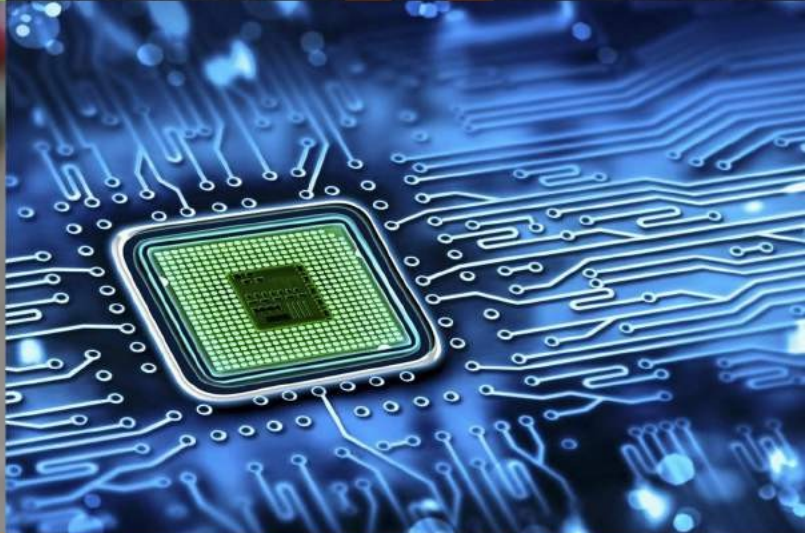


# Opportunities for Dutch Businesses in the United States

Delaware • Maryland • North Carolina  
Virginia • West Virginia

June 2017



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# 1 Introduction

When Dutch businesses consider doing business in the United States, they automatically think of the better-known regions, like Silicon Valley, New York City, or Texas. While these regions indeed show significant economic activity, other parts of this huge country should not be overlooked. The United States has a lot more to offer considering that it has 324 million people, the highest GDP in the world, and is geographically the third largest country in the world. This report examines opportunities in five East Coast states surrounding Washington, D.C.: Virginia, West Virginia, Maryland, North Carolina and Delaware. Highly trained engineering personnel, high military spending, and an overall favorable business climate are some of the key features of these states from a business perspective.

This report will allow a closer look at the following industries:

## ➤ **Aerospace**

This sector is in particular interesting for companies providing parts for commercial aircraft. In 2015, the US aerospace industry contributed \$144.1 billion in export sales to the US economy, resulting in a positive trade balance of \$82.5 billion in that same year, the largest trade surplus of any manufacturing industry. With more than 285 aerospace firms calling Virginia home, this state accounts for 64% of all aerospace firms. Virginia also has many military research centers and is close to the US capital, as well as a wide range of consultants. This sector shows substantial growth potential.

## ➤ **Automotive and semiconductors**

Not all car manufacturing companies are located in and around Detroit (or in a more recent development, the Southern states). Virginia, West Virginia and North Carolina boast a well-known and established truck manufacturing and automotive component manufacturing industry. With increasing demand for semiconductors in the automotive industry, this area can be interesting for semiconductor manufacturing companies and their suppliers.

## ➤ **Healthcare and life sciences**

Maryland, Delaware, North Carolina and Virginia have a sophisticated healthcare industry, large pharmaceutical companies, and high-quality medical hospitals and research centers. The healthcare and life sciences sector remains a growing market. R&D budgets continue to grow, the population is aging, meaning the US healthcare sector is prone to changes.

## **Outline**

This report starts with an overview of the general advantages of doing business in each of the five states examined. Then, for each of the industries, an overview of the market is given, which will be exemplified by several facts per state.

## 2 Competitive advantages per state

### Delaware

According to the Forbes "Best States for Business 2016 Ranking," Delaware is especially attractive due to its business-friendly corporate law. It is also rated first on the US Chamber Institute for Legal Reform's look at the most business-friendly legal climates. Because of this, more than 50% of US publicly traded companies are located here. Business costs are low, economic growth prospects are high, and there's a good amount of labor supply.

