

ROAD ENERGY

Driving tomorrow's technology!



ECO WAVE
DYNAMIS

Eco Wave Dynamis (EWD), developer and owner of a unique, robust and efficient wave energy technology, introduces **Road Energy**, its latest RTD reach for sustainable energy solutions.

This presentation highlights the potential for **sustainable value creation in the renewable energy sector**. It can be used to facilitate collaboration between companies and investors seeking growth opportunities.



Founded in 2020 and based in the Greek island of Icaria, EWD is the developer and owner of the Eco Wave Dynamis Technology, Wave Daedalus.

The escalating climate crisis and worldwide surge of energy prices were EWD's impetus for developing and introducing Road Energy, a novel power system that converts vehicles' kinetic energy to electrical energy. Unlike similar inventions, EWD's **innovative hydraulic mechanism generates uninterrupted electrical energy** with no disturbances to drivers, making it a potential game-changer.

EWD aims to gain more traction for Road Energy technology, which turns vehicles, a source of pollution, into a source of sustainable energy and accelerates the transition to the circular economy.

Homepage

www.ecowavedynamis.com

Interesting links

[blue deal med](#)

EWD's journey so far

EWD was founded

Design and construction of EWD wave tech

Testing and developing EWD wave tech

Design and construction of Road Energy tech

Road energy patent and development

Award and Market validation



2020

2021

2022

MID 2022

END 2022

2023

ACTIONS

Research and design

Design of the EWD wave tech

Testing in real conditions. Wave height measurement with Computer Vision

Design of Road energy prototype unit

Launching customer (AI camera)

Business Development

RESULTS

Construction of a 25KW prototype wave energy unit

Proof of concept Wave energy harvesting with machine learning techniques

Piezoelectric energy harvesting with machine learning techniques

Sales

Green Startup Silver Award (Green Brand Awards 2023)

