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# MUSHROOMS IN GERMANY

**MARKET RESEARCH**



**GATEWAY  
& PARTNERS**

EXPORT DEVELOPMENT ASSOCIATION

Shrosha str. 8/10 | Tbilisi, 0179, Georgia

Team@eda.org.ge

www.eda.org.ge

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## 1. Overview of the market

### 1.1. Economy

With a growing population of 82.7 million consumers and an economy measured at €3 263 billion at current prices in 2017, Germany is by far the largest and wealthiest of the European Union's 28-member states (EU28).<sup>1 2</sup> Germany's population constitutes 16% of the total EU28 population and its economy amounts to 21% of that of the EU28. Moreover, Germany's economy has seen stable recovery for the past years and in 2017, the economy expanded by 2.2%, which marks the largest annual growth since 2011 (Table 1). Current growth of Germany's economy is boosted by rising exports, record high employment rates and real wage increments, strong domestic consumption, increasing investments, as well as booming construction sector.

**Table 1. Key economic development indicators<sup>3</sup>**

	2015	2016	2017
<i>GDP at current prices, € bln</i>	3 044	3 144	3 263
<i>GDP per capita at current prices, €</i>	37 260	39 745	38 183
<i>GDP growth rate, %</i>	1.7%	1.9%	2.2%
<i>Inflation rate, %</i>	0.3%	0.5%	1.8%
<i>Unemployment rate, %</i>	4.3%	3.9%	3.7%

One of the main Germany's strengths lies in its production capabilities, quality standards and international competitiveness, with German manufacturers creating 28% of the total EU28 manufacturing turnover. Also, thanks to its geographical location and world-class transport infrastructure, Germany has easy access for trade in the whole EU28 region. All of these factors are translating to major export volumes and positive foreign trade balance. In 2017, Germany exported goods in value of €1 279 billion, of which food and feed category totalled to 4% of all exports. At the same time, Germany imported goods in value of €1 035 billion, of which food and feed category accounted for 5% of all imports.<sup>4</sup>

**Table 2. Key foreign trade indicators<sup>5</sup>**

	2015	2016	2017
<i>Exports, € bln</i>	1 194	1 204	1 279
<i>Imports, € bln</i>	949	955	1 035

1 Eurostat (2017), Population on 1 January by age and sex. Available at:

[http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo\\_pjan&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en)

2 Eurostat (2017), GDP and main components (output, expenditure and income). Available at:

[http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama\\_10\\_gdp&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_10_gdp&lang=en)

3 Germany Trade & Invest (2018). Economic Overview Germany. Available at:

[https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9)

4 Germany Trade & Invest (2018). Economic Overview Germany. Available at:

[https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9)

5 Germany Trade & Invest (2018). Economic Overview Germany. Available at:

[https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9)

<i>Net trade balance, € bln</i>	+245	+249	+244
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Germany's food and beverage industry is one of the backbones of country's economy and is the 3<sup>rd</sup> largest industry in the country. Germany is also the largest food and beverage producer in the EU28 in terms of turnover. In 2016, the industry accounted for a turnover of €171.3 billion, of which 32.9% of all production was exported in 2016, leaving the rest two thirds for domestic market. In 2016, Germany's food and beverage industry recorded a growth of 1.6% due to expanding exports, altering the retraction trend of previous years (Table 3). Growth trend is also reflected in an increasing number of companies and employees working in the industry.

The largest industry branches are the meat and meat processing industry, making up 24% of the total turnover, the confectionary and bakery industry – 18%, the milk industry – 13%, the production of alcoholic beverages – 8%, as well as the processed and canned fruit and vegetables industry – 6%.<sup>6</sup> Leading domestic companies include such names as Dr. Oetker, Tchibo, DMK Deutsches Milchkontor, Sudzucker, Muller Group, while among the strongest international companies are Coca-Cola, Nestle, Vion Food Group and Mondelez International.

**Table 3. Key food and beverage industry indicators<sup>7 8</sup>**

	2014	2015	2016
<i>Total turnover, € bln</i>	172.2	168.6	171.3
<i>Annual turnover growth, %</i>	-1.7%	-2.1%	+1.6%
<i>Number of companies</i>	5 828	5 812	5 940
<i>Number of employees</i>	559 776	569 162	580 030
<i>Change in prices of food and drinks, %</i>	+0.9%	+0.3%	+0.5%

## 1.2. Private spending

Another key factor supporting the Germany economy, is the high level of domestic spending. German households are not only among the wealthiest in the EU28 region, but also have the largest spending, with the total private consumption expenditure summing up to €1 578 billion in 2016 (Table 4). Of that, €156 billion are spent on food and non-alcoholic beverages, which is also the largest expenditure on this category in the region. However, because in Germany the prices for products in this category are relatively low to the general income level, this equals only to 10.6% of the total household expenditure, which is one of the lowest shares among EU28 states. This is also largely due to increasing trend to eat out-of-home. A single-person household in Germany spends on average €159 per month on food and beverage purchases, while a 4-person household – on average €500 per month.<sup>9</sup> Nevertheless, prices of consumer goods and services have been increasingly growing in Germany, and especially in 2017, when inflation rose up to 1.8% (Table 4).

<sup>6</sup> BVE (2017). The German food and drink industries. Available at: <https://www.bve-online.de/download/facts-figures-2017>

<sup>7</sup> BVE (2017). The German food and drink industries. Available at: <https://www.bve-online.de/download/facts-figures-2017>

<sup>8</sup> BVE (2016). The German food and drink industries. Available at: <https://www.bve-online.de/download/facts-figures-2016>

<sup>9</sup> BVE (2017). The German food and drink industries. Available at: <https://www.bve-online.de/download/facts-figures-2017>

**Table 4. Key household expenditure indicators<sup>10</sup>**

	2014	2015	2016
<i>Total expenditure at current prices, € bln</i>	1 503	1 539	1 578
<i>Expenditure on food and non-alcoholic beverages, € bln</i>	156	163	167
<i>Expenditure on food and non-alcoholic beverages, % of total</i>	10.4%	10.6%	10.6%

75% percent of Germans live in a single or two-person household, totalling around 30 million households. One of the particularly attractive consumer groups in Germany are consumers aged 50+, as they are the largest group holding more than 50% of per capita purchasing power. This consumer group in general is healthier, more active, more demanding and quality conscious than previous generations at the same age.<sup>11</sup> Also, this consumer group is the fastest growing due to population ageing trend.

Although affluent, German consumers are increasingly attentive to the concept of value-for money, with the typical consumer having an equally open attitude to discount retailers as to established brand names across different product categories. Low brand loyalty levels are also a result of high demands. Due to the strong e-commerce industry, especially popular among Millennials and Gen Z-ers, individuals tend to browse around online before making a purchase offline and switch both brands and retailers easily when not satisfied.<sup>12</sup> This has resulted in an extremely fierce competition among food and beverage brands, as German consumers have an access to more than 170 000 products in the market.<sup>13</sup>

Overall, German customers have become savvier than ever before, are buying less and rather rarely, but hold high demands for quality and exude a strong preference for health and wellness, as well as organic and fair trade products.

