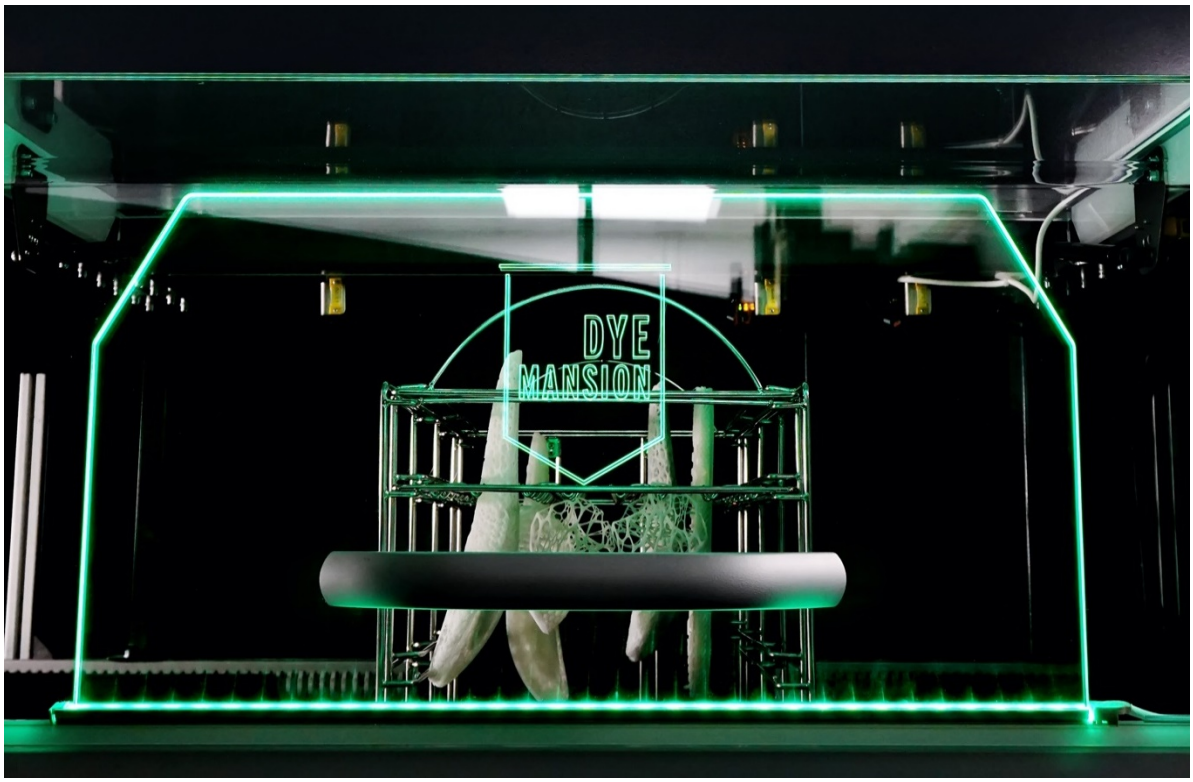
DYEMANSION SELECTED FOR "GREEN DEAL" CALL BY EUROPEAN INNOVATION COUNCIL TO FULFILL EUROPEAN CLIMATE GOALS

Making Europe climate-neutral by 2050 is the big aim of the European Union. The 3D-printing company DyeMansion supports this mission and is chosen for the "Green Deal" call with their Powerfuse S. The Munich-based company aims to roll-out their green vapor polishing technology VaporFuse Surfacing globally, uniting economic sustainability and digital manufacturing.



Caption: A view inside the process chamber of the DyeMansion Powerfuse S
Copyright: DyeMansion

SEPTEMBER 23, 2020 (MUNICH) – In order to transform the way we manufacture products for the better, industrialization and sustainability must go hand in hand. DyeMansion's VaporFuse technology and its hardware Powerfuse S aligns those

principles and embodies economic sustainability while being ecologically responsible. The hardware architecture of Powerfuse S runs with eco-friendly solvent producing no waste, due to a fully closed loop with integrated recycling. As the system runs autonomously 24/7, it enables long-term economic growth without having a negative impact on the environment, its operators or cultural aspects of the community. This is why the fast-growing company from Munich was chosen by the European Innovation Council (EIC) in the first-ever "Green Deal" call.

The EIC distributes over EUR 307 million to 64 game-changing "Green Deal" startups out of 2000 applications contributing to the objectives of the European Green Deal Strategy and the Recovery Plan for Europe. The selected startups are based in 23 different countries, making this the most geographically diverse EIC call so far.