- Business costs were 16% below the US average and third lowest among states in 2016.
- Low labor cost at approximately 23% below the national average.
- Strong bond rating from Moody's with a triple A rating.
- According to the US Chamber of Commerce, Delaware is No. 1 in legal overall climate in the US.

### Maryland

The main reason for doing business in Maryland is its geographical location. It's next to the capital and a three-hour drive from New York City, so the entire East Coast is close by. It's also a short distance to two international airports (BWI and Dulles) and has several major highways crossing the state. Other reasons to choose Maryland:

- Highest median household income of the country.
- 1<sup>st</sup> in the country in percentage of professional and technical workers.
- 2nd best state for healthcare because of institutions such as the Johns Hopkins Hospital and the University of Maryland Medical System.

### Virginia

According to the Forbes Ranking, Virginia is one of the best states in which to do business. Out of the 50 states, Virginia is 2<sup>nd</sup> in labor supply (both quality and quantity), 3<sup>rd</sup> in regulatory environment, 8<sup>th</sup> in quality of life, and the 6<sup>th</sup> for doing business. Other reasons to choose Virginia:

- Low income corporate tax rate of 6%, which hasn't changed since 1972.
- Approximately 20% lower unemployment insurance cost compared to the rest of the US.
- Highly educated workforce with more than 36% of the people with a bachelor's degree or higher.
- More than 19,300 high-tech establishments operating out of Virginia.
- Lower electricity costs compared to the rest of the country.
- Recognized by the US Chamber of Commerce as a leader in science- and technology-based employment and business sectors.

### West Virginia

West Virginia is not necessarily known for its business climate, but it does have some advantages over other states. The decline of the coal industry, traditionally a large industry

in West Virginia, ensures cheap manufacturing labor. West Virginia is, therefore, also home to a strong manufacturing industry. Other reasons to choose West Virginia:

- Lowest commercial electricity rates in the country.
- Attractive tax climate compared to neighboring states on the East Coast.
- Many building sites open for rental, such as the huge Rock Creek Development Park close to the state capital, Charleston.

#### North Carolina

Ranking No. 2 in the Forbes "Best States for Business 2016 Ranking," North Carolina is a business-friendly state. Business costs are low, the tax climate is friendly, and the labor climate is consistently ranked No. 1, according to several rankings. Other reasons to choose North Carolina:

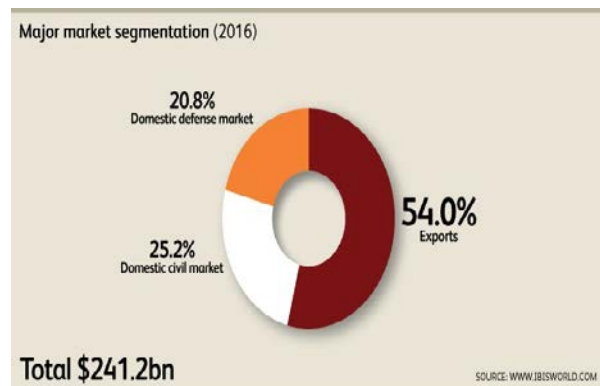
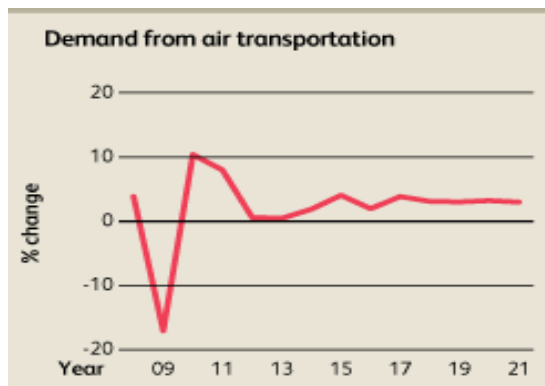
- Highly educated workforce with strong universities in the state. The Research Triangle, consisting of eight counties, several universities and cities, is the second largest metropolitan area in North Carolina. The Triangle is home to several universities, colleges, cities, technical companies and research institutions.
- With two seaports, four airports, extensive railroads, and the second largest maintained highway system in the US, North Carolina has a good functioning infrastructure network.
- The corporate income tax rate is the lowest in the Southeast.
- North Carolina has the largest manufacturing workforce of the Southeast with more than 460,000 manufacturing workers.

