Germany

Germany is a manufacturing powerhouse when it comes to automobile electronics, industrial electronics, and medical electronics -- all important end markets for semiconductors. The U.S. is the top source of semiconductor manufacturing equipment (SME) imports into Germany. As a member of the European Union (EU), Germany is a participant in the WTO Information Technology Agreement, so most types of semiconductors and SME enter the country duty-free. There are also no significant non-tariff barriers in Germany for semiconductors or semiconductor manufacturing equipment.

Germany is the fourth largest manufacturer of electronics products in the world. German industrial electronics production accounts for 50 percent[35] of total European output. Together with its high production volume, Germany's open trade regime, lack of non-tariff barriers, and straightforward business culture make it a priority market for U.S. semiconductor companies.

Germany is the sixth largest export market for U.S. semiconductor manufacturing equipment (SME). While Germany is the leading European market for SME, the European semiconductor industry overall has declined in importance in comparison to Asian economies such as Taiwan, Korea, and Japan, and therefore the market for the equipment for manufacturing semiconductors has also declined.

Semiconductors

Germany imported $18.1 billion of semiconductors in 2013[36], with imports from the United States reaching $2.3 billion.[37] This figure is deceiving, however, since many U.S. companies design and manufacture their semiconductors in the U.S., but export them to third countries for final assembly/packaging[38] and testing, and then ship to Germany from these third countries. Total sales of U.S. semiconductors in Germany are therefore larger than U.S. exports alone.

As Europe's largest electronics producing nation, Germany is a significant but mature market for U.S. semiconductors. Automotive electronics production (valued at $19.5 billion in 2013)[39] is the largest sector of the German electronics industry with a 39.6 percent share; industrial electronics is the second largest sector with 25.1 percent share of German production and also representing 50 percent of Europe's total industrial electronics market.[40] Germany's electronics production is expected to grow from $34.9 billion in 2014 to $36.9 billion in 2016,[41] an annual average growth rate of 3 percent.

Semiconductor Manufacturing Equipment

Germany is the largest European market for semiconductor manufacturing equipment (SME). Average annual U.S. exports (from 2009-2013) were $587 million, and the United States is the top supplier of SME into Germany with over 30 percent market share. Ireland surpassed Germany as a U.S. SME export market in 2014, but this was due to Intel's upgrade of its semiconductor fabs (semiconductor fabrication/manufacturing facilities) in that country, rather than long term growth.[42] Depending on the year, the Netherlands sometimes surpasses Germany as a U.S. export market, however on the average, Germany is a larger market than the Netherlands.[43] In addition, demand in the Netherlands is primarily for parts and auxiliary accessories.

Challenges and Barriers to U.S. Semiconductor and Semiconductor Manufacturing Equipment Exports

Overall, there are no barriers to accessing the semiconductor and semiconductor manufacturing equipment markets in Germany. Most U.S. exports of semiconductors and semiconductor manufacturing equipment enter the country duty-free because Germany, as an EU member state, participates in the WTO Information Technology Agreement.

Semiconductors

The European semiconductor industry is greatly diminished (currently Europe's share of the global semiconductor market is less than 10 percent), as quite a bit of production has moved to Asia, but the European Commission has taken action to counter this trend with the 2013 launch of its "10/100/20" strategy to increase Europe's share of the global semiconductor market to 20 percent by 2020.[44]

Former EU Commission Vice-President Neelie Kroes, charged with enhancing the bloc's competitiveness in IT and telecommunications, outlined a plan to use EUR 10 billion in public and private funding to kick-start investment of EUR 100 billion by industry. The plan will use a multi-pronged approach: boosting cross-border cooperation; allowing easier access to capital financing through loans; simplifying European state-aid rules; aligning EU, national, and financial resources to enable larger-scale projects; and creating and maintaining a highly skilled workforce.[45]

Foreign companies are not excluded from the 10/100/20 program, which is aimed at all companies interested in investing in manufacturing in Europe. According to market research firm IC Insights, 71 percent of all new integrated circuit capacity needs between 2014 and 2020 would have to be located in Europe in order to meet the 20 percent goal. If this program is successful, a revived EU semiconductor industry could pose a greater competitive challenge to U.S. companies than it does at present.

