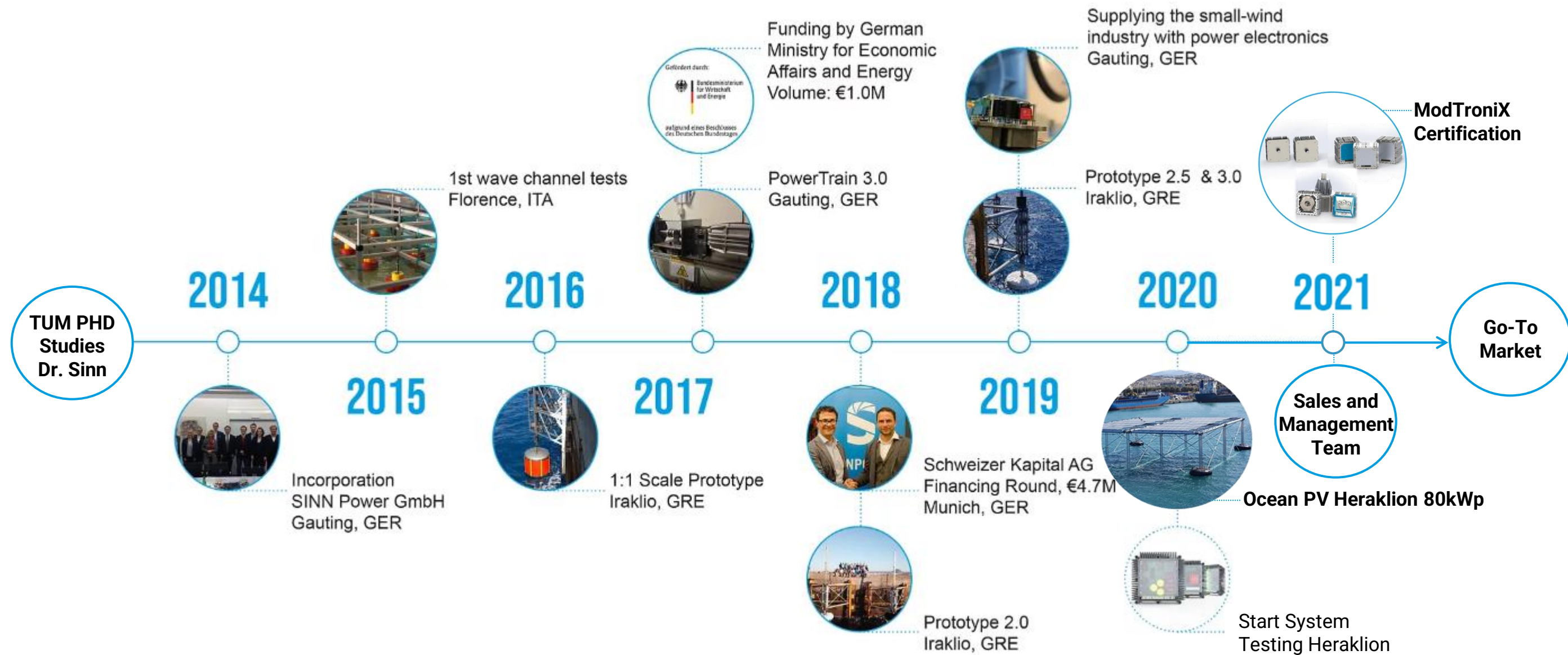


Christopher Biermann
(Finance)



Annabel Michels
(Engineering)

HISTORY OF SINN POWER



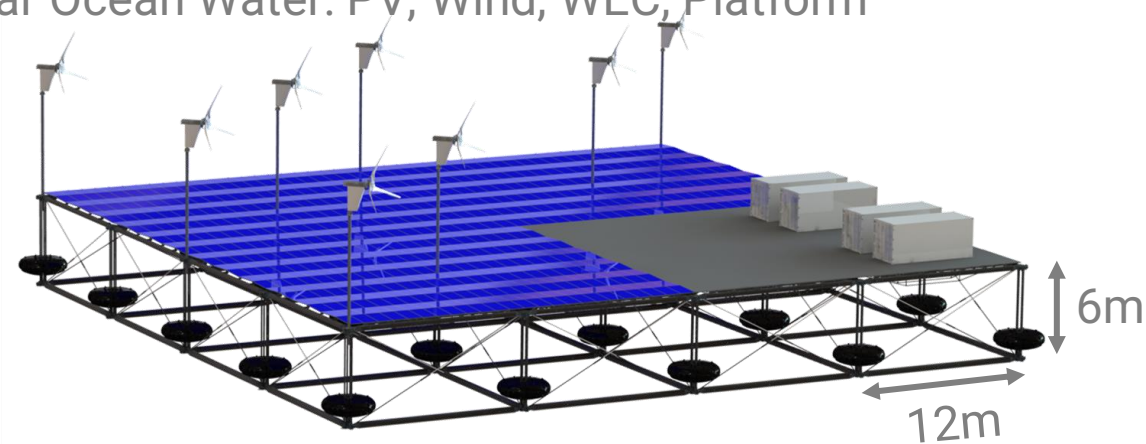
THE COMPANY

PRODUCTS & SERVICES (EPCIC & OT)



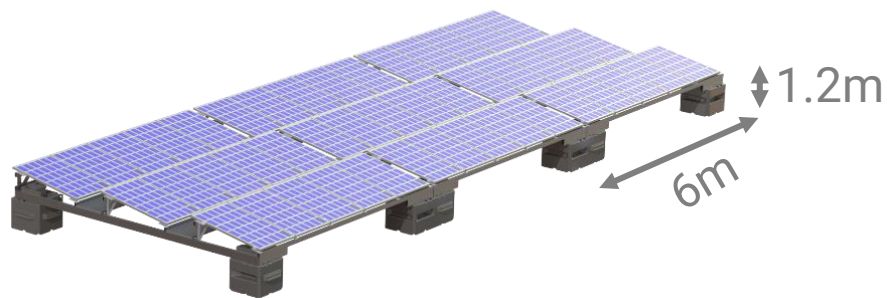
Ocean Hybrid Platform (OHP)

Modular Ocean Water: PV; Wind; WEC; Platform



Water Lily

Modular Floating Photovoltaics



Power Electronics (ModTroniX)

Modular Smart-Grid for harsh environment and salt-water proof: PV Inverter; 1-Phase Inverter; 3-Phase Inverter; LFP-Storage; Power Train; etc.