## 2. Sales channels

Only few German retailers import products directly from other countries, therefore finding a wide range of suitable distribution partners is the basic foundation of success. Most German food retailers prefer to buy from central buyers and wholesalers which specialize in the import of food and beverages, as they have in-depth knowledge of all importing requirements and also take care of the shipping, customs clearance, warehousing and distribution of the products within the country.<sup>14</sup>

However, the largest supermarket chains will sometimes contract foreign supplier directly and appoint an importing company of their choice to bring the products into Germany. It has to be acknowledged that the line between retail and wholesale trade nowadays is not as clear as it used to be. The major market players such as Edeka Group, Rewe Group and METRO unite both retail and wholesale operations under

<sup>10</sup> Germany Trade & Invest (2018). Economic Overview Germany. Available at: [https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation-en.pdf?v=9)

<sup>11</sup> Germany Trade & Invest. Available at: <http://www.gtai.de/GTAI/Navigation/EN/Invest/Industries/Consumer-industries/consumer-markets-retail.html>

<sup>12</sup> Germany Trade & Invest. Available at: <http://www.gtai.de/GTAI/Navigation/EN/Invest/Industries/Consumer-industries/consumer-markets-retail.html>

<sup>13</sup> BVE. Verbraucher. Available at: <https://www.bve-online.de/themen/verbraucher>

<sup>14</sup> IXPOS. Food and Beverage. Distribution channels. Available at: <https://www.ixpos.de/IXPOS/Navigation/EN/Your-business-in-germany/Business-sectors/Consumer-goods/food-and-beverage,t=distribution-channels-,did=263472.html>

their roof, and manage their own logistics as well. And some major retailers, such as Lidl and Aldi, even somewhat have eradicated the need for traditional wholesale operations. Thus, both retail and wholesale channels should be utilized.

Another option is to move goods through wholesale market centres which are located throughout Germany, however, their specialty is sale of fresh products for smaller retailers, street market vendors and food service operators.

To successfully move the product through either of these channels in the German market, it is not only the quality and the price that matters, but brand recognition as well. Thus it is advisable for importers to find a local partner or establish a representative branch in order to place and promote their products. To build recognition, online presence is a key factor well. Additionally, it is highly recommended for importers to visit or participate various food trade shows, as it allows for direct contact with food retailers, importers and wholesalers. The most popular trade shows in Germany are ANUGA for all foods and beverages, BioFach for organic food, and INTERNORGA for the food service sector.

## 2.1. Retail trade

The German food retail sector is very competitive and highly concentrated, as it is dominated by just a few large retailers, mostly of local origin. The most common type of food retailers in Germany are modern grocery retailers, which account for most of food sales volume and are growing in sales value, while sales among traditional grocery retailers are declining.<sup>15</sup> In 2016, supermarkets were the best performing sales channel in Germany due to being the quickest to adapt to shifting eating habits. Discounters also continued to grow, but suffered from ongoing wars within the category (Lidl vs. Aldi). Hypermarkets, in contrast, stagnated, as this channel has not been able to rapidly follow the changing consumer demands.<sup>16</sup>

In 2017, the Top 30 largest grocery retailers in Germany with a combined market share of 90% achieved total gross sales of €247 billion. Moreover, half of the market share was claimed by the Top 3 leading grocery retailers, namely, Edeka, Schwarz Group and Rewe Group, which hold around 48.8% of the market (Table 5).

**Table 5. Top 10 grocery retailers by gross sales in 2017<sup>17</sup>**

	Sales, € mln	Sales growth, %	Market share, %
1. Edeka Group	55 896	+4.1%	20.3%
2. Schwarz Group	39 827	+4.4%	14.5%
3. Rewe Group	38 512	+7.6%	14.0%
4. Aldi	30 453	+7.6%	11.1%
5. Metro	13 142	-	4.8%

15 Euromonitor (2017), Grocery Retail in Germany. Available at: <http://www.euromonitor.com/grocery-retailers-in-germany/report>

16 Food Export Association (2017). Germany Country Profile. Available at: <https://www.foodexport.org/get-started/country-market-profiles/europe/germany-country-profile>








17 Lebensmittel Zeitung. Top 30 Lebensmittelhandel Deutschland 2018. Available at: <http://www.lebensmittelzeitung.net/handel/Ranking-Top-30-Lebensmittelhandel-Deutschland-2018-134606>

6. Amazon	12 229	+17.6%	4.4%
7. Lekkerland	9 304	+2.0%	3.4%
8. DM	7 857	+4.8%	2.9%
9. Rossmann	6 400	+4.6%	2.3%
10. Globus	5 116	+1.7%	1.9%

**Edeka Group**<sup>18</sup> is Germany's leading group of grocery retailers with an annual turnover of €55.9 billion in 2017 and an estimated market share of 20.3%. The Group consists of several cooperatives of independent supermarkets with a total of 13 646 stores operating under the umbrella brand Edeka. Edeka Group's retail operations can be broadly divided into 3 store format categories:


- Full-range and convenience stores;
- Branded and regional discounter stores;
- Other store formats.

**Table 6. Edeka Group's store formats and key indicators in 2017**<sup>19</sup>

	Sales, € mln	Share of sales, %	Number of stores
<i>Full-range and convenience stores</i>	38 282	68.5%	6 596
     	<ul style="list-style-type: none"> <li>• EDEKA (<a href="http://www.edeka.de">www.edeka.de</a>) has several store sub-formats. EDEKA Center is a hypermarket format with an extensive range of groceries, specialised departments and non-food articles. Sales area usually is at least 2 500 m<sup>2</sup> up to 5 000 m<sup>2</sup>. EDEKA Neukauf is a privately or centrally managed store format with a sales area of between 800m<sup>2</sup> and 2000m<sup>2</sup>. EDEKA Aktiv Markt is mostly a privately run supermarket format, usually located in outlying neighbourhoods and villages. This store format typically has a sales area of between 400 and 800 m<sup>2</sup>.</li> <li>• Nah &amp; Gut is a compact store format, mostly found in smaller municipalities. Sales area of this store format is up to 400m<sup>2</sup>.</li> <li>• Marktkauf (<a href="http://www.marktkauf.de">www.marktkauf.de</a>) is a modern regional store format offering a comprehensive range of groceries as well as a range of non-food articles.</li> <li>• SPAR Express (<a href="http://www.spar-express.de">www.spar-express.de</a>) is EDEKA's convenience store format for service stations, airports, railway stations and in high-traffic locations.</li> </ul>		
<i>Discounters</i>	15 850	28.3%	4 878
	<ul style="list-style-type: none"> <li>• Netto Marken-Discount (<a href="http://www.netto-online.de">www.netto-online.de</a>) is a modern branded discounter format with a select range of brands and private labels. Regional products and beverages are very common in these stores, as are products in reusable</li> </ul>		

<sup>18</sup> Edeka Group. Available at: [www.edeka-verbund.de](http://www.edeka-verbund.de)



<sup>19</sup> Lebensmittel Zeitung. Top 30 Lebensmittelhandel Deutschland 2018. Available at: <http://www.lebensmittelzeitung.net/handel/Ranking-Top-30-Lebensmittelhandel-Deutschland-2018-134606>

	containers.		
	<ul style="list-style-type: none"> <li>Independent regional discounters represent just a small fraction of EDEKA's retail operations, yet they are vital for covering the further parts of the country.</li> </ul>		
<i>Other store formats</i>	1 764	3.2%	2 172
	<ul style="list-style-type: none"> <li>C&amp;C Großmarkt (<a href="http://www.edeka-food-service.de">www.edeka-food-service.de</a>) is the most popular and widespread of EDEKA's B2B store formats, offering a wide range of food and non-food articles for retailers, HoReCa industry representatives and individual entrepreneurs.</li> </ul>		

**Schwarz Group**<sup>20</sup> is the second largest grocery retailer in Germany with an annual turnover of €39.8 billion in 2017 and an estimated market share of 14.5%. Privately-owned Schwarz Group has expanded across 27 countries with over 10 000 stores, but in Germany its count reaches 3 879 stores. Schwarz Group's retail operations are covered under 2 store brands:

- Discount supermarket chain Lidl;
- Hypermarket chain Kaufland.

