Green Tail

Business Plan | January 2025

Contents

Executive Summary 3
Project Overview 5
Opportunity 5
Team Green Tail 5
Planned Products 7
Medium to Long-term 7
Near-term 7
Technologies and Methods Used 8
Project Roadmap 12
Building a CBD Brand and Marketing Initiatives 14
Planned Operations 16
The PoC Plant 16
CBD Manufacturing and Sales 17
The Commercial Plant 18
Supplier Network 18
Market Summary 20
Market Numbers 20
CBD 20
Manure Conversion 20
Target Markets and Demand 21
Partnership Network 22
Financial Overview 24
Project Budget 24
Projected Financial Performance 25
Investor Proposal 26
Appendix 28
Risk Assessment 28
Forward-Looking Profit and Loss 29
Forward-Looking Balance Sheet and Cash Flow 30
Intellectual Property 31
CBD Legality 33
Competitors: 34

Executive Summary

Green Tail is a UK-based business project that has two planned stages:

1. **Stage I** (2025-2029), building a successful CBD manufacturing operation and CBD consumer brand while testing and experimenting with our proposed manure processing technology and methods. Stage I is the current business plan and the basis for this fundraising.
2. **Stage II** (2030 and beyond), shift to commercial products resulting from manure processing in our plant.

The project is well underway with the following progress made by the founder, Andrii and his core team:

1. Invested $150-200K in initial experiments to achieve a TRL 3/4 for our proposed manure processing methods.
2. Submitted documentation for an international patent to secure our technology and method.
3. Built a foundational business and financial plan for Stage I intending to commission the manure processing commercial plant in Q1 2030.

Andrii, the founder of Green Tail, brings over 30 years of expertise in agricultural technology, innovation, and entrepreneurship. With a background in agronomy and agricultural engineering, he has developed several groundbreaking technologies and tens of customs equipment units to optimise agricultural processes.

In this first Stage of the project, we are looking to raise £2.1 million, to:

1. Set up a PoC plant and start testing manure processing at farms and in a fixed setup.
2. Start manufacturing premium CBD products from extracts
3. Build a CBD consumer brand with a diverse CBD product offering: oils in different forms, cosmetics, treats and vitamins – the last 2 we plan on outsourcing to 3rd party manufacturers.
4. Start preparation for the construction of the manure processing commercial plant.

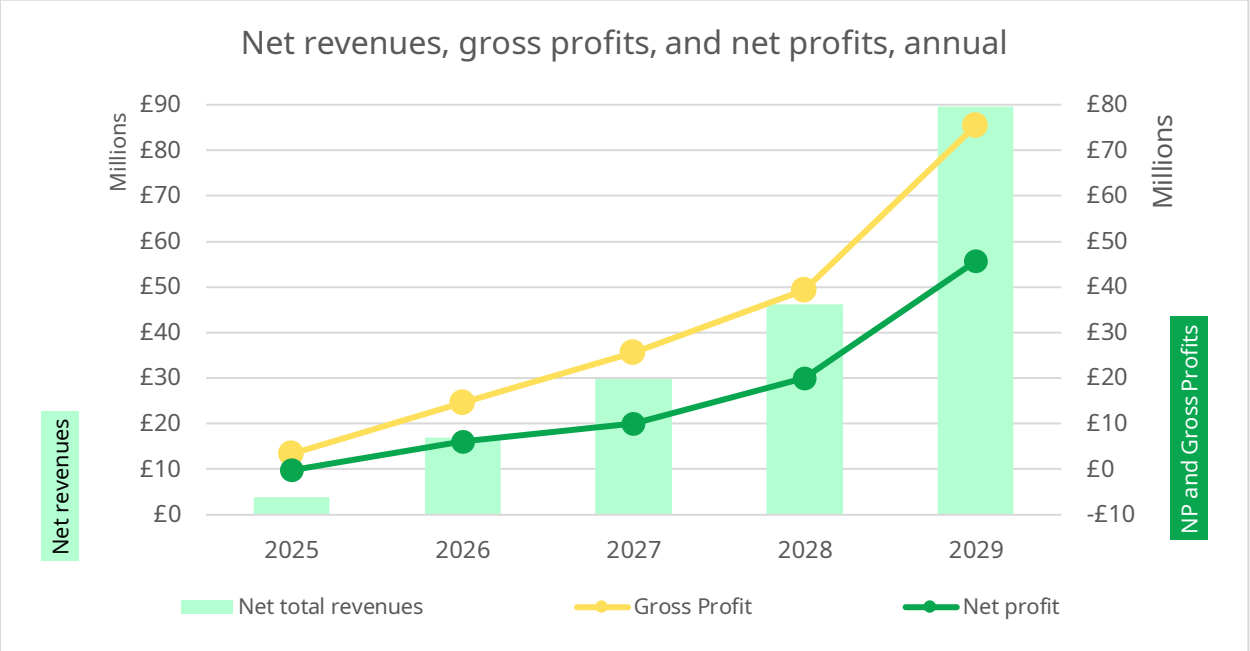
The budget is estimated at £14.5 million for a runway of 24 months~. The breakdown of the budget can be observed below. We expect most of the budget to be covered by sales of CBD products, especially in 2026.

Component	2025	2026
Purchasing equipment	£1.38 million	£0
Developing new products	£0.10 million	£2.90 million
Marketing	£1.50 million	£3.00 million
Wages	£1.00 million	£1.73 million
Other	£0.93 million	£1.98 million
Total	**£4.92 million**	**£9.61 million**

The market potential for our low-hanging fruit – CBD products is formidable. The global CBD market was valued at $6.9 billion in 2024. The forecasted CAGR for 2024-2030 is above 15% and the forecasted global market value of CBD products in 2030 is $15.9 billion.

Our manure processing operation will produce 4 sought-after products: potable water, organic fertiliser components, biogas and crystalline carbon (in the form of graphite). All these products will play an important role in the electrification of our economies, ensuring we will reach a point of carbon neutrality.

The expected financial performance in the horizon 2025-2029 can be observed in the chart below. We expect 2027 to be our first profitable year. An additional funding round is likely to occur sometime in 2027, for Stage II of the project.



Assuming an EV/EBITDA valuation of 12x, the company's value will be about £738 million at the end of 2029. We welcome any opportunity to discuss this further.

Project Overview

Opportunity

Green Tail has two opportunities: a long-hanging fruit in the form of manufacturing CBD.[1]-infused products – oils, cosmetics, treats and vitamins, and a long-term opportunity to become part of the global effort to decrease greenhouse gas emissions by converting manure into useful products.

In this business plan, we will present both opportunities, keeping in mind that Green Tail's long-term mission is to contribute to climate protection and the road to carbon neutrality.

In 2023, agricultural processes like crop and livestock production accounted for around 11% of global GHG[2] emissions. The agriculture industry is also the largest human-made source of methane (CH_4), a highly potent greenhouse gas, compared to carbon dioxide (CO_2)[3]. Only energy (20%) and industry (12%) produce more GHG than agriculture.

Our starting market, the United Kingdom is a big contributor to GHG emissions from agriculture. In 2021, the country emitted an estimated 47.9 $MtCO_2e$[4], out of the total 6.5 $GtCO_2e$ emitted worldwide. Methane represents 58% of total emissions – with an estimated 27.9 $MtCO_2e$. In a 2023 farm practices survey conducted by the Department for Environment, Food and Rural Affairs, more than 80% of farmers surveyed said they want or are taking action to reduce GHG emissions by recycling waste materials from the farm[5]. Green Tail wants to transform manure (waste material) into opportunity by producing a range of useful products: drinking water, organic fertilisers, green electricity and crystalline carbon. Based on the most recent data available, the UK produces at least 140 million tonnes of livestock manure per year with ~85% of that coming from cattle[6].

Our goal is to open a manure processing plant that can convert manure into useful products. However, this will require significant resources: capital and time. So, to offset some of the investments required, we plan on manufacturing CBD products reutilising some of the machinery required for manure conversion. We plan on selling these products in several markets: UK, EU, US, Canada, Japan, Australia and New Zealand, targeting a market worth $508 billion (2024e), and expected to grow to $11.9 billion (2030e)[7].

Team Green Tail

The core team consists of 5 people and the founder **Andrii Halushko**. Andrii, the founder of Green Tail, brings over 30 years of expertise in agricultural technology, innovation, and entrepreneurship. With a deep background in agronomy and agricultural engineering, he has developed several groundbreaking technologies and tens of customs equipment units to optimise agricultural processes. His journey with Green Tail began in Ukraine out of a personal need to create high-quality organic fertilisers that met his stringent standards for use in intensive, automated agriculture - a need unmet by existing market solutions. Leveraging his expertise, Andrii designed a lab-scale supercritical CO_2 extraction system to

[1] Cannabidiol
[2] Green House Gas
[3] Statista
[4] Metric tons of carbon dioxide equivalent
[5] gov.uk
[6] ResearchGate
[7] Statista and Polaris Research

transform manure into water-soluble organic fertilisers optimised for precision farming, particularly drip irrigation.

