



How 3D printing is changing the chemical sector

Roundtable comments from Frank Jenner

For chemical companies, 3D printing brings the potential for disruption – along with opportunities for growth.

EY's Frank Jenner: customer focus is key

Frank Jenner, EY Advisory Chemical Industry Leader for Germany, Switzerland and Austria, believes that chemical companies must put the customer experience first when working with any new technology – especially 3D printing. "I believe that right now we are doing a lot of prototyping, but we need to think from the customer need spectrum," Frank says. "That's the new way forward."

Frank recently participated in a panel discussion led by Bonnie D. Graham, producer and host of the live web-based radio series, *The Future of Manufacturing with Game-Changers Radio*, presented by SAP. Frank was joined by Greg Gorbach, Vice President and Analyst at ARC Advisory Group, and Stefan Guertzgen, Senior Director for Industry Solution Marketing Chemicals at SAP.

Frank shared his thoughts about:

- ▶ **3D printing in the value chain:** "In the last year, we interviewed over 900 companies worldwide and asked, 'How does 3D printing make your company the strongest link in the value chain?' Increasingly, people are saying that more and more applications will come up in the next one to five years, such as direct printing of materials used in production design."
- ▶ **Opportunities for chemical companies:** "Currently, chemical companies are developing and introducing materials in partnership with established 3D printing players. I see here a possibility for chemicals to dig in deep. If you can produce lightweight polymer to substitute any sort of metal, that's a huge advantage."
- ▶ **New business models:** "Custom demand is driving us in the right direction. For the chemical industry, it's a big opportunity. It's the chance to combine new business and operating models through collaboration with the tool manufacturer. Everyone is specializing. Let's say the printer producer wants to sell the printer and the material comes along with it. It's a win-win situation. The chemical industry needs to position themselves so that they're also in the lead in that space, not only the tool manufacturers."



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On cost reduction efforts as a driver for 3D printing, Frank says: "Cost reduction, specifically in the parts environment, is tremendous. It's not yet foreseeable what it means for taking costs out of the supply chain. There is even an impact on the economy and society in that respect. It's huge."

Frank looks with strong optimism to the next chapter in 3D printing for chemical companies. "The growth rate of 3D printing in the last 10 years is phenomenal," he says. "The market is exploding. Even as predictions say that the manufacturing industry will be investing heavily in 3D printing capabilities over the next five years, I would say in 2020 or beyond we would sit here again and realize that our strong predictions were even too short. We have over-delivered and over-fulfilled our current predictions. In the future, we will see more commercialization in the sense that we have service providers running huge 3D printing farms that operate at airports, at train stations and on the web. Spare parts are used immediately at the chemical plant itself for the repair station. We will see that done by a company itself or by a third-party service provider, who are specializing more and more in that direction."

When is simple not as simple as it seems?

At EY, we take a broad, business-first view to address strategy, processes, technology and operational impacts in tandem. Our growth, plus quality, plus innovation strategy offers predictable services to EY clients. The results speak for themselves: high customer satisfaction and retention, zero escalations, and a growth rate with respect to SAP that far exceeds the industry averages.

Our diverse teams, combined with our broad experience in technology and industry issues, inspire us to ask better questions. We innovate with SAP to co-create more innovative answers. Together, we can guide you on a journey to becoming an organization that is able to address the ever-increasing demands to innovate and transform, while at the same time, allowing you to run your business every day.

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