



## *REFERENCES*

## CONTENT

1. SHARK7 GROUP .....	3
2. SPECIAL EXPERTISE - SWEET WATER TRANSPORTATION .....	4
3. HYBRID SYSTEM. CONFIGURATION AND SUPPLIERS .....	5
4. REFERENCES. <b>ARADEx</b> .....	6
5. REFERENCES. <b>EISENBEISS</b> .....	10
6. REFERENCES. <b>TTControl</b> .....	11
7. REFERENCES. <b>CENTA</b> .....	12
8. REFERENCES. <b>ATE</b> .....	13
9. REFERENCES. <b>BALTICO</b> .....	14
10. REFERENCES. <b>PARTNERSHIP WITH ENGINE MANUFACTURERS</b> ....	15
11. REFERENCES. <b>CATERPILLAR</b> .....	16
12. REFERENCES. <b>SCANIA</b> .....	17
13. REFERENCES. <b>SOLAR IMPULSE FOUNDATION</b> .....	18
14. TEAM. <b>MANAGEMENT</b> .....	19
15. CURRENT PROJECTS .....	21
16. PRESENCE .....	22

## SHARK7 GROUP

### SHARK7 Solutions

<https://www.shark7-solutions.com/>

At Shark7 we work with businesses that are looking for rapid growth and valuation through acquisitions so they can achieve market leadership. We focus on Merger & Acquisition and International Business Development across Europe, Asia and South America.

Our expertise lies in Marine, Car Industry, Renewable Energy, Waste Solutions, Advisory and Engineering.

We are a team of international experts led by Alfred Gangelberger, a seasoned Merger & Acquisition and Business Development Expert with 30+ years of experience.

### Shark7 Marine

<https://www.shark7-marine.com/>

Pioneers in Maritime Engineering, more than 200 years of combined experience of our Engineering Team. We provide Feasibility Studies for our clients all around the World. A leading provider of innovative maritime engineering solutions, renowned for its excellence in design, manufacturing, and project management.

We are inventors and producers of own developed integrated inline hybrid propulsion systems for ships of any kind of applications.

Having a strong focus on understanding and fulfilling client requirements, fostering long-term relationships and constantly investing in R&D to stay at the forefront of technological advancements, we are able to deliver superior engineering solutions that enhance the efficiency, safety, and sustainability of our clients' operations.

We stand out as a premier engineering firm, driven by innovation, expertise, and a commitment to excellence.

Proud members of Solar Impulse Foundation (Switzerland). Alliance for efficient solutions. And recently our Hybrid System has been awarded the Solar Impulse Efficient Solution Label - a truly professional acknowledgement of our innovation, reputation and trustworthiness.



