



# THE MIDWEST PLAYBOOK

THE MIDWEST AS A SOFT LANDING SPACE  
FOR DUTCH COMPANIES



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**The Midwest Playbook provides a comprehensive overview of the opportunities the Midwest has to offer startups and scaleups. It touches on booming sectors across multiple cities and regions in the Midwest, and highlights the Midwest's unique selling points. This playbook will be your go-to guide when you are interested in expanding your business.**

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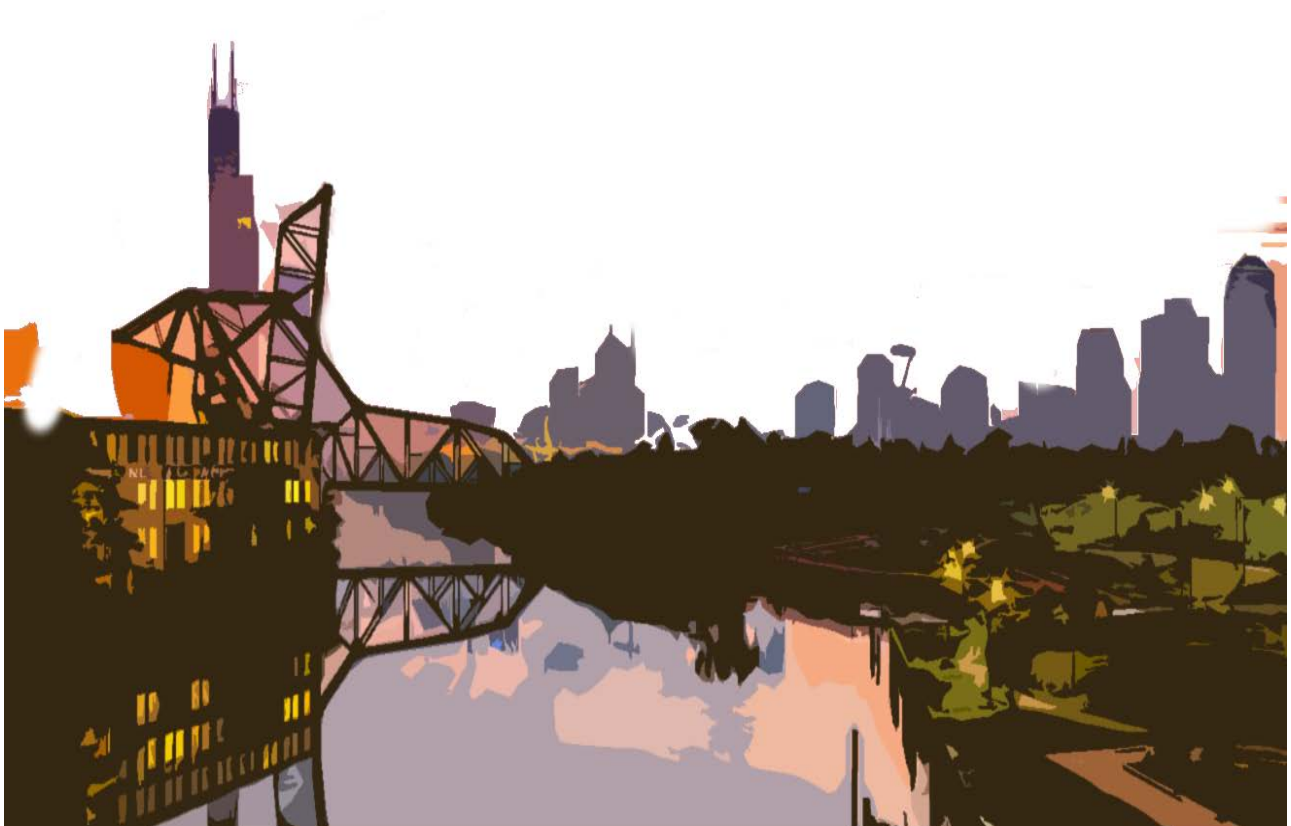
# THE MIDWEST PLAYBOOK

## FOREWORD

Are you ready to expand your business to the United States or simply seeking general information about the startup ecosystem? Have you ever considered the Midwest? You should! This region has the highest return on investment of the entire country, the highest concentration of Fortune 500 companies, and so much more.

Does this sound interesting? If so, The Midwest Playbook can be your go-to guide, whether you are interested in learning more about the ecosystem as a whole, or already looking at a specific opportunity or location. The playbook serves as a comprehensive guide to make you aware of the opportunities in the various cities and sectors, can help you decide which location makes the most sense for you company, and provide you with all the good-to-know, practical information.

Each chapter is dedicated to helping you make the right decisions for your company. The Midwest Playbook deliberately does not show you everything going on in the Midwest because it's a lot. Rather, it focuses on specific opportunities for Dutch startup and scale-up companies in the high-technology area, and highlights the unique selling points of each city. As such, The Midwest Playbook can be regarded as your *soft-landing bible* when it comes to deciding if the Midwest is a place for you!





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# 1. AN INTRODUCTION TO THE MIDWEST

## 1.1 The United States: A Favorable Place for Startups and Scale-Ups

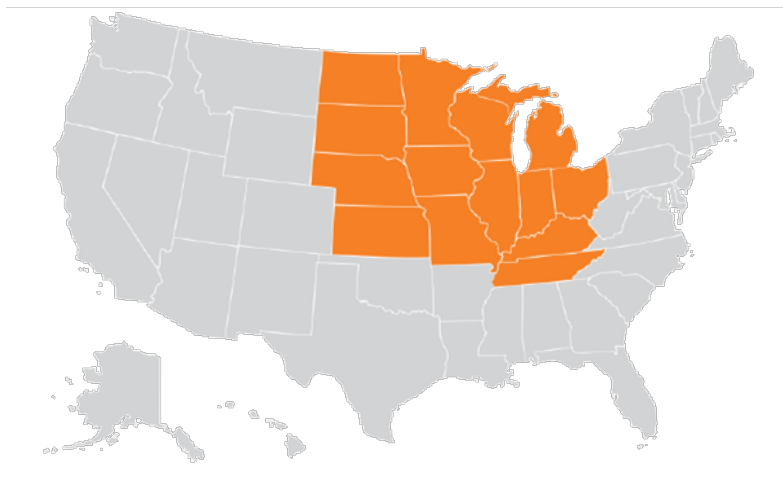
For many entrepreneurs, the United States tops the list when it comes to expanding, and understandably so. With a GDP per capita of over \$55,000 and a population of 320 million people, it is by far the largest economy in the world. In addition, on a consumer level, the United States accounts for nearly one-third of the worldwide global household consumption — the highest consumer spending in the world.<sup>1</sup>

But aside from the sheer market size, the United States is also home to some of the most important and leading innovation hubs in the world — the most well-known being Silicon Valley and New York City. The United States as a whole attracts more international talent than any other country, accounts for well over a quarter of the world’s R&D spending, and registers the most international patents per year.<sup>2</sup> It might come as no surprise that a phrase often used to describe the United States is “Everything is Bigger in America”.

One point of caution, however, is that it is not easy to leverage the United States market in its entirety, at least not when first entering the country. The different states can best be compared in some regards with independent countries — the culture, ethnic composition, landscape, resources, legislation, and regulations vary greatly across states. It might, therefore, be smart to focus on one region, state or even city as a point of entry and build your business from there. Look for a region that fits your product and look for a place where you can find the supportive resources that you need to grow and make connections. And this region might very well be in the Midwest!

## 1.2 Why the Midwest Could be Your Ideal Location

The Midwest as defined by the Consulate General of the Netherlands in Chicago encompasses 14 states, as depicted in the map below.



- |                                       |                                    |                                    |
|---------------------------------------|------------------------------------|------------------------------------|
| <input type="checkbox"/> North Dakota | <input type="checkbox"/> Iowa      | <input type="checkbox"/> Indiana   |
| <input type="checkbox"/> South Dakota | <input type="checkbox"/> Missouri  | <input type="checkbox"/> Kentucky  |
| <input type="checkbox"/> Nebraska     | <input type="checkbox"/> Wisconsin | <input type="checkbox"/> Tennessee |
| <input type="checkbox"/> Kansas       | <input type="checkbox"/> Illinois  | <input type="checkbox"/> Ohio      |
| <input type="checkbox"/> Minnesota    | <input type="checkbox"/> Michigan  |                                    |

<sup>1</sup> World Bank, Household final consumption expenditure, 2018

<sup>2</sup> SelectUSA, Nexus of Innovation, 2018





The Midwest can be the ideal landing space for many Dutch companies, and has many unique advantages and opportunities. You only have to look at the infographic below to see what the Midwest in general can offer you:



### 1.3 The Midwest versus the Coasts

Startup communities in the Midwest are smaller than in San Francisco and New York. While this generally means less entrepreneurial activity and less venture capital is locally available, opportunities still exist for Dutch companies.

One of the aspects that make the Midwest unique from the coasts is its business-to-business (B2B) market. Where Silicon Valley — and also the East Coast to a large extent — focuses on the next hot consumer product, the Midwestern density of Fortune 500 companies and other large corporations make it the ideal location for B2B companies. Combine this with the ideal geographical location and impressive infrastructure, and the Midwest becomes the go-to destination for Dutch companies that sell to other companies.

In addition, the competition in the Midwest is less fierce compared to the coasts. The smaller and tightly knit entrepreneurial communities in the Midwest allow you to enjoy a cup of coffee with virtually anyone in the ecosystem. That includes venture capitalists, angels and c-level business people. It is easy to make connections and introductions with the largely pre-existing network. There is a general sense of collaboration in the Midwest, where people cooperate in their pursuit for success.

In line with this, the culture and style of communication in the Midwest is different from the coasts — and can be quite similar to the Netherlands. Compared to the coasts, especially Silicon Valley, people are also less excitable and more down to Earth. However, the high degree of enthusiasm you may encounter in Silicon Valley may not result in anything actionable, while when people in the Midwest are enthusiastic, you can trust that they actually want to work with you. In line with this, your word means something in the Midwest. If you say you'll do something, people will trust you will do it.



This down-to-Earth manner and pragmatic nature is also perceived in the business world and investors. Midwest investors generally expect a well thought-through business plan. Concretely, this means that if you want to raise funds in the Midwest, a nice story and idea is not going to cut it. They want to know how you plan to pay them back, how you plan to attract customers, how you plan to grow, and what you think you'll need to make it happen. With such a plan, the sense of risk that comes with doing business is minimized.

## 1.4 Places to be and Sectors to Explore

The other big difference between the Midwest and the coasts is the sectors they focus on. Much of the entrepreneurial ecosystems in the Midwest are shaped by its historically prominent sectors: agriculture, manufacturing, and health. Nowadays, many of the new entrepreneurial and business activity has a link to these historical sectors, but now combined with the newest technology and innovations. In addition, industries such as entertainment, financial technology, and smart cities have gained traction in the Midwest.

The Midwest offers chances for different companies specialized in different sectors. However, there are a few particular sectors in the Midwest that have unique strengths and opportunities for Dutch companies. Zooming in upon the overlapping sectors of Dutch expertise and the strengths and unique selling points of the Midwest, five promising sectors can be identified:

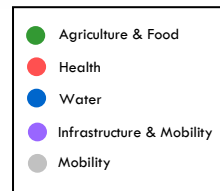
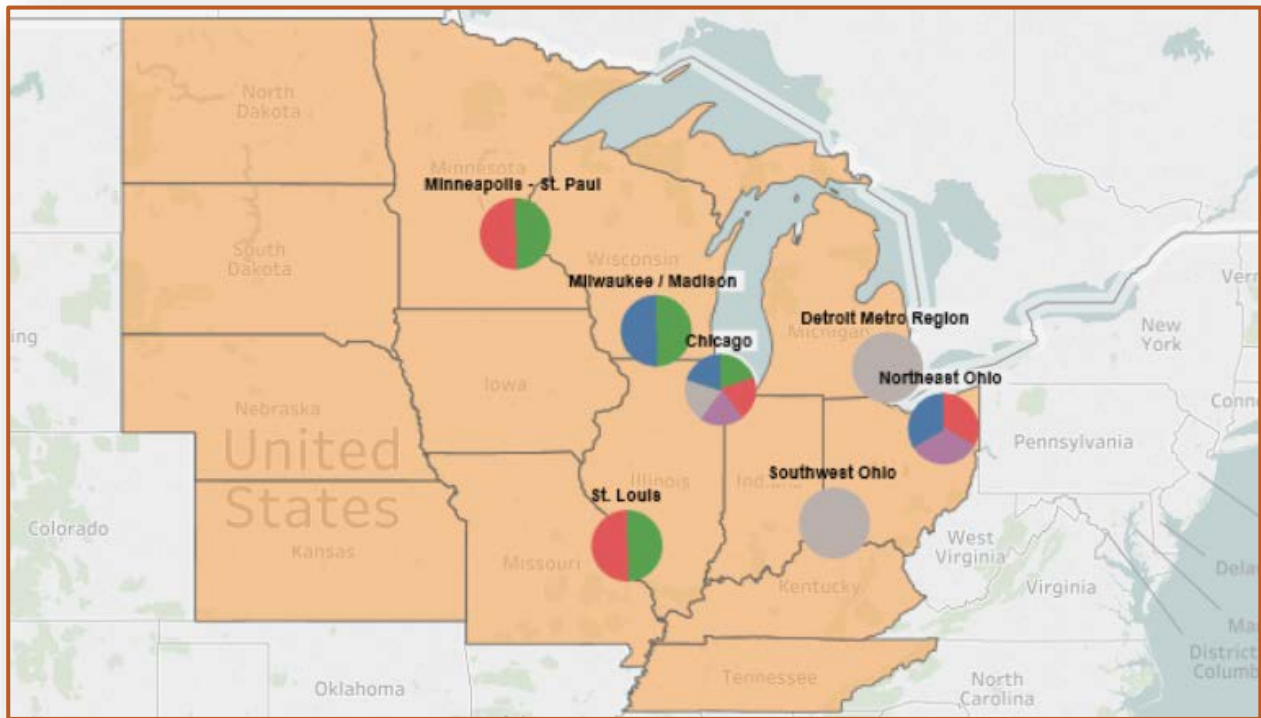
- *Water* — the Midwest has a particular strength in water technology, especially water purification and contamination detection. The region has many testing facilities and the country's only School of Freshwater Sciences.<sup>3</sup> If you are looking for potential customers, many corporates interested in incorporating water technology are also located in the Midwest, and Chicago in particular.
- *Health* — from the best hospitals in the United States<sup>4</sup> and the biggest medical corporates to the best health accelerator in the nation<sup>5</sup> and many excellent research facilities, the Midwest has a lot to offer in the healthcare sector. Specifically in the area of medical devices, rehabilitation, healthIT and biopharma, the Midwest is the absolute frontrunner.
- *Material Manufacturing* — this sector focuses on the manufacturing of (intermediate) materials, such as steel, plastics, paper, metals, and polymers. The Midwest has long been the nation's leader in this sector, and still holds this position today. Especially, in the area of polymer, metal, and plastic manufacturing, the Midwest is the undisputed best.
- *Agriculture & Food* — the Midwest has a long-standing reputation in the agriculture and food sector. The region is home to 20 Fortune 500 companies, and has stellar research institutions. In particular, the Midwest is the place to be for urban farming, dairy, food technology and brands, plant sciences, and food packaging.
- *Mobility & Infrastructure* — this sector encompasses everything that has to do with improving mobility and infrastructure in an urban environment, such as automotive, smart technologies, and data infrastructure. The Midwest has many strengths in this area. While Detroit is still No. 1 when it comes to automotive and mobility innovation, Columbus is preparing to become the United States' first true smart city.

Corresponding to these sectors, there are particular regions in the Midwest — also called innovation hubs in this Midwest Playbook — that are particularly interesting for doing business. They have the full scope of resources that are needed for a Dutch startup or scale-up to flourish: corporates, investment, universities and research facilities, government support, and startup organizations. On the basis of these criteria, six innovation hubs were identified in the Midwest: Chicago, Milwaukee and Madison, the Twin Cities (Minneapolis and St. Paul), St. Louis, Detroit, and Ohio. Additionally, what makes these hubs special is that they have particular strengths and opportunities in one or more of the designated sectors. Below, a map of the innovation hubs in the Midwest with their corresponding, prominent sectors.

<sup>3</sup> NuWire Investor, American Midwest: A Growing Center for Water Investment, 2017

<sup>4</sup> United States News & World Report, Best Hospitals: 2016-2017 Best Hospitals Honor Roll and Overview, 2016

<sup>5</sup> Chicago Tribune, Matter CEO: Chicago has 'greatest collection of health care expertise in the country', 2016



It should be noted that there are many more cities and sectors that might be interesting for Dutch companies, or might better fit your company's needs. You can always contact the Consulate General of the Netherlands in Chicago to discuss your company's specific need.



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## 2. PRACTICAL INFORMATION

Despite the similarities between the Netherlands and the United States, there are many differences in doing business. To make matters even more complicated, each state is different with regard to law, taxation, and government regulations. This chapter will provide you with insight into the practical aspects and of doing business in the United States, particularly in the Midwest. Rather than being an exhaustive guide, the chapter provides an overview of all the aspects to consider before doing business in the United States. In all cases, it is advised to consult with a professional before setting up a business here.

### 2.1 Legal Aspect

The first thing to note is that the legal system in the United States is different from the Dutch system. In general, you hire a lawyer in the Netherlands when you are in trouble, and you hire a lawyer in the United States to stay out of trouble. Prepare to tackle a number of legal aspects when starting your expansion process. Although many aspects of incorporation, immigration, finance, intellectual, and other aspects can be found online, it is highly recommended to speak to a lawyer early in the process. The Consulate General can help you find trustworthy lawyers who specialize in foreign companies doing business in the United States.

#### 2.1.1 THE THREE LEVELS OF LAW & INCORPORATION

American law is divided into three levels: federal law (which applies in all states equally), state law (which applies to each state differently) and local law (which applies at the city or county level within a state). This separation of power also means that taxes are administered on all three levels.

When entering the United States' market, it is advisable for a Dutch company to set up a separate, local, legal entity through which to conduct business. There are two possibilities: a corporation (sometimes called an "Inc.") and a limited liability company ("LLC"). Important to note, a branch is not a separate legal entity. Many companies choose to set up their entity in Delaware due to familiarity, predictability, and ease of the corporation law.

### 2.2 Immigration process

For many startups, it is necessary to have personnel in the United States to monitor and drive expansion in the local market. This might mean hiring a regional manager from the United States, or transferring employees from the Netherlands. It is often recommended to have a member of higher management move to the United States for a period of time to make expansion smoother. Hiring local has the advantage of an assumed right to work in the United States, but when hiring and/or transferring Dutch employees for the United States, an immigration process with many different options applies.

In order to become acquainted with the American immigration procedures, the following site will give you the most reliable and up-to-date information: <https://www.uscis.gov/>

Besides that, it is advised to retain a United States immigration lawyer or another field expert early on in the process of obtaining visas that allow for the right to work.

The risk of not applying for a visa properly in the beginning increases the likeliness of incurring many unnecessary costs. A disturbed or backtracked application process also often take significantly more time to finalize than securing the right process from first stages.

#### 2.2.3 ESTA

In some cases, you won't have to apply for a visa at an American consulate. In those cases, an ESTA (Electronic System for Travel Authorization) can suffice. An ESTA is an application procedure that can be filled in electronically. It is a much simpler process that saves time and money. Usually the process of the application will take a few hours, but it is possible for it to take up to 72 hours.





You will most likely qualify for an ESTA in the following cases, according to the MKB Newsletter:<sup>6</sup>

- You are going to meet supplier or customers in the United States.
- You are going to negotiate and/or consult in reference to your business.
- You are going to visit a conference or a business-related meeting.

You will most likely not qualify for an ESTA in the following cases, according to the same source:

- You are going to the United States to make an investment.
- You are going to organize a startup or scaleup of your company.
- You are going for journalistic purposes, or any other reasons related to media production.
- You are going to work for an American organization, or an American branch of a Dutch company.

## 2.3 Finance

Transferring money between US and Dutch bank accounts is expensive and inefficient. Although companies such as TransferWise and PayPal have made the process easier, it is important to set up an American bank account for your company when doing business in the United States. In addition to a corporate bank account, it is recommended to also set up a personal account, as this will make it easier to pay bills and utilities.

It has been proven to be difficult to set up a bank account in the United States when you are still in the process of applying for your visa. The consulate general can connect you to Dutch banks, like the Rabobank and FirstBank. These particular banks are able to use your Dutch bank account as a reference in setting up your corporate bank account in the States.

Relevant criteria to check whether a bank is startup friendly includes: a free checking account, the possibility to easily pay small bills, low or no fees for a credit card, online account management, and shared access. Some banks have specific startup programs or have other advantages for startup companies. For instance, HSBC has large-scale and international operations and Capital One's Small Business Rewards account is perfect to consider when getting your startup off the ground. In addition, US Bank is also worthwhile to consider and offers three levels of business packages.

## 2.4 Human Resources

Human resources (HR) is one of the most challenging obstacles for starting companies in the United States. However, the advantages of hiring American personnel is that they are accustomed to the United States ecosystem. It is often easier for Americans to do business with other Americans since the business culture is the same. When interviewing an American for a job, note that it is illegal to ask personal questions, like age and religion, and be conscious of the cultural differences.

As any mentor will tell you, it makes sense to first hire a professional HR partner, since you want to focus on your core business rather than side issues regarding HR. Be sure to ask for help when it comes to salary negotiations. Especially coming from the Netherlands, depending on the region, you will have to think about doubling or sometimes even tripling a salary to hire the desired quality of talent. Although this is much less of a problem in the Midwest, compared to the likes of San Francisco and New York, there is still a fierce competition for talent.

To provide you with a little more insight into the largest challenges in HR and hiring Americans for your company, below an overview of the three most common challenges.

- *Payroll* — HR is a state-regulated principle, so payroll is based on state law. For any foreign company, it can be a challenge to keep up with United States payment laws. Did you know, for instance, that most employees in the United States are paid every two weeks? And that once a year you must file your federal, state, and local taxes? Many people, don't and it is often recommended to outsource this activity to external parties.

<sup>6</sup> MKB, Zakenreis naar Amerika met een ESTA, 03-2018



- *Benefits* — benefits are what will set your company apart from the rest. Successful Dutch startups have used their Dutch DNA and belief in “work-life balance” to attract employees. You should see this as an opportunity. In what other ways could you make your company attractive to the best possible employees? What perks can you offer to complement the standard salary offering? A main component of the benefits package is employee insurance. The laws for these insurances differ per state, so make sure to review these with a professional.
- *Risk and Compliance* — risk and compliance are necessary aspects of any business. Ever heard of an employee handbook? This is not only a mandatory document in which the general laws regarding the labor contract are explained, but also a platform for outlining company policies.

## 2.5 Insurance

When setting up a legal entity and hiring workers, it is necessary to consider the many insurances that will need to be acquired. This section will not go into detail concerning all applicable insurances, but address important ones.

One of the most important insurances protects against product liability. It is important for a company to find insurance that will cover product liability claims arising in the United States. Dutch companies should be particularly careful in this regard, as many product liability policies sold in the Netherlands claim to provide “worldwide coverage” but in fact, exclude coverage for US claims. Related to product liability insurance is product recall insurance, either as a stand-alone policy or as additional coverage. Product recall insurance covers costs incurred proactively by a company to prevent injury or damage. More information on product liability can be found in [this booklet](#).<sup>7</sup>

Besides product liability insurance and product recall insurance, it is crucial to consider directors and officers liability insurance, workers compensation insurance, and property insurance.

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<sup>7</sup>Hughes Hubbard & Reed LLP , Legal Aspects of Doing Business in the United States for Dutch Companies



## 3. CHICAGO

### 3.1 Get to Know Chicago; a City Where Fire Leads to Skyscrapers

Chicago rose out of the ashes a few times throughout its history. Perhaps most notably in 1871, when a raging fire burned down most of downtown Chicago. Chicago residents wanted to come back from this tragedy better and stronger, so they cleared away the wreckage and broke ground on the world's first skyscrapers. This resilient and proactive mentality still shapes the city today, as reflected in the city's motto – "I will."

Bordering Lake Michigan, and at the intersection of railroads cutting across the country, Chicago is the third largest city in the United States and the beating heart of the Midwest. While it is difficult to define a city like Chicago in a few broad strokes, the following quotes do a decent job of capturing its essence:

*"CHICAGO, A DYNAMIC, EVER-CHANGING CITY, BUILT BY DREAMERS AND DOERS - GENERATIONS OF PEOPLE WHO SHAPED AMERICA WITH POWERFUL INDUSTRIES, DIVERS COMMUNITIES, SEARING CONFLICTS, NEW IDEAS, AND VIBRANT CULTURE."*

– Chicago History Museum

*"TO KNOW CHICAGO, TAKE THE L, WALK DOWN STATE STREET, TOUR THE NEIGHBOURHOODS, RELAX ON THE BEACH, FIND A JAZZ OR BLUES CLUB, AND GO TO A BALLGAME. THERE YOU WILL FIND THE CITIES PULSE - BOLD, BRASH, READY FOR TODAY AND EAGER FOR TOMORROW. CHICAGO THRIVES ON PLANS FOR THE FUTURE. KNOW CHICAGO AND YOU WILL KNOW AMERICA."*

– Chicago History Museum







## 3.2 Why and When Chicago?

As the central hub of the Midwest, Chicago has all the advantages the Midwest offers. But there is more! This is why Chicago might be the prime location for your company:

- *Chicago is the best-connected startup hub* – it has the best connected airport in the United States,<sup>8</sup> with a connection to the nation’s seven Class 1 railroads and six major interstates, and a connection to virtually every major data network.
- *Ideal market for B2B companies that cut across sectors* – Chicago is ranked the fifth strongest local corporate market for startups across all industries.<sup>9</sup> The city encompasses 400 major corporate headquarters including 34 Fortune 500 companies. Furthermore, no industry represents more than 14% of the economy.<sup>10</sup>
- *Highest venture capital return on investment of any United States startup hub* – 45% of Chicago’s exits had a 10 times return on investment; by far the highest percentage of any startup hub.<sup>11</sup>
- *Presence of leading startup accelerators, such as 1871* – ranked as the No. 1 incubator in the United States.
- *High attraction of talent from surrounding states* – Chicago added more residents to its urban core than any other hub in the United States between 2000 -2015.<sup>12</sup> This is the combined result of the affordable cost of living, world-class cultural and recreational options and an abundance of different career opportunities that binds talent to the city.

