

3D metal printing pioneer XJet gets \$25m investment

Rehovot-based company generates excitement among tech executives and investors in the US and China

BY DAVID SHAMAH March 3, 2016, 5:12 pm



An XJet system (Courtesy)

Metal could be the big boost 3D printing needs to make it in the industrial world, according to Eitan Tsarfati, CEO of Autodesk Israel's research and development center – which is why Autodesk (via its through its Spark Investment Fund), together with Israeli-Chinese private equity fund Catalyst CEL, has invested \$25 million in Rehovot-based XJet.

The company is developing [an inkjet printing tech for liquid metal](#), “the first time this is being done anywhere,” according to XJet CEO Dror Danai.

For Catalyst, the investment in XJet could foster nothing less than a manufacturing revolution, said Yair Shamir, a managing partner of the fund and the new chairman of XJet.

“A fund like ours, which works with Western and Chinese investors, can help bring this technology to China, where a 3D manufacturing revolution will profoundly affect the world.”



The XJet team, with Dror Danai in the center (Courtesy)

XJet uses nanotechnology to create special metal liquids that, with its 3D metal printing technology, can create unique items on the fly.

“We allow manufacturers to skip the mold stage, saving them huge amounts of time and money,” said Danai. “All the specifications are made in the software, and when it's time to print, our nano-based metals are created according to those specifications.”

The XJet system uses nanoparticles in liquid suspension to build metal parts – far different from the laser-based systems currently in use.

3D printing until now has been used chiefly to create prototypes for products, mostly using forms of plastic (ABS, PLA), while competing metal 3D printing technologies (SLS, selective laser sintering) require manual “finishing,” especially for complex components.



Yair Shamir (Courtesy)

Ink-jet technology, said Danai, ensures a much higher degree of accuracy, since the objects printed from scratch using liquid ink can be formed in any manner – as opposed to SLS, which uses existing material and either fuses or cuts it.

The current round of funding will be used to complete the development of XJet products and launch them into main international markets.

The investors in previous rounds included Gemini Israel Ventures, Landa Ventures, Applied Materials, Good Energies and Chinese investors. In 2014, the company raised an additional \$22 million from Alumot and from existing shareholders to complete the changes in direction of the technology from solar to 3D metal printing.



Eitan Tsarfati (Courtesy)

“Our support of XJet through the Spark Investment Fund stems from our belief that this technology has the potential to change the future of the additive manufacturing industry,” said Tsarfati, head of Digital Manufacturing and general manager, Autodesk Israel.

“Autodesk Israel’s Development Center is focused on driving breakthroughs in the future of making things, and we are proud to work with companies such as XJet that likewise are pushing the limits of manufacturing technologies to accelerate a new industrial revolution.”

“It seems futuristic, but the future is here already,” said Shamir. “We have been talking with manufacturers, many of whom have expressed strong interest in getting these machines. They can be used not only for prototypes, but for actual production in any instance where traditional manufacturing methods require excess time or expense.

“There’s a many multi-billion dollar market for this – and with so much manufacturing being done in China, the introduction of these systems there, which we are facilitating, will be nothing less than revolutionary both for the country’s manufacturing capabilities, and the world.”

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