\* references

## SPECIAL EXPERTISE - SWEET WATER TRANSPORTATION

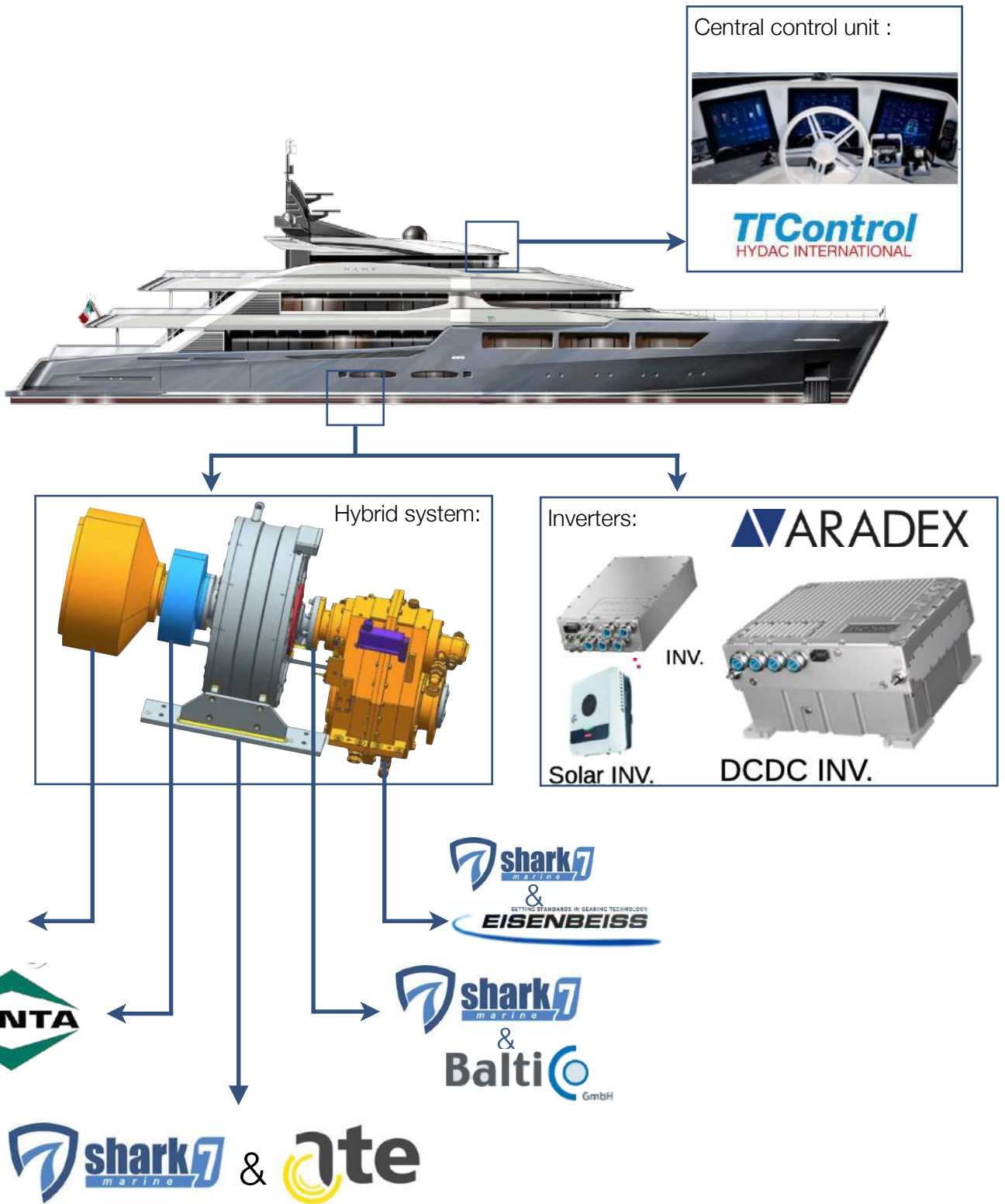
*2000+ ships require propulsion retrofitting in the EU within the next several years*

Why Shark7 Hybrid System is a perfect solution for sweet water ships.

1. *Unique.* No competitors for such Shark7 Hybrid system with similar characteristics
2. *Clean.* No smell, no noise, no smoke, no vibration
3. *Green.* Our full electric mode allows ships enter and exit port zones only on electric motors
4. *With care for nature.* Ability to comply with highest environmental sweet water requirements



HYBRID SYSTEM. CONFIGURATION AND SUPPLIERS



## REFERENCES. **ARADEX**



<https://www.aradex.de/>

### ABOUT

Pioneers in high-performance drive technology since 1989.

In more than 30 years of ARADEX have been able to contribute to numerous innovations with and for the customers in the field of sophisticated industrial production machines. The functional advantages of its drives contribute to their customers' USPs. ARADEX is bringing this principle and all this experience to clients mobile electrification applications.

ARADEX offers more than just electric drives.

It sees the electrification of drives in mobile applications as more than just a switch to renewable energies. Rather, they also want to create additional benefits for and with the customers for their applications. Here, functions in the machine or vehicle controls complement functions or functional parts directly in the inverters or DC/DC converters.

Providing high quality for its customers is a central claim of ARADEX. This quality claim includes the products and services as well as process flows within the entire value-added process. For this reason, ARADEX (or in some cases individual product types) has been tested by independent institutes and got various certifications. These certifications represent verifiable quality features for our customers as well as for the end customer. DNV, ISO, AEO-F, ECE...