### 3 Overview of key industry markets

#### A. Aerospace

##### Aerospace industry

The aerospace industry was America's third highest export in 2015, amounting to \$169.8 billion, or 11.3% of all American exports. Furthermore, the industry was the fastest-growing among the top 10 export categories for 2015, up in value by 49.4% for the five-year period starting in 2011. The market has been shifting the last couple of years from Washington state (West Coast) and Oklahoma (in the South) to Eastern states like Virginia and North Carolina, and to the Southeast (Alabama and Florida). When demand for air transport increases, so does the need for aircraft. Additionally, air transport operators may wish to increase their competitive edge by purchasing newer and more fuel-efficient models, a strategy that also increases demand for manufacturers. Demand from air transportation in the US is expected to increase in the next five years, representing an opportunity for the industry.



Revenue	Annual Growth 11-16	Annual Growth 16-21
\$241.2bn	6.9%	4.2%
Profit	Exports	Businesses
\$28.2bn	\$130.4bn	1,363

Demand from air transportation is also expected to increase on a global scale. 54% of all manufactured aircrafts and aircraft engines and parts in the US are exported. Annual growth in the aircraft manufacturing industry is expected to slow down in coming years, but will still exceed annual expected GDP growth.

Aircraft, engine and parts manufacturing industry

The US federal defense budget has been shrinking for five years. However, in the new administration, military spending is expected to rise. Together with rising commercial demand in the US and abroad, this will lead to a likely growth in the aerospace industry. Strong increases year over year of global revenue passenger kilometers are leading to an unprecedented level of aircraft production rates, which in 2015 were about twice the level experienced 10 years ago. Commercial aerospace, a booming industry, will see its global fleet grow by more than 10,000 net aircraft by 2025.

## **Advantages for the aerospace industry in the East Coast region**

### Maryland

- Many Department of Defense activities in both research and manufacturing are in this area.
- Maryland has more than 350 research centers in the aerospace and defense industry, and is home to 18 of America's 25 top aerospace companies.
- Ranked 1<sup>st</sup> among states in percentage of professional and technical workers; 28% of the labor force is a technical or professional worker.
- The Space Telescope Science Institute, located in Maryland, is a world-class astronomical research center and works together with NASA.

### Virginia

- Virginia has more than 29,000 workers and 270 firms active in the aerospace industry.
- Various aerospace R&D facilities, including NASA Langley Research Center, National Institute of Aerospace, Virginia Tech's Department of Aerospace and Ocean Engineering and the Defense Advanced Research Projects Agency.
- Nine commercial airports in the state, including hubs like Dulles International Airport and Ronald Reagan Washington National Airport.
- Virginia Tech ranks as one of the best universities for aerospace employee recruitment. Special degrees in aviation and aerospace engineering ensure a steady supply of highly educated personnel in the state.
- Every year highly disciplined and technical trained former military personnel join the civil labor force in Virginia.
- All major players in the aerospace industry are located in Virginia, including Airbus, Boeing, Lockheed Martin, Rolls-Royce and many more.

### West Virginia

- West Virginia has an abundance of raw materials of fabricated and composite metal products, necessary to manufacture aircraft parts.
- A reduction in the assessed value of all aircraft owned or leased by commercial airlines, charter carriers, private carriers and private companies is provided for property tax purposes, reducing qualified property tax obligations up to 95 percent in the state.

### North Carolina

- Wages for aerospace personnel are 25% lower than in other traditional aerospace engineering states, such as Washington and California.
- High defense and aerospace spending in the state, with the Marine Corps Air Station and supporting offices for Navy and Marine Corps aircraft.
- More than 280 aerospace and aviation companies are present in North Carolina, representing the largest share of this industry on the East Coast.
- North Carolina is home to NextGen Air Transportation, a research institute focused on air traffic control, airspace management and airspace system capacity with a special focus on Unmanned Aircraft Systems.

