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The autonomy electric mobility needs is here.

PYME INNOVADORA
Válido hasta el 24 de julio de 2026

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eit Urban Mobility

Co-funded by the European Union

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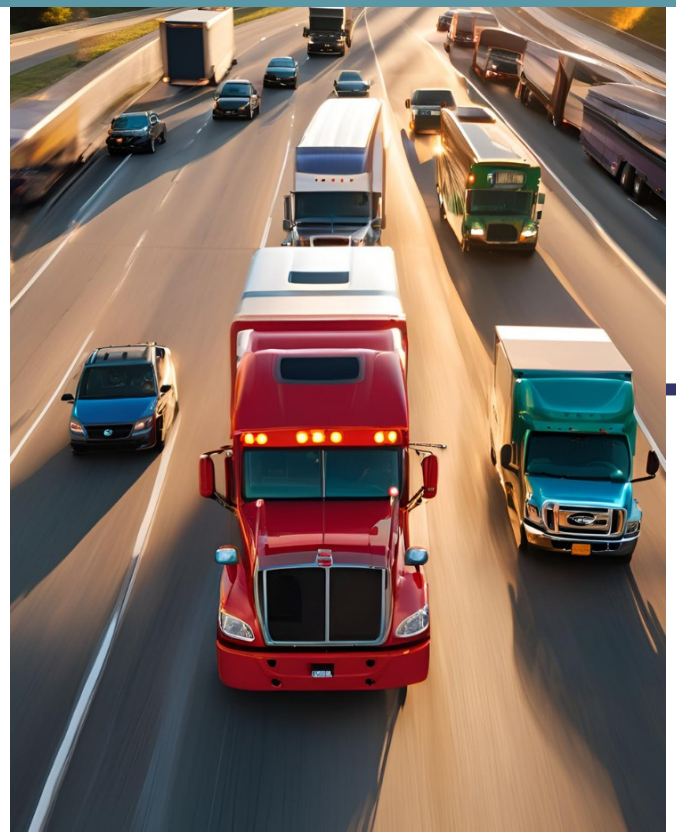
THE PROBLEM

+30% CO2 EMISSIONS PRODUCED BY ROAD TRANSPORT



MOBILITY SECTOR

SLOW TRANSITION TO THE ELECTRIC VEHICLE (+HEAVY VEHICLES)