Andrii's entrepreneurial spirit is rooted in resilience. After losing his businesses during the 2014 war with Russia, he founded a 6-hectare honeysuckle garden dedicated to organic farming. This venture spurred the development of Green Tail's innovative fertilisers, demonstrating his ability to turn adversity into opportunity. With more than 15 years in agriculture and a strong network of farmers and agronomists across Europe and Ukraine, Andrii combines technical knowledge with practical, field-based insights to ensure the viability and effectiveness of his solutions. To date, Andrii has invested ~$100-150,000 of his resources into developing Green Tail's technology and products, utilising his prior business infrastructure and expertise.

Oksana Prokopiv is the company's research and development director, with 14 years of business experience in relevant fields. Oksana is also an owner and former head pharmacist of a regional pharmacy in Ukraine. She also taught Pharmacology for 15 years at the Ivan Franko Medical College in Ukraine.

Like Andrii, Oksana was forced to relocate to the UK, where she has reconfirmed her pharmacy diplomas and started to work in the relevant field. With the development of NHG Oksana may be able to be fully employed by the company. Oksana holds a Specialist Degree in Pharmacy (equivalent to a bachelor's and master's degree, verified 2021) and a Junior Specialist degree in Pharmacy (verified 2021).

Mariia Zaika-Chelenk is our managing director. She is an experienced project manager and manager with 17 years of experience. She holds a master's degree in international relations. Mariia is multilingual and is most experienced in project budgeting, cost estimations and financial control, and project and human resources management.

Anastasiia Liakhovets is our marketing manager. Dynamic and results-driven professional with a strong educational background in enterprise management, Anastasiia is fully suitable for the position of marketing and sales director. Anastasiia has a proven track record in this role and a history of successful entrepreneurship in services, for more than 7 years. She possesses expertise in marketing strategy, advertising management, and enterprise operations. A forward-thinking individual with a keen understanding of the industry, Anastasiia is dedicated to achieving business growth and sales objectives in any business she gets involved with.

Denis Deripasko is an advisor and non-executive director in our project. Denis is a senior banker and executive director with broad multi-product experience and a successful history of corporate banking covering the CEEME[8] region including strategy, planning, relationship and portfolio management. As an executive director at Sumitomo-Mitsui Bank Corporation Bank International, he managed 300+ clients with an AUM of $45 billion.

Sergiy Bulavin, is an advisor and non-executive director in our project. Sergiy is an experienced manager, with an MBA and a PhD in Commerce and Administration. He brings a wealth of experience in various sectors and roles including private equity, agriculture, travel, public sector, cosmetics, commerce and logistics. He has served as a member of the board or chair of the board for at least 7 international organisations.

[8] Central and Eastern Europe, Middle East and Africa

Planned Products

Medium to Long-term

As outputs of our manure conversion operations:

1. We will produce **potable water** by extracting and sterilising the moisture from livestock manure.
2. We will produce compounds for **organic fertilisers**, which are far superior and more sustainable than chemical fertilisers.
3. We will eliminate the methane emissions released from the manure during storage and fermentation to **produce biogas** and generate electricity for our plant, with the remaining electricity fed back into the grid.
4. We will produce **crystalline carbon** in the form of graphite. Graphite is used in many industries including battery production, electronics, steel production, and energy generation including nuclear and solar.

We believe our most evident competitive advantage will come from our organic fertiliser operation. At Green Tail, we are proud to offer an innovative organic fertiliser that represents a significant step forward in sustainable agriculture. Unlike traditional organic fertilisers, our product is available in water-soluble, granular, and liquid forms, enabling precise application methods such as fertigation and drip irrigation. This ensures efficient nutrient delivery, optimal absorption by plants, and reduced waste, ultimately boosting crop yields while safeguarding the environment.

What sets our fertiliser apart is its customisable formulations, which we tailor to meet the specific needs of different crops, soil conditions, and growth stages. By addressing these unique agricultural challenges, we help promote healthy plant development, maximise productivity, and increase profitability for farmers. Additionally, our production process achieves zero emissions, eliminating the greenhouse gases typically associated with manure decomposition and conventional fertiliser manufacturing[9]. This makes our fertiliser a cornerstone in the journey toward a decarbonised food value chain, perfectly aligned with global sustainability goals.

Our fertiliser also enhances crop quality by delivering essential macronutrients like nitrogen, phosphorus, and potassium, alongside micronutrients such as calcium, magnesium, zinc, and others. These nutrients improve the nutritional content of food while enhancing the appearance, shelf life, and resilience of crops against stress, pests, and diseases. By preventing nutrient runoff and nurturing long-term soil fertility, we support biodiversity and sustainable farming practices, ensuring the health of agricultural ecosystems.

We believe our organic fertiliser will stand out in the global market by offering a unique combination of precision, environmental sustainability, and adaptability. Its versatility will bridge the gap between traditional organic and synthetic fertilisers, making it a transformative solution for modern farming.

Near-term

To support our long-term plans, we will configure the PoC Plant to be able to manufacture CBD-derived products. Commercial plans include:

- Production of CBD oil and then, finished products in the form of drops, sprays and capsules. The oils will be made from blends where hemp, amaranth, pumpkin and thistle seed oils are used as a base. Production will be under our company brand.

[9] Further testing in the PoC Plant will confirm our method

- Purchase recipes for CBD-infused cosmetics made from natural organic ingredients and manufacture finished products in-house. Sales will be under our company brand.
- Additional products, such as CBD-infused treats and vitamins for humans and pets, will be outsourced to other leading organic producers. Sales will be under our company brand.

The result is a complete commercial offering of CBD products to help fund the project for the next 5-6 years, until we secure deals for products manufactured from the conversion of manure, in our commercial plant.

We believe our most obvious competitive advantage will come from the unique blend of rare medicinal plant seed oils used in the production of CBD oils. Our oils have a unique opportunity to redefine the market by utilising a blend of carefully selected amaranth, pumpkin, hemp and milk thistle seed oils to enhance therapeutic properties, nutritional value and overall efficacy. Unlike conventional CBD products, our approach combines the best of natural botanical diversity to create formulations that deliver enhanced efficacy and a broader range of benefits, setting a new standard in the industry.

By incorporating oils such as milk thistle, amaranth, and pumpkin seed, our blends amplify the natural properties of CBD. Milk thistle oil provides a powerful antioxidant and hepatoprotective boost, enhancing liver health, supporting detoxification, and offering anti-inflammatory benefits. Amaranth oil contributes high levels of squalene, an extraordinary compound that oxygenates tissues, enhances immunity, and offers anti-ageing and skin-rejuvenating properties. Pumpkin seed oil complements this by adding essential fatty acids, vitamins, and minerals known for their anti-inflammatory, cardiovascular, and hormonal benefits, making our CBD oils a holistic solution for health and wellness.

Our oils also stand out for their tailored functionality, addressing specific needs such as stress relief, pain management, skin health, and metabolic support. By harmonising the unique properties of each seed oil with the therapeutic effects of CBD, we deliver a product line that provides symptomatic relief and promotes overall well-being, making it a go-to choice for consumers seeking natural, multi-faceted health solutions. By combining high-quality seed oils with premium CBD, we create a product that is both superior in efficacy and aligned with the growing consumer demand for natural, multifunctional wellness products. This positions our CBD oils as a standout offering, paving the way for market leadership and a loyal customer base.

Technologies and Methods Used

At present, we believe the technologies and methods used to process manure are at TRL[10] 3 and 4. This means we have completed an experimental proof of concepts for some processes while for others, we have validated the technology in a laboratory. The next steps are:

- Validate the technology in a local environment (TRL 4), at farms/pyrolysis, as part of the PoC plant. This part is about manure processing, extraction and fractionation testing, and tests with dry residue to produce biogas and crystalline carbon.
- Validate the technology in a relevant environment (TRL 5), this is largely represented by the pilot with selected European farms to test our organic fertilisers.
- Demonstrate technology in a relevant environment (TRL 6) showing we can produce adequate potable water, organic fertiliser components, biogas and crystalline carbon in the form of graphite.

[10] Technology readiness levels

- The last three stages of TRL, 7 through 9, will be achieved once we build the commercial plant. Then, we will be able to demonstrate the system in an operational environment, qualify and complete it, and demonstrate its viability in an operational environment.

The schematic below shows the manure processing methods, with all the different components, equipment and processes described using a numbering system.