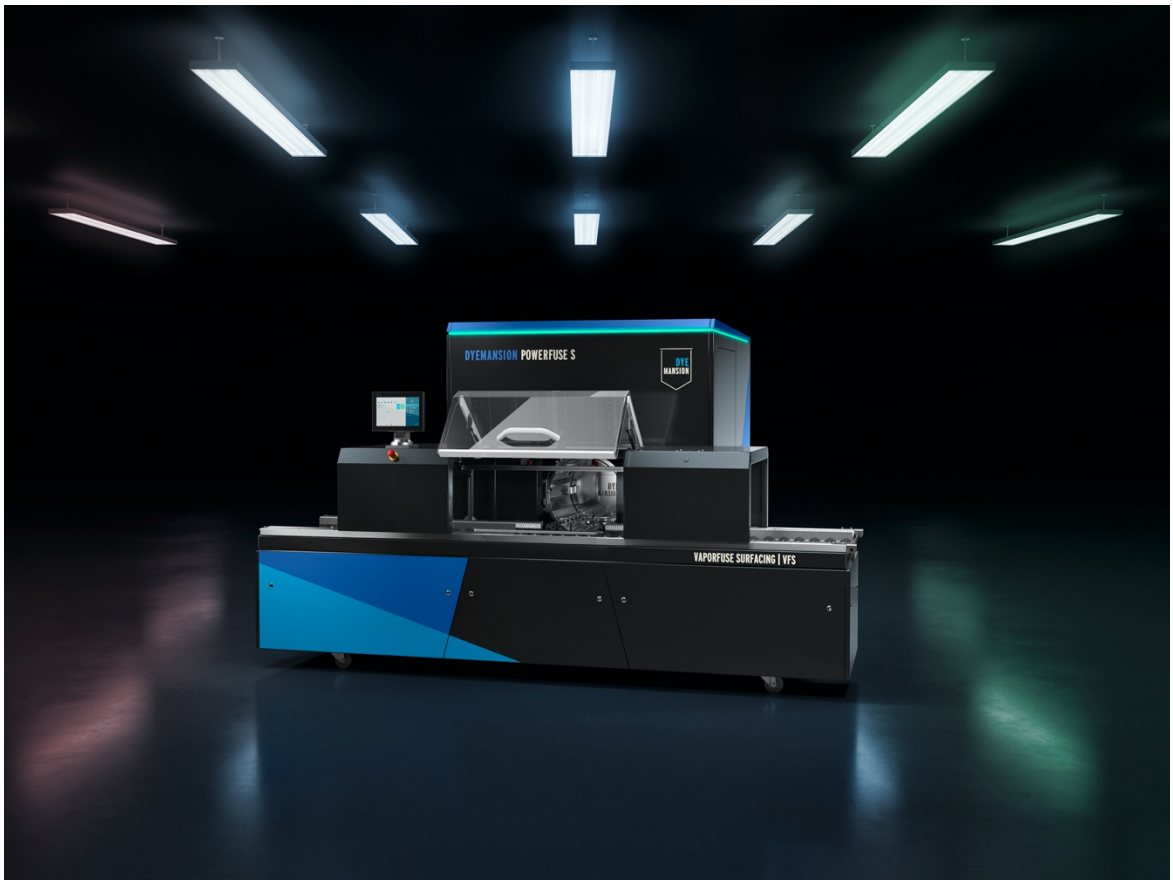
"Being selected as one of the very first startups to work at the forefront of Europe's mission to become the first climate-neutral continent is a great honor for us. This underlines not only the sustainability potential of 3D-printing but also the innovative 'green' approach that we bring to the manufacturing industry with our Powerfuse S. We take this job seriously and see sustainability as a key obligation to all our activities.", says Felix Ewald, CEO & Co-Founder of DyeMansion.

DYEMANSION POWERFUSE S
A TRULY GREEN AND INDUSTRIAL SOLUTION FOR THE FACTORY OF THE FUTURE

Before launching the Powerfuse S in 2019, chemical smoothing has been often associated with harsh chemicals, toxic waste and single-use solvents. These can not only cause serious harm to the operator, sometimes using CMR solvents (carcinogenic, mutagenic and reprotoxic), but also lead to a bad ecological footprint. CMR solvents may even be classified as Substances of Very High Concern (SVHC) in the future with stricter regulations for chemicals within the EU.

If 3D-printing is meant to have a positive impact on our environment, all steps within its value chain including post-processing must follow the principles of economic sustainability. Hence, DyeMansion developed the vapor polishing system

Powerfuse S, a truly green solution that is ready for the factory of the future. The system delivers sealed surfaces which are beneficial for various fields of applications.



Caption: DyeMansion's Powerfuse S, selected for the "Green Deal" call of the European Union
Copyright: DyeMansion

Economic sustainability applies for both hardware and process: The advanced hardware architecture runs with an eco-friendly solvent that is approved by the EU for food packaging and is used in many cosmetic products. It operates in a fully closed loop with integrated recycling of the solvent avoiding waste production. The operation of the system works contact-free and complies with all industrial health and safety standards. Due to the fully automatic loading concept, the Powerfuse S runs autonomously 24/7.