Engineering

We are experts in ocean engineering and ocean smart grid renewable solutions.

Procurement

We have a worldwide network of high-tech electronics and complex maritime structures.

Construction

We pre-assemble and manage components to an optimum.

Installation

We manage complex engineering projects on-site worldwide.

Commissioning (Operation & Transfer)

We bring your projects alive, school your team for operation, support your lifecycle services to your comfort.

DUBAI WORLD

EPCIC & OT



Project Phase	Main Tasks	2022			2023				2024			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Initiation	Project Definition & Order	■										
Engineering	Platform Design & Technical Detailing, Approval Processes, Site Investigation	■										
Procurement	Managing Equipment, Materials, and Logistics	■										
Construction	Pre-assembly Onshore, Planning and Preparing Installation Process				■							
Installation	Assembly Offshore, Anchoring & Mooring, Cables & Grid Connection					■						
Commissioning	Power Scenario Testing, Security Tests, Performance Proof, Grid Operation							■				
Operations & Transfer	Data Evaluation, Service and Maintenance, Training and Handover								■			

VISION OF SINN POWER OHP



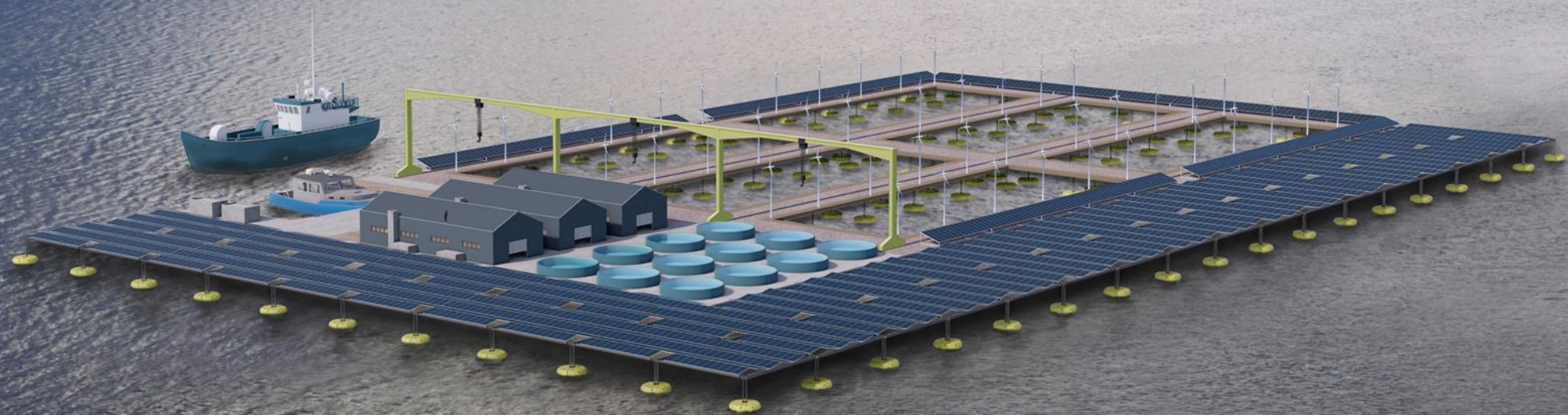
SINNPOWER

OHDP REMOTE ENERGY SUPPLY



OHPS

ENERGY SUPPLY FOR FISH FARMS



OHP ENERGY AND INFRASTRUCTURE



OHP LARGE SCALE INFRASTRUCTURE



OHP OFFSHORE WIND PARK





VERSATILE.



EASY TO HANDLE.



DURABLE.



EFFICIENT.

TECHNOLOGY

DETAILED TECHNOLOGY DESCRIPTION



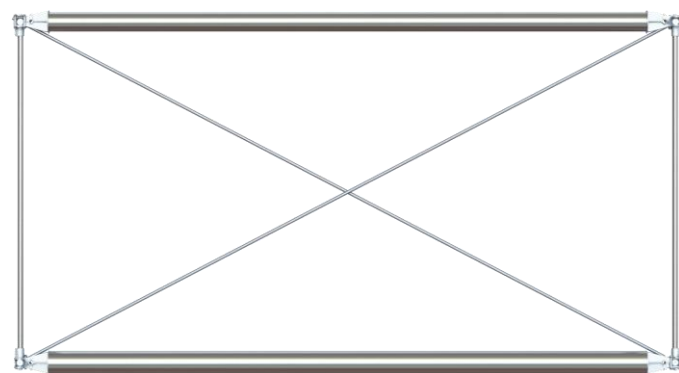
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MAIN ASSEMBLY GROUPS



