

# OZO



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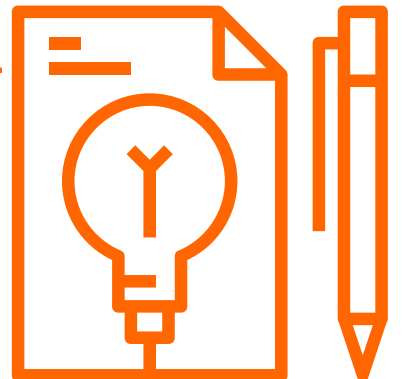
7.2) AUTOCONSUMPTION

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# HISTORY



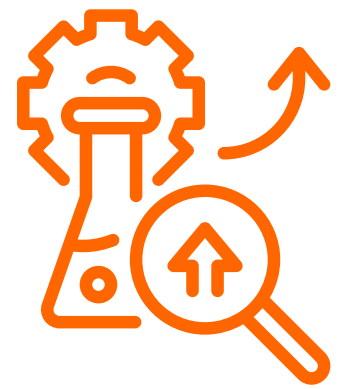
FOUNDED IN 2010 BY TWO ENGINEERS FROM ENSAM, OZO QUICKLY ESTABLISHED ITSELF AS A LEADER IN THE MARKET FOR ELECTRIC BIKE CONVERSION KITS.



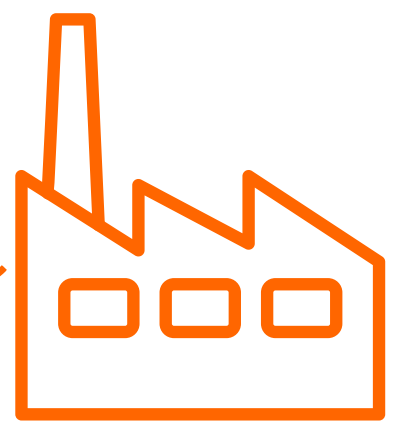
PASSIONATE ABOUT ELECTROMOBILITY, THE TWO ENGINEERS EMBARKED ON R&D PROJECTS SUCH AS SOLAR-ELECTRIC VEHICLES, AGRICULTURE, AND E-BIKE DESIGN.



IN 2012, OZO OPENED ITS FIRST 200M<sup>2</sup> LITHIUM BATTERY LABORATORY, ENABLING THE COMPANY TO DESIGN, ASSEMBLE, REPAIR, AND REFURBISH BATTERIES.



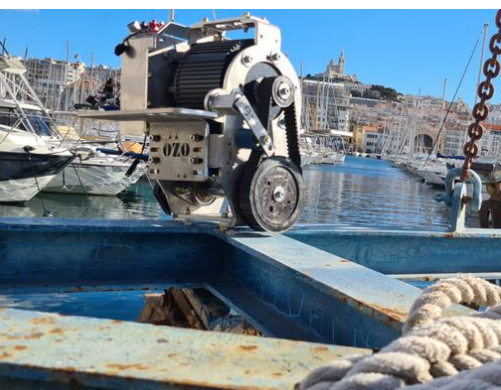
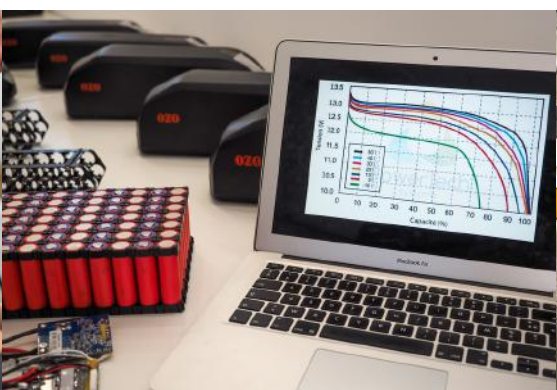
FOR SEVERAL YEARS, OZO HAS CONTINUED TO IMPROVE ITS PRODUCTS THROUGH ITS IN-HOUSE R&D DEPARTMENT, WHICH HAS ENABLED IT TO MAINTAIN ITS POSITION AS A LEADER IN THE ELECTRIFICATION MARKET.



IN 2022, OZO ACQUIRED A NEW 3000M<sup>2</sup> BUILDING DEDICATED TO LITHIUM BATTERIES: AN AUTOMATED ASSEMBLY PLANT THAT OPENS UP NEW OPPORTUNITIES.



IN 2023, A NEW SUBSIDIARY IS CREATED: OZO NAUTISME. THE OBJECTIVE? TO DEVELOP ELECTRIC PROPULSION SYSTEMS FOR BOATS INTENDED FOR HYBRIDIZATION OR RETROFITTING OF EXISTING BOATS.



# MISSIONS AND VALUES



## SUPPORT



WE PUT OUR KNOWLEDGE AT YOUR SERVICE TO MEET YOUR **TECHNICAL AND FINANCIAL** NEEDS WHILE **MINIMIZING THE CARBON** FOOTPRINT OF THE FINAL PRODUCT.

## RELOCATION



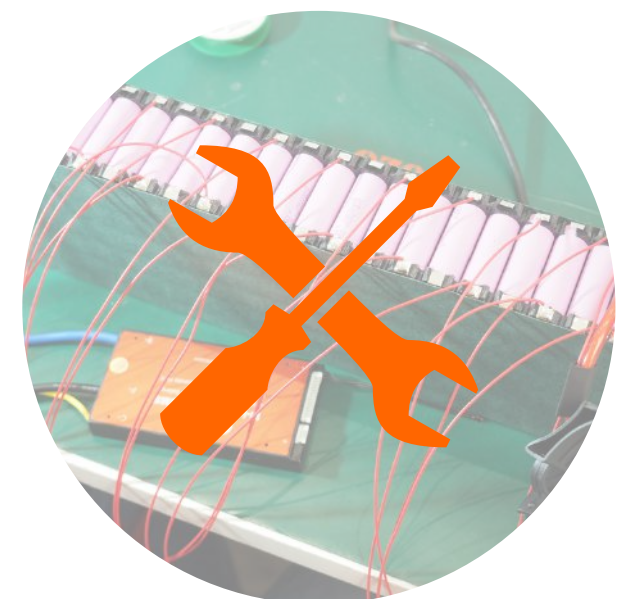
OUR STRATEGY REVOLVES AROUND **THE RESHORING OF INDUSTRY IN FRANCE**. WE HAVE INVESTED IN STATE-OF-THE-ART EQUIPMENT WITH THE AIM OF OFFERING A COMPLETE SERVICE IN **FRANCE**.

## CIRCULAR ECONOMY



THE CIRCULAR ECONOMY IS A CENTRAL PART OF OUR VALUES, AND OUR PRODUCTION PROCESS PROMOTES **THE REUSE, REPAIR, AND RECYCLING OF MATERIALS**. OUR PRODUCTS HAVE BEEN DESIGNED TO OPTIMIZE **MODULARITY AND DISASSEMBLY**.

## MAINTENANCE



THE METHODS AND TOOLS USED BY OZO ALLOW TO REPAIR OR REFURBISH THE MOST POLLUTING COMPONENT OF AN ELECTRIC VEHICLE: **ITS BATTERY**.



THE OZO TEAM IS MADE UP OF **25** EMPLOYEES, **ALL PASSIONATE ABOUT THEIR WORK** AND THE COMPANY'S ACTIVITIES. OUR TEAM VALUES INCLUDE **LISTENING, ADVISING, AND SUPPORTING** OUR CLIENTS.

# TEAM



# BIKES



# THE ORIGINS OF THE CONCEPT



"OZO STARTED IN **2010** AT THE BEGINNING OF THE ELECTRIC BIKE BOOM. THE INITIAL GOAL WAS TO DEVELOP A KIT **TO CONVERT A TRADITIONAL BIKE INTO AN ELECTRIC BIKE**, WITH THE AIM OF BRINGING A MORE SUSTAINABLE VISION TO ELECTROMOBILITY: **THE CARBON FOOTPRINT IS REDUCED BY 50% COMPARED TO BUYING A READY-TO-USE E-BIKE.**"