**Table 7. Schwarz Group's store formats and key indicators in 2017**<sup>21</sup>

	Sales, € mln	Share of sales, %	Number of stores
<i>Discount supermarkets</i>	24 330	61.1%	3 219
	<ul style="list-style-type: none"> <li>Lidl (<a href="http://www.lidl.de">www.lidl.de</a>) stores are unconventional discounters, as they use design, assortment and merchandising to achieve the feel of modern supermarkets. Besides standard supermarket format, Lidl also has introduced a convenience store format known as Lidl Express. Lidl strategy is based mainly on selling own private-label brands and limiting the product range.</li> </ul>		
<i>Hypermarkets</i>	15 497	38.9%	660
	<ul style="list-style-type: none"> <li>Kaufland (<a href="http://www.kaufland.de">www.kaufland.de</a>) is positioned as a modern hypermarket chain with a lower price strategy, and yet an extensive product range of food and non-food goods in spacious stores. Kaufland prioritises fresh food assortment and own private-label brands.</li> </ul>		

**Rewe Group**<sup>22</sup> is the third largest grocery retailer in Germany with an annual turnover of €38.5 billion in 2017 and an estimated market share of 14.0%. Rewe Group is a cooperative that consists of a network of

20 Schwarz Gruppe. Available at: [www.schwarz-gruppe.net](http://www.schwarz-gruppe.net)

21 Lebensmittel Zeitung. Top 30 Lebensmittelhandel Deutschland 2018. Available at: <http://www.lebensmittelzeitung.net/handel/Ranking-Top-30-Lebensmittelhandel-Deutschland-2018-134606>

22 Rewe Group. Available at: [www.rewe-group.com](http://www.rewe-group.com)



independent retailers, similar to Edeka Group, but it also operates in other business segments, such as tourism. Group's retail operations spans 19 countries with nearly 15 000 food and non-food stores. Of those, 7 532 stores, including independent partner stores, are located in Germany. Rewe Group's retail operations can be distinguished in 3 broad store formats:

- Full-range and convenience stores;
- Discounter stores Penny;
- Other store formats.

**Table 8. Rewe Group's store formats and key indicators in 2017<sup>23</sup>**

	Sales, € mln	Share of sales, %	Number of stores
<i>Full-range and convenience stores</i>	27 630	71.7%	4 987
  	<ul style="list-style-type: none"> <li>• REWE (<a href="http://www.rewe.de">www.rewe.de</a>) stands for attractive supermarkets with a wide variety of high quality foods and an emphasis on fresh foods. Regular REWE stores have a sales area of 1 000 m<sup>2</sup> to 2 500 m<sup>2</sup>, the smaller REWE CITY stores – 300 m<sup>2</sup> to 1 000 m<sup>2</sup>, the larger REWE CENTER stores – 2 500 m<sup>2</sup> to 4 000 m<sup>2</sup>, and the REWE hypermarkets – up to 8 000 m<sup>2</sup>.</li> <li>• REWE To Go (<a href="http://www.togo.rewe.de">www.togo.rewe.de</a>) convenience store format offers a large variety of ready-to-eat fresh products, snacks and bakeries in compact stores with a sales area of 1 000 m<sup>2</sup> to 2 500 m<sup>2</sup>.</li> <li>• Nahkauf (<a href="http://www.nahkauf.de">www.nahkauf.de</a>) is the smaller grocery retail chain located in small towns and in the outskirts of cities, with stores run by independent retailers. This store format has a typical sales area of 300 m<sup>2</sup> to 1 300 m<sup>2</sup>.</li> </ul>		
<i>Discounter stores</i>	8 170	21.2%	2 160
	<ul style="list-style-type: none"> <li>• PENNY (<a href="http://www.penny.de">www.penny.de</a>) is a discounter store chain offering high-quality branded and own private-label products, as well as a wide range of fresh products. PENNY stores usually has a sales area of 500 m<sup>2</sup> to 800 m<sup>2</sup>.</li> </ul>		
<i>Other store formats</i>	2 712	7.4%	385
 	<ul style="list-style-type: none"> <li>• TEMMA (<a href="http://www.temma.de">www.temma.de</a>), an organic store chain with a range of both regional and international brands, ceased to operate in 2018, as sales performance of stores had not met the set expectations.</li> <li>• Toom Getränkemarkt (<a href="http://www.toom-getraenkemarkt.de">www.toom-getraenkemarkt.de</a>) is a beverage specialty store chain with a wide assortment of various types of beverages at a good value for money.</li> </ul>		

<sup>23</sup> Lebensmittel Zeitung. Top 30 Lebensmittelhandel Deutschland 2018. Available at: <http://www.lebensmittelzeitung.net/handel/Ranking-Top-30-Lebensmittelhandel-Deutschland-2018-134606>


## 2.2. Wholesale and food service trade

### 2.2.1. Wholesale trade

German food and beverages wholesale sector consists of many small and medium sized operators. There were 14.4 thousand food, beverages and tobacco wholesale operators with 257.7 thousand employees and a total turnover of €191.2 billion in 2015.<sup>24</sup> However, the sector is largely based on a few major central buyers and importers, as most food retailers try to centralize their purchasing activities. Clients also prefer the wider product range, lower price levels and in-depth knowledge on importing requirements that larger players can offer. This is also why many regional wholesalers in Germany have organized in groups, such as Intergast and Service Bund. Another advantage of the larger operators is that they organize in-house food shows 1-2 times a year where their suppliers can demonstrate their products to potential customers.

Cash & Carry is among the most important wholesale channels in Germany, besides food service trade operators, as they usually offer food delivery services as well. Cash & Carry wholesale is especially popular among independent retailers, and are also appreciated by price-conscious self-employed consumers as these outlets are able to offer good value for money. Cash & Carry wholesalers in Germany usually purchase either directly from processing companies, importers and, sometimes, from foreign exporters.

**Table 9. Top general food wholesalers and key indicators<sup>25 26 27</sup>**

	Sales, € mln	Employees	Category
<i>Metro</i>	4 715	15 000	Cash & Carry
	<ul style="list-style-type: none"> <li>METRO (<a href="http://www.metro.de">www.metro.de</a>) is one of the world's leading wholesale trade and food service chains, based in Germany. METRO operations spans 25 countries, managing 760 Cash &amp; Carry stores. METRO stores offer a broad range of assortment consisting of up to 20 000 food items and up to 30 000 non-food articles. In Germany, METRO also operates premium foods distributor RUNGIS Express, offers food service through METRO Delivery Service, and manages a hypermarket chain REAL.</li> </ul>		
<i>Lekkerland</i>	7 737	2 693	Convenience foods
	<ul style="list-style-type: none"> <li>Lekkerland (<a href="http://www.lekkerland.de">www.lekkerland.de</a>) is among the leading food and beverages wholesalers in Germany. The product range of Lekkerland includes mostly convenience foods, such as tobacco goods, drinks, confectionery, snacks, bistro goods and prepaid products. Lekkerland supplies around 90 000 filling-station shops, kiosks, tobacco goods stores, specialist drinks markets, food stores, bakeries, fast-food chains, canteens and other convenience stores</li> </ul>		

24 Federal Statistical Office of Germany – DESTATIS. Enterprises, persons employed, turnover and other business and economic figures in trade. Available at: <https://www-genesis.destatis.de>

25 Lebensmittel Zeitung. Top 30 Lebensmittelhandel Deutschland 2018. Available at: <http://www.lebensmittelzeitung.net/handel/Ranking-Top-30-Lebensmittelhandel-Deutschland-2018-134606>

26 Lekkerland. Lekkerland Deutschland GmbH & Co. KG. Available at: [http://www.lekkerland.com/le/en/company/countries/detail\\_page\\_2/detail\\_3142.html](http://www.lekkerland.com/le/en/company/countries/detail_page_2/detail_3142.html)