1 - primary liquid manure; 2 - tank for accumulation of primary liquid manure 1; 3 - device for mixing primary liquid manure 1; 4 - pump in accumulation tank 2; 5 - separation device (separator); 6 - primary liquid fraction; 7 - primary solid fraction; 8 - screw press; 9 - screw extruder; 10 - primary filtration section of the primary liquid fraction 6; 11 - devices for primary filtration (e.g. one or more disk filters with automatic washing); 12 - area of sterilization and cooling of primary liquid fraction 6; 13.1 - a device for sterilizing the liquid fraction 6 (e.g. one or more plate heat exchangers); 13.2 - a device for cooling the primary liquid fraction 6 (e.g., one or more plate heat exchangers); 14 - ultrafiltration section of the primary liquid fraction 6; 15 - ultrafiltration device (e.g., a device with silicone carbide membranes); 16 - reverse osmosis unit; 17 - drinking water; 18 - salt concentrate obtained as a result of processing of primary liquid fraction 6; 19 - water mains and/or drinking water storage tanks 17; 20 - ethanol container; 21 - a device for supercritical fluid extraction; 22 is a complex mixture of ethanol, water, salts, and components extracted from organic component extract 31 (from primary solid fraction 7) and salt concentrate 18 (from primary liquid fraction 6); 23 - high performance liquid chromatography device; 24 - A vacuum evaporation device, such as a vacuum evaporator with a falling film; 25 - dry organic residue remaining after supercritical fluid extraction of the crushed primary solid fraction 7; 26 - a device for generating electricity from a pyrolysis gas mixture 28; 27 - pyrolysis unit; 28 - pyrolysis gas mixture; 29 is pure crystalline carbon; 30 - solid mechanical impurities filtered from the primary liquid fraction 6; 31 is an extract of organic components, extracted from the crushed primary solid fraction 7 by supercritical fluid extraction; 32 - grinding area; 33 - pulverizing devices; 34 - mixing vessel; 35 - a section for separating the complex mixture 22 into individual substances; 36 - Solutions of various substances (e.g., salts) in ethanol and water; 37 - containers for solutions of various substances 36; 38 - ethanol; 39 - Reconstituted ethanol; 40 - highly concentrated solutions with high concentrations of macronutrients or trace elements; 41 - separate containers for highly concentrated solutions 40; 42 - gas transportation system; 43 - water transported to the reverse osmosis unit 16 from the vacuum evaporation device 24; 44 - electricity.

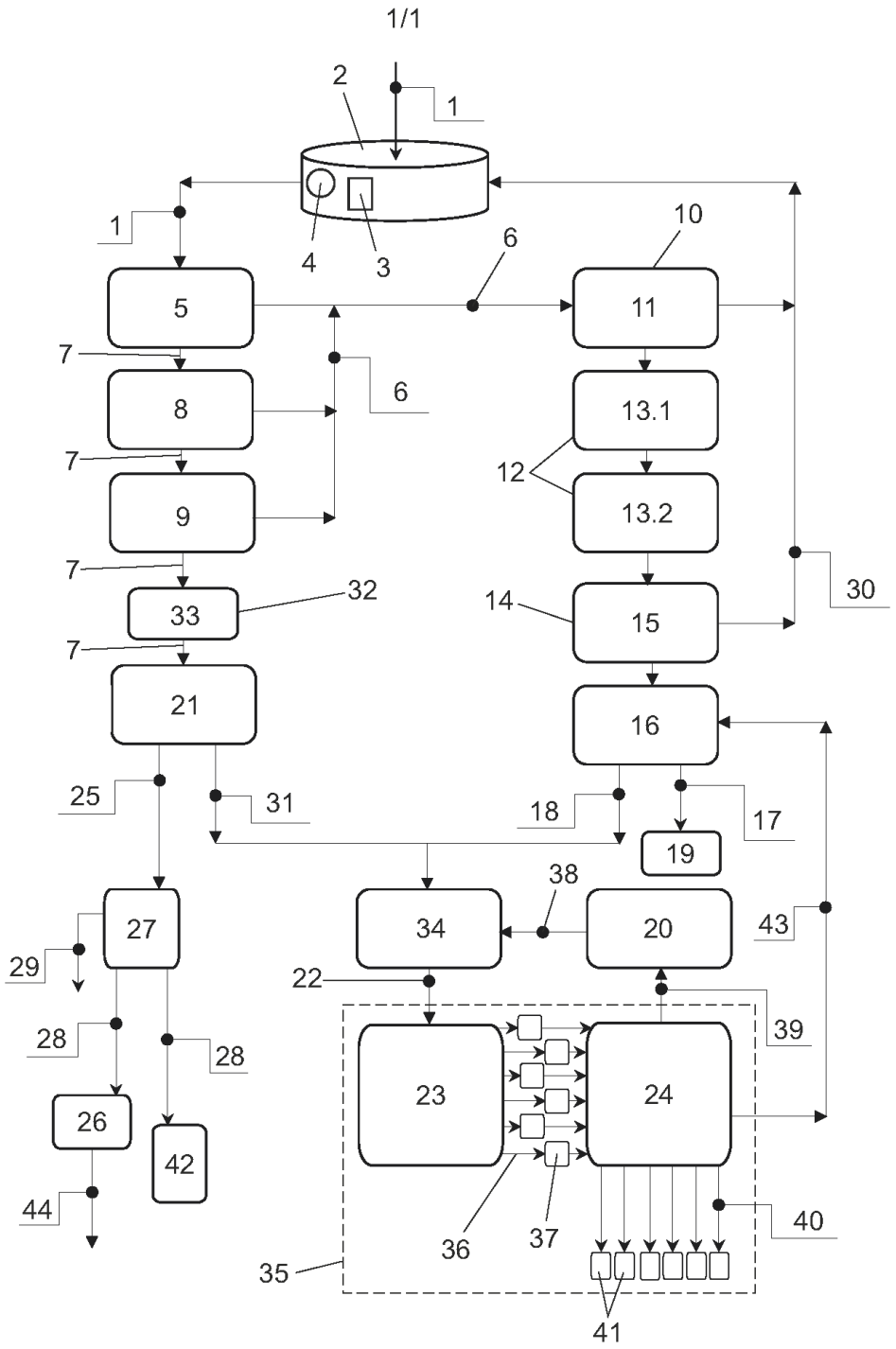


Fig. 1

The big steps in our patented innovative method of manure processing are:

1. The manure is first processed to remove moisture.
2. The outputs are two parts: one **liquid** and one **solid**.
3. The liquid part takes the route to potable water. The process includes filtering, sterilisation, purification and reverse osmosis.
4. The solid part takes the route to organic fertiliser components, biogas and crystalline carbon. The process of obtaining organic fertiliser components includes crushing, supercritical CO_2 extraction, mixing, fractionation and then evaporation. A residual substance is also produced from this process. This residue is used to obtain biogas and crystalline carbon through pyrolysis.

Project Roadmap

Our roadmap extends until 2030 and is focused on three main areas:

- Building a small plant with equipment to run tests on manure conversion.
- Set up a manufacturing operation for CBD products: oils, and cosmetics, to fund the project.
- Build a CBD brand and resell treats and vitamins, to fund the project.
- To build a large manure conversion plant and sell our products in 2030.

	2025				2026				2027				2028				2029				30
Business	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**
Manure conversion		Set up a small plant with equipment and run experiments with manure conversion.							Pilot test with organic fertilisers, with local farmers (at least 3 crop rotations).												
								Design of the commercial plant incl. equipment. Pick the site and obtain permits.					Build commercial plant (Objective: capacity of manure Processing 2,000t/day).								1
CBD oils	Testing and partnership outreach, incl. marketplaces.			Build brand, 2					Add additional equipment to increase production capacity (Objective: by a factor of 5).												
CBD cosmetics			Buy recipes and test cosmetics.		Certificates for target markets, 2				Add additional equipment to increase production capacity (Objective: by a factor of 3-5).												
CBD treats					Certificates for target markets, 3								Accelerated sales growth.								

CBD vitamins					Certificates for target markets, 3							Accelerated sales growth							
Operations		Hire key people for the plant.		Hire key people for sales activities.					Hire key people for fertiliser pilot.			Hire people for plant expansion.						Hire people for plant expansion.	
Financials	Raise the first round.											Raise the second round.							

1. We start sales of products from the commercial plant.
2. We start sales of manufactured products in target markets.
3. We start sales of wholesale purchased products in target markets.

Building a CBD Brand and Marketing Initiatives

As part of our short to medium-term business strategy, we want to launch and build a brand of CBD-infused end-consumer products: oils, cosmetics, treats and vitamins. This side of the business will help fund the long-term goals of opening a large manure processing plant in the UK.

We will sell CBD products in selected markets, mostly in Western markets. To read more, check out our target markets and demand section.

The pillars of our sales and marketing plan are:

1. Building a consumer brand.
2. Leveraging and scaling specific sales channels.
3. Specific marketing initiatives covering social media presence, online presence in general, building a professional website and web shop, and advertising – digital and offline.
4. Building a network of commercial partners and potential clients.