This makes the system applicable for Industry 4.0 and ensures unbeatable costs per part at full production capacity. The result of this industrial process are sealed

3D-printed surfaces at injection molding level: VaporFuse Surfacing delivers a reduced surface roughness of Ra less than 2 – even inside of complex tubes. Parts treated with VaporFuse become pressure-tight and repel water, oil or other liquids. A possible bacterial growth on the surface can also be reduced to a minimum.

Once there is a legal commitment with the EIC, DyeMansion plans to use the funding from the "Green Deal" program to expand the fields of application for VaporFuse Surfacing. In doing so, the manufacturer aims to enlarge the material compatibility of the process, providing specific ISO certifications and ensuring compliance of manufacturing standards for key sectors such as medical or food and beverage. Another key pillar will be enabling to use the full potential of industrial IoT. This will allow remote monitoring and predictive maintenance to ensure high overall equipment efficiency.

THE VALUE OF SUSTAINABILITY

ROSE FRAMEWORK AND INTERNAL SUSTAINABILITY COMMITTEE

DyeMansion is part of Start Global's ROSE (Return on society and the environment) project, which was developed in cooperation with the University of St. Gallen and is supported by the European Venture Capital firm btov Partners. ROSE empowers and guides entrepreneurs as well as investors to contribute more positive impact. The framework provides a better understanding of both risks and opportunities. It also emphasizes the responsibility of entrepreneurs as key players for the development of our society.

Lukas Erdt, Powerfuse S Product Manager and initiator of the sustainability council at DyeMansion says: "Facing climate crisis, limited resources and global inequalities, it is obvious that companies have to rethink their way of operating. The first step is to acknowledge the need and to commit to more sustainability, but the actual implementation is hard work. This realization made us establish an internal sustainability committee to work on these topics and appoint resources and authority to it."

The committee at DyeMansion set its first goals to reduce waste and receive exact numbers about the GHG emissions of the company to reduce DyeMansion's carbon

footprint in a traceable way. Besides environmental goals, social sustainability plays a major role. Topics include reduction of inequality between people, genders, level of education and wealth of countries.

EUROPE'S SUSTAINABILITY GOALS
THE IMPACT OF ADDITIVE MANUFACTURING

Caption: DyeMansion's technology helps to achieve the EU's climate goals.
Copyright: AdobeStock_European flag, Credit: Tobias Arhelger

Additive Manufacturing (AM) can have a massive impact on the global energy demand and helps to bring back the manufacturing industry to Europe. There are several effects that are in line with the sustainability goal of *increasing the EU's climate mitigation ambition* through energy savings and the decrease of greenhouse gases (GHG). AM enables manufacturing in proximity to the end-user which results in shorter supply chains and therefore reduces energy consumption during transport. Inventories can be reduced by on-demand production while enhancing flexibility. For most applications, the as-printed surface is not suitable which makes sophisticated finishing technologies such as the Powerfuse S crucial for their successful performance. Furthermore, AM supports the goal of *realizing a zero pollution ambition and a toxic-free environment and transitioning to a clean*

and circular economy by waste prevention and recycling in contrast to traditional subtractive manufacturing.

ABOUT DYEMANSION

DyeMansion is the global leader in Additive Manufacturing finishing systems that turn 3D-printed raw parts into high-value products. From perfect fit eyewear to personalized car interiors, their technology makes 3D-printed products become a part of our everyday life. Starting in 2015 with the first industrial coloring solution for powder bed fusion parts, the Munich-based company extended its portfolio with advanced part cleaning and surfacing solutions for a wider range of 3D-printing technologies in the field of plastics. Today, Dyemansion's Print-to-Product workflow combines industry-leading hardware with the widest range of color options on the market. Their systems are applicable for Industry 4.0 and can be integrated seamlessly into various production processes. The ability to provide a flexible solution for both small batches and high volumes makes Dyemansion a trusted partner for future factories. Through close collaboration with customers across all industries, the 3D-finishing technology and expertise continuously grow with the market. Reduced cost per part, unmatched quality, and high sustainability are core values that drive each innovation of the fast-growing company. In addition to these principles, finding the right finish for every application is what drives them.

Website: www.dyemansion.com

ABOUT EUROPEAN INNOVATION COUNCIL

The European Innovation Council (EIC) is currently in a EUR 3.3 billion pilot phase and is due to be fully-fledged in 2021 as part of the new Horizon Europe program. In March 2020, the Commission amended the pilot EIC 2020 Work Programme in order to include a EUR 300 million budget through the EIC pilot Accelerator for funding game-changing, market-creating innovations that contribute to the goals of The European Green Deal and the UN's 2030 Agenda for Sustainable Development.

Website: www.ec.europa.eu/research/eic

PRESS CONTACT

DyeMansion:

Sabrina Gugel

sabrina.gugel@dyemansion.com

+49 151 61064724