MOTORIZED WHEEL



DISPLAY



BATTERY



CONTROLLER



PAS SENSOR



# PRODUCT MIX



**HUB MOTORS**



**MID MOTORS**



**BATTERIES**



**DISPLAYS**



**CONTROLERS**



**ACCESSORIES**



**TOOLS**



**LIGHTS**

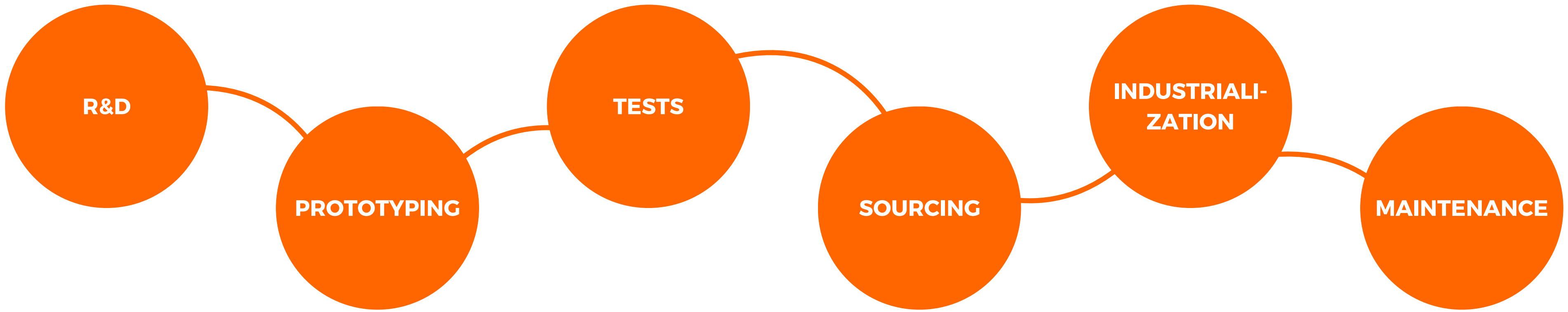


**BAGS**

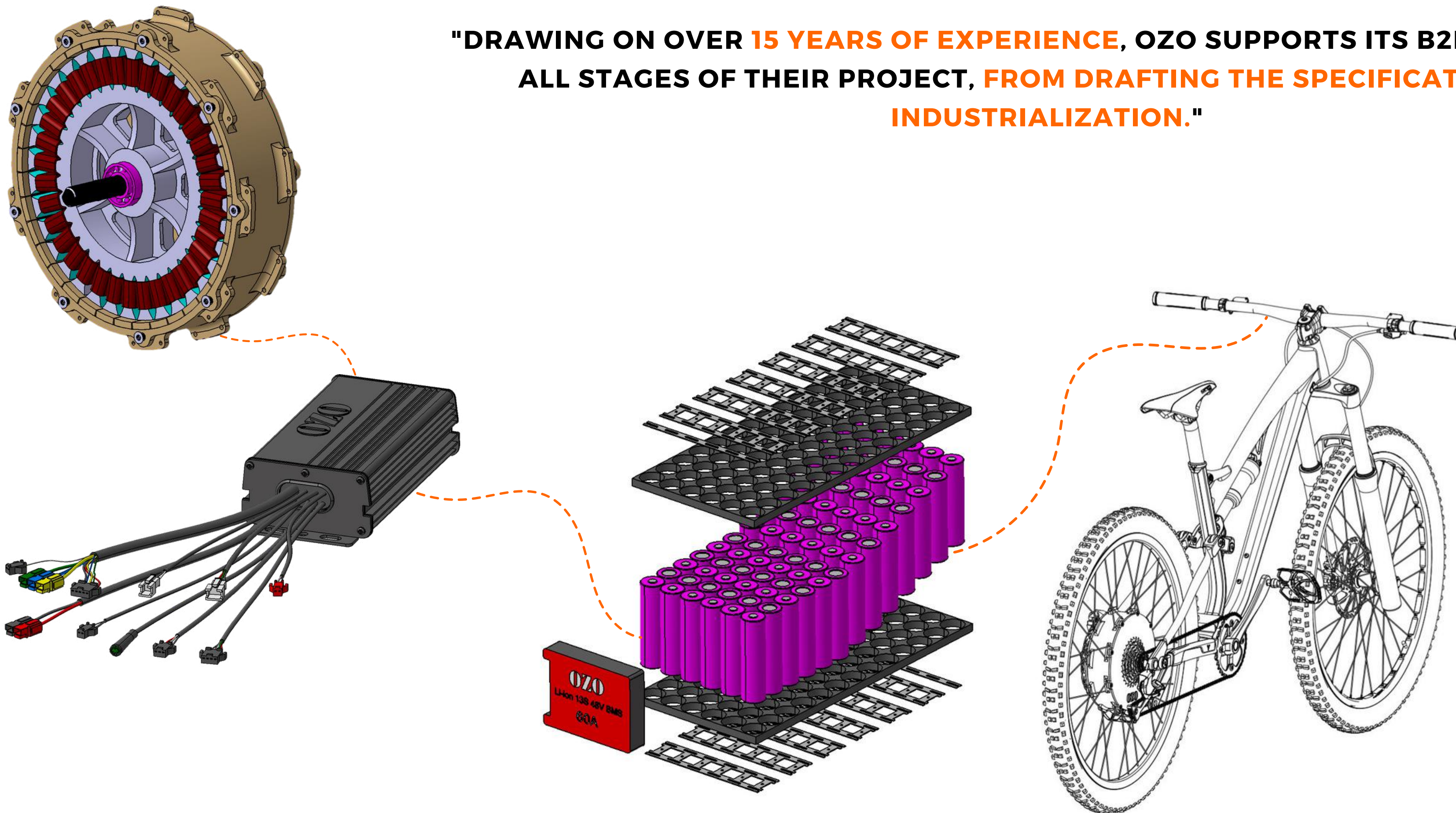


**SPARE PARTS**

# OUR SERVICES



"DRAWING ON OVER **15 YEARS OF EXPERIENCE**, OZO SUPPORTS ITS B2B CLIENTS AT ALL STAGES OF THEIR PROJECT, **FROM DRAFTING THE SPECIFICATIONS TO INDUSTRIALIZATION.**"



