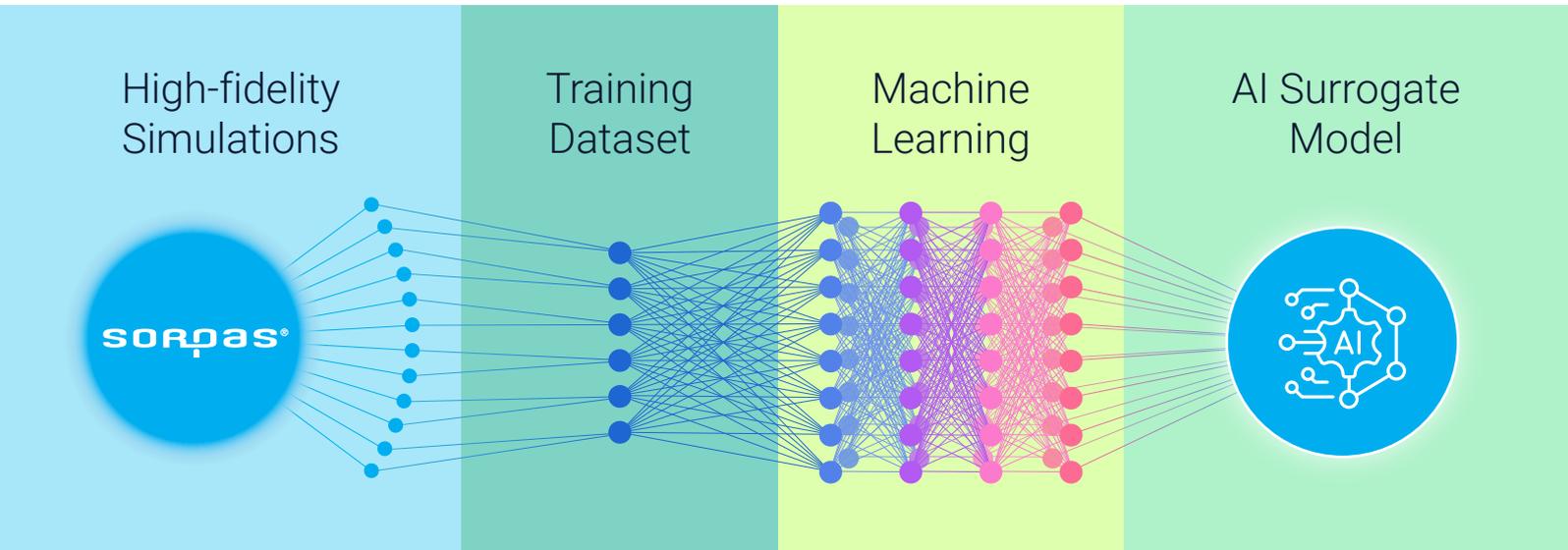


# World's First AI Surrogate Model enabled Digital Twin for Spot Welding (Patent Pending)



SWANTEC is making significant progress on developing the world's first AI surrogate model enabled digital twin for spot welding. SORPAS® has served as the reference solver for performing numerous high-fidelity simulations. The newly developed SORPAS®.AI module facilitates the generation of representative training datasets by automatically analyzing and mining the data across a large number of simulations. Through supervised Machine Learning, the first AI Surrogate Model for Spot Welding has been created that is currently under internal tests and validations. The next generation AI-enabled Digital Twins for spot welding will be further developed by integrating the AI surrogate model with dynamic data from real-time welding processes, thereby enhancing spot welding production to achieve consistently high quality welds.

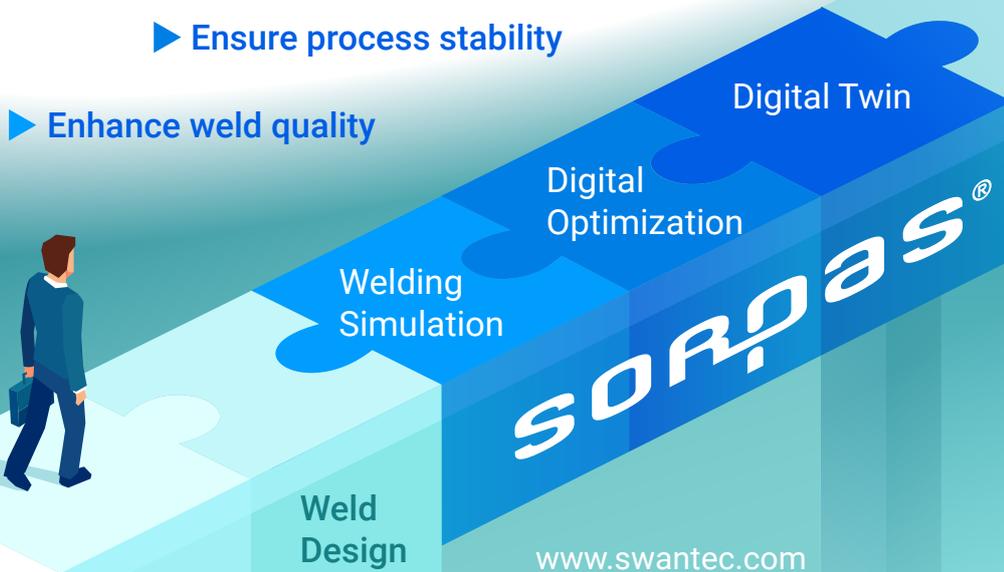
## Total Welding Optimizations with Digital Technologies powered by SORPAS®

- **Welding Simulations** - to achieve the best weld designs
- **Digital Optimizations** - to achieve the best welding parameters
- **Digital Twins** - to achieve the best welding productions

▶ Improve production efficiency

▶ Ensure process stability

▶ Enhance weld quality



Welding Production

