

3D Systems: Where Should the Next Incremental Dollar Go?

Internal ID: S&F-STR-007

Topic: Operations Strategy, Capital Allocation, Customer Strategy

Industry: Industrial Machinery & Supplies & Components

Source: Strategy & Finance

Publication date: 5 October 2026

License: Not specified

Student case • Information cutoff: end-of-day 4 August 2026

On August 4, 3D Systems announced that CEO Jeffrey Graves would leave the company and retire from its board when a successor was hired. Graves remained CEO during the search, and the company expected to name a successor later in 2026. The successor was not identified. The announcement did not specify a change in strategy. [C6, release and Form 8-K Items 5.02 and 7.01, printed pp. 2-3.]

For this classroom exercise, assume you are an **incoming CEO preparing for a hypothetical board discussion** about incremental resource allocation. The board request, the allocation exercise, and your authority in the scenario are invented for teaching; public sources do not establish that the board posed this question or approved a particular budget. How would you allocate the next increment of resources across four priority markets-Med Tech, Dental, Aerospace & Defense (A&D), and Data Center Infrastructure-and the shared capabilities that serve them?

The choice is not whether to preserve 3D Systems' integrated technology base. Printers, materials, software, services, application engineering, and qualification capabilities can support more than one market. The challenge is deciding which market-specific commitments to accelerate, which shared capabilities to strengthen, and how much to stage until evidence improves.

The decision

Prepare a recommendation for the hypothetical board. Choose and adapt one of these approaches, or propose a coherent alternative:

1. **Tilt incremental resources toward selected markets.** Concentrate market-specific applications, commercial, and capacity resources where management reports the strongest traction, while sustaining the shared platform needed to serve customers.
2. **Spread resources across the four markets.** Maintain meaningful market-specific activity in Med Tech, Dental, A&D, and Data Center Infrastructure, investing in shared capabilities where applications, materials, software, service, or manufacturing can transfer.
3. **Stage market-specific commitments.** Fund near-term customer and capability milestones across the portfolio, then release additional resources as evidence on qualification, repeat orders, utilization, contribution, and cash conversion emerges. Staging is a proposed decision method, not a rule established by the research literature.

The case provides no company-approved investment envelope, hurdle rate, market-level return estimate, or probability of success. If you introduce numbers, label them as your own hypothetical assumptions and show how they affect the choice. No source reports market-level ROI or enough data to calculate it.

A portfolio in transition

3D Systems sells additive-manufacturing printers, materials, software, and services through its Healthcare and Industrial reportable segments. During 2025, it sold Geomagic, 3DXpert, and Oqton software assets, restructured, and described a focus on priority markets. A&D also received visible product and capacity investments. Management presents focus and an integrated technology base as compatible. The sale of software assets does not establish that all shared software, workflow, or application capabilities were removed. [C1, Part I, Item 1 and Part II, Item 7; C2, MD&A; C4, Key Highlights; C5, “Fourth Quarter 2025 Results.”]

The company reported Q2 2026 revenue of \$94.6 million, down 0.3% year over year. Its company-defined comparison excluding 2025 software divestitures showed growth of 1.4%; that adjusted comparison is not GAAP revenue. Q2 GAAP gross margin was 36.4%, down from 38.1% a year earlier. Non-GAAP gross margin was 36.7%; the company's divestiture-adjusted comparison was down 150 basis points. The quarter included approximately \$2.6 million in tariff refunds, which affected margin. These consolidated figures do not identify the profitability of any priority market. [C3, “Summary of Financial Results” and “Second Quarter 2026 Results”; C2, MD&A, pp. 22-24.]

The segment picture was mixed. Q2 Healthcare revenue was \$48.1 million, up 6.8%; Industrial revenue was \$46.5 million, down 6.7% reported and down 3.7% excluding divestitures. For the first half, the 10-Q reported Healthcare sales of \$98.229 million versus \$86.336 million and Industrial sales of \$91.888 million versus \$103.042 million. These are reportable segments, not the four priority markets. [C2, MD&A, pp. 23-24; C3, “Second Quarter 2026 Results.”]

The Aug. 3, 2026 earnings release said each of the four priority markets grew more than 20% in H1 2026. In its Q2 comments, management said Med Tech and A&D each grew more than 20%, while Dental grew 3%. The company did not disclose the dollar revenue, margins, backlog, capital required, or return on invested capital for each market. These are management claims, not a disaggregated SEC segment table. [C3, “Summary Comments on Results” and “Second Quarter 2026 Results.”] The Aug. 4 investor presentation identifies the four high-investment markets and says A&D was on track for 20% growth in 2026. [C7, slides 5-7.]

R&D expense was \$19.607 million in H1 2026, down from \$37.044 million in H1 2025, a 47.1% decrease. The company attributed the decline primarily to restructuring, divestitures, compensation reductions, and lower supplies and outside services. Expense alone does not reveal research output or innovation productivity. Is the lower cost base sustainable efficiency, or might it reduce capabilities required to qualify applications and convert market interest into repeatable economics? [C2, MD&A, pp. 22-23.]