# REFERENCES



Feu Vert

# OUR NETWORK



**+600 SELLERS/INSTALLERS  
PARTNERS**



**1 SUBSIDIARY IN SPAIN**

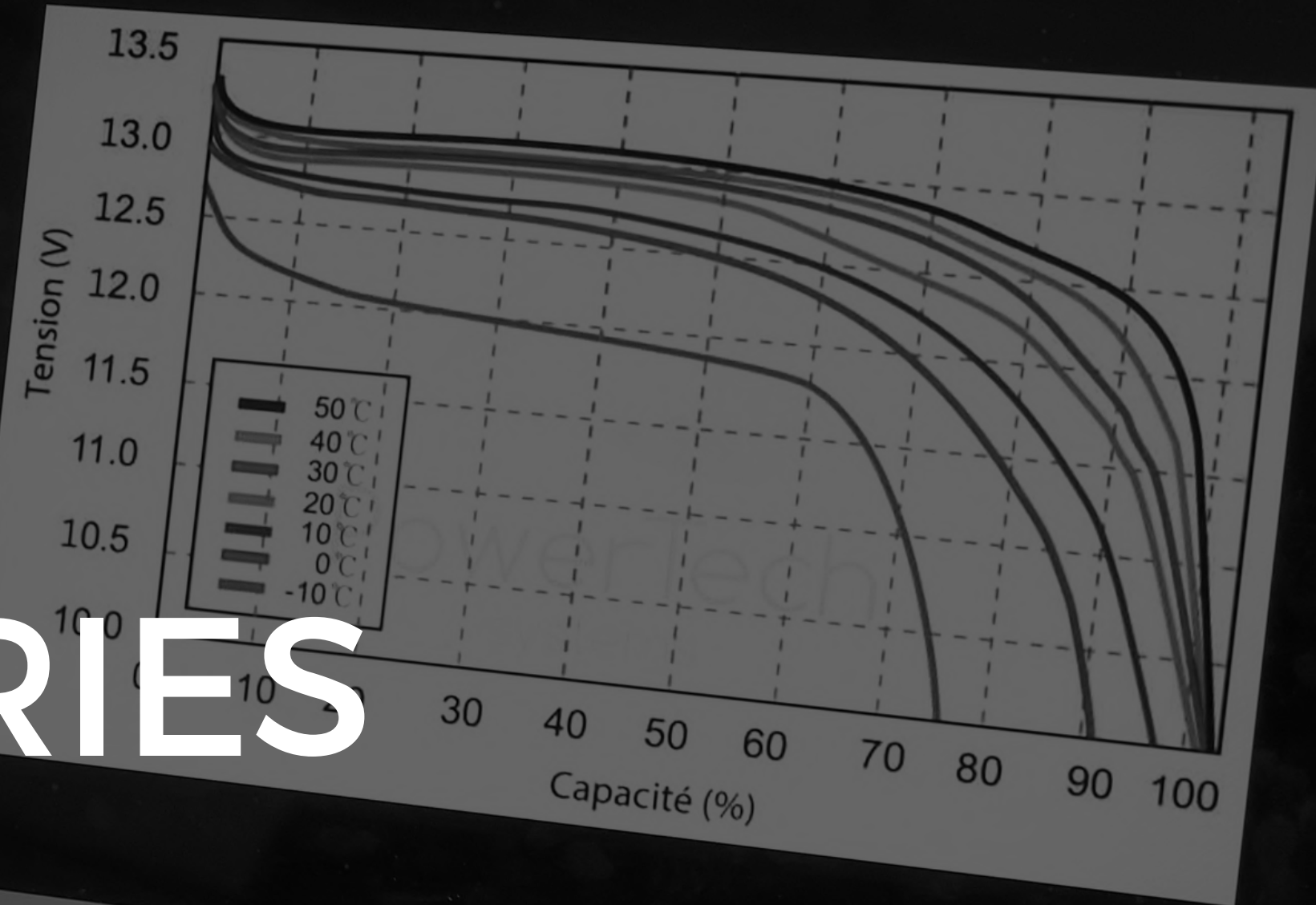


**4 WORKSHOPS IN  
METROPOLITAN FRANCE**

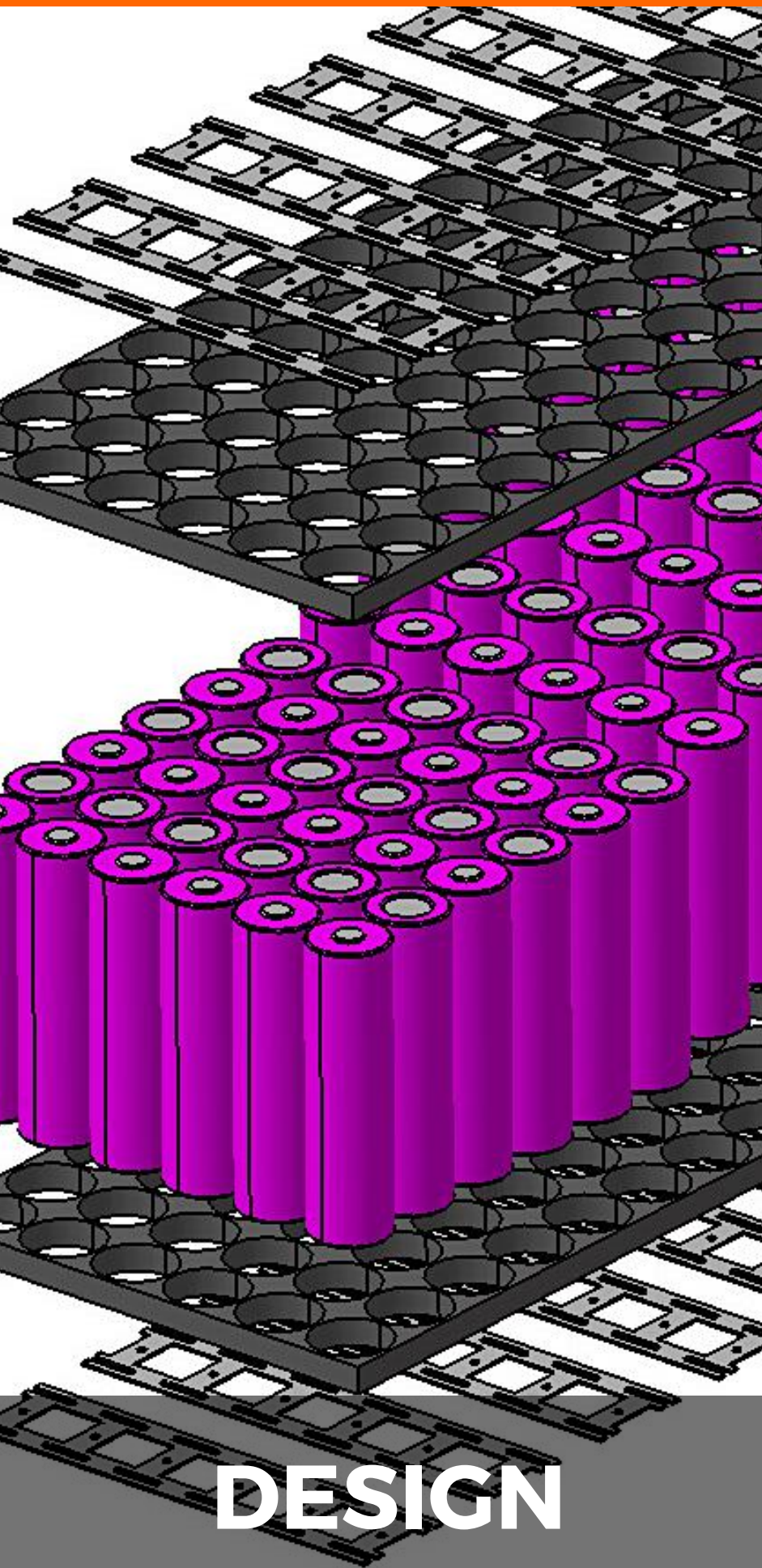


**1 SUBSIDIARY IN BELGIUM**

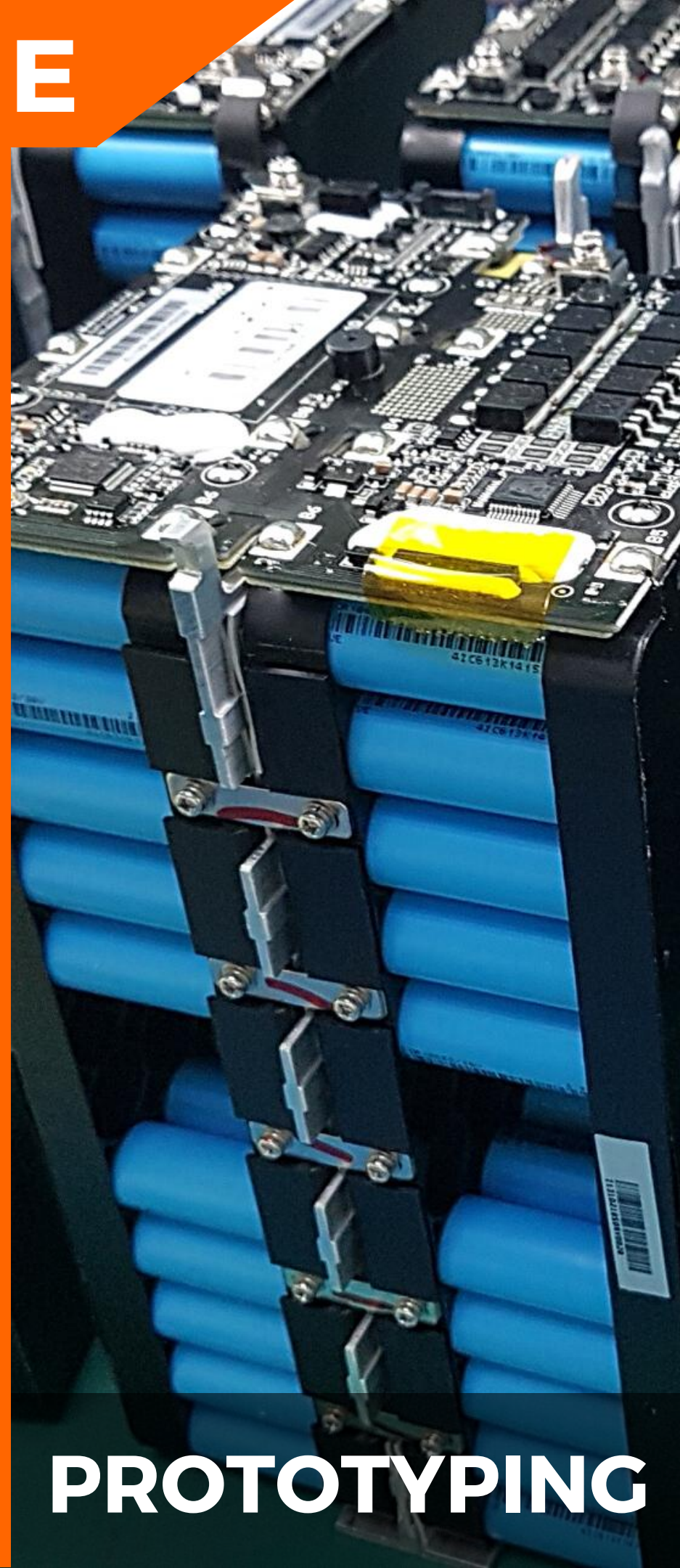
# BATTERIES



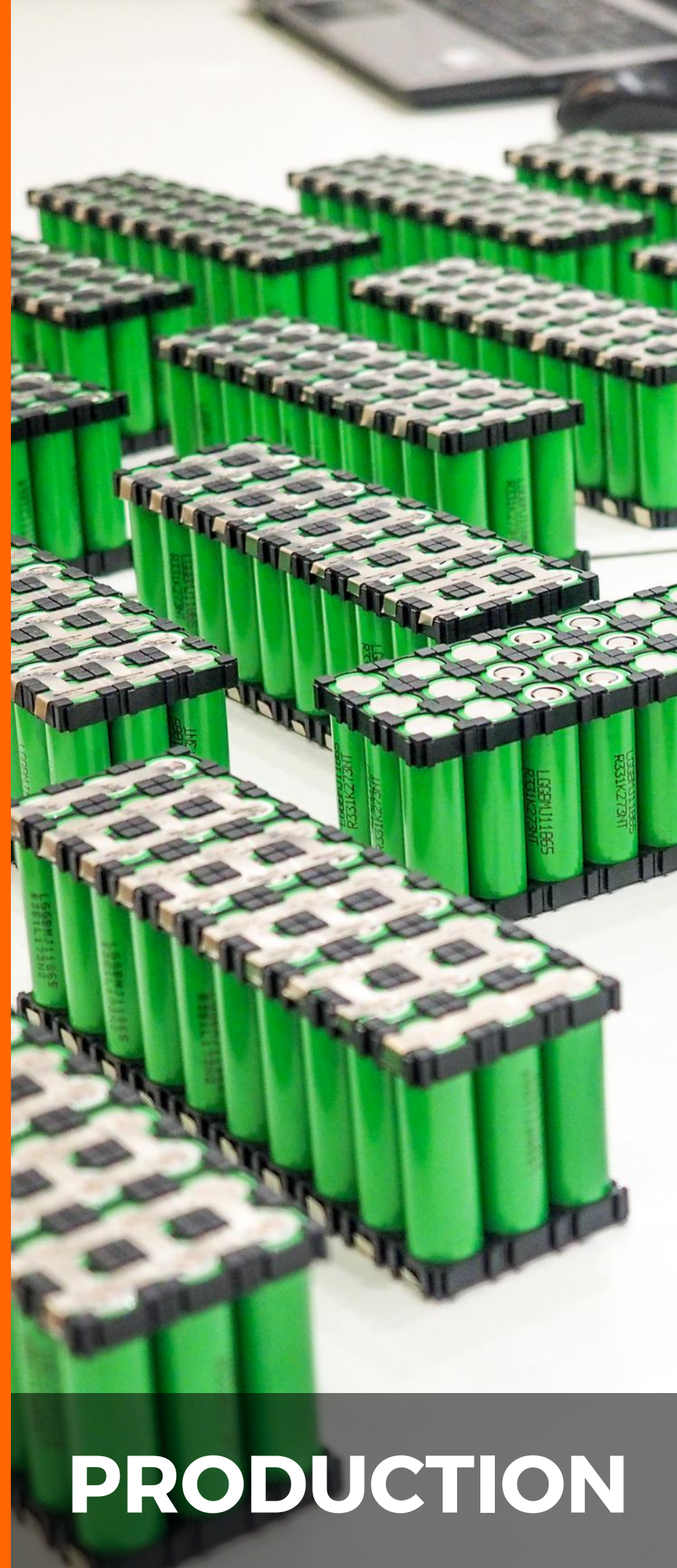
# SAVOIR-FAIRE



## DESIGN



## PROTOTYPING



## PRODUCTION



## MAINTENANCE

# BATTERIES MAINTENANCE



**BATTERY  
DIAGNOSIS WITH  
TEST REPORT**

**CELLS  
REBALANCING**

**BATTERY WAKE  
UP**

**WELDING REPAIR**

**CASING CHANGE**

**NEIMAN CHANGE**

**POWER PLUG  
CHANGE**

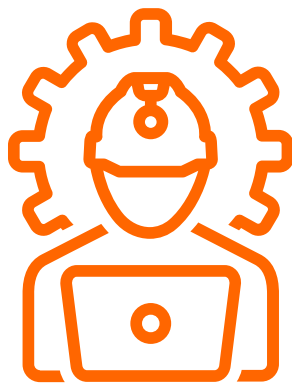
**CHARGE PLUG  
CHANGE**

**BMS CHANGE**

# MEANS



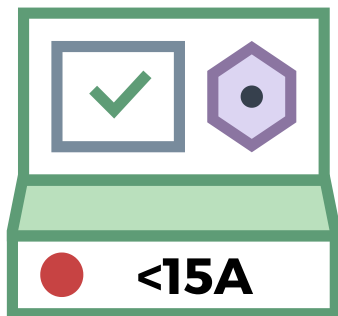
10 PERSONS IN THE WORKSHOP



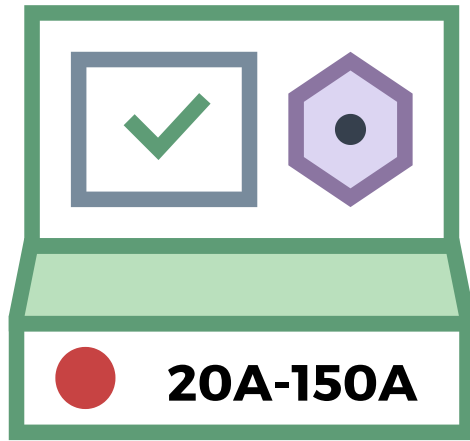
4 INGENEERS



6 TECHNICIANS



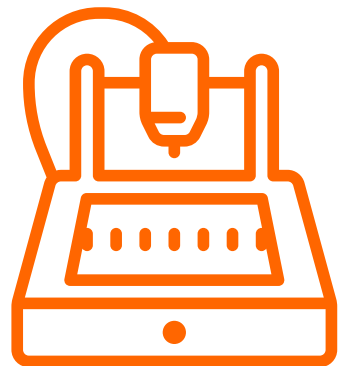
LOW POWER TEST BENCH



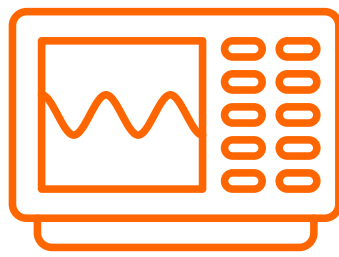
MEDIUM POWER TEST BENCH



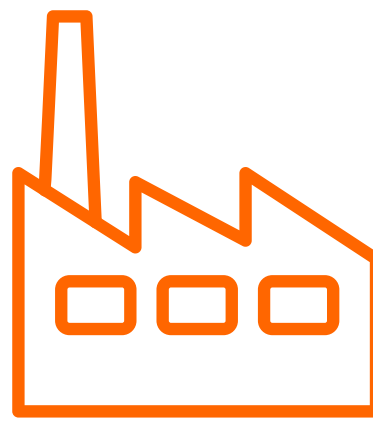
3 ELECTRO-PNEUMATIC WELDERS