27 MWTRG GROUP. METRO Handelslexikon 2015/2016. Available at: [http://www.metro-handelslexikon.de/assets/download/METRO\\_Handelslexikon-2015-16.pdf](http://www.metro-handelslexikon.de/assets/download/METRO_Handelslexikon-2015-16.pdf)

	across 6 European countries.		
<i>Bartels-Langness</i>	2 778	15 000	Full-range
	<ul style="list-style-type: none"> <li>Bartels-Langness (<a href="http://www.bela.de">www.bela.de</a>) is a trade group with its core business being the wholesale of food and non-food products, with over 30 locations across Germany. In addition, the company also operates 85 department stores offering a wide range of fresh products and quality brands.</li> </ul>		
<i>Selgros</i>	1 710	14 000	Cash&Carry
	<ul style="list-style-type: none"> <li>Selgros (<a href="http://www.selgros.de">www.selgros.de</a>) is a major Cash&amp;Carry operator, owned by Transgourmet, a wholly owned subsidiary of Coop. Selgros offers around 50 000 food and non-food products in 41 locations in Germany with sales areas up to 11 000m<sup>2</sup>. The company also has operations in Poland, Russia and Romania in additional 46 locations.</li> </ul>		
<i>C&amp;C Großmarkt</i>	1 402	5 000	Cash&Carry
	<ul style="list-style-type: none"> <li>C&amp;C Großmarkt (<a href="http://www.edeka-food-service.de">www.edeka-food-service.de</a>) is part of the leading grocery retail chain, EDEKA Group. It is Group's B2B store format for retailers, HoReCa industry representatives and individual entrepreneurs, offering a wide range of 40 000 food and non-food articles across 116 locations in Germany. Bulk deliveries are ensured through regional and national delivery service EDEKA Food Service.</li> </ul>		

### 2.2.2. Food service wholesale trade

The German food service sector is large and highly fragmented. It had 183 thousand enterprises with 1.6 million employees and a total turnover of €55 billion in 2015. When taking into account the accommodation sector, the total turnover of both sectors increases up to €83.6 billion.<sup>28</sup> When divided by the type of food service operators, two broad markets can be distinguished - the commercial and institutional food service markets. The commercial food service market is constituted of hotels, restaurants, fast food and take-away outlets, bars and cafeterias, and the institutional food service market is comprised of hospitals, universities, nursing homes, and similar institutions.

Similarly to retailers, food service operators also prefer to centralize their purchasing activities and buy from central buyers or major importers, as larger wholesalers offer more advantages. Only few of the large food service operators import products directly from other countries, mostly the leading players, such as McDonalds, Burger King, LSG, Tank & Rast, Nordsee, Yum! Restaurants and others.c

<sup>28</sup> Federal Statistical Office of Germany – DESTATIS. Enterprises, persons employed, turnover and other business and economic figures in trade. Available at: <https://www-genesis.destatis.de>

**Table 10. Top food service wholesalers and key indicators<sup>29 30 31 32 33</sup>**

	Sales, € mln	Employees	Category
<i>Intergast</i>	2 700	-	Full-range
	<ul style="list-style-type: none"> <li>Intergast (<a href="http://www.intergast.de">www.intergast.de</a>) is food wholesale cooperation which consists of 39 independent food service wholesalers. Intergast has around 86 delivery points and 53 Cash &amp; Carry stores across country. The company serves around 40 000 customers, mostly large businesses from both commercial and institutional catering markets.</li> </ul>		
<i>Edeka Food Service</i>	1 402	5 000	Full-range
	<ul style="list-style-type: none"> <li>Edeka Food Service (<a href="http://www.edeka-food-service.de">www.edeka-food-service.de</a>) is the wholesale delivery business of the leading grocery retail chain in Germany, EDEKA Group. EDEKA wholesale is organized by 7 regional companies across 38 logistics centers nationwide. EDEKA Food Service ensures regional and national bulk delivery services for major consumers, mainly HoReCa clients, while closely related EDEKA's C&amp;C Großmarkt B2B store chain serves medium to small consumers, mostly independent retailers.</li> </ul>		
<i>Transgourmet</i>	1 300	3 700	Full-range
	<ul style="list-style-type: none"> <li>Transgourmet (<a href="http://www.transgourmet.de">www.transgourmet.de</a>), a subsidiary of Coop, is one of the largest food service wholesalers in Germany, servicing around 35 000 major customers from both commercial and institutional catering markers. Transgourmet also owns fresh food service wholesalers Rewe-Foodservice and FrischeParadies, and manages one of the leading Cash&amp;Carry operators in the country – Selgros.</li> </ul>		
<i>Service-Bund</i>	1 005	3 400	Full-range
	<ul style="list-style-type: none"> <li>Service-Bund (<a href="http://www.servicebund-national.de">www.servicebund-national.de</a>) is a group of 30 medium-sized regional wholesalers who distribute a wide range of food-assortment to approximately 80 000 customers in Germany. The assortment of Service-Bund consists of around 41 000 products, including 1 000 private-label products. There are 38 Service-Bund locations across Germany.</li> </ul>		
<i>Chefs Culinar</i>	360	-	Full-range
	<ul style="list-style-type: none"> <li>Chefs Culinar (<a href="http://www.chefsculinar.de">www.chefsculinar.de</a>) is a food service wholesaler to commercial and institutional food operators in Germany and other European countries. Chefs Culinar assortment includes around 25 000 food and non-food</li> </ul>		

29 Service Bund. The Food Service Company. Available at: <https://www.servicebund-national.de/service-links/english.html>

30 EDEKA. Der Großhandel bei EDEKA. Available at: [http://www.edeka-verbund.de/Unternehmen/de/edeka\\_verbund/grosshandel/einleitung\\_grosshandel/einleitung.jsp](http://www.edeka-verbund.de/Unternehmen/de/edeka_verbund/grosshandel/einleitung_grosshandel/einleitung.jsp)

31 Lebensmittel Zeitung. Top 30 Lebensmittelhandel Deutschland 2018. Available at: <http://www.lebensmittelzeitung.net/handel/Ranking-Top-30-Lebensmittelhandel-Deutschland-2018-134606>

32 Transgourmet. Company profile. Available at: <http://www.transgourmet.de/web/unternehmen/unternehmensprofil.xhtml>

33 Fruchtportal. Die top 30 des lebensmittelhandels nach gesamtumsatz 2016. Available at:

[https://www.fruchtportal.de/media/files/Pdf%20diversen%202017/Nielsen%20Tradedimensions\\_2016\\_Ergebnisse\\_PM%20Diagramme.pdf](https://www.fruchtportal.de/media/files/Pdf%20diversen%202017/Nielsen%20Tradedimensions_2016_Ergebnisse_PM%20Diagramme.pdf)

products, located in 23 warehouses around the country. In addition, the company also assists customers with implementation and maintenance of kitchen and supply equipment, and offers other supportive services.
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### 2.2.3. Wholesale trade of mushrooms

Trade channels for mushrooms in Germany are varied, and depend on the type and quality of product and the targeted customer group. When opting to supply the retail trade, producers have to consider the concentrated buying power of the leading chains and their requirements. When supplying the foodservice sector, the product quality often has to be premium for high-end establishments. And, when trading mushrooms to the food industry as a food ingredient, mostly for convenience products and ready meals, the quality can be lower, but the price also will have to be more competitive.

In general, producers can opt for direct trade channels, such as major retail chains, food producer/processors and food service companies, or for indirect trade channels, such as importers and wholesalers, especially those who also operate as mushroom processors and marketers. Even some of the German mushroom producers sometimes import exotic varieties from other countries. However, due to specifics of the German market it is recommended to opt for indirect channels and trade in bulk, as most buyers prefer products that are processed, packaged, labelled and marketed locally, both for economic and food safety reasons. Also, trade and marketing of packaged branded products in Germany is complicated, subjected to tariffs, and highly competitive with Germans preferring local brands.