Building a consumer brand

The core product is our CBD oils. We plan on launching distinct oil brands targeting consumer preferences; extracts in multiples of 500mg and 600mg.

Key initiatives to build a consumer brand include:

- **Leverage people with large online/offline communities of followers in target markets**, people who can influence consumer behaviour. We call them ambassadors and the form of partnership will be commission-based (in most instances) and fee-based (in rare cases).
- **Offer a diverse product range of 60+ CBD end-consumer products**. Our focus will be on people with medium to high disposable incomes. These people are health-conscious and take active steps towards alternative wellness products and a healthy lifestyle.
- **Our brand will have a clear set of values** that resonate with health-conscious people in key markets. The brand's visual identity will also be important in building a successful CBD consumer brand. As such, we plan on investing adequately to create a bespoke visual brand that is memorable in the market.

Scaling sales channels

We will adopt a phased market entry approach with the first shipments in key markets such as the UK, Germany and France. After an initial evaluation of sales over 3 months, we will begin sales in other markets. Our sales objectives for each year are assumed in the financial plan.

In case of underperformance, we will likely localise production (mixing and bottling) in key markets like Germany, France, Japan and the US.

Our primary sales channels will be 1) our web store and 2) online marketplaces. The latter offers cost-effective and rapid entry into multiple markets. In time we also want to add other channels including brick-and-mortar networks like Alnatura (Germany), Naturalia (France), Choices Market (Canada), Natural Grocers (US), Flannerys (Australia) and Whole Foods Markets shops (multiple countries).

We will invest heavily in our web store while keeping a flexible approach to online marketplaces.

Marketing initiatives

Key marketing initiatives that will help 1) build a consumer brand and 2) drive sales through our channels are:

- **Leverage WhatsApp as the go-to D2C marketing channel**. This is the new email marketing. You can reach consumers quickly and directly, through the WhatsApp app, including through push notifications.
- **Participate in important CBD consumer product events**. Examples include the WhiteLabel World Expo, Alternative Products Expo, and CannaCon.
- **Be an important online voice focused on educational marketing for CBD**. In practice, this could take many forms, but we will start with short-form educational videos explaining the science of CBD, its benefits, and its differences from THC. The content will be posted on multiple social media platforms, focusing on YouTube as our main social media home.
- **Specific and targeted advertising** - both online and offline, focusing on the former, is also a big part of our marketing funnel.

A significant budget has been allocated annually to spend on our marketing plan. Quarterly revisions of the market plan against a clear KPI system will occur.

Network of partners

We understand the importance of building a robust network of partners from different markets and places in the value chain. This is why we plan on investing time and money in building this network, starting as early as Q1 2025.

Partners we are looking for range from suppliers of raw materials (CBD and others), other manufacturers of CBD extracts and products, retailers (online/offline), and key opinion leaders, to organisers of events, influencers and community leaders, politicians, lawmakers, and marketing agencies.

The idea of hosting events where we invite partners to exchange knowledge and ideas on anything CBD is also something we have in plan.

Planned Operations

The PoC Plant

We will start testing manure conversion into valuable products in the proof-of-concept plant. The pilot plant will be designed for a capacity of 1 ton per day. The beauty of it is parts of the equipment required for manure processing can be used for the production of CBD extracts, namely 1) supercritical CO_2 extraction, and 2) separation into fractions. During these steps, we can obtain the CBD extract while isolating the THC[11].

The plant will be modular, meaning only the equipment needed to produce CBD extracts will be permanently installed on the site. The rest of the equipment will be mounted on semi-trailers so parts of the process – moisture removal, sludge removal, and obtaining concentrates post-osmosis will be carried out at piloted farms. The outputs obtained from piloted farms, namely 1) dry residue and 2) salt concentrate will be brought back to the plant to continue the conversion process in crystalline carbon and organic fertiliser components.

An important part of the proof-of-concept plant is the actual tests. The main activities here are:

1. Testing multiple **types of manure**, at least 5 (for example, cow, pig, birds, sheep) – which will take 6-9 months. These tests will be carried out at different pressures and temperatures.

2. Testing **manure processing** into potable water (extracted during moisture removal) and organic fertiliser components (salts).

3. **Extraction and fractionation testing** of the outputs from 2. to produce organic fertilisers for testing at 4., and the residue substance to be pyrolysed at 5.

4. Extensive testing with **pilot farms** in the UK and Europe on the topic of **organic fertilisers**. Several farms in different micro-climates and crops will be selected and reached out to. Farmers who use drip irrigation and the ones to grow their crops in greenhouses are our best match.

5. Experiments with **biogas and graphite production** at pyrolysis plants – these tests on dry residue will be carried out with the equipment manufacturers, at their locations. Quantitative and quantitative analysis of the components/mixture of gases obtained during pyrolysis is required to determine the purity of crystalline carbon and the caloric value of the biogas.

6. The results of 1. – 5. will provide the necessary **information required** to build our commercial plant, including qualitative and quantitative indicators of final products, final investment amounts, profitability and cash flow predictions, and even utilisation of resources and the factory itself.

Another important part of the proof-of-concept plant is equipment selection. We estimate this part will take 3-6 months and will be carried out in preparation for manure and manure processing testing, as well

[11] Tetrahydrocannabinol

as CBD extraction and product testing. No further research is required to be able to manufacture the planned CBD products. We have the knowledge and recipes required for production.

To materialise the PoC plant, the below table shows how will operations take place. All these tests are planned on the calendar and can be viewed in our project roadmap section.

Manure testing **Mobile unit**	Manure processing **Mobile unit**	Extraction/ fractionation testing **Rented space**
Pilot farm testing **At partner farms**	Biogas and graphite **At manufacturers**[12]	CBD extracts testing **Rented space**

Considering Andrii Halushko's extensive experience in this space, the PoC plant components will be put together by him and two assisting engineers. The planned budget for the plant can be observed in the project budget section.

CBD Manufacturing and Sales

In the proof-of-concept plant, the equipment required for extraction and fractionation of the outputs from the manure processing mobile units will be used to produce CBD extracts. In addition to this equipment, specific equipment required to produce end-consumer CBD products will be purchased and assembled in the rented space mentioned in the previous section.

The equipment is needed to:

1. Turn CBD extracts into finished products: droplets, sprays and capsules.
2. Turn CBD cosmetic recipes into finished products: creams.

Cosmetic recipes will be purchased from a third-party supplier. Other CBD products - treats and vitamins, will be commercialised under our brand name, but manufacturing will be outsourced to a third-party supplier. We have already established contact with potential suppliers of CBD cosmetics formulas and manufacturers of CBD-infused treats and vitamins.

CBD sales will fund our medium to long-term objectives, thus making it the core business model for the 2025-2029 horizon and the secondary business model starting with 2030 onwards. Through a comprehensive and well-thought marketing plan, our goal is to build a strong consumer brand while commercialising our products through multiple sales channels:

1. Our web shop.
2. Online marketplaces.
3. Brick and mortar shops.

The expected revenues from CBD products are shown in the projected financial performance section.

[12] pyrolysis equipment

The Commercial Plant

The road to building a commercial plant starts with the proof-of-concept plant. This is a prerequisite to accurately determine 1) the expected key performance indicators of the commercial plant and 2) the design and final investment costs of the commercial plant.

The main steps we need to cover before we can start building the commercial plant are:

1. Run tests and experiments on manure processing to determine the quantitative and qualitative properties of planned products.
2. Run the pilot with selected farms to test the effectiveness and viability of the organic fertilisers we can produce from manure processing.
3. Confirm CBD extraction and manufacturing of end-consumer products are efficient enough.

The commercial plant will be built closer to raw materials - livestock manure, somewhere in the rural UK. Several locations will be researched in due time. Once we have the definitive results from steps 1-3. from above, we can produce a design brief for a construction company.

By producing biogas from manure processing, we will be able to power at least part of the commercial plant, which will allow us to decrease our operational costs.

We have planned an approximate budget for the construction of the commercial plant – intending to process 2,000 tonnes of manure per day. This budget will be more accurate once we complete our PoC plant activities and milestones. The goal is to start commercialising products from processed manure in Q1 or 2030. Until then, we have planned to expand our CBD manufacturing capacity twice.

From a human capital perspective, besides the current team, we will need to expand our team. Below is the planned hiring plan, covering the project until the commercial plant is up and running:

1. 1 FTE organic chemist.
2. 1 FTE cosmetic pharmacist.
3. 2-4 FTE sales managers/business developers.
4. 2-4 FTE engineers.
5. FTEs[13] equipment operators.
6. FTEs[14] laboratory/manufacturing technicians.
7. 1 FTE operations manager.
8. Additional support staff for functions like marketing, accounting and taxes, and legal counselling.