1 LASER MACHINE



LABORATORY EQUIPMENT



1000M<sup>2</sup> AUTOMATED MANUFACTURING PLANT

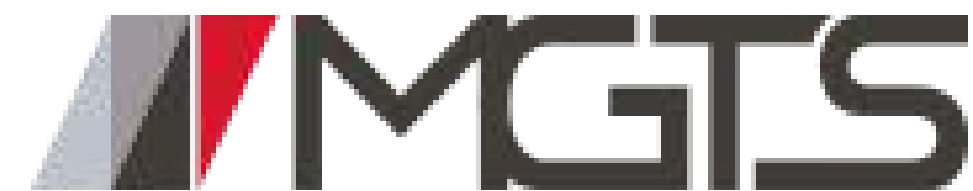




***PELLENC***



**VINCI**



# INDUSTRY



# THE CONCEPT

ADDING ELECTRIC ASSISTANCE TO  
A LOGISTIC OR PRODUCTION  
ROLLING BASE.

**THE GOAL** ? REDUCE PHYSICAL  
STRAIN AT WORK AND MEET CSR  
STANDARDS!



SUITABLE FOR ALL  
SURFACES



COMPATIBILITY  
WITH ALL TYPES OF  
EQUIPMENT



KEEP THE EXISTING  
ROLLING BASE



DIVIDE THE CARBON  
FOOTPRINT BY 4



## R&D SUPPORT



OUR IN-HOUSE RESEARCH AND DEVELOPMENT DEPARTMENT ALLOWS US TO CONDUCT FEASIBILITY AND INTEGRATION STUDIES ACCORDING TO OUR CLIENTS SPECIFICATIONS.

## VALIDATION TEST

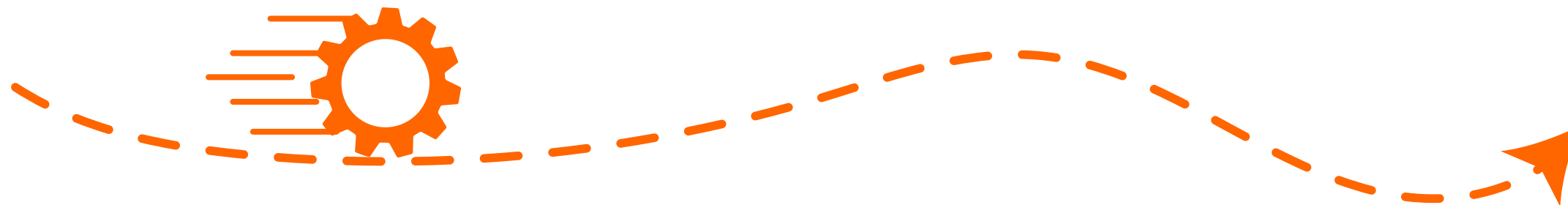


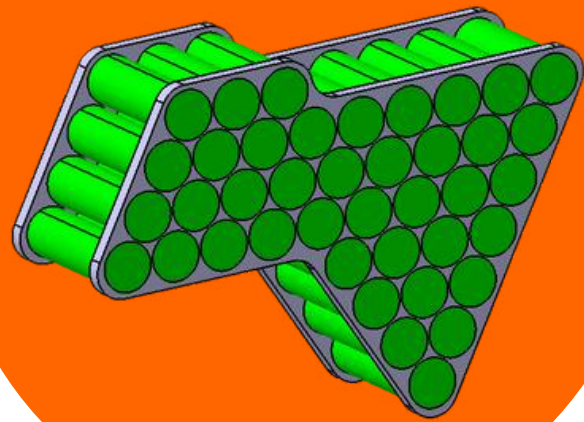
BEFORE THE ELECTRIFIED PRODUCT IS PUT INTO CIRCULATION, OUR TECHNICAL TEAM CARRIES OUT VARIOUS VALIDATION TESTS TO CONFIRM THE FUNCTIONING OF THE PRODUCT.

## SITE SUPPORT



PROVIDING ON-SITE SUPPORT TO ENSURE THE SUCCESSFUL COMPLETION OF THE DEVELOPMENT PHASE IS ESSENTIAL TO BUILD STRONG PARTNERSHIPS WITH YOUR CLIENTS.