So, it is safe to say that Chicago has an appealing proposition for startups and scale ups. If your business operates in a space that cuts across sectors, works B2B, benefits from a fast access to distribution channels, and/or already has deal flow in the Netherlands, Chicago could be the place for you.

Has this sparked your interest? Please read on for more details on Chicago’s ecosystem and its most prominent sectors.

## 3.3. Chicago’s Entrepreneurial Ecosystem Explained

Chicago’s resources for growing startups and attracting foreign scale-up companies have surged in the past decade. This trend is likely to continue in the coming years, considering Mayor Rahm Emanuel’s dedication to growing and strengthening Chicago’s entrepreneurial ecosystem. By now, there are more than 100 incubators, accelerators and co-working spaces, over \$1.7 billion in venture capital investments, an average of 275 digital startups launched annually, \$8.2 billion in acquisitions and IPOs, and the highest venture capital returns of any United States startup hub. Therefore, it is no surprise that Chicago is ranked third in the area of startup output growth rate.<sup>13</sup> Below, the key factors encompassing the Chicago entrepreneurial ecosystem are explained in more detail.

### 3.3.1 CORPORATE BUSINESS ECOSYSTEM

To put the city’s business ecosystem into perspective, Chicago’s economy competes with some of the most well-developed countries in the world; with its annual GRP of \$609 billion<sup>14</sup> exceeding countries such as Sweden, Poland and Argentina.

What makes Chicago’s corporate business ecosystem so interesting for startups and foreign companies from a market perspective is the fact that Chicago is home to 400 major corporate headquarters, including 34 Fortune 500 companies. Not only does this make Chicago one of the prime locations for companies in the B2B market, but it also attracts talent to the region.

<sup>8</sup> MIT’s Airport Connectivity Quality Index, 2016

<sup>9</sup> Startup Genome, The Global Startup Ecosystem Ranking, 2015

<sup>10</sup> World Business Chicago, [www.worldbusinesschicago.com/economy](http://www.worldbusinesschicago.com/economy)

<sup>11</sup> Pitchbook, Venture Ecosystem Factbook Chicago 2016

<sup>12</sup> World Business Chicago, [www.worldbusinesschicago.com/workforce-education](http://www.worldbusinesschicago.com/workforce-education)

<sup>13</sup> Startup Genome, The Global Startup Ecosystem Ranking, 2017

<sup>14</sup> World Business Chicago, [www.worldbusinesschicago.com/economy](http://www.worldbusinesschicago.com/economy)



Another factor that makes Chicago’s corporate business ecosystem stand out from the other startup hubs is the fact that it is one of the most diversified economies in the United States. Notably, no industry represents more than 14% of the economy. As such, nearly everything is happening in Chicago, and this can be both good and bad for your company.

Chicago’s diversity does not lend itself to a prevailing narrative centered on one industry. Simply put, there is not one industry for which you simply “have to be” in Chicago. This does not only make it harder for the city to attract investment but also to market Chicago as the go-to place for a particular business.

However, the city’s diversity can also be a key asset. The prevalence of many sectors in this area opens up opportunities for companies that cut across traditional industries. In Chicago, you cannot only find top-tier resources in all the sectors, but also overarching organizations, such as World Business Chicago, that connect the various sectors.

All in all, it is safe to say that in Chicago people will be much more open-minded to technologies that do not neatly fall within a specific sector.

<i>A selection of Chicago’s Fortune 500 companies</i>
Walgreens
Boeing
Caterpillar
McDonald’s
Motorola Solutions
Baxter
AbbVie
Abbott Laboratories
United Continental
Packaging Corporation of America
Exelon
Allstate
Navistar
Ingredion
Arthur J. Gallagher
Discover Financial

### 3.3.2 UNIVERSITIES AND RESEARCH INSTITUTES

Chicago has many universities and research institutes, boosting the talent and knowledge pool in the city. Notably, Chicago is home to two of the world’s most prestigious universities: the University of Chicago and Northwestern University, ranked 10<sup>th</sup> and 25<sup>th</sup> on the World University Rankings 2015-2016, respectively. Also, the city houses two top business schools, Booth and Kellogg School of Business, attracting more business talent to the region. In numbers, more than 150,000 college degrees are conferred every year by nearly 150 Chicago colleges and universities, including 25,000 bachelor’s degrees, 20,000 master’s degrees, and 4,000 doctoral degrees.<sup>15</sup> All in all, this makes the city a global destination for higher education.

On the entrepreneurial side, many universities provide programs for young entrepreneurs to help them develop their ideas into businesses. The University of Chicago is establishing an innovation center called the Chicago Innovation Exchange (CIE) that will be a hub for collaboration and support for entrepreneurial activities. The Polsky Center for Entrepreneurship and Innovation at the University of Chicago Booth School of Business offers a startup launch program called the New Venture Challenge (NVC). The NVC is ranked the No. 1 university accelerator program in the nation. The Illinois Institute of Technology opened the University Technology Park in 2011. This incubator offers 30,000 square feet of office space for startups.

<i>A selection of Chicago’s Major Universities</i>
University of Chicago
Loyola University
University of Illinois in Chicago
Illinois Institute of Technology
Northwestern University
DePaul University
Roosevelt University

Another sign of the city's commitment to innovation and research is the more than 300 corporate R&D centers, 1,700 patents issued each year, \$1.6 billion investment in R&D at Chicago’s colleges and universities annually, and 96 Nobel Prize winners.

As such, Chicago fosters a growing talent base and research excellence that can help Dutch businesses launch in the United States.

<sup>15</sup> World Business Chicago, [www.worldbusinesschicago.com/workforce-education](http://www.worldbusinesschicago.com/workforce-education)





### 3.3.3 INVESTOR CLIMATE

To start, the investment climate in Chicago is growing, but it is not like San Francisco. Although having a better position than other Midwest cities, obtaining investment in Chicago is still difficult. San Francisco and New York have seen a total venture capital investment of \$101.4 billion and \$33.9 billion since 2010, Chicago on the other hand has seen a total of \$8.3 billion.<sup>16</sup>

However, even though the amount of investment is lagging behind compared to San Francisco and New York, this trend is about to change. As one key investor puts it:

*“EACH YEAR SINCE 2009, CHICAGO SEEMS TO HAVE ANOTHER ‘BEST YEAR EVER’ IN THE INVESTMENT SCENE. THE CHICAGO TECH SCENE MATURED IN 2015 WITH VERY IMPRESSIVE CAPITAL RAISES, EXITS, AND DEAL VOLUME – AND I EXPECT THAT WILL CONTINUE IN 2016 AND BEYOND.”*

- J. B. Pritzker

Although the city’s investment climate is catching up to the East and West Coast in terms of deal volume, Chicago is certainly not lacking in return on investment. Chicago has the highest venture capital returns of any United States startup hub, with 81% of the Chicago exits measuring a 3 to 10+ times return on investment. More specifically, 45% of Chicago’s exits had a 10+ times return – by far the highest percentage of any startup hub.<sup>8</sup>

Chicago investors are more conservative in doing business compared to the coasts. Startups in New York and San Francisco obtain funding based on their long-term vision, while startups in Chicago typically obtain funded based on their prospective revenue. Therefore, be sure to include an appealing story about traction, numbers, and prospective clients in your pitch to Chicago investors. Rather than mere capital injections, Chicago – similar to other Midwest investors – are more likely to form long-term relationships and provide long-term expertise and leadership.

<i>A selection of Chicago’s most active investors</i>
Hyde Park Angels
Chicago Ventures
Hyde Park Venture Partners
M25 Group
Service Provider Capital
Pritzker Group Venture Capital
Bluestein & Associates
Bridge Investments
MATTER

### 3.3.4 (BUSINESS) CULTURE AND PLACES

Most businesses are located in or around the Loop, or the L, which refers to the elevated rail track that loops around downtown Chicago. The Merchandise Mart, located downtown at the Chicago riverfront, functions as a central hub for startups. However, some hubs lie a little farther outside of the city center toward the west side of town.

In terms of business culture, Chicago keeps the middle between “Midwestern nice” and “metropolitan efficiency”, but what does that mean? In general, Chicago has a friendlier and more pragmatic business culture compared to the coasts, but definitely has a more exclusive (some might even say pretensions) edge over some other Midwestern hubs, such as St. Louis and Minneapolis.

Relative to the coasts, it is much easier to set up and keep an appointment in Chicago. Specifically, 80% of Chicagoans agree that “most of the time” potential customers try to keep an in-person meeting after it is scheduled and avoid rescheduling. Alternatively, 50% agree that this is rarely the case in New York.<sup>17</sup> Also, Chicagoans often take time for their meetings and getting to know you. While on the coasts people tend to give of a “my time is very important so hurry up” vibe, this is much less pronounced in Chicago. As Northwestern University President Schapiro describes Chicago:

*“I LOVE THE CIVILITY, I LOVE THE HUMILITY, I LOVE THE RESPECT, I LOVE THE FRIENDLINESS, I LOVE THE LACK OF ENTITLEMENT.”*

Compared to the coasts, Chicago can have a more pragmatic business culture. That is to say, if you don't have a clear path to profitability, you are going to have a hard time raising funds. As a Dutch company wanting to raise funds or do business

<sup>16</sup> Pitchbook, Venture Ecosystem Factbook Chicago 2017

<sup>17</sup> Chicago Now, Big Apples and Oranges: Navigating NYC and Chicago’s Different Business Meeting Cultures, 2014



in Chicago, a cool idea simply will not cut it. You will have to show deal flow. Consequently, a hot startup such as Facebook once was is unlikely to ever come out of Chicago.

However, Chicago’s combination of pragmatism, size, and business success makes it also more competitive and exclusive than other Midwest counterparts. Generally, Chicagoans are more reserved in forming collaborations and setting up meetings relative to the other hubs. Not always wrongly so. Due to the high demand for the resources available for startups, some selectivity is necessary.

### 3.3.6 STARTUP CLIMATE

Chicago’s startup tech ecosystem has been developing over the last 10 years, to a point where it was ranked No. 7 in the worldwide startup tech ecosystems by Startup Genome in 2015.<sup>18</sup> In some way, the development of the entrepreneurial ecosystem bears resemblance to the Great Chicago Fire of 1871. It is not really about the fire, it’s about what happened next: a remarkable moment when the most brilliant engineers, architects, and inventors came together to build a new city. 140 years later, the government, corporates, and universities worked together – not to build a city – but to build an entrepreneurial ecosystem. And with success. Chicago has achieved the third highest startup output growth rate in this year’s rankings.<sup>19</sup>

A key reason for Chicago’s growth is the exceptional success of a few local startups. Chicago is the birthplace of Groupon, Grubhub, and Uptake, and is currently home to more than 10 unicorns — startup companies valued at more than \$1 billion. In the case of Chicago, the high density of such successful startups significantly accelerated the circulation of both wealth and proven expertise in the ecosystem.

<i>A selection of Chicago’s incubators, accelerators, and softlanding spaces</i>
1871
MATTER
mHUB
Current
Sente.Link
UI Labs
The Hatchery
ICNC
TechStars Chicago
The Connectory

To capitalize on this expertise and wealth, around 100 incubators, accelerators, and cluster organizations have been set up across the city. As one of the central locations for Chicago entrepreneurship, the Merchandise Mart is home to some of Chicago’s finest incubators and accelerators, such as the city’s digital technology hub 1871, which is ranked the No. 1 incubator in the United States; the renowned health accelerator MATTER; and the recently opened co-creation workspace and internet of things (IoT) incubator, The Connectory. In addition to the Merchandise Mart, many more organizations are in place to ensure the best start and landing place for companies, both domestic and foreign, in all types of industries. Only take a look at the selection of all the resources present in the Chicago entrepreneurial ecosystem.

Chicago has a lot to offer to startups, but it can be difficult to navigate the ecosystem and to leverage all the resources at your disposal. Fortunately, the Netherlands Consulate General is located in the heart of this vibrant city and can help you as a Dutch business find your place in this system and make the right introductions.

### 3.3.5 GOVERNMENT

Mayor Emanuel and other elected officials have done much to further establish Chicago as a pro-startup and business ecosystem. 1871, the incubator located in Merchandise Mart, is largely funded by state and city entities. In addition, the IL Angel Investment Tax Credit Program run by the state encourages early-stage angel investing. Although the government does not invest directly, Illinois declared in 2016 that it would invest more than \$220 million in venture funds for local technology and bioscience companies.

However, in making Chicago a pro-business ecosystem, the city government still has some way to go. Most importantly, Chicago has a reputation of being unfriendly to small businesses. One example of an issue startups have with the city is the Cloud Tax. Chicago is the first city in the United States to attempt this tax, expecting to net \$12 million a year. The law in Illinois created a system where local affiliates of out-of-state retailers have a taxable presence. This law drove Amazon, the world’s largest online retailer, to pull its affiliate program from the state, and Illinois-based companies, such

<sup>18</sup> Startup Genome, The Global Startup Ecosystem Ranking, 2015

<sup>19</sup> Startup Genome, The Global Startup Ecosystem Ranking, 2017



as Fat Wallet, moved their headquarters to Wisconsin, a state without the same tax burden. Another issue is the state Limited Liability Company Fees (LLC fees). LLC fees are the fees that a prospective company pays to become incorporated as an LLC, one of the most common incorporation forms for starting companies in the United States. These fees are among the highest in the nation.

### 3.4 The Main Sectors in Chicago

Although originally well known for its strong manufacturing industry, Chicago today simply does not have one go-to sector. Rather, it prides itself for its cross-sector expertise and industrial diversity. Nonetheless, there are some sectors in Chicago that warrant some extra attention. That is to say, we believe that there are specific opportunities, niches, and/or resources within specific sectors in Chicago that we would like you to know about.

#### 3.4.1 AGRICULTURE & FOOD

There is a reason why Chicago has historically been dubbed America’s breadbasket. Since the mid-19th century, the Chicago region has been a center for food production and distribution. This was the place where much of the Midwest’s agricultural output came to be processed, packaged, and distributed to the marketplace. Today, Chicago’s food packaging and manufacturing industry is the second largest in the nation, trailing only Los Angeles.<sup>20</sup>

<i>Facts and Figures about the Agriculture and Food sector in Chicago</i>	
# active companies	4.500
# employees	130.000
Sales in \$/per year	32 billion

Source: World Business Chicago

#### Why Agriculture & Food in Chicago?

So, Chicago has one of the biggest food and beverage industries. Food companies launching in Chicago have been found to have more success entering the rest of the United States market than if they had launched their products elsewhere. What makes Chicago’s agriculture and food sector so successful compared to the other states and hubs? And perhaps more importantly, why would Chicago be a good place for your business to land?

<i>A selection of Chicago located prominent agriculture and food companies</i>
KraftHeinz
PepsiCo
Mondelez
Nestlé
Ingredion
Tootsie Roll
Kellogg’s
ConAgra
Mars Chocolate
Alpha Baking
Carl Buddig

- *Best connection and infrastructure to other hubs* – especially in the food sector where lead times are crucial, Chicago’s central location and connectedness is a unique advantage. Not only does this reduce transportation costs, but it also ensures freshness of the products.
- *A uniquely reliable reflection of the entire United States food market* – it doesn’t offer any false securities that more densely populated cities such as New York can offer. The mix of people living in Chicago and the crossover between urban and rural lifestyles ensures that if your product works here, it will most likely work anywhere else in the United States.
- *Prominent expos and fairs* – Chicago hosts the largest food-related expo, the IFT Food Expo, every other year. The last years, a large Dutch Pavilion was present at this expo, which makes it easy for Dutch companies connected with the Chicago food sector. Other renowned expos are the PMLA and the Process Expo.
- *High-value food brands in food manufacturing and packaging* – such as KraftHeinz, PepsiCo, Nestlé, Kelloggs, Mars Chocolate, and more.
- *Easy and cheap access to (agricultural) resources* – not only is Chicago in close proximity to the majority of the country’s most prominent agricultural hubs, but there is also access to inexpensive electricity. On average electricity is 15% cheaper in Chicago compared to the New York metro area.<sup>21</sup>

<sup>20</sup> World Business Chicago, Food Manufacturing Profile, 2017

<sup>21</sup> US Bureau of Labor Statistics, Average Energy Prices, 2017



## Niches & Opportunities

Due to its size, Chicago's agriculture and food market covers the entire sector with regard to the supply chain and types of food. In general terms, Chicago follows the (inter)national trends perceived in the sector. However, there are some niches that are particularly strong and/or upcoming in Chicago.

### - Food Manufacturing and Packaging

Notably, the food manufacturing and packaging niche is strong in Chicago. The city is No. 1 in food manufacturing and No. 2 in food processing in terms of GRP and employment.<sup>22</sup> The advantages of the established high-value brands, good connection to infrastructure, and easy access to resources are an important driver of this success. Also, Chicago's historical strength in manufacturing helps provide the resources and innovation necessary to make the city a front-runner in this field.

Although the food manufacturing and packaging niche includes almost all types of food, Chicago in specific is the nation's leader in sugar and confectionary, grain milling, and fruit and vegetable preserving.<sup>14</sup> Several other industries interface with this process, including suppliers of packaging materials, equipment, machinery, and transportation services.

The leading position in food manufacturing and packaging can also be observed in the latest trends. The majority of food and beverage companies in Chicago are planning to increase investment in information technology (83%), equipment and machinery (72%), and, to a lesser extent, physical facilities and warehouses (56%). Specific trends that are observed in this niche include:

- Packaging that adds value for customers through, for example, interaction, convenience, longer freshness or waste reduction.
- Business analytics – harnessing big data to enhance manufacturing and packaging efficiency.
- Warehouse management systems – such as “just in time” and “less than truckload” shipping.
- Waste reduction and resource efficiency – innovations to reduce chemical, energy, water use, and waste in food manufacturing.

So, if your company is involved in any of these trends, Chicago is the place to be. If you are interested in learning more about this market, the biennial Process Expo in Chicago is a good place to start.

### - Urban Farming

With more and more people living in the cities,<sup>23</sup> one can expect a high demand for fresh food in the urban environment. This is also visible in the agriculture and food sector, with urban farming — growing food in an urban environment — on the rise. Urban farming has apparent advantages over outdoor agriculture, such as year-round growth and harvest, a small geographical footprint, a high-yield per-cubic-foot ratio, and an often shorter distance to the market.

A particular trend that stands out in the urban farming is vertical farming — the nascent industry of growing food in environmentally controlled, indoor facilities, where pests, diseases, light, temperature, and humidity can be tightly controlled.

With Chicago's greens market valued at more than \$400 million<sup>24</sup> and a growing demand for local and clean food, Chicago has profiled itself as one of the front-runners in this niche. Simply put, the economics in Chicago are better than in other metropolitan city, with energy cost being, on average, 15% lower. Also, Chicago has a higher need for these farms, since it is a cold-weather place with a short growing season, and a limited supply of year-round local produce. To date, there are more than 821 vertical farming sites across the city, ranging from community and school gardens to rooftop farms, orchards, and multi-acre urban farms.

<sup>22</sup> World Business Chicago, Food Manufacturing Profile, 2017

<sup>23</sup> United States Census Bureau, We are Gathered Here, 2015

<sup>24</sup> Interview Nate Laurell CEO FarmedHere with Co.Exist, 2016



So if your company provides software, technology, and/or machinery to make this process of urban farming more efficient, sustainable, and/or improve quality, Chicago should be on the top of your list.

**Resources**

While most small firms, regardless of industry, face challenges in scaling up, food firms encounter sector-specific challenges. They face regulations and other requirements, yet specifically for food-tech businesses it is more tricky to enter the market with their developed products. Also, access to capital can be a challenge for young food-tech firms as food is often a risky investment with relatively modest returns.

Luckily, Chicago is experiencing a rise in local investors active in the food sector, and many organizations and initiatives in Chicago’s food cluster are working to help food-tech startups and scale ups through the difficulties. Below is a short selection of the resources available to your company in the food sector.

Selection of resources available in Chicago’s agriculture & food sector			
<i>Investors</i>	<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
The Angel Food Network	The Hatchery	Chicagoland Food & Beverage Network	Chicago Section - Institute of Food Technologists
Sustainable Local Food Investment Group	NWC Food Incubator	Kitchen Chicago	Connect Food
S2G Ventures	Sente.Link	Global Midwest Alliance	Food Safety Innovation Center
M25 Group	Cleveland Avenue	Midwest Food Processors Association	Illinois Institute of Technology
Take Seed 2 Growth Ventures	ICNC	Family Farmed	
Cultivation Sandbox	The Good Food Business Incubator	Fresh Taste	
		Illinois Department of Agriculture Trade and Marketing Programs	

**3.4.2 HEALTH**

In the area of healthcare services and technology, Chicago headquarters leading academic medical centers, medical device manufacturers, health care information technology companies, and pharmaceutical innovators. But this is only one of the reasons why the Chicago health sector should be on your radar.

**Why Health in Chicago?**

Chicago’s healthcare sector does have some appealing propositions, strengths, and opportunities that are unique to this hub, and which might make Chicago the ideal destination for your company. What are those strengths?

<i>Facts and Figures about the Health sector in Chicago</i>	
# active companies	26.000
# employees	600.000
Sales in \$/per year	69.7 billion

Source: Chicago Health Industry Report, 2017





- *Strong presence of capital and private equity firms focused on healthcare* – nationally, 7 of the 12 healthcare-only focused private equity firms are located in Chicago. Also, Chicago has the highest total amount of investments in the health sector of the Midwest.<sup>25</sup>
- *Chicago’s long-standing history as a central location for health care and medical organizations* – such as the American Medical Association, the American Dental Association, and the American Hospital Association.
- *World-class medical facilities and leading number of patient admissions* – Chicago has seven high-ranking facilities, including: Northwestern Memorial Hospital (eighth overall in the nation), the Rehabilitation Institute of Chicago (first in rehabilitation), and Rush University Medical Center (fourth in orthopedics).<sup>26</sup> Also, Chicago has more than 1 million patient admissions annually, which is the third highest in the country.
- *High availability of medical talent* – Chicago is home to three nationally recognized teaching hospitals (more than any other city). Also, Chicago is second in the amount of physicians in hospital practice, and third in amount of medical, surgical, and other specialists in the nation.<sup>27</sup>
- *Presence of several major headquarters in medical and biotechnology sector* – Chicago is home to Abbott, Abbvie, Siemens Healthcare, GE Healthcare, Baxter, Medline, Medtronic, Astellas to name a few.
- *Prominent innovation hubs and accelerators* – some of the most notable ones: MATTER (largest healthcare incubator in the nation),<sup>28</sup> Illinois Medical District, and Illinois Science and Technology Park.

<i>A selection of Chicago’s prominent healthcare companies</i>
Abbott
Abbvie
Baxter
Siemens Healthcare
Medline Industries
Cardinal Health
Hospira
Medtronic
Argon Medical Devices
Horizon Pharma
GE Healthcare
Novartis
Astellas
Takeda
Lifewatch

In short, Chicago’s healthcare seems to have it all: the money, the talent, the patients, the corporates, the providers, and the incubators. However, two critical notes have to be made. First, Chicago’s health market is heavily influenced by the presence of the large health systems. This creates a general risk-averse behavior in the health market where hospitals and health systems are slow to adopt innovative solutions.

<i>A selection of Chicago located prominent hospitals</i>
Northwestern Memorial Hospital
Rush University Medical Center
Loyola University Medical Center
Advocate Christ Medical Center
Northwestern Medicine Central DuPage Hospital
Advocate Lutheran General Hospital
Ann & Robert H. Lurie Children’s Hospital of Chicago
University of Illinois Hospital & Health Science system
Northwest Community Hospital

Second, the budget impasse the Illinois government had a big impact on the medical sectors. With claims still awaiting payment, hospital executives have had to make drastic cuts, stall payments to vendor,s and delay upgrading facilities and equipment. This leads to a more risk-averse behavior of the big corporates.<sup>29</sup>

Generally, these two factors make it harder for entrepreneurs to scale up, especially if you compare it to the astonishingly short time-to-market in the Twin Cities. So, when is Chicago your go-to place?

- If you want to test and/or develop your product further until the first prototype, or do clinical/patient trials.
- If you are looking for new customers (corporate/hospital) in the United Sates and can de-risk the deal by showing a solid track-record both in Europe and the United States.
- If your product specializes in rehabilitation, biopharma, and/or digital health.