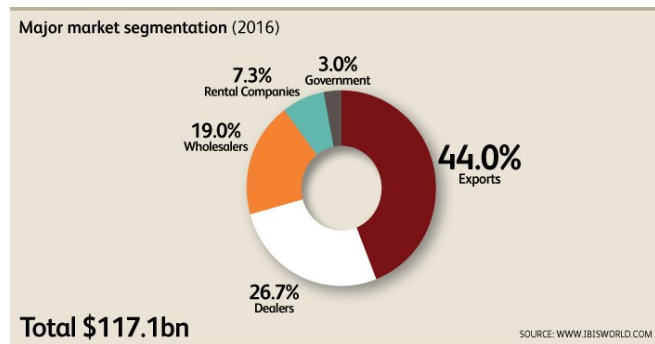


## B. Automotive

### Automotive industry

The automotive industry is changing because cars are changing. The “bill of materials” in a car is rising because of the increased use of semiconductors, nanotechnology and advanced materials. According to international consulting firm McKinsey, growth and change in the automotive sector will lead to a doubling of revenues from 2015 to 2030. Despite a shift toward shared mobility, car sales will continue to grow. The growth of fully autonomous cars and electric cars is uncertain, but will surely lead to more ingenuity when it comes to building cars. The US remains one of the car-producing powerhouses of the world. 44% of domestic production is sold abroad. In 2015, the US automotive market was peaking at historic levels, setting a sales record of just less than 17.5 million vehicles in 2015, up 5.7% from the year before and topping the high-water mark of 17,402,486 in 2000.

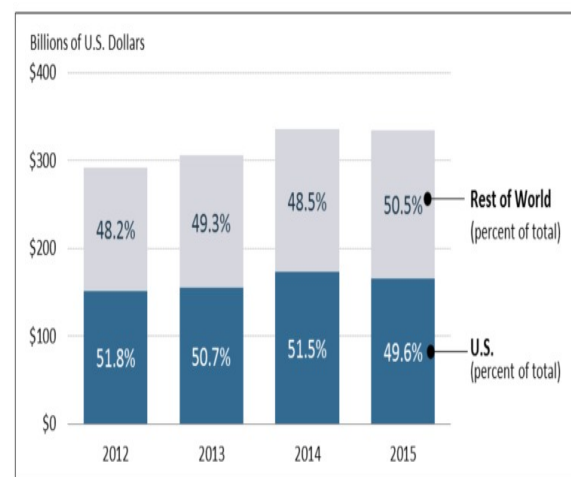
Expected US automobile manufacturing (IBISWorld, 2016)			
Year	Revenue million	\$	Growth %
2017	117,874.60		0.7
2018	119,531.60		1.4
2019	123,208.20		3.1
2020	126,796.80		2.9
2021	130,493.50		2.9
2022	132,344.20		1.4



### Semiconductors

As cars rely more on intelligence, connectivity and sophisticated electronics, the demand for semiconductors in cars will increase. The continuously growing automotive market will also have its effect on the semiconductor industry. Next to that, the rise of electric cars will also increase demand for semiconductors. Between 2002 and 2012, the compounded annual growth rate in automotive semiconductor revenue was 8%, according to McKinsey. This growth rate will continue to exist and possibly expand even further due to the rise of electric cars. The growth in semiconductor demand by the automobile industry is partly offset by the decline in demand by the shrinking personal computer (PC) market.

However, the rising demand in semiconductors for servers and data centers, stable and increasing demand for industrial semiconductors, and new global medical semiconductors will ultimately lead to an expanding demand for semiconductors. The US is by far the largest player in semiconductor sales, accounting for approximately half of worldwide sales. The US is expected to remain a semiconductor manufacturing powerhouse and market in the coming





years. Opportunities in both the semiconductor and automotive market are widely available in the years to come.

