

Smart Tools for a Plastic-Free Future

Cutting Time and Cost of Developing Sustainable Products with AI-Powered Solutions

Materia Bioworks Inc. (Materia) is reshaping the future of sustainable product development. Powered by a computational platform and two-sided biomaterials marketplace, Materia enables consumer brands and manufacturers to bring eco-friendly products to market faster, smarter, and more affordably. From packaging and cosmetics to textiles and biomedical applications, Materia is accelerating the global shift away from petroleum plastics—making sustainability scalable, accessible, and impactful.

CHEManager: What's driving consumer brands and product manufacturers to replace petroleum plastics with sustainable alternatives?

Hasitha De Alwis: Brands are under rising pressure to eliminate petroleum plastics from their products by 2030 due to net-zero targets, single-use plastic bans, and Extended Producer Responsibility (EPR) laws—which require companies to manage the full lifecycle of their products or risk paying fines and fees. Biomaterials offer a powerful solution: they can replace petroleum plastics without compromising functionality. But adoption remains slow. These materials behave differently, require advanced R&D, and can be costly. With the global plastics market nearing \$1T the opportunity is massive.

What was the motivation behind founding Materia Bioworks?

H. De Alwis: As the founding team of a Series A bioplastics company, we previously developed four biodegradable products with top-tier brands pursuing ambitious ESG goals—and saw firsthand how hard these solutions were to implement. Even with significant resources, projects took years and millions of dollars due to fragmented supply chains, high development costs, and limited material readiness. We built Materia to solve this by combining our deep materials development expertise into a software platform, with an integrated marketplace, to make sustainable innovation faster, cheaper, and data-driven.

What's the unique advantage of your approach?

H. De Alwis: Materia delivers an end-to-end solution from ideation to product launch. Our proprietary R&D pipeline enables companies to rapidly test and de-risk materials using real-world data. With a click, they get tailored

recommendations, faster iterations, and shorter timelines. What once took years can now be done in months.

How do brands, manufacturers, and suppliers benefit from working with you?

H. De Alwis: We help companies explore and validate biomaterials based on performance, cost, availability, and verified sustainability—without committing to a single supplier. This multi-sourcing strategy is key in today's unpredictable supply chains.

- **Brands:** We identify scalable, process-ready materials that cut R&D costs, accelerate time-to-market, and align with sustainability goals via access to a vetted supplier network.
- **Manufacturers:** We simplify material adoption with data-backed insights—reducing downtime, scrap rates, and optimizing drop-in solutions for manufacturing integration.
- **Suppliers:** We help unlock high-value applications and boost demand by connecting materials to downstream customers, our pipeline, and marketplace.

What challenges have you encountered?

H. De Alwis: Education. That's where we come in as the bridge between R&D, product development, procurement, and supply chain. We simplify decision-making and speed up execution.

PERSONAL PROFILES

The Materia team previously co-founded a Series A bioplastics company, scaling breakthrough PHA technology with global brands.

Hasitha de Alwis (CEO): 12+ years in sustainable materials. Led IP and tech dev, built a 25+ person R&D team.

Kevin Eriksen (CTO): Led multimillion-dollar AI and bioinformatics projects with \$100M+ impact. Now leads tech at Materia.

Michael Williamson (Dir. of Materials Innovation): Bioplastics expert and drove innovation with Fortune 500s. Leads validation and R&D.

Rajan Manocha (Dir. of BD): 12+ years in cleantech sales. Secured \$20M+ in contracts with major CPGs. Now drives sales and strategic partnerships.

What's next for Materia?

H. De Alwis: We're scaling quickly. We're expanding our SaaS platform, onboarding top-tier suppliers, and growing global R&D partnerships. We're running customer projects with leading brands to validate our impact, and we're raising a seed round in 2026 to grow our team and technology. We're always open to working with partners ready to make sustainability their competitive edge.



Hasitha de Alwis, Materia Bioworks



Kevin Eriksen, Materia Bioworks



Michael Williamson, Materia Bioworks



Rajan Manocha, Materia Bioworks



BUSINESS IDEA

AI to Scale Sustainability

Materia Bioworks is transforming how sustainable products are developed and launched. By combining a cloud-based AI platform with a curated biomaterials marketplace, we help brands, manufacturers, and suppliers fast-track product innovation—reducing cost, risk, and time. Our MAPS (Material Application Prediction System) platform integrates real-world testing with predictive analytics to identify the right materials for the right applications, delivering smarter, faster, and more confident decisions.