INSUFFICIENT RANGE

LACK OF CHARGING INFRASTRUCTURE

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OUR SOLUTION

PRODUCTS DEVELOPMENT FOR HEAVY ELECTRIC VEHICLES

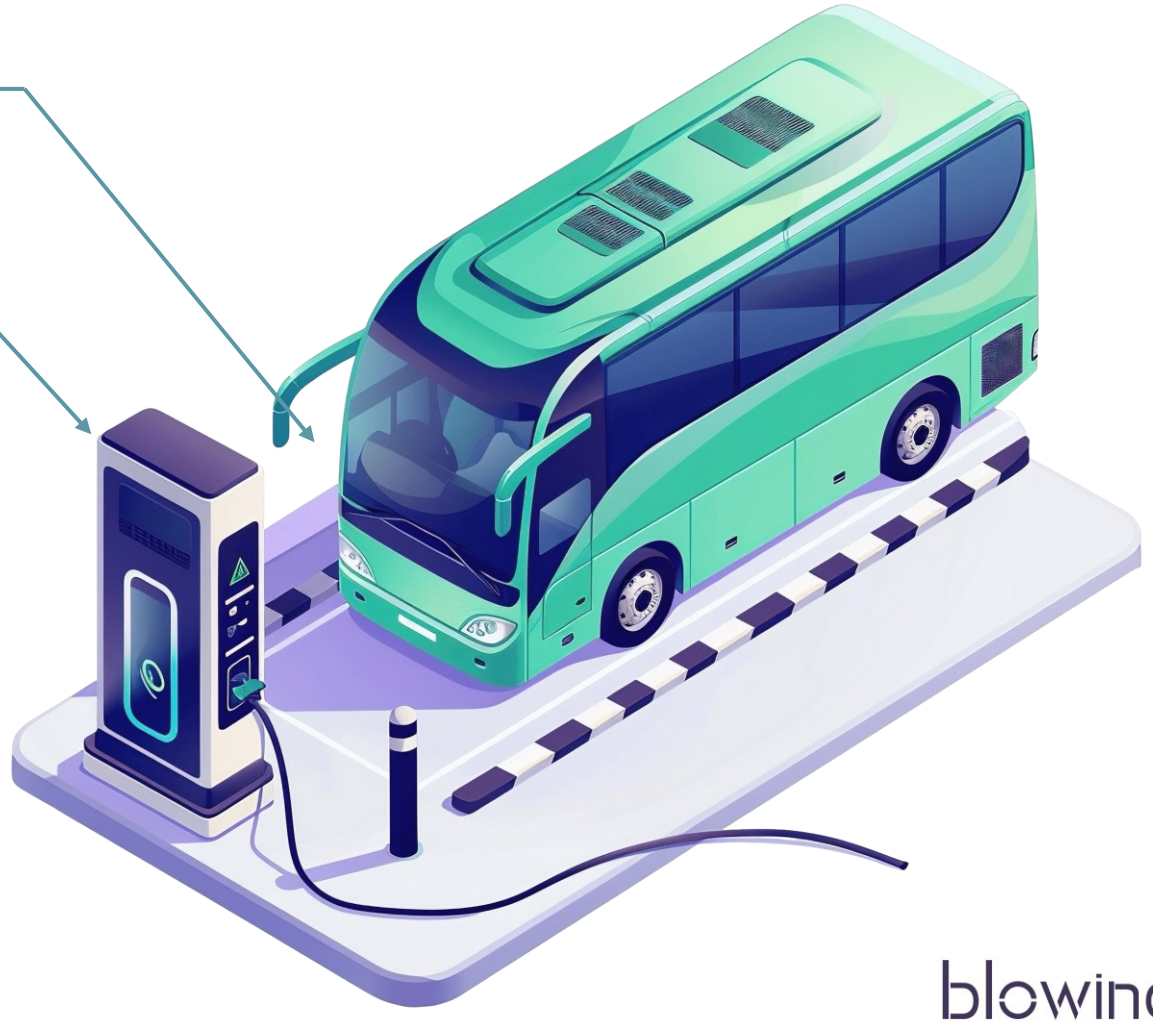
SUPERCONDUCTING MOTOR

HYPERCHARGER

INCREASE AUTONOMY

REDUCE COST

SOLVE RECHARGING TIMES



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HOW WE DO IT?

PATENTED TECHNOLOGY IN THE USE AND ARRANGEMENT OF SUPERCONDUCTING MATERIAL

SUPERCONDUCTING MOTOR

HYPERCHARGER

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Oficina Española de Patentes y Marcas

Superconductors

Inductor and armature superconductor coils.

Superconductors transmit the existing electricity **without resistance or energy loss**. Higher magnetic field strengths are possible.

Cryogenics circuits

Closed cryogenic circuit with nanotubes. Nitrogen/Helio, **non-flammable gases,** are used.

Vacuum techniques

We eliminate **friction** in the e-motor and improve **thermal management**.

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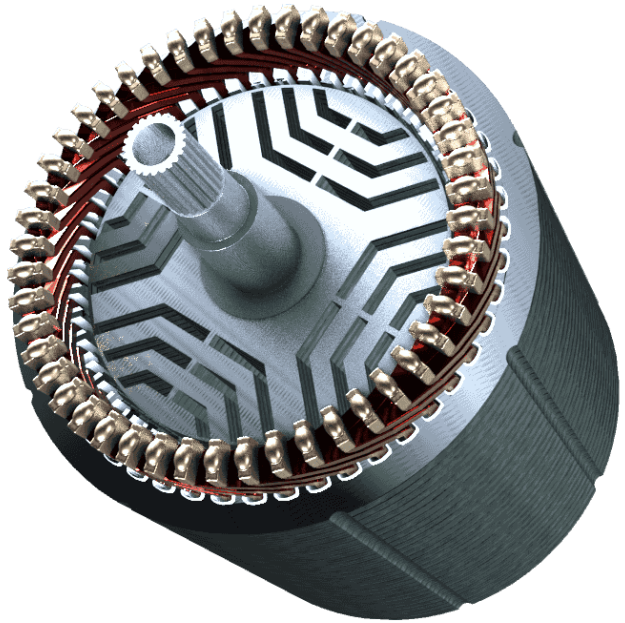
SUPERCONDUCTOR MOTOR



*"With this system we will make a **quantitative** leap in energy efficiency applied to mobility, requiring **less electrical consumption** than a current motor to generate the same power, and therefore reducing energy costs and increasing range of the vehicles"*

AXIAL-FLUX SYNCHRONOUS RELUCTANCE MOTOR

HIGH TEMPERATURE SUPERCONDUCTING COILS (NO RARE EARTHS USED)

