

# ecodisc.

Board of Directors Meeting  
March 4th, 2024

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**CEO**  
Estelle Neathery

Master of Bioengineering  
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**CTO**  
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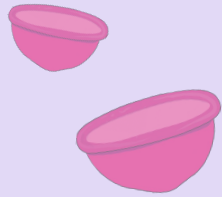
Master of Bioengineering  
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**COO**  
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# Agenda

1. Introduction & Mission
2. Product Need
3. Technology and IP
4. Strategy & Gantt Chart
5. Market & Competition
6. Funding
7. Challenge and Revised Plan

# Mission Statement

To provide a menstrual product that marries comfort with environmental responsibility, challenging the need to compromise one for the other.

# The Problem

- **Environmental Issues:** Single-use menstrual products create significant waste; reusable options often lack convenience and cleanliness.
- **Usability Challenges:** Many products compromise on comfort or require frequent changes
  - Reusable products require specialty cleaning methods

# Our Solution

*A single use, biodegradable menstrual disc that reduces environmental impact while prioritizing comfort and convenience.*

- **Our Core Values:**
  - Autonomy: Gives womxn control over their menstrual care.
  - Comfort: Ensure leak-free, comfortable protection.
  - Convenience: Up to 12 hours of protection.
  - Environmentalism: Biodegradable materials reduce ecological impact.



# Product Need - Sustainability and Convenience:

- Appeal: ecodisc. provides all womxn with a **clean, sustainable option** for menstrual care that combines convenience with environmental responsibility.
- Material Innovation: Starch-based plastics are **biodegradable** and **cost effective** due to abundance of agricultural materials.
- Strategic Partnerships: We plan on partnering with the **Department of Defense**, collaborating with **government agencies**, and attracting investments from **sustainability-focused venture capitalists**.
- Economic Viability: This project is a smart economic move in a market where **demand for sustainable products is rapidly growing**.
- Distribution Strategy: We aim to connect with our audience through **online sales**, with plans to expand into **military supply chains** and **retail outlets** to enhance accessibility and amplify our environmental impact.

# Product Need - Womxn in Military Case Study:

We interviewed a **female military sergeant** about her experience with menstrual health in the military. Here are some key takeaways:

- During drills and field operations, **access to stores and bathrooms is limited**, forcing soldiers to plan extensively or use birth control methods to avoid menstruation.
- Disposing of menstrual products is **challenging** and **embarrassing**, with no proper disposal methods near bathrooms, leading to shame and uncomfortable situations.
- Traditional menstrual cups or discs are not viable due to **sanitation issues**; there's no access to hot water for disinfectant.

A biodegradable menstrual disc could offer significant benefits - eliminating the need for frequent changes, reducing waste and associated shame, and saving space in packing.

**“I would do ANYTHING for better menstrual options in the military.”**

# Technology Overview

Biomaterials Team: Formation of a specialized team to develop a proprietary blend of **starch-based plastics, cellulose fibers, PVA** and/or other materials alongside an antibacterial coating.

- Starch-based plastics offer biodegradability and flexibility, cellulose fibers contribute strength and structural integrity, and PVA is water-soluble/biodegradable and used in dissolvable medical implants.
- Antibacterial coating options include propolis, nanosilver coating, or material modifications to induce hydrophobicity.
  - Demonstrated use in womxn's health applications

Design Criteria: The disc needs to remain **stable in a vaginal environment for up to 12 hours**, yet **naturally biodegrade over time** in natural environments. It should be tailored for comfort, ease of use, leak prevention, and easy disposal.



Future Vision: Make an **affordable, accessible, eco-friendly** menstrual disc, ensuring that womxn do not have to compromise on cleanliness, comfort, or environmental responsibility.