<sup>25</sup> Health Care Council of Chicago, State of the Chicago Health Care Industry, 2017  
<sup>26</sup> World Business Chicago, Health Services Profile, 2017  
<sup>27</sup> Health Care Council of Chicago, State of the Chicago Health Care Industry, 2017  
<sup>28</sup> Chicago Tribune, Matter CEO: Chicago has "greatest collection of health care expertise in the country," 2016  
<sup>29</sup> World Business Chicago, Health Services Profile, 2017



## Niches & Opportunities

Although Chicago's health sector is well-rounded, including all the different resources needed for the sector to flourish, there are some niches in which Chicago is the emerging leader. Therefore, if your company specializes in one of the following niches, Chicago should definitely be on your list.

### - Medical Manufacturing and Rehabilitation

Chicago is an emerging leader in the medical manufacturing niche, including the manufacturing of: dental, surgical, and medical equipment and supplies; electromedical and electrotherapeutic apparatuses; analytical laboratory instruments; and measuring and controlling devices. This leading position is supported by the presence of major companies. In addition, there is a high-quality pipeline for medical tech talent, with universities such as Northwestern University – which has one of the largest biomedical engineering programs in the country – creating a stream of skilled graduates. In total, nearly 3,000 biomedical science and engineering students graduate annually.<sup>30</sup> But what makes this niche flourish in Chicago is its cross-sector nature, allowing companies to tap into another strength of Chicago: its manufacturing expertise.

To capitalize on this expertise, Chicago is home to three institutes aimed at fostering innovation in the medical technology space: Healthbox, MATTER, and Insight Accelerator Labs. Spaces such as mHUB and the Manufacturing Renaissance are closely involved in the medical technology space and are able to provide manufacturing excellence. North of the city sits Argonne National Laboratory and Fermilab, which have the highest concentration of accelerator experts in the world.<sup>31</sup> This accelerator research has supported many medical device innovations. Together, the presence of talent, corporations, and innovation institutes make this a strong niche in Chicago.

However, we cannot conclude this chapter without highlighting one particular opportunity in Chicago for Dutch companies: rehabilitation. To start with, Chicago is home to the best rehabilitation institute in the nation: the Shirley Ryan AbilityLab.<sup>32</sup>

Compared to other hospitals and medical institutes, the Shirley Ryan AbilityLab is known for its innovative approach and has already formed collaborations with various Dutch companies and universities. In addition, Rush University Medical Center is ranked fourth in orthopaedics.<sup>22</sup> But not only does Chicago have academic and medical excellence in this field, many corporates and investors are showing interest, too. Chicago investors expect an increase in investment deals in the rehabilitation space, especially in senior care. If your company is working in this niche, Chicago is a good landing place for your scale-up.

### - Biopharma

Chicago's biopharma niche has been growing. In 2017, Genetic Engineering & Biotechnology News ranked Chicago in the top 10 of the nation's most nurturing regions for biopharma. For some part, this ranking reflects the considerable amount that the National Institutes of Health injected into the Chicago area, totalling \$252.5 million and 3.5 million square feet of lab space. Most of this funding was allocated to the University of Chicago and Northwestern University – two of the world's top universities for life science (No. 18 and No. 39, respectively).<sup>33</sup>

Corporate presence is strong in the biopharma niche. To the north and west of Chicago is the "life sciences alley" — the second largest pharma hub in the US — home to Horizon, Pfizer, Takeda, AbbVie, and Astellas, among others. What makes Chicago particularly interesting is the lower business cost for biotechnology and biomedical R&D compared to peer cities, such as New York City, Los Angeles and Boston.<sup>25</sup> But the biopharma market is far from saturated. In 2016, biopharmaceutical companies in Chicago received \$65 million in venture capital. Investors expect this to grow. In particular, they see potential in traditional pharma companies partnering with entrepreneurial high tech companies to develop pills that can assist with diagnostics, monitoring, and compliance.

If you are interested in learning more about this niche, or seeing how you can position your business, contacting the network organizations Illinois Biotechnology Industry Organization and/or Propel, might be a good place to start.

<sup>30</sup> Health Care Council of Chicago, State of the Chicago Health Care Industry, 2017

<sup>31</sup> World Business Chicago, Health Technology Profile, 2017

<sup>32</sup> World Business Chicago, Health Services Profile, 2017

<sup>33</sup> World Business Chicago, Biotech Profile, 2017



- **Digital Health**

Digital Health is a hot topic in the health space. The diverse sector of digital health spans from general wellness trackers to clinically focused solutions that require US Food and Drug Administration (FDA) approval. It includes the subfields of diagnostics, electronic health records, telemedicine, mobile health, healthcare information technology, and health care analytics. According to the California Healthcare Foundation, of the nearly 100 healthcare incubators and accelerators in the United States, over 70 support digital health.

With the niche being on the intersection of technology and healthcare, it captures Chicago’s most innovative characteristics. No wonder that this niche is on a steady climb in this region, with \$178 million raised by 25 companies in 2016.<sup>34</sup> Most notably, Chicago’s most valuable unicorn tech company, Outcome Health (valued at \$5 billion), is operating in the digital health niche. Through groups such as AVIA, MATTER, and Healthbox, this trend to digitize healthcare is stimulated in the startup, scale up, and entrepreneurial ecosystem. Moreover, Chicago is home to Healthcare Information and Management Systems Society (HIMSS), the American Medical Association (AMA), and the American Hospital Association (AHA) — all institutions invested in advancing digital health innovations.

Chicago investors and startups are also betting on growth. Investors expect that healthcare information technology and data analytics will be a dominant area of investment. Of special interest is the protection of electronic health records, and investors are expected to target emerging software companies that connect and protect health care data. Other promising areas in the digital health niche are:

- Big data and analytics
- Education and training
- Patient and consumer experience
- Personalized health and “quantified-self”

Lastly, Illinois and Chicago policy makers are also actively involved in the digital health space. Policy engineered by Chicago and Illinois lawmakers is in place to drive clinical information-sharing and provide for payments for technology-provided services. This has a positive effect on the maturation process of the niche and developing the desired information infrastructure, making this city specifically interesting for new Dutch companies.

**Resources**

Selection of resources available in Chicago’s health sector			
<i>Investors</i>	<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
MATTER	MATTER	Healthcare Information and Management Systems Society	Illinois Institute of Technology - University Technology Park
Pritzker Group Venture Capital	Healthbox	American Medical Association	Illinois Science + Technology Park
StartUp Health	AVIA	American Hospital Association	Illinois Medical District
Chicago Ventures	Blue1647		FermiLab
Hydepark Angels	University of Chicago’s Polsky Center		Argonne National Laboratory

<sup>34</sup> Health Care Council of Chicago, State of the Chicago Health Care Industry, 2017



Chicago’s healthcare sector has gained momentum, and is home to prominent institutions and organizations that can help new or expanding companies every step of the way. A short, non-exhaustive, overview of the resources that are available to your company is provided.

### 3.4.3 MOBILITY AND INFRASTRUCTURE

Although not as prominent in the mobility area compared to Detroit and Columbus, Chicago is among one of the most ambitious cities when it comes to improving its infrastructure. Notably, Chicago is ranked second in the national 2016 Grid Modernization Index,<sup>35</sup> measuring the level of innovation going on in the modernization of a city’s electrical infrastructure. On the other hand, Chicago can learn from the Dutch approach and innovations in making city’s infrastructure more resilient. All in all, we believe that Chicago’s mobility and infrastructure space offers specific opportunities for Dutch companies

#### Why Mobility and Infrastructure in Chicago?

Just like any other major city, Chicago is faced with the challenge of preparing its infrastructure for the future. But what makes Chicago particularly interesting for your company?

- *Unique availability of open-data platforms* – recent public-private efforts have made Chicago a key player in leveraging its data infrastructure, such as Chicago’s Open Data Portal, Array of Things project, and Smart Green Infrastructure Monitoring Program.
- *Everyone’s on board* – corporates, universities, and government organizations are working together to improve the city’s infrastructure. Spearheading this collaboration is the City Digital program run by UI Labs – a leading nonprofit organization that connects all the above mentioned players to incubate innovation in the field of physical, information, and energy infrastructure.
- *There is an urgent need for new technologies in the green infrastructure and resilience space* – Chicago’s sometimes extreme weather conditions and proximity to Lake Michigan create an urgent demand for innovations improving the city’s resilience.
- *Availability of corporates to scale technologies outside the infrastructure space* – many of the technologies (e.g. sensors, IoT, and software applications) that are created to improve the city’s infrastructure can be applied to many sectors, such as manufacturing, agriculture, and health. All these sectors have a strong (corporate) base in Chicago, making it easier to scale your business.
- *A leading authority in electrical infrastructure modernization* - notably, Chicago is ranked second in the national 2016 Grid Modernization Index, measuring the level of innovation going on in the modernization of a city’s electrical infrastructure.

<i>A selection of companies involved in the infrastructure sector in Chicago</i>
Motorola
Accenture
Zebra Technologies
Microsoft
Caterpillar
Cisco
Qualcomm
Intel

To conclude, Chicago has some unique strengths relating to the infrastructure sector with great data availability and energy grid modernization. The next step is to attract companies or create companies that will capitalize on these strengths. Also, there is a specific demand in the resilience sector. With institutes such as UI Labs in place, this creates opportunities for Dutch companies that want to capitalize on these strengths or demands.

#### Niches & Opportunities

As can be deduced from the unique selling points of the region in the mobility and infrastructure sector, the biggest opportunities are dictated by the city’s strengths and needs. Consequently, the biggest growth is expected in information and resilient infrastructure.

<sup>35</sup> GridWise Alliance, Grid Modernization Index, 2016



- **Information infrastructure**

As already mentioned above, Chicago has an unique availability of open-data platforms. To use this open-data to develop smart solutions for livable cities, the Code for America Brigade has selected the Midwest as a pilot region to test the use of technology and open data for transparent, participatory, and effective governance.

In Chicago, this has manifested itself in the creation of multiple data portals and monitoring grids, the most prominent one being the Chicago Open Data Portal. This data portal integrates more than 600 machine-readable datasets, ranging from restaurant inspection reports to reported crime. Moreover, another initiative is OpenGrid, an open source platform to provide both real-time and historical insights. So far, several startups have used the availability of these datasets, such as CivicScape, a predictive policing software used by police forces in Chicago and other populous cities in the United States.

But open-data platforms are not the only thing that drives the information infrastructure niche in Chicago. Chicago is also pushing frontiers in science through its gathering of data on the city’s environment, infrastructure, and activity via the Array of Things project. This public-private project is expected to entail a network of 500 boxes equipped with sensors, cameras, and microphones to record things such as: temperature, light intensity, air pressure, chemical quality, noise, and traffic intensity. This data is publicly available.

Given the abundance of data in Chicago, the next step is to unlock data-driven innovations in the urban environment. To foster this, the City Digital program run by the nonprofit organization UI Labs was set up. Together with industry, academia, and civil society, they develop projects to capitalize on this data. Consequently, they support companies that want to develop data-based solutions and/or applications, but they also create the space for demonstration projects in the city in the area of physical, information, energy infrastructure, mobility, and utility space.

- **Infrastructural resilience**

This trend is rooted in the need of the city to withstand extreme weather conditions. Far away from the moderating effect of the ocean, Chicago has to withstand more extreme conditions compared to the coasts. Given the fact that metropolitan areas suffer from heat waves and flash floods more frequently than before, infrastructure resilience is gaining traction in Chicago. With proven Dutch excellence in dealing with flooding and creating resilient cities, opportunities arise for companies to scale their innovations in Chicago.

Examples of innovations to promote resilience include: storm-water basins, pavement innovations, sewage upgrades, and green roofs. In particular, Chicago has the highest number of green roofs in the Midwest.<sup>36</sup> Therefore, there is a specific opportunity for companies that can add a smart component to the green roofs, such as controlled discharge of storm water.

Another project to increase Chicago’s resilience is the Green Infrastructure Monitoring Program – one of the flagship projects by UI Labs. This project uses IoT-enabled sensors for impact studies in the context of water management. This program can function as a pilot space for Dutch technologies in the flooding and water management space.

**Resources**

Selection of resources available in Chicago’s mobility and infrastructure sector		
<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
The Connectory	Illinois Technology Organization	UI Labs – City Digital
1871	ITA IoT Council	TechNexus
Sente.Link	Built in Chicago	Smart Grid Cluster
		Argonne Lab

<sup>36</sup> WendyCityChicago, Chicago Green: Roofs, 2015





### 3.4.4 MATERIAL MANUFACTURING

Manufacturing has long been a cornerstone of the regional economy, helping metropolitan Chicago become the economic power that it is today. Even in this era of global sourcing, manufacturing remains a vital element of the region’s economic health. To prevent overlap with other chapters (such as medical and food manufacturing), this chapter will focus specifically on the type of manufacturing that produces the raw materials used in other industries, such as plastic, metal, electrical, paper, etc.

<i>Facts and Figures about the manufacturing sector in Chicago</i>	
# active companies	12.780
# employees	414.000
Sales in \$/per year	75.3 billion

Source: World Business Chicago

#### Why Material Manufacturing in Chicago?

Although the materials manufacturing sector might lack the allure of manufacturing as applied in other sectors, there are some promising opportunities for Dutch companies. Here are some of the reasons to consider the Chicago manufacturing sector:

- *Chicago is the leader in many of the materials manufacturing niches* – for instance, Chicago is the nation’s leader in electrical, paper, plastic, and metal manufacturing.<sup>37</sup>
- *Leading place for material manufacturing innovation* - with innovation hubs such as mHUB and DMDII and leading trade shows such as the FABTECH and International Manufacturing Technology Show (IMTS).
- *High availability of talent and corporate partners* – with nearly half a million people working in manufacturing in Chicago, and presence of some of the biggest manufacturing companies such as Motorola, Ford Motors, Atkore International, Tempel Steel, EcoLab, Sun Chemical, and LyondellBasel.
- *Its sheer size* – Chicago’s manufacturing sector is a \$75.3 billion dollar business and the second largest in number of manufacturing employers in the nation.<sup>26</sup>
- *Strong trend toward innovation* – due to the rise in international competition in the materials market, and the size of Chicago’s market, there is a strong urge to innovate. Given that labor cost in Chicago is higher compared to countries such as China, ways to improve efficiency and productivity are on the rise.

<i>A selection of Chicago located prominent manufacturing companies</i>
Motorola
Ford Motors
Atkore International
Tempel Steel
EcoLab
Sun Chemical
LyondellBasel
Handi-foil
Tempel Steel
Jernberg Industries
Elkay Manufacturing
NB Coatings
Catalent

To summarize, traditionally Chicago has a strong presence in the materials manufacturing business, and even today it is a market leader in many niches pertaining to this sector. However, ever increasing competition from other countries forces Chicago to innovate toward improving efficiency and productivity. This creates opportunities for Dutch companies, especially companies operating in the process optimization, waste reduction, and planning management space.

#### Niches & Opportunities

Although Chicago is a market leader in many niches of the materials manufacturing sector, there are two niches in particular that stand out: metal and plastics/chemicals. Since these niches have a lot in common with regard to opportunities for Dutch companies and resources available in Chicago, they will be discussed together.

##### - Metal and plastic/chemical manufacturing

Chicago’s metal manufacturing niche is the nation’s largest in output and many metal manufacturing companies have chosen Chicago as their location, such as Atkore international, Handi-foil, Tempel Steel, Jernberg industries, and Elkay Manufacturing. In total, this niche adds \$7.3 billion to Chicago’s Gross Regional Product.<sup>38</sup> Likewise, Chicago is leading

<sup>37</sup> World Business Chicago, Manufacturing Profile, 2017  
<sup>38</sup> World Business Chicago, Fabricated Metals Profile, 2017



in the plastic and chemical manufacturing, ranking No. 2 in number of manufacturing employees.<sup>39</sup> Chicago especially is strong in the plastics and paint industry, ranking No. 1 with regard to GRP and number of employees.<sup>28</sup> Moreover, Chicago is home to some of the leading trade shows in the metal, plastic, and chemical manufacturing, such as Global Plastics Summit, FABTECH, and International Manufacturing Technology Show.

However, just like the rest of the manufacturing sector, metal manufacturing is facing fierce international competition and the amount of jobs in this niche in Chicago is reducing every year. That is not to say that the output level of Chicago companies has declined in recent years. Together, this is indicative of an increase of productivity levels. However, to ensure its top position in the sector, Chicago needs to continue innovating.

This is where organizations such as mHUB and DMDII come in. These organizations have a lot in common. Both have a public-private nature and are focused on a similar goal: providing companies with the tools, software, and expertise they need to build things more efficiently and ensure that Chicago’s manufacturing industry continues to accelerate, grow and thrive. They welcome Dutch companies and innovations that might contribute to this goal. In particular, opportunities for Dutch companies and innovations can be found in three focus areas:<sup>40</sup>

- *Design, Product Development, and Systems Engineering* – creating improved design tools and processes, integrating data across the manufacturing cycle, and developing automated manufacturing planning.
- *Future Factory* – enabling digital integration and control in the manufacturing environment, and implementing tools to increase flexibility throughout the production cycle.
- *Agile, Resilient Supply Chain* – facilitating access to digital information, supply chain visibility, and design collaboration.

If you believe your company can capitalize on one of these opportunities, and/or you want to know more about the manufacturing sector in Chicago, mHUB and DMDII might be your point of departure. Both offer a membership to Dutch companies, allowing you to make use of their resources and network. Besides, for companies looking for new business leads in this sector, we highly recommend visiting one of the renowned trade shows mentioned earlier.

## Resources

Selection of resources available in Chicago’s manufacturing sector		
<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
The Connectory	Illinois Technology & Manufacturing Organization	UI Labs
1871	Fabricators & Manufacturers Association	TechNexus
Industrial Council of Nearwest Chicago	Built in Chicago	Chicago Section of the American Chemical Society
DMDII	Chicago Metro Metal Consortium	
MATTER	Chemical Industry Council of Illinois	
mHUB		

<sup>39</sup> World Business Chicago, Chemicals and Plastics Manufacturing Profile, 2017

<sup>40</sup> UI Labs, DMDII Focus Areas, /www.uilabs.org/innovation-platforms/manufacturing/focus-areas/



### 3.4.5 WATER

With its proximity to Lake Michigan and presence of the Chicago River, the city has always had a close connection to water, and also has faced a lot of complex situations because of it. Maybe the most noteworthy undertaking is the complete reversal of the flow of the Chicago River increasing the river's flow from Lake Michigan to prevent contamination of the lake.<sup>41</sup> And even today there is a lot going on in terms of water technology in Chicago.

# active companies	~ 8.000
# employees	99.589
Sales in \$/per year	14 billion

#### Why Water in Chicago?

In the recent years, the dots have been connected and initiatives are in place to put Chicago on the map as a prominent water cluster. They have been successful so far, notably Chicago's water economy ranks fourth in the country.<sup>42</sup> In this process, a couple of interesting opportunities have arisen for Dutch companies:

- *A vast amount of potential corporate customers* – as in many sectors, many of the sector's corporate powerhouses are located in Chicago. In particular, Chicago is home to more than 80 water/wastewater technology headquarters.<sup>43</sup> But there is more. These potential corporate customers are not restricted to the water sector per se. Many of Chicago's agriculture and food, manufacturing, and energy companies are interested in the water technologies as well.
- *Proximity of the Milwaukee's resources* – Milwaukee has the valuable presence of the Water Council. However, to make use of this resource, you do not necessarily have to be based there. Chicago has the advantage of being a 1.5-hour drive away of Milwaukee, which allows Dutch companies based in Chicago to leverage the advantages of both cities.
- *Presence of a supportive innovation organization* – Current is the Chicago-based innovation partner that can help Dutch companies gain access to a variety of valuable resources such as: research and R&D collaborations, validation and demonstration sites, and connections to new customers, networks and partnerships.
- *Home to the largest waste water facilities* - Chicago is a global leader in water/wastewater innovation with the world's largest treatment plants (Jardine Water Filtration Plant) and the world's largest wastewater plant (Stickney Water Reclamation Plant).<sup>44</sup>
- *It can connect water technologies to venture capital* – Chicago is a strong player in the water sector because it can connect intellectual capital with venture capital.<sup>45</sup> For instance, the Blue Tech Alliance aims to foster investment in water technologies in Chicago.

All in all, it is especially the presence of venture capital, corporates, and Current that make Chicago the force that it is today. This creates an opportunity for Dutch entrepreneurs who are looking for funding and or a potential corporate consumer to sell their product to. In particular, there is an interest in the following Dutch technologies:

- Sensors that can detect and monitor water quality and contamination
- Technologies for industrial waste water treatment
- Resource Recovery Technologies
- Products that focus on the prevention and treatment of algal blooms

If your company is looking to sell to one of the biggest corporates, benefits from an extensive validation and demonstration site, and/or your product is active in one of the abovementioned areas, Current would be happy to come into contact with you.

<sup>41</sup> American Society of Civil Engineers, Chicago Waste Water System, 2011

<sup>42</sup> ChicagolInno, City of Chicago Aims to Become Global Hub of Water Innovation With Launch of Current, 2016

<sup>43</sup> Current, Chicago: Your Home for Water Tech, 2018

<sup>44</sup> Current, Chicago: Your Home for Water Tech, 2018

<sup>45</sup> Chicago Tribune, Milwaukee dives into water tech, Chicago just getting feet wet, 2015



## Resources

<b>Selection of Resources Available in Chicago's Water Sector</b>		
<i>Utilities</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
Chicago Department of Water Management	LIFT	Argonne National Laboratory
Downers Grove Sanitation District	Current	Northwestern University
Metropolitan Water Reclamation District of Greater Chicago	SWAN	University of Chicago
	Water Environment & Reuse Foundation	University of Illinois – Chicago
	Metropolitan Planning Council	University of Illinois – Urbana Champaign





## 4. MILWAUKEE AND MADISON

### 4.1 Get to Know Milwaukee and Madison: a Dynamic Duo

Wisconsin, home of the butterburger and cheeseheads, has two cities that stand out with regard to their entrepreneurial activity: Milwaukee and Madison. Putting these cities in a single chapter may give the false impression that they are similar. They are not. Both cities have different characteristics and qualities. A term often used to describe the relationship between the two cities is “collabention”, a word that suggests a relationship that is both competitive and collaborative. Just think of the relationship between Amsterdam and Rotterdam to understand what it means.

The reason this chapter packs Madison and Milwaukee together is that the cities have complementary characteristics and are only a one-hour drive apart. Due to this complementarity and proximity, it makes more sense to consider these two cities as one interesting innovation hub. In that way, Dutch innovative startups and scale ups are able to leverage the resources and opportunities that both cities offer.







## 4.2 Why and When Milwaukee and Madison?

Milwaukee and Madison might not be the first locations you have in mind for your business. However, the cities together have a population bigger than Amsterdam and their own particular strengths. It is definitely worth reading their value proposition to see if these cities might be interesting for your company. What makes Milwaukee and Madison special as an innovation hub in the Midwest?

- *The place to be for dairy* – being dubbed the “dairy state,” Wisconsin produces approximately 15% of the milk in the United States.<sup>46</sup> Besides, Madison and Milwaukee are the epicenter of dairy innovation, with the presence of the Wisconsin Center for Dairy Research, the World Dairy Expo, and the International Cheese Technology Exposition.
- *High level of water expertise and resources* – Milwaukee is home to the Water Council and the nation’s first school of freshwater sciences. Moreover, the city has an extensive pilot program, including real-world demonstration sites to support new water technologies.
- *Strong pipeline of young technology talent* – both cities have strong computer science and software engineering programs at the Milwaukee School of Engineering, UW Milwaukee, Marquette University, and the University of Wisconsin. Also, Madison ranks No. 5 in the list of most educated cities in the United States.<sup>47</sup>
- *Impressively growing entrepreneurial ecosystem* – although currently at the bottom of the Kauffmann Index of Startup Activity,<sup>48</sup> Madison and Milwaukee are experiencing impressive growth. For instance, Madison is currently in the top 25 of next tech hubs<sup>49</sup> and No. 5 in technology industry growth nationwide.<sup>50</sup>

To sum up, the cities do not have the size and entrepreneurial activity of some of the other Midwestern hubs. Yet, Madison and Milwaukee do have a very interesting proposition for companies in the dairy and water sectors. Besides, Milwaukee and Madison are experiencing a strong growth in their entrepreneurial ecosystem, with the entire community pushing for success. These hubs are worth keeping an eye on.

Therefore, if your company works in the dairy industry, needs a testbed for water technology, and/or wants to be part of an up-and-coming ecosystem, this chapter might be worth your time.

## 4.3 Milwaukee’s and Madison’s Entrepreneurial Ecosystem Explained

From a historic perspective, Milwaukee and Madison have always been different with regard to their focus areas. While Milwaukee is the center of advanced manufacturing and home to a lot of agricultural activity, Madison finds itself more in the Health IT, software, and biosciences space. And where Milwaukee is the industrial backbone of Wisconsin, Madison can be considered the center of innovation. Together, they create a mix of resources that allow for a growing entrepreneurial ecosystem. If you are interested in seeing a completer picture of these cities’ entrepreneurial ecosystem, and what this might mean for your company, please read on.

### 4.3.1 CORPORATE BUSINESS ECOSYSTEM

Wisconsin has an active business ecosystem, ranking in the top 10 of best places to do business, based on a ranking by hundreds of CEOs surveyed by Chief Executive.<sup>51</sup> In line with this, Wisconsin has a good corporate presence, being home to 10 Fortune 500 companies, e.g., Johnson Controls, Northwestern Mutual, Harley-Davidson, ManpowerGroup, and Kohl’s.