ARADEX is happy to provide the references for SHARK7 in the following marine projects:



**Anschrift**  
Carrer Maria Pla n°32  
Esc. A/ 4T pis / 1º pta.  
Edifici Augusta  
Ad500 Andorra La Vella

office@shark7-solutions.com  
www.shark7-solutions.com  
www.shark7-marine.com



**Anschrift**  
ARADEX AG  
Ziegelwaldstr. 3  
73547 Lorch, Germany  
info@aradex.com  
www.aradex.com

## Shark7/ ARADEX marine Projects

As of 21.02.2024

### 1. Super yacht

Hybrid super yacht

#### 1.1 Functions:

- Electric Mode
- Hybrid mode (Full)
- Twin Diesel
- Generator Mode

### 2. Hybrid yachts 24m

### 3. 45,2m Motor yacht

#### 3.1 Functions

- Generator 1 / 2 + 3, 4
- AFE
- Bowthruster
- Waterheater (onboard)
- Grid converter (two in parallel; Load can be shared dynamically)
- PTO /PTI (Propulsion and Generator)

## REFERENCES. **ARADEX**



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www.aradex.com

### **3.2 Equipment supplied**

3 x VP600-28W268  
3 x VP600-28W244

## **4. Catamaran 60' and 90'**

Luxury electric yachts available as full electric or hybrid versions

### **4.1 Functions**

- Propulsion
- Battery connection
- Grid
- AFE and hotel

## **5. Sailing yachts with electric or hybrid propulsion since 2019**

### **5.1 Functions**

- Bow thruster
- Propulsion
- Grid
- AFE
- Generator

### **5.2 Equipment supplied**

VP600-18W130-HP for bow thruster

VP600-18W140-HP, VP600-18W160-HP, VP600-18W268 for propulsion



## REFERENCES. **ARADEX**



**Anschrift**  
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## **6. Catamaran**

### **6.1 Functions**

- Propulsion
- Generator
- µGrid
- Bowthruster
- Solarpower
- Tender

### **6.2 Equipment supplied**

VP600-18W130-HP for bow thruster

VP600-18W140-HP, VP600-18W160-HP, VP600-18W268 for propulsion, generator and grid

## REFERENCES. **EISENBEISS**



<https://www.eisenbeiss.com/>

### ABOUT

Eisenbeiss is a 100 year old family-owned company with its headquarters in Enns, Austria that has developed into a world leader in special gear systems with an export share of 98%.

By leading in innovation Eisenbeiss creates energy-saving gear systems with the highest level of efficiency, compact special gear units and ingenious torque distribution systems featuring the latest gear tooth technology as well as innovative sensor systems and mechatronics solutions.

Eisenbeiss is a member of the German Research Association for Drive Technologies (FVA). This gives it the access to a huge fund of state-of-the-art knowledge relating to the calculation and simulation of gear tooth technology, tribology, metallurgy, testing and manufacturing technology.

The investments are designed to increase flexibility and efficiency. The aim is to be able to steer in new directions more quickly, more flexibly and more predictively.

Eisenbeiss has a wide range of modern machinery in its workshops. They have employees in manufacturing with a high level of production knowledge and flexibility to achieve the Eisenbeiss quality standard day-in, day-out. Eisenbeiss is ISO 9001 certified.

Reliability and innovation in production means being intensively involved in flexible manufacturing structures in order to continuously improve processes and reduce our turnaround times for small-batch projects.

## REFERENCES. **TTControl**



<https://www.ttcontrol.com/>

### ABOUT

Founded in 2001, TTControl is now a globally operating joint-venture with partner HYDAC International. Constructing efficient working environments with high-performance control systems and advanced electronics for off-highway vehicles

TTControl is a joint venture of TTTech group and HYDAC Corp.

TTTech employs 2300 people, founded in 1998, headquartered in Vienna, Austria, with 21 offices in 15 countries worldwide. With turnover 230+ MEUR.

HYDAC corp. has offices in 50+ countries, 9500 employees and € 1.7 BnEUR turnover.

TTControl develops safe networked computing platforms for a more connected, automated and sustainable world. Innovation and reliability is based on 25 years of expertise in scheduled data communication and fault-tolerance principles. Solutions are applied to highest standards in the transportation, mobile machinery and industrial sectors.

TTControl are global innovators on constructing efficient working environments with high-performance control systems and advanced electronics for off-highway vehicles.

## REFERENCES. **CENTA**



<https://centapowertransmissions.com/>

## ABOUT

CENTA Netherlands B.V. stands for the development, production and sale of technically high-quality innovative products with an excellent service level. With customer-oriented processes and the principles of trust, respect and integrity, CENTA wants to be a reliable partner for the customers, suppliers, shareholders, employees and all other stakeholders.

