Predictive Quality and Process Optimization with IconPro ARES. In-Cloud or On-Premise.

Less Scrap. Less Callbacks. Less Inspection Efforts.
More Process Insights. More Process Control.

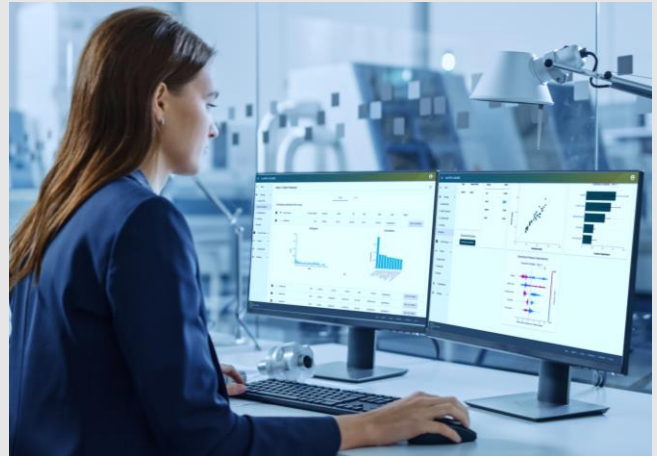Compatibilities with all common filetypes, databases & standard protocols.

FOR QUICK & ACCURATE PREDICTIVE QUALITY ANALYSES

Minimal TIME EFFORTS & TRAINING to create predictive quality models,
Maximum ACCURACY for typical & challenging production & quality data.

Problem: Training predictive quality or process optimization models on typical production and quality data is challenging. Experts, time, and know-how are needed for data pre-processing and modelling. Apart from that, models must be updated regularly.

Solution: IconPro ARES quickly creates accurate predictive quality and process optimization models for typical production and quality data. Simply upload data from files or databases, select target variables, and receive visualized results and a PDF report.

Value: Minimum proof-of-concept or model training costs or effort. Maximum cost-efficient implementation of predictive quality.