# Strategy

Our technology is in the proof-of-concept stage. Our **next steps** include:



Potential **user**  
**interviews** to guide  
product development



**Material testing** of  
various biodegradable  
materials and  
antibacterial coatings



**Design and test**  
physical prototypes

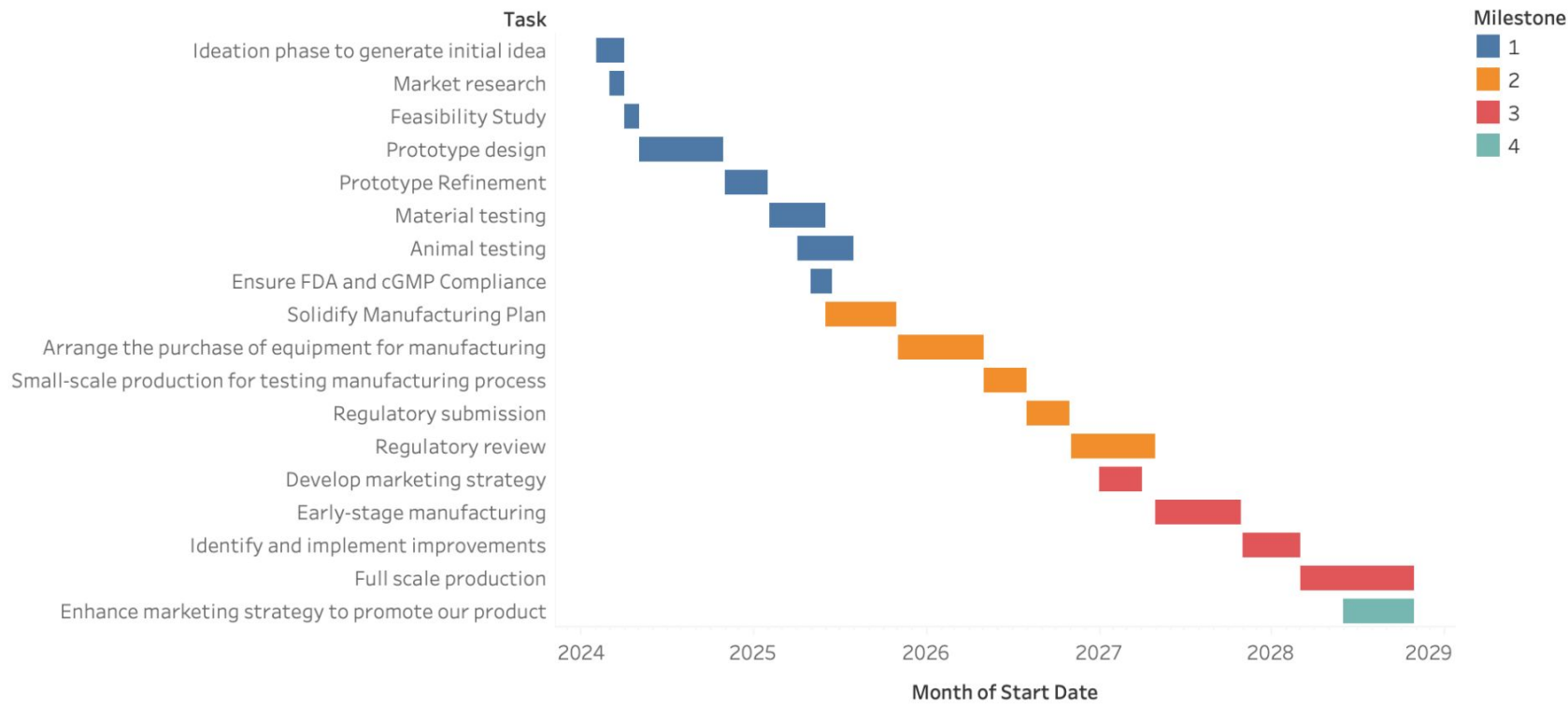


# Intellectual Property Protections

- **Patents** to protect biomaterial manufacturing process, biomaterial composition, physical design of menstrual disc, and specific application of our product.
- **Non-disclosure agreement (NDA)** for employees, contractors, and partners to ensure confidentiality of proprietary information
- **Trademarks** for company name, image, logo, and product name.
- **Freedom to Operate (FTO) Analysis** performed prior to market launch to ensure our product does not infringe on the intellectual property rights of others.

# Our Plan

Gantt Chart



Start Date Month for each Task. Color shows details about Milestone. Size shows sum of Duration.

# Market and Financial Strategy

## **Cost-Effectiveness Strategy:**

- Leveraging innovative, sustainable materials.
- Competitive price point with 25% production cost reduction.

## **Go-to-Market Strategy:**

- Online sales channels for direct consumer relationships.
- Expansion into 100+ physical retail spaces.

