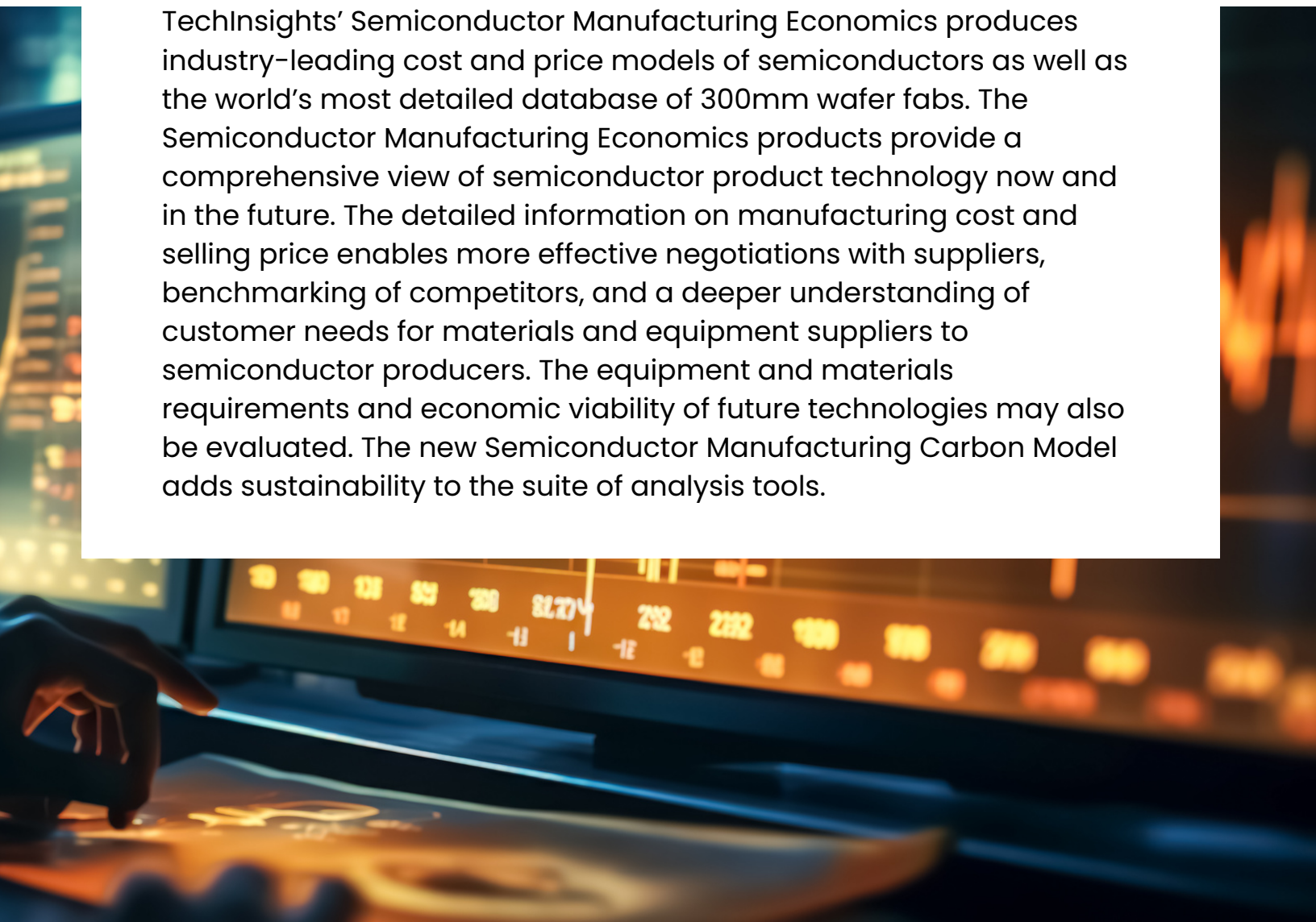


TechInsights' Semiconductor Manufacturing Economics

The industry leader in cost and price modeling of semiconductors



TechInsights' Semiconductor Manufacturing Economics produces industry-leading cost and price models of semiconductors as well as the world's most detailed database of 300mm wafer fabs. The Semiconductor Manufacturing Economics products provide a comprehensive view of semiconductor product technology now and in the future. The detailed information on manufacturing cost and selling price enables more effective negotiations with suppliers, benchmarking of competitors, and a deeper understanding of customer needs for materials and equipment suppliers to semiconductor producers. The equipment and materials requirements and economic viability of future technologies may also be evaluated. The new Semiconductor Manufacturing Carbon Model adds sustainability to the suite of analysis tools.