CENTA offers modular coupling systems, which allows its partners to build constructions with maximum flexibility. The components of the products are perfectly matched. With CENTA solutions clients are able to combine different components with various features to take control of any torsional situation. CENTA can ensure reliable couplings with compatible components such as membranes, bolts and links. This finetuning of components defines CENTA as the supplier with the most multifaceted portfolio in the market.

As a specialist in coupling solutions, CENTA has been leading the way for many years. The experience and knowledge gained over this time is reflected in its Engineering department.

CENTA has the expertise to undertake all aspects of design for the clients, from prototype to series and can create a solution from vast catalogue of products. Quality is the foundation of who CENTA is and what it does, and this is epitomised by highly skilled, experienced and motivated team.

## REFERENCES. **ATE**



<https://www.ate-system.de/>

## ABOUT

Over 20 years of experience in development and production of electric special drives. Fast decision-making processes, being solution-oriented and flat hierarchies are all part of ATE everyday. It is technically imaginative and always in search for challenges – whether machine tools, turbo compressors, test bench machines or high-end engines for motor racing. In doing so, ATE goes its own way and rethink a well-known product – but without ever losing sight of what the customers want. ATE does not live from ideas or visions – it turns them into real products. That's what makes ATE.

Since its foundation in 2000, ATE have been committed to freedom in work design, occupational safety, its working environment, a solid financial situation and a constant transfer of knowledge. These factors have paved ATE's way to the top. The years of expertise are one of the main reasons for the customers to choose to work with ATE. It continues to expand the edge when it comes to expertise through regular innovations.

ATE employs 160 people, has 3 plants, produces and develops over 50 000 motor elements per year.

## REFERENCES. **CURRENT PROJECTS**



<http://www.baltico.eu/>

### ABOUT

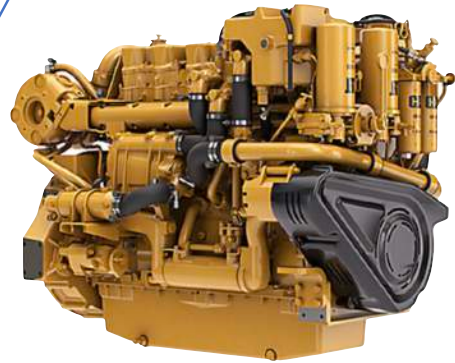
The BaltiCo GmbH was founded in 1993 as a medium-sized company located in Hohen Luckow close to Rostock. Currently, 18 engineers, mathematicians and technicians are employed in our motivated team.

The company has started with the development and production of ship propellers made of composites. The Contur® propeller was the worlds first composite ship propeller made by our company.

The BaltiCo GmbH considers itself as highly innovative service provider and producer for composite solutions. The offered services include engineering services starting with design and dimensioning until production of composite parts. The current project is accompanied by pronounced research activities. This ensures the future supply of innovative products in the highly dynamic market of composites.

The core of the production activities is the filament winding technology. This technology is used to produce rotationally symmetric composite parts and to reinforce highly loaded components. The product portfolio includes the lagging of electro rotors, production of flow discharge nozzles, the winding of drive shafts as well as pressure vessels for deep sea operations or storage of pressurised gases.

# SCANIA



# CATERPILLAR®

**S7 Hybrid system works perfectly with the most popular and reliable marine engines. Partnership with engine manufacturers allows to keep the engine warranty while working with Shark7 Hybrid**

- Scania

Industries like construction, agriculture, power generation, transport, logistics and emergency response can be extremely demanding. Equipment, vehicles and vessels must be reliable and heavy-duty – with engines and components you know will rise to the challenge.

With more than a century of cutting-edge engineering and continuous improvement, Scania's customer-specific power solutions are designed and built to last - and to save. Empower clients operations with efficient, future-proof solutions that deliver more while consuming less - helping save money and minimising environmental impact.

From propelling planing vessels to pushing heavy barges upstream and managing heavy-duty auxiliary applications, Scania's power systems are up for the job. They can be found in marine operations around the globe, offering immediate response, impressive power-to-weight and fuel efficiency, and the feeling of absolute trust and reliability to everything from patrol and fishing boats to passenger ferries and cargo ships.

