Electrify

Because freedom is for everybody

About the Team

We are a group of 3rd Year Computer Science Students

Iftiak

Business Admin
Market Researcher
Video Director

Luke

Researcher
Video editor
Technician
Marketer

Chris

Concept Artist
Technician
Finance Modeler

Alastair

Assistant Market Researcher
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About the problem

-Global supply chain disruption has exploded the cost of existing e-bikes from established sellers

-Rapidly accelerating environmental problems have created a significant demand for more sustainable transport solutions

-Increase in fuel prices due to the global circumstances such as Russia invading Ukraine

-Cost of living crisis has created a need for a cheaper alternative to cars for local travel

Our solution (e-bike conversions)

As Climate Change is becoming a more pressing issue in day to day life, people are looking for more sustainable ways to travel. Instead of buying whole new bicycles, we at electrify plan to provide the service of converting existing bikes into e-bikes as well as readymade conversion kits. This will give a more environmentally friendly product. As well as providing the user with a cheaper alternative than buying a new readymade e-bike. Sales of e-bikes are expected to continue to grow, so we at electrify plan to lead this promising up and coming sector.

How an e-bike conversion works

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Electric Bicycles

Hub Drives

Step 1: Remove any wheel

Hub Drives

Step 2: Remove existing hub and rebuild wheel around hub motor

Hub Drives

Step 3: Reinstall wheel and connect to battery and motor controller

Mid Drives

Step 1: Remove crank from bottom bracket

Mid Drives

Step 2: Select appropriate mid drive motor assembly

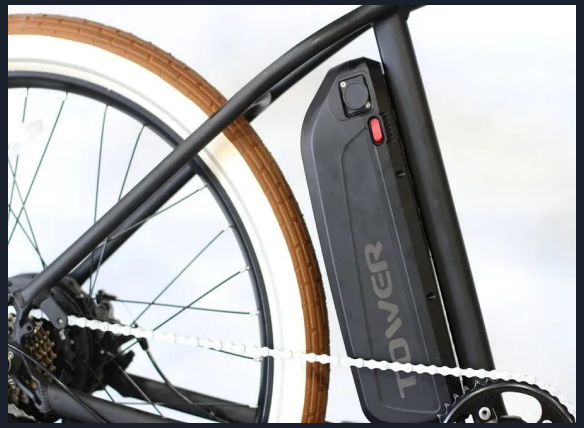
Mid Drives

Step 3: Thread Motor through bracket and install securing bolts

Mid Drives

Step 4: Install cranks and pedals and connect to battery and controller

Batteries for every type of frame



Ebike Regulations

Legally, the e-bike must be pedal assist and not throttle only to comply with regulations

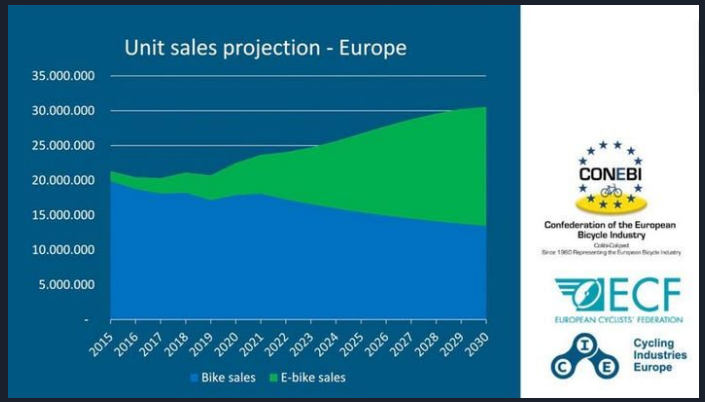
What makes the e-bike pedal assist?

- If the bike has pedals that propel it and the motor doesn't assist you when you're travelling more than 15.5mph; and the power doesn't exceed 250 watts
- This can use either torque sensors or cadence sensors

If the e-bike meets these requirements, then it can be legally ridden on any cycle path or anywhere where bicycles are allowed.

