

TRANSFORMATIONAL GROWTH LEADERSHIP

Chromalloy's Bold Path: Innovation, Diversification, and the Future of Turbomachinery

An Exclusive Conversation Featuring



Chris Celtruda
CEO of Chromalloy



Greg Caressi
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As the aviation and energy sectors confront rapid transformation, **Chromalloy** is positioning itself at the center of change. In this Transformational Growth Leadership (TGL) interview, CEO **Chris Celtruda** reflects on the company's nearly 75-year legacy, its audacious goal to double in size within five years, and how innovation in additive manufacturing, sustainability, and global expansion is redefining the turbomachinery industry.

“ Our mandate is clear: double the size of the business within three to five years. That means diversifying markets, broadening our solutions, and solving our customers' toughest challenges.”

— Chris Celtruda, CEO, Chromalloy

Navigating Disruption in Aviation, Energy, and Defense

Wayne Shaw: *Chris, what transformative trends are shaping Chromalloy's future?*

Chris Celtruda: Chromalloy is a billion-dollar business spanning three end markets: commercial aviation, industrial gas turbines, and military propulsion. Right now, all three are experiencing simultaneous growth, something I have never seen in my 30 years in the industry.

In commercial aviation, sustainability initiatives like sustainable aviation fuels (SAF) and future hydrogen technologies are reshaping how airlines think about assets. In defense, additive manufacturing and 3D printing are driving faster readiness. And in energy, the explosion of data centers for AI, crypto, and digitization is creating demand for distributed power solutions.

These forces together are driving capacity challenges across the turbine supply chain. Our role is to anticipate those shifts, whether it's in alternative engine part technology, additive repairs, or modular upgrades and ensure our customers are ready.

Betting on Innovation: Additive Manufacturing and Advanced Engineering

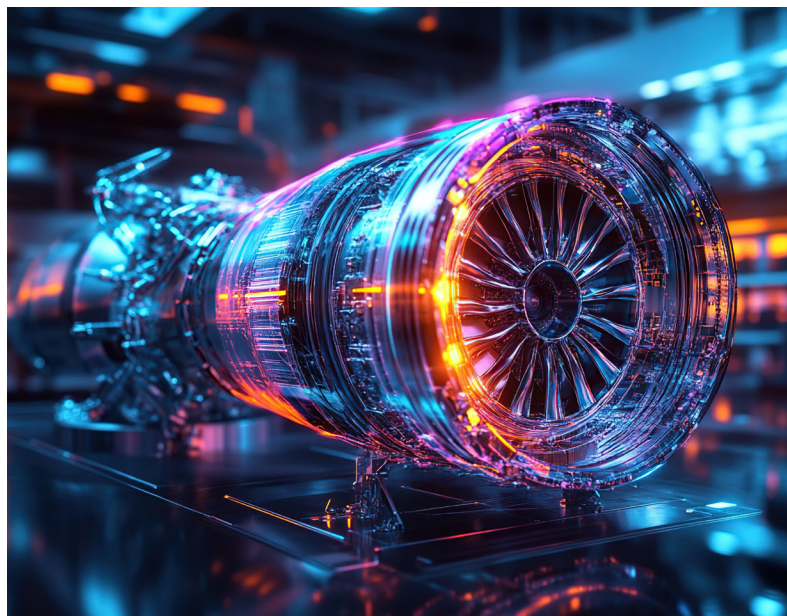
Wayne Shaw: *Additive manufacturing seems like a major leap. How does it fit into your growth playbook?*

Chris Celtruda: We see additive manufacturing as core to our future. It's capital-intensive and requires long-cycle investment, but it allows us to shorten turnaround times, reduce costs, and deliver mission-critical parts faster.

Frost & Sullivan's **Transformational Growth Leadership Program** aims to honor visionary business leaders who possess the foresight and leadership acumen to drive positive change within their organizations. The leaders we celebrate hail from diverse sectors and company sizes, yet they all share an unwavering commitment to innovation and excellence.