SCALABLE TECHNOLOGY: 100 kW – 1 MW

Compared to an equivalent Radial Flux IPMSM (100 kW):

- **~ ↓ 4 % energy consumption**
- **~ ↓ 250 % weight**
- **~ ↓ 200 % volume**
- **~ ↓ 300 % life cycle total cost**

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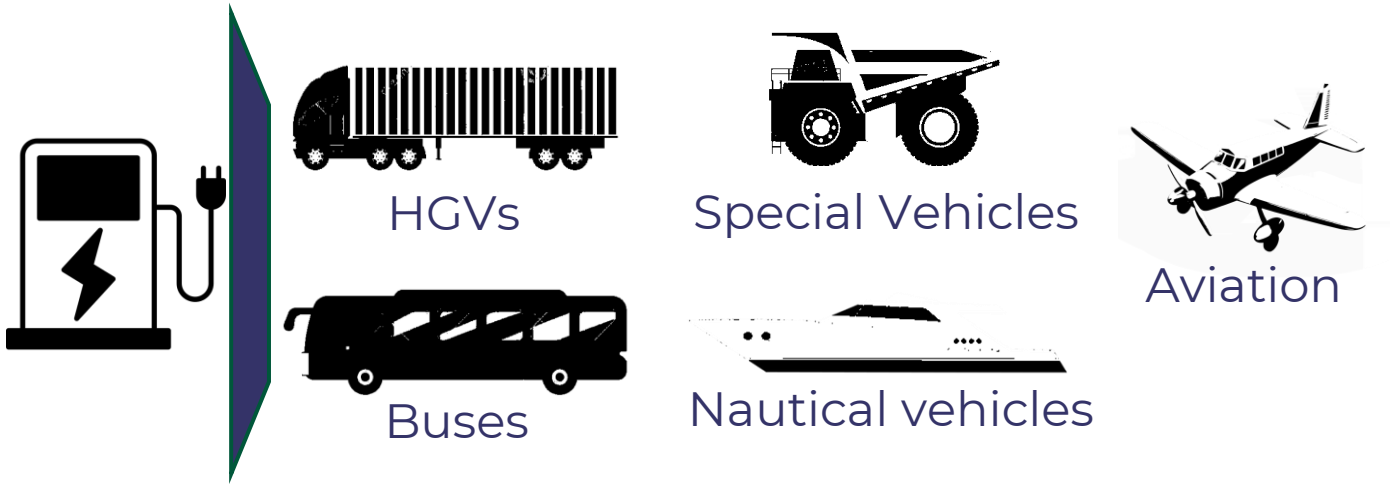
HYPERCHARGER



"We reduce the number of batteries required by optimizing recharging times, thus reducing the tare weight and at the same time enabling their use over long distances.
This is possible by using superconducting cables which reduces the diameter and weight of the recharge hose."

3 MW HYPERCHARGER: ~X3 AS OTHER CHARGERS IN THE MARKET

1666 A PEAK

1200 V PEAK

1000 kWh IN 20'

SOLUTION FOR SOLID STATE HYBRID BATTERIES

ADDITIONAL TAILORED BATTERY MANAGEMENT SYSTEM DEVELOPED IN HOUSE

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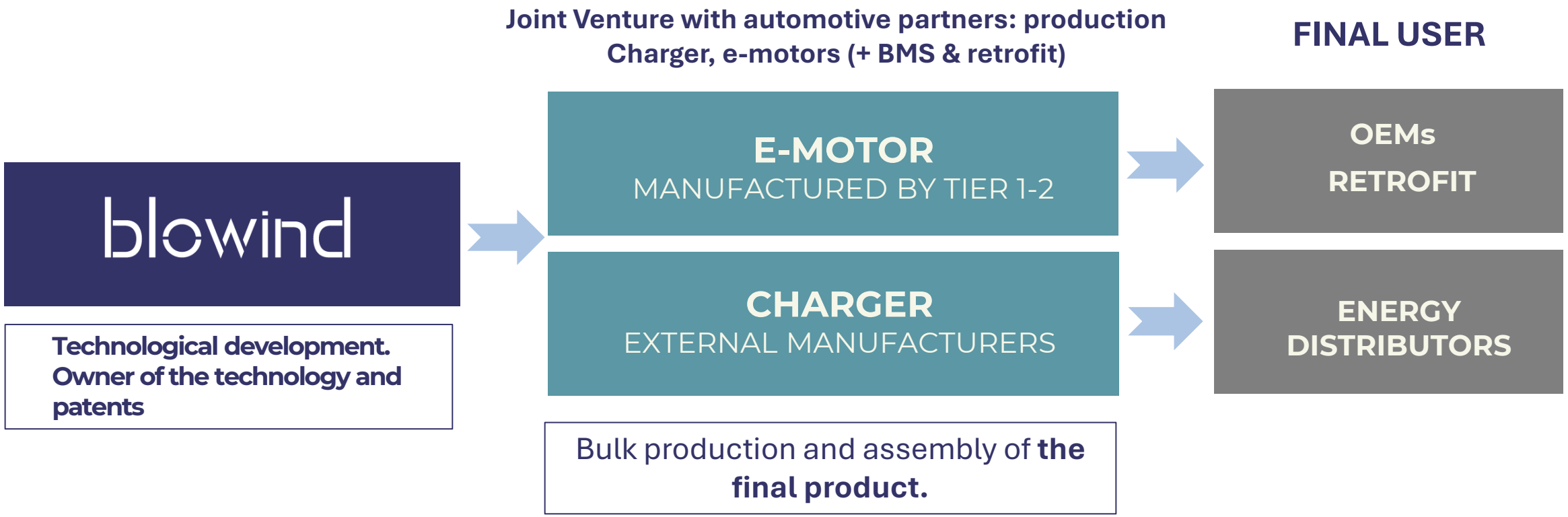
GO TO MARKET



