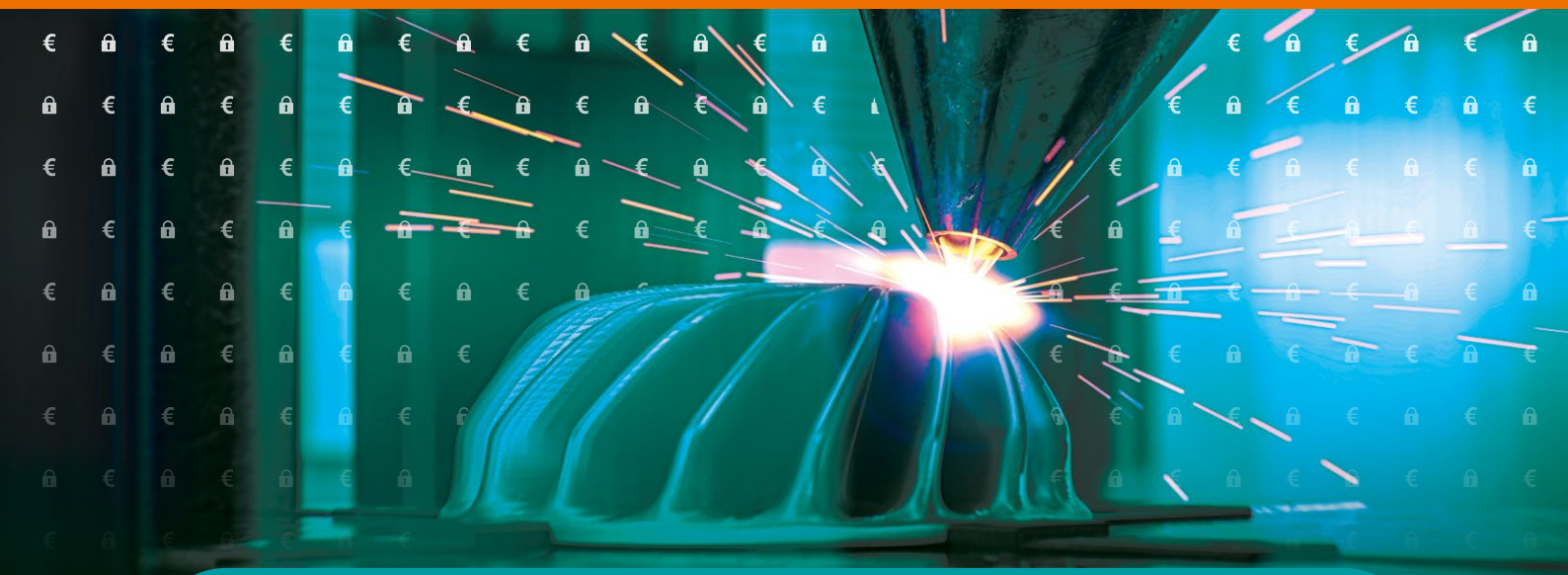

White Paper Executive Summary

Protection and Monetization of 3D-printed Spare Parts

CodeMeter IP Protection and Licensing Provides the Enabling Technology

The 3D printing of spare parts in the automotive industry offers numerous advantages and innovative possibilities: rapid availability of spare parts, manufacturing cost efficiency, easier customization and optimization to meet specific requirements, and lower storage costs to name just a few.

However, challenges exist in both the technology and economics of establishing standardized processes and ensuring quality to achieve true industrial status. In the coming years, digital processes are expected to connect and optimize all steps from selection to storage, ordering, and tracking of 3D-printed parts. Given these developments, it is essential for the industry to increase its profitability model to justify the necessary investments in technology and process optimization and to maintain competitive advantages over conventional manufacturing methods.

This white paper delves into the topic of monetizing 3D-printed spare parts, highlighting the challenges and opportunities arising from the use of 3D printing in production, especially regarding IP protection and licensing. The integration of Wibu-Systems' CodeMeter licensing and protection technology is described in detail in a real-world use case. Daimler Buses uses 3D printing to manufacture spare parts for its buses, reducing delivery times and minimizing inventory. This approach allows Daimler Buses to quickly respond to customer requests while simultaneously increasing efficiency in production and logistics. As a result, Daimler Buses has significantly advanced spare parts sales, being the first company in the industry to do so. Many spare parts are now available in digital form for 3D printing in their OMNIplus 3D printing license shop, the largest service network in Europe for Mercedes-Benz and Setra buses. These parts can be purchased and directly printed on-site by bus companies and service partners worldwide. This process is made possible by the CodeMeter encryption and licensing solution from Wibu-Systems and specially certified printers.

CodeMeter forms the technological basis for both data encryption and the creation and secure delivery of licenses. Farsoon Technologies and 3D Systems have integrated CodeMeter technology into their software products, ensuring a secure pro-cess chain from the web shop to the printer. The list of certified 3D printers is constantly being expanded. This, in turn, guarantees the success of the technology and its market penetration.

CodeMeter offers various features to ensure IP protection in 3D printing and simplify licensing, particularly in the context of integration with an ERP system in conjunction with a web shop. The integration of CodeMeter into production and distribution processes further enhances security and efficiency by protecting design data, efficiently managing license, automating the sales process, ensuring quality control, and enabling traceability and compliance.

Additional use cases and the economic potential of the technology are presented, concluding with an outlook on future developments in the 3D printing industry and their impact on IP security and licensing.

Download the complete white paper

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