## **Financial Projections:**

- Positive cash flow anticipated within 4-6 years.
- Strategic pricing and marketing efforts target over 1 million digital impressions.

# Market Potential

## Total Addressable Market (TAM):

- Globally: 1.8 billion people with menstrual cycles.
- Average cost of a **single use** menstrual disc: \$1.13 per unit disposable disc
- Discs needed per year: 2 discs per day x 7 days/cycle x 12 cycles/year = 168 discs/year
- **Value: 1.8 billion people \* \$1.13/disc \* 168 discs/year= \$341.712 billion/year**

## Serviceable Addressable Market (SAM):

- Period poverty and a stigma towards the use of nontraditional menstrual products may reduce our targeted region
- Estimate about 80 million people in the US menstruate:
  - **80 million people\* \$1.13/disc \* 168 discs/year= \$15.1872 billion/year**

## Serviceable Obtainable Market (SOM):

- People concerned about sustainability – about 75% of people say that sustainability is important to them.
- **60 million people\* \$1.13/disc \* 168 discs/year= \$11.3904 billion per year**

# Competition: Disposable Menstrual Discs

## Tampons

- Approx \$0.25/unit
- Last on average 6 hours
- 4 tampons per day x 7 days/cycle x 12 cycles/year = 336 tampons/year
- User price: \$84/year
- Negative environmental impact: lifecycle can pollute bodies of water and build up in landfills and contribute to microplastic pollution



## Menstrual Pads

- Approx \$0.15/unit
- Last on average 6 hours
- 4 pads per day x 7 days/cycle x 12 cycles/year = 336 pads/year
- User price: \$50/year
- Negative environmental impact: lifecycle can pollute bodies of water and build up in landfills and contribute to microplastic pollution



## Reusable Cups/Discs

- Approx \$20 per unit
- Cleaning solution approx. \$10/unit
- Can last for many years
- Requires routine cleaning and inconvenient disposal methods



# Competition: Disposable Menstrual Discs

## Softdisc

- \$13.29 for 14 discs (\$0.95/unit)
- Made from proprietary blend of medical-grade polymers
- Owned and manufactured by The Flex Co™.
- Patents: US6,796,973, US6,241,846



## Flex Disc

- \$13.99 (\$1.17/Count)
- Made from proprietary blend of medical-grade polymers
- ComfortSeal technology to reduce leaking
- Owned and manufactured by The Flex Co™.
- Patent: US6,796,973, US6,241,846



## Flex Plant+ Disc

- \$15.19 for 12 discs (\$1.27/unit)
- Made from proprietary blend of medical-grade polymers that are 40% derived from sugarcane plants (**not** biodegradable or compostable)
- Owned and manufactured by The Flex Co™.
- Patent: US6,796,973, US6,241,846



# Funding Earned/Our Challenge

VCs resolved to **not fund** ecodisc and presented us with the following challenge:

*“Pursue funding that is **alternative to Venture Capital**, including Institutional (BMGF), SBIR, and STTR.*

*Contact Maureen Halligan from the Women’s Health Division of BMGF for additional guidance.”*

# Alternate Funding Sources By Priority

## Governmental Agencies

Defense Advanced Research Projects Agency (DARPA) & Biomedical Advanced Research and Development Authority (BARDA), NIH, WHO

## Women's Health-Focused VCs

Pivotal Ventures (Melinda Gates), Rhia Ventures/RH Capital, Amboy Street Ventures, Coyote Ventures, Joyance Partners

## Women's Health Corporations

Daré Bioscience, Organon, P&G Ventures, Johnson & Johnson

## Philanthropic Organizations

Focus on women's health and sustainability: BMGF, Merck for Mothers

## Small Business Loans/Grants

Amber Grant, Papaya Grant, EmpowHER Grants

Per Maureen's expertise, we are prioritizing funding sources specifically interested in women's health and sustainability. Nonspecific funders (such as SBIR/STTR) are deprioritized.



