

Introduce the GAAP in the German Market

The local characteristics of the market support the introduction of the product

Germany is an accessible market

The customer segment is appropriate for this project

Germany is an optimal starting point to penetrate the European market

Local competition is not very strong yet

There're subsidy programs to invest European Union's agriculture development and EU countries have relatively low duties for imported products.

The climate in Germany is appropriate for drone-based agricultural sensing

The country's infrastructure is capable of supporting the product

Local drone regulations and laws do not discourage the introduction of the product

Comparatively strict limitations for US-base firm to enter German market can be overcome by high quality, technical progress and diverse region strategy.

Fast and cost-effective transportation between Washington, DC and Germany is available

The language barrier is not a large issue

The size of the market segment and wealth justifies the introduction of the product in Germany

The target population is educated and capable of utilizing the product

Agriculture is an important resource in Germany

Once a firm enters the European Union market, it's relatively easy to expand to other countries

Germany is seen as one of Europe's most influential and powerful countries

The competitors are engaged in the market but we should have the overall advantages. The products have potentially succeeded in the intended market but there may still be a gap in the market to fill

The German government provides each farm an average of 34,000 euros per year.

The CAP (Common Agricultural Policy) in the EU for the period 2014 to 2020 supports the modernization of about 23 000 operations in agricultural holdings, generating a total investment (public and private) of more than EUR 7.8 billion.

The average yearly precipitation of Germany is 700 (mm per year), similar to that of United States (715). In addition, in most of Germany, the climate is moderately continental, characterized by cold winters, with average daily temperatures around 0°C (32°F) or slightly above, and warm summers, with maximum temperatures around 22/24 °C (72/75 °F) in July and August. Most drones are designed to fly in temperature that range roughly from 32°F – 104°F (0°C – 40°C). Therefore, the weather is appropriate for a drone to be regularly used.

In most regions, weather conditions are favourable despite regional and seasonal dry periods. However, in some central eastern and southwestern regions or regions that are less suitable for agriculture use, decreasing summer precipitation will lead to yield losses caused by climate variability. Such regions are primarily in the federal state Brandenburg, parts of Saxony, as well as parts of Southwestern Germany. On the other hand, climate change is only a small driver that shapes agriculture. An increase in crop productivity has been estimated between 25% and 163%, of which between 20% and 143% is due to technological development and 5-20% is due to climate change. (Only 1% is contributed by climate change.)

The accessibility of electricity of rural area in Germany is 100 percent

Secure internet servers (per 1 million people) in Germany was 56613.38 for year of 2018 (vs. US = 65576.03)

German Federal Aviation Office (FAO) has rules in drone weight, flying area, flying time and insurance but it's not difficult to satisfy and FAO doesn't have any additional limitation on agricultural used drones.

German Federal Aviation Office (FAO) regulates that drones weighing up to 5 kilograms (11 pounds) can be flown without permission while a license is required for drones weighing more than 2 kilograms (4.4 pounds).

Germany ranks relatively well (#24) in Ease of Doing Business according to the World Bank

Regulations and bureaucratic procedures like safety environmental standards, EU's Common Agricultural Policy and timely testing and certification. But technical progress and optimum use in agricultural production is highly promoted by rules.

There are convenient and cheap way to ship the product between the US and German with shipping services, such as DHL, DPD, FedEx, USPS

A flight from DC, to Germany, depending on the season, ticket prices typically range from \$1,000 to more than \$2,000 (round-trip)

Washington Dulles International Airport (IAD) has three daily non flights to Frankfurt (FRA), and two daily non-stop flights to Munich (MUC)

The population has an understanding of English

The official language of Germany is Standard German, with over 95 percent of the country speaking Standard German or German dialects as their first language.

There are approximately 940,000 farmers in Germany, representing approximately 2% of total employment. Approximately half are family members.

Despite a reduction in the number of farms, each farm has increased in size by a factor of four since 1977

99% of the German population is literate

A total of 32,900 young people are currently training for jobs in the so-called "green sector"

The percentage of agriculture land in Germany is 47.68% (2016) almost half of the area of Germany. And the value added of the agriculture sector (including forestry, hunting, and fishing, as well as the cultivation of crops and livestock production) was 23.33 billion US dollars (2017) and as percent of GDP is 0.6343. (2017) .

The country is capable of growing a variety of crops

German is also one of the most important agriculture producers in European region with exports by trading with EU partners rose up to EUR 49.2 billion. The most important EU buy countries of German agricultural exports are Netherlands, France, and Italy.

Germany has the highest GDP in Europe

Germany's government is extremely stable

What products are they currently selling?

Mavrx: Their products include Engagement report, Crop Performance Benchmarking, and Management Zone Creation.

aWhere: Their products include Ag-weather, Agronomics, and Ag-insight. The company may focus on forecasting agriculture by dealing with weather data worldwide. They also sell their data with price level from \$50 to \$750 for monthly API subscription

The Climate Corporation: Their product is their platform. (our competitor or partner?) The price is \$1/acre per solution or regularly for \$999

Slantrange (the partner of The Climate Corporation): Main product is sensor, also provide analytics. Their 3PX Sensor System costs \$5,250 and their 3p Sensor System costs \$4,450.

Granular: Insights, Agronomy, and Business. To help make strategies and make decisions. Price is \$0.99/acre per year (minimum of 500 acres)

John Deere: Main business is selling their equipment

How have they performed thus far?

Several companies had already engaged in the market. With unofficial data, Mavrx's annual revenue is about \$1M, aWhere's annual revenue is about <1M, The Climate Corporation's annual revenue could reach 92M.

The Climate Corporation seems like our main competitor but could also be our main partner. Now the climate corporation has one supplier of sensor, which is the Slantrange. The Slantrange has annual revenue about <1M.

Most Germans learn English as their first foreign language at school. 56% of Germany speaks English. Germans seem to mean "working knowledge" with the phrase "a little bit of English".

Germany has an English Proficiency Index of 63.74 (#10 in the world)

German farmers have the financial means to acquire the product

According to the OECD, 86% of the population has completed high school, one of the highest rates within OECD countries

The share of agricultural land that is arable is 166,570 (ranked #52 out of 200 countries in the world). 7.5 percent of all arable land are now cultivated ecologically. In 2016, 27,132 farms (9.9 percent of all German farms) are organic farms. The government is aiming to increase organic farming by the target of 20 percent. Germany is now the largest market for organic food in Europe.

The vast majority of agricultural areas in Germany are used for planting grain - mainly wheat and rye - followed by fodder crops and trade crops such as flax, hops and tobacco.

Their top selling products are vegetables, including potatoes (EUR 561.7 million, 8.2 % of the total market); bread and bakery products (EUR 459.3 million, 5.9 % of the total market); and fruit (EUR 389.2, 6.5 % of the total market).

German farmers are paid an average of 10 euros / hour, almost double the average for EU countries

The GDP per capita in Germany was \$46747.19 in 2017

Full-time farms generated an annual profit of approximately \$3,500 Euros in 2017, one of the highest profits in Europe

According to WTO, the duties for exporting the product to EU countries is about 2.7%, where Australia is about 0.8%, China is about 5.9%, Brazil is about 16.2%, Kazakhstan is about 1.2%, and New Zealand is about 4.4%. Therefore, Germany has a relatively low duties on our product.

The government offers a degree of protection to local firms. But Gyrfalco can overcome it by offering high-quality drones at competitive price, and locally based after-sales support.

Decentralized German market is diverse by region. Gyrfalco can focus market on northern and eastern Germany as main land for cereals and sugar beets as well as fruit farm around big cities.