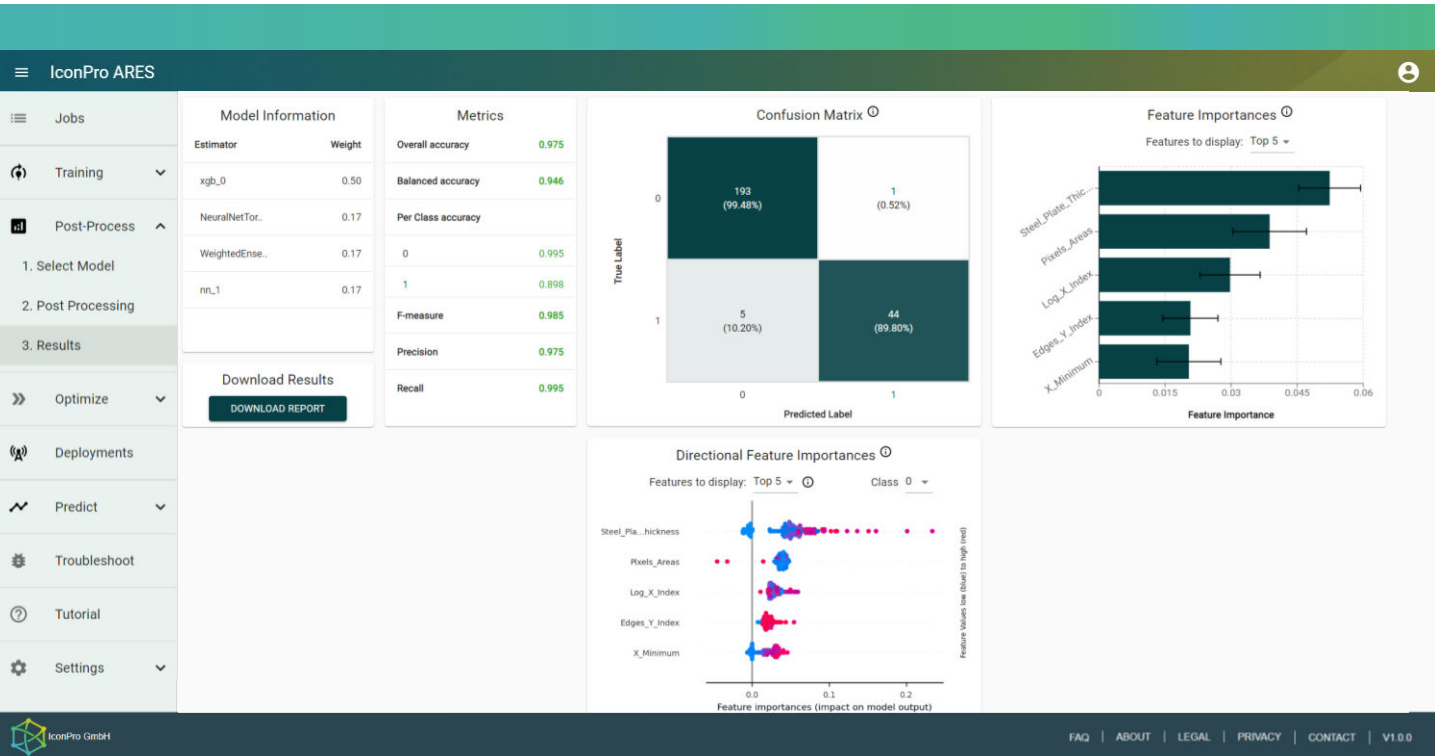# FOR TRANSPARENT PROCESS INFLUENCES & MODEL VALIDATION

More ACCEPTANCE by process experts validating model influences,
Immediate PROCESS INSIGHTS to eliminate hidden scrap root causes.

Problem: Machine learning models that were trained to predict and optimize quality are normally black-box-models with a statistically evaluated accuracy. How the process influences or model inputs influence the model output or quality, respectively, is unknown. This reduces acceptance & trust by process experts and hinders process insights.

Solution: IconPro ARES generates a report for each trained model, visualizing the impact and direction of each process parameter on quality. Validate the model with process experts and gain valuable improvement insights about the most important influences.