We have invested in everything from electron beam thermal coatings to single-crystal casting, capabilities typically reserved for the OEMs. These investments take years to qualify, but once they're operational, they give us the agility to solve problems no one else can.

Our philosophy is simple: growth comes from solving customer problems. Whether it's reducing downtime, cutting costs, or enabling sustainability, innovation is our engine.



The Growth Playbook: Doubling in Five Years

Greg Caressi: *Chromalloy has set ambitious goals. What does doubling the business mean in practice?*

Chris Celtruda: 2026 marks our 75th anniversary, and we are entering this milestone with a clear growth mandate. To double in five years, we're pursuing three strategies:

1. **Broaden content in core markets** – expanding our share of wallet across the engines we already serve.
2. **Enter adjacent markets** – scaling military and industrial turbines, especially as data centers fuel distributed energy demand worldwide.
3. **Diversify globally** – building stronger footprints in Europe, Asia, and the Middle East.

It's about diversification, not concentration. Historically, we were too narrow, serving a limited number of engine platforms. Now, we are positioning to capture a much larger share of the global turbomachinery market.

Building Culture and Global Reach

Greg Caressi: *How do you align global operations while maintaining quality and culture?*

Chris Celtruda: Quality and culture are what keep me up at night. Expanding globally requires balancing local execution with a consistent culture of performance.

We have restructured into clear value streams, new parts, part restoration, and

materials solutions, each with distinct KPIs [Key Performance Indicators]. Across all facilities, we track turn time, yield, and quality escapes. Incentives are tied directly to these KPIs, so employees know whether they are winning or losing every quarter.

We also focus heavily on leadership. Culture lives or dies with leaders. Where turnover is high, it's usually a leadership problem. That's why engagement, visibility on the shop floor, and clear values are central to our operating model.

Sustainability and the Right to Repair

Wayne Shaw: *How do you want customers to view Chromalloy's role in the ecosystem?*

Chris Celtruda: Our mission is value creation. Aircraft engine overhauls can run into tens of millions, with parts making up the bulk of the cost. We provide alternatives through new PMA [Parts Manufacturer Approval] parts, advanced repairs, and remanufacturing that reduce costs and increase availability.

We are also fierce advocates of the **right to repair**. OEM manuals increasingly say “inspect and replace” rather than teaching repair. We reject that model. By devising FAA [Federal Aviation Administration]-approved repair schemes for parts deemed unrepairable, we save customers millions and extend the lifecycle of critical assets.

It's good economics, and it's good sustainability. Many of these parts contain rare metals like rhenium and hafnium. Repairing or recycling them isn't just smart, it's essential.

Beyond Aviation: The Next Frontiers

Greg Caressi: *Where do you see the most exciting opportunities ahead?*

Chris Celtruda: Two areas excite me most. First, extending our expertise into **adjacent turbomachinery markets:** compressors, auxiliary power units, and even advanced refrigeration systems in semiconductors.

Second, the **space sector.** We see opportunities in liquid-fueled rocket engines and turbo compressors for satellite launches. The **“new space”** economy is scaling fast, and our competencies in high-pressure, high-temperature systems translate directly into that environment.

Our future is about being more than an alternate parts supplier: we are a turbomachinery innovation company.

Leadership and Workforce Challenges

Wayne Shaw: *As you look ahead, what’s the toughest challenge you see for sustaining Chromalloy’s growth and innovation?*

Chris Celtruda: Workforce. We can buy equipment, but skills are harder. Welding, brazing, non-destructive testing; these are crafts that can’t be automated away.

We are investing in outreach from high schools to universities, internships, and apprenticeships. In parallel, we are deploying automation and cobots where possible, freeing people to focus on the highly skilled, hands-on work.

The challenge is real, but so is the opportunity. This next generation will shape not just Chromalloy’s future, but the future of aviation, energy, and space.

Final Thoughts

From pioneering additive manufacturing to expanding into space propulsion, Chromalloy is redefining what it means to be an alternate to the OEMs. Under Chris Celtruda’s leadership, the company is executing a bold growth strategy built on innovation, diversification, and culture.

