



Playing to win and changing the game.

Ways additive manufacturing can help you shake up your day-to-day operations and offer new competitive advantage.

The opportunity: Staking your claim in the AM frontier

More and more companies are bringing additive manufacturing (AM) out of the R&D labs and into everyday business. As technology continues to evolve throughout the enterprise, executives around the world are finding disruptive ways to integrate AM, take advantage of newfound opportunities, and set themselves apart from their competition.

In addition to helping improve product functionality, accelerating design cycles, reducing physical inventory, and increasing flexibility in supply chains, AM's demonstrated value is expanding even further to create a new frontier of business opportunity. Whether it's creating new product markets, repositioning your business in the value chain, or revolutionizing your operating models to create internal value, AM is here to help you succeed and find new value along the way.

Tapping into new markets and revenue streams

Combining high demand for mass personalized products in almost all sectors with AM's specific ability to produce these products quicker—and often cheaper, it's no wonder many businesses are discovering value in AM. Early-stage impacts of AM can already be seen in the automotive industry—where customization, instantaneous customer feedback, rapid delivery, and lower costs have created new competitive advantages. A critical success factor for early AM adopters will be to not try to force AM into existing business models; instead, in some instances AM will bring about fundamental change. Disruptive go-to-market strategies, stronger customer engagement, and new business models are helping early adopters' new opportunities impact their bottom line and create a moat between them and competitors.

Repositioning yourself in the value chain

AM is redefining traditional value chains in pivotal ways. In a typical outsourced contract manufacturing supply chain, AM presents distinct opportunities to shift leverage in the value chain, bring some manufacturing in-house, and capture more value for end customers. Industrial products companies with acute supply chain demands are already starting to explore the use of AM to help improve their end-product offering; this is the case from mining equipment to defense contractors. As these uses grow, new questions arise such as who will own the designs and printing in this distributed world. Now is the time to ready your organization for what's ahead with AM.

Revolutionizing your operating model

These new business and operating models are here to stay, and early adopters can establish an undeniable, sustainable advantage. The flexibility provided by AM gives rise to customer-centric manufacturing models and opportunities to reduce costs throughout the supply chain. With smaller footprints and lower production scope limits, AM machines can be used to enable distributed manufacturing models previously unattainable. Hospitals and medical device companies are beginning to feel the impact of increased production at the point of care, which is leading to new ways of delivering products and new opportunities in patient care. Many companies are becoming more responsive and producing only what is needed—reducing inventory and transportation costs in the process. AM can bring strategic benefits to your operating model and customers if implemented in the right way.

The next step: Scaling additive manufacturing

Establishing and scaling AM capabilities across your business models demands a thoughtful approach to strategy and execution. Here are six key principles to keep in mind:

- **Business case development:** Transformative business and operating model shifts should account for indirect benefits and have an in-depth understanding of long-term ROI opportunities.
- **Digital thread:** To drive long-term success, it's important for organizations to develop digital twin traceability and end-to-end connectivity both within the company and with suppliers.
- **Quality assurance:** Business leaders should develop controls to manage variability across operators, machines, methods, and materials with real-time measurement and adjustment to drive quality and yields.
- **Talent development:** If new product offerings or business units are being built around AM, key resources across the organization will have to understand the impact and capabilities of the technology to deploy at scale.
- **Process redesign:** Continuous innovation through AM will be a staple for many new business models. Organizations should have processes in place that encourage, capture, and spread these innovations across groups.
- **Organizational roles and structure definition:** AM creates the need for clear roles, decision rights, and policies that may require a shift of organizational responsibilities across functions.

To effectively scale additive manufacturing to its fullest benefit, you need the right support. Deloitte has the digital transformation experience and ecosystem capabilities necessary to help redefine your organization through additive manufacturing and understand how the technology can improve your bottom line. Give us a call to set up a workshop.

Contact Us



Vinod Devan

Principal
Deloitte Consulting LLP
vdevan@deloitte.com



Jason Clark

Senior Manager
Deloitte Consulting LLP
chaclark@deloitte.com



Kellen Smetana

Manager
Deloitte Consulting LLP
ksmetana@deloitte.com

As used in this document, "Deloitte" means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

Copyright © 2018 Deloitte Development LLC. All rights reserved.