TRANSCRIPT Episode 27 – Arnaud Daurat

Jonathan Bench: Today I'm joined by Arnaud Daurat, a Mauritian-New Zealand entrepreneur, philanthropist, and author driven to create meaningful global social change. He is the founder of Exxovantage, an exoskeleton manufacturer augmenting and empowering the global workforce, and Astelia Robotics, building AI-powered humanoid robots as human partners—from Earth's industries to asteroid mining, lunar bases, and Martian settlements—as we become a multi-stellar species. Arnaud, thank you for joining me on the podcast today.

Arnaud Daurat: Thank you, Jonathan.

Jonathan: You have such an eclectic background, and this is actually our first official conversation, which I'm very excited about. We met because we were both in Utah at the same time at a 47G meeting, a defense and aerospace industry cluster based in Salt Lake City. I heard you introduce yourself and thought your work sounded fascinating. I also love connecting with international perspectives, so I was excited to meet you and have you share what you're building.

So please give us a bit of your personal and professional background. What got you to where you are now?

Arnaud: Thank you, Jonathan. It's great to see you. Unfortunately, we didn't get much time to talk in Utah.

The first company, Exxovantage, really came from a personal challenge. In my previous construction company, I wanted to find a way to effectively "retire" my staff from the physical strain of the work while they were still active. We were all on the tools, and I was looking at technologies that could support them. That's where the idea started—it was very personal.

From there, it evolved into a broader mission: how do we augment as many people as possible, on Earth and beyond, using exoskeleton technology? It wasn't something I initially pursued because it was "cool" or trendy. It came from a real problem, and then expanded into a bigger vision of creating meaningful global social change—and hopefully beyond, as we become a multi-stellar species.

Jonathan: I see some figurines in the background, so I'm guessing you're a sci-fi fan. Tell us a bit about that and how it connects to your trajectory.

Arnaud: Those are actually from a friend's office that I'm borrowing, but yes, we're both very much into sci-fi. Personally, I feel like I live in the future.

If I had one goal right now, it would be to go to space for six months by myself, with robots, and ideally discover organic life out there. We do a lot with technology on Earth, but that kind of exploration—actually witnessing life beyond Earth—that would truly make me happy.

Jonathan: You mentioned your roots in Mauritius and New Zealand. Can you tell us more about that?

Arnaud: Yes, I was born and raised in Mauritius and lived there for about 30 years. I traveled for studies, but it was only around age 29 that I really wanted to explore a bigger world—build meaningful connections with people and nature.

That's when I moved to New Zealand, which was a great decision. It offers amazing people and environments. In a way, it's similar to Mauritius—just a bigger island. I like that scale. It's not so large that you feel anonymous, and you can still connect with people easily. From a productivity standpoint, even getting from point A to B is manageable—it doesn't take hours. That balance really matters to me.

Jonathan: You're building technologies like exoskeletons, AI systems, and humanoid robots that fundamentally change what human workers can do. How do you see these reshaping the definition of work over the next 20 to 30 years?

Arnaud: It's challenging to map out 20–30 years ahead because everything is moving so quickly—both technologically and from a human perspective.

Right now, exoskeletons solve two critical problems. On the business side, they increase productivity and safety while reducing injury claims and costs. On the human side, they reduce strain, pain, injuries, and burnout.

Looking ahead, work will shift from pure human labor to human capability amplified by machines. Exoskeletons multiply human physical ability—enhancing strength, endurance, and safety. AI becomes a decision-support layer, augmenting cognition. Robots will take over dangerous and high-risk tasks.

As a result, humans will move toward roles centered on judgment, leadership, creativity, and systems oversight. The future worker becomes more of an orchestrator of intelligent systems rather than just an individual contributor. And overall, productivity per human increases significantly.

Jonathan: What do these exoskeletons actually look like? I think a lot of people imagine sci-fi versions.

Arnaud: There are different categories. You have heavier, powered exoskeletons—battery-operated systems that allow someone to lift more than they normally could.

But then you have passive exoskeletons or exosuits, which I believe are the future. These are lightweight—what we manufacture is about 1.8 pounds. There's no battery, low cost, and low risk.

They look almost like a backpack. The idea is to transfer load. When you lift something, it feels lighter because the pressure on your lower back and upper body is redirected through a spring system down to your thighs, which are anchored to the ground.

So it's really about redistributing weight. Because they're light, user adoption is high. Heavier systems can do more, but they come with trade-offs in weight and usability.

Jonathan: For those lightweight suits, how much do they actually improve performance?