EWD's ambition

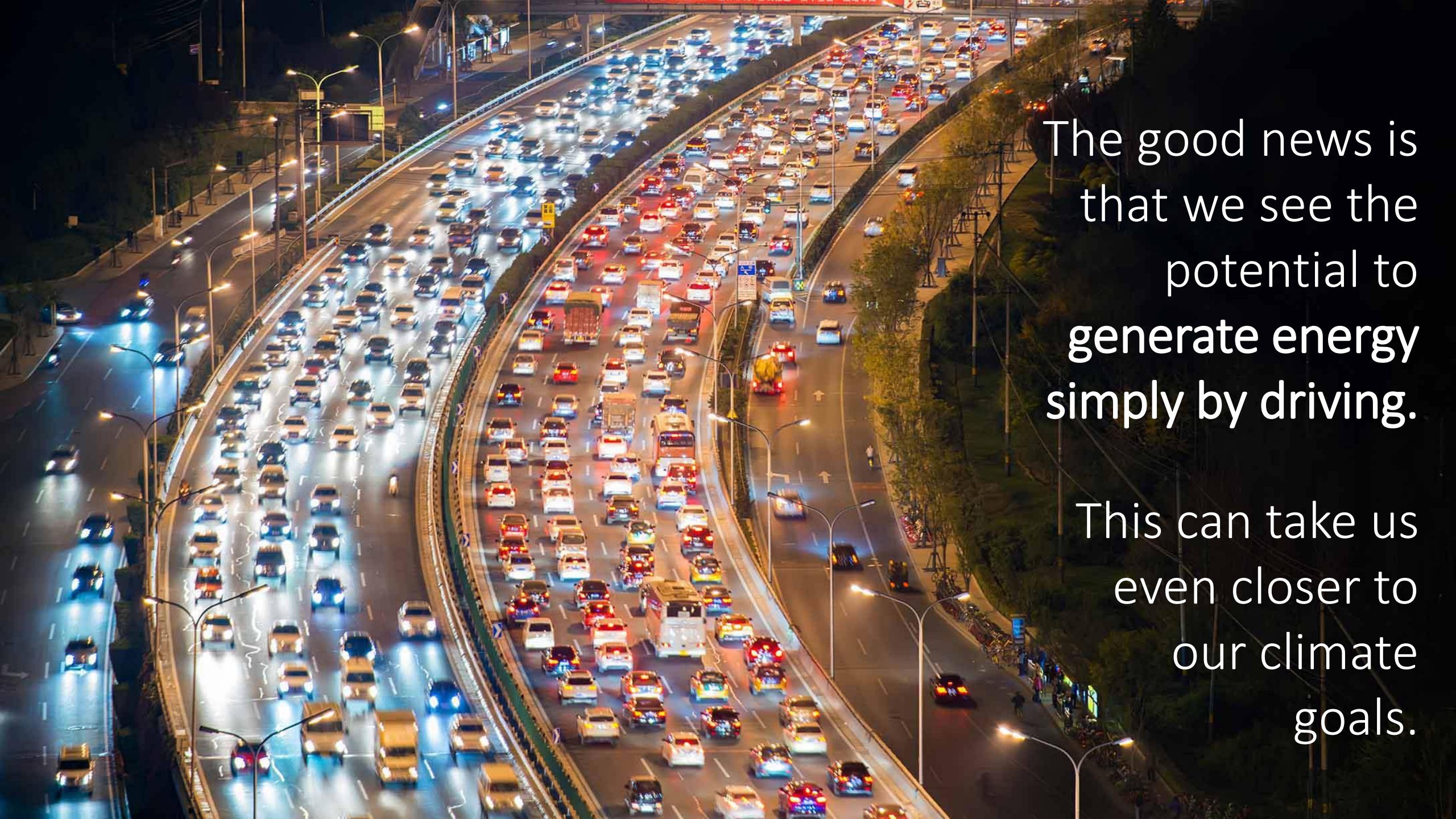


To develop and provide low-cost sustainable energy technologies and co-create the low-carbon electricity mix we need.

Cars are a major contributor to air pollution and associated health risks

- Burning 1L of diesel produces 2.6kg of CO₂.
- Burning 1L of gasoline produces 2.3kg of CO₂.
- CO₂ emissions produced by EVs (Electric Vehicles) in Europe are about 3 times lower than those produced by equivalent conventional vehicles.

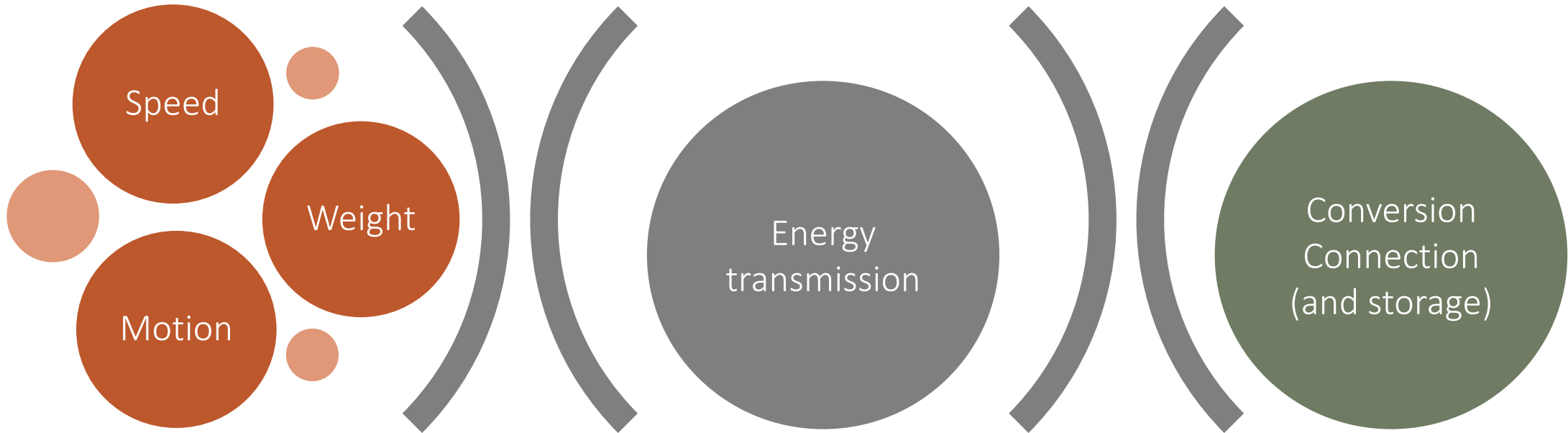




The good news is
that we see the
potential to
generate energy
simply by driving.

This can take us
even closer to
our climate
goals.

How does it work?



Road **energy converters harness mechanical (kinetic) energy** from cars in motion, collecting the max output for each vehicle according to its mass and weight.