Zooming in on Milwaukee and Madison, the cities encompass around 15% of the population of Wisconsin, but in economic terms they are the corporate powerhouses of the state. The majority of the big corporates are located in one of the two cities, and together, Milwaukee and Madison account for 48% of the GRP of Wisconsin.<sup>52</sup>

<sup>46</sup> United States Department of Agriculture, Wisconsin Ag News, May 2017

<sup>47</sup> Forbes, The Most and Least Educated Cities in America, 2016

<sup>48</sup> The Kaufmann Index, Index of Startup Activity, 2017

<sup>49</sup> TechNet and Progressive Policy Institute, How the Startup Economy is Spreading Across the Country, 2017

<sup>50</sup> The Brookings Institution, America’s advanced industries: new trends, 2016

<sup>51</sup> Chief Executive, Best & Worst States for Business, 2017

<sup>52</sup> Federal Reserve Economic Data, Total Real Gross Domestic Product for Milwaukee, Madison, and Wisconsin, 2016



To compare, Milwaukee and Madison have the same economic power as half the economy of Finland, but only one-sixth of the population size. So, the cities together are a true economic power.

With regard to industries, the two cities' corporate ecosystems have an interesting mix. Milwaukee is the corporate backbone in food, energy, and water in the state. It houses a lot of big companies, such as Johnson Controls and Rockwell Automation, Harley Davidson, AO Smith, GE Healthcare, Miller Coors, and Birds Eye Foods Inc. On the other hand, Madison's innovation ecosystem is mainly focused on Health IT, cybersecurity, software, and life sciences, with a healthy dash of insurance and financial services, mobile apps, and gaming. A selection of corporates with significant operations in Madison includes CUNA Mutual Group, Google, Invitrogen, Covance, Alliant Energy, and Microsoft.

<i>A selection of Milwaukee's and Madison's Fortune 500 companies</i>
Northwestern Mutual
ManpowerGroup
Kohl's
American Family Insurance Group
Oshkosh
Rockwell Automation
Harley-Davidson
Fiserv
WEC Energy Group

### 4.3.2 UNIVERSITIES AND RESEARCH INSTITUTES

Both Milwaukee and Madison have an influential university and research presence. Madison has the most active university and research ecosystem of the two cities, with the city ranked fifth in the list of most educated cities nationally by Forbes Magazine.<sup>53</sup> In total, Madison has a post-secondary student population of about 50,000 – the nation's third highest number of college graduates per capita. Although Milwaukee does not hold the same position as Madison, it still has a healthy amount of talent with more than 24 colleges, universities, and tech schools.

A great source of the talent in the region comes from the University of Wisconsin. The university is nominated as being one of America's Public Ivy universities, indicating the university's excellence. The flagship of the university, the University of Wisconsin-Madison, accounts for the vast majority of the students in Madison – granting more than 10,000 degrees per year.<sup>54</sup> Other renowned universities in Milwaukee and Madison include the Marquette University – the state's largest private university – and the Milwaukee School of Engineering. Research areas that are especially pronounced in the cities are in the space of stem cell biology, computer science, and food technology.

<i>A selection of Milwaukee's and Madison's Major Universities</i>
Marquette University
Medical College of Wisconsin
Milwaukee Area Technical College
Milwaukee School of Engineering
University of Wisconsin-Milwaukee
Edgewood College
Herzing University
Madison Area Technical College
University of Wisconsin-Madison

In terms of innovation, the contributions of Milwaukee and Madison's universities have been robust. The University of Wisconsin ranks sixth among the world's universities in number of patents obtained for new technologies and spends approximately \$1.1 billion on research annually – the third highest amount in the nation.<sup>55</sup> To turn this research and patents into innovations, the University Research Park in Madison is set up. The park supports early-stage and growth-oriented businesses in a range of sectors, including engineering, and computational and life sciences. In 2016, the Innovation Accelerator Building within the University Research Park opened, housing research labs for engineering professors who collaborate with medical research clusters in Wisconsin. Consequently, the hub – and Madison in particular – has a vast amount of talent your company can tap.

<sup>53</sup> Forbes, The Most and Least Educated Cities in America, 2016

<sup>54</sup> University of Wisconsin-Madison, Facts, 2016

<sup>55</sup> National Science Foundation Report, Higher Education R&D Expenditure Remained Flat, 2013



### 4.3.3 INVESTOR CLIMATE

While funding has been a problem in both the cities, the investment climate is improving. Especially in the last five years, venture capitalists in the region are collaborating and boosting deal flow. For instance, between 2012 and 2015, total investments grew by almost 28% in Wisconsin. In 2016, this growth continued, with a 145% increase in venture capital compared to the previous year. This resulted in a total venture capital funding of \$111.8 million in 2016.<sup>56</sup> While this total is still far from the likes of San Francisco, the growth is incredible.<sup>57</sup>

When comparing the two cities, Madison is clearly ahead of Milwaukee in raising funds. Milwaukee has about one-quarter of the deals made with investors in the state, while Madison has approximately two-thirds.<sup>58</sup> If you look at the various sectors, most of the deals in Milwaukee and Madison are in the healthcare and information technology space. The most important healthcare sectors are IT and medical devices with 17 and 15 deals, respectively.

The hurdle that both cities face is the lack of investment in early-stage companies. Compared to other hubs, it is hard to attract the initial round of investment in Madison and Milwaukee. Investors such as 4490 Ventures and HealthX Ventures are trying to bridge this gap for the biotechnology and digital healthcare space, respectively. Nonetheless, the cities still have a long way to go before developing a complete investment climate. The government is actively involved in improving this investor climate in the state, and Milwaukee and Madison in particular. For instance, it promotes investment via the 225 tax credit program. You can read more about this program under §4.3.6.

<i>A selection of Milwaukee's and Madison's Investors</i>
4490 Ventures
Golden Angels
Cream City VC & Aurora Fund
Midwestern Mutal Venture Fund
Winnebago Seed Fund
HealthX Ventures
Drive Capital
Wisconsin Investment Partners
Venture Investors
Mason Wells
Baird Venture Partners
Gener8tor

### 4.3.4 (BUSINESS) CULTURE AND PLACES

Although these cities are considered one innovation hub and have complementary resources, their business cultures are different from one another. Madison can jokingly be referred to as the place populated by “eggheads, hippies, and assorted liberals” by Milwaukeeans. Overall, Madison tends to be more laid back than Milwaukee, and it is a good place for families and maintaining a comfortable work/life balance - which might explain why Madison is in the top 20 in the list of best cities for millennials.<sup>59</sup> The culture in Milwaukee, on the other hand, reflects the city’s industrial history. The factories may have left, but the spirit of hard work and dedication has not. Together, the two business cultures create an interesting synergy. Milwaukee can benefit from the creative and laid-back approach from Madison to boost innovation, while Madison can learn from Milwaukee’s more corporate business culture in manufacturing and agriculture. Together, the corporate knowhow and creative energy from the two cities creates a vibrant entrepreneurial vibe.

Most of the business and innovation activities in Milwaukee take place in Ward4 - a co-working hub for entrepreneurs, startups, investors, and other technologists. In Madison, the central location for innovation and entrepreneurship will be Starting Block, a 40,000square-foot entrepreneurial hub opening in 2018. Therefore, if you are looking to do business in this hub, keep these places in mind.

### 4.3.5 STARTUP CLIMATE

Milwaukee and Madison generally lag behind nationally in terms of entrepreneurial activity, and are searching for ways to become more competitive. Wisconsin ranked among the lowest of all states in the Kauffman Index of Startup Activity, and Milwaukee independently ranked 33<sup>th</sup> out of 40 among America’s largest cities with regard to startup activity.<sup>60</sup>

<sup>56</sup> Startland, Report: Kansas City’s VC Funding Rank Improves Among Midwest Cities, 2017  
<sup>57</sup> Journal Sentinel, Wisconsin Gains National Attention as Start-up Technology Hub, 2017  
<sup>58</sup> Journal Sentinel, Wisconsin Gains National Attention as Start-up Technology Hub, 2017  
<sup>59</sup> Forbes, The Best Cities for Millennials, 2017  
<sup>60</sup> The Kaufmann Index, Index of Startup Activity, 2017



But numbers only tell a part of the story. The state and local community are actively trying to improve the startup ecosystem. The Startup Week in Milwaukee showed that the city has momentum, but the ecosystem is still in its development phase. According to the organizers of the Startup Week, the big corporates are rather conservative and economic resources are mostly spent on protecting the local companies. The startup community wants to change this mentality. For instance, Gener8tor – a GOLD-tier accelerator<sup>61</sup> with locations in Madison, Milwaukee, and Minneapolis – is in place to help foster better cooperation with corporates. In the last two years, startups like Boston’s Bright Cellars, San Francisco’s Lumanu, and Washington D.C.’s Exit 7C have relocated to Milwaukee, after taking part in the Gener8tor accelerator. Moreover, Madison grew in entrepreneurial activity, with StartingBlock – a physical innovation hub by entrepreneurs for entrepreneurs – opening in 2018. This is the combined result of an increase in the number of startups and the maturation of the venture capital scene in the region. With its strong base of talent and research excellence, Madison is predicted to be one of the 25 next big technology hubs.<sup>62</sup>

*A selection of Milwaukee’s and  
Madison’s Accelerators, Incubators, and  
Soft Landing Places*

Feed Kitchen  
FaBCAP Accelerator  
Gener8tor  
StartingBlock  
Mid-West Energy Research Consortium  
Brew Accelerator

Together, Milwaukee and Madison have some good resources at their disposal to help (international) startups and scale ups. Besides StartingBlock and Gener8tor, it is also worthwhile to look at the University of Wisconsin-Milwaukee Innovation Accelerator, the Milwaukee Institute, The Water Council, FaBCAP accelerator, and the Brew Accelerator. Maybe both cities are not yet on the frontier of the entrepreneurial playing field, they definitely have the potential to become an important player.

#### 4.3.6 GOVERNMENT

The Wisconsin government and the Wisconsin Economic Development Corporation are actively involved in boosting companies’ access to capital. The project that is most appealing for Dutch companies is the Qualified New Business Venture (QNBV) project, also called the Act 225 Program.

The QNBV aims to foster new company development in Wisconsin and set companies up for long-term growth. The QNBV project includes two tax credits: the Angel Investment Tax Credit for individual investors and the Early-Stage Seed Investment Tax Credit for qualified venture funds. Over the past decade, 298 companies have been certified through the QNBV Program. Participating companies have raised \$1.2 billion in funding, including \$322 million in qualified investments, with the help of \$80.3 million in state tax credits. Most of the participating companies are in the information technology sector. For Wisconsin-based companies, the state has the Technology Development Loan (TDL) program in place to help bring technologies, products, and concepts to market. This program offers \$1 million in grants and loans to young technology businesses across the state. Although most Dutch companies that are looking to scale to Wisconsin will probably not be early-stage enough for this grant, it is a great asset for younger Dutch startup companies.

## 4.4 The Main Sectors in Milwaukee and Madison

Besides their big talent pool and momentum in the startup community, another appealing factor that makes Milwaukee and Madison interesting for Dutch companies is their excellence in the water, agriculture, and food sectors. Please continue if you want to read what opportunities exist in these sectors, and how you can best make use of the cities’ knowledge and resources.

<sup>61</sup> Seed Accelerator Rankings Project, 2016 Rankings, 2016

<sup>62</sup> TechNet and Progressive Policy Institute, How the Startup Economy is Spreading Across the Country, 2017



#### 4.4.1 AGRICULTURE & FOOD

As the nickname “the dairy state” might suggest, Wisconsin has a robust agriculture and food sector. But there is more to this sector than just dairy. Wisconsin’s food and agriculture sector even goes as far as directly competing with California and Illinois, being the No. 5 state for agriculture and food. Milwaukee and Madison are the cities where most of the innovation and business in this sector happens.

# active farms	69.000
# employees	413.500
Sales in \$/per year	88.3 billion

#### Why Agriculture and Food in Milwaukee and Madison?

Milwaukee and Madison have a good proposition for Dutch companies in the agriculture and food sector. But what exactly is the allure of this sector in Milwaukee and Madison?

- *All the players in the ecosystem are present* – The cities not only have producers and manufacturers, but also the packaging, processing, accountants, lawyers, and other specialized service providers.
- *Wisconsin is the leading state in many types of food* – Wisconsin is No. 1 nationally in the production of snap beans for processing, cheese, cranberries, ginseng, dry whey for humans, and milk goats.<sup>63</sup>
- *The cities have some of the leading innovation institutes and events in the area of food* – such as the Dairy Research Institute, Wisconsin Ag and Food Center, FaB Wisconsin, and the World Dairy Expo.
- *Naturally well situated for food and beverage production* – the state as a whole has access to fresh water from the Great Lakes and below average agricultural land prices.

#### Niches & Opportunities

To summarize, the food and agriculture sector is diverse, and comprises everything from land and lawyers to research institutes. However, where Milwaukee and Madison stand out is in the dairy niche. So if you think that your company can contribute to this niche, please read on.

##### - Dairy

Just like the Netherlands is well known for cheese, Wisconsin is the dairy state of the United States. Wisconsin is the absolute front-runners in the field of dairy (products), with the niche contributing more than \$43.4 billion to Wisconsin’s economy each year – approximately 18% of Wisconsin’s economy. But there is more. Wisconsin is home to 8,800 dairy farms – more than any other state – and 1.3 million cows.<sup>64</sup> It is no wonder that Wisconsin is No. 2 in the total milk production in the United States and ranks No. 1 in the production of cheese.<sup>65</sup>

Kenosha Beef
Birds Eye Foods
Gehl Foods
Hormel
MilerCoors
Organic Valley
Sargento
Schreiber Foods
Emmi Roth
Johnsonville

People in Wisconsin take their dairy industry seriously. Each year, the Department of Agriculture, Trade, and Consumer Protection of the Wisconsin government appoints a dairy ambassador known as “Alice in Dairyland.” Moreover, there are 1,200 licensed cheesemakers, nearly double the number of any other state. Notably, one of those cheesemakers is the Dutch Marieke Penterman, who with her firm Marieke Gouda is making handcrafted, award-winning cheeses. Her story of moving to Wisconsin is a good example of how Dutch entrepreneurs can seize the opportunity in the dairy niche.

<sup>63</sup> Department of Agriculture, Trade, and Consumer Protection, Wisconsin Agricultural Statistics, 2017

<sup>64</sup> USDA National Agricultural Statistics Service, Wisconsin Milk Production, 2017

<sup>65</sup> Department of Agriculture, Trade, and Consumer Protection, Wisconsin Agricultural Statistics, 2017





Milwaukee and Madison also have the nation’s leading facilities when it comes to dairy innovation. Part of the University of Wisconsin-Madison, The Wisconsin Center for Dairy Research (CDR), is the nation’s premier dairy-research center. The research center is home to more than 30 researchers and scientists who explore the functional, flavor, and physical properties of cheese, cheese products, and other milk components. Moreover, the center’s facilities include a cheese pilot plant, dairy ingredients pilot plant, and analytical lab. In the future, the center will organize matchmaking events for researchers and companies, supply technical support and university resources, and provide a business accelerator program. This combination of research excellence and access to test facilities offers a great opportunity for Dutch companies in this niche.

If this has sparked your interest, the Wisconsin Center for Dairy Research might be your place of entry. On the other hand, if you first want to test the water, Madison also hosts the Annual World Dairy Expo – a must-attend event for anyone in the dairy industry.

### Resources

Selection of resources available in Milwaukee’s and Madison’s agriculture and food sector		
Incubators & Accelerators	Network Organizations	Technology and Innovation
FabCAP Accelerator	FaBWisconsin	The Wisconsin Center for Dairy Research
Feed Kitchen	BioForward	University Research Park - UW Madison
	Department of Agriculture, Trade, and Consumer Protection	

### 4.4.2 WATER

The water sector also holds opportunities for Dutch companies. Over the last couple of years, Milwaukee has established itself as one of the prominent water clusters in the United States. Wisconsin is home to more than 200 companies with ties to the water technology industry. These companies together employ nearly 37,000 people and generate \$5.7 billion in annual sales. But what exactly are the opportunities for Dutch companies?

Facts and Figures about the Water Sector in Milwaukee and Madison	
# active companies	200
# employees	37.000
Sales in \$/per year	5.7 billion

#### Why Water in Milwaukee and Madison?

From the two cities, the water sector is mainly situated in Milwaukee. Over the last years, the city has developed its water cluster and now has a good proposition for Dutch companies:

- *Possibility for cross-pollination across the agriculture and food sectors* – the prominent presence of the agriculture and food sector helps to bring water technologies to market faster.
- *There is an excellent (international) network* – Milwaukee has a pre-built, easily accessible network, and good connections with Canadian and Dutch water hubs. For instance, the Water Council is the official North American regional partner of the Alliance for Water Stewardship (AWS) – an international multi-stakeholder organization dedicated to enhancing water stewardship – and has a memorandum of understanding with the Water Alliance in Leeuwarden.
- *Presence of specialized workforce* – Milwaukee is home to the nation’s first School of Freshwater Sciences. This is only one of the three schools in the world focusing on freshwater sciences<sup>66</sup> and generates a unique source of talent for Dutch companies.

<sup>66</sup> NuWire Investor, American Midwest: A Growing Center for Water Investment, 2017



- *It has the presence of the Water Center* – a facility that houses water-centric initiatives such as the Water Council, the water dedicated accelerator the BREW, and research facilities for universities. The Water Council is a nonprofit organization that aligns the regional freshwater research community with water-related industries and innovative entrepreneurs. Especially interesting is the Water Council’s specially designed Pilot Program, which supports international companies, acting as a Launchpad to validate and commercialize products that are nearing market introduction. Also located in the Water Center is the Brew – a water-focused accelerator that accepts up to six water technology startups in each class. These companies receive a six-month lease at the Global Water Center, mentorship, trainings, and access to investment capital funding sources.

<i>A selection of Milwaukee’s and Madison’s Prominent Water-Related Companies</i>
Veolia Water
Kohler
A.O. Smith
Badger Meter
ABB
Centrisys Corporation
MillerCoors
InSinkErator
Pentair Water Group Inc
Rockwell Automation

The BREW corporate program, POW! Empowering Opportunities in Water, helps startups to fast-track their water-related ideas by connecting them to Veolia and water-industry experts.

To conclude, while Chicago might be a more logical choice if you are looking for potential customers, Milwaukee has a unique strength when it comes to research excellence, talent, and its cross-sector, international network. Especially applications in assessing water risk and water quality, the intersection of water and food, and storm water management are currently sought after. Moreover, the Water Council has a specific focus on water technologies that help the oil and gas industry recycle water, help to retain valuable minerals from wastewater, and use food waste to remove contaminants from water.

Therefore, if your company is operating in one of those niches, wants to validate its technology and/or wants to tap in to leading research in the water sector, Milwaukee should be on your radar.

### Resources

<b>Selection of Resources Available in Milwaukee’s Water Sector</b>		
<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
The BREW	The Water Council	University of Wisconsin – School of Freshwater Sciences
	Water Leaders’ Summit	Milwaukee Metropolitan Sewerage District
	Water Quality Center	Milwaukee Institute for Water Business



## 5. ST. LOUIS

### 5.1 Get to Know St. Louis: the Gateway to the West

St. Louis has faced its fair share of struggles. The city experienced hard times during the second half of the 20<sup>th</sup> century, and still faces significant challenges, such as the riots in Ferguson in 2014. Nonetheless, the story of St. Louis is also a story of resilience. With time, effort, and resources, the community took control of its destiny and began building a new economy from the ground up by supporting local innovators. In 2006, the city won the World Leadership Award for urban renewal,<sup>67</sup> changing the narrative of St. Louis to a progressive, innovative, and future-minded city.

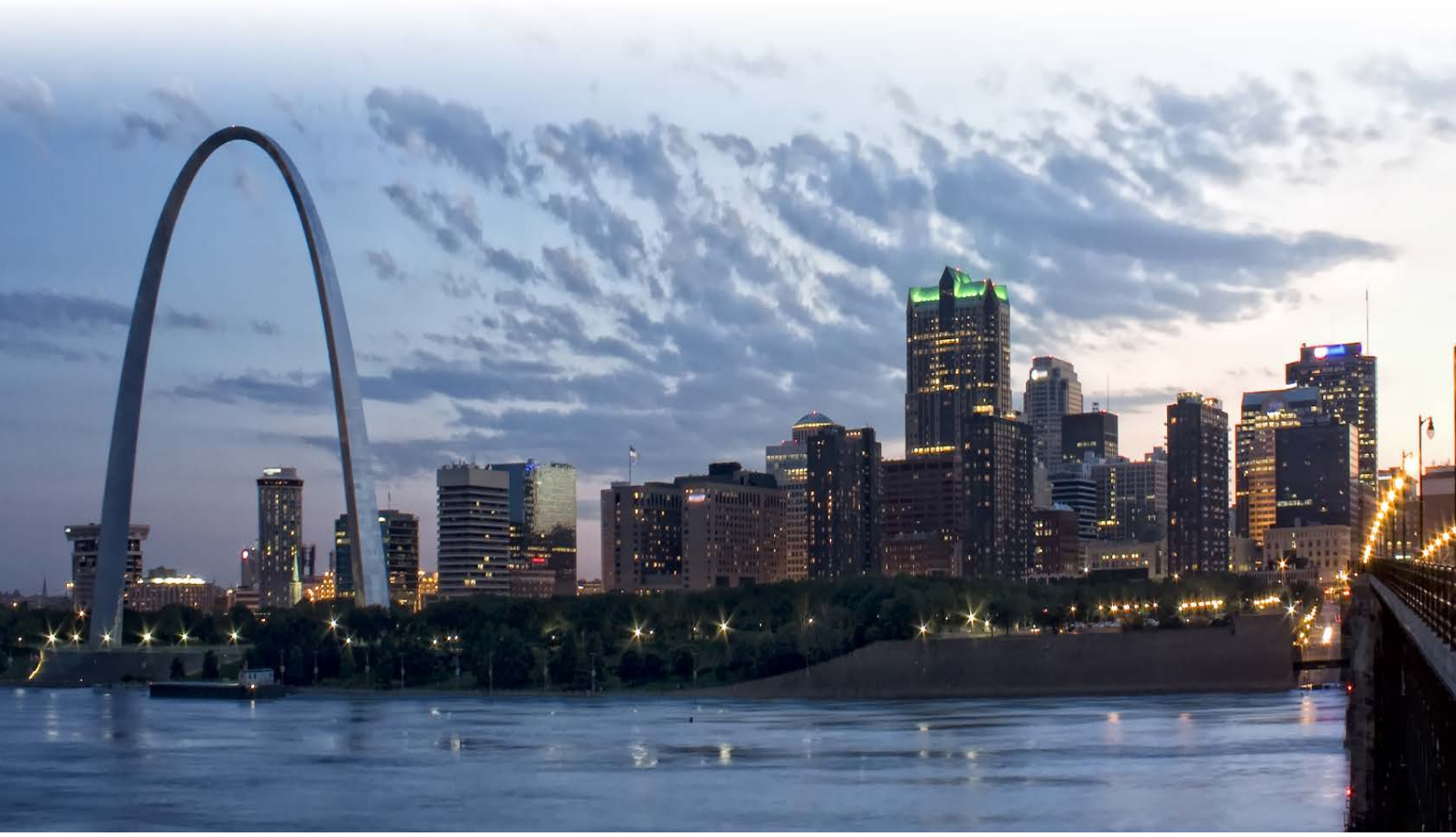
Today, St. Louis has a collaborative, easy-going, energetic environment. The city's economy is on the rise and, unemployment has been falling each year since 2010.<sup>68</sup> But also outside economics, St. Louis is home to one of the best (free) zoos and city parks in the United States, and has been chosen as having the best ice cream in the world. As St. Louis native and Super Bowl sportscaster Joe Buck<sup>69</sup> puts it:

*"I THINK ST. LOUIS HAS A MORE RELAXED WAY OF LIVE. BY THAT, I MEAN YOU'RE NOT GOING TO BE IN ANY TRAFFIC JAMS AT RUSH HOUR THAT ARE CAUSING YOU TO MISS ANYTHING, AND YOU CAN GO FROM THE SUBURBS, TO DOWNTOWN, TO THE AIRPORT IN UNDER AN HOUR. IT'S A VERY PROUD CITY, AND I THINK IT'S UNIQUE IN THAT WAY"*

<sup>67</sup> Missouri Department of Economic Development, Steinhoff Congratulates St. Louis on Receiving Urban Renewal Award, 2006

<sup>68</sup> Federal Reserve Bank of St. Louis, Unemployment Rate in St. Louis, 2017

<sup>69</sup> Spotlight, Welcome to St. Louis, 2017





## 5.2 Why and When St. Louis?

Although St. Louis has a population size comparable to Amsterdam, it does not enjoy the same level of recognition. Still, St. Louis does have some interesting propositions for Dutch companies. In fact, St. Louis might be a highly suitable location for your business for the following reasons:

- *St. Louis is becoming THE startup city* – St. Louis has been rated as one of the best startup cities in the United States.<sup>70</sup> Moreover, St. Louis has the fastest growing startup scene in the nation.<sup>71</sup>
- *The city is cost competitive, even for Midwestern standards* - St. Louis ranks as the ninth most cost-competitive location to do business (in cities with populations exceeding 2 million).<sup>72</sup> Together with Ohio, they are the only Midwestern hubs in the top 10.
- *Rooting together for success* – St. Louis is unique in the level of corporation and collaboration between all parties in the ecosystem. This benefits startups in a tangible way: namely, St. Louis has the fourth highest number of advisors with an equity share per startup in the world.
- *The city is a front-runner in the health and plant sciences sector* – with one of the biggest talent pools, renowned corporates, and cutting-edge innovation centers, St. Louis is one of the leaders in the plant sciences sector. Likewise, in the health sector, St. Louis has many innovative companies and organizations ready to pilot with Dutch companies.

