

Job Opportunity

Head of Engineering

Location: Sydney, Australia

Employment Type: Full-Time

Salary Range: AUD \$180k + (Negotiable)

The Role

The demand for powerful computing is skyrocketing—driven by AI, data centres, and next-generation electronics—even as Moore's law approaches its limits. Advanced packaging has emerged as the new battleground for increasing performance and efficiency, but existing manufacturing processes are expensive, slow, and struggle to scale. Syenta is changing that.

We've pioneered a new method of fabricating advanced packaging, that reduces the number of processes steps by combining patterning and deposition into a single step. We call this process **Localised Electrochemical Modelling (LEM)**. By combining the process that combines the benefits of additive manufacturing with high resolution and true scalability. By drastically reducing cost and complexity whilst simultaneously boosting production speed, our technology unlocks new possibilities for advanced semiconductor packaging—ultimately enabling more powerful, energy-efficient electronics.

If you're driven by deep technical challenges and want to shape the future of semiconductor manufacturing, **Please Apply here.**

The Role

We are seeking a **Head of Engineering** to lead and own the development of our Semiconductor manufacturing tool. You will be tasked to:



1. **Lead the development of the First-of-Its-Kind LEM semiconductor manufacturing tool.** Transform our novel LEM process into a fully functional tool within two years. Have full decision-making authority and a direct line to executive leadership
 2. **Lead subsystem development and integration.** Oversee the design and integration of all critical subsystems needed for precision metal deposition on semiconductor substrates. This includes:
 - a. **Mechanical Structures:** Deliver uniform pressure with sub-micron alignment to ensure uniform and repeatable deposition.
 - b. **Current & Fluid Delivery:** Maintain stable electrodeposition conditions and flow rates for uniform metal deposition across the substrate.
 - c. **Optical Alignment & Inspection:** Provide real-time alignment and continuous feedback on deposition accuracy.
 - d. **Deposition Database:** Collect and analyze process data to drive iterative improvements in uniformity, repeatability, yield, and throughput.
 3. **Build & Empower a High-Performing Hardware Team.** Hire, mentor, and coordinate a growing engineering group, filling skills gaps and setting clear objectives and KPIs.
 4. **Champion Rapid & Rigorous Development Cycles.** Foster fast-paced prototyping and iterative testing, leveraging agile hardware practices to meet ambitious timelines while maintaining reliability and performance.
 5. **Collaborate Across Functions & External Partners.** Work closely with Materials, Software, and Business-Development teams to align on requirements, validate reliability, and deposition performance. Engage OEMs and suppliers to source and integrate best-in-class components.
 6. **Engage Customers & Stakeholders in the Design Process.** Actively incorporate feedback from internal teams, early adopters, and other stakeholders, ensuring the product meets real-world performance, cost, and usability criteria.
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About You

- **Semiconductor Background** – You have 10+ years in hardware engineering for semiconductor manufacturing or an equivalent high-precision industry.
 - **Hands-On + Strategic** – You're comfortable diving into lab or workshop experiments yet excel at leading teams, setting technical direction, and coordinating with senior stakeholders.
 - **Leadership Skills** – You've managed, mentored, or grown engineering teams in high-stakes R&D settings. You know how to motivate people, delegate effectively, and nurture top performance.
 - **Cross-Disciplinary Mindset** – You can pivot between mechanical, electrical, optical, and fluidic perspectives, rallying experts in each field toward unified goals.
 - **Growth-Oriented** – You're excited by the prospect of taking on increasing responsibilities as the organization scales, with room for advancement within the hardware organization.
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Desirable Experience

- A strong track record in designing, developing, and integrating semiconductor manufacturing tools (or equivalent).
 - Direct experience with wafer-level processing, metallization, or advanced packaging is highly desirable.
 - Experience in agile or iterative development in hardware contexts.
 - Hands-on exposure to advanced semiconductor processes (electrochemical deposition, photolithography, wafer-level redistribution, TGV, interposer fabrication).
 - Experience designing high-throughput or cost-effective hardware solutions.
 - Comfortable "getting your hands dirty" and leading small-scale experiments to validate new ideas quickly.
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Why Syenta?

We're passionate about building a **diverse, people-first** company. We believe that our culture of collaboration and mutual respect fuels the kind of innovation that can redefine an industry. Here's what you can expect:

- **Equity Opportunities** – We're happy to discuss ownership stakes so that our success becomes *your* success.
- **Work-Life Balance** – Flexible leave policies and an understanding that meaningful work can coexist with a fulfilling personal life.
- **Professional Growth** – We're scaling fast, so responsibilities can expand significantly in tandem with the business.
- **Global Reach** – We welcome **international candidates** and encourage diverse perspectives to help drive our mission forward.

If you're excited to tackle this one-of-a-kind challenge in advanced hardware development, let's talk!

[Apply here](#), or send your CV and a short note to **info@syenta.com.au** for more information.