### **Advantages for the automotive industry in the East Coast region**

Car manufacturers are traditionally located around the Detroit area. Virginia and West Virginia are known for their truck producers and automotive component producers. Benefits of this region for the automotive industry:

#### Virginia

- All aspects of the automotive industry can be found in this state: vehicle assembly, bodies and trailers, parts, tires and corporate offices.
- More than 16,000 workers in Virginia, accounting for 7% of the manufacturing total, work in the automotive industry.
- Virginia is home to Volvo Truck North America's New River Valley Plant, the largest Volvo truck plant in the world.
- R&D facilities with links to the automotive industry are abundant with organizations like the Virginia Tech Transportation Institute, the Global Center for Automotive Performance Simulation and the Virginia Tech Center for Vehicle Systems & Safety.
- The distribution sector is a major industry in Virginia, which accumulates large parts of demand from the car manufacturing industry.

#### West Virginia

- Automotive component manufacturing is a major manufacturing market in West Virginia.
- High productivity, low wages and low turnover rates of employees characterize the manufacturing workforce in West Virginia.
- West Virginia has low electricity prices, 14% lower cost of doing business relative to the rest of the country, and an abundance of cheap raw materials.

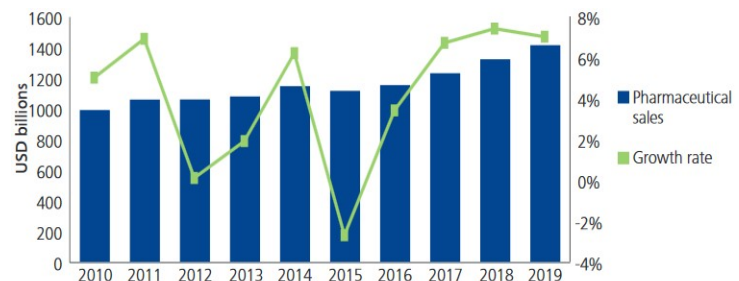
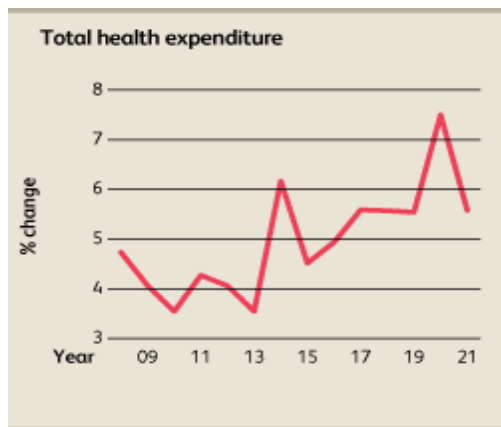
#### North Carolina

- With a strong infrastructure network, low-cost electricity (8% cheaper than the US average), and the biggest manufacturing workforce of the East Coast, North Carolina is a good place to export car manufacturing products to.
- Several research institutes in the field of manufacturing and the automotive industry provide an educated workforce and innovative ideas in this field. North Carolina has a strong focus on electric vehicles, with the Future Renewable Electric Energy Delivery and Management (FREEDM), the Advanced Transportation Energy Center, and the North Carolina Center for Automotive Research.

## C. Healthcare and life sciences

### Healthcare and life sciences industry

The expected rise in healthcare expenditure for healthcare consultants, an important indicator of the total industry, the pharmaceutical sales outlook, and the total rising cost of healthcare spending as percentage of GDP in the US show that the healthcare and life sciences industry will remain a large and growing market in the coming years. According to the Centers for Medicare & Medicaid Services, the health share of GDP in the US is expected to rise from 17.8 percent in 2015 to 20.1 percent by 2025, keeping the US the world's No.1 spender on healthcare both in absolute figures and in terms of percentages of a country its GDP. The former percentage corresponds with an average health expenditure per capita of \$9,990 and a total of \$3.2 trillion in 2015. To compare, the Netherlands, No. 4 on the list, spends 11.5% of its GDP on healthcare, which means an average of \$5,131 health expenditure per capita and a total of \$95 billion (CBS figures of 2015).