The demand for locally produced mushrooms in Germany is so strong that the label "Made in Germany" has become a major marketing tool, which is why even foreign producers are striving to obtain this label by any means. In fact, due to a legal loophole, foreign producers are driving trucks with mobile mushroom beds across the German border and harvesting mushrooms there, as the EU customs code stipulates that the country of origin is the country of harvest. However, the issue might get resolved sometime soon, as in 2017, Germany's Court of Justice has asked the European Court of Justice to review the matter.<sup>34</sup>

However, trade in pre-packaged products for consumer use also provides some opportunities, especially in the niche of rare and exotic fresh, chilled and dried mushrooms, because German producers have not yet been able to fulfil the demand for this booming trend in local cultivation plants. This niche is also considerably less price-competitive than trade in bulk mushrooms of widely available varieties.

Overall, the most attractive trade channel for foreign producers of mushrooms to enter the German market are specialized importers, importers which also are processors and marketers of their own branded products, and even local mushroom producers who import exotic mushroom varieties. Some of the specialized importers and wholesalers of mushrooms in Germany are Pilz Grosshandel Buschhaus, Bayerische Pilzboerse and BioFrische (Table 11).

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<sup>34</sup> Global Handelsblatt. Making millions out of German mushrooms. Available at: <https://global.handelsblatt.com/companies/making-millions-out-of-german-mushrooms-862104>

**Table 11. Wholesale trade channels of mushrooms in Germany**

<b>Category</b>	
<i>BioFrische</i>	Importer/wholesaler
	<ul style="list-style-type: none"> <li>BioFrische (<a href="http://www.biofrische.de">www.biofrische.de</a>) is an importer and wholesaler of organic and premium mushrooms, and also supplies some vegetables and fruits. Although the company mainly trades with local produce, it also imports from certain European countries.</li> </ul>
<i>Bayrische Pilzboerse</i>	Importer/wholesaler
	<ul style="list-style-type: none"> <li>Bayrische Pilzboerse (<a href="http://www.bayrische-pilzboerse.de">www.bayrische-pilzboerse.de</a>) is an importer and wholesaler of fresh and semi-preserved cultivated mushrooms with its wholesale centre located in Munich. The company's suppliers are both local and select European mushroom producers, and clients - wholesalers, retailers and large-scale catering companies.</li> </ul>
	Importer/ wholesaler
	<ul style="list-style-type: none"> <li>Zindel (<a href="http://www.zindel-frucht.de">www.zindel-frucht.de</a>) is an importer and wholesaler of fresh fruit, vegetables and mushrooms, as well as of some convenience foods. The company also offers development of private-labels. The company's mushroom assortment includes champignons, oyster mushrooms, porcini and shiitake mushrooms, chanterelles and others.</li> </ul>
<i>Fijol</i>	Importer/ wholesaler
	<ul style="list-style-type: none"> <li>Fijol (<a href="http://www.fijol.de">www.fijol.de</a>) is a direct importer and wholesaler of fresh, chilled and frozen vegetables, fruits and mushrooms, as well as of certain preserved foods. Their mushroom range covers a variety of product types, including fresh, chilled, preserved and frozen. The company mainly imports produce from Central and Eastern Europe.</li> </ul>
<i>Pilz Grosshandel Buschhaus</i>	Importer/exporter/wholesaler
-	<ul style="list-style-type: none"> <li>Pilz Grosshandel Buschhaus (<a href="http://www.speisepilze.eu">www.speisepilze.eu</a>) is an importer, exporter and wholesaler of wild and cultivated mushrooms. The company trades mushrooms both from Germany and 20 other countries. The wild mushrooms are imported fresh from Europe, the Balkans, Korea, China, Russia, America, Canada and South Africa, depending on the season. The cultivated mushrooms are predominantly sourced directly from producers in Germany, Poland and the Netherlands.</li> </ul>

Alternatively, foreign importers can also opt to avoid the middleman and try to establish direct contacts with major retailer chains, food producers and food service industry. However, it often can be more

difficult to reach them than importers and wholesalers. Also, when dealing with target customers directly, companies often must be able to supply in large quantities, must have good knowledge of the legal requirements for mushroom imports and trade in Germany, as well as good understanding of the local market. This is why for smaller to medium sized foreign producers and exporters it is recommended to trade via third parties instead, at least in the first years of entering the market.

### 3. Food price levels

#### 3.1. General food prices

Germany, having one of the largest economies in Europe, is wealthy both in terms of GDP and the average personal income. This, in turn, brings down the relative costs of living for Germans, which, generally, are in line with the EU28. In 2016, the average monthly household net income in Germany was €3 314, increasing by 3.0% since previous year.<sup>35</sup> The growing income and accelerating economy has supported German consumer confidence level, which has steadily risen for the past 5 years, as revealed by the GfK Consumer Climate Indicator.<sup>36</sup>

As a result, German households have been increasing their expenditure accordingly. In 2016, the average monthly household expenditure was €2 480, growing by 3.7%. Of that, expenditure on food, beverages and tobacco constituted 13.8% or €342.<sup>37</sup> Expenditure growth is likely to continue, as prices of consumer goods and services have been rapidly growing due to expanding economy. In 2017, inflation rose up to 1.8% with food prices increasing by 3%.<sup>38</sup> Moreover, even steeper price hikes are expected to be recorded in 2018. But, at the same time, consumer purchasing power is also projected to increase as a result of rising wages.<sup>39</sup>

When compared to Georgia, overall cost of living in Germany is still considerably higher. Numbeo Cost of Living Index reveals that in 2018, the Index for Germany was 74.4, while for Georgia – 29.7. Similarly, Groceries Index and Restaurant Index for Germany was 58.9 and 71.2, but for Georgia – just 24.6 and 29.2. At the same time, due to higher wages, national purchasing power in Germany is several times higher, allowing German consumers to buy more than Georgian consumers. Accordingly, Local Purchasing Power Index for Germany was 125, but for Georgia – mere 35.6.<sup>40</sup>

Average food prices in Germany are significantly higher than in Georgia for practically all food products, except most beverages, such as water, domestic beer, milk and wine (Table 12). This is despite the fact that in Georgia, foods and agricultural products are a subject to the standard VAT rate of 18%, while in

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<sup>35</sup> Federal Statistical Office of Germany – DESTATIS.

Income, Revenue and Expenditure of Private Households (time comparison). Available at: <https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/EinkommenKonsumLebensbedingungen/EinkommenEinnahmenAusgaben/Tabellen/Deutschland.html>

<sup>36</sup> Trading Economics. Germany GfK Consumer Climate. Available at: <https://tradingeconomics.com/germany/consumer-confidence>

<sup>37</sup> Federal Statistical Office of Germany – DESTATIS. Private consumption expenditure (living expenses). Available at:

[https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/EinkommenKonsumLebensbedingungen/Konsumausgaben/Tabellen/PrivateKonsumausgaben\\_D.html](https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/EinkommenKonsumLebensbedingungen/Konsumausgaben/Tabellen/PrivateKonsumausgaben_D.html)

<sup>38</sup> Handelsblatt. Schätzung bestätigt – Preise zogen 2017 um 1,8 Prozent an. Available at: <http://www.handelsblatt.com/finanzen/geldpolitik/inflation-in-deutschland-schaetzung-bestaetigt-preise-zogen-2017-um-1-8-prozent-an/20850604.html>

<sup>39</sup> GfK (2017). Purchasing power Germany 2018. Available at: <http://www.gfk.com/insights/press-release/purchasing-power-germany-2018/>

<sup>40</sup> Numbeo (2018). Cost of living. Rankings by country. Available at: [https://www.numbeo.com/cost-of-living/rankings\\_by\\_country.jsp](https://www.numbeo.com/cost-of-living/rankings_by_country.jsp)

Germany there is a reduced VAT rate of 7% for most such products (in contrast to the standard VAT rate of 19%). However, when compared to the EU28, average food prices in Germany are even slightly lower, especially for beverages and processed products, largely due to reduced VAT advantage. There are, nevertheless, exceptions – fresh fruits and vegetables in Germany are more expensive.

