SMT
WORLDWIDE
PART OF INCORPORATECHNO

WWW.SMTWORLDWIDE.COM

HEADQUARTERCENTER
BARCELONA - SEOUL
MONTERREY - TUNISIA

DISTRIBUTIONCENTER
SPAIN - KOREA - MEXICO - FRANCE
ITALY - PORTUGAL - GERMANY - TUNISIA

Test Services

The NPI Acceleration Program is an end-to-end service designed to accelerate the industrialization of new products (New Product Introduction), reducing risks, optimizing the test process and validating production feasibility before machinery acquisition.
The program is supported by the Smart Demo Center, enabling customers to validate their product under real production conditions, with access to experts in process, test, software and AI.
From design to production quickly, safely and optimally.

Role of acts as:

- Technology partner (not a distributor)
- Expert in the full manufacturing process
- Specialist in test, industrialization and quality
- Integrator of solutions (machinery + software + AI + consumables)

Value Propositions

“Before investing hundreds of thousands in machinery, validate your process with us.” “Test your product in real conditions before production.” “Reduce risk. Accelerate production. Guarantee performance.”

Key Benefits

- Risk reduction before investment
- Acceleration of time-to-market
- Reduction of industrialization costs
- Quality improvement from the start
- Robust test assurance
- Future performance optimization

Service Modalities

- Closed project (defined milestones)
- Hour-based model (Service Packs)
- Part of the cost can be integrated into machinery purchase

Test Services

- Phase 1 – Design & Feasibility Analysis

Objective: evaluate whether the product is industrializable.
Includes:

- Design review (DFM / DFT)
- CAD data analysis (Gerber, ODB++, IPC)
- Testability evaluation
- Process risk identification

Deliverable: Technical report with recommendations

- Phase 2 – Test Preparation

Objective: define the validation strategy.
Includes:

- CAD file conversion
- Test architecture definition
- Test coverage analysis
- Estimation of test and flashing times
- NPI strategy definition

Deliverable: Complete test plan

- Phase 3 – Demo Center Testing ("Test Before Production")

Objective: validate the product before investing in machinery.
Includes:

- Use of the Smart Demo Center (Flying Probe, Flasher, software...)
- Test program development
- Prototype validation
- Execution of functional and electrical tests
- Analysis of real results

Key benefit: Validation without initial CAPEX

Test Services

Phase 4 – Process Optimization

Objective: ensure industrial efficiency.

Includes:

- Test debugging
- False-fail reduction
- Cycle-time optimization
- Parameter tuning
- Yield improvement

Phase 5 – Advanced Engineering (as needed)

PFMEA de proceso

- Process PFMEA
- Risk identification
- Mitigation plan

AI aplicada al test

- AI applied to test
- Failure-pattern detection
- Predictive optimization
- Scrap reduction

Optimización de consumibles

- Consumables optimization
- Technical selection
- Impact on quality and cost

Test Services

Phase 6 – Industrialization & Decision Support

Objective: prepare the transition to production.

Includes:

- Final test architecture definition
- Equipment recommendation
- Line sizing
- Scaling strategy (low → high volume)
- Investment decision support

Result: Machinery purchase with minimized risk

4. Program Modalities

NPI Starter

- Basic validation
- Simple test
- Ideal for prototypes

NPI Advanced

- Full Demo Center access
- Test + optimization
- Industrial preparation

NPI Full Acceleration (RECOMMENDED)

- Complete program
- PFMEA + AI + optimization
- CAPEX decision support
- Series-production readiness

Conditions

- Dependence on design data quality (CAD, BOM)
- Normal iteration cycles in NPI phase
- Results linked to product design
- Availability of samples for testing
- Pre-defined technical scope