# Funding Request / Financial Plan

- **Require 1M for seed money funding (from alternative sources)**
  - CEO and CTO salaries: 20K/ month
  - Contract with university: 20K/month
  - Other expenses (tax, market research): 25k/month

→ Total expenses: 750k first year for R&D
- **After 1 year -> require funding for next round**

→ Require 4.5M for prototype testing and manufacturing preparation

# Funding Request (Next round)

## Hiring (main costs):

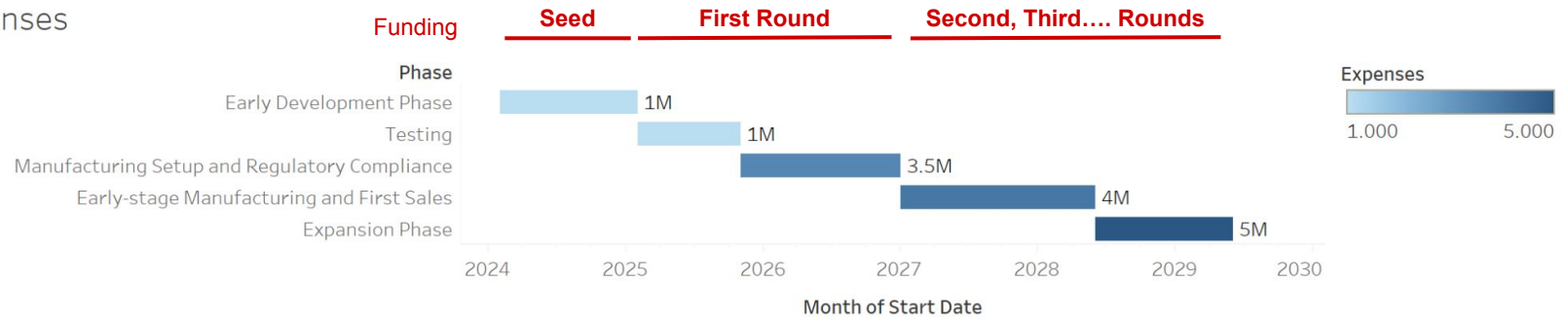
	CEO	CTO	COO	CMO	CFO
Salaries (annual)	134K	122K	122K	122K	122K
FT / PT	Full-time	Full-time	Full-time	Full-time	Full-time

## Facilities (main costs):

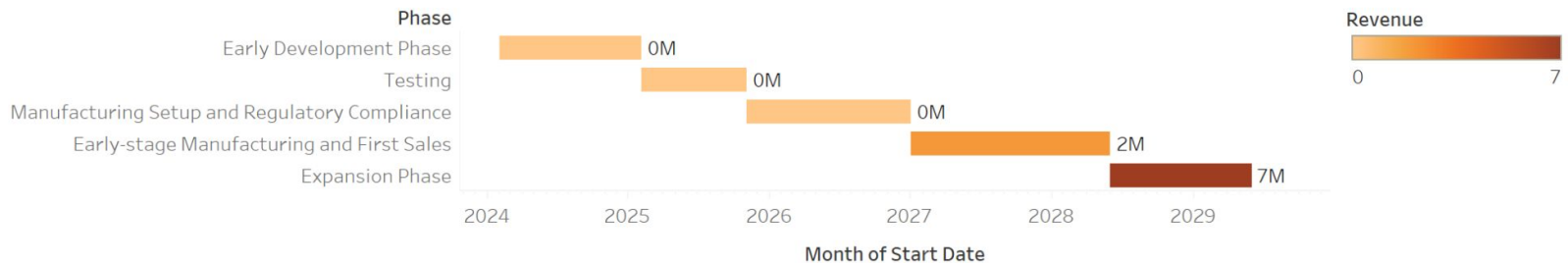
- A **mixed-use facility** in Seattle to accommodate office spaces, production facility, and warehousing
- In Seattle, a 10,000 square foot facility could range between \$30,000 to \$50,000 per month. Our annual facilities cost will be estimated as **\$360,000 to \$600,000**.

# Funding Request and Revenue

## Expenses



## Revenue Projection



# Changes to C-Suite Team

Reduction in the C-Suite team to prioritize technology development and funding

**CEO:** Oversee operations, finances, and contact with BoD/stakeholders

**CTO:** Lead technology strategy and proof of concept

**CMO:** Develop marketing strategy and lead campaigns

**COO:** Oversee day-to-day operations and manufacturing & management

**CFO:** Oversee and plan financial strategy



**CEO:** Oversee operations, financial planning, external relations, and manufacturing

**CTO:** Prioritize proof-of-concept and management

**Part-Time/Contract Employees**

As-needed to fill in gaps of smaller C-suite



Thank You!

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