

MICROSOFT CORPORATION

Assessing Digital Transformation Opportunities in the Semiconductor Manufacturing Industry

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Microsoft is a leading software company with a mission to empower every person and every organization on the planet to achieve more - unlocking unprecedented opportunity as technology disrupts every industry and has the power to make a difference in everyone's lives. To empower customers on their digital journey, the Microsoft Services team envisions new possibilities for delivering and supporting customers' solutions that result in the right business outcomes.

As the COVID-19 crisis disrupts supply chains and chips manufacturing gets more sophisticated, semiconductor manufacturers start developing digital initiatives to improve their research, supply chain, and talent functions. Microsoft service team quickly identifies the emerging opportunities in the semiconductor industry and brought together their Research team, Sales, Industry Architects to help semiconductor clients make digital decisions today that impact long-term investment strategies.

To capture this opportunity, the Tauber team performed a comprehensive analysis of the semiconductor industry's digital transformation opportunities, including deep-dive analysis on a leading semiconductor company. First, the team identified digital opportunities in semiconductor clients by conducting market research, customer survey, and stakeholder interviews. Next, the team developed a digital transformation roadmap for the semiconductor client by analyzing organization digital maturity, opportunity sizing, and 3-year roadmap. Based on this work, the team recommended Microsoft and its semiconductor client to invest in three digital themes and a horizon-based transformation journey that focus on intelligent factory operations, enhanced employee productivity, and improved customer engagement. Finally, to illustrate the potential impact on semiconductor client, the Tauber team chose a semiconductor client's product line to demonstrate the digital transformation opportunities, implementation plan, and assess performance improvement potential.

After implementing the digital transformation strategy on the chosen production line, Microsoft's semiconductor client expected production cycle time reduction was 20%, and expected equipment downtime reduction was 35%. The product scrap could be mitigated by 70%, potentially saving production costs by 25.2M per year.