The exact number of FTEs will be revised once we have the results of the PoC plant phase. **The exact budget required to build and commission the manure processing plant will be calculated in the 2nd round of fundraising.**

Supplier Network

The supplier network is a big component of our plan because of its importance to our business model. The founder's experience in agriculture plays a key role in deciding what suppliers to buy the necessary equipment from; **first**, the equipment required for the PoC plant and CBD oil extraction and product manufacturing, and **second**, the equipment needed to process manure into our planned products.

[13] Number increases non-linearly as production ramps up
[14] Number increases non-linearly as production ramps up

The list below (not exhaustive) shows the research and/or contact we've made with several suppliers of equipment:

- Bauer, for moisture removal equipment.
- Farmet, also for moisture removal equipment.
- Alfa Laval, for sterilisation equipment.
- Azud, for filtration and sludge removal equipment.
- Liqtech, also for fine filtration equipment/components.
- Custom equipment for reverse osmosis.
- Mingyi Technology Co Limited, for crushing, supercritical CO2 extraction, mixing, fractionation, and evaporation of the solid part.
- Careddi, also for crushing, supercritical CO2 extraction, mixing, fractionation, and evaporation of the solid part.
- Custom equipment for pyrolysis, supplier to be determined.

Market Summary

Market Numbers

CBD

The global CBD market was valued at $6.9 billion in 2024. The forecasted CAGR for 2024-2030 is above 15% and the forecasted global market value of CBD products in 2030 is $15.9 billion[15].

CBD products represent our revenue avenue for 2025 to 2030 until we start producing and selling products from our manure conversion plant. The estimated value of our core markets can be observed in the table below:

Country/Region	2024	2025	2026	2029
UK alone	$323,200,000	$371,680,000	$427,432,000	$650,070,643
Europe (excl. UK)	$2,280,000,000	$2,622,000,000	$3,015,300,000	$4,585,894,388
US	$2,580,000,000	$2,967,000,000	$3,412,050,000	$5,189,301,544
Canada	$192,600,000	$221,490,000	$254,713,500	$387,387,394
Japan	$370,000,000	$425,500,000	$489,325,000	$744,202,159
Australia & NZ	$176,880,000	$203,412,000	$233,923,800	$355,768,859
Total	$5,922,680,000	$6,811,082,000	$7,832,744,300	$11,912,624,987
Our market share		**<0.1%**	**0.3%**	**1%**

The market value of CBD products in our target markets in 2029 is forecasted to be $11.9 billion, up from $5.9 billion in 2024. Our goal is to capture a tiny market share of it and to advance our long-term objectives of operating a large manure conversion plant.

Manure Conversion

The following global numbers that speak volumes about the demand for our products, stand out:

For **drinking water**:

- The global urban population facing water scarcity is projected to increase from 933 million in 2016 to 2 billion in 2050[16].
- By 2025, 1.8 billion people will face what the Food and Agriculture Organization calls “absolute water scarcity”[17].

For **organic fertilisers**:

- The global market value of organic fertilisers stood at $8.3 billion in 2020, roughly $3 billion more than in 2015. The forecasted value of organic fertilisers worldwide will reach some $15.8 billion by 2026[18].
- The overall fertiliser market value, including chemicals, was estimated at $193 billion in 2021 and is expected to grow to $241 billion by 2030[19].

[15] Statista and Polaris Research
[16] Nature
[17] UN Environment Programme
[18] Statista
[19] Statista

- The trend is that organic fertiliser will grow faster than chemical fertiliser as the agriculture sector aims to become more sustainable and environmentally friendly.

For **biogas**[20]:

- The global demand for biogas is forecasted to grow from 55 Mtoe[21] in 2020, to 192 Mtoe in 2030 and 325 Mtoe in 2040, signalling a long-term growth trend[22].
- Assuming a reduced gas demand, biogases will be able to cover up to 61% of gas demand in Europe, by 2050[23].

For **crystalline carbon**, in the form of graphite, the market potential is enormous:

- The 2022 supply of graphite was an estimated 1,110,000 tonnes. The 2035 forecasted demand for graphite is 7,210,000 tonnes[24].
- The world graphite market is expected to grow to $21.6 billion by 2027[25].

Target Markets and Demand

Our core markets for products made from manure conversion are the:

- Potable water – the UK.
- Electricity – the UK.
- Organic fertilisers – global, focused on the most convenient and lucrative markets.
- Graphite – global, focused on the most convenient and lucrative markets.

Our core markets for CBD products are mostly Western countries: the UK, EU, US, Canada, Japan, Australia and New Zealand.

We believe the demand for products made by our manure conversion plant will be insatiable in the UK, among other markets. The table below shows key data supporting our hypothesis:

Product	Key data points for the UK	Demand for the UK
Drinking water[26]	5 billion litres of water per day	A gap of 5 billion litres of water per day between sustainable water supplies available and expected demand, by 2050
Fertilisers[27]	1,451 tonnes of chemical fertilisers	The UK consumed 1,451 tonnes of chemical fertilisers in 2021
	152% price increase	The price of British nitrogen-based fertilisers (ammonium nitrate)[28] increased by 152% between May 2021 and 2022
	97% of land uses	

[20] experiments will determine what kind of biogas will be produced in our manure processing plant.
[21] million tonnes of oil equivalent.
[22] IEA, in the Sustainable Development Scenario
[23] EBA
[24] International Graphite
[25] World Bank
[26] gov.uk
[27] UK Parliament Post
[28] Chemical

		As of 2021, conventional practices that tend to use artificial fertilisers accounted for 97% of UK agricultural land uses
Methane (biogas)[29]	32%	32% of the UK's electricity generation mix is attributed to natural gas Biogas is not a pure green source of energy but will contribute significantly to our transition to a carbon-neutral energy mix.
Crystalline carbon (graphite)[30] [31]	700,000 tonnes 1,400% increase	Demand for graphite in battery manufacturing will reach 700,000 tones in 2025, up from 133,000 in 2018 Battery sector demand for raw material graphite to rise by more than 1,400% between 2020 and 2050

We will produce organic fertilisers. Read more about it in the planned products section.

Partnership Network

For the project to thrive, we recognise the importance of building a network of partners, to facilitate our actions in both sectors: CBD products and manure processing. The two networks can be observed in the table below, with descriptions of each type of partner:

CBD		**Manure processing**	
Type	***Role***	***Type***	***Role***
Suppliers of equipment	Supplying us with the equipment necessary to extract and produce CBD products	Farms where livestock manure is produced	Providing us with the necessary conditions to test different types of manure
Suppliers of raw materials/formulas	Supplying us with the necessary seeds, plants and formulas to extract CBD		Providing us with the necessary conditions to test the initial processing of manure
Marketplaces	Providing us with D2C[32] platforms in multiple markets		Providing us with the necessary conditions to pilot our organic fertilisers

[29] NESO
[30] Statista
[31] International Graphite
[32] Direct-to-consumer

Testing laboratories	Providing sample testing of our products[33]	Suppliers of equipment	Supplying us with the equipment necessary to process manure per our methods
Marketing agency/ies	Providing services including social media management, search engine optimisation, advertising management and public relations		Providing us with the conditions to test pyrolysis of manure solid fraction – for gas and crystalline carbon production
Other service providers	Legal counsel, accounting, auditing, compliance, other materials	Local construction company	We will need them to build our commercial plant
		Other service providers	Legal counsel, accounting, auditing, compliance, other materials

