



News Release

HP, Decathlon and Lonati Group Showcase Sustainable Shoe Production Concept at ITMA in Milan

By leveraging digital technologies, the companies are defining the future of manufacturing

Milan, June 8, 2023 –HP, a global technology leader, proudly joins forces with Decathlon, one of the world's largest sports companies, and Lonati Group to unveil their game-changing manufacturing concept at the ITMA tradeshow in Milan. Together, they present an innovative and sustainable approach to shoe manufacturing that is set to reshape the industry. By harnessing the power of advanced technologies, including HP's Multi Jet Fusion technology and Lonati's shoe-upper knitting machines, this collaboration paves the way for a future of sustainable footwear production.

Traditionally, shoe production requires numerous parts, adhesive materials, and a significant workforce. However, HP, Lonati Group and Decathlon are revolutionizing the process by leveraging the power of 3D printing. In their latest innovation, they have developed a sports shoe that embodies the future of footwear manufacturing.

This ground-breaking shoe combines Lonati's meticulously crafted sock with an innovative midsole and outsole produced using HP's state-of-the-art 3D printer. Lonati's XT-MACHINE and Double Cylinder E1530XS knitting machines allow the production of shoe uppers with single or double-layer fabric, resulting in an integrated upper that offers unparalleled comfort, lightness, performance, and quality.

HP's Jet Fusion 5200 printer is producing both the midsole and outsole of the shoe, showcasing the cutting-edge capabilities of 3D printing technology. To ensure optimal performance, these components are manufactured using BASF Ultrasint TPU01 material, a versatile thermoplastic polyurethane powder known for its exceptional shock absorption, and flexibility. By integrating these advanced materials and technologies, Decathlon and HP are revolutionizing the sports shoe industry, paving the way for innovative designs that deliver unmatched comfort, durability, and performance.

With this partnership, the companies want to share a main message, focusing on the advantages of 3D printing and digital knitting for manufacturing at an industrial level, emphasizing the following key points:

1. **Customization:** The shoe is highly customizable, enabling consumers to personalize their footwear to suit their preferences and needs.
2. **Circularity and Reparability:** By utilizing a glue-free assembly method, the shoe can be easily repaired when damaged. The cushion and upper parts can be separated, allowing for targeted repairs without the need to discard the entire shoe. This not only extends the lifespan of the product but also reduces waste. Moreover, the use of a single material, TPU (thermoplastic polyurethane), for the grip and cushion parts enhances the shoe's recyclability. All of this contributes to a more sustainable and environmentally friendly product life cycle.
3. **Local Production:** By leveraging 3D printing, the shoe can be produced locally, reducing transportation emissions, and supporting local economies.
4. **Flexibility:** The manufacturing process allows for stock lifetime optimization and enables on-demand production and thus reducing waste.

Phillipe Seille, Exploration Leader at Decathlon, expressed his excitement about the collaboration, stating, "We are thrilled to collaborate with HP's Personalization & 3D Printing business and Lonati Group on this project that exemplifies our commitment to sustainability. By leveraging the potential of 3D printing, we are revolutionizing the shoe manufacturing process, offering consumers customized, recyclable, and locally produced footwear."

Don Albert, Head of Footwear and Sports at HP Personalization & 3D Printing, added, "HP's Multi Jet Fusion Technology is enabling a new era of sustainable and innovative manufacturing. We are proud to partner with Decathlon in showcasing the immense potential of 3D printing in contributing to a more sustainable approach to manufacturing. Lonati Group's expertise in shoe-upper technology aligns perfectly with our shared values of sustainability. It is truly inspiring to work together."

Decathlon, Lonati Group, and HP invite industry professionals, media representatives, and ITMA attendees to witness this ground-breaking collaboration first-hand at their joint exhibition booth (Hall 4, C201). Together, they are reshaping the future of sustainable footwear production.