

Manufacturing Locations of the Future 2018/19 Winners

THE US HAS BEEN CROWNED **fDi** MAGAZINE'S MANUFACTURING LOCATION OF THE FUTURE FOR 2018/19, WITH CHINA AND SINGAPORE COMPLETING THE TOP THREE. **CATHY MULLAN** REPORTS



The US welcomed the highest number of manufacturing FDI projects in the world between 2013 and 2017, according to data from greenfield investment monitor **fDi** Markets. The country has a long-standing reputation as a manufacturing hub, and according to preliminary data from the US Bureau of Labor Statistics more than 12.6 million people were employed in manufacturing in February 2018 (over 8% of the total workforce).

In 2016, 0.31% of the US's manufacturing jobs came from foreign investors, which increased to 0.55% in 2017, showing that foreign investors have not necessarily been deterred by US president Donald Trump's protectionist stance. The top sector for manufacturing FDI in the country was in the automotive components sector, which accounted for almost one-fifth of manufacturing investment in the time, followed by plastics (11%) and industrial machinery, equipment and tools (10.9%).

Foreign influx

Japan-based Toyota Motor invested in the highest number of manufacturing projects in the US, investing 29 times, including in a \$1.3bn expansion of its Georgetown, Kentucky facility announced in April 2017. Canada-based automotive systems ▶

"THE TOP SECTOR FOR MANUFACTURING FDI IN THE COUNTRY WAS IN THE AUTOMOTIVE COMPONENTS SECTOR"



Good to go: Toyota is investing \$1.3bn in its Kentucky facility

company Magna International was the second most frequent manufacturing investor in the US, investing in 19 projects between 2013 and 2017, followed by UK-headquartered Fiat Chrysler Automobiles, which made 18 investments.

Job creation from manufacturing FDI in the US peaked in 2017, with nearly 68,000 jobs created. This was the highest level of job creation in the sector since fDi Markets started recording data in 2003. Capital investment in manufacturing also peaked in 2017, when \$54.8bn was invested by 358 companies.

Foxconn, which manufactures ►

TOP 10 MANUFACTURING COUNTRIES OF THE FUTURE 2018/19 – OVERALL

RANK	COUNTRY
1	US
2	China
3	Singapore
4	UK
5	Germany
6	India
7	Mexico
8	Czech Republic
9	UAE
10	Canada

TOP 10 MANUFACTURING COUNTRIES OF THE FUTURE 2018/19 – ECONOMIC POTENTIAL

RANK	COUNTRY
1	US
2	China
3	India
4	Singapore
5	UK
6	Mexico
7	Ireland
8	Germany
9	Vietnam
10	UAE

TOP 10 MANUFACTURING COUNTRIES OF THE FUTURE 2018/19 – HUMAN CAPITAL AND LIFESTYLE

RANK	COUNTRY
1	US
2	Australia
3	Germany
4	Lithuania
5	Latvia
6	Singapore
7	Bahrain
8	Belgium
9	Canada
10	Czech Republic

TOP 10 MANUFACTURING COUNTRIES OF THE FUTURE 2018/19 – BUSINESS FRIENDLINESS

RANK	COUNTRY
1	US
2	China
3	Czech Republic
4	Macedonia
5	Moldova
6	Hungary
7	Slovakia
8	Turkey
9	Poland
10	UK

TOP 10 MANUFACTURING COUNTRIES OF THE FUTURE 2018/19 – CONNECTIVITY

RANK	COUNTRY
1	Singapore
2	Netherlands
3	US
4	Germany
5	France
6	Spain
7	Finland
8	UAE
9	South Korea
10	UK

TOP 10 MANUFACTURING COUNTRIES OF THE FUTURE 2018/19 – COST EFFECTIVENESS

RANK	COUNTRY
1	Kazakhstan
2	Myanmar
3	Egypt
4	Ethiopia
5	Malaysia
6	Uzbekistan
7	Russia
8	Indonesia
9	Thailand
10	Ukraine

Source for all tables: fDi Markets

TOP 10 SECTORS FOR MANUFACTURING FDI IN THE US, 2013-2017



18.31%	Automotive components
10.96%	Plastics
10.91%	Industrial machinery
9.13%	Chemicals
8.72%	Metals
8.11%	Food and tobacco
3.16%	Pharmaceuticals
3.11%	Automotive OEM
3.06%	Textiles
2.80%	Electronic components
3.06%	Other

Source: fDi Markets

computer components and is a subsidiary of Taiwan-based Hon Hai Precision Industry, announced plans in October 2017 to invest \$10bn in a manufacturing plant in Racine County, Wisconsin (see page 26), which will employ 3000 people by 2020. Earlier in 2017, chemicals company Saudi Basic Industries also announced the investment of \$10bn in a joint venture with Exxon Mobile to establish a petrochemical plant in Portland, Texas. The US is also home to the highest number of advanced manufacturing investments of all locations studied, marking a move from more traditional manufacturing sectors.

China's charge

Home to the world's second largest economy, China also comes second to the US in fDi's ranking of FDI manufacturing locations. As with the US, automotive components ranked as the country's biggest sector for manufacturing investment between 2013 and 2017, accounting for almost 17% of all manufacturing FDI in China. Investment in chemicals manufacturing accounted for 15%, with industrial machinery, equipment and tools at just over 12%.