- Caterpillar

Wherever client is and whatever his business is, Cat® power systems have been meeting clients most critical needs and matching the world's most stringent standards. For more than 85 years Cat® has been powering the industries and businesses that communities rely on. And with 5 to 5,720 kW, it equipped to power today and built to power tomorrow.

Engine uptime is critical for everybody, the crew, the clients and the bottom line. That's why Cat and MaK propulsion engines power vessel to any port. The industry's largest range of engines provide the reliability one needs. Caterpillar Marine ensure that client has an engine on board that will work as hard as expected.





REFERENCES. **SCANIA**



**Mr. Magnus Folin**, being a Global Product Marine Manager in SCANIA, tested our Hybrid system on a real boat and was impressed by its performance. He kindly agreed to conduct a reference letter that you can find below.

2019 - 2022 SCANIA Global Product Marine Manager  
Worked in SCANIA for total of 15 years



2023-03-10

**Impression of SHARK7 Marine hybrid system onboard a 24m YACHT.**

I visited during my position as Global Product Manager Marine at Scania Power Solutions the vessel Adler which at the time was equipped with a hybrid propulsion system from SHARK 7 Marine.

It was a twin ICE engine installation coupled to two hybrid systems.

It was interesting to experience how smooth and well-functioning the system was already at this time, 2019.

The transitions between ICE operation and electric were completely seamless as well as the switching between the two ICE when operating at low speed on one ICE and two e-drives for a longer period. Switching between the ICE is a feature to keep an even operating time for both engines for even wear.

Leaving the dock on e-drives only worked perfectly and the following acceleration up 7-8 knots was smooth as well as the engagement of ICE to reach higher speed.

We also tested using one ICE and two e-drives for propulsion while charging the batteries with the second ICE. Worked perfectly and without any discomfort to the operator.

The vessel performed well in both acceleration and steady state operations with an improved fuel consumption compared to normal ICE only operation.

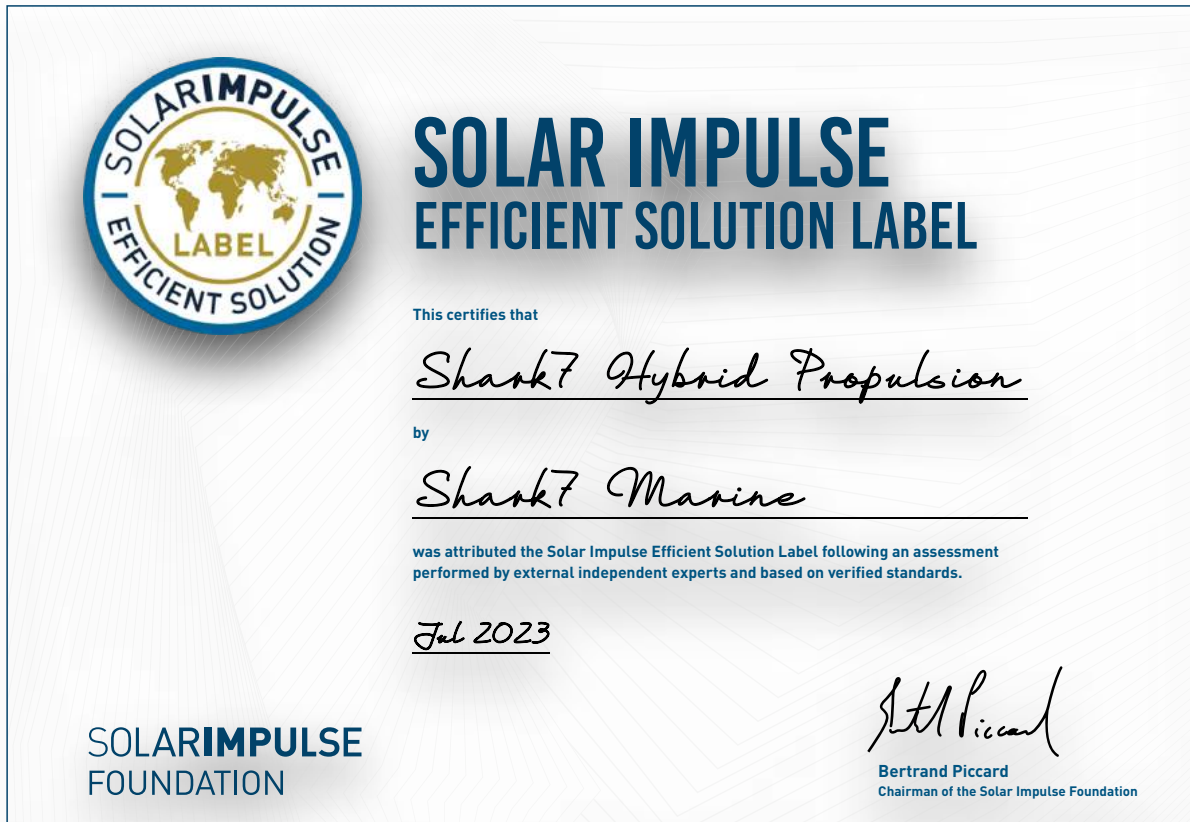
The system information viewed on the instrumentation was very informative and operator friendly, including the system alarm features set of by Christian.