**Table 12. Average food prices in Germany, compared to Georgia and the EU28 in 2018<sup>41</sup>**

	Germany	Georgia	EU28
<i>Water, 1.5l</i>	0.32	0.34	0.73
<i>Domestic beer, 0.5l</i>	0.69	0.71	1.18
<i>Milk, 1l</i>	0.71	1.03	0.90
<i>Onion, 1kg</i>	0.85	0.39	0.92
<i>Lettuce, 1 head</i>	0.99	0.39	1.00
<i>Potatoes, 1kg</i>	1.04	0.35	0.92
<i>White bread loaf, 500g</i>	1.14	0.30	1.15
<i>Imported beer, 0.33l</i>	1.18	1.05	1.49
<i>Bananas, 1kg</i>	1.63	1.2	1.49
<i>Eggs, pack of 12</i>	1.70	1.16	2.14
<i>Rice, white, 1kg</i>	1.79	0.79	1.47
<i>Apples, 1kg</i>	2.05	0.85	1.59
<i>Oranges, 1kg</i>	2.31	1.00	1.62
<i>Tomatoes, 1kg</i>	2.73	0.82	1.91
<i>Imported Beer, 0.33l</i>	3.00	1.35	3.11
<i>Bottle of Wine, mid-range</i>	4.00	3.72	5.86
<i>Chicken Breasts, Boneless, 1kg</i>	6.64	3.14	6.99
<i>Local Cheese, 1kg</i>	7.43	3.21	8.24
<i>Beef Round, 1kg</i>	11.15	4.89	11.19

Overall, German consumers are very price-conscious and are often unwilling to purchase products that have higher prices. This is mostly result of the highly competitive market situation, as well as the expansion of the major discount retailers, like Lidl and Aldi. However, German consumers are also aware of the aggressive agricultural practices that are utilized in order to produce such cheap foods, and thus are more often turning towards ecologically-produced products, as well as sustainable and ethical agricultural practices, although often it means that they will have to pay a higher price.<sup>42</sup>

### 3.2. Prices of mushrooms

Although it is difficult to generalize regarding prices of mushrooms, because the price differences can be significant between varieties and processing stages, but in general mushrooms can be divided into 3 market segments with regard to their prices – lower market segment, mid-market segment and premium segment. The lower market segment is characterized by average to good quality products, mainly used as

<sup>41</sup> Numbeo (2018). Cost of living. Available at: <https://www.numbeo.com/cost-of-living/>

<sup>42</sup> Ama Lorenz (2017). Germany's cheap food prices come at a cost, study finds. Available at: <https://www.euractiv.com/section/agriculture-food/news/sr-wed-study-germanys-cheap-food-prices-come-at-a-cost/>



a food ingredient, e.g. in granule form and mushroom powder. The mid-market segment covers good quality mushrooms, suitable for further processing or standard retail trade in supermarkets and discounters with the average price. The premium segment corresponds to high quality mushrooms, both for retailing and processing, but usually with an added value, such as organic or fair trade certifications.

According to the local mushroom producers, the price pressure on both fresh and preserved mushrooms in Germany has become more explicit in 2017 in comparison to previous years, even despite the increasing domestic demand for both fresh and convenience products. This is also supported by trade data, revealing that wholesale trade price per unit has not developed properly over the past 5 years – while import volumes have been significantly growing, import value has increased just very slightly (see Chapter 4.1.2.). The main causes for this are the increasing international competition, despite German consumers preferring locally produced mushrooms, as well as the German frugality, both of which makes it more difficult to rise prices, despite increasing energy, labor costs (due to rising minimum wage), harvest costs and logistic costs.<sup>43 44</sup>

Although over the last 5 years, the average wholesale price of fresh or chilled mushrooms in Germany has already increased by 6.9%, reaching an average annual selling price of €1.98 per kg in 2016, this does not leave great margins for producers.<sup>45</sup> It is obvious that the exerted price pressure will sooner or later be reflected in even higher price increase both for wholesale and retail trade in the medium-term.

Regarding import price per unit, 2017 trade data on Germany's imports reveals that the average import price of fresh or chilled mushrooms was slightly higher – €2.3 per kg. Provisionally preserved mushrooms, but unsuitable for immediate consumption were priced at €2.6 per kg, while mushrooms, prepared or preserved by vinegar or acetic acid - €1.5 per kg. Dried mushrooms were the most expensive import category with the average price of €16.1 per kg, and frozen mushrooms – the cheapest category with a price of €0.8 per kg.<sup>46</sup>

End-market prices of mushrooms for consumers are much higher than producer and import prices due to packaging, labelling, marketing and transportation costs, added margin and VAT, which in Germany for agricultural and food products is 7%. Prices also can vary across different retail trade segments. Most of the mushrooms in Germany's retail trade are sold in supermarket and discounter chains, with specialist stores and markets playing a minor role. However, for exotic specialties and premium brands, these channels are more important than the major retail chains.<sup>47</sup>

The prices also can vary depending on the mushroom variety, brand, origin country, product class, and processing level and whether the product is whole or cut, packaging volume and type, as well as organic certification (Table 13). In general, most of fresh mushrooms are available as white or brown champignons with a price ranging from €0.40 to €1.00 per 100 g, and chanterelles with a price from €1.50 to €2.00.

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43 Association of German Mushroom Growers (2017). All right, prices... Available at: <http://www.der-champignon.de/?p=3412>

44 Association of German Mushroom Growers (2017). Harvest costs increased drastically. Available at: <http://www.der-champignon.de/?p=3631>

45 Eurostat database. Selling prices of crop products (absolute prices) - annual price [apri\_ap\_crpouta]. Available at: [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apri\\_ap\\_crpouta&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apri_ap_crpouta&lang=en)

46 Eurostat database (2018). DS-045409 - EU Trade Since 1988 by HS2, 4, 6 and CN8. Available at: <http://epp.eurostat.ec.europa.eu>

47 Association of German Mushroom Growers (2017). Consumers prefer local fresh mushrooms. Available at: <http://www.der-champignon.de/?p=3420>

Most often, origin country is Germany or other major EU mushroom producers, such as the Netherlands or France. The price of frozen mushrooms range from €1.00 to €1.50 per 100 g, of preserved mushrooms - from €1.00 to €1.50 per 100 g, of dried mushrooms - from €5.50 to €16.00 per 100 g. Mushrooms with organic certification usually have an additional price premium of 20% - 50%.