Funding and operating constraints

At June 30, 2026, cash and cash equivalents were \$127.951 million, plus \$1.044 million restricted cash, for \$128.995 million total. The 10-Q reported \$3.944 million of 0% convertible notes due in Q4 2026 and \$92.030 million of 5.875% secured convertible notes due in 2030. It also described a minimum \$20 million qualified-cash covenant and reported compliance. Management stated that it expected available resources to meet anticipated cash requirements over the next 12 months; requirements beyond that period would depend on profitability, working-capital management, and potential funding sources. This is a prioritization question under financial and execution constraints, not evidence of imminent liquidity stress. [C2, balance sheet p. 4, Note 6 “Borrowings,” pp. 13-14, and MD&A “Liquidity and Capital Resources,” pp. 25-27; C3, “Financial Liquidity.”]

The 10-Q listed \$21.7 million in purchase commitments, approximately \$9.4 million expected within 12 months. Operating and finance lease obligations, including interest, totaled \$78.4 million, with approximately \$15.0 million expected within 12 months. These are contractual obligations, not discretionary growth budget. The cash balance should not be treated as wholly available for new projects, and commitments should not be counted as investment capacity. [C2, MD&A, “Material Cash Requirements,” p. 27, “Purchase Commitments” and “Leases.”]

H1 net cash used in operating activities was \$14.106 million and capital expenditures were \$5.890 million. The sum, \$19.996 million, is a derived six-month historical amount, not a normalized burn rate or cash forecast. The cash-flow statement reports \$53.825 million of equity-offering proceeds before \$0.127 million of issuance costs; subtraction gives \$53.698 million. Separately, the 10-Q's Note 3 and the earnings release report \$53.2 million net cash from issuing 18.9 million shares. The accessible disclosures do not reconcile the roughly \$0.5 million difference. Keep the source figures distinct; do not invent a bridge. [C2, Condensed Consolidated Statements of Cash Flows, p. 7, Note 3, HTML lines 405-407, and MD&A, pp. 25-26; C3, “Financial Liquidity.”]

Q2 net loss attributable to 3D Systems was \$12.9 million. Adjusted EBITDA, a company-defined non-GAAP measure, was a loss of \$0.8 million for Q2 and positive \$1.3 million for H1. Adjusted EBITDA is not operating cash flow. Prior-year H1 net income included gains from dispositions and debt extinguishment, so reported net income is not a clean operating trend comparison. [C3, “Summary of Financial Results” and non-GAAP reconciliations.]

What could make investment pay?

Additive manufacturing can create customer value through design freedom, customization, reduced inventory exposure, or delivery speed. Those benefits depend on the application and must cover equipment productivity, utilization, labor, qualification, and post-processing costs. For example, one modeled packaging component study found that build packing and utilization materially affected estimated unit costs; an F/A-18 spare-parts study modeled trade-offs between centralized inventory and distributed additive manufacturing. Neither estimates 3D Systems' costs or returns. [L1, abstract and results; L2, abstract/highlights and scenario study.]

Returns can also depend on complementary assets such as application engineering, materials, service, distribution, and customer qualification. Research on additive manufacturing adoption and scale-up provides mechanisms to consider, but does not show which DDD market is most attractive. Other studies discuss conditional market-structure effects, resource focus, and related diversification; they do not yield a DDD market ranking or investment hurdle. See the source register and evidence extraction for citations, versions, locators, and limitations. [L4-L11.]

The A&D opportunity is visible but partly prospective. In January 2026, management forecast more than 20% A&D growth for 2026 and expected production-system and custom metal-parts revenue to exceed \$35 million. It announced a planned Littleton facility expansion of up to 80,000 square feet and described an \$18.5 million Air Force-sponsored, multi-phase program through 2027. These statements are expectations and program context-not realized sales, DDD's disclosed investment cost, cash schedule, or return. [C4, Key Highlights, bullets 1-5; C7, slides 5-7.]

Your recommendation

Write a brief board memorandum that:

- allocates incremental resources across the four markets and shared platform capabilities, explaining the choices you would make now and the capabilities you would preserve;
- compares at least two alternatives, including the strongest case against your recommendation;
- distinguishes reported GAAP performance from company-defined non-GAAP or divestiture-adjusted figures, and market-growth claims from segment results;
- addresses liquidity, the \$20 million covenant, contractual commitments, and the 12-month sufficiency statement without treating all cash as available for growth;
- identifies the customer, qualification, utilization, margin, capital, and cash-conversion evidence needed to evaluate market-level returns; and
- states what evidence or milestone would cause you to reallocate the next increment.

You may recommend a broad portfolio, a market tilt, or staged commitments. More than one conclusion is defensible. The available evidence does not disclose market-level ROI, so do not present a market ranking as a measured fact.