[33] Can be a requirement in some markets

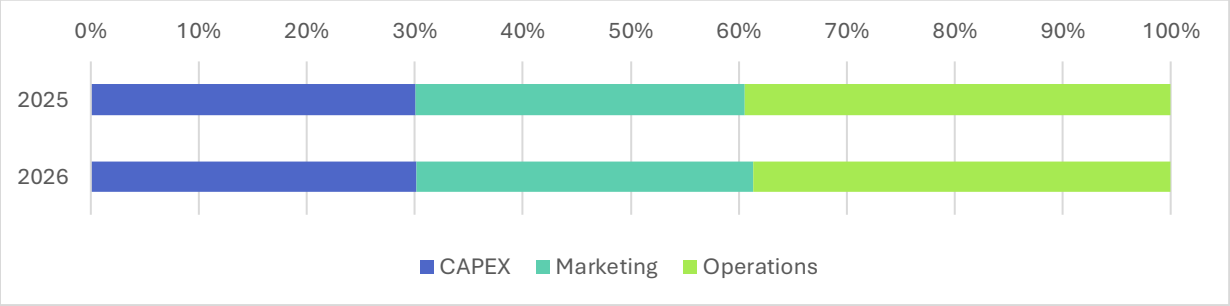
Financial Overview

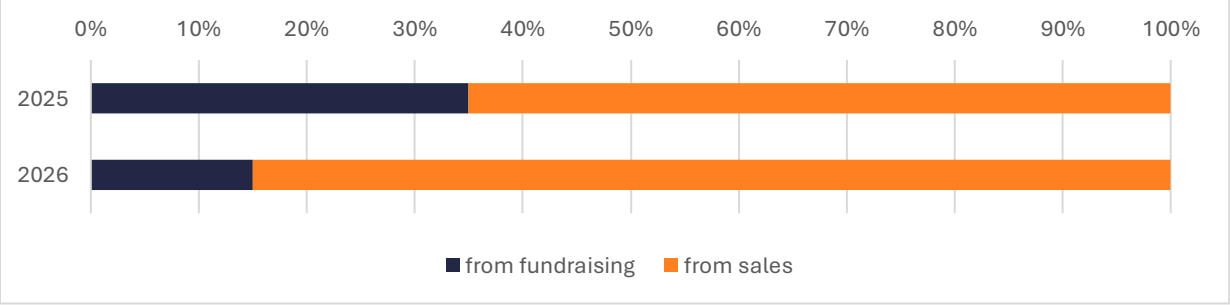
Project Budget

The current budget is focused on Phase 1 of the project, which is planned for a 24-month runway, starting with Q1 2025. The table below illustrates expected investments and running costs for this runway, with a clear objective of becoming self-sustaining by the end of 2027.

Component	2025	2026
Purchasing equipment	£1.38 million	£0
Developing new products	£0.10 million	£2.90 million
Marketing	£1.50 million	£3.00 million
Wages	£1.00 million	£1.73 million
Other	£0.93 million	£1.98 million
Total	**£4.92 million**	**£9.61 million**

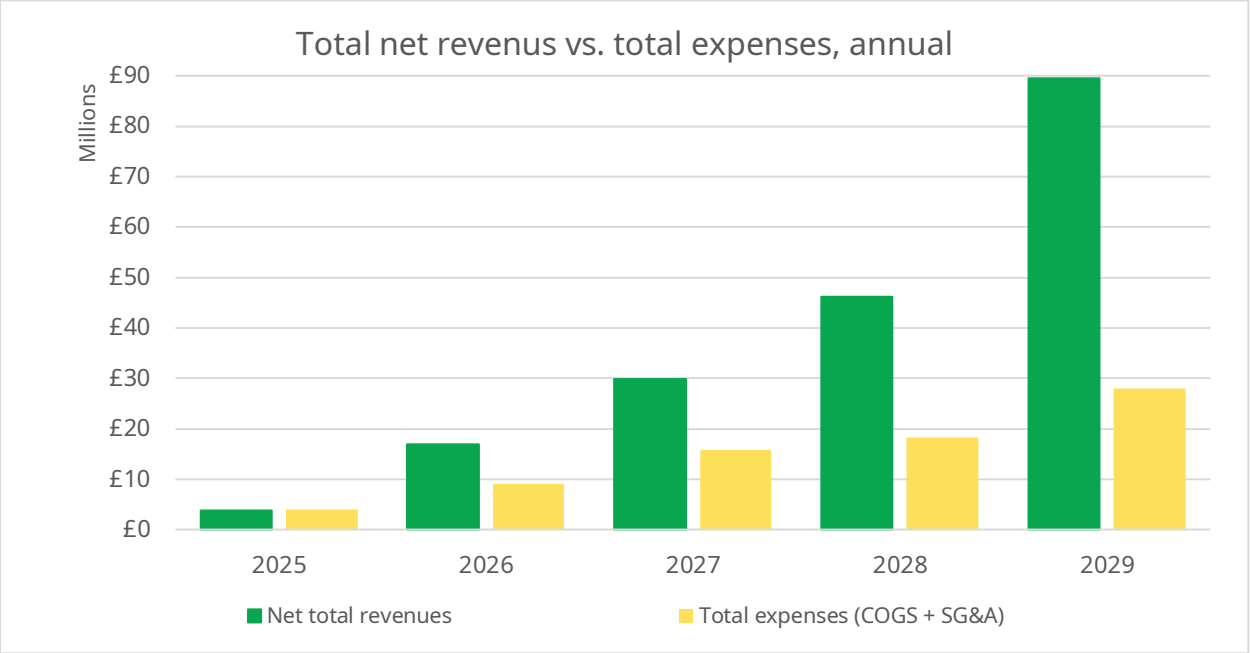
The total budget is estimated at £14.5 million but we forecast at least 85% of it will be covered by sales from our CBD products brand. The remaining £2.1 million~ will need to be raised. The breakdown of spending by category can be observed in the table below, including the estimated share to be covered by this 1st fundraising round.



