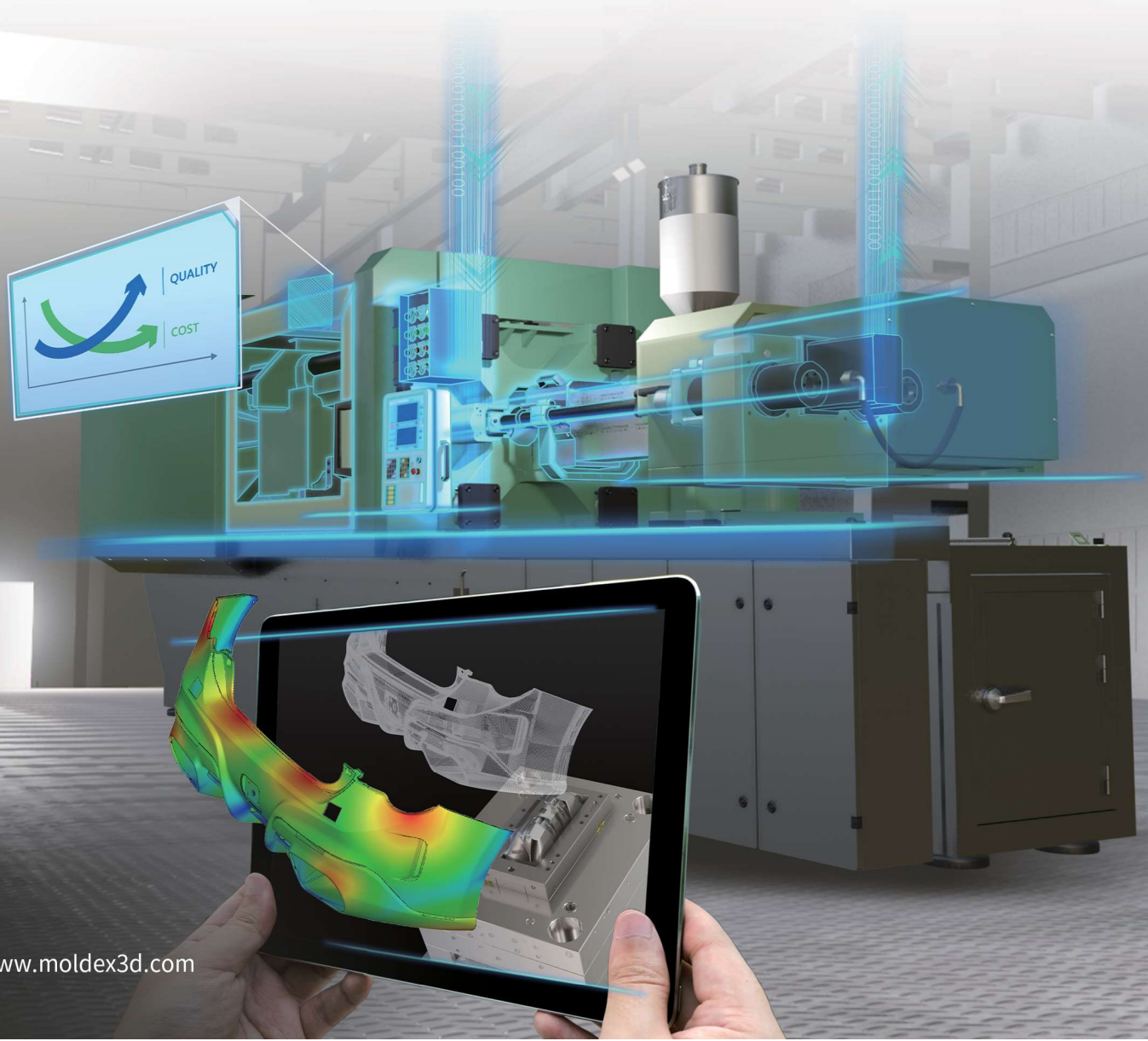# Moldex3D

Machine Characterization Service

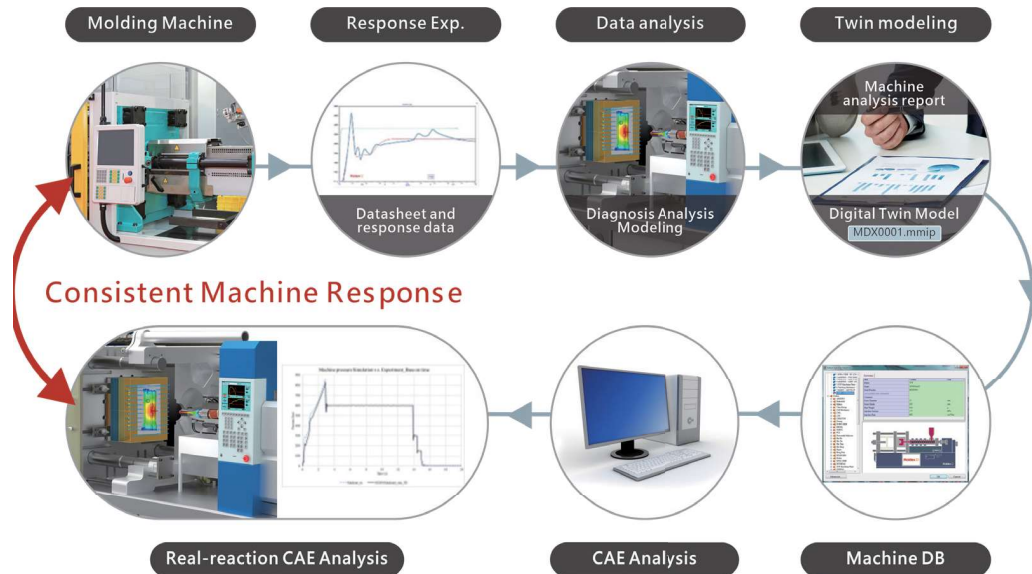## Connect Your Simulation to Manufacturing

Moldex3D machine characterization service plays an important role to achieve digital twin for smart manufacturing. The service will bridge the gap between simulation and production to allow the scenarios of simulation considering physical characteristics and dynamic responses of actual molding machine. Through this solution, optimized process conditions generated by Moldex3D simulation will be able directly applied on shop floor to dramatically reduce the time and cost of actual mold tryout.

Our Services

- Collect and analyze dynamic response data of molding machine
- Create model file of Moldex3D machine digital twin (*.MMIP)
- Provide professional report of Machine characteristics analysis

Analysis items of machine characterization		
Specification Analysis	■ Speed Specification	■ Pressure Specification
Performance Analysis	■ Speed Response ■ Switch Position ■ Charge Stroke	■ Pressure Response ■ Response Time ■ Delay Time
Manufacturing Analysis	■ Manufacturing Stability	■ Potential Issue

Molding Machine — **Response Exp.** — **Data analysis** — **Twin modeling**

Datasheet and response data — Diagnosis Analysis Modeling — Digital Twin Model — MDX0001.mmip — Machine analysis report

Consistent Machine Response

Real-reaction CAE Analysis — **CAE Analysis** — **Machine DB**

Benefits and Advantages

Identify the characteristics and status of machine

- Identify physical characteristics of the machine
- Identify actual dynamic responses of the machine
- Evaluate production stability and related potential issues

Bridge gaps between simulation and manufacturing

- Enable simulation considering actual molding response of machine
- Enable simulation results approaching real molding patterns
- Generate process conditions fit in real setting of molding machine

Connect simulation to real production

- Able to directly apply CAE process conditions on shop floor
- Reduce the time and cost from mold tryout to production
- Create possibility for workflow automation from simulation to machine controller

Moldex3D