Wild & Flo

Wild & Flo is a vertical farming enterprise based in rural North Yorkshire. The business combines organic principles with self-built technology to create a scalable, energy-independent model tailored to underutilised rural spaces.

1. Business Profile

- **Established:** 2019
- **Type of CEA:** Vertical and Container Farm
- **Scale:** 120 square meter retrofitted cattle shed
- **Energy Source:** Local hydropower
- **Ownership Structure:** privately held partnership

2. Origin & Opportunity

Wild & Flo was founded in response to the post-2019 demand for sustainable, locally grown food. Led by three partners with expertise in technology, design, and traditional farming, the business aims to reimagine vertical farming through a replicable, energy-independent model suited to rural settings. A £500,000 Innovate UK R&D grant supported their early development, focused on integrating circular economy principles and reducing reliance on the national grid.

3. Specifications

CROPS GROWN	Crop selection is guided by both nutritional value and market demand, with fast-growing varieties like pea shoots and beetroot microgreens proving especially popular. These are chosen for their short turnaround times and appeal to high-end restaurants and local retailers. In the future, business might include growing tree saplings for local planting schemes or expand into non-food crops.
INFRASTRUCTURE AND REGULATIONS	Technology and infrastructure is purposefully self-built, reflecting a commitment to autonomy and cost-efficiency. Their operations are housed in a repurposed rural building, retrofitted to meet food-grade standards with insulation and hydroponic piping. All equipment has been constructed in-house or sourced from auctions, including high-spec items from a defunct London vertical farm. The business is powered by its own hydroelectric system, proven to be more financially efficient than solar panels and batteries. This on-site energy solution is critical to their model, which avoids reliance on the national grid.
SUSTAINABILITY AND COMMUNITY ENGAGEMENT	• **Waste Reduction:** agricultural byproducts from nearby farms are repurposed. Sheep's wool, typically burned as waste, is used as growing mats, providing an additional revenue stream for farmers. Fertiliser is made in-house using aquacultural sludge, cow manure, and whey, reducing reliance on commercial inputs and minimising waste. • **Community Integration:** the business is rooted in a rural setting and designed to complement, rather than compete with, existing agricultural practices. Local residents have been informally shown around the facility. • **Environmental Controls:** the temperature, humidity, lighting, and nutrient delivery is precisely regulated. These are managed through a custom-built, app-based system using Wi-Fi-enabled plugs and sensors, allowing

	for real-time monitoring and adjustments. The farm uses filtered spring water from the Yorkshire Dales and avoids pesticides entirely. Seeds are organic and non-GMO.

4. Business Model & Operations

TARGET MARKETS	Initially targeting high-end Michelin-starred restaurants, independent local supermarkets, wholesalers, and farm shops. Their crop selection is influenced by feedback from chefs and buyers in these markets, who value freshness, nutritional density, and short turnaround times. The business is currently in a pre-commercial phase, with plans to begin selling in August following extensive sampling and feedback.
PRICING STRATEGY	• Strategy focuses on cutting out middlemen and leveraging underutilised retail assets (e.g. click-and-collect points) to keep costs competitive. This approach could make their produce price-comparable to supermarket offerings, despite being locally grown and nutrient-rich. • Preference for more agile, collaborative retail models.
FINANCING	• **Investment**: primarily self- and grant-funded to avoid investor oversight and to maintain autonomy. • **Replicability & scale:** modular, low-tech infrastructure and in-house equipment design are intended to be easily replicated across other underutilised rural sites once commercial viability is proven. • **Barriers to entry**: the need for on-site renewable energy, high upfront infrastructure costs, and the potential technical complexity of managing vertical farming systems. • **Labour Sourcing:** the business has operated with a lean internal team, but they plan to hire a full-time farm manager in the near future. Their rural location presents both a challenge and an opportunity—while skilled labour is less abundant, the business aims to create meaningful employment in areas where job opportunities are limited.

5. Conclusions and Recommendations

- **Design for energy independence**: Vertical farming is not viable without a reliable, on-site energy source. Hydro power has proven more effective than solar in the UK climate.
- **Build what you understand**: Constructing their own systems has given the team full control and the ability to troubleshoot and adapt without relying on external tech support.
- **Complement traditional agriculture:** Positioning vertical farming as a supplement to existing rural systems has helped gain community acceptance and achieve circular economy principles.
- **Plan for distribution early:** The "man with a van" model for local delivery is cost-effective and community-oriented, avoiding the need for large-scale logistics.