STRUCTURE FENCE

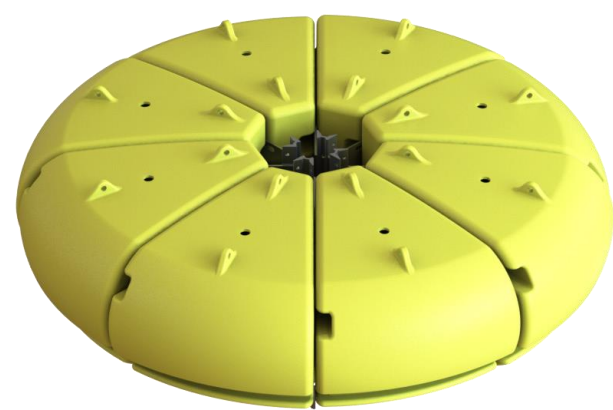
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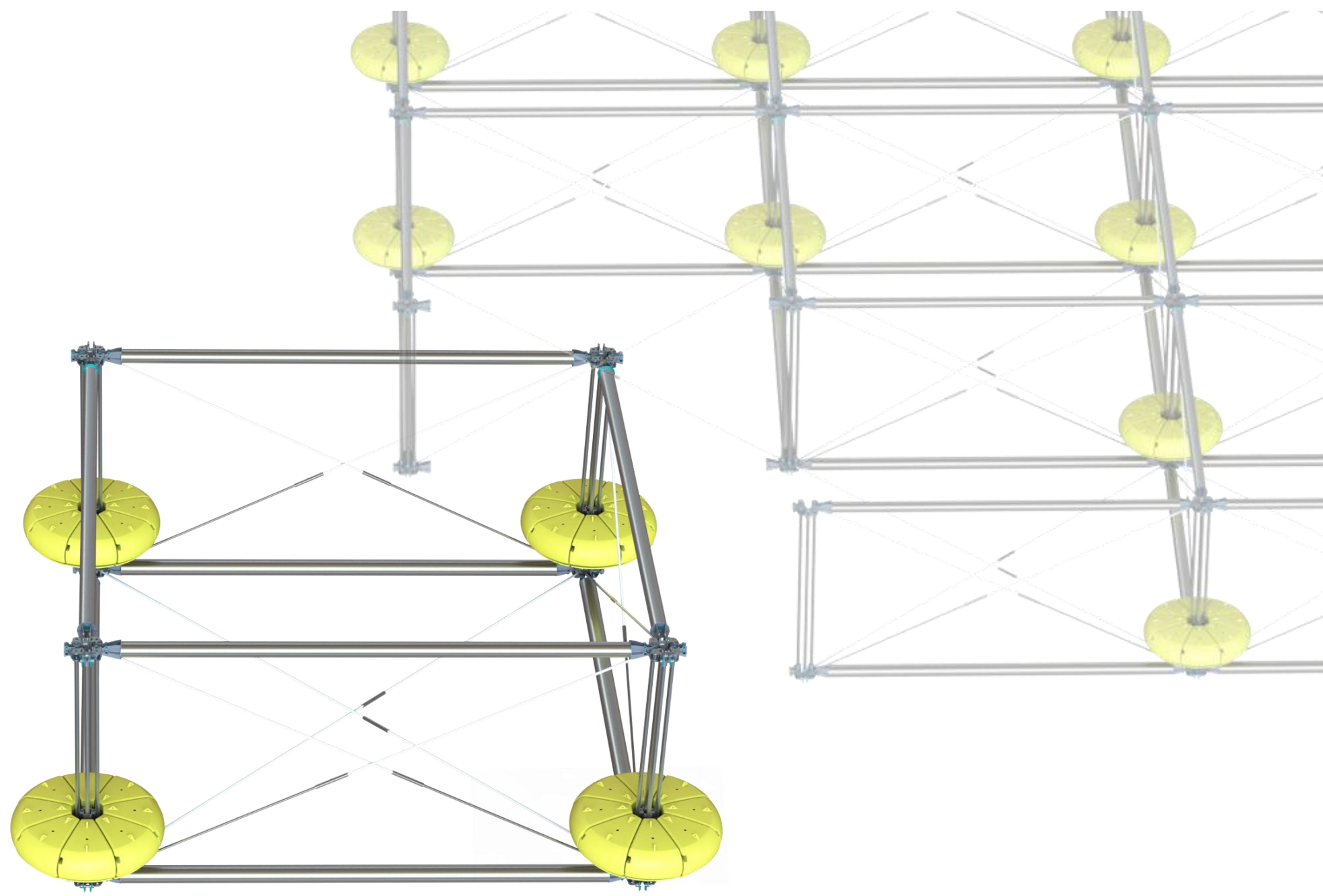
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FLOATING BODY

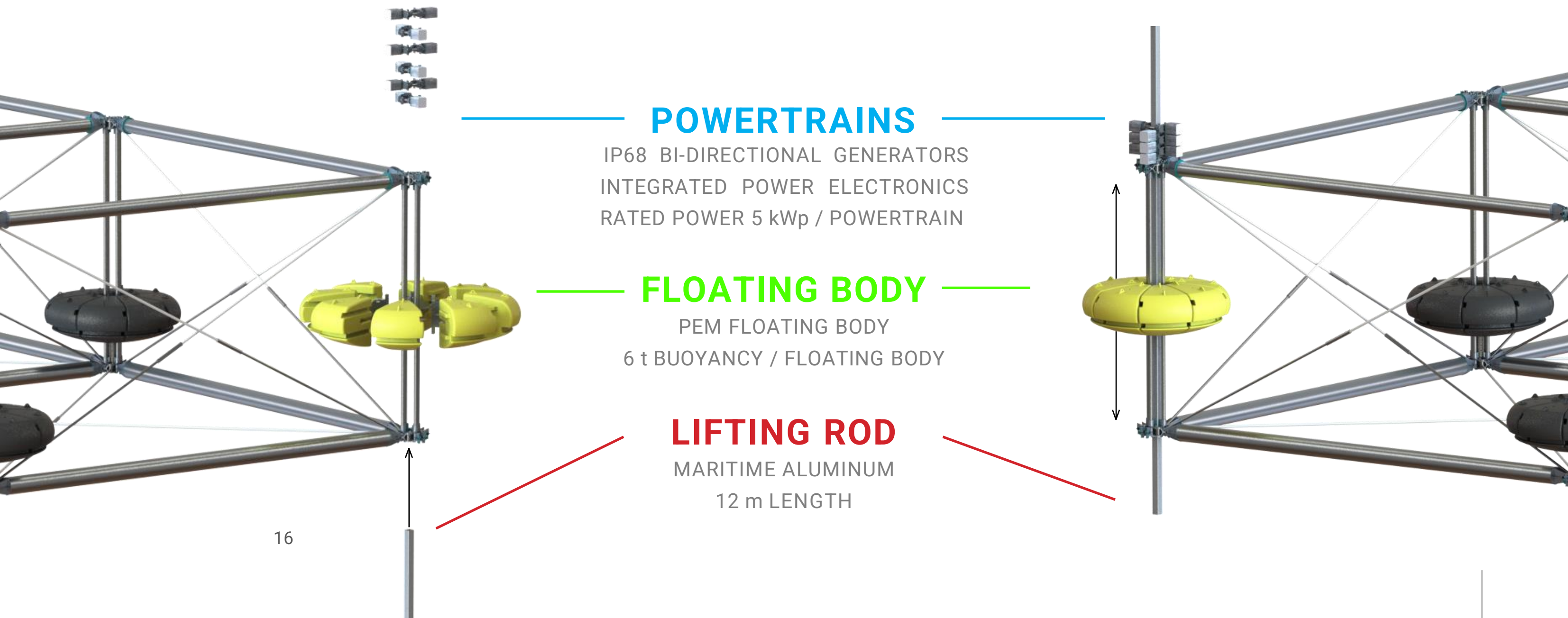
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MAIN ASSEMBLY GROUPS – WAVE POWER (PROTOTYPE PHASE)