Semiconductor Manufacturing Economics Subscription

Semiconductor Manufacturing Economics cost and price models are prepopulated simulators that can explore trillions of possible scenarios. The models range from the easy-to-use classic models for IC and Power Devices that require only a handful of inputs, to advanced models of wafer fabrication, and assembly and test, which provide users with full visibility into the calculations and the ability to edit the data at every level.

Semiconductor Manufacturing Economics utility extends across a broad spectrum of industries and sectors, including integrated device manufacturers (IDMs), foundries, fabless semiconductor companies, outsourced assembly and test (OSAT) providers, electronics systems producers, automotive manufacturers, analysts, universities, and start-ups. All models are also delivered in the form of Excel spreadsheets, and include a full year of updates and support, ensuring users have access to the latest and most accurate data and insights.

Why You Need a Semiconductor Manufacturing Economics Subscription

- You purchase semiconductors – Negotiate pricing armed with a detailed understanding of manufacturing costs now and in the future. Understand how the technologies of leading-edge companies compare.
- You produce semiconductors – Benchmark yourself against your competitors. Evaluate your cost structure now and in the future. Understand the requirements and costs for future technologies.
- You supply semiconductor producers – Evaluate the equipment and materials needs of semiconductor producers now and in the future, including the economics.
- You invest in semiconductor companies – Gain a better understanding of how various semiconductor companies compare in technology and cost.
- You are an analyst or consultant – Gain detailed knowledge of technology and costs.

Overview of Semiconductor Manufacturing Economics Offerings

Assembly and Test Cost and Price Model

This model enables users to easily estimate the manufacturing cost and selling price of most integrated circuit testing and assembly operations.

It includes:

- Cost and price for assembly and test of semiconductors
- Unit cost and price, materials requirements, and equipment requirements
- Cost and price by process, volume, and date from 2010 to 2035

Discrete and Power Products Cost and Price Model

This model enables users to easily estimate the cost and selling price of high-power silicon and compound semiconductor integrated circuits and discrete devices.

It includes:

- Wafer fabrication, test, and packaging costs
- Coverage of 100mm to 300mm wafer sizes
- Cost (manufacturing cost) and price (selling price) estimates for a wide range of semiconductors
- Cost and price by volume, and date from 2015 to 2030

IC Cost and Price Model

This model enables users to easily estimate the cost and selling price of low-power silicon integrated circuits.

It includes:

- Wafer fabrication, test, and packaging costs
- Coverage of technologies from 3 μ technologies on 100mm wafers to the latest state-of-the-art technologies on 300mm wafers
- Cost (manufacturing cost) and price (selling price) estimates for a wide range of semiconductors
- Cost and price by volume and date from 2015 to 2030

Strategic Cost and Price Model

This model enables users to explore past, current, and future technologies from the three leading producers in four segments: DRAM, Foundry, IDM Logic, and NAND. The model is a wafer cost and price model only and produces detailed wafer costs, equipment sets, and materials.

It includes:

- Cost and price for leading-edge 300mm wafer processes
- A detailed technology roadmap for 3D NAND, DRAM and Logic, and equipment and materials requirements
- Cost and price by process, volume, and date from 2000 to 2035

300mm Watch Database

This database contains all 300mm wafer fabs both current and planned.

It includes:

- Details of location, key dates, partners, capital investment, incentives, nodes, products, capacity (from 2010 to 2030), and more
- Several analysis graphs of capacity by product, company, country, and more

Carbon Model

This model is designed to address scope 1 and scope 2 carbon emissions leading-edge 300mm wafer fabs. As demands for semiconductor technology continue to increase, so do the impacts of the semiconductor industry on the environment. As the climate crisis intensifies, the semiconductor industry faces a two-part problem:

- Design greener processes and technologies to reduce carbon emissions for new processes
- Reduce carbon emissions from existing facilities

It includes:

- Equipment, processes, and manufacturing steps for Logic, DRAM, and NAND all within one model for leading-edge 300mm wafer fabs
- Models trailing edge 300mm processes, the current 300mm processes, and projected future processes
- Detailed bottom-up analytics around carbon emissions
- Company and fabrication specific process and facility calculations

Tech Insights



TechInsights is the information platform for the semiconductor industry. Regarded as the most trusted source of actionable, in-depth intelligence related to semiconductor innovation and surrounding markets, TechInsights' content informs decision makers and professionals whose success depends on accurate knowledge of the semiconductor industry—past, present, or future. Over 400 companies and 50,000 users access the TechInsights Platform, the world's largest vertically integrated collection of unmatched reverse engineering, teardown, and market analysis in the semiconductor industry. This collection includes detailed circuit analysis and imagery, process flows, device teardowns, illustrations, costing and pricing information, forecasts, market analysis, and expert commentary. TechInsights' customers include the most successful technology companies who rely on TechInsights' analysis to make informed business, design, and product decisions faster and with greater confidence.

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