Value: Increased acceptance & reliability. Process insights into scrap savings potentials.
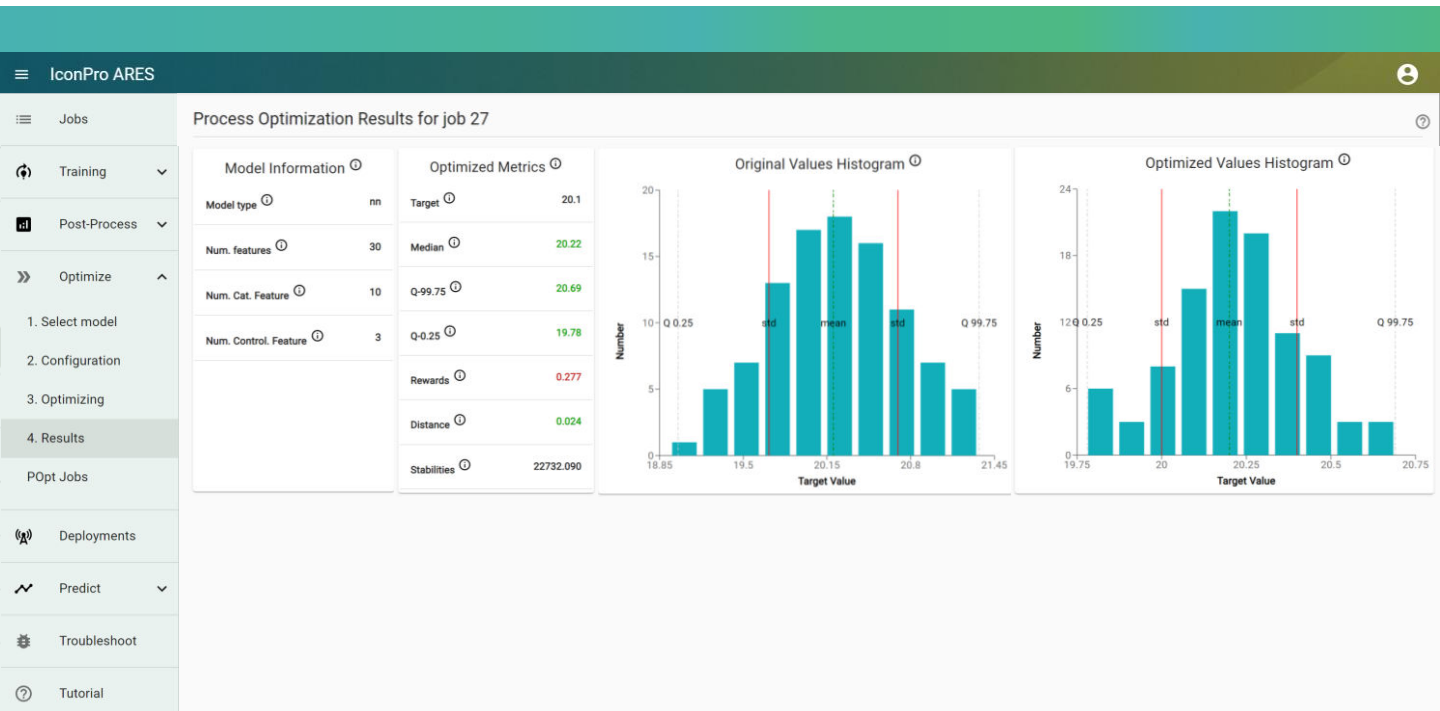
FOR EFFORTLESS PROCESS OPTIMIZATION MODELLING

Minimal TIME EFFORTS & TRAINING for optimization models,
Maximum RELIABILITY thanks to pre-qualified predictive models.

Problem: Deriving process optimization models from predictive quality models to calculate process correction values for is very challenging. It requires expertise and time. Often, the reliability is highly uncertain..

Solution: With IconPro ARES, optimization models can be derived with a few clicks by selecting a validated predictive quality model. Get a report and visualizations on expected optimization accuracy and stability.

Value: Minimum proof-of-concept or model training costs or effort. Maximum cost-efficient implementation of predictive quality.

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FOR DEPLOYING IN-PROCESS PREDICTION & OPTIMIZATION MODELS

Activate validated models with NO CODE and just some clicks, Enable REAL-TIME & IN-PROCESS predictions and optimization.

Problem: Live prediction or optimization values in-process are necessary to maximize the value of predictive quality and optimization models. However, deploying the models for such requests requires significant IT and software engineering efforts.

Solution: Choose validated prediction and optimization models in IconPro ARES and deploy them with a few clicks, making them available for in-process requests from the process control or monitoring system.

Value: No programming & IT efforts for real-time predictions & optimizations in-process.

FOR CONTINUOUSLY VALIDATING PREDICTIONS & OPTIMIZATION

Ensure CONTINUOUS VALIDITY by automated real-time validation, Low MANUAL EFFORTS for model checks and control.

Problem: Ensuring deployed models provide reliable in-process predictions or process correction values is crucial. However, validating models in-process is hard.

Solution: IconPro ARES stores and monitors predictions or optimization values for every deployed model. If anomalies occur or process data deviates from "normal" values, an alert is sent to the process engineer.

Value: Continuous reliability of process optimization or scrap reduction with minimal manual checking and process risks.

FOR AN OVERVIEW & MANAGEMENT OF ALL DEPLOYED MODELS

Intuitive LIVE MODEL MONITORING,
Simple administration of PREDICTION & OPTIMIZATION MODEL LIFECYCLES.