POWERTRAINS

IP68 BI-DIRECTIONAL GENERATORS
INTEGRATED POWER ELECTRONICS
RATED POWER 5 kWp / POWERTRAIN

FLOATING BODY

PEM FLOATING BODY
6 t BUOYANCY / FLOATING BODY

LIFTING ROD

MARITIME ALUMINUM
12 m LENGTH

MAIN ASSEMBLY GROUPS – **SMALL WIND FARM** (PROTOTYPE PHASE)



Powertrains

IP68 bi-directional generators
Integrated power electronics
Rated power 10 kWp / Powertrain

Turbine

Provided by LuvSide
Storm proof with
continuous duty

Mast

Equal to WEC lifting rod
Maritime aluminum
12 m length

MAIN ASSEMBLY GROUPS – OCEAN PV (READY TO MARKET)

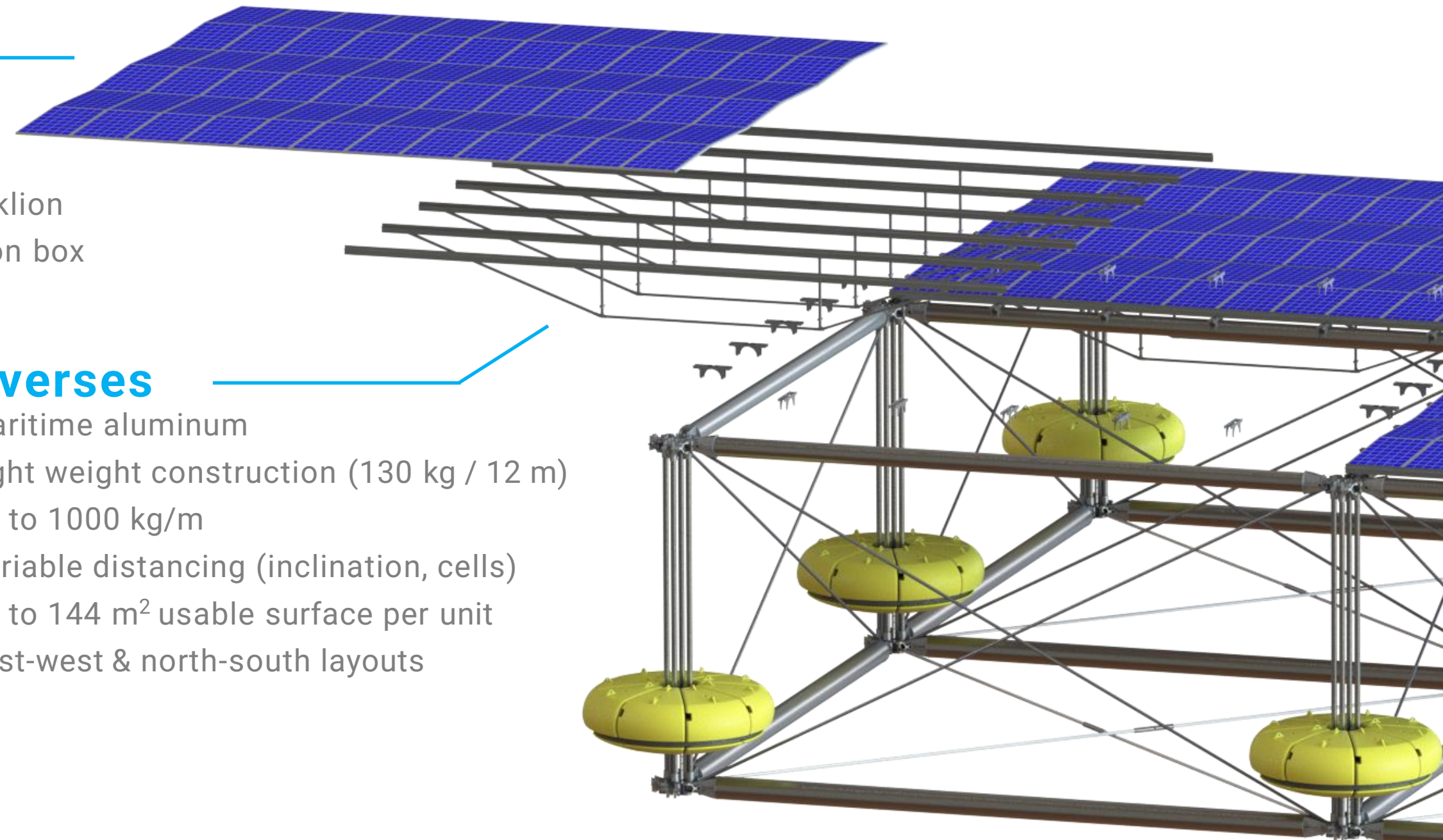


PV modules

- 60 cells & 72 cells
- Up to 30 kWp per unit (144 m²)
- Schmid Pekintaş supplier in Heraklion
- Special modules with IP68 junction box