## LITHIUM BATTERIES

OUR SYSTEMS ARE POWERED BY DC VOLTAGE WITH LITHIUM BATTERIES. THE SHAPE OF THE BATTERY AND ITS CASING CAN BE **CUSTOMIZED ACCORDING TO YOUR SPECIFIC CONSTRAINTS.**

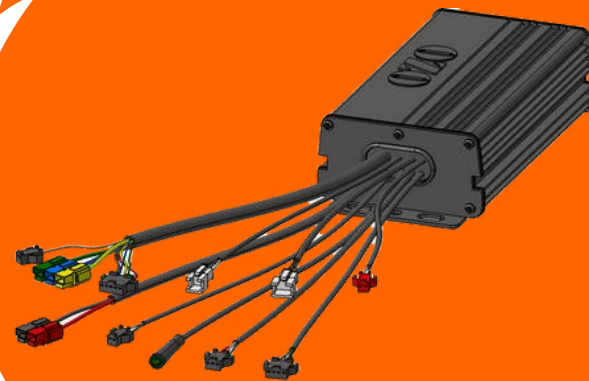


## CONTROL STATION

OZO ENERGIES OFFERS A RANGE OF OPTIONS TO OPTIMIZE **THE ERGONOMICS OF THE CONTROL STATION** IN ORDER TO BETTER MEET THE CUSTOMER'S NEEDS. FROM A SINGLE PUSH BUTTON TO AN EMERGENCY STOP BUTTON TO A BI-DIRECTIONAL JOYSTICK (AND MANY OTHERS), WE ARE ABLE TO DEVELOP **SPECIFIC REQUESTS.**

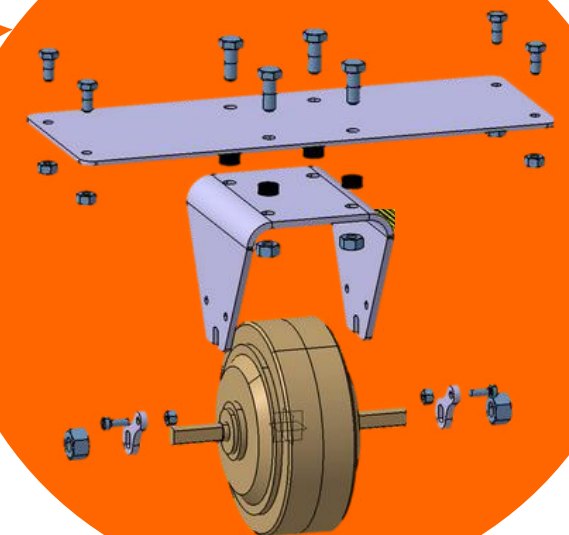
## POWER VARIATOR

THE CONTROLLER IS THE BRAIN OF THE POWERTRAIN, ALLOWING FOR THE DISTRIBUTION AND REGULATION OF ENERGY WHERE IT IS DEMANDED. WE ARE ABLE TO DESIGN **MAPPINGS TO OPTIMIZE THE PERFORMANCE** OF OUR MOTORIZATIONS AND BATTERIES BASED ON YOUR SPECIFIC NEEDS.



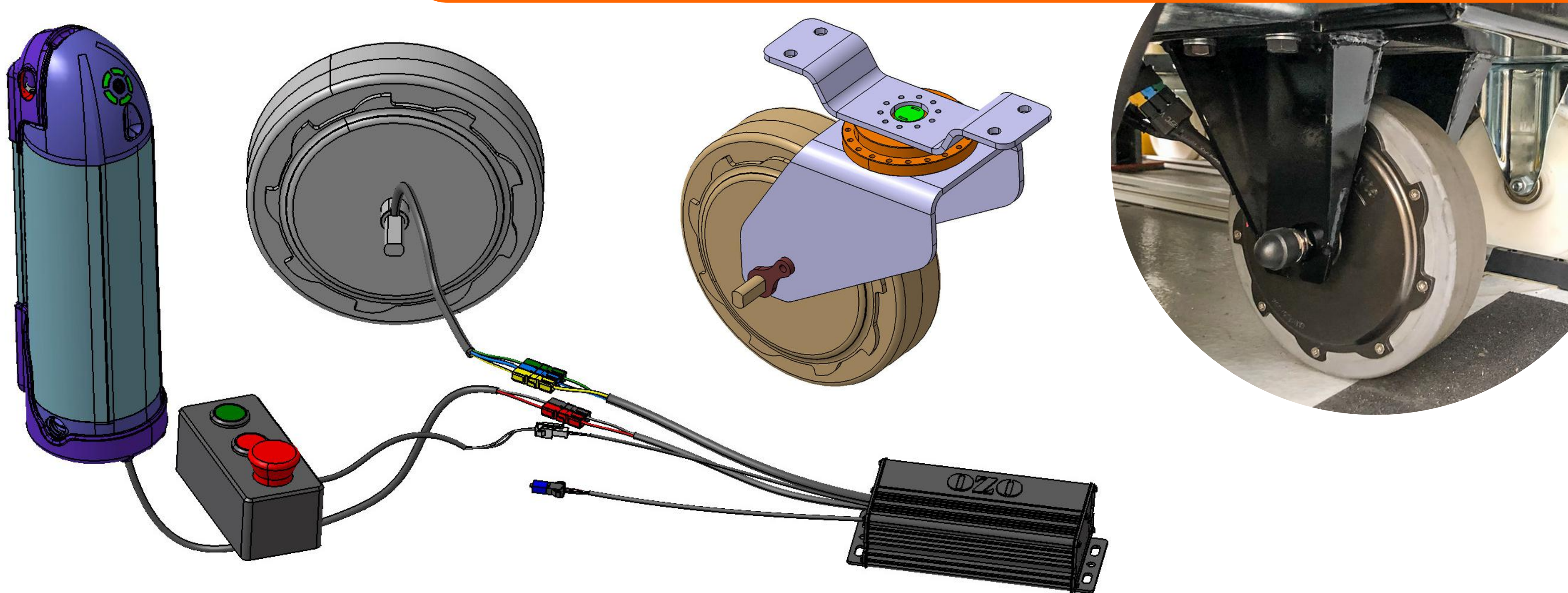
## INDUSTRIAL ELECTRIC WHEELS

**BEING THE FIFTH WHEEL**, WITH ITS ADAPTABLE DESIGN, THE ELECTRIC WHEEL CAN EASILY AND QUICKLY FIT ONTO THE ROLLING BASE. WITH DIAMETERS RANGING FROM 125MM TO 450MM, OUR WHEELS CAN PULL LOADS FROM 100KG TO 1500KG AND MOVE AT SPEEDS FROM 2KM/H UP TO 20KM/H. **THESE CHARACTERISTICS ARE FULLY CUSTOMIZABLE THANKS TO OUR DESIGN DEPARTMENT.**





**WITH MORE THAN 15 YEARS OF EXPERIENCE, SUPPORTS B2B CLIENTS AT EVERY STEP OF THEIR PROJECT, FROM DRAFTING THE SPECIFICATIONS TO TESTING UNDER REAL-WORLD CONDITIONS IN THE FIELD.**

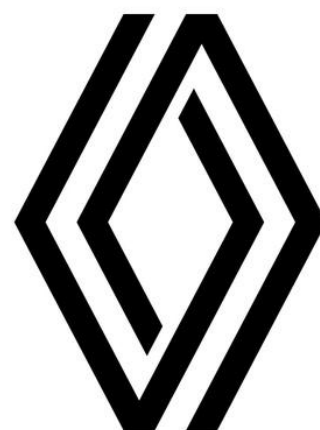


# REFERENCES



**LIEBHERR**

PUYDUFOU®



# AGRICULTURE



# ELECTRIFICATION

## THE CONCEPT ?

ADDING AN ELECTRIC MOTORIZATION TO AGRICULTURAL MACHINERY AND TOOLS WITH THE AIM OF **REDUCING POLLUTING EMISSIONS** IN CROPS AND FACILITATING THE WORK OF FARMERS.