**Table 13. Retail prices of mushrooms in Germany, 2018 (€)<sup>48 49 50</sup>**

	EDEKA		Allyouneedfresh		Amazon Fresh	
	Per 100 g	Pack	Per 100 g	Pack	Per 100 g	Pack
<i>Fuchs, shiitake mushrooms, dried, 40 g</i>	-	-	9.73	3.89	9.08	3.63
<i>Arche, shiitake mushrooms, dried, organic, 40 g</i>	-	-	-	-	12.38	4.95
<i>RNP, fresh chanterelles, from Germany, 125 g</i>	-	-	1.84	2.29	-	-
<i>RNP, fresh white champignons, from Germany, 250 g</i>	-	-	0.40	1.09	-	-
<i>RNP, fresh brown champignons, from Germany, 400 g</i>	-	-	0.45	1.79	-	-
<i>RNP, fresh brown champignons, organic, 200 g</i>	-	-	0.75	1.49	-	-
<i>Valenzi, canned porcini mushrooms, cut, 110 g</i>	-	-	1.81	1.99	-	-
<i>Wagner, dried mixed mushrooms, whole, 100 g</i>	-	-	5.69	5.69	-	-
<i>Wagner, dried porcini mushrooms, cut, 15 g</i>	-	-	15.49	2.39	14.88	2.20
<i>Nigda, dried porcini mushrooms, cut, 50 g</i>	-	-	10.98	5.49	-	-
<i>Niklas, dried porcini mushrooms, cut, 2<sup>nd</sup> class, 50 g</i>	-	-	6.98	3.49	-	-
<i>Pilzmix, fresh gourmet mushroom mix with shiitake mushrooms, 250 g</i>	-	-	0.88	2.19	-	-
<i>Diamond, dried shiitake mushrooms, 100 g</i>	-	-	-	-	4.39	4.39
<i>Diamond, dried black fungus mushrooms, 50 g</i>	-	-	-	-	3.94	1.97
<i>Niklas, frozen porcini mushrooms, cut, 300 g</i>	-	-	1.16	3.49	-	-
<i>Bonduelle, preserved white champignons, whole, 170 g</i>	-	-	0.70	1.19	0.88	1.49
<i>EDEKA, preserved mixed mushrooms, 400 g</i>	1.59	0.71	-	-	-	-
<i>EDEKA, boletus mushrooms, cut, 190 g</i>	2.08	2.29	-	-	-	-
<i>EDEKA, preserved white champignons, 2<sup>nd</sup> class, 530 g</i>	0.38	1.99	-	-	-	-
<i>Lutece, preserved white champignons, cut, organic, 280 g</i>	0.78	2.19	-	-	0.71	1.99

48 EDEKA online store. Available at: [www.edeka24.de](http://www.edeka24.de)

49 Allyouneedfresh online store. Available at: [www.allyouneedfresh.de](http://www.allyouneedfresh.de)

50 Amazon Fresh online store. Available at: <https://www.amazon.de/b?ie=UTF8&node=6723195031>

As Germans prefer to buy locally produced mushrooms, most of the brands available in stores are German. However, in the major supermarket and discounter chains the vast majority of mushrooms available are packed under private-labels, such as EDEKA, REWE, Lidl and Aldi. Besides these, the variety of brands is limited. Most popular local brands in Germany are Rhein Neckar Pilze (RNP), Niklas and Valenzi. Wagner, Arche, Diamond and other brands are also popular, but they do not produce mushrooms locally, as they are local importers/marketers, who source most of their products, such as shiitake and other exotic mushrooms, from Asia. Popular international brands include the Netherland's Lutece and France's Bonduelle.

## 4. Imports

### 4.1. Worldwide imports

#### 4.1.1. Food and beverage imports

Germany, being the productive powerhouse it is, is well-known for as a net exporter. In 2017, Germany imported goods in value more than €953.8 billion and exported more than €1 205.5 billion, resulting in a positive trade balance of €251.7 billion.<sup>51</sup> Moreover, 2017 set new foreign trade records in terms of total trade value increase. However, the great trade performance mostly stems from Germany's exports of machinery, automotive vehicles and parts, as well as chemical and metal products, with food and beverages contributing just a small fraction of export value – 5%. As Germany cannot meet the local demand for food and beverages at full-scale, it has become a net importer of this category which constitutes 7.4% of all import value. The import value surplus gap of food and beverages has been steadily growing steadily for the past 5 years, and has grown from 9.7% in 2013 to 17.1% in 2017.<sup>52</sup>

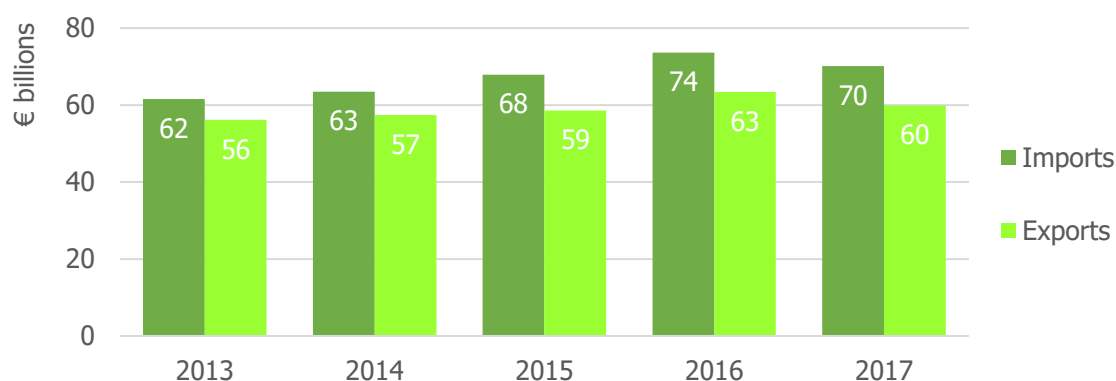
From 2013 to 2017, food and beverages import value in Germany has revealed a growth trend, increasing by 13.8% (Figure 1). However, 2017 marked the first year in a row of many when import value in the category declined, but so did export value as well. This is mainly a result of, firstly, growing capabilities of local producers which have several advantages over importers in the German market, and, secondly, consequences from stronger value of the euro which limits trade to countries outside Eurozone, i.e. expansion of German exporters and activities of foreign importers. Also, other factors have played a major role, such as fluctuating raw-material purchasing prices, especially of milk.

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51 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

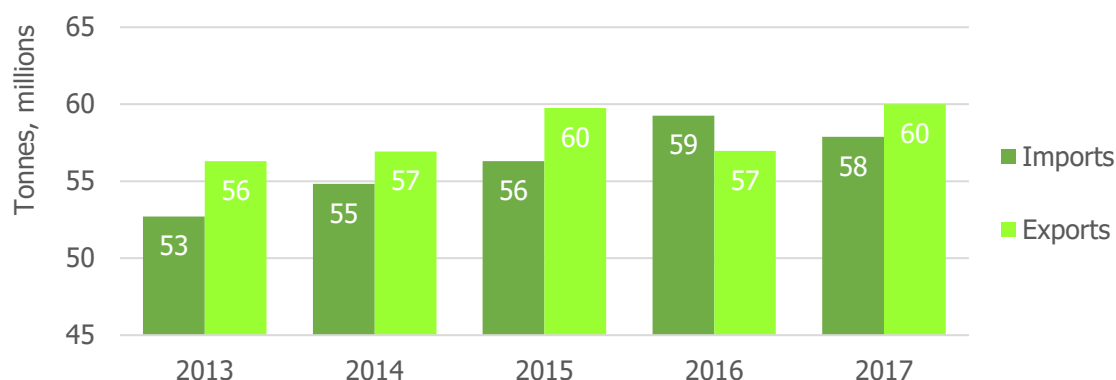
52 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

**Figure 1. Food and beverages trade value dynamics in Germany, € billions<sup>53</sup>**



When taking into account trade volume dynamics (Figure 2), it is revealed that Germany's export volume of food and beverages slightly decreased in 2016, most likely due to Russia's trade embargo extension, but snapped back quickly in 2017 by retargeting exports to other countries. Import volume declined only in 2017, which also is a result of reasons mentioned above.