Traverses

- Maritime aluminum
- Light weight construction (130 kg / 12 m)
- Up to 1000 kg/m
- Variable distancing (inclination, cells)
- Up to 144 m² usable surface per unit
- East-west & north-south layouts



MAIN ASSEMBLY GROUP – PLATFORM (READY TO MARKET)

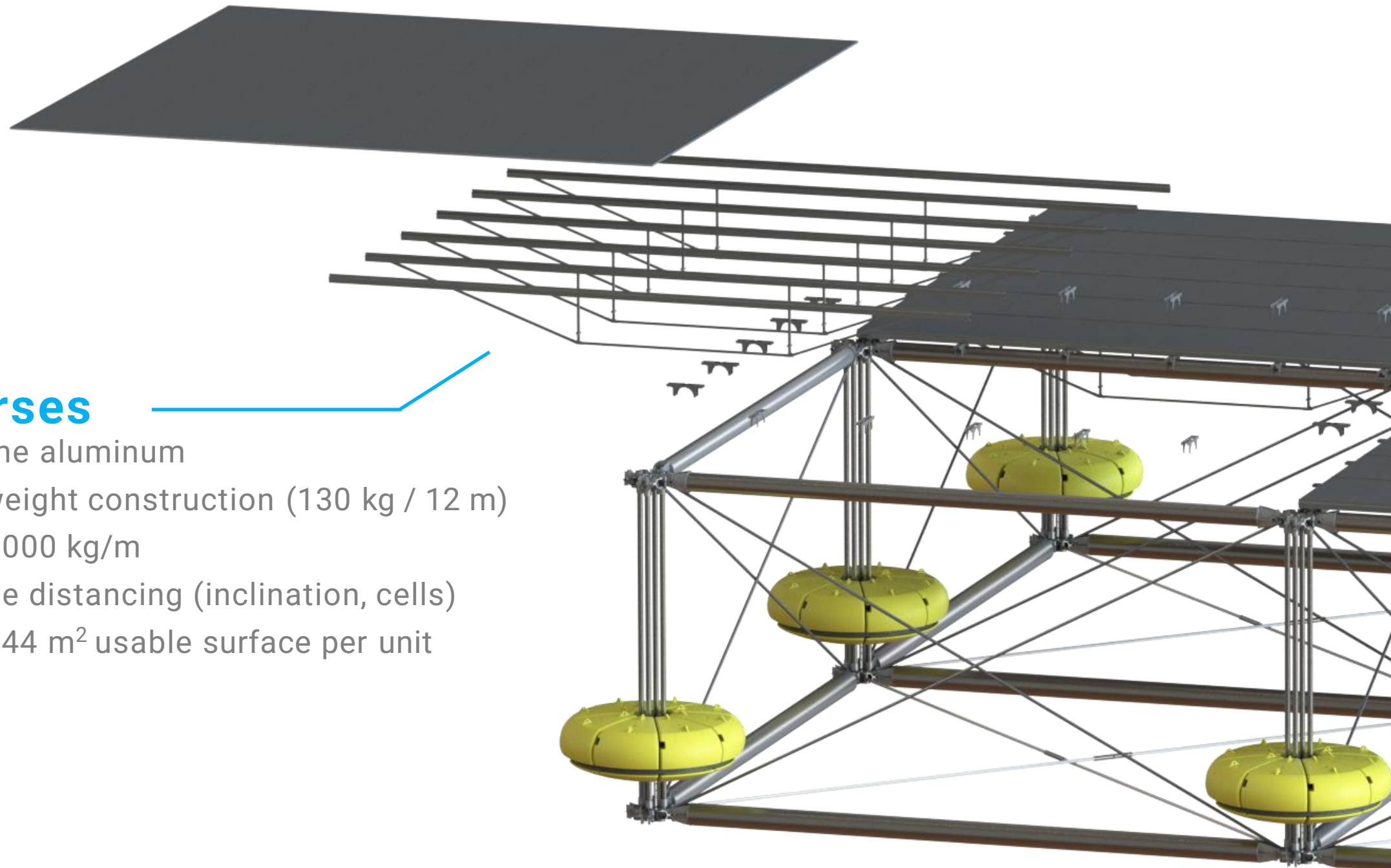


Floors

- Various floors available
- Up to 1000 kg/m

Traverses

- Maritime aluminum
- Light weight construction (130 kg / 12 m)
- Up to 1000 kg/m
- Variable distancing (inclination, cells)
- Up to 144 m² usable surface per unit



USPs: OCEAN PROOF – HYBRID – MODULAR – COST-EFFICIENT



12+ m , 60+ m/s

Significant wave height & wind speed

Saltwater resistant

Maritime aluminium

All in one

Renewables & storage

Modular

Dimensioning

Cost-efficient

Most economical solution in the world

“The worldwide only hybrid renewable system designed for the power of oceans.” – CEO, Dr. Sinn

