

accenture

# SEIZING THE DIGITAL OPPORTUNITY

IN AEROSPACE  
AND DEFENSE



**Digital, already transforming the aerospace and defense industry, is generally defined as a set of technologies that include social, mobile, analytics, big data, and cloud. Accenture takes this technology-focused definition further, focusing on the impact that digital technologies have on this industry.**

**We take two perspectives. The first is digital customers, markets, and channels — understanding how digital can deliver a consistent, meaningful, and relevant customer experience across all channels, customer segments, and geographies. The second is the digital enterprise — demonstrating how digital can optimize the efficiency and effectiveness of internal operations and the delivery of products and services.**

Given that aerospace and defense Original Equipment Manufacturers (OEMs) and tier one suppliers can be both digital customers and enterprises, the industry provides a complex proving ground for the value of digital.

To evaluate the impact of digital in the industry, Accenture surveyed a global set of executives from several leading commercial aerospace companies to understand how they view, value, and are investing in digital. Sixty-eight percent of aerospace and defense companies are comprehensively investing in digital technologies as part of their overall business strategy.<sup>1</sup> By combining the perspective of these industry leaders with Accenture's digital experience, we have been able to deepen our understanding of the implications of digital within the aerospace and defense industry and create a set of recommendations for how the industry can take full advantage of digital's promise.

**68%**

**of aerospace and defense companies are comprehensively investing in digital technologies as part of their overall business strategy.<sup>1</sup>**

Our research shows that the industry is ready to take the next step. Digital is now starting to transform every aspect of the aerospace value chain, from the design of aircraft through to the onboard passenger experience: 97 percent of aerospace and defense executives say they are willing to digitally reinvent their business and industry.<sup>2</sup>

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The executives we surveyed are increasingly making strategic investment decisions through a digital lens, looking across the asset lifecycle from supply chain and manufacturing, to the in-flight experience and aircraft service and support. 67 percent of aerospace and defense executives believe their organization's top priority is innovating new products and services.<sup>3</sup> More than 50 percent of aerospace and defense firms are investing in AI, IoT, AR/VR, robotics/autonomous robots or drones/UAVs.<sup>4</sup>

# 50%

**of aerospace and defense executives believe their organization's top priority is innovating new products and services.**

Combined with the existing digital foundation in engineering, these developments mark an opportunity to optimize cost, service and revenue. Our recent Digital Thread survey shows that design, supply chain and MSO/spares management are the core systems that companies are using to manage assets across the product lifecycle.<sup>5</sup>

While most aerospace and defense companies are investing for a digital future, the industry perceives major challenges in realizing that future. In the case of digital threads, 50 percent of aerospace and defense companies believe that the difficulties to prove business case/ROI and benefits distributed among many functions are the top challenges hindering their company's ability to deploy product or service lifecycle management platforms across various business functions.<sup>6</sup>

## Driving the Digital Strategy

Looking further, we see that aerospace companies are taking steps to address the needs for a coherent digital strategy and to build digital talent. Digital's promises of improved data accuracy, timeliness and insight underscore the potential benefits that survey respondents expect from implementing a digital strategy.

Apart from the above outcomes, 89 percent of aerospace and defense executives acknowledge the criticality of driving the following three outcomes in parallel :

1. New levels of efficiency
2. New sources of growth
3. Personalized experiences<sup>7</sup>

## Building Digital Capabilities

As aerospace companies begin to translate digital strategies into reality, they remain concerned about the maturity of digital technologies. 90 percent of aerospace and defense companies believe they have entered an era of technology advancement that is no longer marked by linear progression, but by an exponential rate of change.<sup>8</sup>

This shift has enabled greater flexibility and performance for aerospace assets. By taking the long view and building open, flexible architectures, aerospace companies can benefit from mature digital technologies while creating a defined roadmap to incorporate digital capabilities that will emerge over the length of a program's lifecycle.

From increased integration of design and manufacturing to new customer experience-driven revenue streams, digital is driving fundamental changes in this industry. The majority of aerospace and defense executives feel their functions are well integrated during their life cycle, however only 7 percent believe that various functions such as marketing, research and development, supply chain and manufacturing have achieved the full level of integration.<sup>9</sup>

# 90%

**of aerospace and defense companies believe they have entered an era of technology advancement that is no longer marked by linear progression, but by an exponential rate of change.**

# RECOMMENDATIONS

**Our findings confirm that aerospace companies recognize that digital technologies have the potential to deliver significant benefits for their own businesses and for their customers. 80 percent of aerospace and defense firms are increasingly using data to drive critical and automated decision-making, at unprecedented scale.<sup>10</sup> Based on our research results, we suggest four key steps that aerospace companies should take to realize digital’s promise:**