As a result, St. Louis has everything in place to help a (foreign) company gain traction in the United States. If your company wants to be part of the fastest-growing startup scene of the United States, can benefit from a nurturing and collaborative environment, and/or focusses on health or plant sciences, then St. Louis might be the city for you.

## 5.3 St. Louis’ Entrepreneurial Ecosystem Explained

St. Louis’ entrepreneurial ecosystem is the perfect example of what can be achieved if civic leaders, investors, entrepreneurs, financial institutions, and government (both on state and city level) collaborate to build an ecosystem. Historically, the city has been home to a significant number of corporates and prominent universities, and now there is a complete ecosystem around it to spur entrepreneurship. If you take into account that their ecosystem is only a couple of years old, you can appreciate the fact even more that St. Louis is ranked as one of the best startup cities in the United States – and by some organizations even the No. 1.<sup>73</sup> Want to know why this city is number one and what it could offer your company? Find out below.

### 5.3.1 CORPORATE BUSINESS ECOSYSTEM

St. Louis has always had an active corporate business ecosystem. With a population size slightly larger than Amsterdam, St. Louis’ metropolitan area has a \$153.3 billion economy – similar to that of Hungary.<sup>74</sup> Moreover, St. Louis is home to nine Fortune 500 companies, 14 if you include the larger metropolitan area, which is the third most in the Midwest. Other notable corporations headquartered in the region include Wells Fargo Advisors, Energizer Holdings, Patriot Coal, and Enterprise Holdings.

Most of the corporate activity can be found in the healthcare, agriculture, and IT sector, which reflects the city’s strengths. Besides agriculture and health, banking also has a strong presence in St. Louis, with operations by MasterCard, TD Ameritrade, and BMO Harris Bank.

<i>A Selection of St. Louis’ Fortune 500 Companies</i>	
	Express Scripts
	Centene
	Emerson Electric
	Monsanto
	Jones Financial
	Ameren
	Panera Bread
	Graybar Electric
	Stifel Financial
	Caleres
	Olin

<sup>70</sup> Popular Mechanics, The 14 Best Startup Cities in America, 2015

<sup>71</sup> Business Insider, These 10 cities have the fastest-growing startup scenes, 2016

<sup>72</sup> KPMG, KPMG’s Competitive Alternatives, 2016

<sup>73</sup> Popular Mechanics, The 14 Best Startup Cities in America, 2015

<sup>74</sup> Spotlight, Welcome to St. Louis, 2017



St. Louis' corporate business ecosystem is experiencing a surge in mergers and acquisitions. One of the most notable ones was the purchase of the St. Louis-located Anheuser-Busch by InBev. Another notable acquisition was the purchase of St. Louis' pet food brand Purina by Nestlé. Both Purina and Anheuser-Busch still have significant operations in St. Louis.

### 5.3.2 Universities and Research Institutes

To keep the entrepreneurial momentum going, it is essential that the city supplies talented entrepreneurs. Fortunately, St. Louis can rely on its vast number of colleges. Thirty colleges and universities surround St. Louis, and 25,000 students graduate annually. Although retaining graduates remains tricky, St. Louis has a highly educated workforce. More than 30% of the St. Louisans age 25 or older have a bachelor's degree or higher, which is higher than the national average.<sup>75</sup>

The most prominent universities in the hub are the University of Missouri, Washington University in St. Louis, and Saint Louis University. The Washington University in St. Louis has a stellar reputation in the field of medicine, ranking seventh in the nation.<sup>76</sup>

Moreover, all universities are actively adapting their program to the region's needs. As the chancellor of the University of Missouri-St. Louis explains:

*"WE HAVE AN OBLIGATION TO TAKE THE RESEARCH AND THE SCHOLARSHIP WE HAVE AND PUT IT OUT INTO THE COMMUNITY"*

- Thomas George

This is, for instance, reflected in the fact that the University of Missouri -St. Louis is the only United States university with a Fortune 100 headquarters on its campus. In a similar vein, Washington University has close relations to the Danforth Plant Science Center.

### 5.3.3 INVESTOR CLIMATE

The investment climate of St. Louis can perhaps best be described as quality over quantity. The number of deals and total deal volume is far behind the likes of San Francisco, Chicago, and Minneapolis. In 2016, startups in St. Louis received \$216 million in venture capital funding – compared to \$348 million in Minneapolis.<sup>77</sup> Although venture capital spending has increased by 14% in the first three quarters of 2017, making it the best year for venture capital spending in a decade, St. Louis still has a way to go.<sup>11</sup>

Deal flow remains another concern in St. Louis. The number of companies receiving venture capital investments has declined by 30% between 2013 and 2016. In 2017, there were approximately 45 deals, which is two deals less than the year before. Generally, this is a trend that can be observed nationwide, where investors are putting more money in a select group of companies rather than investing in a myriad of entrepreneurs. However, what St. Louis's investor climate does have is quality. St. Louis has three of the four top Midwestern venture capital investors: BioGenerator, Cultivation Capital, and the Missouri Technology Corporation.<sup>78</sup> All three investors are committed to raising capital for agricultural, technology, and medical companies, building on the industry strengths of the hub. The Missouri Technology Corporation stands out as a public-private partnership for early-stage entrepreneurship,

<i>A Selection of St. Louis' Prominent Universities</i>
Washington University – St. Louis
Saint Louis University
University of Missouri – St. Louis
Southern Illinois University Edwardsville
Maryville University
Fontbonne University
Harris-Stowe State University
Lindenwood University
Blackburn College

<i>A Selection of St. Louis' Active Investors</i>
Cultivation Capital
BioGenerator
Missouri Technology Corporation
St. Louis Arch Angels
Centennial Investors
RiverVest Venture Partners
Advantage Capital Partners
Springfield Angel Network

<sup>75</sup> Federal Reserve Bank of St. Louis, People 25 Years and Over Who Have Completed a Bachelor's Degree in the United States, 2015

<sup>76</sup> US News Education, Washington University in St. Louis, 2018

<sup>77</sup> St. Louis Business Journal, Future of Venture Capital Activity in St. Louis is Murky

<sup>78</sup> PitchBook, Top Investor Tuesday – Most Active VCs in the US Midwest, 2015





once again highlighting the successful and unprecedented involvement of the government. Given the presence of these top venture capital investors, it might come as no surprise that Missouri is in the top 10 for funding applications.<sup>79</sup>

In addition to venture capital and angel investments, St. Louis also has significant corporate venture capital activity. Also of note are Ascension and Mercy – healthcare providers based in St. Louis. Both have venture capital arms with a total of around \$550 million under management. Monsanto is also actively investing in St. Louis-based startups via Monsanto Growth Ventures. Monsanto Growth Ventures typically invests in early-stage companies, from the seed stage to Series A. The high-quality venture capital investors and corporate investments might be of interest to Dutch companies looking for funding and operating in the agriculture and medical space.

#### 5.3.4 (BUSINESS) CULTURE AND PLACES

Similar to Chicago and its resurgence in the aftermath of the Great Fire in 1871, the story of St. Louis is one of revival. Once ranked as one of the nation's most segregated and violent cities, St. Louis has undergone a remarkable transition as a result of the city's community and government joining forces to turn the tide. Their efforts did not go unrewarded. In 2006, St. Louis won the World Leadership Award in Urban Renewal and crime rates have declined every year since.

In terms of business culture, two words come to mind: collaboration and grounded. To start with the latter, the unofficial nickname of Missouri is the "Show Me State," highlighting Missouri's preference of action over words. As one Missouri Congressman stated:

*"... FROTHY ELOQUENCE NEITHER CONVINCES NOR SATISFIES ME. I'M FROM MISSOURI, AND YOU HAVE GOT TO SHOW ME"*

- Willard Vandiver

This is also reflected in their business culture. St. Louisans are, more than any other American region, known to be down to earth. No wonder that St. Louisans and Dutch people get along very easily. Second, one of the most prominent aspects of what makes this region stand out from the other hubs is the incredible level of corporation. In addition to a strong sense of community, you can expect a lot of willingness and help from the locals when you come to the area. On a business level, everyone in the city seems to be connected to each other and is happy to make introductions and sit down for coffee. On a personal level, especially as a Dutch entrepreneur moving to the United States, St. Louis can make you feel right at home.

#### 5.3.5 STARTUP CLIMATE

In the startup area, St. Louis is a silent force to be reckoned with. For example, St. Louis is one of the fastest growing startup scenes in the United States.<sup>80</sup> The entrepreneurial activity has been on a steady climb since 2009, going from virtually none to 200 to 350 active startups today. But what is the secret sauce that makes St. Louis so successful? As one of the city's leaders puts it:

*"THE STRENGTH OF ST. LOUIS' ECOSYSTEM IS THAT WE WORK TOGETHER – ACROSS INNOVATION CENTERS AND PROGRAMS, WITH CORPORATE, GOVERNMENT, AND UNIVERSITY PARTNERS – TO ENSURE WE PROVIDE A FERTILE PLACE FOR INNOVATION AND ENTREPRENEURSHIP, WITH A SHARED GOAL TO MAKE ST. LOUIS THE BEST PLACE TO START AND GROW A BUSINESS. WE PROVIDE ATTENTION, ACCESS, AND AFFECTION. NO CITY IN THE WORLD DOES IT LIKE ST. LOUIS DOES"*

- Patricia Hagen, President at Technology Entrepreneur Center T-Rex<sup>81</sup>

<sup>79</sup> Forbes, Need Funding? 2015 Is A Strong Year for Startups, 2015

<sup>80</sup> Startup Genome, Global Startup Ecosystem Report, 2017

<sup>81</sup> Spotlight, Welcome to St. Louis, 2017



According to the Startup Genome, particular strengths of St. Louis' startup climate are the outperforming exit opportunities and growth in early-stage funding. Moreover, startups in St. Louis have the fourth highest number of advisors with an equity share per startup in the world,<sup>11</sup> again reflecting St. Louis' collaborative nature.

One of the things that the community and government actively pursued to spur entrepreneurship was the creation of so-called innovation districts in the city. These districts are the epicentres of innovation, bringing together the region's foremost research institutes, entrepreneurs, venture capital, and corporates. Today, St. Louis is home to three of these districts, each dedicated to a different sector: 39 North, Cortex, and Washington Avenue Tech Corridor. These districts focus on agriculture, health, and urban planning, respectively. For most entrepreneurial companies, these innovation districts are their base of operations. If you want to establish your business in St. Louis, chances are that the innovation districts will be your landing spot.

<i>A Selection of St. Louis' Incubators, Accelerators, and Soft Landing Places</i>	
	Yield Lab
	BioGenerator
	CIC
	Center for Emerging Technologies
	TRex
	Helix Center
	39 North
	SixThirty

### 5.3.6 GOVERNMENT

Compared to the other hubs, St. Louis' government has been unusually active both on state and city level. But rather than using angel investor tax credits to spur entrepreneurship, St. Louis relies on different policies. For instance:

- The city organizes programs such as the Arch Grants, a startup competition offering promising entrepreneurs \$50,000 and free service if they move to St. Louis.
- The St. Louis Regional Chamber of Commerce has established a seed fund of \$5 million together with Cultivation Capital to help early-stage companies.<sup>82</sup>
- Missouri has a seed capital co-investment scheme in place via the Missouri Technology Corporation to award seed capital funds that match other capital investments.<sup>83</sup>

Moreover, the city and state government, such as the St. Louis Partnership, is well-connected to the entrepreneurial ecosystem and is happy to help Dutch companies settle and integrate into the community. Consequently, if you feel St. Louis might be a good choice for your company and want to know more, they are a great first point of contact.

## 5.4 The Main Sectors in St. Louis

In developing its innovation ecosystem, St. Louis has focused its resources primarily on the development of its already prominent sectors: namely, agriculture and health. This is, for instance, reflected by the two major innovation centers, Cortex and 39 North, which focus on health and agriculture, respectively. The concentration of resources on just two sectors has led to the emergence of specific areas of expertise and opportunities. Want to know if these opportunities might be a good fit for your company? Please read on.

### 5.4.1 AGRICULTURE & FOOD

Whereas the Twin Cities are known for their food sectors, St. Louis has a particular strength in agriculture. Missouri and St. Louis' agricultural sector has always been strong. So many of Missouri's agricultural products are shipped from the St. Louis-Mississippi area that it has been known as the "agricultural coast" of the United States. To compare it to the European agriculture market, St. Louis is often dubbed the South Germany of the United States.

<i>Facts and Figures about the Agriculture and Food Sector in St. Louis</i>	
# active companies	2.383
# employees	47.100
Sales in \$/per year	17.8 billion

<sup>82</sup> Inc., This City Has a New \$5 Million Fund for Early Stage Startups, 2017

<sup>83</sup> Missouri Technology Corporation, Seed Capital Co-Investment Program, 2017



### Why Agriculture and Food in St. Louis?

To sum up, the agricultural niche is especially strong in St. Louis. While this is appealing for Dutch companies, there is a specific opportunity in St. Louis' agriculture sector. Namely, St. Louis is one of the nation's leaders when it comes to plant science.

- *St. Louis has access to the largest concentration of talent in the plant sciences* - St. Louis is home to more than 750 plant science PhDs, which is more than any other city in the United States.<sup>84</sup>
- *The city is home to the premier research and innovation institutes in the plant sciences* – the Donald Danforth Plant Science Center, the world's largest independent research institution dedicated to plant science; the Bio Research and Development Growth Park; the Helix Center Biotech Incubator; Yield Lab; and soon the 39 North AgTech Innovation District.
- *The presence of some of the world's leading R&D-focused corporates in plant science* – Monsanto, BASF, RaboAgrifinance, and Bunge all have a strong presence in St. Louis and are actively involved in building the innovation ecosystem of St. Louis.
- *The city is home to one of the leading annual events in the field of agriculture innovation* – St. Louis hosts the Ag Innovation Showcase – a small but exclusive event bringing together everyone with a significant stake in agricultural technology such as innovators, researchers, government agencies, corporations, and investors.

<i>A Selection of St. Louis' Food and Agriculture Companies</i>
Monsanto
Nestle-Purina
Ab InBev
Panera
Post Foods
Novus
KWS
Bunge

To conclude, St. Louis has many of the resources needed to qualify as the nation's premier hub for plant science. Not only does the city have an active R&D presence in this field, but it also is a nurturing environment for startups, with the presence of the Yield Lab and the Helix Center. With the development of the 39 North AgTech Innovation District, all these resources are bundled, making St. Louis a good landing place for Dutch startup companies wanting to develop their product further. If your company works in the plant science space, wants to work with the leading research institutes and corporates in the United States, and can benefit from a collaborative and nurturing ecosystem around (international) startups and scale ups, then St. Louis is your city.

### Niches & Opportunities

As a city, St. Louis has focused its efforts in the agriculture and food sector primarily on the plant science niche. At the heart of this niche is the 39 North AgTech Innovation District, integrating all the resources available in the region. Consequently, the Innovation District is also the place where many of the opportunities for Dutch companies arise. But what exactly can the 39 North AgTech Innovation District offer you?

#### - The 39 North AgTech Innovation District

39 North – named after 39<sup>th</sup> parallel north uniting the world's most fertile agricultural lands – is part of the AgTech corridor including: the Danforth Plant Science Center, University of Missouri School of Agriculture, Monsanto, the Helix Center Biotech Incubator, and the Bio Research & Development Growth Park.<sup>85</sup> With support of all the above-mentioned organizations, 39 North functions as a connector for these organizations. Its goal is to be an innovation district where people from all around the world come to solve problems in the plant science area and mingle over cocktails and coffee. The district will be geared toward the life-style of entrepreneurs and high-skilled scientific workers, including mixed retail, residential, green, and office space.

<sup>84</sup> Hemisphere Magazine, St. Louis, 2017

<sup>85</sup> STL Partnership, St. Louis' 39 North is Rapidly Emerging as a World Leader in Academic and Corporate AgTech Research and Innovation, 2017



For Dutch companies, 39 North can function as the innovation. First of all, 39 North will be geared to welcoming (international) entrepreneurs providing temporary residences and social events. As the epicenter of plant-innovation initiatives in the region and with close ties to all the involved organization, 39 North

perfect landing space, connector, and source of

can help you navigate the ecosystem and connect you to appropriate parties. It is the place where all the latest ideas about AgTech and plant science are discussed, with all the major players in the ecosystem. Thus, if you are a Dutch entrepreneur in the plant sciences, 39 North can be your perfect introduction into the St. Louis plant sciences niche.

### 5.4.2 HEALTH

One of the other sectors that was actively promoted by St. Louis's community is the health sector. This has not been without success. The largest share of new businesses in St. Louis – nearly one-third –operates in the healthcare sector.<sup>86</sup> St. Louis has generated medical breakthroughs in, for instance, the (international) effort to map the human genome. Now that St. Louis has gained momentum in this sector, the possibilities for both domestic and foreign companies in the city are expected to grow.

# active companies	4.848
# employees	34.000
Sales in \$/per year	3.5 billion

#### Why Health in St. Louis?

What makes St. Louis especially strong in the health sector is the level of corporation and integration between the different players active in this field, such as universities, hospitals, accelerators, and corporates. But also all the players individually show particular strengths. Read below what exactly makes St. Louis tick.

- *St. Louis is home to a forward-thinking healthcare systems* – With the presence of BJC HealthCare, Mercy, Centene, and SSM Health, St. Louis has an innovative healthcare system. The healthcare systems are known for their proactive and innovative approach via their corporate innovation centers. For instance, Centene ranks No. 19 on the Fortune list of top companies that are changing the world.<sup>87</sup> The healthcare systems are also interested in forming corporate strategic partnerships by, for example, functioning as product validators, first customers, and potential acquirers.
- *The city has a dedicated innovation district where all key players converge and collaborate* – St. Louis is home to the Cortex innovation district dedicated to bioscience and healthcare. The Cortex Innovation Center connects universities, hospitals, and companies. 250 companies call the Cortex Innovation Center home. Moreover, BioSTL and GlobalSTL are in place as organizations that are actively promoting the corporation between the organizations in the Innovation Center and abroad.
- *The city has a particularly strong pharmaceutical niche* – with the presence of Companies such as Pfizer, Merck Millipore Sigma, BioMerieux, St. Louis has an active corporate culture. Also, the city has multiple renowned contract research and manufacturing organizations that facilitate the process.
- *There are multiple first-rate research institutes and universities* – The Washington University in St. Louis School of Medicine is the most selective medical school in the United States, and consistently ranks in the top four for National Institutes of Health funding.<sup>88</sup> The Saint Louis University and University of Missouri also have particular strengths in the healthcare field, such as immunology, viral vaccines, and novel small-molecule therapies.

Express Scripts
Centene
Ascension Health
Merck Millipore Sigma
Pfizer
Millinckrodt
BioMerieux
Mercy

<sup>86</sup> Hemisphere Magazine, St. Louis, 2017

<sup>87</sup> Fortune 500, companies that are changing the world, 2017

<sup>88</sup> US News Education, Washington University in St. Louis, 2018



- *Recently, St. Louis has started to focus its attention on the digital health niche* – GlobalSTL has started to organize the annual GlobalSTL Health Innovation Summit focused on digital health. The summit will bring together some of the top (international) players in the field of digital health. In the near future, this niche is expected to gain more traction in the city. Stay tuned.

With all these resources in place, St. Louis has a good ecosystem to grow (international) health companies. For Dutch companies looking for a good landing spot in the United States, St. Louis is a warm and welcoming environment. If you are interested in connecting with this hub and finding your place in its ecosystem, GlobalSTL is more than happy to help.





## 6. TWIN CITIES

### *Minneapolis and St. Paul*

#### 6.1. Get to Know the Twin Cities; a Place with both Expected and Unexpected Qualities

The Twin Cities is the area in Minnesota named after its two largest cities – Minneapolis and Saint Paul. It is called the Twin Cities due to the proximity of Minneapolis and Saint Paul. They almost blend together into a single city. Ever since the cities were founded, a fierce rivalry has existed between them, with Minneapolis being the most populous city in the state and Saint Paul being the state’s capitol. In general, Minneapolis is somewhat younger, with modern skyscrapers, while Saint Paul has been likened to an East Coast city.<sup>89</sup>

However, when talking about sports or business, the cities join forces and function as one economic power. Most sports teams based in the Twin Cities use “Minnesota” in their name, rather than Minneapolis or St. Paul, to indicate that the team serves both cities. Interestingly, the Twin Cities are one of 10 metro areas to have a professional team in all five major sports leagues – American football, basketball, baseball, ice hockey, and soccer. Moreover, in economic terms, the cities also function as one business ecosystem. The cities share most of the economic resources and collaborate extensively, making it an economic force to be reckoned with.

<sup>89</sup> Forbes, Minneapolis-St. Paul, 2017





## 6.2 Why and When the Twin Cities?

All in all, the Twin Cities are known for being welcoming, notoriously hard working, and outdoorsy, making it relatively easy for Dutch people to blend in. In addition, the Twin Cities have appealing business propositions that makes it worth considering:

- *Many potential corporate partners and customers* – the Twin Cities are the second largest economy in the Midwest and home to 16 of Minnesota’s 17 Fortune 500 headquarters.
- *The Twin Cities area is a leading hub for healthcare* – home to the No. 1 hospital in the nation, the Twin Cities have a lot to offer to Dutch companies. Especially in the medical devices space, the Twin Cities are the undisputed best.
- *The Twin Cities are a leading player in food innovation* – the Twin Cities have one of the highest number of food scientists in the nation<sup>90</sup> and food patents per capita.<sup>91</sup>
- *Highest availability of talent in the Midwest and a great work and life balance* – the Twin Cities have the highest percentage of people with a bachelor’s degree in the Midwest.<sup>92</sup> Moreover, this talent is likely to stay in Minnesota, since the state ranks No. 1 nationally in Quality of Life, according to Forbes.<sup>93</sup>

To sum up, in the Twin Cities, you can find a combination of a welcoming and outdoorsy spirit, presence of local talent and corporate powerhouses, and undisputed national leadership in food and medical innovation.

Consequently, if your company is looking for the ideal location to launch a medical device, can benefit from a partnership with the best hospital in the United States, and/or is working on innovations in the food space – and you want to do all this while keeping your work life balance in check – please read on.

## 6.3. Twin Cities’ Entrepreneurial Ecosystem Explained

Unlike the Twin Cities’ weather, the entrepreneurial climate is warm, sunny, and stable. Overall, the Twin Cities have everything that a healthy entrepreneurial ecosystem needs: talent, capital, corporates, government support, and startups. In relation to other hubs in the Midwest, the Twin Cities are the second hub with regard to GRP, venture capital investment, number of startups launched annually, and amount of corporates – second only to Chicago.<sup>94</sup> Nonetheless, the Twin Cities surpass all Midwest hubs when it comes to the amount of capital and corporates per capita – making it one of the nation’s most concentrated hubs for business and investment. Therefore, it might come as no surprise that Minnesota ranks third in America’s Top States for Business.<sup>95</sup> Please read on if you want to learn more about the different elements of the Twin Cities entrepreneurial ecosystem.

### 6.3.1 CORPORATE BUSINESS ECOSYSTEM

The Twin Cities are, together with Chicago, the absolute powerhouse in the Midwest when it comes to economic size and corporate presence. The Twin Cities have the second largest economy of the Midwest, with its Gross Domestic Product exceeding Portugal’s.<sup>96</sup> Moreover, the cities have 16 of Minnesota’s 17 Fortune 500 headquarters. In the Midwest, this is only surpassed by Chicago. Nonetheless, when it comes to the corporate density – the number of corporates per capita – the Twin Cities are the nation’s leader, outrivalling San Francisco, Boston, and New York.

<i>A Selection of Twin Cities’ Fortune 500 companies</i>	
United Health Group	
Target	
Best Buy	
3M	
General Mills	
Land O’Lakes	
Ecolab	
CH Robinson Worldwide	
SuperValu	
CHS	
Medtronic	
St. Jude Medical	

<sup>90</sup> Bureau of Labor Statistics, Occupational Employment and Wages of Food Scientist, 2016  
<sup>91</sup> Minneapolis Employment and Economic Development, Major Industries and Sectors, 2017  
<sup>92</sup> Minneapolis Employment and Economic Development, Compare Minneapolis-St.Paul, 2017  
<sup>93</sup> Forbes, Minnesota, 2017  
<sup>94</sup> Minneapolis Employment and Economic Development, Compare Minneapolis-St.Paul, 2017  
<sup>95</sup> CNBC, America’s Top States for Business, 2017  
<sup>96</sup> United States Department of Commerce, Gross Domestic Product by Metropolitan Area, 2016



From a corporate perspective, major companies are present in a diversified range of sectors, such as agriculture, manufacturing, retail, medical devices, biosciences, healthcare, information technology, and clean energy. However, the health and food sectors stand out in the corporate business ecosystem. Interestingly, what most people do not realize is that a large selection of the nation’s most prominent healthcare related companies – such as Boston Scientific, Medtronic, and 3M Health Care – have a large corporate presence in the Twin Cities.

Thus, if you are looking for prospective customers, primarily in the food and medical sectors, the Twin Cities are a go-to destination.

### 6.3.2 UNIVERSITIES AND RESEARCH INSTITUTES

While it is generally hard to recruit people from the coasts into the Midwest, the Twin Cities might be the welcome exception. Minnesota has the highest percentage of people with a bachelor’s degree in the Midwest.<sup>97</sup> But also nationwide, Minnesota is one of the most educated states, ranking second in the top states in the United States to earn an education.<sup>98, 99</sup> Minnesota ranks among the top five states with regard to the number of high-end technical and scientific talent per capita.<sup>100</sup> In short, Minnesota has a competitive edge nationally when it comes to talent availability.