All in all, a well matured system that sparked our interest.

Magnus Folin

Marine Drive 645 AB

Ex. Global product Manager Marine, Scania Power Solutions



**SHARK7 Solutions is a proud member of Solar Impulse Foundation.**

**SHARK7 Hybrid Solution received a Solar Impulse Efficient Solution Label, that made us 1 of 1000 solutions to change the planet.**

**SOLARIMPULSE  
FOUNDATION**

<https://solarimpulse.com/>

The Solar Impulse Foundation aims to identify clean, efficient and profitable solutions in order to accelerate their implementation and the transition to a sustainable economy.

Thanks to the awarding of a label with high standards of sustainability and profitability, the Foundation can support political and economic decision-makers in their efforts to achieve their environmental targets and encourage them to adopt more ambitious energy regulations, necessary for implementation at large-scale of these solutions on the market. A way to take the success of the first round-the-world solar flight further.

Thanks to a rigorous evaluation process, the "Solar Impulse Efficient Solution" Label is the only evaluation that guarantees the economic profitability of products and processes that protect the environment. Considered a recognition for innovators and a credible trademark of quality for governments and companies, it enables decision-makers to find efficient solutions to meet their environmental commitments.

## TEAM. MANAGEMENT



### ALFRED GANGELBERGER

Investor. Merger & Acquisition and Business Development Expert with 25+ years of experience in creation, reorganisation, merger and acquisition of different companies on a global level. CEO Shark7-Solutions SLU, Andorra.

Former Owner and CEO off Grizzly Energy Group, Austria (€200+ mio turnover group of companies, 700 employees).

Former Owner and a CEO of Neways Group, Spain.

Former CEO of Flaga Group, Austria (LPG group with €70+ mio turnover).

Links:

<https://www.linkedin.com/in/alfred-gangelber/>

<https://www.shark7-solutions.com/about>



### CHRISTIAN LEICHTFRIED, ING.

BMW engine developer 80's,

Mercury Marine USA in the 90's

Special projects system developer with own engineering office from 2003 for:

- Mercury Marine
- Yanmar Marine >> Marinization of an automotive diesel engine
- Caterpillar several application engineering projects
- Voltran liquefied petroleum gas injection systems, system development/engine design/adaptation
- Voltran liquefied petroleum gas injection development diesel engine
- Development of the world's first fully automatic, most efficient Marine hybrid propulsion system in the world for Shark7, including development of one of the most efficient gearboxes worldwide, tuned to the hybrid drive. Product ready for series production.

TEAM. **MANAGEMENT**



## ANTON SCHWARZMANN

International business development manager with experience in different sectors with indelible reputation for delivering inventive business strategies and client-focused solutions to improve margins. Entrepreneur and founder of several startups.

Highly accomplished and results-driven professional with extensive experience in providing exceptional business development and consultation services.

