

Advanced Manufacturing Quarterly

Analyst themes from earnings calls

March 2021



The true arrival of the digital manufacturing era, expedited by the COVID-19 pandemic, shaped decisions made by aerospace and defense (A&D), industrial products (IP), and chemical companies during 4Q20. Understanding the crucial need for digital transformation, companies undertook multibillion-dollar acquisitions, launched new digital offerings and connected their installed base to create differentiated solutions that support changing business models.

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Manufacturers are optimistic on end-market recovery and look to increase spend on digital transformation and product innovation

Welcome to the quarterly review of the top themes discussed by leaders of 33 advanced manufacturing (AM) sector companies (including those from the A&D, IP and chemical subsectors) during public earnings calls with analysts in January and February 2021. This update tracks the movement of these themes from quarter to quarter to provide a perspective on shifts in the AM landscape.

Themes that stood out include the following:

- ▶ **Change in financial outlook**, which moved up to No. 2 this quarter. As COVID-19 vaccines become more widely available, many companies are forecasting a return to pre-pandemic activity levels sooner than they predicted in 3Q20. However, 2021 is still likely to be a transitional year rather than a return to normal. Capex-driven sectors, such as heavy machinery, are also witnessing positive demand with expectations to reach pre-COVID-19 levels much earlier than stated in previous quarters. However, commercial aerospace remains subdued, while defense and space are observing robust demand owing to healthy budget allocations from various governments. Emerging regions such as Asia and Latin America are witnessing much higher growth in key end markets, especially automotive and consumer electronics, thus driving momentum.
- ▶ **Business reorganization or restructuring**, which moved down a position at No. 3. A continuing trend over the past several quarters, in 4Q20, AM companies continued to consolidate manufacturing facilities and office footprints, and lower headcount to reduce costs. Less business travel provided a tailwind. Many companies also witnessed cost improvements through structural changes, including decentralization of business units to improve accountability and ownership, and material cost savings through supply chain programs. These programs are enabling AM companies to become more resilient to external disruptions and fund other growth initiatives such as bolt-on acquisitions and financing for R&D.
- ▶ **Product design and innovation**, which also moved down a position to No. 6. The COVID-19 pandemic has expedited many years of digital transformation, with manufacturers actively undertaking digitization of existing products and launching connected offerings. Many are connecting their large installed base to Internet of Things (IoT) platforms and supporting the launch of 5G and modern networking technologies for space equipment. Products enhancing safety and well-being, such as air filtration systems and touchless interfaces, are witnessing robust demand. Energy efficient and sustainable products, such as connected HVAC, refrigerants with lower emissions and recyclable packaging, are being increasingly deployed as customers look to meet their decarbonization targets.

Jerry Gootee

EY Global Advanced Manufacturing Sector Leader

Top 10 themes from quarterly earnings calls

4Q20			3Q20	
↔	1.	Developments in end markets	1.	Developments in end markets
↑	2.	Change in financial outlook	2.	Business reorganization or restructuring
↓	3.	Business reorganization or restructuring	3.	Competitive positioning
↓	4.	Competitive positioning	4.	Change in financial outlook
↑	5.	Financial and capital strategy	5.	Product design and innovation
↓	6.	Product design and innovation	6.	Customer acquisition and connectivity
↓	7.	Customer acquisition and connectivity	7.	Financial and capital strategy
↔	8.	Working capital and cash flow management	8.	Working capital and cash flow management
↔	9.	Changes in production rates	9.	Changes in production rates
New	10.	Enterprise resilience and compliance	10.	Culture and talent

Key themes



1 Developments in end markets

Trends in key customer segments impacting demand for products and services

- ▶ Companies witnessed early signs of recovery in key end markets, such as electric mobility, renewable energy, water filtration, semiconductors and medical devices.
- ▶ Emerging regions, such as Asia and Latin America, are witnessing higher growth in key end markets, especially automotive and consumer electronics.
- ▶ Demand from customers in oil and gas, and commercial aerospace remained low. Transportation companies increased orders for express freighters in response to heightened e-commerce activity.
- ▶ Defense contractors are confident of growth in end markets owing to strength in international customers.



2 Change in financial outlook

Changing forecasts for revenues or earnings per share

- ▶ Most companies are providing cautious positive outlooks, with sales expected to grow in the high single digits for 2021.
- ▶ Capex-driven sectors, such as heavy machinery, are witnessing positive demand with expectations to reach pre-COVID-19 levels much earlier than stated in previous quarters.
- ▶ Many companies recorded improved operating margins in the mid to high teens on cost control efforts.



3 Business reorganization or restructuring

Transforming company structures to meet strategic goals and market demands

- ▶ To reduce costs, companies continued to consolidate manufacturing facilities and office footprints, and lower headcount. Less business travel provided a tailwind.
- ▶ Many companies decentralized business units to improve accountability and ownership, and generated material cost savings through supply chain programs.
- ▶ Several companies divested non-core businesses to eliminate cyclicality, simplify organization structure and improve margins.
- ▶ Companies are reinvesting in R&D, acquisitions and other initiatives in growth areas, such as smart infrastructure, sustainable offerings and electric mobility.



4 Competitive positioning

Market share, new division and brand launches, pricing strategy, and speed to market

- ▶ Investments in product development for higher growth end markets are helping AM companies hold onto market share.
- ▶ Customer relationships are being strengthened by introduction of connected products backed by robust investments in digital transformation.
- ▶ A&D OEMs have partnered with airline customers to develop innovative solutions, including touchless airport kiosks, aircraft fixtures, antiviral surface coatings and air filtration systems.
- ▶ Defense companies are pursuing space exploration as a new market and forming joint ventures to develop an ecosystem as new entrants look to join the space exploration landscape.



