



Tianjin Economic-Technological Development Area, a place of great promise

TEDA: Embracing Industry 4.0

By Wu Ziran

On May 18, China's renowned vehicle manufacturer FAW Group and its business partner German Volkswagen Automobile Co. Ltd. jointly kicked off the construction of their north China base in Tianjin Economic-Technological Development Area (TEDA). It is the last industrial base to be constructed as stated in FAW-Volkswagen's "2020 Strategy" and will boost the joint venture's annual production up to 3 million vehicles by 2020.

At the same time, FAW-Toyota Motor Co. Ltd. broke ground on a new production line in TEDA. It is estimated that it will introduce over 15 new types of vehicles and will reach the annual sales target of 1 million units by 2020. Volkswagen started production of the latest generation of highly advanced dual-clutch gearboxes two years ago and has reached its annual output target of 3 million yuan.

The Volkswagen's gearbox plant, located in TEDA, is the biggest project in China wholly funded by a foreign company. The plant has reached the goal of 30 billion yuan annual output and is now producing the most advanced direct shift gearbox (DSG) in the world.

The settlement of big projects reflects the continuous transformation and upgrading of "TEDA Manufacturing." When Motorola and other large enterprises have become a fading memory, Toyota, Great Wall Motor, FAW-Volkswagen and a number of new pillar businesses are rapidly emerging.

As Xu Hongxing, Secretary of the Work Committee of TEDA, said, "TEDA is an old industrial base, but it develops dramatically with each passing day. As one of China's first national-level development zones, TEDA has offered sound investment environment for entrepreneurs over the past three decades. TEDA is also a front runner of opening up in northern China. After several rounds of restructuring and upgrading in its regional industries, 'TEDA Manufacturing' now boasts unique advantages and has found its way of development."

Upgrading TEDA manufacturing

TEDA takes on a new look nearly every year. Over the past five years, the total net added output value of TEDA has exceeded 130 billion yuan at an average annual growth rate of 18 percent. Its budgetary revenue of public finance grew 12 percent year on year; the total investments in fixed assets have doubled, compared with that in the 11th Five-Year Plan period (2006-10). The major econom-

ic indicators have quadrupled, compared with that in 2005, taking the lead in all national-level development zones.

TEDA actively responds to the complicated macroeconomic situations by focusing on structural readjustments and enhancing reform and opening up. It also strives to create itself to be an international, modern, ecological complex.

TEDA has taken a number of measures to boost its manufacturing, strategic and modern service industries. Currently, output of its new generation IT industry, new material and bio-pharmaceutical industries accounts for nearly 15 percent of the local GDP. The share of service industry in local GDP is increasing year by year. Now, TEDA has three industries, each of which is worth over 100 billion yuan, and 24 enterprises, each of which is worth over 10 billion yuan. The output of previous competitive products continues to rank first in China, and a number of new high-end products become an important driving force for growth.

In terms of commercial real estate economy, among the 23 building under regulation, there are six buildings, each of which contributes over 100 million yuan of tax each year; three buildings each paying over 500 million yuan of taxes. The MSD-B1 building contributes near 1 billion yuan worth of tax revenue to the local government. In 2015, the executed value of offshore service outsourcing reached \$620 million, accounting for 64 percent of the total amount in Tianjin; there were 52 financial leasing companies with 30-billion-yuan registered capital, 31 factoring companies with 4-billion-yuan registered capital. In 2015, there were 114 foreign invested projects each with over \$10 million investments; there were 2,090 newly approved domestic enterprises with 36.5-billion-yuan registered capital. The gross industrial output value of domestic industries accounted for 30.2 percent of the total value in the area.

In 2015, the total investment on scientific and technological innovation amounted to 13.5 billion yuan. The area introduced a number of high-level scientific and technological projects on the basis of National Supercomputing Center in Tianjin and other innovative platforms. Transformation and industrialization of research results in areas such as big data, mobile Internet, IC design, new vaccines, medical equipment, and intelligent unmanned equipment have accelerated. Last year, 1,007 scientific and technological SMEs were newly set up, reaching a total number of 5,577; 61 Little Gi-

ant enterprises were newly established, 409 in total, which still ranked the first in Tianjin.

Innovation reshaping TEDA manufacturing

After 31 years of efforts, TEDA has become a new livable district with well-equipped facilities, sound function, nice environment and harmonious society.

After the first entrepreneurial platform — Tianjin-Beijing Interconnected Entrepreneurship Coffee Shop — was put into use in 2013, a total of 21 innovative incubators have been created, newly settled or under negotiation. Up to now, over 1,200 people have set up more than 1,000 scientific and technological (S&T) enterprises here.

TEDA becomes a favorable choice for companies in Internet plus, intelligent equipment, health care, and bio-medicine. Currently TEDA has created many world-leading "trump card" products with core technology and intellectual property rights. The first magnetic bearing vacuum molecular pump produced by Emaging Technology Co. Ltd. broke the foreign monopoly and filled the domestic gap; Ebola vaccine produced by CanSino Biotechnology Inc. was the first Chinese vaccine that has won overseas clinical trial license; the "coronary stent system" of Sino Medical Sciences Technology Inc. completely outperformed imported products in both technology and efficacy for the first time; the "hollow fiber ultrafiltration and microfiltration membrane" produced by Tianjin MOTIMO Membrane Technology Co. Ltd. ranked top three in China.