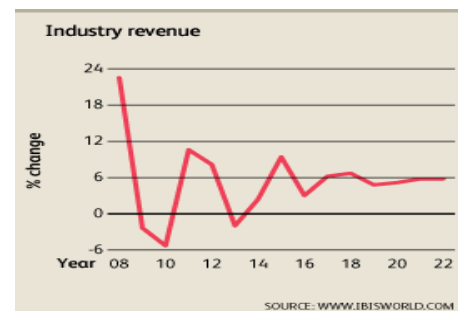


Source: DITL Life Sciences and Health Care Industry Group analysis of EIU data

Global pharma segment sales

The healthcare and life sciences industry is an ever-expanding market due to an increasingly older population, new medicines and innovations. Especially in the area of biotechnology, medical devices, and healthcare information technology, innovations are an important opportunity. Competition among medical equipment producing companies is also expected to rise due to new innovations. The trend toward higher merger-and-acquisition activity will continue to grow due to low risk rates, the opportunity for lower business cost through synergies, and the free cash flow profile of the healthcare sector. How new federal healthcare policy plans will be shaped under a Trump administration is partly unknown, but fundamental changes to the Affordable Care Act ("Obamacare") can be expected in the years to come.

In generic pharmaceutical manufacturing, the industry revenue is expected to be above the expected GDP growth trend, absent a new financial crisis. Worldwide and United States patenting systems will likely change in the following years, which will have implications for pharmaceutical companies.



SOURCE: WWW.IBISWORLD.COM

### **Advantages for the healthcare and life sciences industry in the East Coast region**

The majority of the US pharmaceutical companies are located on the East Coast. More than 80% of the American pharmaceutical companies are within a two-hour drive of Maryland. The DC-metropolitan area also ensures the proximity of large federal contractors, such as Booz Allen Hamilton, CSC, Northrop Grumman, SAIC and SRA International. Next to this, this region also has other advantages in the healthcare and life sciences industry:

#### Delaware

- Delaware is home to AstraZeneca, one of the world's largest pharmaceutical companies, which employs more than 3,000 workers in Delaware and 3,000 workers in Maryland. Next to this, the Delaware Technology Park is also located in this state, which has important institutions like the Delaware Biotechnology Institute and the Fraunhofer Center for Molecular Biotechnology on its terrain.

#### Maryland

- BioTech, human genomes, stem cell and vaccine development are key elements of Maryland's healthcare and life sciences industry.
- One of the largest life sciences clusters in the US is located in Maryland, with more than 500 biotech firms, the FDA, several research universities and more than 2,200 life sciences companies.
- The Johns Hopkins University and University of Maryland Medical Center are two leading institutions when it comes to healthcare.
- Maryland has a highly educated workforce, with a No. 1 place in the percentage of professional and technical workers.
- The city of Rockville is a dynamic and cutting edge bioscience hub near Washington, D.C. Many R&D facilities are located here, including a GSK global vaccines R&D center opened in December 2016, in which more than \$50 million has been invested for the next two years to develop the site with the latest state-of-the-art scientific research technology and equipment.
- The National Institutes of Health (NIH), the largest public funder of biomedical research in the world (it invests more than \$32 billion a year to enhance life, and reduce illness and disability) is located in Bethesda near Washington, D.C.

#### Virginia

- Pharmaceuticals, R&D labs and medical-device producing companies are the largest players in the life sciences sector in Virginia. Research, testing and medical laboratories account for more than 48% of Virginia's employment in the life sciences sector, making it a large R&D state in this field. Virginia is home to 11 federally funded R&D centers and 22 federal laboratories and centers.
- Bioscience is up-and-coming because of the high population density and university presence in certain clusters in Virginia. A large part of all R&D spending is related to bioscience.
- Inova, one of the largest healthcare providers in the DC metro area, plans to build a hospital complex with five institutions. The Research Centre and Cancer Centre are two of five buildings and will accompany a lot of health tech startups and eHealth companies. They are "open for business," and are looking for research partners in all these facilities.

### North Carolina

- The Research Triangle Park in North Carolina focuses heavily on biotechnology and pharmaceuticals. This largest research park in the US is also home to the North Carolina Biotechnology Center.
- High concentration of Tier 1 research universities, such as Duke University, the University of North Carolina at Chapel Hill and North Carolina State University.
- Many of the highly educated students stay in North Carolina, resulting in a well-educated workforce with a strong focus on biotechnology and pharmaceuticals. More than 13,000 STEM students graduate every year.

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