USPs: EASY TRANSPORT & INSTALLATION



Assembly

- On water installation possible
- No local large machinery required

Logistics

- Components fit 40' containers
- Easy to transport & ship worldwide



WATER LILY

FLOATING PV

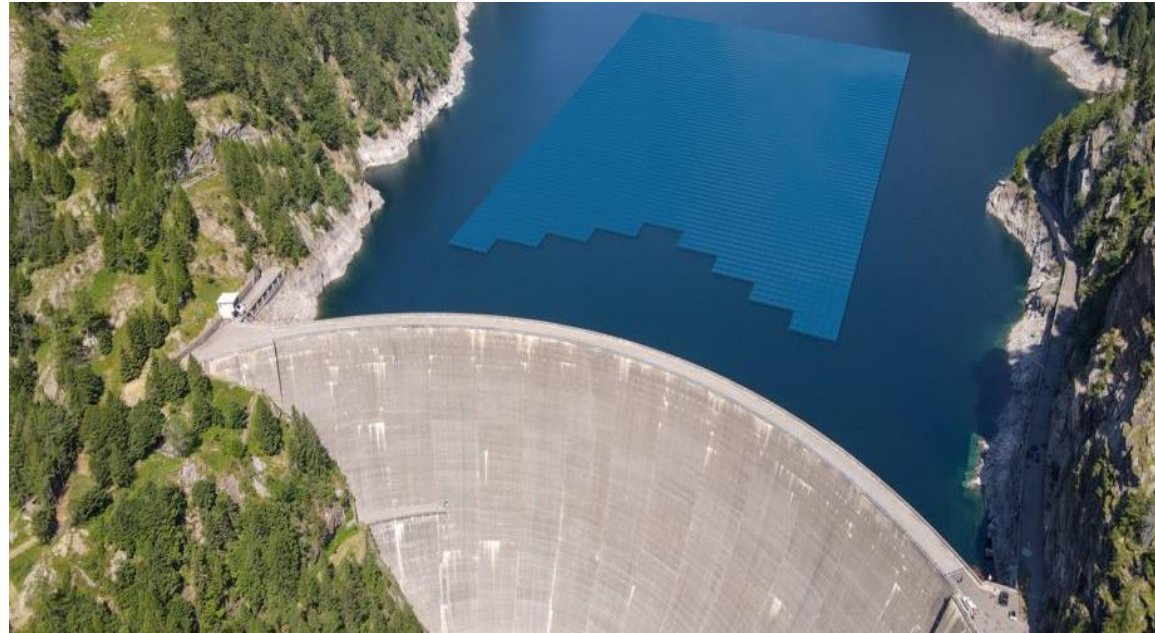


Use unexploited space

- Floating PV solution for MWp-range
- Modular & scalable design
- Easy on-site installation
- Higher output due to water cooling
- Cost-optimized solution to maximum economy

Advantages for hydroelectric dams

- Increase electricity capacity
- Meet energy needs during peaks
- Save hydro power for intermittent periods



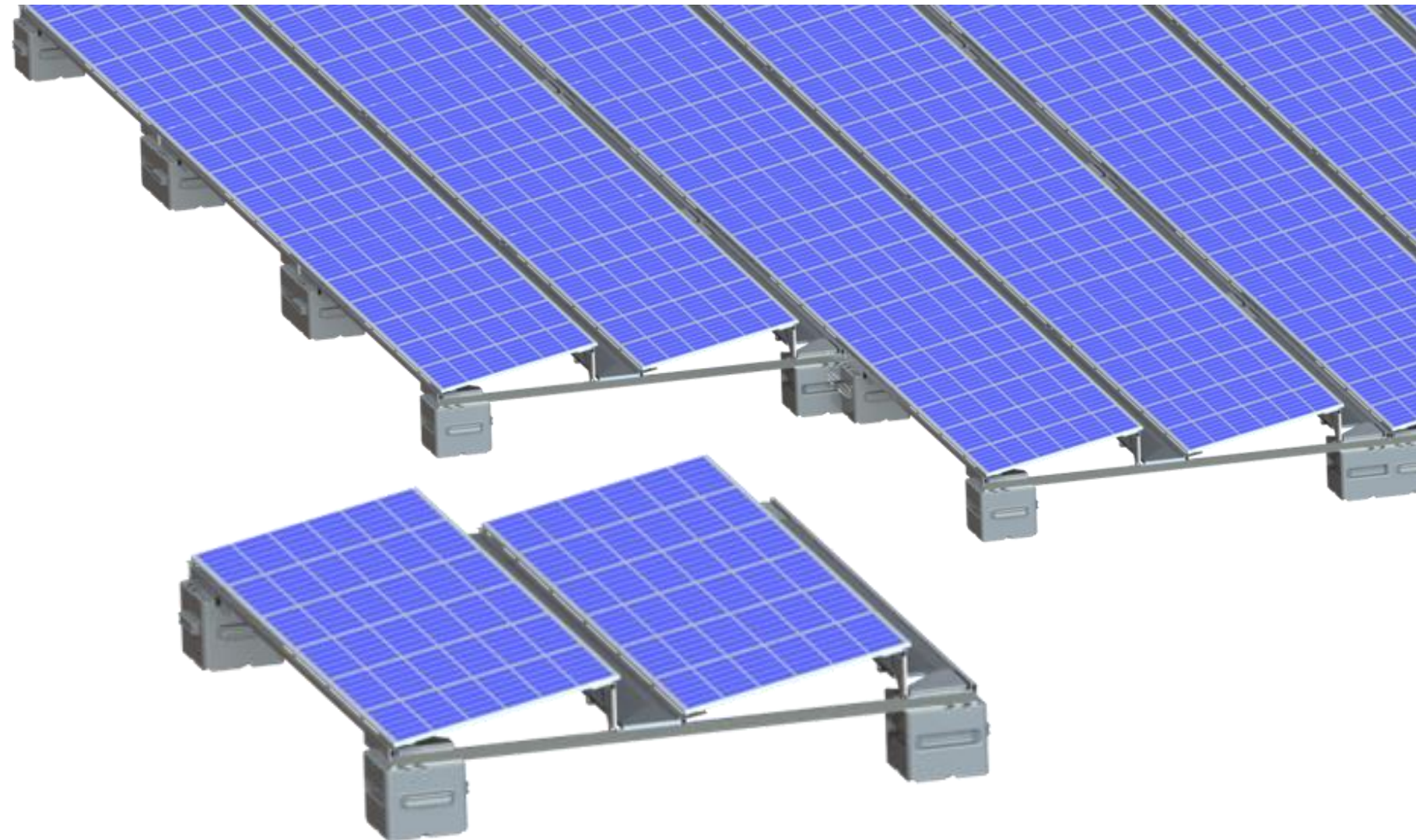
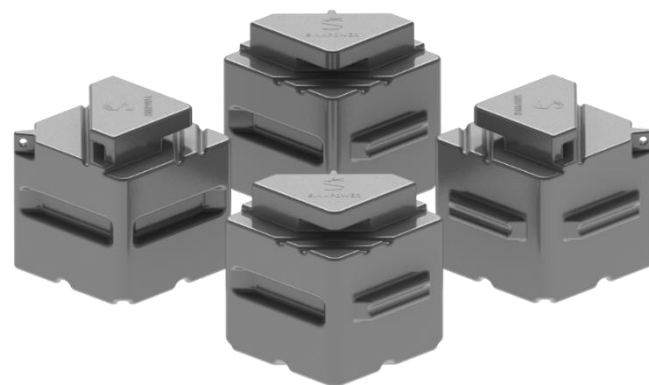
WATER LILY