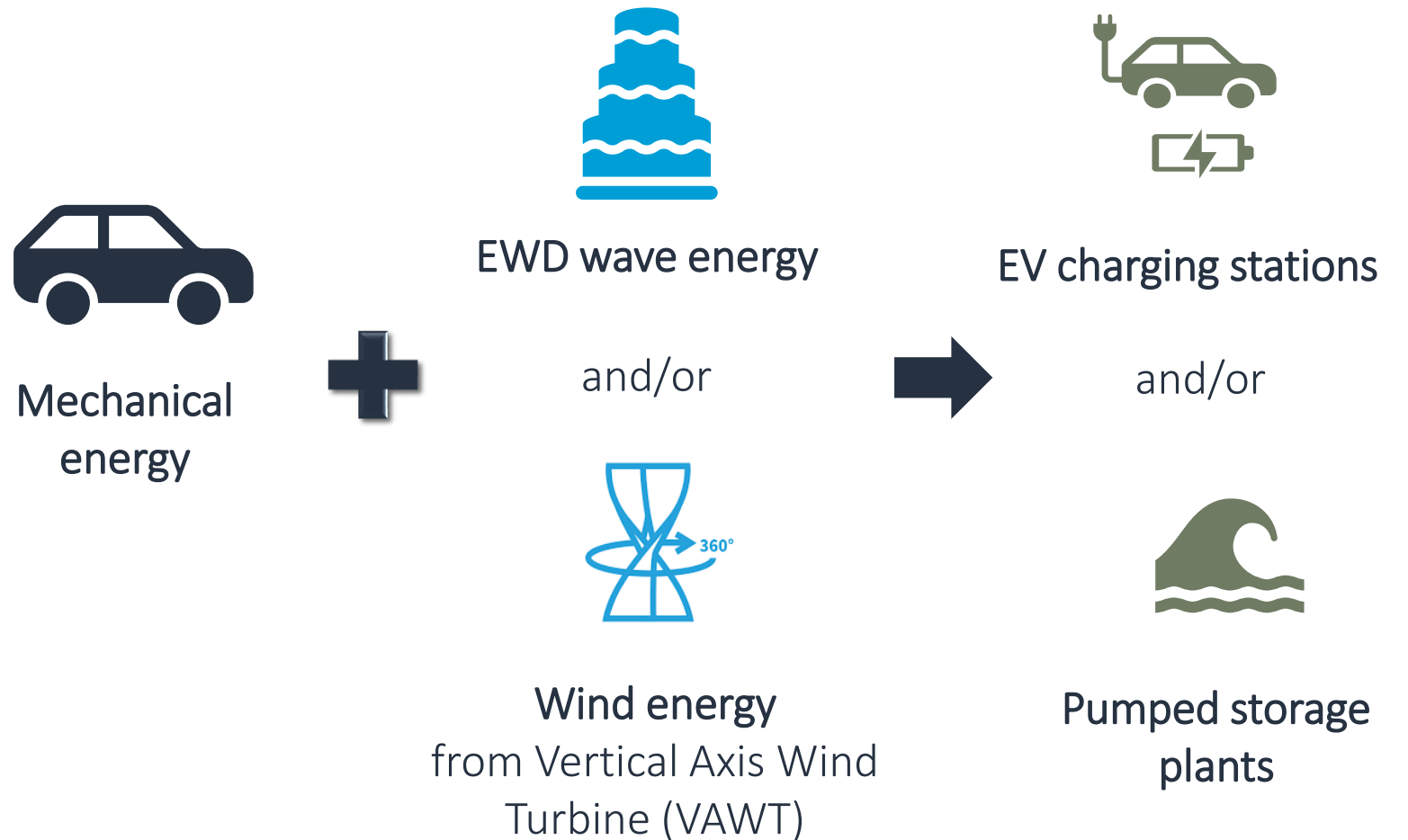
Energy is transmitted from the converters to a central unit via an innovative hydraulic system.

Potential connections to EWD wave technology and Vertical Axis Wind Turbines boosts energy production and **provides additional power** that can be utilized for pumped storage hydropower plants and water supply.

Here's where EWD can play a crucial role.

The International Energy Agency predicts that by 2030, the global demand for electricity will be 5 to 11 times greater than it was in 2019.

This energy must be produced with minimal carbon emissions to reap the climate benefits of transitioning to EVs.



Where does it work?

EWD uses traffic to its advantage. Unlike similar technologies, Road Energy does not require special road ramps, speed reduction or other disruptions of drivers' experience. Units installed in high volume areas collect hitherto **untapped kinetic energy to produce uninterrupted electrical energy**. The system can also monitor traffic and road temperature for **safer and more sustainable mobility**.



Ports and car-carrier ships



Shopping malls



EV charging stations



Airports



Schools



Toll stations



Hospitals



Parking lots



Stadiums and sport centers

What are the benefits?

