BEVISIONEERS

THE MERCEDES-BENZ FELLOWSHIP

Milestone 3 Enerdrais Project Storyboard

Theory of Change: Enerdrais – Transforming Human Effort into Clean Energy

1. Impact (Long-Term Goal)

A world where human movement actively contributes to clean energy generation, reducing urban carbon footprints, enhancing energy resilience, and fostering a culture of sustainability in cities.

2. Outcomes (Mid-Term Results)

- Cities that integrate human-powered energy solutions into urban infrastructure, reducing dependence on fossil fuels.
- Gyms and public spaces adopt energy-harnessing technology, increasing awareness
 of personal energy contributions and becoming green fitness centers.
- Individuals engage in sustainable commuting and fitness habits, contributing to energy generation and being proud of it on social media trends.

3. Outputs (Short-Term Deliverables)

- Deployment of IoT-enabled fitness equipment and bike devices that generate and store electricity in the most optimal way.
- Smart energy storage systems implemented for grid feedback and personal use.
- Partnerships with gyms, city planners, and businesses to integrate Enerdrais solutions.
- Awareness campaigns and data-driven impact reports demonstrating energy generation potential.

4. Activities (Actions to Achieve Outputs)

- Design, develop and test IoT-enabled energy-harvesting devices.
- Integrate AI-powered analytics to optimize energy capture and storage.
- Partner with gyms, and mobility providers for pilot programs.
- Educate users through branding, social media, and community engagement.
- Establish a marketplace where stakeholders can connect and scale the impact.

5. Inputs (Resources Required)

- Research and development (RnD) funding for hardware and software AI integration.
- Engineering expertise in mechatronics, IoT, and energy storage.
- Strategic partnerships with urban developers and gym franchises.
- Data collection tools for measuring impact and optimizing performance.
- Website and branding assets to communicate the mission effectively.
- CNC plasma machine for prototype manufacture.

6. Assumptions (Key Beliefs Underpinning Success)

- People are willing to adopt sustainable practices if they see tangible benefits.
- Cities and businesses are open to integrating human-powered energy solutions into their infrastructure.
- Technological advancements will continue to improve energy efficiency and storage.
- Policymakers and investors will support innovative clean energy solutions.

The Impact Measurement Plan

A. Implementation Indicators

- Target: Develop a real and functional Mark II prototype of a modular bycicle front energy generation wheel.
- ✓ **Indicator:** Successful mechanical, electrical, and assembly simulation leading to prototype manufacturing.
- Target: Conduct energy trials to determine market feasibility.
- ✓ Indicator: Verified power generation data and identified customer interest.

B. Performance Indicators

- Target: Encourage awareness and engagement in human-powered energy.
- ✓ Indicator: Growth of social media trends advocating green gyms and sustainable transport.
- Target: Validate commercial viability of the system.
- ✓ Indicator: Measurable kW generation aligned with profitability targets for gyms and public bike systems.

Outcome 1: Machines working to harness wasted human effort into sustainable living.

Target: Driving people to be more aware and challenging them to think more about the energy they can create to help the environment.

Indicator: Social media trend supporting this energy movement of green gyms and public transportation systems.

Output 1: Simulation Model and Manufactured Prototype.

Target: Mechanical, Electrical and Assembly Simulation for Analysis.

Indicator: Mark II real and functional prototype.

Activity: Model all parts.
Target: Simulate material's
strength, assembly & blue prints.
Indicator: Complete CAD model
and Assembly.

Input:

Mechatronics.

Target: Use

technology to

develop a

functional

machine.

Indicator:

Electrical energy

generated.

nts. del

Input: CAD

Target: Analyze

the mechanical

structure and

assembly.

Indicator: 3D

model and

material chosen.

Input: 3D printer.
Target: Design
and manufacture
plastic parts for
PCB and electrical
generators.
Indicator:

Prototype's plastic

Activity: Manufacture all plastic and

metal parts.

Target: Take the simulation assembly

to a reality, following CAD blueprints.

Indicator: Real built prototype.

Input: CNC machine. Target: Cutting the mechanical body of the machine on metal sheet. Indicator: Prototype's

structure.

Output 2: Electrical trials to calculate energy generation needed by the market.

Target: Identify prototypes needed to generate profit. **Indicator:** Interested costumers.

Activity: Contact and identify Potential Consumer's needs. Target: Gyms and Public Bike Systems.

Indicator: Valuable contact.

Activity: Identify energy needed to generate profit. Target: Gyms and Public Bike Systems. Indicator: kW needed to make profit at gyms or public bike systems.

Input: Gyms.
Target: Potential
costumers.
Indicator: Power
data obtained and
relevant contact.

Input: Public bike
systems.

Target: Potential
costumers.
Indicator:
Research for
public energy
generation and
relevant contact.

Input: Market needs.
Target: Identify prototype functionalities.
Indicator: Power data obtained and relevant contact.