Problem: Keeping an overview of deployed models and performing actions like deactivation, configuration or deletion of models can be time-consuming and require support from the IT administration.
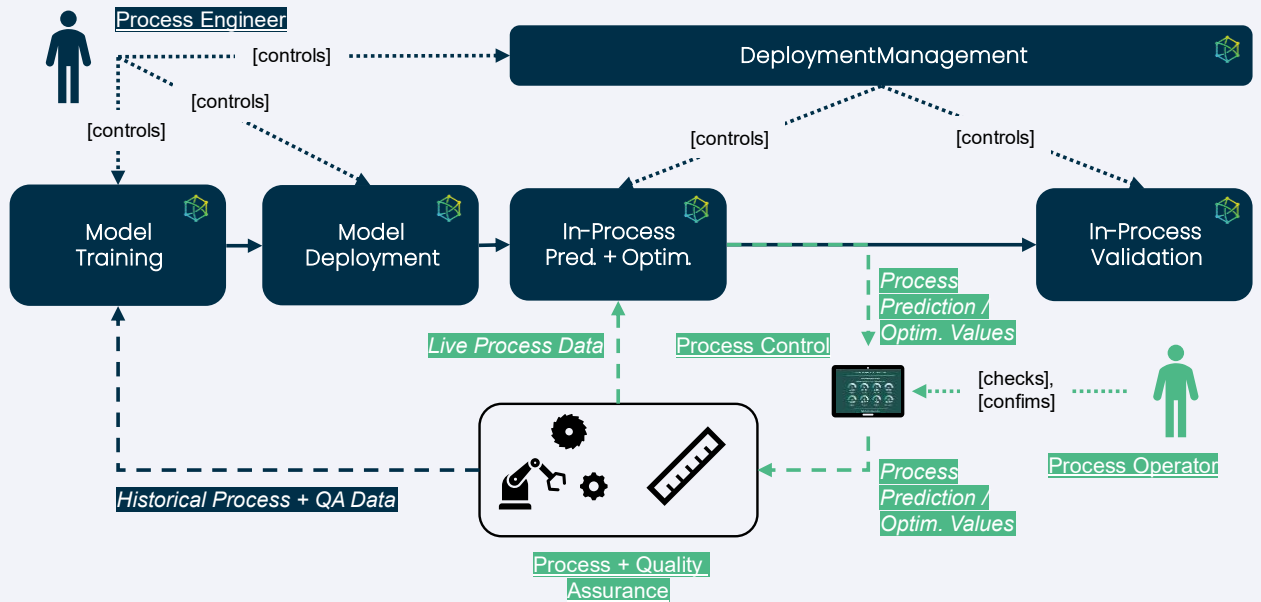
Solution: IconPro ARES enables process or quality engineers to easily manage all deployed prediction and optimization models without code or IT administrator assistance.

Value: Full access and control of process predictions and optimization for process engineers. Maximum cost-efficiency, no IT support necessary, minimal response times.

How can ARES be integrated into production?

Equipped with a variety of interfaces to common filetypes, databases or standard protocols ARES can be integrated into any IT/OT infrastructure of producing companies – no matter if in-cloud or on-premise.

Figure: With ARES, process engineers create, manage & provide powerful in-process models to operators.

How can I test IconPro ARES?

With our ARES software predictive quality & process optimization becomes as automated as it gets. However, it is never 100% plug & play due to individual production processes, use-cases, and IT/OT infrastructures.

We guide you through 6 systematical steps to a proof-of-concept within 60 days in the most cost-efficient manner. Check our workshop concept here or contact us via mail: info@iconpro.com

IconPro is a leading technical provider of software solutions for predictive quality & predictive maintenance as well as process & energy optimization in production.

IconPro software helps manufacturing companies of all sizes to achieve more efficient and sustainable processes and machines. Our customers produce more competitively with less costs and resource usage.

Originating from the Machine Tool Laboratory of RWTH Aachen University, the largest institute for production research in Europe, we offer in-depth production expertise and software tailored to the shopfloor.

Learn more about IconPro at **iconpro.com** and follow us on **LinkedIn**. Feel free to write to us to **info@iconpro.com**.