For e-bikes that have a higher power rating than mentioned above, through UK law they are not compliant with EAPC regulations for on-road use and will have to be advertised as such.

Market Size

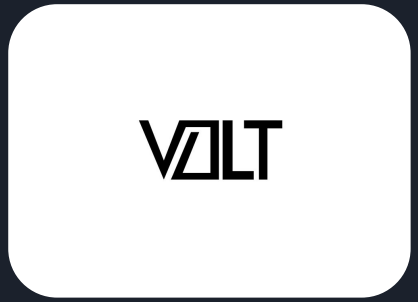


European Market Growth

With sustainability growing in consumer interests, Electric Bicycles sales are projected to grow from 3.7 million in 2019 to 17 Million per year in 2030 (Reid, 2020) in Europe, we see big potential in the UK market.

In 2020 the Electric Bicycle market was valued at an estimated £275 Million, reaching 23% of all Bicycle expenditure, this is expected to grow in 2022 (Mintel, 2021).

Competitors



Pricing

We are planning to sell three off the shelf conversion kits. These kits will be sold at varying pricing.

Starting with the Basic kit, this kit will be sold for £300, which will net profit of £107.

The Mid Range kit will be sold at £970, which will net us a profit of £340.

The final kit to be sold is the upper range kit for £2100, which will net us a profit of £750.

How we’re going to deliver our product

How we’re gonna send it

Before the product can be delivered:

1) Customer enquiries and decides what option to go with
2) The customer brings their bicycle to our workshop
3) We convert their bicycle using our conversion kit
4) Return to customer (Either the customer returns for collection, or arrange shipping)

Marketing Ideas

Phase 1: Dense social media saturation across every available platform including Facebook Instagram Twitter Youtube TikTok

In person advertisements including: Flyers Posters Billboards Postal leaflets

Additionally Radio Stations will also be advertising our brand.

As e-bike acquisition interest is similar across all age groups (Ling et al, 2017) we aim to target all age groups, by advertising online and in person, we will spread awareness to a large base of both young and older consumers.

Additionally some small amount of paid advertising on these networks would form an affordable basis for our marketing campaign

Social Media Target

1000 Followers on Instagram

1000 Followers on Facebook

1000 Followers on Tiktok

1000 Followers on Twitter

50+ Reviews on Google reviews

Marketing Budget

Social Media - £1250

Flyers - £200

Billboards - £300

Online Advertising -£ 130

Posters - £80

Radio - £200

Target Customers

Age range

Main target: 41-60

Secondary target: 61+

Third target: 18-30

Retired

Middle Age

Young

There is potential to target anyone needing affordable transport, existing cyclists, daily commuters, delivery drivers, and students. However, research suggests (Melina & Bartle, 2021) e-bikes are most popular with 41-60, closely followed by the 61 and over age category.

Conversion kits can be sold to cyclists interested in getting into the world of Electric Bicycles, without having to get a whole new bicycle. It will appeal to consumers who are looking for a more affordable option to the world of Electric Bicycles.

Financial Predictions

Conversion Cost Estimates (Priced on per case basis)				Profit Margin (%)	End Price	Profit per bike	Time to convert (Hrs)	Maximum product per-month (3 Engineers)	Maximum Income	Sales to break even monthly
Basic	Motor	Battery	Net	55	Price	Profit	2	210	£22,486.70	110
	£72.56	£122.13	£194.69		£301.77	£107.08				
Mid Range	Motor	Battery	Net	55	Price	Profit	4	105	£36,200.59	34
	£346.70	£280.15	£626.85		£971.62	£344.77				
Upper Range	Motor	Battery	Net	55	Price	Profit	5	84	£62,920.24	16
	£749.00	£612.91	£1,361.91		£2,110.96	£749.05				

Exit Strategy

Route A:

- Arrange Buyout with major competitor
- Maintain 0.5% profit share
- Alternatively retain 0.3% stock options

Route B:

- Sell all existing assets
- Sublet existing leases
- Resell IP

Thanks any questions?