A great deal of this talent comes from the nearly 200 post-secondary institutions in Minnesota. The most prominent, and by far the largest, is the University of Minnesota – one of America’s Public Ivy universities and often found in the top 15 best research universities in the United States.<sup>101</sup> Within the University of Minnesota, the Twin Cities’ campus is the largest, with almost 31,000 undergraduates and 16,500 graduates in the fall of 2016.<sup>102</sup> Other campuses can be found in Crookston, Duluth, Morris, and Rochester. The University of Minnesota has several areas of research excellence, namely: renewable energy, biomedical engineering, therapeutics discovery, and experimental surgery.

<i>A Selection of Twin Cities’ Major Universities</i>
University of Minnesota
University of St. Thomas
Augsburg University
Capella University
Hamline University
Metropolitan State University
St. Catherine University
Concordia University – St. Paul.
Walden University

On the R&D and innovation side, the universities in the Twin Cities are becoming more prolific. The University of Minnesota ranked 14<sup>th</sup> nationally in research activity and has an approximate annual R&D expenditure of \$881 million.<sup>103</sup> Moreover, in close collaboration with the university, the Minnesota Innovation Park is being set up. This park is a new research and technology space designed primarily for private/public research and development facilities, high-technology and science-based companies, corporate offices, and some manufacturing.

All in all, the Twin Cities have one of the most extensive research and talent bases in the Midwest, specifically in the area in science and technology, ready to be tapped into by your company!

### 6.3.3 INVESTOR CLIMATE

While the Twin Cities investor scene is not a flagship, there has been a noticeable uptick in the amount of funds available. In total, 11 deals in Minnesota were reported in the first quarter of 2016 with a total value of \$67.3 million.<sup>104</sup> This is more than double the number of deals and a 50% increase in total value compared to the first quarter of 2015. Compared to the rest of the Midwest, the Twin Cities rank second in the amount of venture capital deals (26) and total deal volume (\$348 million) in 2016. This is approximately half of the total deal volume, and one-third of the number of deals of Chicago. Nonetheless, when it comes to deal volume per capita, the Twin Cities are the leading hub in in the Midwest.<sup>105</sup>

<sup>97</sup> Minneapolis Employment and Economic Development, Compare Minneapolis-St.Paul, 2017  
<sup>98</sup> CNBC, Top States To Get an Education, 2017  
<sup>99</sup> Washington Post, America’s Smartest States, 2015  
<sup>100</sup> Milken Institute, State Technology and Science Index, 2016  
<sup>101</sup> The Center for Measuring University Performance, the Top American Research Universities, 2015  
<sup>102</sup> University of Minnesota, about us, 2016  
<sup>103</sup> Association of American Universities, NSF Ranking by total R&D expenditures, 2015  
<sup>104</sup> PricewaterhouseCoopers and National Venture Capital Association, the Money Tree, 2016  
<sup>105</sup> Minneapolis Employment and Economic Development, Compare Minneapolis-St.Paul, 2017





When breaking down Minnesota’s local venture capital deals, which make up the vast majority of the investment deals, most of the deals are allocated to expansion or later phases of growth. This creates difficulty for early-stage companies to raise money. Angel funds tend to fill this gap and invest in seed and early-stage companies. When looking at the various sectors, the sectors that saw the most investment by venture capital in 2016 included: software, medical devices and equipment, media and entertainment, and financial services. In 2017, (renewable) energy was added to this list.

However, it is particularly noteworthy that the venture capital and angel fund deals do not paint the complete picture of the investment climate in the Twin Cities. Although not taken into account by most venture capital statistics, Minnesota has an active corporate investment ecosystem. General Mills and Cargill, in particular, have prominent corporate investment programs for early-stage companies. Moreover, UnitedHealth Group has a dedicated corporate venture capital arm for early-stage investments. These companies do not only do this from an economic standpoint, but there is also a strong culture of giving. It is normal for corporations based in Minnesota to give back 5% of their earnings to the community and spend it on something that they are passionate about: startups.

<i>A Selection of Twin Cities’ Active Investors</i>
Split Rock Partners
Versant Ventures
Wellspring Corp
Coral Group
First Green Partners
TreeHouse Health
Gopher Angels
Twin Cities Angels
The Network Connect
AngelPolleNation

#### 6.3.4 (BUSINESS) CULTURE AND PLACES

Minnesota is a welcoming and independent blue (democratic) state with major cultural influences from Scandinavia, Ireland, Germany, Poland, and Native Americans. Minnesotans are known for their strong family values and are notorious for being “Minnesota nice.” They tend to be polite even in the most heated arguments, put off plans to help a stranger, and hold a full conversation with someone who dialed the wrong number. However, like the Dutch, that does not mean they are ready to be your best friend. On a more personal level, they tend to be rather reserved.

In their free time, people in Minnesota enjoy different outdoor activities depending on the season. They like cross-country skiing, ice fishing, ice hockey, and snowmobile riding in the winter, and swimming, sailing, boating, and hiking in the summer. This active lifestyle is also reflected in the overall health of people living in the Twin Cities. The Twin Cities were ranked as the healthiest cities in the United States in 2017.<sup>106</sup>

People in the Twin Cities are also known for being altruistic. Collaboration and volunteering are part of the region’s DNA. Almost everyone spends a good portion of their time volunteering. The Twin Cities are also known for the ease with which you can enjoy a coffee with almost anyone. There is a strong feeling of community, mentorship, and co-ownership. Winning together is the credo.

#### 6.3.5 STARTUP CLIMATE

The Twin Cities feature an active startup climate. This might not be immediately obvious, as people in Minneapolis are not as “loud and proud” as some of the bigger cities in the United States. However, just like its investment and corporate ecosystem, the Twin Cities have one of the most active startup climates in the Midwest, second only to Chicago.<sup>107</sup>

What makes the Twin Cities appealing is that its startups seem to be in it for the long run. From all startup hubs in the United States, the Twin Cities score first in Five-Year Business Survival Rate<sup>108</sup> and is in the top 10 of startup growth five years after founding.<sup>109</sup> However, the cities have seen a low influx of new entrepreneurs compared to other Midwest cities. Interestingly, the percentage of new entrepreneurs who were not unemployed before starting their businesses and started the business because they saw market opportunity is high compared to other metropolitan hubs.

<sup>106</sup> Forbes, America’s Top 20 Healthiest Cities, 2017

<sup>107</sup> Tech Crunch, Here Are the Best Startup Cities in the Midwest, 2017

<sup>108</sup> Bureau of Labor Statistics, 5-Year Business Survival Rate 2012-2017, 2017

<sup>109</sup> Kauffman Index, Minneapolis-St. Paul-Bloomington, 2017



If we look at the various sectors with the most startup activity, much of the activity in the Twin Cities can be found in the life sciences category, including agriculture, food, and healthcare. Not surprisingly, most of these startups are set up by university students, academic staff, or have spun out of one of the big corporates. Combine this with a strong presence of technical talent and intellectual property base – Minnesota is No. 4 in number of patents per 100,000 people<sup>110</sup> – and the Twin Cities long-term startup success becomes easy to explain.

To spur new entrepreneurs to stand up, the Twin Cities have recently seen a growth in accelerators and incubators. While Chicago, Cincinnati, and St. Louis have more accelerator activity than the Twin Cities, the hub is gaining momentum. For instance, Techstars and Genera8tor have recently started their programs in the hub. Techstars launched their retail program in collaboration with Target two years ago, and have started their program Farm to Fork in collaboration with Cargill and Ecolab last year. Some of the corporates organize their own activities such as the 301INC incubator for General Mills, the Land O’Lakes Dairy Accelerator program, and the Mayo Clinic Business Accelerator.

<i>A Selection of Twin Cities’ Incubators, Accelerators, and Soft Landing Places</i>
Genera8tor
Techstars Retail
Techstars Next Food
The Garage
Mayo Clinic Business Accelerator
Discovery Square
Optum
CoCo
Treehouse Health
Cleantech Open Midwest

To conclude, the Twin Cities have more and more to offer foreign startups, but it is difficult to keep track of the latest developments. Therefore, organizations such as the Greater MSP, Minnesota High Tec Association, Medical Alley, and the Minnesota Employment and Economic Development are good points of contact and can introduce you to the community.

### 6.3.6 GOVERNMENT

Generally, Minnesota is one of the most economically stable states in the nation. The state’s government has a large, positive influence in this, with Minnesota ranked as the best-run state in America.<sup>111</sup> The state does a particularly good job in keeping its citizens safe, raking as the fourth safest state in America.<sup>112</sup>

Besides doing a good job in keeping the state safe, Minnesota’s local governments are active in boosting innovation, both in their own governments as well as the community. As a sign of the commitment, the Minnesota State Government Innovation Awards are awarded to state government departments that have undertaken something innovative and shows positive results. The state has multiple programs in place to boost innovation and entrepreneurial activity in the community. For instance, the state has a R&D Tax Credit program equal to 10% of qualifying R&D expenses for companies operating in Minnesota. In addition, Minnesota has allocated funds for entrepreneurs in specific high-technology areas, and innovation vouchers are in place to help with the commercialization of innovative products. For a full overview of all incentives offered by the state, you can contact the Minnesota Department of Employment and Economic Development.

Despite the programs, the state generally experiences a weakening government support. Minnesota used to have one of the best Angel Tax Programs in place, providing a 25% credit to investors or investment funds that put money into startup companies. These incentives were used to engage the normally risk-averse angel community in investing in startups. Sadly, this program will not be available in 2018, but it might return at a later date. Moreover, Minnesota is the fifth worst state when it comes to business taxes, which is by far the lowest ranking of the Midwest,<sup>113</sup> and Minnesota law enforces non-compete agreements, which generally tend to favor large corporations over startup companies.

<sup>110</sup> Milken Institute, State Technology and Science Index, 2016

<sup>111</sup> 24/7 Wall Street, The Best- and Worst-Run States in America: A Survey of All 50, 2017

<sup>112</sup> Wallethub, 2017’s Safest States in America, 2017

<sup>113</sup> Tax Foundation, 2018 State Business Tax Climate Index, 2018





## 6.4 The Main Sectors in the Twin Cities

Across the board, the Twin Cities have a favorable business climate and a culture that feels similar to the Dutch one. Nonetheless, in some regards it can feel like the cities are always in the shadow of Chicago. That is, however, not completely true. There are some niches in which the Twin Cities is the absolute leader and might offer unique opportunities for Dutch companies.

### 6.4.2 AGRICULTURE AND FOOD

Just like most of the states in the Midwest, Minnesota is known for its rich history in agriculture and food. Originally dubbed the Flour Milling Capital of the world, the Twin Cities still have an active agriculture and food sector, with the presence of the nation's largest agricultural and food companies and universities.

#### Why Agriculture and Food in the Twin Cities?

To specify the strengths of this region a bit further, the Twin Cities have an active food rather than agriculture sector. But what makes the food sector in the Twin Cities so strong, and what does it offer your company?

- *Minnesota is on the forefront of food innovation* – the Twin Cities have one of the highest number of food scientists in the nation<sup>114</sup> and food patents per capita.<sup>115</sup>
- *The Twin Cities have a prospering food industry* – More than a third of the Fortune 500 companies located in the hub are active in the food sector.<sup>116</sup>
- *The entire supply chain is present* – The entire food supply chain from farm to fork is present in the Twin Cities' food ecosystem.
- *The Twin Cities are in the top rankings in livestock and livestock products* – Minnesota is ranked first in turkeys raised, third in hogs and pigs, sixth in red meat production.<sup>117</sup> Also, the University of Minnesota's College of Veterinary Medicine was rated the ninth-best veterinary school in the country.<sup>118</sup>

#### *Facts and Figures about the Agriculture and Food Sector in the Twin Cities*

# active farms	73.300
# employees	147.500
Sales in \$/per year	57.5 billion

#### *A Selection of Twin Cities' Food and Agriculture Companies*

Cargill  
 CHS  
 SuperValu  
 General Mills  
 Land O'Lakes  
 Hormel Foods  
 Mosaic  
 Rosen's Diversified  
 Schwan's Company

To sum up, the Twin Cities have a thriving food sector with many prominent food corporates. Notably, the majority of innovations in the food space occur at the corporate level, with most of the scientists and patents working for or being in possession of them. Adding to this, most of the food incubators in the Twin Cities are spearheaded by one of the corporates, and corporate investment plays an important role in financing innovative companies.

Consequently, if you are a Dutch food company with a product near market entry and would like to sell to or collaborate with one of the biggest food companies in the United States, then the Twin Cities is your location.

#### Niches and Opportunities

The corporates in the Twin Cities' food sector are shaping the trends, innovations, and opportunities in the field. But what are these corporates looking for? More specifically, what kind of trends and opportunities are perceived in the hub and when would it make sense for your company to visit the Twin Cities?

<sup>114</sup> Bureau of Labor Statistics, Occupational Employment and Wages of Food Scientist, 2016

<sup>115</sup> Minneapolis Employment and Economic Development, Major Industries and Sectors, 2017

<sup>116</sup> Minneapolis Employment and Economic Development, Agriculture & Food Production, 2017

<sup>117</sup> US Department of Agriculture and the National Agriculture Statistics Service, State Agriculture Overview, 2016

<sup>118</sup> US News& World Report, Best Veterinary Medicine Programs, 2015



- **Healthy, Organic and Alternative Food Brands**

Consumers in Minnesota are all about environmental friendly, organic, and healthy foods.<sup>119</sup> This demand for organic and healthy food is especially pronounced in the Twin Cities, with the cities ranking sixth on the organic foodie lifestyle list.<sup>120</sup> This trend can also be perceived by a change in product that are on offer in grocery stores. For instance, 86% of consumers in United States’ cities rated “antibiotics and pesticide-free” as an a determining factor in their food purchase.<sup>121</sup> This trend has only grown over time, with antibiotic-free meat sales growing nearly 29% over the last five years.<sup>122</sup>

Consequently, many of the big food corporates in the Twin Cities are looking to tap into this market and diversify their brand line by including more of the healthy, organic, and alternative foods. General Mills has set up their incubator 301INC to scout for new food companies operating in this niche and help them develop – primarily with the goal to acquire new and promising startups.

So, if your company specializes in producing healthy, organic, and/or food that uses alternative ingredients, the Twin Cities will have all the resources, potential customers, and corporate partners to launch your product successfully.

- **Transparent and Environmental Impact**

In line with the healthy, clean, and sustainable food trends, the big corporates are also exploring ways to make their product lines and brands more transparent, healthy, and environmentally friendly. Customers, and specifically customers in Minnesota, want to be aware of the origin of their food and the impact of their food on the environment. Consequently, companies such as Ecolab and Cargill are actively looking for technologies that can make their supply chain and origin of their ingredients transparent and available to the customer. Moreover, General Mills and Land O’Lakes are interested in technologies that can provide customers with more insight into the processing and origin of their product, and/or reduce the amount of waste. Technologies that are especially up-and-coming include:

- Software and big data analytics that can help provide an insight into the supply chain and origin of a particular food source.
- Sensors to monitor the amount of pesticides, hormones, antibiotics, and toxins present in the ingredients, in order to improve food safety.
- Precision farming to reduce the amount of resources needed to grow crops and thus reduce the environmental footprint of the agricultural sector.

**Resources**

Selection of resources available in the Twin Cities’ Agriculture and Food Sector		
<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
TechStars – Next Food	Grow North	Agricultural Utilization Research Institute
Gener8tor	AURI	University of Minnesota – Food Science and Nutrition
301INC	Minnesota High Tech Association	University of Minnesota – Food Research Centers Cargill Food Innovation Center
	Minnesota Department of Agriculture	University of Minnesota – The Food Industry Center

<sup>119</sup> AURI, Marketing Study of Opportunities for Foods Grown Locally or Sustainably in Minnesota, 2017

<sup>120</sup> Organic Authority, Top 9 Cities to Live the Organic Foodie Lifestyle, 2016

<sup>121</sup> Consumer Reports, Meat on Drugs, 2012

<sup>122</sup> Nielsen, Weighing Consumers’ Growing Appetite for Clean Meat Labeling. 2016



### 6.4.2 HEALTH

If there is one thing that the Twin Cities is good at, it is medical technology. Some even say that Minnesota as a state is one of the best medical innovation clusters in the world.<sup>123</sup> In any way, the region has a unique history of impactful healthcare innovations that date back generations. It is best known for its medical device cluster, but innovation in healthcare in the Twin Cities goes further than that.

<i>Facts and Figures about the Healthcare Sector in the Twin Cities</i>	
# active hospitals	143
# employees	430,700
Sales in \$/per year	12.7 billion

#### Why Health in the Twin Cities?

The previous paragraphs paint a promising picture, but what makes the Twin Cities one of the best medical innovation clusters in the world? More importantly, how can a Dutch company leverage the wealth of expertise that the Twin Cities has?

- *The Twin Cities is the fastest place to bring your product to market* – people in the Twin Cities can bring your product to market a lot faster than anywhere else – approximately 200 days faster.
- *The Twin Cities have the No. 1 hospital in the nation* – the Mayo Clinic is ranked No. 1 in the country on the 2016-2017 United States News & World Report List of Best Hospitals, maintaining a position at the top for more than 25 years.<sup>124</sup>
- *It is the place to be for medical devices* – the Twin Cities does not only have the highest amount of medical device patents per capita,<sup>125</sup> it also has a high density of influential corporates active in this niche.
- *Soon to be the epicenter of the medical startup scene* – Next to the Medical Alley, a 360-mile area that has more than 8,000 medical device, biopharmaceutical, diagnostic and digital health industry leaders, and hospitals, the Mayo Clinic recently announced to open a multibillion dollar innovation district dedicated to health technology called Discovery. This district is expected to open in 2019.

<i>A Selection of Twin Cities' Health Companies</i>
UnitedHealth Group
Medtronic
Boston Scientific
St. Jude Medical
3M Health Care
Smiths Medical
Optum
The May Clinic

All in all, the Twin Cities has a lot going on in its health sector. It has particular strengths that can translate into particular opportunities for Dutch companies. If you own a medical device company and want to launch your latest health innovation as soon as possible, are planning an exit strategy for your startup, or if you are looking for ways to start collaborating with leading hospitals in the US, then the Twin Cities can accommodate all of your needs.

#### Niches and Opportunities

As you might derive from the information above, the Twin Cities has two specific opportunities for Dutch companies in their healthcare sector: the quick launch of medical devices and following exit strategies, and pilots and collaborations with the Mayo Clinic. Below, those two opportunities are explained in greater detail.

##### - Mayo Clinic

The Mayo Clinic is a nonprofit medical practice and research group based in Rochester, just outside the Twin Cities. It employs more than 4,500 physicians and scientists, spends more than \$660 million on research annually, and represents a stunning 35% of Minnesota's income. The Mayo Clinic specializes in treating complex medical conditions typically not treated elsewhere. Being the best hospital in the United States, it acts as a catalyst for innovation and attracting talent and ideas to the region.

<sup>123</sup> MedTechEngine, Behind the Scenes with the President of Minnesota's Marvel – Medical Alley, 2017

<sup>124</sup> United States News & World Report, Best Hospitals: 2016-2017 Best Hospitals Honor Roll and Overview, 2016

<sup>125</sup> Minneapolis Employment and Economic Development, Major Industries and Sectors, 2017



The Mayo Clinic is known for its innovative and cutting-edge behavior. In line with this, they are open to serving as a test bed for new technologies and developing innovations. Some Dutch companies such as Vital Health have already established a pilot study with the Mayo Clinic.

To further spur innovation, the Mayo Clinic is involved in the building of Discovery Square. This innovation center will open in 2019 and will be a place where world-leading medical practitioners, educators, researchers, and businesses connect. Especially businesses in genomics, biomedical imaging, and stem cell/regenerative tech are expected to be a great fit. Discovery Square will also accommodate international companies, offering office space and contemporary living environments. So, if working on your startup or scale up in the Mayo Clinic’s backyard sounds like something that would benefit your business, this is definitely something to keep in mind.

- **Medical Devices**

This niche employs more than 30,000 people in the state, more than any other region in the nation, and the Twin Cities is home to medical device powerhouses such as 3M Healthcare, Medtronic, St. Jude Medical, Smiths Medical, and Boston Scientific. The region also has an academic strength in this niche, with the University of Minnesota’s institute for Engineering in Medicine, Medical Devices Center and Visible Heart Lab.

This research excellence and corporate presence leads to many new technologies, ideas, and ultimately, entrepreneurial activity. Specifically, the Twin Cities is the nation’s leader in the number of new medical device patents per capita per year. Also, of the total amount invested in the Twin Cities in 2014, more than half was dedicated to the medical devices.

But what makes this hub stand out in the medical devices niche is the time to market and the solid exit opportunities. The reason you can bring your medical device to market so much faster in this hub is the expertise in the region. The Twin Cities has the IT, the tech, the production, and the streamlined and convenient access to FDA approval. It also has many companies and entrepreneurs who have already navigated FDA regulations and have first-hand experience in commercializing medical devices. Once you have successfully launched a product and are looking for an exit strategy, then the hub’s many large medical devices corporates offer an opportunity.

Consequently, if your company operates in the medical devices space and is looking for a quick launch or exit strategy, the Twin Cities offers a great potential.

**Resources**

<b>Selection of resources available in the Twin Cities’ Health Sector</b>		
<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
Mayo Clinic Business Incubator	Optum	Discovery Square
Threehouse Health	Medical Alley	The Mayo Clinic
The Garage	Minnesota High Tech Association	The University of Minnesota Rural Health Research Center
	Healthcare Minnesota	University of Minnesota’s Institute for Engineering in Medicine
		The Medical Devices Center





## 7. DETROIT REGION

*Detroit, Ann Arbor, and Oakland County*

### 7.1. Get to Know Detroit, a Renaissance City

Detroit is known for two things: its auto industry and the largest municipal bankruptcy filing in United States history. Detroit used to be the Motor City of the world and the manufacturing heart of the nation. In 2009, after the manufacturing and automotive industries took heavy hits, Detroit became the poster child of the declining manufacturing cities in the United States. Detroit became a synonym for boarded-up windows, vacant houses, and soaring crime rates.

But that picture does not do justice to the Detroit of today. The city is going through a renaissance as a result of the donation of millions of dollars by business leaders and foundations. It seems like every week another business opens in Detroit – from coffee shops and juice bars to grocery stores and bicycle makers – revitalizing its long-vacant city center. Crime rates are falling, and the employment rate is almost near the United States' average. Millennials and entrepreneurs are especially drawn to the city because of its tough, affordable, and real-city vibe. And with that, Detroit's motto written in 1805 is more applicable than ever:

*WE HOPE FOR BETTER THINGS; IT SHALL RISE FROM THE ASHES*

– Gabriel Richard







## 7.2 Why and When Detroit?

So, does a city scarred by bankruptcy have any business opportunities for Dutch businesses? It does! This is why Detroit is (again) one of the prime innovation hubs in the United States and a location to consider for your company:

- *The city is an innovation machine* – Detroit had the highest growth in utility patents from 2014-2015 compared to peer regions, and ranks in the top 10 of total number of patents granted over the last 15 years.<sup>1</sup> Also, the University of Michigan ranked as seventh most innovative university in the United States.<sup>126</sup>
- *Michigan has a favorable talent base* - Michigan ranks ninth as a state for the total number of degrees conferred per year and has the highest concentration of engineers in the United States.<sup>127</sup>
- *In Detroit, there is the possibility to make a difference* – with a city being in the process of rebuilding itself, an entrepreneur in Detroit does not only build a company, but also is part of building the city.
- *Detroit is (still) the epicenter of the mobility sector and innovation within that sector* – Michigan is the undisputed, national leader in the automotive and mobility sector. The region has the highest concentration of talent, automotive R&D spending, and corporate density.

Contemporary Detroit is in many aspects a city reflective of an entrepreneurial company: resilient, innovative, and hopeful. The city is the nation's leader in the mobility sector, but also provides entrepreneurial companies with the opportunity to help build the city one idea at the time. Consequently, if your company works in or is connected to the automotive and mobility space, is on the forefront of innovation, and/or wants to have a real and direct impact on the community, Detroit is your go-to place.

## 7.3 Detroit's Entrepreneurial Ecosystem Explained

Historically, Detroit's economy has focused on automotive and classical manufacturing, but the city has now moved way beyond the traditional approach. As part of the Detroit renaissance, the city has established a technology-savvy and innovative focus on this sector, preparing itself for next-generation technologies, such as smart mobility and e-health. The innovative Detroit region of today extends far beyond the borders of downtown Detroit, as it also includes some neighboring counties, such as Ann Arbor and Oakland County. Together, these regions encompass the entrepreneurial ecosystem of the Detroit region.

That the Detroit region is undergoing a true revival is also reflected by the city's economic growth – with an economic growth of 12.2% between 2010-2015, Detroit ranks fifth among peer regions in GDP growth.<sup>128</sup> Moreover, the unemployment rate dropped from 7% above the national average in 2009 to 0.8% in 2016.<sup>129</sup>

All in all, the region is on the rise and reinventing itself, building on its strengths in the corporate and academic ecosystems, and combining this with accelerators, funds, and testing grounds to boost innovation. Making the successful transition from traditional manufacturing to smart mobility and high-tech automotive, Detroit now ranks as the best city for automotive R&D, amount of connected and autonomous vehicle projects, and number of engineers in the United States.<sup>130</sup> Read below about the different components that make up Detroit's entrepreneurial ecosystem, before focusing more intently on the city's most prominent and world-class sectors: automotive and smart mobility.

