

Germany Investment Opportunity

Europe-based factory development report

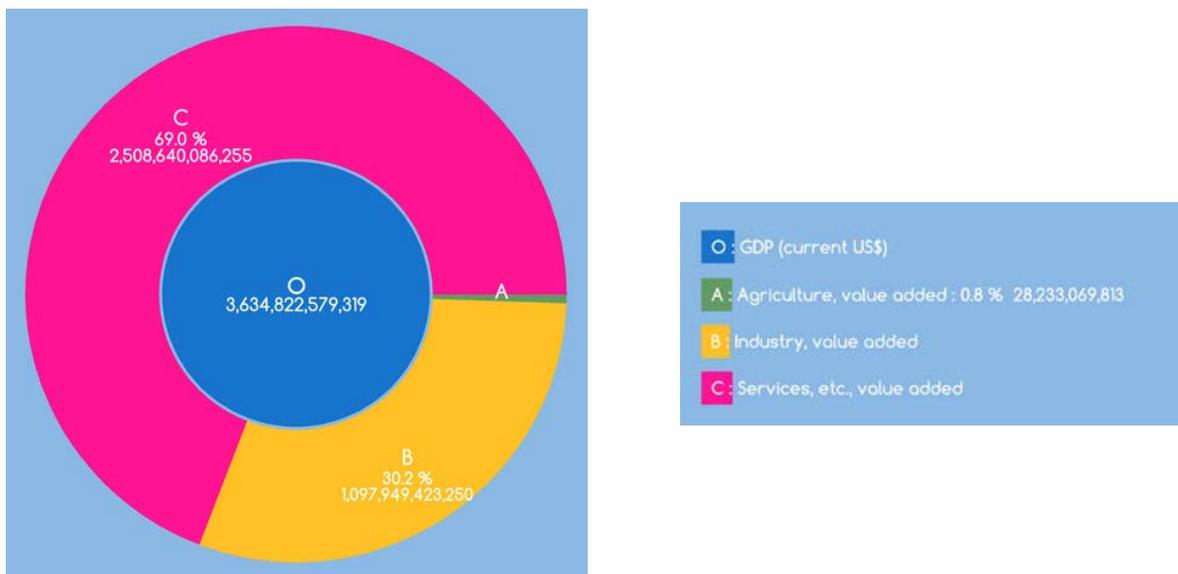


Germany Overview

Population	82,175,700 (31 December 2015)
Currency	Euro (EUR) = €1 = 1.19 USD
Public debt	68.2% of GDP (2016)
GDP	\$3.635 trillion (nominal; 2017)
GDP rank	4th (nominal) / 5th (PPP)
GDP growth	3% (2017)
GDP per capita	\$44,184 (nominal; 2017)
GDP per capita rank	17th (nominal) / 18th (PPP)
GDP by sector	agriculture: 0.7%, industry: 30.2%, services: 69,1% (2015 est.)
Inflation (CPI)	1.7% (2017)

Main data Source: [CIA World Fact Book](#)

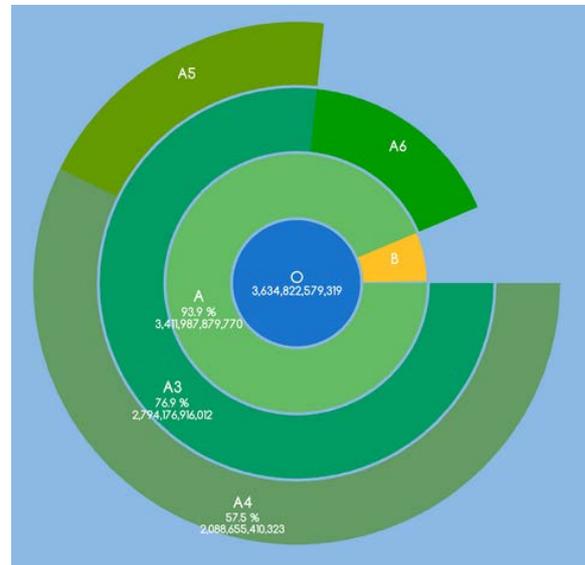
Germany : GDP Composition Breakdown



Source: [Mecometer.com](#)



Source: Mecometer.com



Source: International Property Rights Index 2017

Germany is a federal parliamentary representative democratic republic; it is a member of NATO, the OECD, the G8, the G20, the World Bank and the IMF.

Germany has a social market economy with a highly skilled labor force and a large capital stock, characterized by a low level of corruption and a high level of innovation. It has the largest national economy in Europe, the fourth largest by nominal GDP in the world.

The service sector contributes to approximately 69% of the total GDP (including information technology), industry 30%, and agriculture 1%.

The unemployment rate published by Eurostat amounts to 4.7% in January 2015, which is the lowest rate in all 28 EU member states. Moreover, Germany has the lowest youth unemployment rate (7.1%) of all EU member states. According to the OECD, Germany has one of the highest labor productivity levels in the world.

Germany's debt-to-GDP ratio had its peak in 2010 when it stood at 80.3% and has decreased ever since. According to Eurostat, the German government's gross debt amounted to €2,152.0 billion or 71.9% of its GDP in 2015. Germany's credit rating by credit rating agencies Standard

& Poor's, Moody's and Fitch Ratings stood at the highest possible rating AAA with a stable outlook in 2016.