## **Develop a comprehensive digital strategy across the organization**

Accenture suggests that companies evaluate their digital investments and adopt a comprehensive digital strategy<sup>11</sup> based on the answers to three key questions:

- What are the most important touch points and the “moments that matter” with your customers, suppliers and employees and how can digital help maximize value at each?
- How can you use digital to drive higher customer value, lower cost, shorten cycle time, improve quality, shorten delivery time and avoid delays?
- How can digital and the Internet of Things (IoT) help you improve your products, better understand customers and capture new business? How can it help secure a bigger share of business by doing more with the same product, leveraging untapped expertise or extending an existing process?



## **Establish a digital governance framework to coordinate the development of digital assets and capabilities.**

As aerospace and defense companies shift from digital strategy to digital operations, they will need to address two concerns: developing cross-functional digital teams and building confidence in digital technologies. Aerospace and defense executives cited ER, IoT/Smart Devices and Robotics/Autonomous Robots as the top technology solutions their organization would benefit from the most to deliver real-time insights and action.<sup>12</sup>

Our experience indicates that digital strategy doesn’t become digital reality without formalized leadership and governance to set the digital agenda and measure outcomes. To be most effective, digital program governance should have internal authority and external input. Internally, stakeholders from across the organization should be represented in the governance process and have objectives aligned to its outcomes. Externally, digital governance should incorporate customer and business partner feedback to accelerate adoption across the supply chain.

**3****Use digital to support the end to end product lifecycle.**

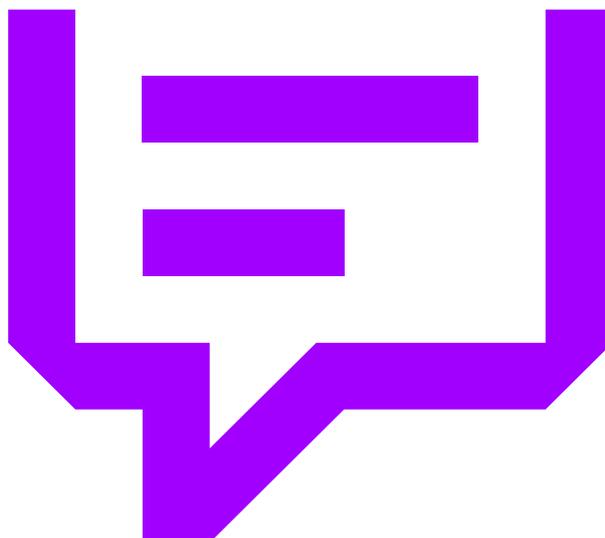
Digital is central to aerospace and defense companies' thinking as they move toward providing full lifecycle products and services. For product-centric companies, digital provides a platform for the rapid introduction of complementary services and greater customer intimacy.

67 percent of aerospace and defense executives believe their organization's top priority is innovating new products and services.<sup>13</sup> In return for access to new service channels, aerospace and defense companies must be prepared to deliver those services in a fashion that addresses the specific requirements of customer segments and even individual operators. 90 percent of aerospace and defense executives report that virtual reality will enable organizations to close the distance gap in offering services to their customers.<sup>14</sup>

**4****Use digital to improve collaboration across the extended supply chain from manufacturing through to service and support.**

Delays in entry to service and return to service from maintenance have had significant impacts on OEM and supplier financial performance. Our research confirms that many aerospace and defense companies expect digital to build deeper and more pervasive collaboration across design, manufacturing, and aftermarket.

