Press Release

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Forward AM and HP Expand Industrial Alliance to Advance Digital Manufacturing

- **Forward AM collaborates with technology leader HP to transform Additive Manufacturing with innovative materials, joint development of advanced applications and far-reaching go-to-market initiatives**
- **First of its kind, industrial-grade polypropylene (PP) developed by Forward AM for HP's Jet Fusion 5200 Series 3D printing system to accelerate production with optimal balance of performance and cost**
- **Alliance enables shared commitment to sustainable production and acceleration of a more circular and low-carbon economy**

Forward AM and HP, the leader in industrial end-to-end 3D printing solutions, expand their strategic alliance to advance digital manufacturing. At the center of the expanded collaboration is the launch of a first of its kind polypropylene (PP) for digital manufacturing. The "HP 3D High Reusability PP enabled by BASF" was developed and qualified for HP's Jet Fusion 5200 Series 3D printing solution to enable companies across industries to design and produce 3D printed parts faster, more cost-effectively, more sustainably, and at higher volumes than ever before.

"The advancement of our long-standing partnership with HP truly demonstrates our shared vision to help transform industries, enable sustainable production, and

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enable our customers to shape the Additive Manufacturing industrialization", says François Minec, Managing Director BASF 3D Printing Solutions. The company unveiled its new brand Forward AM last year as it continues to pursue its goal of driving industrial scalability with future-oriented, leading-edge materials and technology. "The introduction of PP is another important step as we collaborate on best-in-class materials to transform manufacturing. Our teams have worked closely to develop a high quality, sophisticated PP that fully leverages the advanced capabilities of HP's Jet Fusion 5200 platform – truly a win-win for innovative companies investing in the shift to digital manufacturing," continues Minec.

"HP and Forward AM by BASF share a deep commitment to accelerating the shift to digital manufacturing by delivering innovative, sustainable solutions and materials that open up entirely new opportunities", says Ramon Pastor, Interim President of 3D Printing and Digital Manufacturing, HP Inc. "The powerful combination of the world's leading materials science and most advanced 3D printing capabilities yields superior quality, reliability, workflow, and cost savings for customers. From advanced prototyping to the production of final parts, we are excited about the impact this new PP will have for designers, engineers and businesses around the world."

BASF and HP have a long history of innovating together. BASF is a foundational partner in HP's 3D printing materials ecosystem and the two companies have collaborated on an array of sustainable and innovative materials including Ultrasint® TPU01 released last year. Developed for HP's Jet Fusion 5200 3D Series, the new PP enables the 100 percent reuse of collected surplus powder, leading to less waste and more efficient production.

Already, Forward AM and HP are working with industry leaders including Extol, GKN/Forecast 3D, Henkel, Oechsler and Prototal to jointly develop new applications with the new PP on HP Jet Fusion 5200 3D printing systems. Polypropylene has historically been a highly desirable material in industrial manufacturing due to its low cost, colorability, chemical resistance and UV stability, with nearly unlimited use in the world's leading vertical markets including consumer appliances and the

automotive industry. The availability of a new additive material that replicates a traditional material used for a wide variety of auto parts found in vehicles' interior, exterior, and under-the-hood offers significant advantages for auto makers.

"We have been truly impressed by the joint effort between Forward AM by BASF and HP to help us accelerate our digital manufacturing initiatives", says Matthias Weißkopf, Senior Vice President for Research and Development, Oechsler AG.
"The introduction of new materials such as PP enables us to quickly and cost effectively design, iterate and produce innovative new 3D printed parts for customers across industries. We expect a fast ramp up of entirely new applications that leverage the inherent advantages that 3D printing provides for auto makers, home and commercial appliances and the medical industry."

About BASF 3D Printing Solutions

BASF 3D Printing Solutions GmbH, headquartered in Heidelberg, Germany, is a 100% subsidiary of BASF New Business GmbH. It focuses on establishing and expanding the business under the Forward AM brand with advanced materials, system solutions, components and services in the field of 3D printing. BASF 3D Printing Solutions is organized into startup-like structures to serve customers in the dynamic 3D printing market. It cooperates closely with the global research platforms and application technologies of various departments at BASF and with research institutes, universities, startups and industrial partners. Potential customers are primarily companies that intend to use 3D printing for industrial manufacturing. Typical industries include automotive, aerospace and consumer goods. For further information please visit: www.forward-am.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 117,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2019. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.

About HP

HP Inc. creates technology that makes life better for everyone, everywhere. Through our portfolio of personal systems, printers, and 3D printing solutions, we engineer experiences that amaze. More information about HP Inc. is available at www.hp.com/go/3Dprinting.