### 7.3.1 CORPORATE BUSINESS ECOSYSTEM

For comparison, Detroit bears much resemblance to Finland in terms of economic clout. Both have a GDP of \$250 billion and a population of 5.2 million.<sup>131</sup> Closer to home, Detroit has an economic power comparable to the Twin Cities – Minneapolis and St. Paul – and the metropolitan area is in the top 15 in terms of GDP.<sup>132</sup>

<sup>126</sup> Reuters, Reuters' Top 100 Innovative Universities, 2016

<sup>127</sup> Detroit Regional Chamber of Commerce, State of the Region, 2017

<sup>128</sup> U.S Bureau of Economic Analysis, Real Gross Domestic Product Growth 2010-2015, 2016

<sup>129</sup> U.S Bureau of Labor Statistics, National Unemployment Rates 2007-2016, 2017

<sup>130</sup> Destination Detroit, The Detroit Region – North America's Automotive & Mobility Center, 2017

<sup>131</sup> United States Department of Commerce, Gross Domestic Product by Metropolitan Area, 2016

<sup>132</sup> Bureau of Economic Analysis, Regional Data – GDP & Personal Income, 2017



The corporate climate of Detroit is dominated by the automotive and manufacturing industry. The city is home to 11 of the 17 Fortune 500 companies present in Michigan. Seven of the Fortune 500 companies are active in the automotive space – making it the most corporate-dense region for the auto industry in the United States. General Motors and Ford Motor even rank in the top 10 of Fortune 500 companies, with regard to revenue. Besides automotive, Detroit’s corporate business ecosystem includes the manufacturing, healthcare, and government sectors.

<i>Detroit's Fortune 500 Companies</i>
General Motors
Ford Motor
Penske Automotive Group
Lear
DTE Energy
Ally Financial
Autoliv
BorgWarner
Masco
Kelly services
Visteon

Interestingly, the biggest employer of the city is not the automotive but the healthcare industry, accounting for 14% of the employment. Nonetheless, the manufacturing (including automotive) industry directly follows the healthcare industry accounting for 12% of the total employment.<sup>133</sup>

Detroit’s corporate ecosystem offers a unique opportunity to collaborate with the biggest companies in the automotive and manufacturing space. If you are looking to pitch your idea to the world’s greatest in the mobility space, Detroit is your primary location.

### 7.3.2 TALENT AND UNIVERSITIES

Detroit, and Michigan more broadly, has a strong talent pipeline, but has difficulty retaining that talent. Michigan ranks ninth as a state for the total number of degrees conferred per year, with a total number of 119,000 degrees in 2014.<sup>134</sup> However, Detroit is behind when it comes to educational attainment. With 38.4% of the population having an associate degree or higher, Detroit is slightly below the national average and lags behind peer regions.<sup>135</sup>

Although talent retention remains a problem, the region is home to renowned universities that play an essential role in spurring innovation in the region. The University of Michigan – Michigan’s flagship university – is one of America’s largest research universities and ranks as the fourth best public university in the nation.<sup>136</sup> The university is also one of the key drivers of innovation in the nation, ranking as the seventh most innovative university in the United States<sup>137</sup> with a special focus on life sciences and engineering. To commercialize these innovations, the University of Michigan has strategic alliances with 70 industry partners in manufacturing, engineering, automotive, and mobility.

<i>A Selection of Detroit's Prominent Universities</i>
University of Michigan
Michigan State University
Wayne State
University of Detroit Mercy
Lawrence Tech
Kettering University
Michigan Technological University
Oakland University

This focus on engineering can be found in most of the universities in the region. Michigan houses 20 universities with nationally ranked engineering programs.<sup>138</sup> As a result, it will come as no surprise that Michigan has the highest concentration of engineers in the United States.<sup>139</sup> Although competing for the right technical talent is always a struggle, the abundance of engineering talent gives Detroit a competitive edge. Even as a startup, you can attract engineering talent from the universities or workforce.

<sup>133</sup> Detroit Regional Chamber of Commerce, State of the Region, 2017  
<sup>134</sup> Detroit Regional Chamber of Commerce, State of the Region, 2017  
<sup>135</sup> U.S. Bureau of Census, Educational Attainment, 2015  
<sup>136</sup> U.S. News & World Report, Best Public Schools Ranking, 2017  
<sup>137</sup> Reuters, Reuters' Top 100 Innovative Universities, 2016  
<sup>138</sup> U.S. News & World Report, Best Undergraduate Engineering Programs, 2017  
<sup>139</sup> Destination Detroit, The Detroit Region – North America's Automotive & Mobility Center, 2017



### 7.3.3 INVESTOR CLIMATE

According to the Michigan Venture Capital Association, 36 venture capital firms manage \$2.2 billion in capital. In 2016, this led to Michigan startups receiving \$222 million in venture capital, increasing the number of venture-backed companies in Michigan to 141.<sup>140</sup> Michigan also looks to venture capital firms from outside the state to increase in state investments – where each dollar invested in a startup by a Michigan Venture Capital firm attracts \$4.31 extra investment from other states.<sup>141</sup> In particular, Series B and C round funding seems to be the sweet spot for Michigan venture money with the majority of deals falling in this category. This leaves a gap in seed and Series A funding. Invest in Detroit Ventures and divers angel groups aim to fill this gap.

<i>A Selection of Detroit's Active Investors</i>
313 Ventures
Ann Arbor Angels
Detroit Venture Partners
Great Lakes Angels
Frontinalis Partners
Renaissance Venture Capital Fund
Rock Ventures
Blue Water Angels
Ludlow Ventures

Zooming in further on Detroit, the city is home to 25% of all the venture-backed companies in Michigan. In line with the rebuilding of the city, the venture capital scene in Detroit has been growing in the past five years. In this growth, the magic number appears to be 40 – everything seems to have increased by more than 40% in five years: dollars invested (42%), the number of venture capital professionals (41%), and the number of venture backed startups (48%).<sup>142</sup>

Interestingly, most of the startups receiving venture capital funding in 2016 – more than 60% – were not in the automotive and mobility space, but rather in the information technology and life sciences.<sup>143</sup> While this puts Detroit on the map as an innovation hub for health, it does not mean that funding for startups in the mobility space is lacking. Rather, manufacturers, suppliers, private R&D facilities, universities, and national research centers have been the leader when it comes to investment in the mobility area. For instance, GM has a corporate venture capital group, providing early-stage – from Series A onward – funding to entrepreneurs and startups firms.

### 7.3.4 BUSINESS CULTURE AND PLACES

Detroit's culture is often described as resilient, real, and hopeful. Those who could not muster the hope required to stay during the difficult years, left long ago, which leaves just those Detroiters who believe in the city and its potential. There is a feeling of opportunity and freedom, which is felt by artists and business people alike. It is a city that is changing idea by idea and person by person. A good example is the Heidelberg Project, which changed an entire neighborhood in Detroit by turning a whole street into an art project – awarded with the silver medal in the Rudy Bruner Award for Urban Excellence.<sup>144</sup> Not only does life and business happen here with more patience and freedom than any of the other big cities, but there is also the chance to contribute to the revival of a city. This is what drives many millennials, visionaries, and entrepreneurs to the city. In an article by National Geographic, a retired Cargill top executive described it as follows:<sup>145</sup>

*"IT'S LIKE THE CALIFORNIA GOLD RUSH HERE. BUT IF WE ARE CAREFUL AND SELECTIVE, WE GET TO SAVE NEIGHBORHOODS, AND HOW COOL IS THAT?"*

- Aamir Farooqi

Most of the innovation and entrepreneurship occurs in three places within the Detroit region: Ann Arbor, Oakland County, and downtown Detroit. Each of these places has its own strengths when it comes to innovation and entrepreneurship. Ann Arbor is known as a bastion of talent and intellectual property, housing the biggest campus of the University of Michigan, whereas Oakland County has the largest concentration of advanced manufacturing and downtown Detroit is known for it's

<sup>140</sup> Michigan Venture Capital Association, 2017 MVCA Research Report, 2017

<sup>141</sup> *Detroit Magazine*, Michigan's Growing Startup Culture and Venture Capital Activity on the Rise, 2016

<sup>142</sup> Michigan Venture Capital Association, 2017 MVCA Research Report, 2017

<sup>143</sup> Detroit Regional Chamber of Commerce, State of the Region, 2017

<sup>144</sup> Rudy Bruner Award, Heidelberg Project, 2005

<sup>145</sup> National Geographic, Tough, Cheap, and Real, Detroit is Cool Again, 2015



robotics companies and soft-landing spaces for international companies. Together, these places form a complete ecosystem that can spur innovation, and given their proximity you can tap into their resources simultaneously.

### 7.3.5 STARTUP CLIMATE

The startup climate in Detroit has long been in a slump and still experiences some hurdles in its maturation process. Overall, the Detroit region scores low on the Kauffman index, especially in the area of scale ups – share of firms that grew to employ 50 people or more in 10 years – and business owner population.<sup>146</sup> But for a city that only recently started to rebuild itself, it might be more useful to note that Detroit has an above average startup growth and survival rate.

As a facilitator of this startup growth, Detroit has several strategic programs and resources in place dispersed over the Detroit Combined Statistical Area. In Ann Arbor – seen by many as the breeding ground of tech entrepreneurs – Ann Arbor SPARK and the Desai Accelerator are the center node of the entrepreneurial ecosystem and can connect you to talent, support organizations, financiers, and local businesses. Oakland County is at the heart of the automation and robotics startup ecosystem, with the Oakland University-backed incubator OU INC paving the way for new and foreign companies. Together with Automation Alley – a nonprofit based in between downtown Detroit and Oakland County, focusing on connecting industry, academia and government in technology and manufacturing space – they can be of great help to Dutch scale ups, providing everything your company needs to grow in this region. Downtown Detroit also has an active startup system having a specific focus on mobility with the established startup hubs Madison Block and TechTown, and renowned mobility accelerator from TechStars. Aside from pure automotive, Detroit’s downtown startup ecosystem is also growing in IoT, FinTech and IT.

*A Selection of Detroit’s Incubators,  
Accelerators, and Soft Landing Places*

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NextEnergy  
TechStars Mobility  
Desai Accelerator  
MadisonBlock  
TechTown  
OU INC  
Automation Alley

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### 7.3.6 GOVERNMENT

Although Detroit has faced its complications concerning city government – best reflected by the city’s bankruptcy filing in 2013 – this seems to have turned around. The new Mayor’s Office has been able to leapfrog Detroit’s development. The economic growth of the city is above the nation’s average, unemployment rates have dropped from two times the national average to matching the national average, and crime rates have dropped every year.<sup>147</sup> Now the city has turned its attention to the new generation – the startups. By means of organizations such as the Detroit Economic Growth Corporation and collaborations with Ann Arbor SPARK, the city is helping provide the resources.

On a state level, the government is involved in creating an appealing environment for startups. Michigan is in the top 15 states in the United states in overall business tax climate with a favorable flat 6% corporate income tax rate. Although the 20% angel tax credit program ended with tax system overhaul in 2011, there is a new bill on the table proposing a similar program.

All in all, the political unrest in the city seems to have settled, with state and city government supporting and stimulating innovation, making Detroit a favorable place to do business from a political standpoint.

## 7.4 The Main Sectors in Detroit

### 7.4.1 MOBILITY

Detroit is the undisputed frontrunner in the nation, if not worldwide, when it comes to mobility, and more specifically automotive. It comes as no surprise that Detroit is nicknamed the Motor City of the United States. However, the focus of the automotive sector has changed radically in recent years. With the rampant decline of the classical car manufacturing,

<sup>146</sup> Kaufmann Index, Detroit-Warren-Livonia, 2017

<sup>147</sup> Detroit Regional Chamber of Commerce, State of the Region, 2017



big corporates, research, and startups alike turned their focus to the future of auto mobility, such as autonomous vehicles, connected cars and process automation.

### Why Mobility in Detroit?

Detroit's old glory days as the beating heart of auto manufacturing might have subsided, the city is preparing for the new wave of innovation in this sector. Detroit, and Michigan more generally, is positioning itself as the place for mobility innovation, building on the historic assets in this sector. Today, Detroit still is No. 1 when it comes to automotive and mobility innovation, connecting all the world-class resources needed to maintain this position for the future. But what exactly makes this sector so strong in Detroit and Michigan, and how can your company be part of it?

<i>Facts and Figures about the Automotive Sector in Detroit</i>	
# active auto manufacturing companies	1,700
# employees	1170,00
Sales in \$/per year	112 billion

- *Michigan is the leader in automotive innovation* – Michigan ranks No. 1 in automotive R&D in North America with 80% of the United States Auto R&D budget being located in Michigan. This leads to an enormous output of inventions – 1 auto patent per day for the last 50 years to be exact.<sup>148</sup>
- *Unique availability of technical talent* – Michigan has the highest concentration of industrial and mechanical engineers, and is home to 20 universities with nationally ranked engineering programs and 375 automotive research centers.<sup>149</sup>
- *Bump shoulders with the sector's largest* – Michigan has the highest density of automotive suppliers in the United States and every major car manufacturer in the world has a presence in Michigan. Roughly 20% of all United States vehicles are produced in Michigan.<sup>150</sup>
- *Detroit is a landing spot for many international companies* – 91 of the top 100 automotive suppliers to the United States are located in Michigan, with 56 having their headquarters in Detroit.<sup>22</sup>

All in all, Detroit is a one-stop shop in the automotive sector. Whether you are looking to land a big corporation as a client, hire talent and R&D to develop your product, or need for a test facility to validate your technology, Detroit has it all. For a good first indication, the annual North American International Auto Show – the biggest auto show in the United States – is where it all comes together.

### Niches and Opportunities

Although the automotive sector in Detroit is still the largest in the United States, the city is also preparing for the future. The city has great facilities in place to support the newest innovations in the automotive and mobility space – such as connected and autonomous vehicles. Detroit is where classical car manufacturing meets innovation, and it is this combination that creates opportunities for Dutch companies.

#### - Autonomous and Connected Vehicles

This trend in the market is probably not new to you. Autonomous and connected vehicles are a hot topic, and many of the largest companies are pursuing this technology. What might not be so apparent is that Detroit is the center of innovation for this niche in the United States, ranking Michigan as the No. 1 state for connected and autonomous vehicle projects.<sup>22</sup> For instance, from 2000-2015, 3,831 patents related to vehicle navigation and location data processing came out of Detroit, relative to 1,213 patents in San Francisco. And whereas \$500 million of investment was announced in this niche in San Francisco, this is nothing compared to the whopping \$22 billion in Detroit<sup>22</sup>. An additional benefit is that Michigan is the No. 1 state in the nation to enact policies to: legalize self-driving and ride-sharing vehicles, legalize testing of automated vehicles, and allow truck platoons.<sup>151</sup> No surprise that companies such as GM, Toyota, Uber, and Google have recently opened or plan to open an innovation facility on autonomous and connected vehicles in Detroit.

<sup>148</sup> Destination Detroit, The Detroit Region – North America's Automotive & Mobility Center, 2017

<sup>149</sup> Detroit Regional Chamber of Commerce, State of the Region, 2017

<sup>150</sup> Destination Detroit, The Detroit Region – North America's Automotive & Mobility Center, 2017

<sup>151</sup> MICHauto, Michigan is Auto Mobility, 2017





The fact that Detroit is positioning itself as the innovation center for autonomous and connected vehicles holds promise for Dutch startups, scale-ups, and any other company that works in a field related to mobility, software, or industrial robotics. A specific opportunity for your company in Detroit is the TechStars Mobility Accelerator – one of the most renowned accelerators in the mobility space. With more than 1,000 people visiting, the 2017 Techstars Mobility demo day was the largest, single-day event focused on mobility startups in the world. Definitely something to keep in mind if you want to expand to the United States.

Another opportunity in the autonomous and connected vehicles niche unique to Michigan is Mcity. Supported by the state and collaborating with the University of Michigan, Mcity is the first purpose-built, outdoor testing facility designed to be a simulation of the urban environment. Being 32 acres in size, it is mostly used in early-stage research and development to test the performance and safety of autonomous and connected vehicles. As such, Mcity helps validate new technology in a real-life setting. Partnerships with startups are encouraged, and Mcity might consequently offer a cutting-edge, one-of-a-kind testing ground for your technology.

### Resources

Selection of Resources Available in the Detroit’s Mobility Sector		
<i>Incubators &amp; Accelerators</i>	<i>Network Organizations</i>	<i>Technology and Innovation</i>
TechStars – Mobility	MICHauto	Mcity
Desai Accelerator	Automation Alley	TechTown
OUinc	PlanetM	Mobility Transformation Center
		American Center for Mobility



## 8. OHIO

### *Cleveland, Akron, Columbus, and Cincinnati*

#### 8.1. Get to Know Ohio, the State of the Great River

Ohio's favorable location, conveniently located on the shores of Lake Erie and the Ohio River, has made it a long-standing economic power. The state's name even pays homage to the importance of the river. "Ohio" stems from the indigenous population's word for "great river."<sup>152</sup> The state's economic success has persisted over time, making the Ohio of today a force to be reckoned with. The state exceeds the economic power of countries such as Argentina, Israel, Sweden, and even our neighbor, Belgium.<sup>153</sup> But also outside the realm of economics, the state has a lot to offer. The state houses the five richest collections of arts in the United States, is home to the Rock 'n Roll and Pro Football halls of fame, and hosted the first live rock 'n roll concert.

The metropolitan areas of Cleveland (including the city of Akron), Columbus, and Cincinnati are the urban heavy weights of the state. All of them share a similar pool of resources – hence grouping them in one chapter – but each city has unique and appealing strengths in particular sectors, making them interesting for Dutch companies.

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<sup>152</sup> Ohio State University, Native Ohio, American Indian Studies, 2007

<sup>153</sup> Federal Reserve Bank of St. Louis, Total Gross Domestic Product for Ohio, 2017





## 8.2 Why and When Ohio?

Ohio might not be the most well-known American state, but it has been consistently ranked as one of the top three states in terms of business climate.<sup>154</sup> Adding to this, Cleveland and Columbus have been rated as “hotter” for entrepreneurs and scale-up businesses than San Francisco, Boston, Seattle, and New York.<sup>155</sup> The reasons for this entrepreneurial success are as follows:

- *The state is cost competitive, even for Midwestern standards* – cost of doing business in Ohio, such as labor, taxes, energy and rent, is in general 10% lower than the United States average.<sup>156</sup> This makes cities such as Cincinnati and Cleveland the most cost-effective cities in the United States, ranking first and fourth in cities with populations exceeding 2 million, respectively.<sup>157</sup>
- *Ohio is a logistics hotspot* – Ohio has access to 60% of all Fortune 500 companies and 50% of the United States and Canada’s population can be reached within a day’s drive.<sup>158</sup> It has the nation’s fourth largest interstate system, nine deepwater ports, and 10 major rail yards.
- *The state has an impressive quality of life* – Ohio was ranked No. 2 for quality of life in 2017, according to Forbes Magazine. This measure takes into account factors such as recreational facilities, crime rates, mean temperature, and average commute times.
- *The state’s main cities are becoming go-to places for startup activity* – Columbus has persistently ranked among the top in entrepreneurial growth, and Cincinnati is an up-and-coming destination for startups.<sup>159</sup>
- *Ohio has unique advantages for Dutch companies in the water, healthcare, materials, smart cities, and retail sectors* – each of the three major cities in this hub have their own strengths in a particular sector. Where Columbus is particularly strong in smart cities, Cleveland and Akron are leaders in the advanced materials and healthcare field. Cincinnati has its own unique strength in retail, making the city stand out from any other hub in the Midwest.

All in all, Ohio has a lot to offer to basically any entrepreneur, but the large metropolitan areas each have their own specialty, making them the place to be for specific sectors. If your company operates in the water, healthcare, materials, smart cities, and/or retail sector, and benefits from having the majority of the United States’ market at its disposal, then one of the three cities in Ohio might be your ideal location. To help guide you in this process, you can find the specific opportunities in each sector (and the corresponding cities) later in this chapter.

## 8.3 Ohio’s Entrepreneurial Ecosystem Explained

Situated in the Rust Belt, Ohio has a history that is rooted in manufacturing. As a result, Ohio was among the states hit hardest by the Great Recession. Throughout its history, the state has gone on an innovative journey from the old metalworking industry and rubber to the high-tech polymers, smart technologies, and medical devices. That the state has been successful in riding this wave of innovation is reflected by its \$625.7 billion economy – making Ohio the state with the seventh-largest economy in the United States and the 34<sup>th</sup> largest economy in the world, were it a sovereign country.<sup>160</sup> Whereas no individual city in the state has a complete entrepreneurial ecosystem, the state as a whole does have all of the resources for innovation to flourish. Read on to learn more about what makes Ohio’s entrepreneurial ecosystem tick.

### 8.3.1 CORPORATE BUSINESS ECOSYSTEM

Ohio has an impressive corporate business ecosystem. The state has 25 Fortune 500 companies – which is the fifth highest among all of the states.<sup>161</sup> The two biggest of them – Cardinal Health and Kroger – are in the top 20 of Fortune 500

<sup>154</sup> Site Selection, Business Climate Ranking, 2016

<sup>155</sup> City of Cleveland Economic Development, key Statistics & Figures, 2017

<sup>156</sup> Team NEO, Cleveland Plus Economic Review, 2016

<sup>157</sup> KPMG, KPMG’s Competitive Alternatives, 2016

<sup>158</sup> VentureOhio, Venture Report, 2017

<sup>159</sup> Kauffman, Metropolitan Area Rankings, 2017

<sup>160</sup> Ohio Development Services Agency, Gross Domestic Product from Ohio, 2017

<sup>161</sup> Statista, number of United States’ companies listed in the Fortune 500 ranking, 2017



companies. The Fortune 500 companies are predominantly located in one of the three metropolitan areas. Consequently, these cities have a decent-sized corporate presence – all home to several Fortune 500 companies.<sup>162</sup>

Manufacturing is still the largest of the 20 sectors in Ohio, encompassing 20% of the economy – nicely reflecting the fact that the sheer bulk of the corporations operate in the manufacturing space. This ranks Ohio directly behind Texas and California in terms of manufacturing output.<sup>163</sup> However, it is the healthcare industry that accounts for the highest percentage of the employment.<sup>8</sup> Other notable sectors in the state are retail and finance.

An interesting characteristic of the Ohio business ecosystem is the enormous success of middle-market firms, which generate between \$10 million and \$1 billion in annual revenue. The state ranks first in the US for growth in the number of middle-market firms and the average revenue of these firms between 2011 and 2016.<sup>164</sup> The reason for this outstanding growth in Ohio is unclear, but companies indicate that the cost-competitive character and ideal geographical position of the state as potential and important determinants. These tangible advantages can also directly translate into an opportunity for the Netherlands. If you are a Dutch middle-market company, Ohio has the specific advantages and subsequent track-record to help your company grow.

<i>A Selection of Ohio's Fortune 500 Companies</i>
Goodyear Tire & Rubber Co
Progressive Group
Eaton
FirstEnergy
Parker Hannifin
Sherwin-Williams
TravelCenters of America
KeyCorp
Lubrizol

### 8.3.2 TALENT AND UNIVERSITIES

Ohio scores moderately when it comes to talent and universities. The state has had trouble with its population's educational attainment. In 2016, just 17.2% of the population held a bachelor's degree, which is more than 10 percentage points lower than the national average.<sup>165</sup> Ohio ranks as the 36th most-educated state.<sup>166</sup>

That is not to say that there are no renowned universities in the state. The Ohio University system has an annual enrolment of more than 400,000 students, making it one of the five largest state university systems in the United States.<sup>167</sup> In total, Ohio has 13 state universities and 46 private universities – the most prominent being the Ohio State University, the University of Cincinnati, and Case Western Reserve University.

Notably, The Case Western Reserve University is ranked as the 37<sup>th</sup> best university in the United States and the Ohio State University as the 16<sup>th</sup> best public university in the nation.<sup>168</sup> Cleveland State University also deserves attention, since it ranks among the top 20% of universities in the United States for research and development with \$55 million in annual research and development expenditures.<sup>169</sup> In terms of research excellence, it fits nicely with the strength of the region. Akron is the only city in the world with a college dedicated to studying polymers, has the world's largest polymer academic program, and the greatest concentration of polymer expertise.<sup>170</sup> In addition, the Case Western Reserve University is home to the No. 1 college for polymers and plastic engineering degrees in the United States.<sup>171</sup> In the health sector, the University of Cleveland has a particular strength in the cardiovascular niche.

<i>A Selection of Ohio's Prominent Universities</i>
The Ohio State University
University of Cincinnati
Case Western Reserve University
Kent State University
Ohio University
Miami University
Bowling Green State University
University of Dayton
University of Akron
Cleveland State University

<sup>162</sup> Columbus Business First, Fortune 500 includes 24 Ohio companies, 2016

<sup>163</sup> Ohio Development Services Agency, Gross Domestic Product from Ohio, 2017

<sup>164</sup> American Express and Dun & Bradstreet, Middle Market Power Index, 2016

<sup>165</sup> Statista, Educational attainment distribution in Ohio, 2016

<sup>166</sup> WalletHub, Most & Least Educated States in America, 2018

<sup>167</sup> Ohio Department of Higher Education, Headcount Enrollment at University System of Ohio Institutions, Fall 2007 to Fall 2016, 2016

<sup>168</sup> United States News & World Reports, Best (Public) School Ranking, 2017

<sup>169</sup> National Science Foundation, Cleveland State University, 2016

<sup>170</sup> The University of Akron, Quick Facts and Figures, 2017

<sup>171</sup> Universities.com, Best Colleges with Polymer/plastics Engineering Degrees in the United States, 2017





### 8.3.3 INVESTOR CLIMATE

Ohio’s investor climate has improved in recent years. In 2016, 210 Ohio companies received venture capital funding, totalling \$470 million – which was a 46% increase relative to 2014.<sup>172</sup> This is remarkable if you compare it to national trends, which indicate that, on average, the number of deals and total deal volume have declined over this period.<sup>173</sup> Ohio also deviates from the national trends when considering the stages at which funding occurs. While in other states the majority of the investments are made in later-stage companies, the majority of the deals in Ohio happen in seed-stage companies.