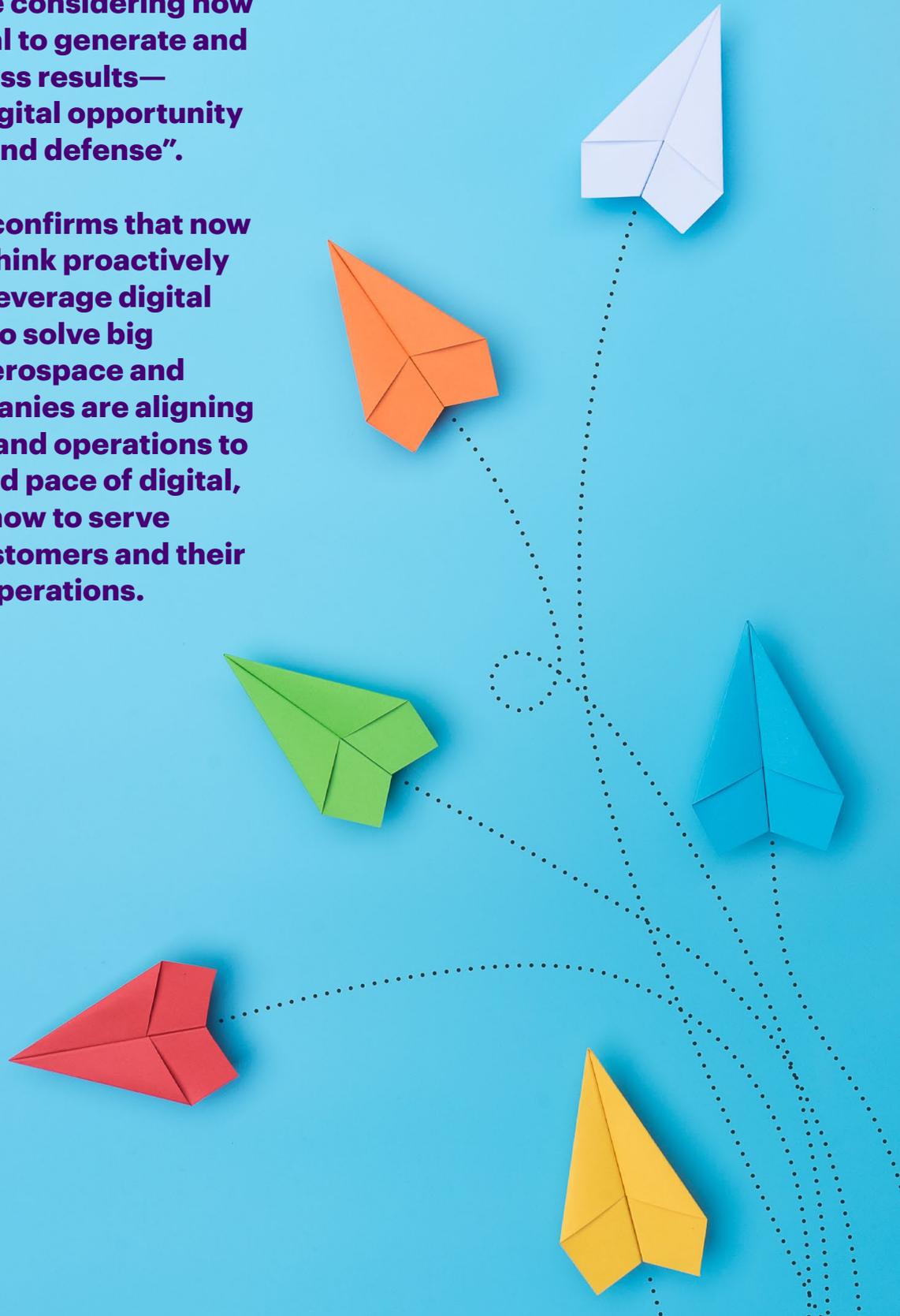
63 percent of aerospace and defense executives cite better collaboration with supply chain partners among the top three benefits of deploying a digital thread.<sup>15</sup> As digital tightens connections across the supply chain, participants in the extended supply chain will seek to realize their long sought-after objectives of lowering total cost and pooling risk.



# CONCLUSION

**As digital strategies offer new and improved ways to optimize the supply chain, reduce time to market, and increase revenue, many aerospace and defense companies are considering how they use digital to generate and sustain business results— “seizing the digital opportunity in aerospace and defense”.**

**Our research confirms that now is the time to think proactively about how to leverage digital technologies to solve big challenges. Aerospace and defense companies are aligning their cultures and operations to the accelerated pace of digital, re-imagining how to serve connected customers and their own internal operations.**



# REFERENCES

- <sup>1</sup> Accenture Technology Vision 2017, Aerospace and Defense respondents
- <sup>2</sup> Industry X.O Survey 2017, Aerospace and Defense respondents
- <sup>3,4</sup> Accenture Technology Vision 2018, Aerospace and Defense respondents
- <sup>5,6</sup> The Digital Thread Imperative 2017
- <sup>7</sup> Industry X.O Survey 2017, Aerospace and Defense respondents
- <sup>8</sup> Accenture Technology Vision 2017, Aerospace and Defense respondents
- <sup>9</sup> The Digital Thread Imperative 2017
- <sup>10-14</sup> Accenture Technology Vision 2018, Aerospace and Defense respondents
- <sup>15</sup> The Digital Thread Imperative 2017

# About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world’s largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 442,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at [www.accenture.com](http://www.accenture.com).