## HUB MOTOR



## WHEEL MOTOR



## CENTRAL MOTOR





WE ALSO DEVELOP COMPLETE SOLUTIONS FOR THE SOLAR CHARGING OF FLEETS OF MACHINES: **GIVE YOURSELF TOTAL AUTONOMY!**



MA 595788

# NAUTISME



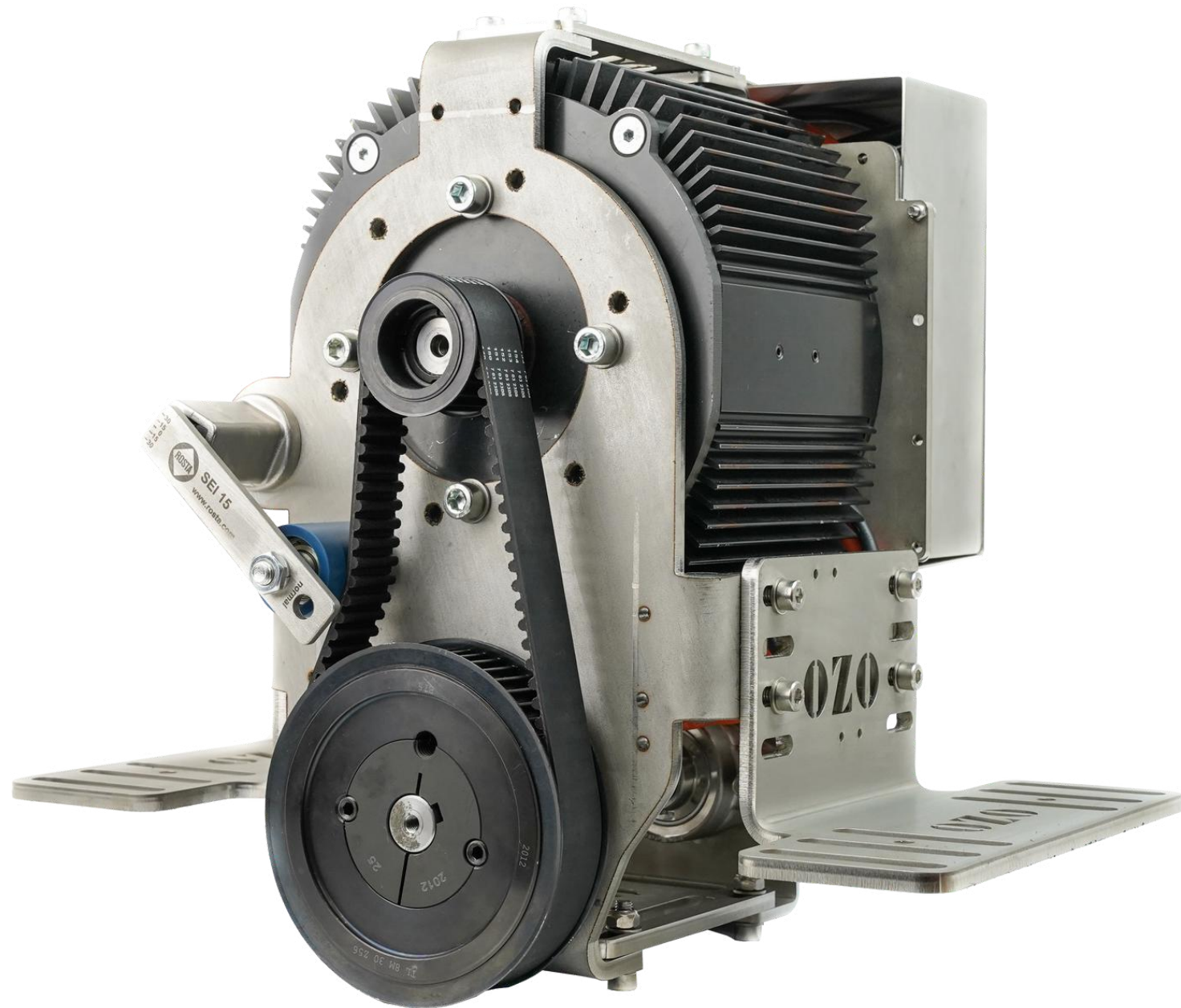
MA 222388

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# RETROFIT

"OUR AMBITION IS TO CONTRIBUTE TO THE DECARBONIZATION OF SEAS AND OCEANS BY OFFERING **VIRTUOUS SOLUTIONS OF ELECTRIC MOTORIZATIONS** FOR PLEASURE BOATS.

TO ACHIEVE THIS, WE OFFER **TO REPLACE YOUR THERMAL ENGINE WITH AN ELECTRIC MOTOR**, WHICH IS CALLED "100% ELECTRIC RETROFIT," **OR TO ADD AN ELECTRIC MOTOR IN PARALLEL WITH THE THERMAL ENGINE** FOR HYBRIDIZATION PURPOSES."



CIRCULAR  
ECONOMY



NO  
MAINTENANCE



BOATS AND SAILBOATS  
COMPATIBLE



CHEAPER



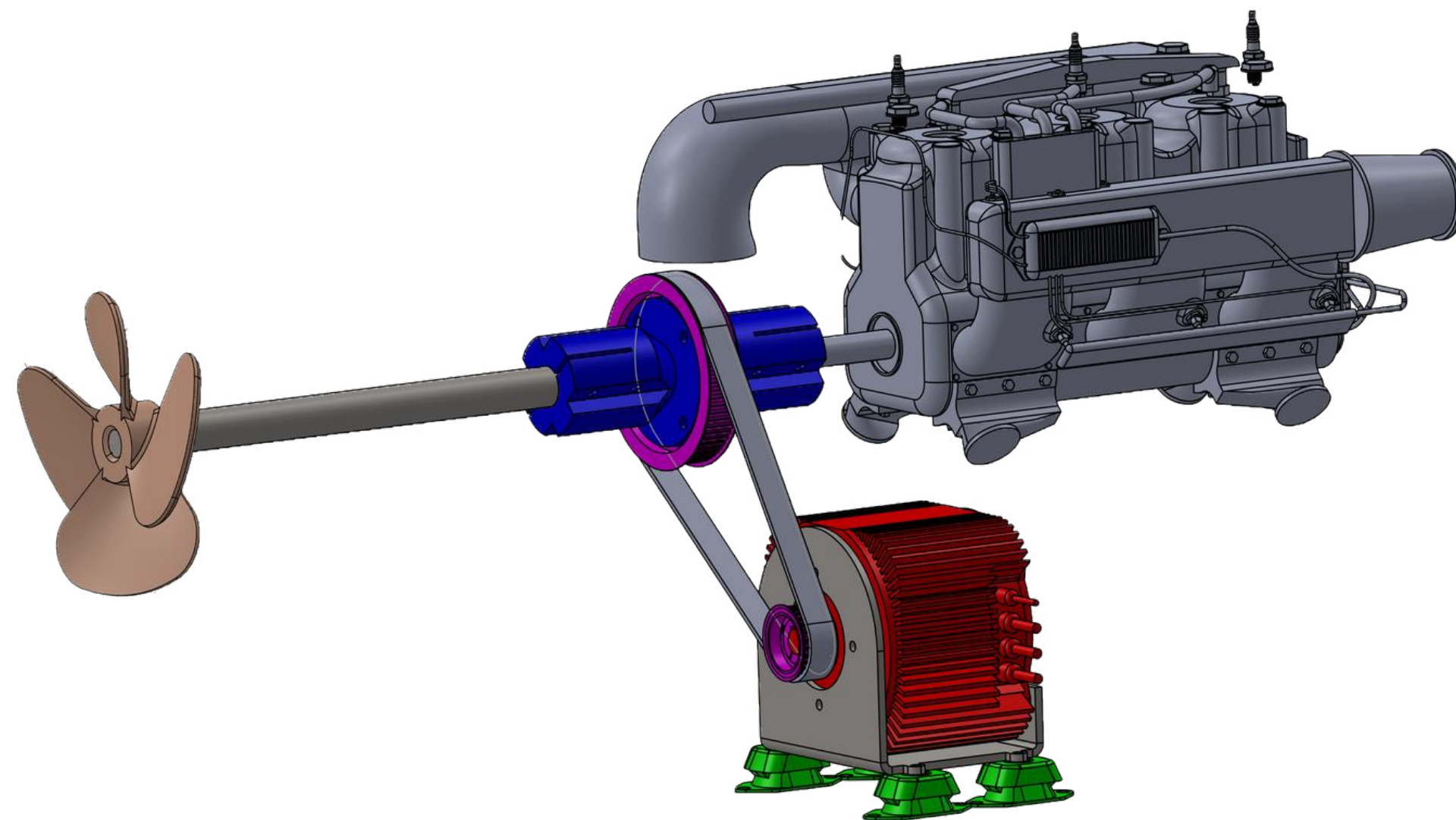
LIGHTER



HYDROGENERATION  
FUNCTION

# HYBRIDIZATION

TO INCREASE SAFETY AND REDUCE FUEL CONSUMPTION, WE PROPOSE ADDING AN ELECTRIC MOTOR **IN PARALLEL** TO THE EXISTING COMBUSTION ENGINE.