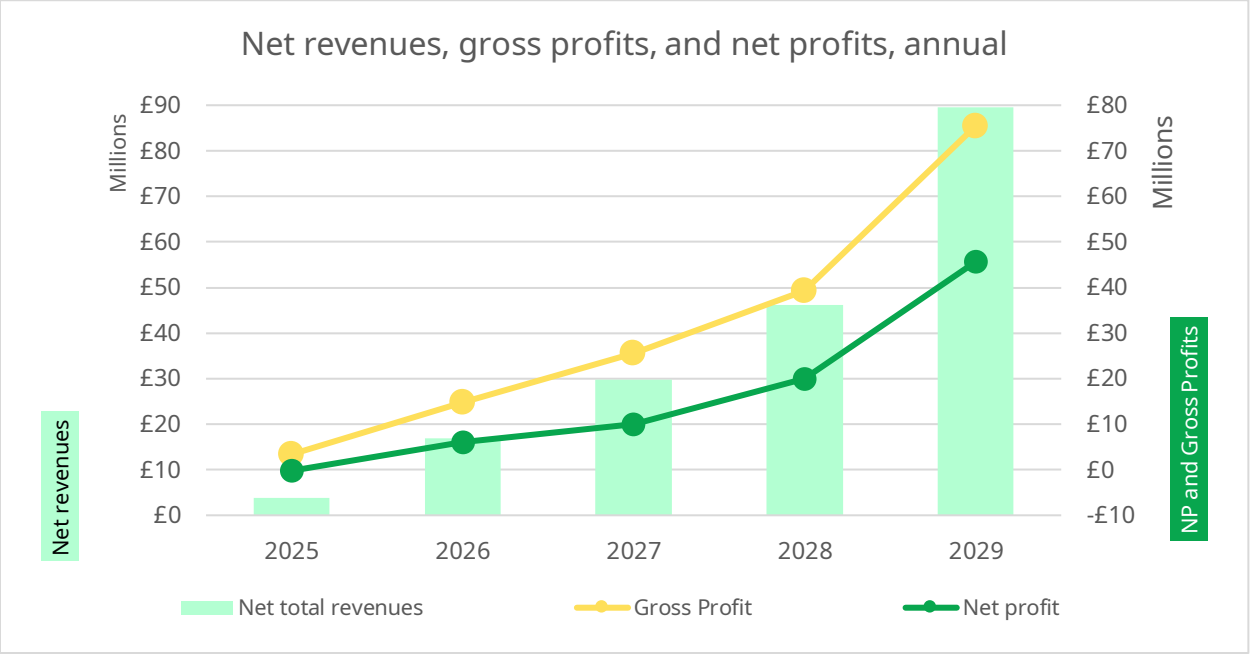


Projected Financial Performance

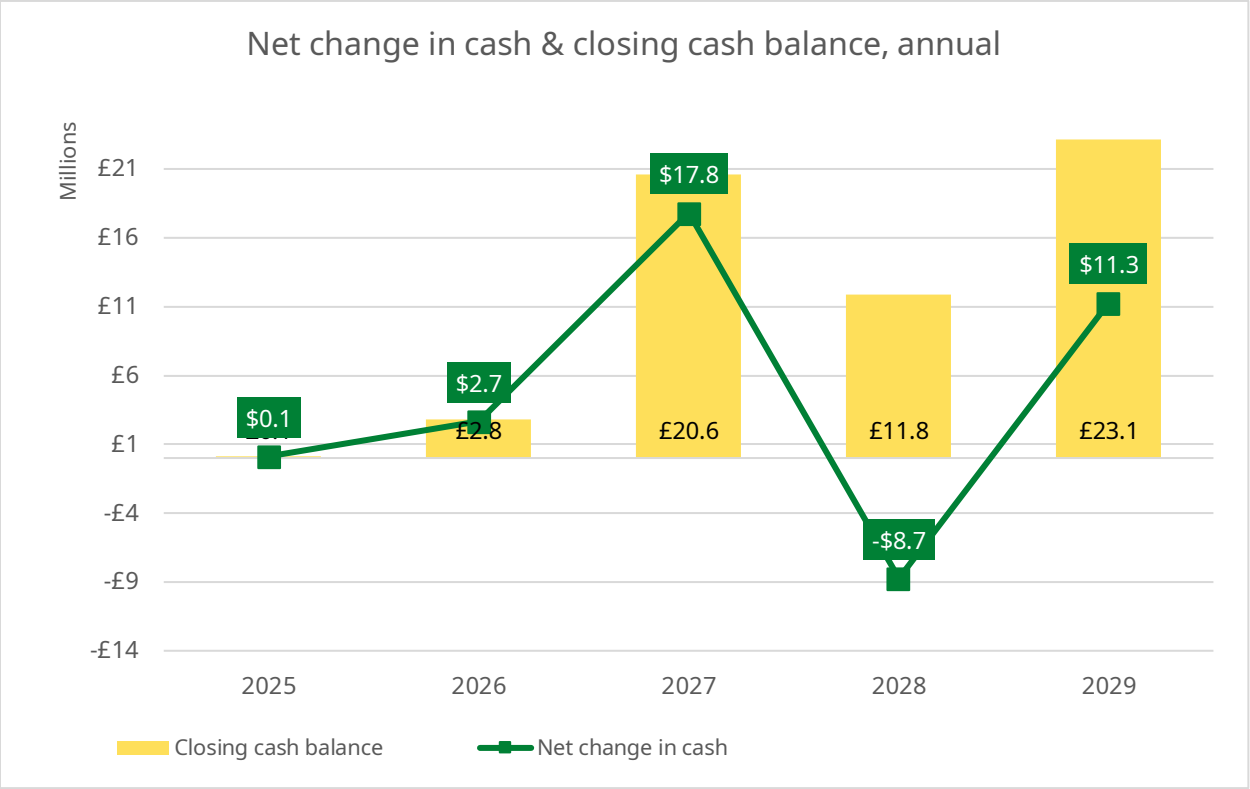
We expect fast-paced sales growth starting in 2026. Sales are forecasted to jump from £4.2 million in 2025 to £18.5 million in 2026. The forecast sales for FY 2029 are £93.8 million – roughly a 1% market share of the expected market value in our target markets. The net revenues vs total expenses forecast can be observed in the chart below:



We forecast 2026 to be the first profitable year with £6.1 million in net profits. For 2026-29, the average net profit margin will hover around 41% annually. The expected retained earnings for 2025-29 are £81.5 million, money that can be used to reinvest or pay dividends to shareholders. The forecasted annual gross and net profits can be observed in the chart below:



From a cash perspective, assuming a capital injection of £2.1 million in 2025 and another £20 million in 2027, the forecasted closing cash balance on 12/31/2029 is £23.1 million. The exact amount to be raised in 2027 will be determined later when we will calculate the total budget required to construct and commission the manure-processing commercial plant. The cash flow forecast for 2025 – 2029 can be observed in the chart below:



Investor Proposal

In this first round, we are looking to raise £2.1 million for a runway of 24 months, to achieve the milestones outlined in the roadmap. The investor will receive an equity stake in the UK company controlling the project. The stake will be negotiated.

An additional round will likely happen in 2027. This time, we will raise around £20 million to build and commission the manure processing commercial plant – which is planned to open in Q1 2030. **The total construction budget for the commercial plant will be calculated for the 2nd round of fundraising**.

This is an excellent opportunity for early investors and Series A investors alike. The return on investment is significant. Assuming early investors inject £2.1 million today, for 10% of the company, and we project an EV/EBITDA valuation of 12x, the company's value will be about £738 million at the end of 2029. The early investor's share would be worth £73.8 million[34]. Even if the shares dilute to 5%, the investor's share is still £36.9 million, which is a 16.5x return before any taxes.

[34] Assuming no dilution from the 2nd round.

Appendix

Risk Assessment

As with any other business project, Green Tail is also subject to risks, some of which are independent of our decisions. We mapped out the 10 most relevant risks using a likelihood/potential impact matrix. The table below illustrates those risks, with the 2 most pressing ones being addressed with potential mitigation tactics.

	Not Likely	**Somewhat Likely**	**Very Likely**
Low Impact		Certification processes in target markets cause delays in market entry.	We run into budget overruns, especially in the CAPEX department.
Medium Impact	Expected profitability margins are lower than budgeted.	The experiments with pyrolysis produce worse than expected results in producing biogas and crystalline carbon. Our patent application is not approved, and we don't receive IP protection.	We will require additional funds between the 1st round and becoming self-sufficient.
High Impact	The pilot with farmers to test our organic fertilisers is not a success. We are not successful in raising round #2 of funds – planned for 2027-2029.	We are unsuccessful in building a credible consumer brand for CBD-infused products in the desired timeframe.	

Addressing the most prominent risks measured by impact and likelihood of occurrence:

We are unsuccessful in building a credible consumer brand for CBD-infused products in the desired timeframe.

We can downscale investments and operations and focus more on our CBD business until we make it profitable. Additionally, we can raise an intermediary smaller round of finances based on credible progress.

We will require additional funds between the 1st round and becoming self-sufficient.

We have budgeted a cushion of cash of approximately £1.2 million (closing cash balance for FY 2026) to ensure we don't run out of money. In addition, we can always downscale operations until we can self-sustain our business. Additionally, we can raise an intermediary smaller round of finances based on credible progress.

Forward-Looking Profit and Loss

Income Statement		2025	2026	2027	2028	2029
Gross total revenues		£4,290,445	£18,502,546	£31,916,891	£48,939,233	£93,800,197
Oils		£3,260,738	£12,951,782	£21,863,070	£32,789,286	£61,908,130
Cosmetics		£729,376	£2,775,382	£4,627,949	£6,851,493	£12,663,027
Treats		£150,166	£1,387,691	£2,712,936	£4,649,227	£9,849,021
Vitamins		£150,166	£1,387,691	£2,712,936	£4,649,227	£9,380,020
Discounts		-£418,318	-£1,526,460	-£2,154,390	-£2,716,127	-£4,221,009
Net total revenues		£3,872,127	£16,976,086	£29,762,501	£46,223,106	£89,579,188
COGS		£501,949	£2,280,305	£4,209,196	£6,911,493	£14,130,030
CBD raw materials		£300,331	£1,480,204	£2,872,520	£4,893,923	£10,318,022
Other raw materials and packaging		£171,618	£740,102	£1,276,676	£1,957,569	£3,752,008
Maintenance		£30,000	£60,000	£60,000	£60,000	£60,000
Gross Profit		£3,370,178	£14,695,780	£25,553,305	£39,311,613	£75,449,158
Operations		£3,440,818	£6,716,466	£11,599,199	£11,326,353	£13,886,847
Wages		£858,089	£1,480,204	£1,595,845	£1,712,873	£1,876,004
Payroll		£145,875	£251,635	£271,294	£291,188	£318,921
SG&A		£514,853	£925,127	£957,507	£880,906	£1,219,403
Rent		£250,000	£300,000	£300,000	£300,000	£300,000
Utilities		£125,000	£640,000	£640,000	£640,000	£640,000
Banking & insurance		£32,000	£97,000	£147,000	£128,000	£110,000
Marketing		£1,500,000	£3,000,000	£7,660,054	£7,340,885	£9,380,020
Other		£15,000	£22,500	£27,500	£32,500	£42,500
	EV/EBITDA					
EBITDA	12x	-£70,640	£7,979,315	£13,954,106	£27,985,260	£61,562,312
						£738,747,739
Depreciation & Ammortization		£148,000	£423,200	£1,610,880	£3,324,792	£5,213,063
EBIT		-£218,640	£7,556,115	£12,343,226	£24,660,468	£56,349,249
Taxes		£0	£1,435,662	£2,345,213	£4,685,489	£10,706,357
Interest		£0	£0	£0	£0	£0
Net profit		-£218,640	£6,120,453	£9,998,013	£19,974,979	£45,642,891

Forward-Looking Balance Sheet and Cash Flow

Balance Sheet	2025	2026	2027	2028	2029
Assets					
Cash & cash equivalents	£124,870	£2,777,686	£20,583,076	£11,847,597	£23,120,660
Accounts receivable	£159,129	£697,647	£1,223,116	£1,899,580	£3,681,336
Inventory	£201,618	£800,102	£1,336,676	£2,017,569	£3,812,008
PP&E	£1,242,000	£1,117,800	£6,136,020	£28,607,418	£55,400,926
Intangible assets	£90,000	£2,691,000	£8,361,900	£13,465,710	£18,059,139
Total assets	£1,817,616	£8,084,235	£37,640,788	£57,837,874	£104,074,070
Liabilities					
Accounts payable	£41,256	£187,422	£345,961	£568,068	£1,161,372
Debt	£0	£0	£0	£0	£0
Total liabilities	£41,256	£187,422	£345,961	£568,068	£1,161,372
Equity					
Equity capital	£1,995,000	£1,995,000	£21,395,000	£21,395,000	£21,395,000
Retained earnings	-£218,640	£5,901,813	£15,899,826	£35,874,806	£81,517,697
Total equity	£1,776,360	£7,896,813	£37,294,826	£57,269,806	£102,912,697
Total liabilities & equity	£1,817,616	£8,084,235	£37,640,788	£57,837,874	£104,074,070
Check	*£0*	*£0*	*£0*	*£0*	*£0*

