



# Smoltek Semi Optimizes PECVD System as CNF-MIM Prototype Production Continues

*This press release is an English version of the previously published Swedish version, which has interpretive precedence.*

**Smoltek Nanotech Holding AB (publ) (“Smoltek” or “the Company”) announces that the subsidiary Smoltek Semi is currently focusing on optimizing the company’s advanced PECVD system to ensure implementation of its most recent technological innovations in CNF synthesis, enabling compliance with stringent customer requirements, prior to installation at the Industrial Technology Research Institute (ITRI) in Taiwan. The ongoing production of CNF-MIM samples continues as planned using existing PECVD equipment.**

In June 2025, Smoltek Semi signed a two-year technical service agreement with ITRI, Taiwan’s leading semiconductor foundry, as communicated in the [press release published on June 18, 2025](#). As part of the agreement, the installation of Smoltek’s PECVD system at ITRI was planned.

Smoltek Semi is now optimizing the system in preparation for installation. When completed, it will be fine-tuned to deploy the company’s latest innovations in CNF synthesis to meet customer requirements. At this stage, however, installation is not essential for the continued development of the company’s capacitor technology. Smoltek Semi can already produce initial CNF-MIM™ capacitor prototypes for customer-specific projects using existing equipment. This allows the company and ITRI to concentrate on optimizations and improvements before commissioning the PECVD system, which will make the next phase more efficient and cost-effective.

Magnus Andersson, CEO of Smoltek Nanotech Holding AB, comments:

“Our PECVD system will be a key element in the pilot production line at ITRI. At this stage, it is strategically important to focus on understanding customer requirements and building them into the line. That way, when the system is installed, it will already be optimized to produce CNF-MIM™ capacitors according to our customers’ specific needs.”

## Background

Smoltek’s custom-built PECVD (plasma-enhanced chemical vapor deposition) system is designed to produce carbon nanofibers (CNFs) with extremely high aspect ratios for industrial use. The CNFs are the core of Smoltek’s patent protected CNF-MIM™ technology, enabling the production of ultra-thin capacitors with very high capacitance density, intended for integration directly under advanced processor circuits – for example AI and High-Performance Computing (HPC) applications. The technology combines performance, area efficiency, and scalability, offering customers a clear competitive advantage in next-generation microelectronics.

## For further information:

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Smoltek Nanotech Holding is a public deeptech company that provides a technology that enables the production of conductive nanostructures on various materials. The company’s nanostructure manufacturing technology can be used in several industrial sectors. Customers are found in the global process industry and semiconductors. The products that the company develops are used in equipment to produce fossil-free hydrogen and in semiconductors to further miniaturize microchips. The company protects its unique carbon nanotechnology through an extensive patent portfolio consisting of more than 120 applied for patents, of which 97 are currently granted. Smoltek’s share is listed on the Spotlight Stock Market under the ticker SMOL. Smoltek is a development company and forward-looking statements regarding time to market, production volume and price levels should be interpreted as forecasts and not commitments.