

## METAL MATRIX NANO-COMPOSITE COATINGS UTILIZATION AS ALTERNATIVE TO HARD CHROMIUM

## 6th Press Release

## **SSbD Decision Support Tool for Coatings selection**

The EU-funded MOZART project announces one of its key results: the Decision Support Tool (DST), developed by AXIA Innovation GmbH, designed to transform how industry evaluates and adopts coating technologies.

The DST is a computational platform that integrates the Safe and Sustainable by Design (SSbD) framework, ensuring that every coating option is assessed for chemical safety, performance, recyclability, and lifecycle sustainability. By embedding SSbD principles, the tool provides end users with structured data on raw materials, coating properties, life cycle assessment (LCA), life cycle costing (LCC), and toxicity profiles.

Crucially, the DST also aligns with EU REACH requirements, highlighting substances subject to authorization or restriction and guiding users toward safer alternatives. This dual focus — SSbD methodology and REACH compliance — ensures that stakeholders can make informed substitution decisions that are both technically sound and legally robust.

Through scenario-based evaluations, the DST enables comparisons between conventional nickel-based coatings and MOZART's advanced alternatives designed to replace hazardous hard chromium (HC). Results include sustainability ratings, risk metrics, and comparative analyses that support SMEs and large manufacturers in identifying viable, SSbD-compliant solutions.

By accelerating the adoption of safer and eco-friendly coatings, the DST empowers industry to reduce regulatory risk, enhance workplace safety, and contribute to Europe's broader sustainability objectives.



