Links:

<https://www.linkedin.com/in/anton-schwarzmann/>

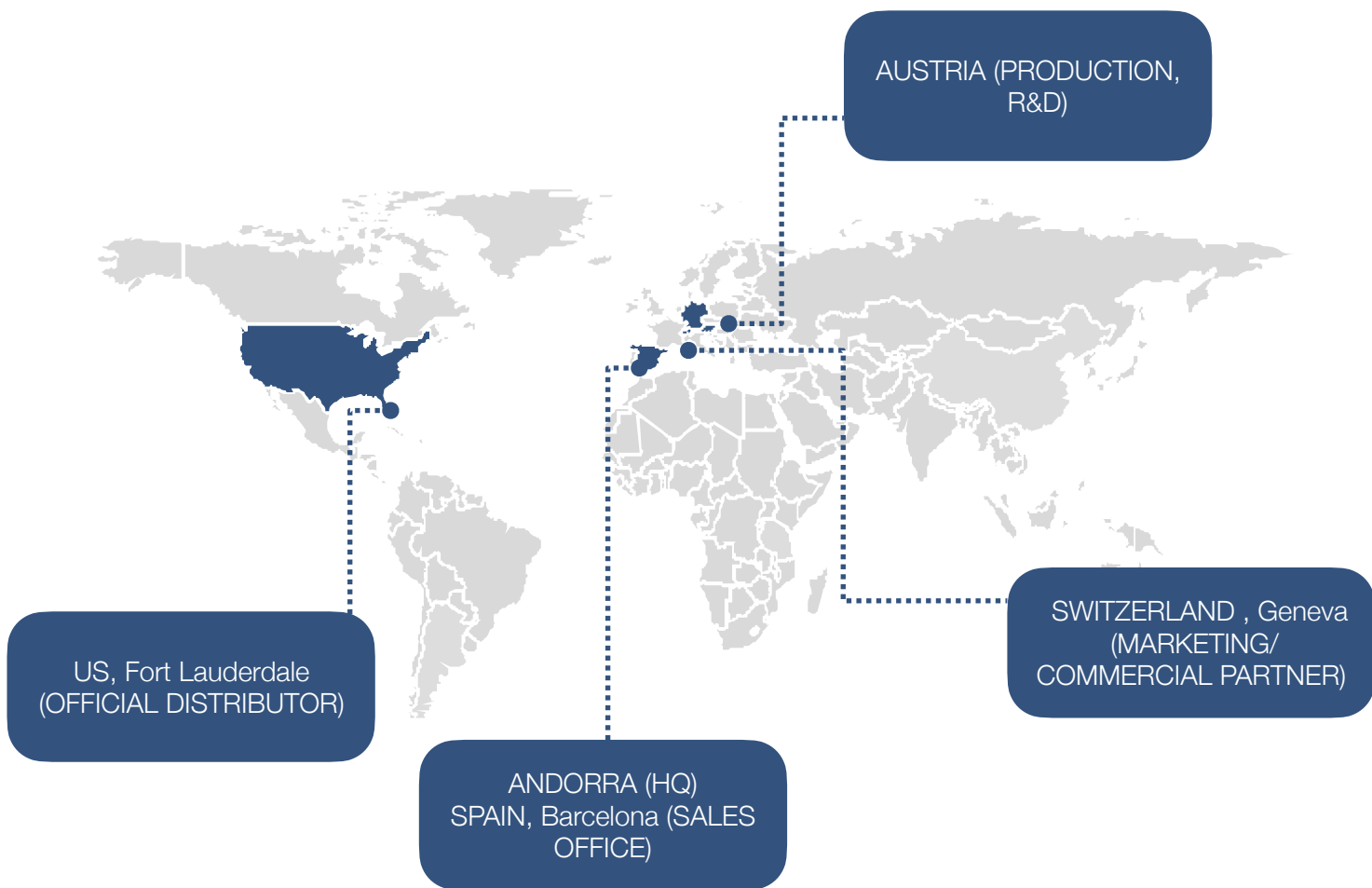
## REFERENCES. **CURRENT PROJECTS**

- Hybrid Propulsion for 42m Ferry Boats for sea application in Malta, US and Spain;
- Hybrid Propulsion for Ferry Boats for river in Austria (Danube project) and Germany (Weisse Flotte);
- Hybrid Propulsion for 28m-68m Ferry Boats for lakes in Switzerland



- Hybrid Propulsion for 60 m yacht in German shipyard;
- Hybrid Propulsion for a 24 m yacht, refit project, private client;
- Hybrid Propulsion for 28 m catamaran with recharging capabilities on a sailing mode;
- Hybrid Propulsion for yachts of a range of 30-50 m length in cooperation with major shipyards in EU

REFERENCES. **PRESENCE**



**Shark7 - Solutions SLU.**  
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