Semiconductor Manufacturing Equipment

Although some German companies produce SME, German production represents less than 5 percent share of worldwide integrated circuit manufacturing equipment sales.[46] U.S. companies, the global leaders in SME, face competition in Germany from Dutch and Japanese firms, which also have good sales networks in Germany. U.S. suppliers face no significant trade barriers to entering the German SME market.[47]

Opportunities for U.S. Companies

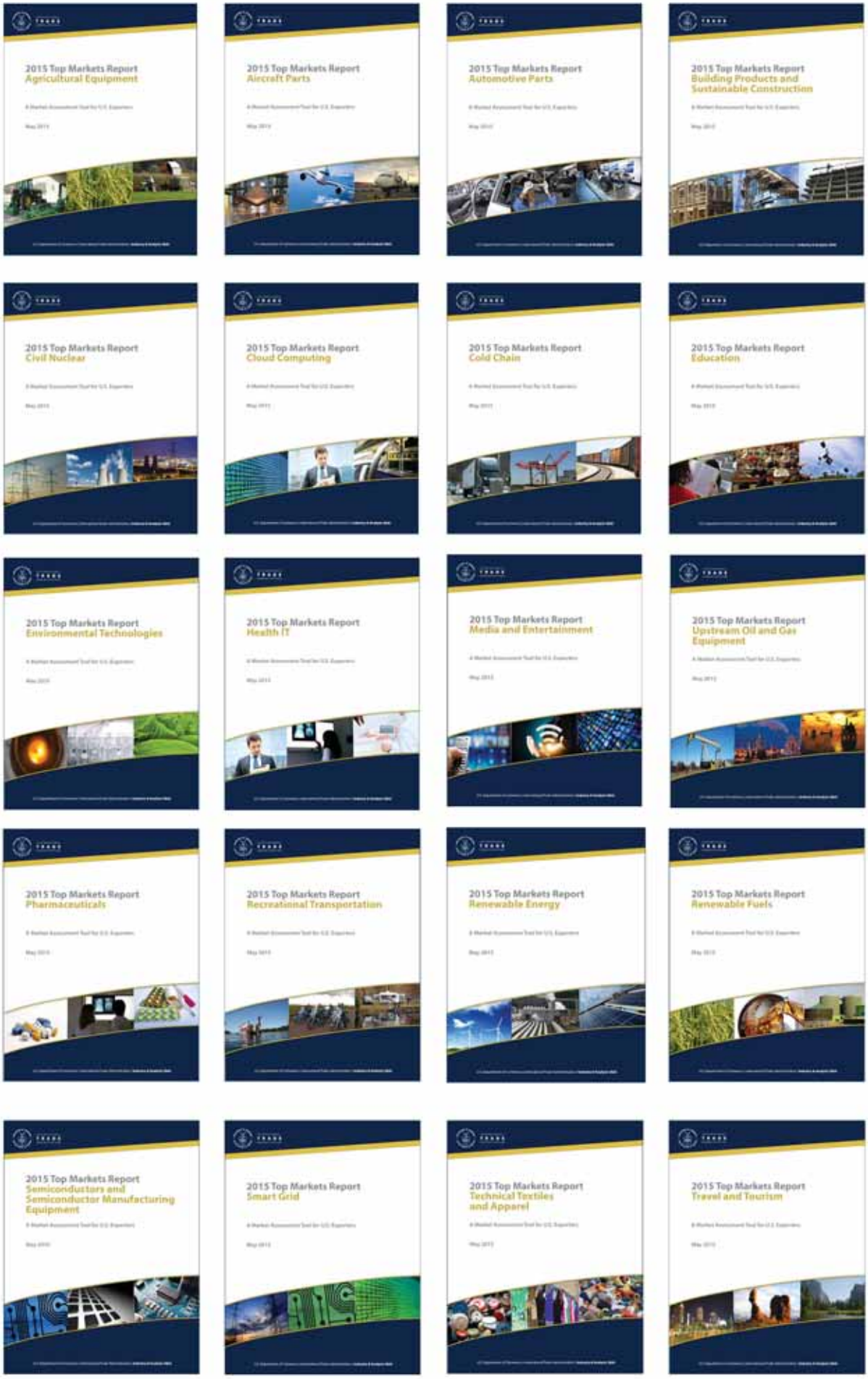
German manufacturers of automotive and industrial electronic products are large buyers of semiconductors that offer growth potential for U.S. companies. Germany is the top European market for semiconductor manufacturing equipment and U.S. suppliers are strong competitors there.

Semiconductors

With electronics and infotainment becoming more prevalent in automobiles, Germany's vast and innovative automobile manufacturing industry presents attractive export opportunities for U.S. semiconductor companies. German prowess in industrial automation, robotics, and electronic process controls for every type of manufacturing and processing industry represents good opportunities for U.S. semiconductor companies selling into the industrial market. Germany's thriving and technically advanced electro-medical manufacturing industry also provides export opportunities for U.S. semiconductor companies selling into this end market.

Semiconductor Manufacturing Equipment

The European and Middle East market for SME, which includes Germany, is expected to grow from $2.4 to $4.3 billion, an average annual growth rate of 36 percent, from 2014 to 2016. However, some of this upsurge is due to Intel's fab upgrades in Ireland and Israel[48], and the growth rate for Germany will probably be closer to that of the world average annual growth rate of 8 percent.[49,50] Germany and other European countries will continue to be good markets for SME for the foreseeable future.



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