Cash Flow Statement	2025	2026	2027	2028	2029
Operating cash flow					
Net earning	-£218,640	£6,120,453	£9,998,013	£19,974,979	£45,642,891
Depreciation & amotization (+)	£148,000	£423,200	£1,610,880	£3,324,792	£5,213,063
Changes in working capital (-)	£319,490	£990,837	£903,504	£1,135,250	£2,982,891
Cash from operations	-£390,130	£5,552,816	£10,705,389	£22,164,521	£47,873,063
Investing cash flow					
Investments in intangible assets	£100,000	£2,900,000	£6,600,000	£6,600,000	£6,600,000
Investments in tangile assets (equipment, land, buildings)	£1,380,000	£0	£5,700,000	£24,300,000	£30,000,000
Cash from investing	-£1,480,000	-£2,900,000	-£12,300,000	-£30,900,000	-£36,600,000
Financing cash flow					
Issuance (repayment) of debt	£0	£0	£0	£0	£0
Issuance (repayment) of equity	£1,995,000	£0	£19,400,000	£0	£0
Goodwill	£0	£0	£0	£0	£0
Cash from financing	£1,995,000	£0	£19,400,000	£0	£0
Net change in cash	£124,870	£2,652,816	£17,805,389	-£8,735,479	£11,273,063
Opening cash balance	£0	£124,870	£2,777,686	£20,583,076	£11,847,597
Closing cash balance	£124,870	£2,777,686	£20,583,076	£11,847,597	£23,120,660

Intellectual Property

We have applied for an international patent to protect our method/technology of processing manure to produce commercial products.

PATENT COOPERATION TREATY PCT/UA2024/000050

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF RECEIPT OF RECORD COPY

(PCT Rule 24.2(a))

To:

SUKHAREV, Stanislav
vul. Kyivska, bud. 123, kv. 138 m.
Obukhiv, Kyivska oblast, 08702
UKRAINE

Date of mailing *(day/month/year)*	**IMPORTANT NOTIFICATION**
27 December 2024 (27.12.2024)	
Applicant's or agent's file reference	International application No.
PCT-25	PCT/UA2024/000050

The applicant is hereby **notified** that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

HALUSHKO, Andrii (all designated States)

International filing date:	24 September 2024 (24.09.2024)
Priority date(s) claimed:	None
Date of receipt of the record copy by the International Bureau:	25 December 2024 (25.12.2024)

List of designated Offices:

AP: BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW
EA: AM, AZ, BY, KG, KZ, RU, TJ, TM
EP: AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR
OA: BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG
National: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW

ATTENTION: The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau. **In addition, the applicant's attention is drawn to:**

- time limits for entry into the national phase (see www.wipo.int/pct/en/texts/time_limits.html and *PCT Applicant's Guide*, National Phase, especially Chapters 3 and 4)
- requirements regarding priority documents (if applicable) (see *PCT Applicant's Guide*, International Phase, paragraph 5.070)

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Chamot Sophie e-mail pct.team4@wipo.int Telephone No. 141 22 338 74 04

Form PCT/IB/301 (revised January 2020) I/PTWSAHTYE3AWT0

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THE STATE ORGANIZATION "UKRAINIAN NATIONAL OFFICE FOR INTELLECTUAL PROPERTY AND INNOVATIONS" (UANIPIO)
RECEIVING DEPARTMENT
OF INTERNATIONAL APPLICATIONS
Head of department Ms. ZHUZHNEVA A. A.
Dmytra Hodzenka str., 1, Kyiv, 01601, Ukraine

Our ref.: No. PCT - 25/1 of 24.09.2024
Affected: International application for invention
Invention: HALUSHKO'S ENVIRONMENTALLY FRIENDLY METHOD OF PRODUCTION OF ORGANIC FERTILIZERS, CRYSTALLINE CARBON, DRINKING WATER AND ELECTRICITY FROM MANURE
Applicants: Andrii HALUSHKO

We send you an international application in accordance with the Patent Cooperation Treaty (PCT) for the invention "HALUSHKO'S ENVIRONMENTALLY FRIENDLY METHOD OF PRODUCTION OF ORGANIC FERTILIZERS, CRYSTALLINE CARBON, DRINKING WATER AND ELECTRICITY FROM MANURE ", the applicant is Mr. Andrii HALUSHKO (UA): application form PCT/RO/101, description of invention, claims of inventions, abstract, drawings (graphic illustrations), originals of powers of attorney.

Annexes to this document (electronic files):

1. Application form PCT/RO/101 .....: on 5 sheets.
2. Description of the invention .....: on 24 sheets.
3. Claims.....: on 3 sheets.
4. Abstract .....: on 1 sheet.
5. Drawings .....: on 1 sheet.
6. Powers of attorney.....: on 1 sheet.

Patent attorney,
registration number 427 SUKHAREV Stanislav

CBD Legality

Cannabidiol (CBD) and Tetrahydrocannabinol (THC) are the two most well-known compounds found in the cannabis plant. While they share a similar molecular structure, their effects and legal status differ significantly, making CBD particularly attractive for product development in markets like health and wellness. CBD: Non-psychoactive. CBD does not produce a "high" or alter mental perception. This makes it suitable for use in therapeutic, cosmetic, and wellness products aimed at a broad consumer base. THC: Psychoactive. THC is responsible for the "high" associated with cannabis, limiting its acceptability for mainstream consumer products, especially in regions with strict regulations.

CBD is known for its potential therapeutic properties without causing intoxication. Research suggests benefits for:

- Anxiety and stress relief. promoting relaxation and emotional well-being.
- Pain management with anti-inflammatory properties that help reduce chronic and acute pain.
- Epilepsy, approved by the FDA (Drug called Epidiolex) for treating certain seizure disorders.
- Skin health, with anti-inflammatory and antioxidant properties, making it ideal for cosmetic applications like reducing redness, acne, and irritation.
- Overall wellness – CBD is commonly marketed as a natural remedy for better sleep, reduced stress, and improved focus.

Green Tail plans to commercialise products without THC. What is the legal status of CBD-infused products in our target markets?

Region/Country	Status
EU countries	With minor exceptions (like Slovakia), legal as a non-pharmaceutical product Most countries allow THC in concentrations upwards of 0.3% In very few countries, the consumer needs a medical prescription (Portugal)
UK	Legal as a dietary supplement THC in concentration <0.2%
Australia	Legal, found in pharmacies THC in concentration <0.3%
New Zealand	Legal, with prescription
Japan	Legal, THC concentration needs to be 0%
South Korea	Legal, consumers need a medical prescription
US	Legal, state-level legislation can be different, usually, the consumer doesn't require a medical prescription In some states, THC concentration needs to be 0%.
Canada	Legal, no prescription is needed THC in concentration <0.3%

Competitors:

- https://www.icl-group.com/about-us/ from Israel.
- https://ecoculturebs.com/ from Spain.
- https://www.rosier.eu/fr/index from Belgium.
- https://www.yara.com/this-is-yara/yara-at-a-glance/ from Norway.

Properties	Green Tail UK	Yara Norway	Rosier Belgium	Ecoculture Spain	ICL Israel	Manure & manure pellets
Liquid fertilisers	✓	✓	✓	✓	✓	✓
Water-soluble crystals or powder	✓	✓	✓	✓	✓	✗
Granules	✓	✓	✓	✗	✓	✓
Balanced formula by plant species	✓	✓	✓	✓	✓	✗
Balanced formula according to plant development phase	✓	✓	✓	✓	✓	✗
Possibility to produce complex fertiliser according to individual farmer's recipe	✓	✓	✗	✗	✗	✗
Dosage accuracy during application	✓	✓	✓	✓	✓	✗
Sheet entry	✓	✓	✓	✓	✓	✗
Application with drip irrigation	✓	✓	✓	✓	✓	✗
Application before or at sowing	✓	✓	✓	✗	✓	✗
Precision farming	✓	✓	✓	✓	✓	✗
Impact on climate	**Minimum**	**Medium**	**Medium**	**Medium**	**Medium**	**High**
Environmental friendliness of production	**Maximum**	**Medium**	**Medium**	**Medium**	**Medium**	**Low**
Quality of the final product	**High**	**High**	**High**	**High**	**High**	**Medium**
Production of organic products	✓	✗	✗	✗	✗	✓
Application in plant stress	✓	✓	✓	✓	✓	✗
Application under conditions of soil moisture deficiency	✓	✓	✓	✓	✓	✗