REDUCE  
CONSUMPTION



NO  
MAINTENANCE



POWER FROM 5KW  
TO 30KW



IMPROVE  
SAFETY



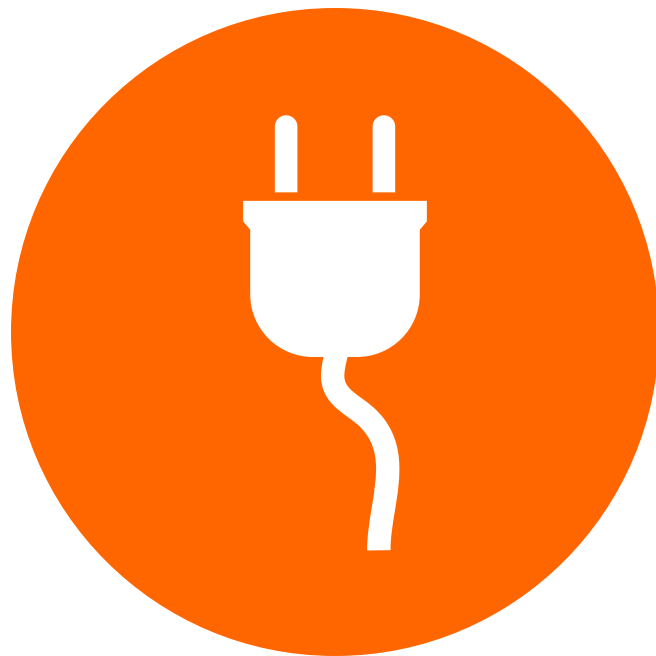
REDUCES  
POLLUTION



HYDROGENERATION  
FUNCTION

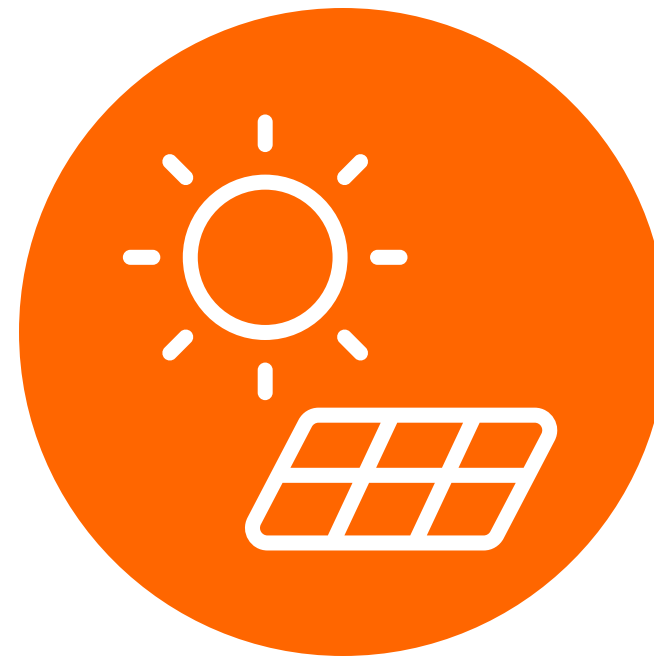


## AVAILABLE SOURCES



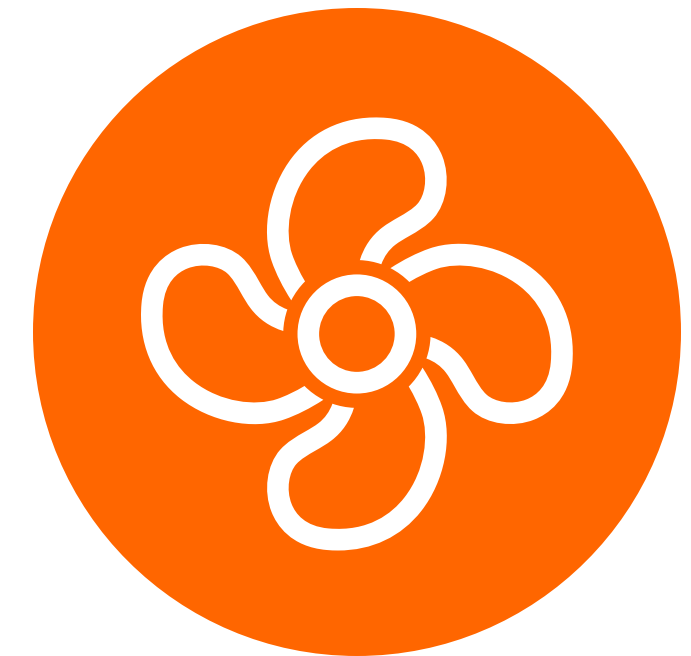
**MAINS SUPPLY**

MORE AND MORE PORTS ARE PROVIDING 220V SOCKETS ON THE DOCKS: USE YOUR OZO FAST CHARGER TO FILL UP YOUR BATTERY!



**PHOTOVOLTAIC**

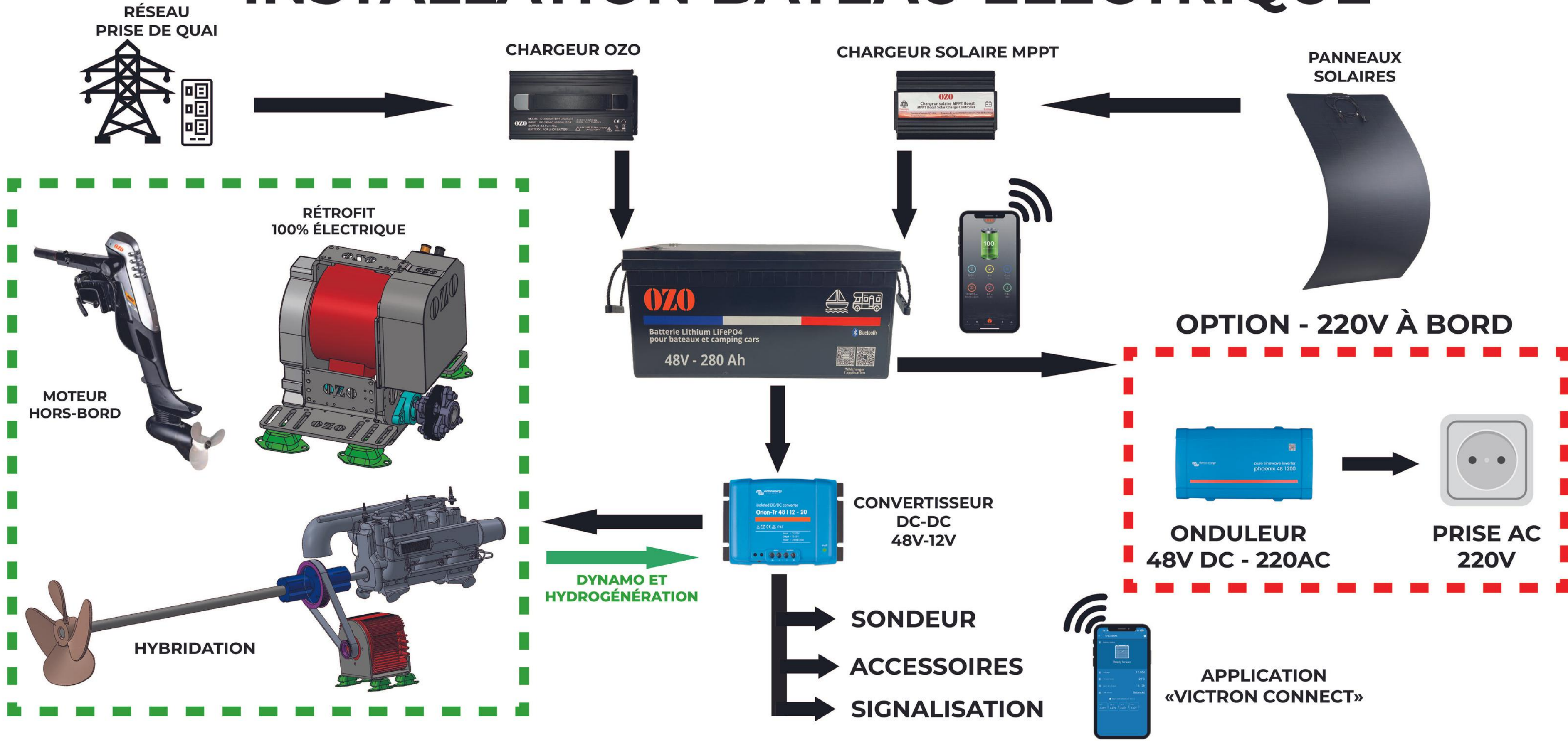
WE OFFER A WIDE RANGE OF SOLAR PANELS WITH A POWER RANGING FROM 50W TO 180W, ALLOWING FOR TOTAL AUTONOMY ON BOARD YOUR BOAT.



**HYDROGENERATION**

WHEN YOU ARE NOT USING YOUR ELECTRIC MOTOR, REVERSE ITS DIRECTION OF ROTATION TO GENERATE ENERGY AND RECHARGE YOUR BATTERY!