Input: Energy generation needs. Target: kW Used monthly by gyms and Mexico's rural communities with power issues. Indicator: Power kW identified.

Branding Story

1. Context - The Question That Changes Everything

Have you ever wondered how much energy you generate while cycling or working out? What if I told you that every drop of sweat, every pedal spin, and every step you take could power the world around you?

• Let's put it in perspective: To fully charge your phone, you'd have to run for about 40 minutes at an average pace. Now, imagine if every runner, cyclist, and gym athlete could capture that energy... not just to charge a phone, but to power entire buildings and cities.

We live in a time where clean energy is a necessity, yet millions of watts go to waste in gyms and city bike lanes. Imagine a world where fitness isn't just about burning calories, but about creating energy.

Sounds like something straight out of *The Matrix*, right? But instead of being trapped in a dystopian future, you get to be the hero of this story.

2. The Hero – You, the Everyday Human Energy Generator

You! the urban commuter, you! the fitness enthusiast, you! the person striving for a healthier lifestyle, all of you are the untapped power source that cities need.

The problem? Every pedal stroke, every treadmill run, and every weightlifting session wastes potential energy. What if we could capture and repurpose that effort?

3. The Importance – Why This Matters Now

Cities are consuming more power than ever, especially with the rise of AI, and the demand for sustainable energy keeps increasing. Meanwhile, climate change accelerates, leaving individuals feeling powerless to make a real impact.

But what if clean energy production was as easy as riding a bike to work, the gym, or even the bar? What if every gym and public bike station could generate and store electricity, reducing the carbon footprint of entire neighborhoods?

The energy crisis isn't just about power grids, it's about people! And the solution has been right under our feet (and bike wheels) this whole time.

4. The Journey - The Technology That Makes It Real

Enter **Enerdrais**, where we transform human effort into clean energy through:

- **IoT-enabled devices:** Seamlessly integrating with AI-powered machine learning models, fitness equipment, and urban bike stations.
- **Smart energy storage:** Optimizing and sending power back into the grid or for personal use.

Imagine a gym where every workout charges the lights, powers devices, and contributes to a city-wide clean energy network. Imagine bike stations that don't just provide transportation but also feed electricity into local infrastructure. With **Enerdrais**, this isn't just a dream, it's a reality.

5. The Call to Action – Join the Movement

This is more than a project, it's a revolution. And the best part? You're already part of it.

- If you're a fitness brand, gym owner, or city planner... let's integrate Enerdrais into your infrastructure.
- 🊴 If you're an individual... help us bring this vision to more communities.
- If you believe in a cleaner, healthier, and more sustainable future... spread the word and support the movement.

The future isn't powered by machines alone, it's powered by us.

Exercise smarter: power your world while powering yourself. 💉

Branding Assets





Enerdrais Diego Cervantes CDMX, Mexico 29, Mr.









THE PROBLEM

Every day, millions of people spend energy at gyms and on bicycle transportation systems without harnessing its energetic potential. Meanwhile, 37% of Mexican houses struggle with continuous energy availability challenges. What if we could turn human motion into clean power? Enerdrais transforms wasted human effort into renewable energy, bridging fitness, sustainability, and technological innovation for a greener future.

PEOPLE

Urban commuters, gym enthusiasts, and fitness-conscious individuals who care about sustainability. Enerdrais also supports gyms and public bike systems by helping them generate renewable energy while promoting ecoconscious and healthy lifestyles.

SOLUTION PRODUCT

Enerdrais are human-powered energy harnessing machines that convert movement from bikes and fitness machines into usable electrical energy, supporting gyms, public bike systems, and eco-conscious businesses in their sustainability efforts.

IMPACT - MAKING A DIFFERENCE

- More sustainable urban infrastructure by integrating human-powered energy into gyms and public spaces.
- Measurable energy generation from fitness and cycling activities.
- Increased environmental awareness through social media engagement and community adoption.



Milestone 3: Project Storyboard

Exercise smarter:

Power your world
while powering
yourself.

Enerdrais's Theory of Change

Our mission starts from a current challenge: Millions of people perform a daily energy effort on gyms and bicycles, yet that energy is put to no use. Meanwhile, cities face growing energy shortages due to new technologies such as artificial intelligence and sustainability issues. Enerdrais solves this gap by transforming human movement into clean, renewable electricity.

At the core of our strategy are humanpowered modular energy machines that integrate into existing fitness machines and public bike systems. Every pedal stroke and every drop of sweat generates power, reducing reliance on traditional energy sources while engaging communities in sustainable action.

Imagine a world where gyms power their own lights, and bike-sharing stations feed energy back into the grid. With Enerdrais, we turn individual effort into collective impact. Our prototypes have already begun converting motion into electricity, proving the viability of this vision.

By partnering with gyms, city planners, and eco-conscious communities, we're scaling a movement that makes sustainability second nature. Every watt generated is a step toward a greener future, and every user becomes part of a global shift toward renewable energy.

Exercise smarter: Power your world while powering yourself.