In terms of sectors, most of the deals occurred in the IT and life sciences sectors, with \$244 million and \$144 million in funding, respectively.<sup>174</sup> Together, these two sectors account for more than 75% of all investments. Another 12% of total investments were made in manufacturing and automation.

The investor climate in Ohio can be characterized by an active core of investors and successful government programs. An impressive number of Ohio’s deals came from a single firm – Rev1. Rev1 is ranked as the No. 1 venture capital firm in the state and invested more than \$70 million last year.<sup>175</sup> In addition, the Cincinnati-based angel fund Queen City Angels has been ranked as one of the top-10 most active funds in the nation. The Ohio Third Frontier program, set up by the Ohio Development Service Agency, has also been effective in stimulating the investor climate in the state. The Pre-Seed/Seed Plus Fund Capitalization Program helps to connect early-stage investment funds and to attract matching funds from the private sector. The Ohio Third Frontier has nearly \$200 million of investable capital available.<sup>176</sup>

<i>A Selection of Ohio’s Active Investors</i>
Rocket Ventures
Jumpstart
North Coast Angel Group
Valley Growth Ventures
Impact Angel Fund
Ohio Tech Angels
Rev1 Ventures
NCT Ventures
Accelerant
Queen City Angel
CincyTech
TechGROWTH Ohio

### 8.3.4 (BUSINESS) CULTURE AND PLACES

Ohio in general is known for being a bellwether state – a trendsetter when it comes to political tendencies. On a micro level, the state tends to reflect the political inclinations of the country and Midwest as a whole. This leads to a surge of reporters and journalists in the region during election time, although Ohioans themselves tend to be laid-back about it. The people in Ohio are easy-going and friendly. Just like Dutch people, people in Ohio love to bash their own state, but become defensive when other people do it.

The business in the state mainly takes place in the metropolitan area of one of the three C’s: Cleveland, Columbus, or Cincinnati. To help you identify which of these cities would make the best landing spot for your company, it is crucial to investigate their unique selling points. Cleveland is known for its medical and polymer sector, and its neighboring town Akron – included in the metropolitan area of Cleveland – has an active water cluster. Columbus, on the other hand, has a particular strength in smart cities, and Cincinnati is a renowned retail and business support hub.

There is a healthy amount of rivalry between these cities. As a stereotype, people from Cincinnati tend to dislike people from Cleveland because of football, whereas both cities ignore Columbus because of its hipster and college character. You can read more about the cities and their respective strengths in §9.4.

<sup>172</sup> VentureOhio, Venture Report, 2017  
<sup>173</sup> National Venture Capital Association, Pitchbook, 20017  
<sup>174</sup> VentureOhio, Venture Report, 2017  
<sup>175</sup> National Venture Capital Association, Pitchbook, 20017  
<sup>176</sup> VentureOhio, Venture Report, 2017





### 8.3.5 STARTUP CLIMATE

Ohio is on the rise as a destination for startups. It might not have the resources of Chicago or Minneapolis, but it has momentum. Ohio ranks No. 7 when it comes to growth entrepreneurship – a measure of how successful entrepreneurial businesses grow.<sup>177</sup> The startup density in this state is the lowest of the 24 largest states, but this number has been rising throughout 2017 and is expected to grow in 2018. The region has had its first big exit, indicating a maturation of the ecosystem. In 2017 McKesson acquired Columbus’ startup CoverMyMed’s for \$1.1 billion.<sup>178</sup> All in all, the number of startups is catching on, but it is the growth of these startup and scale-ups that is truly impressive.

The momentum in startup activity is also perceived in the cities individually, especially in Columbus and Cincinnati. Columbus ranks third for growth entrepreneurship, and Cincinnati has seen one of the largest increases of any metropolitan area in entrepreneurial activity, climbing seven places to No. 18.<sup>179</sup> To boost the entrepreneurial community, several incubators and organizations are in place. As the CEO of one of Ohio’s most successful startups, recently acquired for \$225 million, says<sup>180</sup>:

<i>A Selection of Ohio’s Active Investors</i>
BioOhio
Rev1 Ventures
Cintrifuse
StartupCincy
The Brandy
Pipeline H2O
Jumpstart
Venture Smarter
Lumos

*“THE REGION IS BETTER PREPARED THAN EVER TO ATTRACT, INCUBATE, & LAUNCH SMART NEW COMPANIES. WE HAVE A STARTUP ECOSYSTEM THAT IS TAKING SHAPE”*

- Don Wright, Assurex Health

Another indication of the success of Ohio’s resources is the announcement by Midwest’s gold-tier accelerator program Gener8tor that it will join forces with the Cincinnati-based accelerator the Brandy.<sup>181</sup> In addition, the Cleveland Clinic together with JumpStart have announced a collaboration with San Francisco’s Plug and Play tech center to create a biotech and digital health focused accelerator opening in the spring of 2018.<sup>182</sup>

All in all, the startup ecosystem is gaining traction. Especially for companies looking to scale up their operations, Ohio has the track-record and the resources in place to help companies reach this goal. If you are feeling energized and ready to learn more about the startup climate in the different cities, StartupCincy, StartupGrind Columbus, and Jumpstart Cleveland are good first points of entry.

### 8.3.6 GOVERNMENT

The government of Ohio has succeeded in creating a favorable climate for entrepreneurs. The state has been in the top three in the Governor's Cup awards – based on business growth and developments<sup>183</sup> – for almost 10 years straight. Besides, Ohio has a positive policy and tax system for startup and scale-up companies. The Small Business & Entrepreneurship Council ranks Ohio as a top 10 state for policy and tax climate in 2017 and 2018.<sup>184</sup> The state does not, however, have an angel tax credit program.

Ohio Third Frontier is a successful initiative of the state to foster entrepreneurship. The Ohio Third Frontier is a public-private partnership that helps to accelerate the creation and growth of investable and scalable technology and tech-enabled companies throughout Ohio. The Ohio Third Frontier works via different programs, such as the Technology Validation and Start-up Fund and the Entrepreneurial Services Provider Program.

<sup>177</sup> Kauffman, Ohio, 2017

<sup>178</sup> McKesson, McKesson Reports Fiscal 2017 Third-Quarter Results, 2017

<sup>179</sup> Kauffman, Metropolitan Area Rankings, 2017

<sup>180</sup> VentureOhio, Venture Report, 2017

<sup>181</sup> Biztimes, Gener8tor adds Cincinnati accelerator, 2018

<sup>182</sup> Cleveland Clinic, Cleveland Clinic’s 2017 Medical Innovation Summit, 2017

<sup>183</sup> Site Selection, Texas, Nebraska Win Site Selection Magazine’s Governor’s Cup Awards, 2017

<sup>184</sup> Small Business & Entrepreneurship Council, Small Business Policy Index, 2018



## 8.4 Ohio's Largest Sectors Explained

As described above, Ohio qualifies as an innovation hub. Zooming in on the individual metropolitan areas, Columbus, Cleveland, and Cincinnati each have their own strengths and renowned resources in a particular sector, which might make it interesting for Dutch entrepreneurs. In particular, Cleveland is involved in water, health, and advanced materials; Columbus in smart cities; and Cincinnati in retail. If the advantages and general ecosystem of Ohio speak to you, and your company operates in any of those areas, please read on to learn more about the opportunities.

### 8.4.1 WATER

There are interesting business opportunities emerging in the water innovation space in Ohio, especially in Akron. In the 1960s, Ohio's waterways received a lot of bad national attention - with the Cuyahoga River catching fire in 1969 as the absolute all-time low.<sup>185</sup> But after years of negative publicity and bad jokes, the city is ready to change and become a center for water innovation. In the challenge to become an innovation hub and effectively manage, treat, and distribute clean water, opportunities are arising for Dutch companies. Please read on to see how your company might fit in.

#### Why Water in Akron, Ohio?

As opposed to many of the other prevalent sectors in Ohio, the business opportunities in the water technology space are mostly based on pressing regional demand, rather than historically grown excellence. Ohio is preparing for the new wave of water technology, and is ready to adopt Dutch technology. But what exactly does Akron offer?

- *Akron is actively pursuing water innovations and trying to become an international water cluster* – the Akron Global Water Alliance (AGWA) is at the heart of the water cluster in Akron. It aims to initiate and commercialize top water systems and technologies from across the United States and abroad. The AGWA is known for supporting innovation and providing soft-landing spaces for companies entering the US market.
- *The city uses its own water infrastructure as an accessible, large-scale pilot test site* – the AGWA develops pilot projects, together with the City of Akron, to help tackle some of the most pressing issues. Since the City of Akron is the sole owner of several industry parks, the Akron Global Business Accelerator, an extensive water and wastewater system and several square miles of land, it is relatively easy to set up pilot test sites in real time. Relative to other test sites in the country, the procedure and permits necessary for establishing the pilot sites are faster and easier to obtain.
- *The Akron Global Business Accelerator is successful in helping (international) businesses grow* – the Akron Global Business Accelerator offers entrepreneurial support and counseling services to companies settling in Akron. It helps entrepreneurs through every step of the startup process. The survival rate of companies going through the business incubator so far has been very impressive – 90% of the companies are still active after five years.<sup>186</sup> This success has not gone unnoticed. The accelerator has won the price of Ohio's Top Business Accelerator.<sup>187</sup>
- *The city is actively looking to recruit international companies* – AGWA is always scouting for international companies that can help them tackle water issues. AGWA is looking for the following technologies: water security systems, water planning tools, water condition assessment systems, advanced water distribution technologies, water recycling technologies, water testing systems, and water treatment processes and technologies.

There is no doubt that Akron is paving the way when it comes to its water cluster. Despite not having the same level of investment and corporate presence as Chicago, and not promoting itself as actively as the Water Council in Milwaukee, the AGWA is a valuable resource to the region and creates an interesting environment for testing and validation. If you feel your company would benefit from having access to Northeast Ohio's 4 million-plus population base and water infrastructure for testing and validation, AGWA could make it happen.

<sup>185</sup> Ohio History Central, Cuyahoga River Fire

<sup>186</sup> Ministry of Economic Affairs, The Water Technology Sector in the United States, 2013

<sup>187</sup> Cincinnati Business Courier, 2012 Ohio's Top Business Incubator, 2012



With the Akron Global Business Accelerator in place and the city actively looking for Dutch companies to help them tackle problems, you can be assured that Akron will provide you with a nurturing and supportive environment. If this makes you interested in learning more, AGWA is a good starting point.

### 8.4.2 HEALTH

When you think of Ohio and its history in manufacturing, its strength in healthcare might not be obvious. However, this would not do the state justice. Cleveland has an active healthcare sector that might be interesting for Dutch companies.

#### Why Health in Cleveland, Ohio?

Cleveland is becoming one of the leading healthcare hubs in the United States. The city has an attractive innovation ecosystem for international biomedical companies aiming to scale their business in the United States. In particular, health is the only industry in Ohio that has increased almost every year, even during the recession.<sup>188</sup> The reasons are as follows:

- *Cleveland is home to world-leading hospitals* – Cleveland has 62 hospitals, including the world-renowned Cleveland Clinic, Akron’s Children’s Hospital, Summa Health Systems, and Rainbow Babies & Children’s Hospital. Especially the Cleveland Clinic has been ranked as the No. 2 hospital in the United States and even No. 1 when it comes to cardiology.<sup>189</sup> In addition, Rainbow Babies & Children’s Hospital is in the top 5 of best pediatric hospitals in the United States.<sup>190</sup>
- *Cleveland is becoming the center of medical technology innovation* – Cleveland is ranked as one of the 10 cities in the nation for medical technology innovation.<sup>191</sup> An important facility to boost innovation is the Global Center for Health Innovation. It is the only facility in the world that uses different-themed floors to display the future of healthcare: healthcare innovation, technology, education, and commerce.
- *Cleveland is the ultimate reflection of the US population* – Akron and Cleveland represent a perfect cross-section of the US population, making it an optimal environment for fast and effective clinical trials, market testing, and purchasing.
- *Cleveland has the medical talent covered* – there are more than 230,000 healthcare and bioscience professionals employed in Cleveland. A great number of these professionals are alumni of one of the seven educational institutions that offer bioscience PhD programs. In addition, 10,179 bioscience-related degrees and certificates were awarded to students in Ohio in 2016 – an increase of 58% since 2006.<sup>192</sup>
- *There are many good landing spaces for Dutch companies* – available resources in the healthcare sector are focused in three main places: The Cleveland Health Tech Corridor; the Akron Biomedical Corridor; and the Research, Entrepreneurship, Discovery, and Innovation Zone (REDIzone). The Cleveland Health Tech Corridor is a 1,600-acre, designated hub for medical technologies. It connects the Cleveland Clinic, incubators, and academic centers to startup and scale-up companies. The Akron Biomedical Corridor is a soft-landing space for international companies relating to

<i>Facts and Figures about the Health Sector in Ohio</i>	
# active companies	3,186
# employees	75,036
Sales in \$/year	5,68 billion

<i>A Selection of Ohio’s Healthcare Companies</i>
Abbott
Battelle
Cardinal Health
Ethicon
Midmark
STERIS
ProMedica
Assurex Health
Philips Medical Systems

<i>A Selection of Ohio’s Hospitals</i>
Akron Children’s Hospital
Christ Hospital
Cincinnati Children’s Hospital
Cleveland Clinic
Summa Health Systems
Fairview Hospital
Miami Valley Hospital
OhioHealth Riverside Hospital

<sup>188</sup> BioOhio, 2017 Ohio Bioscience Growth Report, 2017  
<sup>189</sup> United States News & World Report, Best Hospitals in the United States, 2017  
<sup>190</sup> United States News & World Report, Best Children’s Hospitals, 2017  
<sup>191</sup> Qmed Medical Products, Top 10 U.S. Cities for Medtech Innovation, 2015  
<sup>192</sup> BioOhio, 2017 Ohio Bioscience Growth Report, 2017



health technology. It can connect companies to the Akron Biomaterial Center, University of Akron, Akron General Medical Center, Summa Health Systems, and the Austen BioInnovation Institute. The REDIzone focusses on early-stage biomedical companies and supports them with office space, lab space, and lab equipment. The REDIzone also provides access to the Institutional Review Board Certification for clinical trials, the comparative Medicine Unite, technology transfer assistance, and mentorship by entrepreneurs and scientists in residence.

- *The city will be home to a renowned, healthcare accelerator* – the Cleveland Clinic together with JumpStart and the Cleveland Health Tech Corridor have announced a collaboration with San Francisco’s Plug and Play tech center to create a biotech and digital health focused accelerator opening in the spring of 2018.<sup>193</sup>
- *There are specific strengths in the neurology, cardiology and burning/wound healing niches* – Cleveland ranks fifth in the world for neurology technology development and sixth in neurodevice companies.<sup>194</sup> Besides, the Global Cardiovascular Innovation Center (GCIC) – a cardiovascular product development consortium – is in place to help the formation, attraction, and expansion of cardiovascular (international) companies. Moreover, seeing the strength of the neighboring Akron in polymer manufacturing, it might come as no surprise that wound and burn healing is big in Cleveland. The city also hosts the annual Heal Ohio Wound Care Conference, which might be a good, first point of entry for Dutch companies interested in this field.

All things considered, Cleveland has a lot going for it when comes to healthcare, with specific opportunities for Dutch entrepreneurs. Namely, if your company is looking to start collaborating with one of the best hospitals in the United States, needs to do efficient and fast clinical trials, wants to be part of renowned accelerators and soft-landing spaces, and/or operates in the neurology, cardiology, or burning/wound healing niche, Cleveland just might be the perfect fit.

Given the vast number of resources in the city, it might be hard to discover precisely which ones are relevant to your company. BioOhio – the bioscience and health industry organization – is more than happy to help you navigate through the maze and make introductions. For more information, BioOhio’s Bioscience Growth Report is of great help.

### 8.4.3 MATERIAL MANUFACTURING

There is a reason why Akron – which is part of the metropolitan area of Cleveland – is called the Rubber Capital of the world. Throughout the 20<sup>th</sup> century, Akron established itself as the leading city in the manufacturing of rubber and in particular tires – at some point producing more than 30% of all rubber products in the United States.<sup>195</sup> Although the traditional manufacturing of rubber has been declining, the city’s switch from rubber to other types of (more advanced) plastics and polymers has allowed it to stay on the forefront of innovation.

# active companies	935
# employees	81,000
Sales in \$/year	50 billion

#### Why Material Manufacturing in Akron, Ohio?

The switch to the more advanced materials, such as plastics and other polymers, has been very successful. Ohio as a state ranks as No. 1 in plastics and polymer and is still the nation’s leader in rubber manufacturing.<sup>196</sup> But what makes Akron stand out in this sector, and how can your company leverage the city’s strength?

- *All the companies and manufacturers are concentrated in the city* – the largest concentration of plastics and rubber plants, machines, and materials in North America is in Northeast Ohio, with Akron

A. Schulman
Cooper Tire and Rubber Company
Eaton Corporation
Goodyear Tire and Rubber
Owens Corning
Parker Hannifin
PolyOne
Lubrizol Corporation
OMNOVA Solutions
Saint-Gobain
Sherwin-Williams Company

<sup>193</sup> Cleveland Clinic, Cleveland Clinic’s 2017 Medical Innovation Summit, 2017

<sup>194</sup> BioOhio, 2017 Ohio Bioscience Growth Report, 2017

<sup>195</sup> Cleveland Plus, Polymer and Materials Industry Flourish, 2017

<sup>196</sup> Cleveland Plus, Polymer and Materials Industry Flourish, 2017



- having the highest amount of polymer companies in Ohio.<sup>197</sup> In addition, 29 Fortune 500 companies have large polymer industry operations in the city.
- *Akron has a highly skilled labor force in polymer sciences* – with the University of Akron’s College of Polymer Sciences and Polymer Engineering, Akron is the only city in the world with a college dedicated to studying polymers. This college has the world’s largest polymer academic program and greatest concentration of polymer expertise.<sup>198</sup> In addition, the Case Western Reserve University has the No. 1 college when it comes to polymers and plastic engineering degrees in the United States.<sup>199</sup> Combined with the many companies operating in this field, it is no wonder that there are five times the number of polymer scientists employed in this region of Ohio than anywhere else in the United States.
  - *The city is the leader in polymer innovation* - With presence of the Ohio Bioproducts Innovation Center, Ohio Polymer Strategy Council, PolymerOhio, the National Polymer Innovation Center, and the universities, Akron has the advantage of tapping into the latest polymer innovations. Especially the National Polymer Innovation Center deserves extra attention. The center is part of the University of Akron and connects industry and academia to provide solutions for challenges in the area of health, energy, and sustainability.
  - *The sector is set up for additional growth* – \$663 million in new investments has been announced in 97 polymer companies in Ohio.<sup>200</sup> This industry is expected to grow even more due to the take off in the housing, medical and automotive market. Niches with a lot of growth potential are: advanced composites, bioproducts, flexible devices, nanotechnology, and polymer processing.

To sum up, Ohio is the place to be for polymers and plastics in the United States, with Akron as the center. The city has the talent, the companies, and the money to ensure that they remain a pioneer in the field of polymer technology. Interestingly, Akron does not yet have specialized facilities for scale-ups, such as an accelerator. Consequently, Akron might be especially interesting for Dutch companies looking to improve or validate their technology together with one of the leading innovation centers and/or look for corporate customers.

If this appeals to you, the annual Advanced Manufacturing & Design Expo in Cleveland might be worth checking out. The expo has a dedicated plastics and polymers section that gives you a good impression of this sector.

#### 8.4.4 SMART CITIES

It might come as a surprise that the United States’s first Smart City is located more than 4,000 kilometers from Silicon Valley. Columbus has emerged as the winner of the United States 2016 Smart City Challenge, receiving a \$40 million federal grant.<sup>201</sup> From that moment, Columbus has been writing the playbook on what a smart city will look like in the United States. Columbus’s job will be to improve people’s quality of life, drive growth in the economy, provide better access to jobs, become a world-class logistics leader, and foster sustainability.

##### Why Smart Cities in Columbus, Ohio?

The impressive grant has catalyzed innovation in the smart cities sector in Ohio. Multiple projects and test sites have been set up to turn Columbus into a true smart city. Dutch companies can benefit from this momentum and leverage the opportunities present due to the Smart City Challenge. But what are those opportunities?

- *Using mobility to keep the city safe* – the first goal of the city is to tackle mobility problems to make the city safe. They do so by stimulating shared car-ownership, increase connectivity to improve safety and reduce congestion, and rely on high levels of automation to increase public participation of the elderly and people with disabilities. Seeing that 95% of traffic accident fatalities are the result of human error, Columbus also wants to take people out of the driver’s seat, for instance by implementing dedicated short-range communication.<sup>202</sup> If your company has a solution for these mobility problems, the Columbus Transportation Research Center would like to speak with you.

<sup>197</sup> Cleveland Plus, Polymer and Materials Industry Flourish, 2017

<sup>198</sup> The University of Akron, Quick Facts and Figures, 2017

<sup>199</sup> Universities.com, Best Colleges with Polymer/plastics Engineering Degrees in the United States, 2017

<sup>200</sup> PolymerOhio, Polymer Facts Stats, 2017

<sup>201</sup> United States Department of Transportation, U.S. Department of Transportation Announces Columbus as Winner of Unprecedented \$40 Million Smart City Challenge, 2016

<sup>202</sup> Fox News, Columbus under construction to become America's first 'smart city', 2017





- *All parties are on board to make success guaranteed* – besides government officials, universities and corporates are also on board to make this program a success. A selection of universities and corporates that are partners of the project are: AT&T, Siemens, Amazon Webservices, Continental, NXP, Ohio State University, Honda, and Autodesk.
- *Columbus has been able to turn the initial \$40 million into \$500 million* – Columbus has been able to mobilize its business community and receive an additional \$500 million in public-private funding for the Smart Cities Project. But it does not stop there: they have set the goal of raising \$1 billion in private sector money in the next four years.<sup>203</sup>
- *Columbus is open for business* – to realize the goals and spend the money as effective as possible, Smart Columbus has opened opportunities for individuals, businesses, and organizations to do business and/or partner with the City of Columbus.

All the opportunities revolve around the Smart City Challenge. Due to its victory, the city now has the money, partnerships, and vision to make this sector take off. Therefore, if you have a promising smart city technology – especially in the connected vehicles, multimodal trip planning, event parking management and prenatal trip assistance – Columbus has the space to test it and the money to bring it to market. Interested? The City of Columbus has all the information to launch your business in Columbus.

#### 8.4.5 RETAIL AND BUSINESS SUPPORT

Retail and Business Support is not part of the traditional sectors identified in the United States to hold opportunities for Dutch companies. However, after visiting Cincinnati, we are making an exception. The city has a unique strength in branding, marketing, and retail.

##### Why Retail in Cincinnati, Ohio?

Cincinnati is the location for business-to-business companies that sell to business-to-consumer companies. Here are the reasons why:

- *There is a large pool of renowned, potential corporate clients* – retail-heavy companies such as Kroger, GE, Macy's, Procter & Gamble all have headquarters or significant operations in Cincinnati. This makes it the ideal location for companies that can improve back-office management, retail efficiency, marketing and/or branding.
- *Presence of a top-tier accelerator dedicated to branding* – The Brandery is the first accelerator in the nation that focuses on startups in the branding, marketing, and retail sector. Its motto emphasizes the idea that building your brand — rather than just a product— can help startups increase their probability of success. Recently, the accelerator was picked up by another trailblazer in the entrepreneurial scene in the Midwest. Gold-tier accelerator program Gener8tor has announced to join forces with the Brandery and help run its program.
- *The community is pushing for success* - the overarching startup organization StartupCincy is aligning resources to boost this sector in Cincinnati. StartupCincy helps to enable collaborations between startups and corporates and put Cincinnati on the map as a startup hub, specifically in retail and business support. For Dutch companies wishing to enter this market, they are also the best first point of contact.

With the retail and business support sector, Cincinnati brings an interesting additional sector to the Midwest. Ohio benefits from a low cost of doing business and a favorable connection to the majority of the corporations and population of the United States. Cincinnati has the additional advantage of having a top-tier accelerator and presence of influential corporations. If you feel your company can help these retailers work more efficiently and could benefit from expanding your brand, the Brandery might be an interesting opportunity.

<sup>203</sup> TechRepublic, How Columbus, Ohio parlayed \$50 million into \$500 million for a smart city transportation network, 2017



## 9. ABOUT THE CONSULATE GENERAL

The Consulate General in Chicago, home of the Kingdom of the Netherlands's diplomatic representation to the Midwest, has been around for almost 150 years. Our core business is economic diplomacy, i.e. to identify opportunities for growth and connect potential business partners. Startup acceleration is an important part of this.

Do you have any questions after reading this document, or want more detailed information about particular opportunities? Email us at [chi-ea@minbuza.nl](mailto:chi-ea@minbuza.nl).

You can also follow us on [Twitter](#) and [LinkedIn](#) to stay up to date on the latest information, interviews, and blogs.



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