## INSTALLATION BATEAU ÉLECTRIQUE

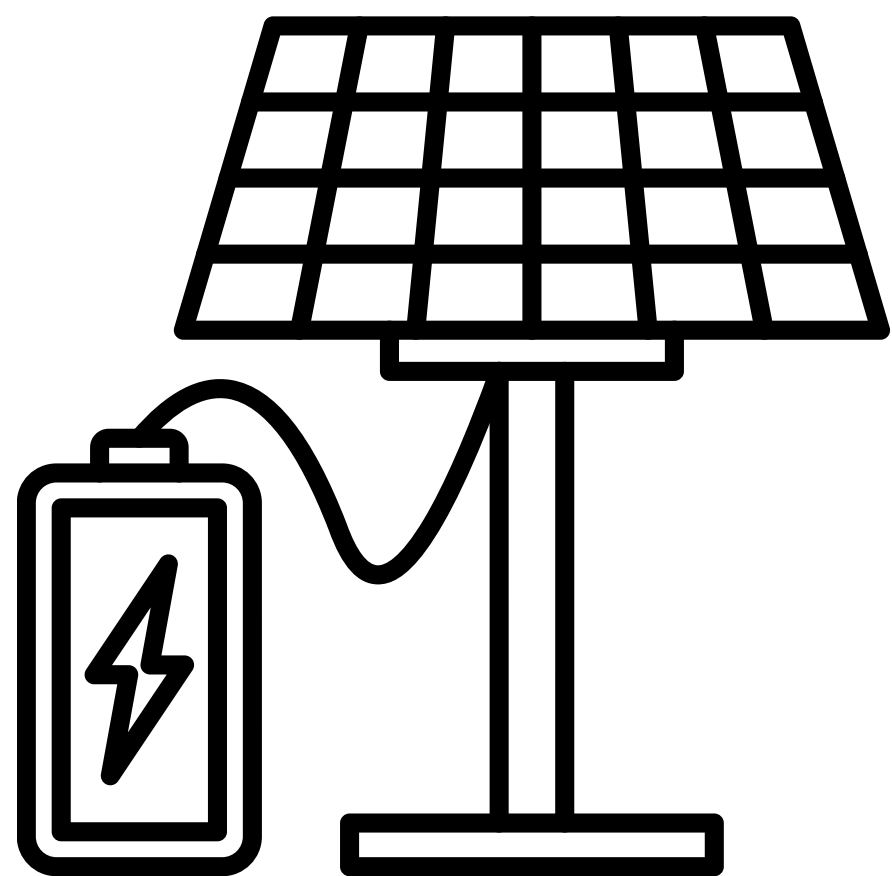


# SOLAR

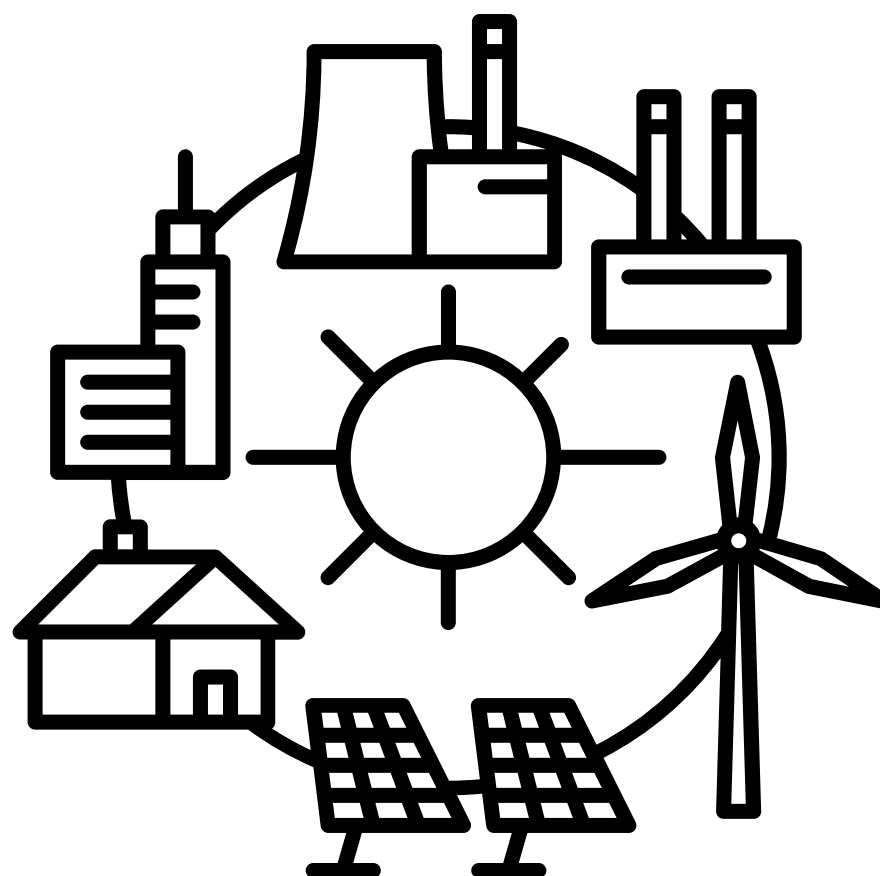




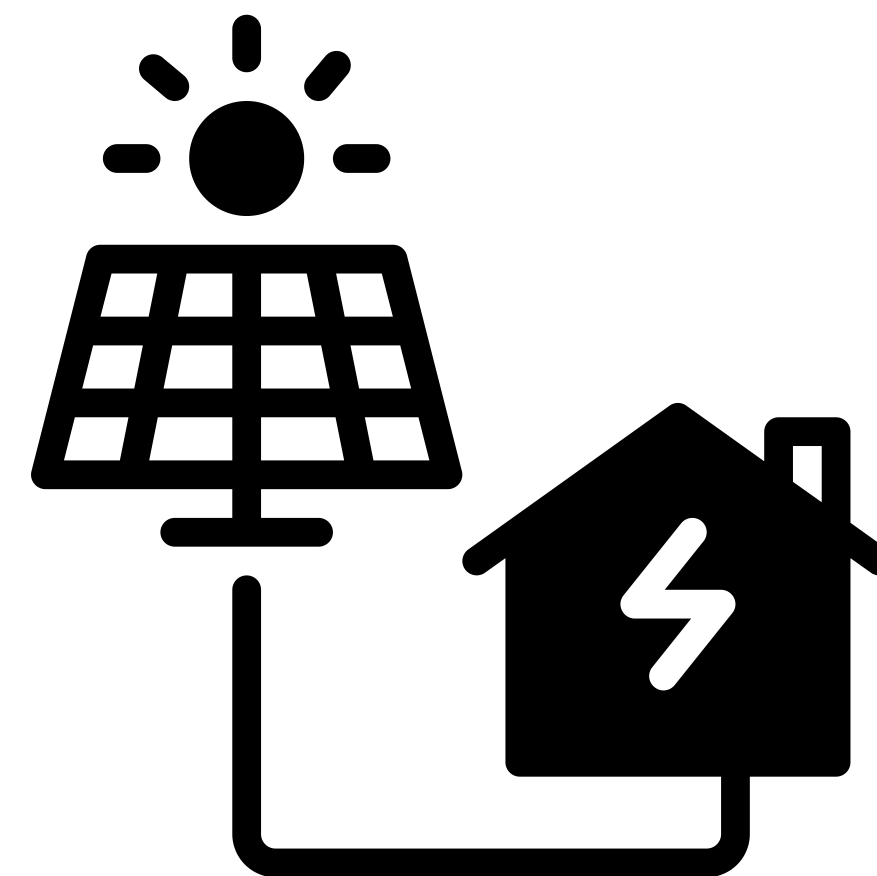
**OUR AMBITION** IS TO OFFER **ACCESSIBLE AND EFFICIENT** ENERGY PRODUCTION AND STORAGE SOLUTIONS **IN ALL SECTORS OF ACTIVITY.**



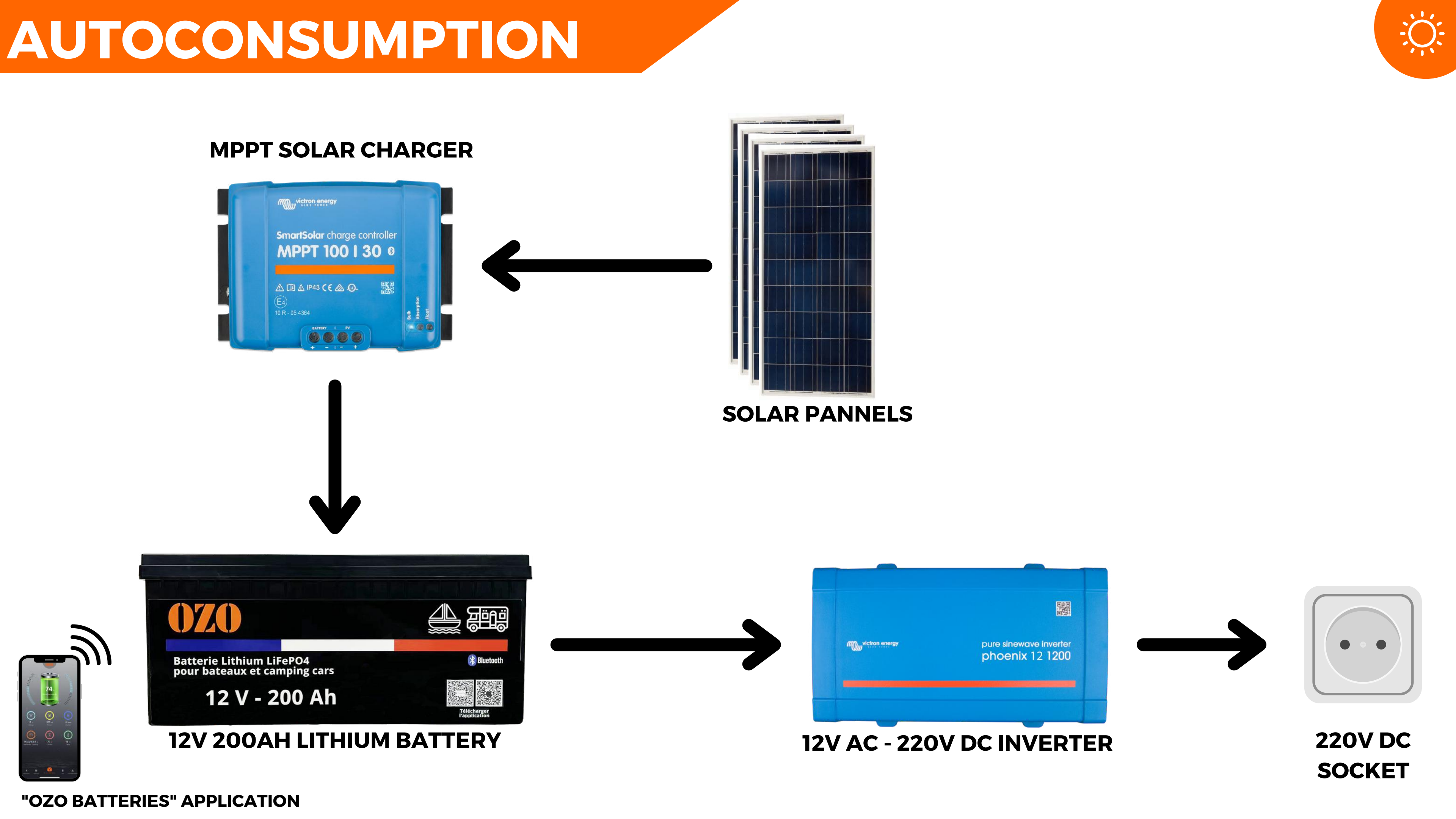
**HOME STORAGE**



**SMART GRID**



**ISOLATED SITES**



# CHALLENGES



MONACO ENERGY  
BOAT CHALLENGE



ECO-MARATHON  
SHELL



SUN TRIP



DESERTS CROSSINGS  
(NAMIBI, CHINE, AUSTRALIE)