By championing sustainability, the right to repair, and global access, Chromalloy offers a compelling blueprint for the next era of turbomachinery: faster, smarter, more resilient, and more sustainable.





Chris Celtruda | CEO of Chromalloy

Chris Celtruda is **CEO of Chromalloy**, a global leader in gas turbine engine components, repairs, and solutions. With more than 35 years of aerospace and industrial leadership experience, Chris is driving Chromalloy's strategy to double in size within five years through diversification, additive manufacturing, and global expansion. His career spans executive leadership roles in aerospace, defense, and industrial sectors, with a strong focus on innovation, culture, and sustainable growth.



Wayne Shaw, PMP | Practice Area Leader in Aerospace & Defense at Frost & Sullivan

Wayne Shaw, PMP, is a **Practice Area Leader in Aerospace & Defense** at **Frost & Sullivan** with over 22 years of experience in electronic and cyber warfare, military aviation, and space operations, including service with the United States Air Force (USAF), United States Navy (USN), and US Space Force. He has led large-scale Department of Defense (DoD) contract teams, contributed to strategic defense planning, and served as an adjunct and guest lecturer at multiple universities. A subject matter expert in Electronic Warfare, Cyber Warfare, and "New Space" initiatives, Wayne brings extensive overseas and multi-cultural experience. A highly decorated U.S. veteran, he has published widely in electronic defense and holds advanced degrees in Aeronautical Science, Chemistry, and Leadership Studies, along with specialized defense acquisition training.