- Contributes to **energy needs** by harvesting an untapped energy source (cars in motion) and converting it to electrical energy.
- **Reduces drivers' individual energy footprint** as they produce energy while driving.
- Creates **safer roadways** and contributes to **more sustainable mobility** by monitoring traffic and temperature.
- Makes possible the transition to a **low-carbon energy mix** with fewer CO2 emissions and **better air quality** resulting from connections to renewables (wave/wind).
- Makes possible the **future use of energy surplus** from pumped storage stations, potentially also supplied with road energy, where technically feasible, depending on geomorphology and other environmental factors.
- A single EWD unit can **generate 80.000 - 100,000 kWh/year**, while the average family consumes roughly 3.000kWh/year. A conventional system, by comparison, would require burning 17 tons of oil.
- Facilitates **decarbonization**.
- Contributes to **energy supply**.

People

Planet

Profit

EWD objectives



Co-create a cleaner energy mix.

Facilitate decarbonization & contribute to energy supply.

Accelerate the shift to circular economy (using untapped energy source).

Support young scientists.

Enhance safety through AI (extreme weather events, avoid collisions).

Top priority
 Promise

EWD's commitment to relevant SDGs

Investment Readiness Level (IRL)

IDENTIFY AND VALIDATE METRICS THAT MATTER

VALIDATE VALUE DELIVERY (LEFT SIDE BUSINESS MODEL CANVAS)

PROTOTYPE HIGH FIDELITY MINIMUM VIABLE PRODUCT

VALIDATE REVENUE MODEL (RIGHT SIDE BUSINESS MODEL CANVAS)

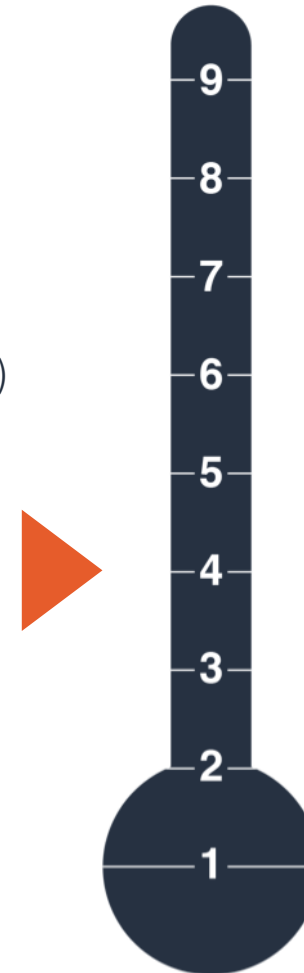
VALIDATE PRODUCT MARKET FIT

PROTOTYPE LOW FIDELITY MINIMUM VIABLE PRODUCT

PROBLEM/SOLUTION VALIDATION

MARKET SIZE/ COMPETITIVE ANALYSIS

COMPLETE FIRST PASS BUSINESS MODEL CANVAS



SteveBlank.com

EWD's IRL is 4

EWD is currently at IRL4, having developed a prototype, minimum viable product, and secured a launching customer as well as a strategic investor. The next phase will bring in end users to finalize future market specifications.

EWD's goal is to reach IRL5, validation of product-market fit with funding from strategic partners.



Conclusion



WINNING ASPIRATION

EWD aspires to create and market powerful, robust and efficient sustainable technologies at the lowest possible cost. Our team is comprised of international experts in technology development, engineering and renewable energy sources, ensuring a dynamic environment for future growth.



WHERE-WE-PLAY

EWD develops technologies, while designing a commercialization strategy. It's based on Icaria, the island with the strongest wave and air force in the Aegean. Greece is a rising energy player in SE Europe with Projects of Common Interest including pumped storage projects, while Europe is considered the leader of renewable energy sources.



HOW-WE-WIN

EWD fosters creativity and team spirit. It creates synergies that support research, development, innovation and the uptake for its sustainable solutions and other project needs.



CORE SKILLS

EWD has fine-tuned scientific and business capability in promoting new technologies, developing and testing them via advanced computational analysis systems and producing real-conditions prototypes. Other skills include idea generation and assessment, intellectual property management, design and engineering, construction and operation.

green
brand
awards
2023

SILVER

In March 2023, Ecowave Dynamis received the Silver Award for Green StartUp at the Green Brand Awards.

The press release can be found at the following links:

[B2Green](#)

[Energypress](#)

[Ikariaki](#)

[Green Brand Awards](#)

green
brand
awards
2023

We innovate to create a better future.

Road Energy technology is on its way to the market!

Will you join the ride?



ECO WAVE
DYNAMIS