MAIN ASSEMBLY GROUPS



Durable and simple

- Floating body material: Polyethylen
- Dimensions: 0.76 m x 0.76 m x 0.76 m



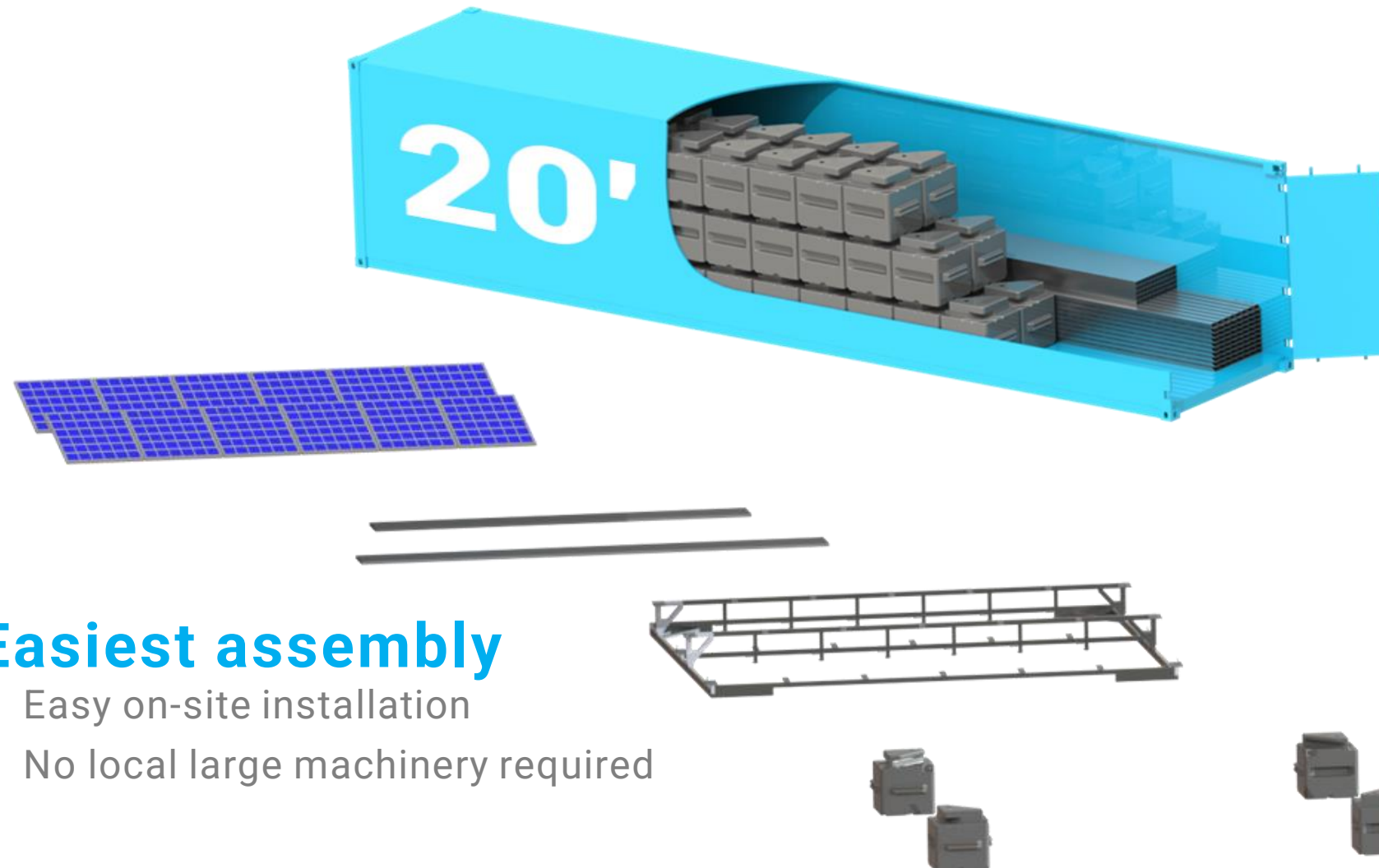
- Base structure material: Aluminum
- Power: Starting at 4.8 kWp (depending on the PV-modules used)
- Dimensions: 6 m x 5.40 m

