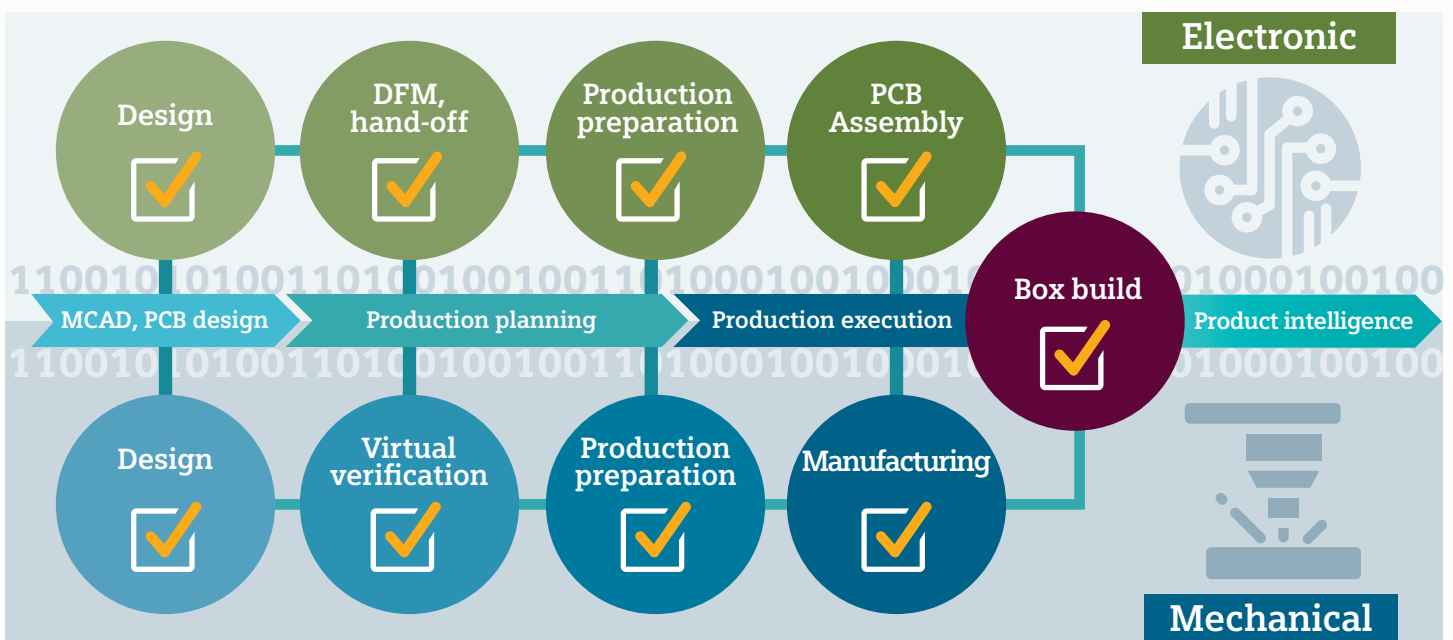**SIEMENS**
Ingenuity for life

Why smart manufacturing for electronics?

Key challenges of electronics manufacturing

Deliver lot size of one	Optimize material usage	Make data useful
Quality • One board to ramp up to quality • Enforce proper processes	**Quality** • Make smart sourcing decisions	**Transform big data into smart data** **Big data** • Volume • Velocity • Variety • Value • Validity
Productivity • Reduce changeover times • Plan and schedule the entire factory • Just-in-time material delivery	**Inventory** • Accurately track location, consumption and status	
Continuous improvement • Move from product-based to process-based analysis • Simulate with digital twins	**Just-in-time** • Get the right materials to the right place at the right time	**Smart data** • Formatted • Delivers insight and foresight • Comprehensible • Supports real-time decisions

Digitalize the entire value chain with smart manufacturing solutions

Electronic

Design → DFM, hand-off → Production preparation → PCB Assembly

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MCAD, PCB design → Production planning → Production execution → Box build → Product intelligence

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Design → Virtual verification → Production preparation → Manufacturing

Mechanical

Smart manufacturing delivers business benefits

50% NPI time savings	€ **2M** inventory reduction	**99.9%** quality
50% reduced changeover time	**20% reduced** obsolescence	**24 hour** new order lead time
20% reduced engineering time	**30%** increased production efficiency	**20% annual growth**

(Source: Siemens Digital Industries Software customer case studies)

To learn more about how Siemens helps electronics companies realize the benefits of smart manufacturing, visit:

https://www.plm.automation.siemens.com/global/en/industries/electronics-semiconductors/