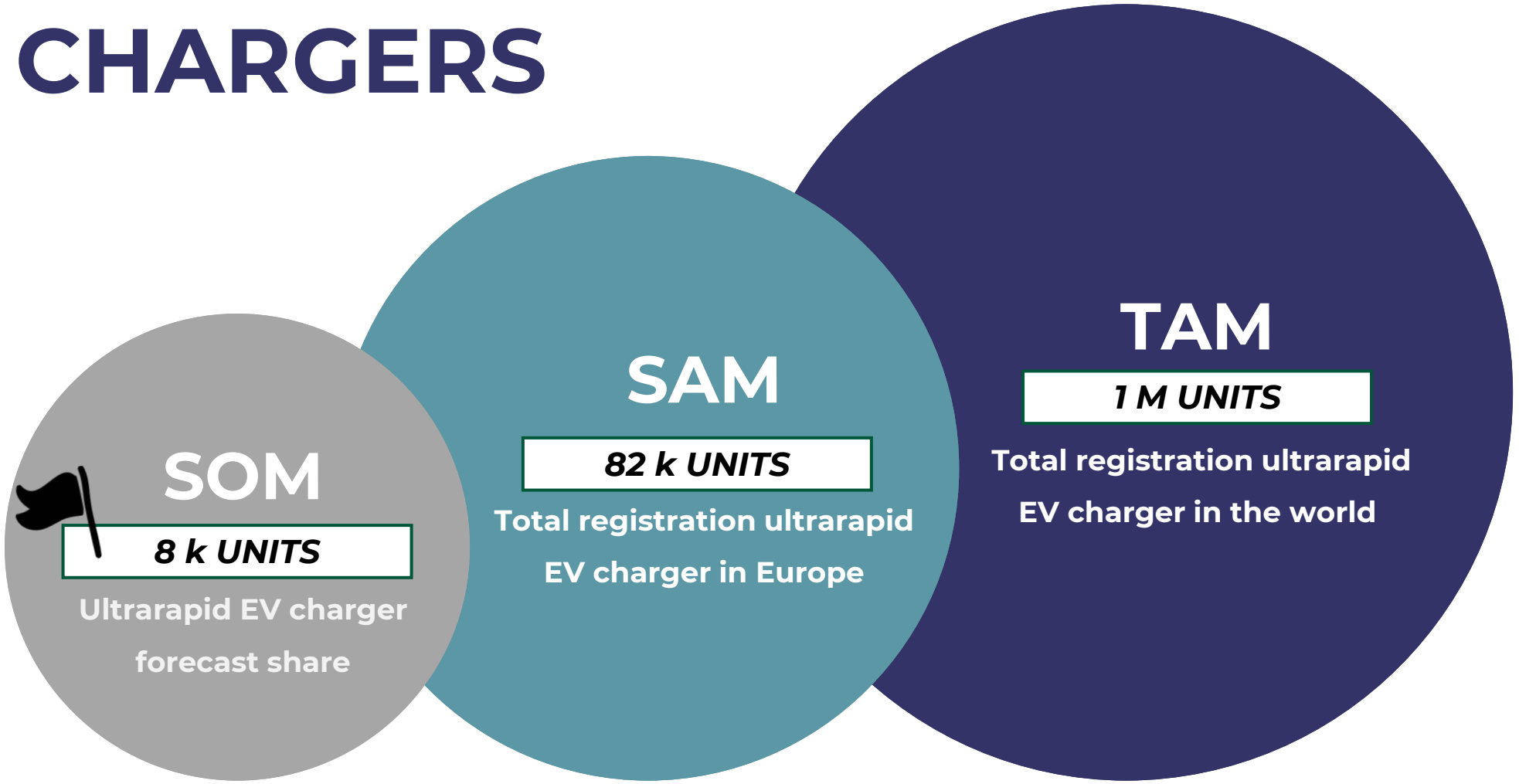
B2B
Sales manufacturing licence

B2B/B2C
Sale of final products

CHARGERS COMPETENCE

	 Level 1/2 1’4 kW – 22	 Fast Charger	 Megawatt Charger
blowind		**800 kW**	**3 MW**
TESLA SUPERCHARGER	22 kW	250 kW	1 MW
VEGA CHARGERS	7,4 kW	720 kW	
Ingeteam	22 kW	400 kW	
SIEMENS		400 kW	
ABB		350 kW	
wallbox	22 kW	150 kW	

THE MARKET SIZE: CHARGERS



** **TAM**: Total Addressable Market **SAM**: Serviceable Available Market **SOM:** Serviceable Obtainable Market*

*Source: ACEA (The European Association Automobile Manufacturers)

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ROADMAP

MAIN GOALS

2020

LTD creation

2021

Start of R+D+i process (use of superconductors)

2022

Product desing

R+D+i

2023

1st patent presentation (e-motor)

Acelerators

Digital prototype

Simulations

2024

S1

E-motor optimization