- Most sustainable products derived from biomaterials don't fail in theory, but they fail in practice due to poor performance, limited scalability, or a lack of validation. Materia addresses this gap by generating application-specific performance data across industries like packaging, cosmetics, food & bev., and consumer goods. We turn trial-and-error into a repeatable, data-driven process that accelerates development and de-risks decision-making.
- Our business model is built to deliver immediate value and long-term scalability. Just 16 months into the company's inception, we're

executing client projects with global consumer brands and product manufacturers. These projects are delivering early revenue, generating critical insights, and validating our platform's impact. As we scale, these partners will convert into long-term SaaS users.

- Materia operates on a value-based model. Customers use our platform to develop and validate new products more efficiently, while our two-sided marketplace connects suppliers and manufacturers to move materials seamlessly. This dual-pronged approach drives biomaterials adoption across the entire value chain.
- With global regulations and industry demand accelerating the shift to sustainable materials, Materia is uniquely positioned to become the go-to engine for scaling sustainability—making it easier and more affordable for the world to build greener products.



■ Materia Bioworks Inc., Toronto
www.materiaboworks.com

ELEVATOR PITCH

Fast-Track to Circularity

Materia is building the AI-powered infrastructure for a scalable circular economy. Our platform combines a computational engine with a two-sided biomaterials marketplace, helping brands and manufacturers to navigate the fragmented biomaterials landscape with speed and confidence. We streamline material validation, reduce R&D costs, and accelerate time-to-market. As regulation pushes industries toward sustainable alternatives, our platform de-risks decisions and brings transparency to an opaque space. Our mission is simple: make it easier and faster to bring sustainable products to market.

- Secured 8 partnerships with value chain partners including brand owners, manufacturers, and bio-material suppliers
- Launched biomaterial supplier marketplace

Q1 2025

- Received federal and provincial grants (BioCreate, NSERC, NRC-IRAP)
- Accepted to IndieBio NY (SOSV) accelerator
- Secured the 1st paid client project

Roadmap

Materia is partnering with forward-thinking brands and manufacturers across CPG, food & beverage, cosmetics, textiles, pharma, and more to accelerate the shift from petroleum plastics to sustainable materials. Our AI-powered SaaS platform simplifies and speeds up product development—making it faster, smarter, and more cost-effective to launch eco-friendly innovations. If you're ready to lead in sustainability and stay ahead of regulation, let's talk.

Milestones:

Q4 2023

- Materia was founded

Q1 2024

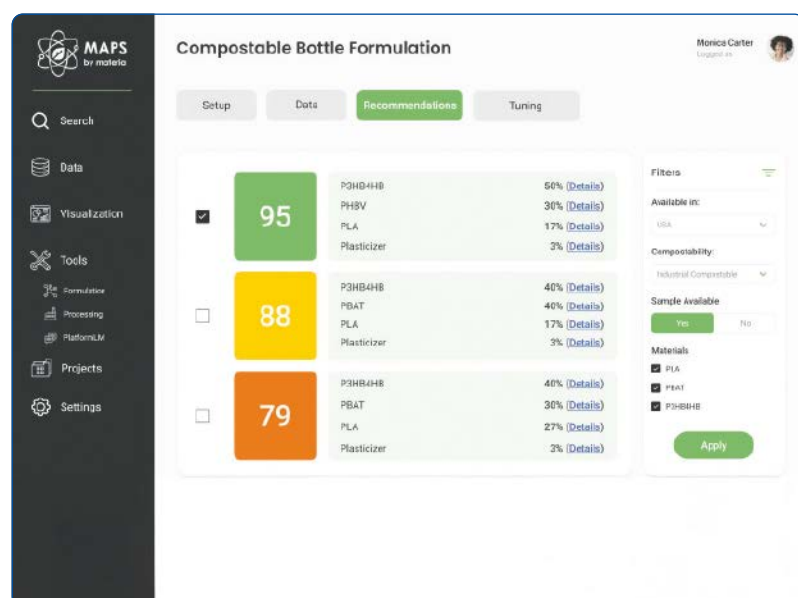
- SaaS platform conceptualization and validating product market fit

Q2 2024

- Secured Materia's first partnership with a world leading biomaterials supplier

Q4 2024

- Winner of the CodeLaunch AI World Championship



Compostable bottle formulation recommendations.



The Materia Bioworks team.