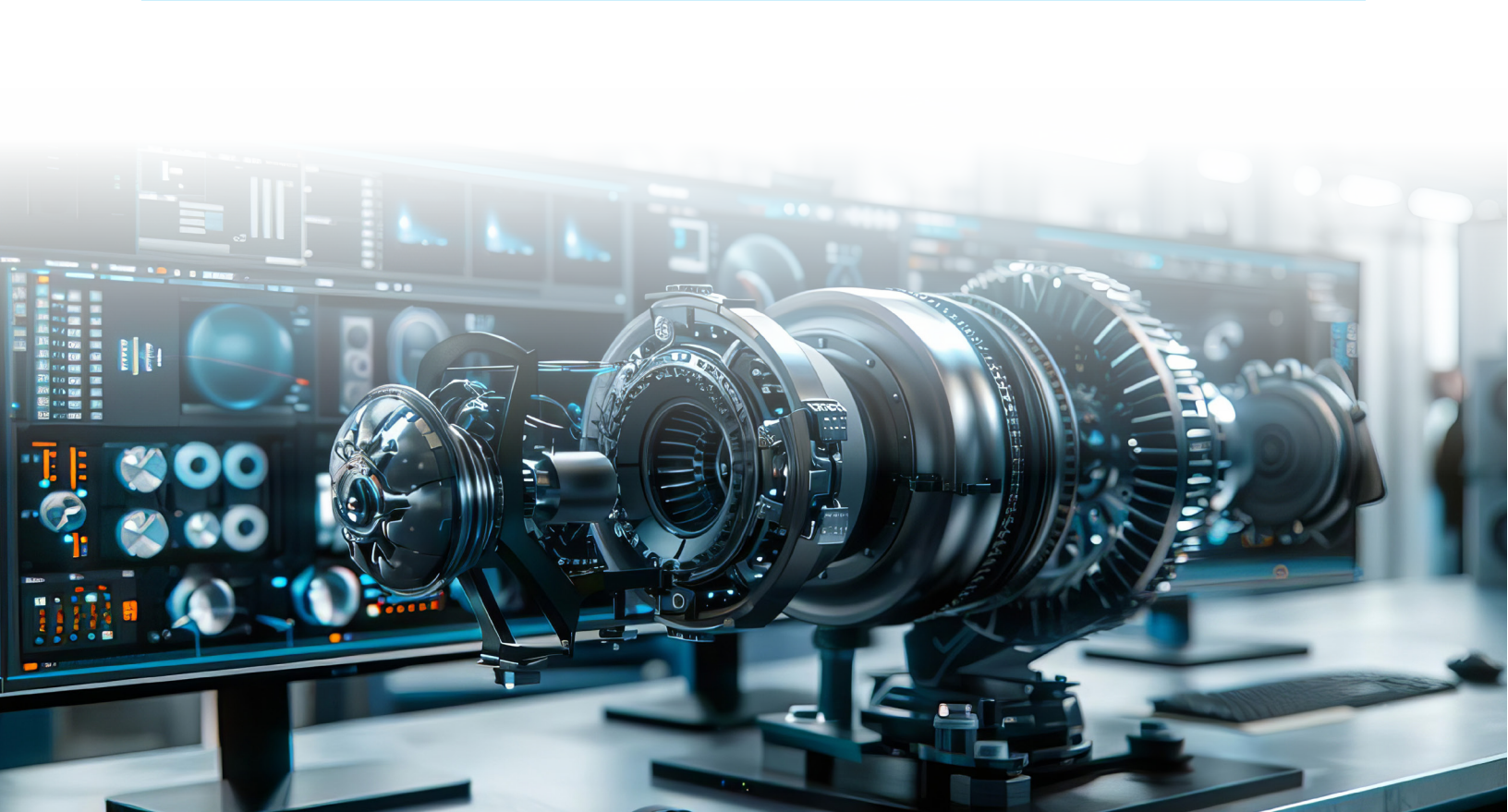


Greg Caressi | Partner, Senior Vice President, and Global Client Leader at Frost & Sullivan

Greg Caressi is **Partner, Senior Vice President, and Global Client Leader** at **Frost & Sullivan**, with over 30 years of experience in healthcare and life sciences. He holds an MBA from Dominican University and bachelor's degrees in economics and education from Miami University. Greg has led market analytics and growth consulting initiatives, overseeing hundreds of projects and authoring numerous industry studies. His expertise spans digital health, telehealth, data analytics, next-generation healthcare technologies, and international market expansion, with experience across Asia and Latin America. He also serves as Chair of the HIMSS Life Sciences Information Technology Committee and is a recognized industry speaker and thought leader.

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- ▶ **Activate Brand & Demand Growth:** Accelerate awareness, engagement, and revenue growth through integrated brand and demand generation strategies.



Annexure: Industry Developments Accelerating Transformation in Turbomachinery, Aviation, and Distributed Energy

As Chromalloy advances its bold mandate to double in size through diversification, additive manufacturing, global expansion, and right-to-repair advocacy, industry momentum is rapidly shifting toward digitally enabled maintenance ecosystems, sustainable propulsion technologies, distributed energy infrastructure, and advanced materials innovation.

This transformation reflects a broader imperative across aviation, defense, energy, and space: building resilient turbomachinery value chains that balance OEM dominance with independent innovation, lifecycle extension, and high-performance materials stewardship. The convergence of additive manufacturing, AI-driven predictive maintenance, distributed power generation, and “new space” propulsion systems is redefining how mission-critical assets are produced, repaired, and sustained.

To help aerospace and energy leaders navigate this inflection point, Frost & Sullivan delivers forward-looking intelligence across propulsion innovation, advanced manufacturing, sustainability economics, and global supply chain resilience.

- ▶ [US Military Naval Vessel Maintenance, Repair, and Overhaul \(MRO\) Industry Growth Opportunities, 2025–2029](#)
- ▶ [Growth Opportunities in AI-driven Additive Manufacturing](#)
- ▶ [Growth Opportunities in Carbon Nanotubes for Improved Product Performances](#)

Each of these analyses aligns with the central themes of this TGL — innovation-led growth, lifecycle value creation, global diversification, additive manufacturing scale-up, and sustainability through repair and remanufacturing — offering a strategic blueprint for organizations preparing for the next era of turbomachinery and high-temperature systems engineering.

YOUR TRANSFORMATIONAL GROWTH JOURNEY STARTS HERE

Frost & Sullivan’s Growth Pipeline Engine, transformational strategies and best-practice models drive the generation, evaluation, and implementation of powerful growth opportunities.

Is your company prepared to survive and thrive through the coming transformation?

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