Digital technologies are ready to play a key role in enterprise transformation. We're seeing companies that have digital capabilities fare much better through the pandemic. We see many companies using the cloud and apps and their tools to get much better visibility from their customers all the way through to their deepest suppliers.

Jerry Gootee, EY Global Advanced Manufacturing Sector Leader



5 Financial and capital strategy

Capital management and deployment

- ▶ Multibillion-dollar acquisitions to enhance technological capabilities were announced, reflecting the high appetite of AM companies to undertake digital transformation and expand product offerings.
- ▶ Debt reduction and restructuring remained high on companies' agenda as they look to reduce their obligations in an increasingly VUCA (volatile, uncertain, complex and ambiguous) world.
- ▶ Several industrial product and defense companies continued to actively engage in share buybacks and dividends.



6 Product design and innovation

Expanding and transforming offerings through focused investments

- ▶ Digitization of existing products and launches of connected products, such as smart elevators, building automation and control units, were a major focus area.
- ▶ Industrial peers are connecting their installed base to IoT platforms, while one A&D peer is supporting the launch of 5G and modern networking technologies for space equipment.
- ▶ Companies also developed more energy-efficient and sustainable products, such as low-power connected HVAC products, refrigerants with lower emissions and recyclable packaging to meet decarbonization targets.
- ▶ Many product innovations, including air filtration systems and touchless interfaces, focused on providing increased safety and well-being.



Digital technologies have emerged as a powerful tool for helping manufacturers maintain continuity in the face of major challenges such as pandemics. Specifically, digital can help in four key ways: capturing workers' knowledge, enabling better access to expert knowledge, speeding up decision-making and optimizing processes.

Craig Lyjak, EY Global Smart Factory Leader



7 Customer acquisition and connectivity

New orders, reorganizing to better support customer groups, customization of products and services

- ▶ With improving end-market conditions, AM companies witnessed an increased intake of new orders, especially from defense, health care, electronics, and food and beverage customers.
- ▶ In order to increase customer connectivity and effectively deliver new solutions, companies are investing in expanding their salesforce, field technicians and distribution channels.
- ▶ Companies are also investing in implementing enterprise-wide CRM systems to effectively reach customers in the new digital era.



8 Working capital and cash flow management

Changes observed from the prior quarter

- ▶ Inventory and debt reductions during the quarter helped companies improve cash flow and working capital levels.
- ▶ Companies are framing strategies, such as implementation of data analytics in supply chain, to maintain optimum inventory levels and reduce days sales outstanding (DSO) for 2021.
- ▶ Aerospace OEMs are enhancing liquidity by suspending dividends, reducing capital expenditures and discretionary spending.



Even before COVID-19, liquidity was under pressure in the AM sector. However, uncertain economic times can bring enormous opportunities as tectonic changes recreate market landscapes. Firstly, companies must learn from the previous financial crises to shape the now, next and beyond. Secondly, they must look for ways to improve cash flow for both short- and long-term needs.

Henri van der Eerden, Managing Director, Strategy and Transactions, Ernst & Young LLP



9 Changes in production rates

Management of facilities and production lines

- ▶ Plans to augment capacities in new and existing manufacturing facilities were announced, especially by companies with high exposure to pandemic supplies and growing end markets.
- ▶ Production rates for products that find applications in commercial construction, luxury vehicles and commercial aerospace remained challenging.
- ▶ Commercial aerospace OEMs are keeping production low, with gradual increases expected by 2022.



10 Enterprise resilience and compliance

Environmental health and safety, regulations and litigations

- ▶ Companies are taking numerous initiatives, such as targeting efficiencies in production processes, sourcing renewable energy and recycling waste to meet sustainability targets.
- ▶ Three major chemical peers reached a settlement for environmental liabilities stemming from PFAS (perfluoroalkyl substances) pollution.
- ▶ Commercial aerospace OEMs are working with regulators and making design modifications to meet various regulatory safety standards.

Companies included in the analysis

The identification of the top 10 themes is based solely on an examination of earnings calls held in January and February 2021.

- | | | | |
|------------------------------|--------------------------------------|--|------------------------|
| ▶ ABB Ltd. | ▶ Danaher Corporation | ▶ Linde plc | ▶ Siemens AG |
| ▶ Airbus SE | ▶ Dow Chemical Company | ▶ Lockheed Martin Corporation | ▶ Solvay SA |
| ▶ Amcor plc | ▶ DuPont de Nemours, Inc. | ▶ Mitsubishi Chemical Holdings Corporation | ▶ Sumitomo Corporation |
| ▶ BAE Systems plc | ▶ Eaton Corporation plc | ▶ Northrop Grumman Corporation | ▶ Textron, Inc. |
| ▶ BASF SE | ▶ Evonik Industries AG | ▶ Otis Worldwide Corporation | ▶ Toray Industries |
| ▶ Boeing Company | ▶ Flowserve Corporation | ▶ Raytheon Technologies Corporation | |
| ▶ Bombardier Inc. | ▶ General Dynamics Corporation | | |
| ▶ Braskem | ▶ General Electric Company | | |
| ▶ Carrier Global Corporation | ▶ Honeywell International, Inc. | | |
| ▶ Corteva, Inc. | ▶ Johnson Controls International plc | | |
| ▶ Covestro AG | ▶ Leonardo S.p.A. | | |

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