Germany is the world's fifth largest consumer of energy. Government policies promote energy conservation and the development of renewable energy sources, such as solar, wind, biomass, hydroelectric, and geothermal energy. The government has set the goal of meeting half of the country's energy demands by exploiting renewables by 2050.

Furthermore, Germany is one of the leading countries in developing and employing green technologies: environmental protection is regarded as a value for the company and as a marketing strategy. Germany earned pole position when it comes to eco-sustainable technologies. 65% of German companies attach great importance to environmental issues, more than in any other European country.

Germany shares borders with every major economy in central Europe, providing access to both Eastern and Western European markets with over 454 million customers.

Germany has highly sophisticated infrastructures: motorways, railways, and a state-of-the-art telecommunications network ensure that goods and information technology services are delivered quickly and reliably.

In addition, Germany is the most innovative nation in Europe: more than 20 percent of European patents (and the majority of biotech patents) are held by Germans; internationally recognized high-tech clusters are located throughout the country. Germany leads the world trade in research-intensive goods, along with the United States. It is the world's second-largest hub for research investments by multinational enterprises, with annual investments amounting to 12.1 billion euros.

Germany's professional training, universities, and research and development activities rank highly on an international level, and the country hosts more universities than any other country in Europe. The educational system promotes

cultural diversity and international student exchange programs. The country boasts one of the highest Internet access rates in the European Union.

The construction industry is the largest sector of the German economy, employing 2.3 million people in 70,000 companies, according to the German Construction Industry Federation (HDB). Other important segments of the German economy include laser systems (one-quarter of the world's laser systems are built in Germany), nanotechnology (one-half of European nanotechnology firms are based in Germany), and chemicals (Germany is Europe's largest chemical-producing country, accounting for one-quarter of the continent's market, and ranking third-largest worldwide, according to the German Chemical Industry Association).

However, German government regulation is complex and protective of established local suppliers, especially with respect to safety or environmental standards. Also, for investors, Germany's relatively high marginal tax rates and complicated tax laws may constitute an obstacle, although deductions, allowances and write-offs contribute to making actual tax rates competitive on an international level.

In summary, Germany has great potential for foreign entrepreneurs and investors, and stands out for its human capital and corporate R&D.

In 2016, Germany had 623 companies active in the biotechnology sector. The total turnover of this segment reached € 3.6 billion in 2016 (+ 7% compared to 2015).

German biotechnology industry employs a total of 24,770 individuals (+ 14%).

In 2016, firms operating in the biotechnology sector invested € 1.1 billion in research and development.

In the two-year period 2015/2016, 22 new businesses in the biotechnology sector were registered in Germany.

Today the European bioeconomy is worth 2.2 trillion euros in annual turnover, and represents about 20 million jobs, which account for 9% of the workforce in the whole European Union.

Why invest in Germany

Without adequate countermeasures by 2050 the planet will have to deal with 33 billion tons of plastic (Chelsea Rochman & Mark Anthony).

To date, the most common non-biodegradable plastic substances derive from petroleum or from synthetic processes. In most cases, they are formed by carbon atoms and this is the

reason why they are also known as organic polymers. Over the last century, synthetic polymers have been the protagonists of a real revolution in the economic-productive and social system. The introduction of these materials has given rise to a market of "disposable" products, which have contributed enormously to the consolidation of a consumerist lifestyle, with obvious repercussions on the environment.

In recent years, scientific and industrial research has sought alternatives to "classical" polymers, through the study and creation of the so-called bioplastics or biopolymers. They are matrices derived mainly from sugars and their polymers. Thanks to this fact (they are indeed made of the same compounds as a plant or a living being in general), they can be easily and quickly degraded.

Bioplastics can be produced from organic waste and this aspect not only allows to reduce production costs but above all it also allows to monetize the waste disposal that would otherwise represent a cost in both economic and environmental terms. Furthermore, there would be no competition with raw materials used as a source of food (corn and other crops). These biopolymers are special because they are 100% biodegradable.

The most common diapers are "disposable" and they are made of cellulose and synthetic fibers: therefore they are not biodegradable. A typical disposable diaper takes hundreds of years to fully decompose. The average baby goes through nearly 7,000 diapers before potty training, making disposable diapers the 3rd-largest source of household waste in the U.S. Moreover, the production of adult diapers and

incontinence products for the elderly continues to increase these days alongside the increase in the elderly population. The amount of disposable diapers thrown away as waste and the amount of carbon dioxide emitted from their disposal by burning them continue to grow in proportion.

Special biopolymers enable the creation of biodegradable diapers.

Bioplastics are making the difference in driving innovations forward for more sustainability, resource efficiency, and functionality: they have been recognized as a lead market by the European Commission and they are expected to grow by 17.5% or even more throughout the period 2016-2020. The PolyBioSkin consortium combines the expertise of twelve partners from seven European countries, including academic partners and institutes of technology as well as the European Bioplastics Association, founded in Germany in 1993 as IBAW. Today European Bioplastics represents the interests of over 70 member companies throughout the European Union. By involving all the participants to the product lifecycle, from agricultural feedstocks, to chemical and plastic industries, to industrial users and recycling companies, European Bioplastics serves as both a contact platform and a catalyst for advancing the aims of the growing bioplastic industry.

These assets make Germany a good candidate for investing in Europe. Unicharm can strengthen its competitive advantage and further expand its market share by producing biodegradable diapers: in order to achieve this, it could take advantage of the European Bioplastics Association's expertise in biopolymers.

Sources:

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