

#### Successful cost saving at Alstom - 3D Spark wins startup award

**Hamburg, August 31<sup>st</sup> 2022.** *Startup 3D Spark saves 1.8 million euros in costs and 20,000 days in lead time with the world's second-largest railway technology company, Alstom, for which it is awarded a startup award.* 

As part of the summer round of the startup competition "Digital Innovations", the jury of the Federal Ministry of Economics and Climate Protection (BMWK) awarded 3D Spark with a startup prize of 7,000 euros as well as individual coaching. The official award ceremony took place on August 29, 2022 at the "Days of Digital Technologies" in Berlin.

"Millions of industry employees worldwide can make smarter decisions with the help of the 3D Spark platform, because they get the effects of different production alternatives transparently presented. This enables them to make a real contribution to more sustainable, crisis-resilient, and efficient production. We are thrilled that the BMWK is convinced of this benefit and are very grateful for the startup award," said Ruben Meuth (Co-Founder & Co-CEO) on behalf of the team at the award ceremony.

Supply shortages for components cause billions of dollars in damage every year: the startup 3D Spark provides companies with a transparent decision-making basis for selecting the cheapest, fastest, technically most suitable, and most sustainable manufacturing process for each of their components. One option, industrial 3D printing, enables full supply-chain security through local, on-demand printing.

Alstom saves a spectacular 1.8 million euros in costs and 20,000 days of lead time with 3D Spark Alstom, a global leader in smart and sustainable mobility solutions, is an early adopter of the 3D Spark software, which enabled their 3D Printing experts to identify and leverage validated savings of more than €1.8 million costs and about 20,000 days of lead time with 3D printed jigs, spares, and end-use parts. 3D Spark now plans to roll out this success story to OEMs and manufacturing service providers worldwide.

"My mission is to ease the adoption of 3D printing at Alstom, and that's exactly what 3D Spark is helping us to do. That's why we will make the platform available to all Alstom employees in the next deployment phase and plan to triple the number of parts analyzed by the end of 2023, targeting cost savings of more than €5 million," says Aurelien Fussel, 3D Printing Program Manager at Alstom, adding, "Personally, I dream of seeing the carbon footprint regarding different manufacturing alternatives analyzed on the platform soon, which will help us make our production even more sustainable."

Moreover, there are successes with other OEMs and manufacturing service providers:

World's third-largest automotive supplier uses 3D Spark for 3D printing potential analysis With its 155,000 employees and more than €40 billion revenue, ZF Friedrichshafen AG is the world's third-largest automotive supplier and one of the leading companies in the field of Powertrain and Chassis Technology. The corporation is using the 3D Spark platform to identify commercial applications for 10 different 3D printing processes and plans to roll out its adoption globally in stages within the next months.

"Our benchmark analysis regarding available alternatives on the market revealed that the 3D Spark platform is the best solution for our needs. Moreover, the agile collaboration with the team is just great fun" says Dr. Ignacio Lobo-Casanova, Head of SMART Lightweight Process Technologies at ZF Friedrichshafen AG.



# Manufacturing service provider MetShape saves repetitive and non-value-added tasks in sales with 3D Spark

MetShape GmbH is a production service provider specializing in sinter-based additive manufacturing of small and micro metal parts. The technology start-up focuses especially on the metal and electronic industry as well as the medical technology and luxury sector.

"The 3D Spark platform drastically reduces time and effort needed by my team to analyze 3D CADs and 2D drawings from daily Requests for Quotations (RFQs) regarding technical feasibility and precise, instant costing," said Dr. Andreas Baum, CEO of MetShape. "In the past, to create a quote, a technical expert had to manually check printability, while a sales representative had to load the part into CAD software, read out various parameters and transfer them to our own Excel costing tool. 3D Spark does all of this in one quick and easy step. This enables anyone on our team to perform these analyses, giving us greater flexibility and more time for value-adding interactions with our customers."

## Innovative research at Fraunhofer IAPT

Origin of the success was the joint work at the Fraunhofer Research Institution for Additive Production Technologies IAPT: "The door opener for the successful adoption of 3D printing, and thus more efficient and sustainable production, is the identification of profitable applications. This is exactly what the 3D Spark platform does by digitizing expert know-how and making this easily accessible to every user," says Olaf Steinmeier, Head of NextGen Energy from Fraunhofer IAPT, adding: "I have worked with the founders for more than seven years. During this time, we have built up enormous software know-how in scientific and industrial projects in the field of manufacturability and cost evaluation of components. It fills me with joy and pride to accompany the successful industrialization of the software."

Looking back, Dr.-Ing. Arnd Struve (Co-Founder & CTO) recalls, "We were always asked the same questions: Can this part be printed? With which materials? What does it cost? What impact will the technology change have on quality, lead time and sustainability? Questions that even experts often can't answer off the top of their heads. We were convinced that we could automate such complex and expensive feasibility studies. Our goal was always to provide both inexperienced users and professionals with qualified and transparent answers to these questions in just a few seconds."

## 3D Spark dreams of a future without waste in manufacturing

"We dream of a manufacturing future without waste. Billions of components are produced worldwide every day - many with higher costs, delivery times, material and energy consumption and CO2 emissions than actually necessary. Manufacturing companies often simply lack the transparency needed to select the cheapest, fastest, safest, and most sustainable production process for each component. To create this transparency, we will continuously expand our technology portfolio beyond 3D printing processes and thus offer a comprehensive comparison for all relevant manufacturing processes," says Dr.-Ing. Fritz Lange (Co-Founder & Co-CEO) ambitiously.



Boilerplate:

In summer 2021, the founding team received an EXIST start-up grant from the BMWK and the European Social Fund (ESF) and won the "Scientific Innovation Award 2021 of the Rotary Club Hamburg-Haake". In September 2021, 3D Spark GmbH was founded. In summer 2022, the startup was awarded InnoRampUp funding from IFB Innovationsstarter GmbH. Throughout the journey, the team was supported by beyourpilot startup consultant Felix Krieg. The team currently consists of eight members and is expected to grow further after completion of an upcoming seed funding round. The 3D Spark platform is available now to manufacturing OEMs and manufacturing service providers as a SaaS solution.



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