

ADVANCED TECHNOLOGY & MANUFACTURING

Advanced Technology and Manufacturing is one of the six industry clusters identified in 2004 by Gov. Rick Perry as part of his long-term, strategic job creation plan. Each cluster was selected because of its powerful potential for future economic growth.

The Advanced Technology and Manufacturing cluster is made up of three sub-clusters: nanotechnology, semiconductors, and automotive manufacturing. Texas' world-class universities and research facilities, highly trained workforce, strong government and private business support, and a thriving business climate make Texas a national and global leader in all three sub-clusters.

NANOTECHNOLOGY

The science of very small things is big business in Texas. Nanotechnology involves the engineering of materials at the scale of atoms and molecules and its applications across all six industry clusters.

Texas is a global leader in nanotechnology research and distribution; is nationally ranked for nanotech-related activities including research, venture capital, and commercialization; and has laid claim as the origin of nanotechnology based on the ground-breaking work conducted by Houston-based Rice University and by the late Nobel Laureate Rice Professor Richard E. Smalley.

SEMICONDUCTORS

Texas is the birthplace of the integrated circuit and has been a global leader in the semiconductor industry since the 1950s. One of the most instrumental companies in many key semiconductor industry developments is Texas Instruments, whose late Dr. Jack Kilby invented the integrated circuit (IC) in 1958. Dr. Kilby went on to hold more than 60 patents, develop popular products like the pocket calculator, and win the 2000 Nobel Prize in Physics for his role in the IC invention.

Texas continues to be an industry leader by attracting advanced technology companies to the state through the Texas Enterprise Fund (TEF). In June of 2007, Samsung Austin Semiconductor's manufacturing plant held its grand opening. The state-of-the-art 300mm NAND flash memory wafer plant expansion was the result of a \$10.8 million TEF grant. Parent company Samsung Electronics has invested over \$5.6 billion in the project as of December 2012, making it the largest single foreign investment in Texas and one of the largest in the United States.

AUTOMOTIVE MANUFACTURING

Texas has been a leader in the automotive manufacturing industry for more than 50 years, and is a top manufacturing site for full-sized pick-up trucks and SUVs. Texas is a top-ranked state for automotive employment and establishments, vehicle retail market size, and vehicle registrations. The state is the single largest retail market for full-sized pickups, which has earned it the nickname "Truck Country." In 2010, over one in five new vehicles registered in Texas was a pickup.

Texas, part of the NAFTA-spurred automotive corridor, is home to two major automotive manufacturing assembly plants. GM has manufactured vehicles in Arlington since 1954. Toyota opened a Tundra full-size pickup truck plant in San Antonio in 2006, and started manufacturing the Tacoma pickup for the entire North American market in August 2010. Other major auto manufacturing employers include Peterbilt Motors, Navistar International, and BAE subsidiary Global Tactical Systems.

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