China is home to more than 3.25 million manufacturing companies, which makes up over one-quarter of all the companies in the country. Between 2013 and 2017, more than 300 companies expanded their



Big deal: China has more than 3.25 million manufacturing firms

manufacturing operations in China, including South Korea-based technology and consumer electronics giant Samsung, which pledged \$7bn to expand its chip production facility in Xi'an, the capital of Shaanxi province.

Singapore ranks third in our ranking of manufacturing locations, where 77 companies invested in 92 projects in the time period analysed. The city-state experienced a bumper year for manufacturing investment in 2017, with the creation of nearly 4500 jobs and some \$4.5bn in capital investment. The quality of Singapore's roads and general infrastructure was highest of all locations included in the ranking, and helped the city to top the Connectivity category. When establishing its manufacturing facility in Singapore in 2016, France-based Novacap stated that the city's strategic location as a logistics hub was a key influencer in its decision to invest. ■

METHODOLOGY

To create a shortlist for fDi Manufacturing Locations of the Future 2018/19, the fDi Intelligence division of the Financial Times collected data using the specialist online FDI tools fDi Benchmark and fDi Markets as well as other sources. Data was collected for 73 countries around the world, under five categories: Economic Potential, Human Capital and Lifestyle, Cost Effectiveness, Connectivity and Business Friendliness. Locations scored up to a maximum of 10 points for each data point, which were weighted by importance to the FDI decision making process in order to compile the subcategory rankings as well as the overall Manufacturing Locations of the Future 2018/19 ranking.

LIST OF DATA POINTS

Economic potential

- Population
- Average annual population growth (percentage, 2012-2016)
- GDP (PPP current \$m)
- GDP per capita (PPP current \$)
- Average annual growth in GDP 2012-2016
- Average annual forecasted GDP growth (2017-2021)
- Inflation rate
- Unemployment rate
- Outward FDI (2013-2017)
- Outward FDI per 100,000 people (2013-2017)
- Inward FDI (2013-2017)

- Inward FDI per 100,000 people (2013-2017)
- FDI in manufacturing
- FDI in manufacturing per 100,000
- FDI in R&D and DDT (2013-2017)
- FDI in advanced manufacturing (2013-2017)
- Number of mega projects by capex (over \$100m) inc ests (2013-2017)
- Number of mega projects by capex (over \$100m) per 100,000 people inc ests (2013-2017)
- Number of mega projects by jobs (over 1000 jobs) inc estimates (2013-2017)
- Number of mega projects by jobs (over 1000 jobs) per 100,000 people inc estimates (2013-2017)
- Capital expenditure on manufacturing projects (\$) (2013-2017)
- Number of patents (2007-2016)
- Number of patents per 100,000 people (2007-2016)

Human Capital and Lifestyle

- Labour force participation rate, total (percentage of total population ages 15+, 2017)
- Lower Secondary completion rate
- Environmental Performance Index (2016)
- Tertiary educational attainment
- Education expenditure percentage of expenditure in public institutions)
- Number of Top 500 universities

- Number of IB Schools
- Number of IB Schools per 100,000

Cost Effectiveness

- Minimum wage (\$)
- Cost of establishing a business (absolute value in \$ using GNI)
- Cost of registering a property (percentage of property value)
- Cost of construction permits (absolute value using GNI)
- Cost of establishing an electricity connection (absolute value using GNI)
- Petrol prices (\$)
- Cost of electricity (\$ per kWh)
- Corporation tax rate (percentage)
- VAT/ common indirect tax rate (percentage)
- Total tax rate (percentage of profit)

Connectivity

- Average connection speed (mbps)
- Liner shipping connectivity index (2017)
- Telephone mainline subscribers (2016) per 100,000 people
- Mobile phone subscribers (2016) per 100,000 people
- Logistics performance index (2016)
- Networked Readiness Index (2016)
- Environmental Performance Index (2016)
- Quality of overall infrastructure (2017)
- Quality of roads (2017)
- Quality of railroad infrastructure (2017)
- Companies in the transportation sector per 100,000 people

Business Friendliness

- Total number of companies in manufacturing (2017)
- Number of manufacturing companies as a percentage of total companies (2017)
- Total number of manufacturing companies per 100,000 people (2017)
- Number of jobs created by all inward FDI (2013-2017)
- Number of jobs created by all inward FDI per 100,000 people (2013-2017)
- Number of expansion/colocation projects (2013-2017)
- Number of expansion/colocation manufacturing projects (2013-2017)
- Manufacturing projects as a percentage of all FDI projects (2013-2017)
- Manufacturing jobs as a percentage of all FDI jobs (2013-2017)
- Manufacturing capex as a percentage of all FDI capex (2013-2017)
- Fragile States Index (2017)
- Corporation tax rate (percentage)
- Days taken to start a business
- Ease of Doing Business index
- Index of Economic Freedom
- Corruption Perception Index
- Strength of Investor Protection Index
- Country risk score
- Credit rating