At present, there are 35,000 talented R&D personnel in the area. An industrialized team with R&D, experiment, production and marketing has been formed. Over the past five years, the enterprises here have been commissioned over 200 scientific projects on average at national and city levels each year. Up to now, the research teams with postdoctoral workstation have received nearly 700 million yuan for their projects at all levels and applied for 201 patents. They developed lots of new products with intellectual property rights.

"5+1+N" system

Quality project is a key force to promote TEDA's economic expansion. Over the past five years, paid-in foreign direct investment in TEDA has exceeded \$27 billion, a growth of 200 percent year on year; the registered capital of domestic enterprise has ex-

ceeded 200 billion yuan, equivalent to the aggregated amount before the 12th Five-Year Plan period. A total of 90 of the Fortune Global top 500 enterprises have invested in over 230 projects in the area; 73 of China's top 500 enterprises have invested in 247 projects.

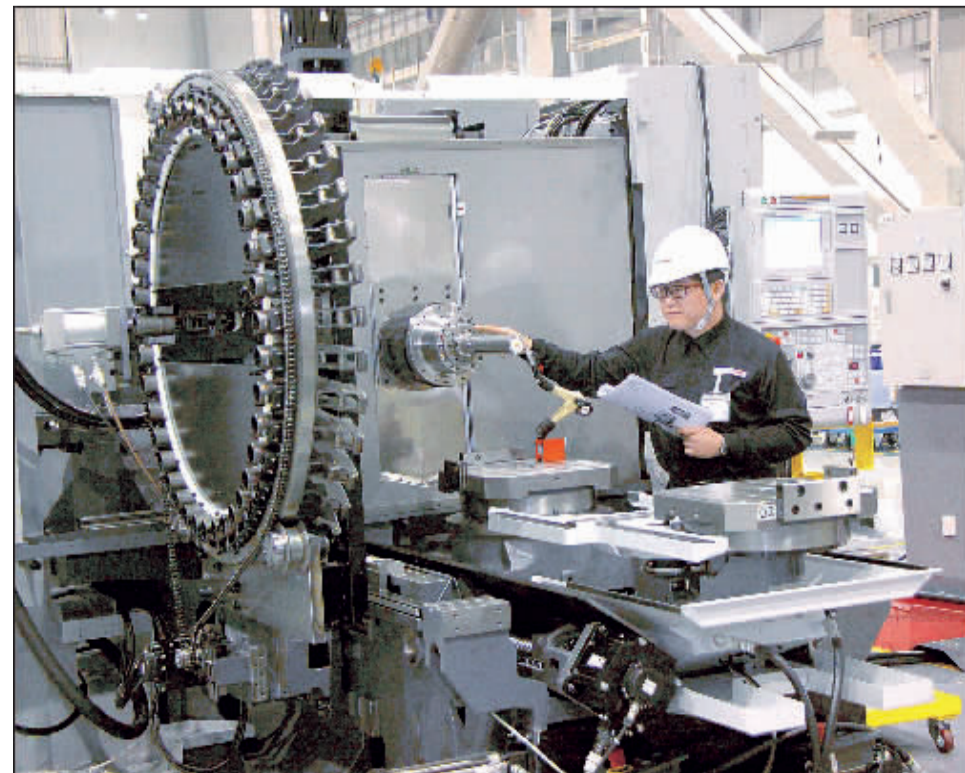
In the next five years, TEDA will focus on industrial upgrading. The average annual growth rate of regional output value will be maintained at over 10 percent; the share of public finance budgetary revenue in gross output value will continue to rise; fixed assets investment will amount to 350 billion yuan. Meanwhile, the proportion of service industry will reach 30 percent; the proportion of advanced manufacturing industry in local GDP will be over 80 percent.

To this end, TEDA will build a "5+1+N" high-end industrial system. "5" refers to five industrial clusters: electronics, automobile, petrochemical, equipment manufacturing, and pharmaceuticals. The output value of the first three industries is expected to reach 300 billion yuan, and the last two is poised to reach 150 billion yuan. "1" refers to the construction of a high-end service cluster focusing on producer services. It will create two industries such as financial services and modern commerce with more than 30 billion yuan added value; meanwhile, it will create four industries including modern logistics, business services, information services and technological services with more than 15 billion yuan added value. "N" refers to the development of emerging industries such as new energy, new materials, energy conservation,

environmental protection and maritime economy.

At the same time, TEDA proposed to establish "four districts." It will strive to become a leading district in regional economic development. TEDA will serve as a pioneer and model in the development of Jing-Jin-Ji (Beijing, Tianjin, and Hebei Province) area, Tianjin and Binhai New Area; it will construct a center for advanced manufacturing and R&D. During the 13th Five-Year Plan period, TEDA will extend its industrial chain, product chain and value chain of advanced manufacturing industry; it will also build a dynamic zone that promotes innovation-driven development. TEDA will improve the innovation system, encourage innovation, and establish an innovation-driven economic system and development pattern; it will strive to become a beautiful, well-educated and livable model district. TEDA aims to promote inclusive development and ensure that economic growth, labor productivity and people's income increase simultaneously so as to improve people's livelihood.

In the next five years, TEDA will further improve its innovation and entrepreneurship system. It will focus on promoting emerging industries with emerging technologies, and upgrade the Little Giant strategy. It is committed to achieving the following targets by 2020: talent resource accounts for 36 percent in the labor force of the area, the number of leading talents from national- and city-level "1,000 talents pool" reaches 130, and the number of R&D institutions and Little Giant enterprises grows to 200 and 650, respectively.



TEDA participates well in high-end industries