USPs: MODULAR – FLEXIBLE – GLOBAL



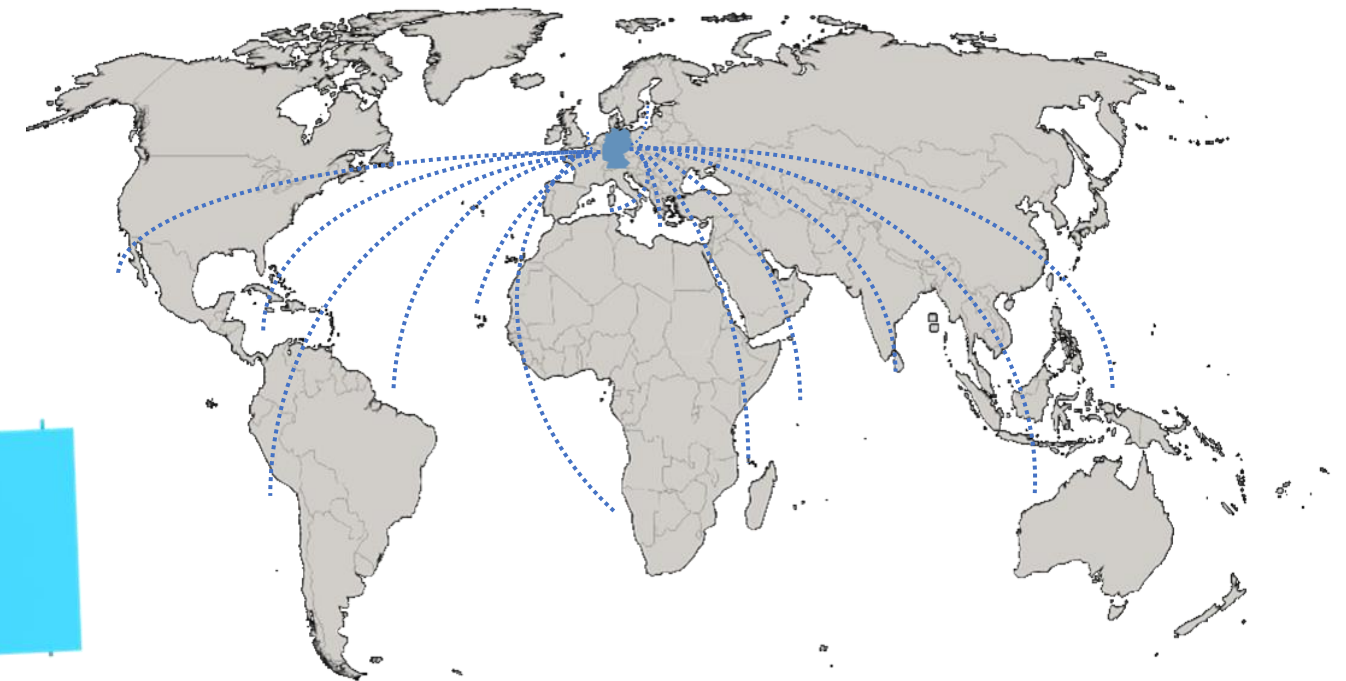
Optimized for standard shipping

- Components fit 20' containers
- Easy to transport & ship worldwide



Durability from ocean

- Our expertise: Solutions for harsh environments
- Our platforms are built to last



DURABLE & WATER-RESISTANT POWER ELECTRONICS



What is ModTroniX?

It's an innovative power conversion for renewable energies, pluggable, durable, sea waterproof, modular, unique – all in one.

Why choose ModTroniX?

- Modular and flexible
- All-in-one solution (solar-PV, wind, hydro & wave power, LFP-storage)
- Solid and reliable
- IP68 for harsh environment
- Off-Grid or Grid-tied



MARITIME PROOF – SMART GRID – ALL IN ONE SOLUTION



PLUG
PLAY &



4.0

IP 68

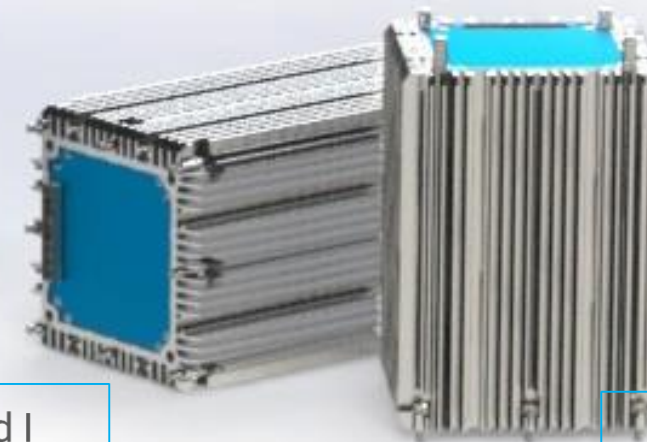
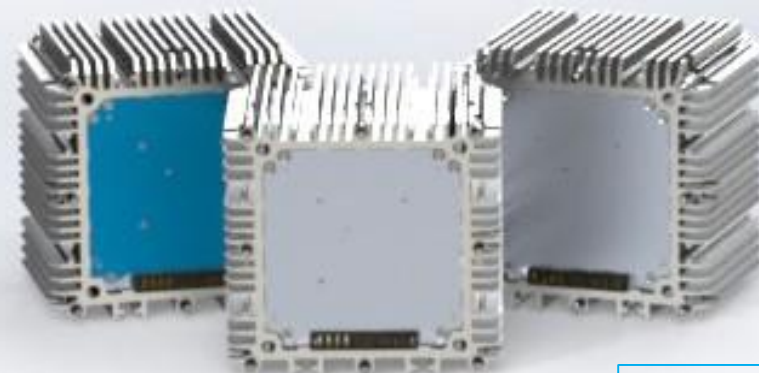
800
V DC

Electric Machines

Power Electronics

Storage

Power Ups



Land based power generation

- Photovoltaics plant
- Small wind park
- Storage

Household I
230 ~ V AC

Household X
230 ~ V AC

LFP Storage

800 V DC

Ocean Hybrid Platform

- Photovolatics
- Small wind
- Wave energy
- Storage

LFP Storage

LFP Storage

3-Phase Network I
400~ V AC

3-Phase Network I
400~ V AC

MODTRONIX

OVERVIEW



Generation & Control - Examples

Powertrain | 5 kWp



- Wave energy converters
- Small wind turbines
- Conveyor belt drive

DCDC Converter | 20 kWp



- MPP-tracking (PV)
- Charge control (LFP)
- 80 V DC - 800 V DC

Grid Inverter | 20.7 kWp



- 1-3 phase
- Symmetric & asymmetric
- 200 V AC - 400 V AC

Storage & PLC - Examples

LFP Storage | 2.1 kWh



Supercap | 24.2



PLC





SINNPOWER



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