Arnaud: It varies depending on the use case—whether it's back support, mid-height work, or overhead tasks. But generally, you see productivity gains of 20% or more.

We've run pilots where sensor data showed workers sleeping up to 40 minutes more per night due to reduced physical strain. Over weeks, months, and entire careers, that impact is significant.

Honestly, when I visit facilities and see people working without this technology, it's heartbreaking. This is simple, effective technology. Like hard hats or safety shoes, it should be standard.

Jonathan: We're talking about augmenting the workforce rather than replacing it. What does the ideal human-machine partnership look like across industries like manufacturing, defense, and healthcare?

Arnaud: First, to your earlier point—delaying retirement and retaining knowledge is critical. Experienced workers carry immense value, and we need to support them physically so they can stay longer.

The core principle of human-machine partnership is simple: humans in command, machines as multipliers.

Humans focus on ethics, judgment, strategy, and awareness. Machines handle precision, strength, endurance, computation, and execution.

In manufacturing and logistics, workers supervise robotic systems while exoskeletons enable safe, repetitive work. In defense, machines handle sensing and risk exposure, while

humans retain decision authority. In healthcare, robotics assist with surgery and logistics, allowing clinicians to focus on care.

The outcome is safer environments, higher efficiency, and better human performance.

Jonathan: From a legal perspective, how do we think about safety, liability, and regulation while still enabling innovation?

Arnaud: This is a critical question. Law and policy should establish clear guardrails—safety, accountability, and transparency—while still allowing innovation.

The real issue isn't AI itself, but the values embedded within it. At Exxovantage, we design what we call a "constitution" for our AI systems—explicit principles governing how data is used and how decisions are made.

It's tedious work, but it has to be done by humans. We can't outsource that responsibility to AI.

Many organizations say their AI is built on truth, but truth alone doesn't guarantee good outcomes. Natural or factual doesn't always mean beneficial. Humans are imperfect—we have biases, emotional reactions, and short-term thinking. AI should elevate human behavior, not just mirror it.

I often think about my daughter. If she were working alongside these systems one day, what kind of environment would I want for her? The answer is clear: one grounded in care, empathy, and responsibility.

Technology is neutral—it reflects the intentions of its creators. That's why we invest heavily in ethical frameworks to ensure our systems prioritize human well-being over short-term profit.

Jonathan: How does the workforce need to evolve alongside these technologies?

Arnaud: Automation will transform roles, not eliminate them. Workers will become operators, supervisors, and integrators of intelligent systems.

Jobs will be safer, more technical, and more strategic. Key skills will include AI and robotics literacy, systems thinking, complex problem-solving, leadership, communication, and ethical judgment.

Most importantly, education will shift toward continuous reskilling.

Jonathan: Let's talk about Utah. What makes it such an interesting place for innovation right now?

Arnaud: Utah has a strong aerospace and defense ecosystem, including Hill Air Force Base. The 47G initiative brings together industry, academia, and government around advanced technologies.

There's also a strong pipeline of engineering talent and a pro-innovation policy environment. The state is seeing rapid growth in robotics, autonomous systems, and advanced manufacturing.

What stands out most is how coordinated the ecosystem is—and how proud people are to be part of it.

Jonathan: How does it compare to other places you've worked?

Arnaud: It's very distinctive. The aerospace and defense community here is large and deeply integrated.

I've been across many U.S. states, including places like Texas, but Utah stands out. The ecosystem is grounded—not just in industry, but in people. There's a shared sense of purpose about what's being built and where it's going.

Jonathan: What advice do you give your daughter—or what should we tell our kids about preparing for the future?

Arnaud: I don't think we should give direct advice. Everyone sees the world differently and has their own beliefs.

What we can do is manage risks—like screen time or harmful technologies—and share our vision. My daughter knows I want to go to space and build lunar infrastructure. But she may choose a completely different path.

For me, technology is just a tool. The goal is meaningful social change, happiness, and helping people. I hope she uses technology in the same way.

Jonathan: Final question—if you weren't running your companies, what would you be doing?

Arnaud: I'd be in space. I'd spend six months there, alone, exploring—and ideally discovering some form of life.

I don't have strong attachments to material things. Owning a house or a car doesn't bring me happiness. What matters is purpose—helping people and creating meaningful change.

If I could achieve real, lasting social impact in my lifetime, that would make me truly happy.

Jonathan: Arnaud, this has been fantastic. I love the vision of augmenting humans and expanding what's possible, while keeping people at the center.

Arnaud: Thank you, Jonathan. I really appreciate the invitation.