Charger conceptual development

S2

Industrial partner agreement (manufacturing)

2025

Real enviroment test (both products)

2nd patent presentation

HIPERCHARGER				**TRL 1-2**	**TRL3-4**	**TRL 5-6**
E-MOTOR/GENERATOR	**TRL-**	**TRL1**	**TRL2**	**TRL3**	**TRL4**	**TRL5-6**
INVESTMENT ROUND			**100 k€**	**1,7 M€**		**5,0 M€**

Andalucía Emprende
Fundación Pública Andaluza
Consejería de Empleo, Empresa y Trabajo Autónomo

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TRL: Technology Readiness Level

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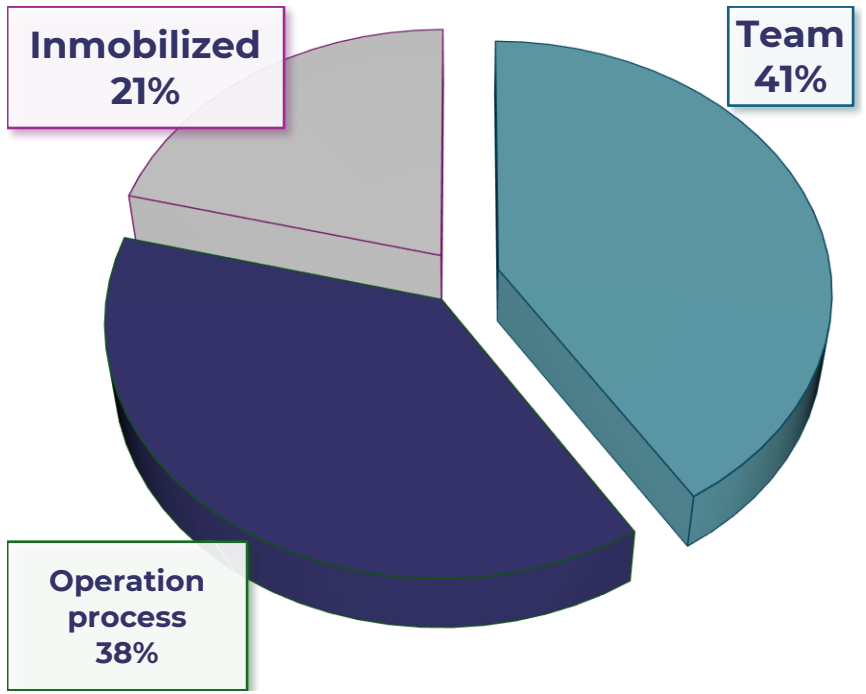
INVESTMENT

ROUND SIZE: 1,7 M€

45% COMPLETED



ROUND GOALS AND MILESTONE

- 6 engineers + 1 operator
- Working prototypes
- Laboratory test facilities
- 2nd patent registration
- TRL 6-7

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