**Figure 2. Food and beverages trade volume dynamics in Germany, million tonnes<sup>54</sup>**



An in-depth look at the Germany's key import trade partners indicate that food and beverages are most commonly being imported from geographically nearby countries. In 2017, 80% of all food and beverages imports in terms of value in Germany originated from the EU, and just 20% - from the non-EU countries. In terms of quantity, the origin of 86% of imports is the EU and just 14% - non-EU countries. This indicates that the preference for imports from the further non-EU countries is for less bulky items, but with a higher value. The largest trade partners for Germany's food and beverages imports in 2017 were Netherlands, Italy, France, Spain, Poland and even Czech Republic, when import volumes are also taken into account. These countries account for slightly more than half of all food and beverages imports in Germany, both in terms of value and volume.<sup>55</sup>

In 2017, the most imported product groups in Germany within the food and beverages category in terms of value were vegetables and fruit, making up 27.2% of all imports, coffee, tea, cocoa and spices – 12.9%,

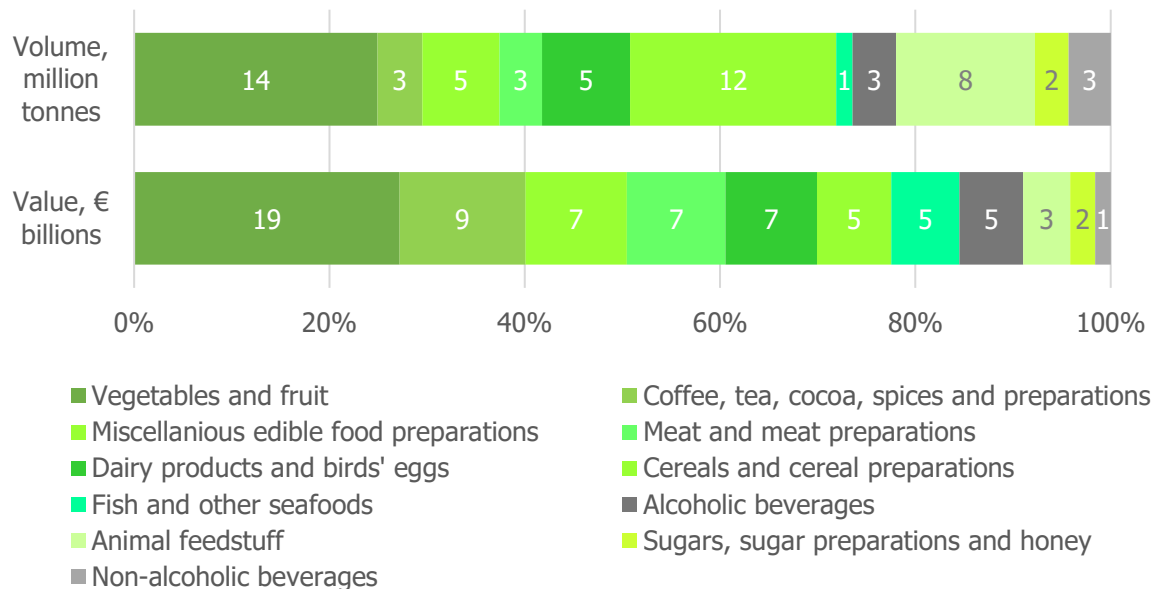
<sup>53</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

<sup>54</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

<sup>55</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

as well as miscellaneous food preparations – 10.4% (Figure 3). In terms of volume, the most imported product groups were also vegetables and fruit, constituting 24.9% of all imports, but also cereals and cereal preparations – 21.1%, and animal feedstuff – 14.2%. However, for geographically distant non-EU importers, less bulky product groups would be more suitable.

**Figure 3. Breakdown of Germany's import of food and beverages in 2017<sup>56</sup>**



The largest import volume surplus in Germany are for product groups such as fruits and vegetables, coffee, tea, cocoa, spices, as well as nuts, which accordingly are the most attractive for foreign importers. Import value surplus also show a high demand for fish, seafood and alcoholic beverages. Olive oil, as well as honey, are also favoured import product groups in Germany.<sup>57</sup>

#### 4.1.2. Import of mushrooms

Mushroom cultivation in Germany has historical roots, however, its produced quantity is not that large and it does not cover the high domestic demand. Although in 2017, it was the 3<sup>rd</sup> largest producer of fresh mushrooms after the Netherlands and Spain, its production volumes are well behind the leading countries with harvest volumes of around 74 thousand tonnes per year.<sup>58</sup> Germany cultivates mostly champignons which make up 98% of all Germany's mushroom production (Figure 4). Also, its production has grown by over the last 5 years, and its domestic consumption has increased as well. Germany is also the leading producer of organic mushrooms in the EU, harvesting 6.9 thousand tonnes in 2017, which equals to 10% of all harvested mushrooms in the country.<sup>59</sup>

<sup>56</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

<sup>57</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

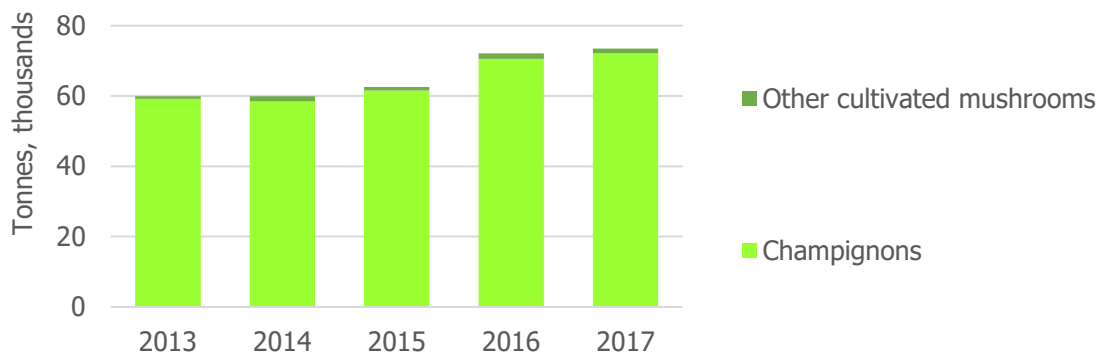
<sup>58</sup> Eurostat database. Crop production in national humidity [apro\_cpnh1]. Available at:

[http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro\\_cpnh1&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro_cpnh1&lang=en)

<sup>59</sup> Eurostat database. Organic crop production by crops [org\_croppro]. Available at:

[http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=org\\_croppro&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=org_croppro&lang=en)

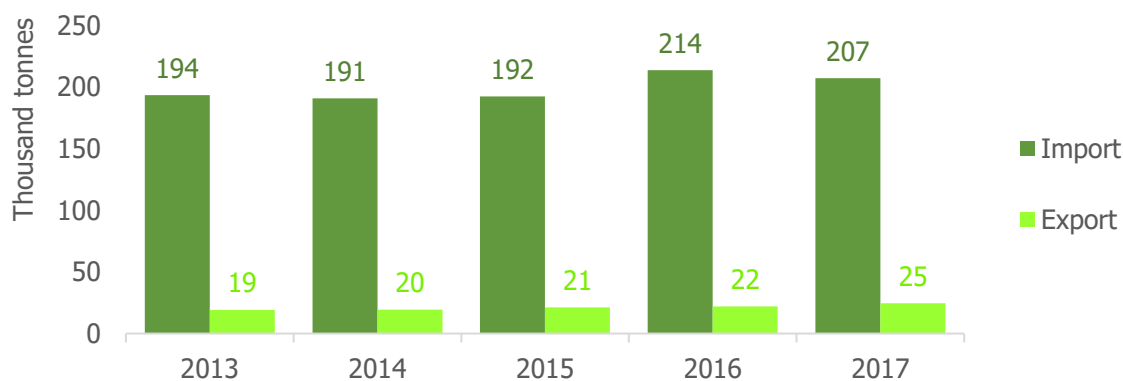
**Figure 4. Harvested production of fresh mushrooms in Germany, thousand tonnes<sup>60</sup>**



With the vast and increasing domestic demand, Germany has become the largest importer and net importer of mushrooms among EU countries both in terms of volume and value. In 2017, Germany imported a total of 207 thousand tonnes of mushrooms worth €389 million, creating a major trade gap with import volume equalling to 89% of all Germany's mushroom trade activity, but import value – to 85% (Figure 5 and Figure 6). However, as Germany has increased its mushroom production over the past 5 years, the trade gap also has slightly decreased.

When looking at Germany's trade volume dynamics of mushrooms in detail, it can be inferred that both imports and exports have increased, but at different growth rates. Over the past 5 years, Germany's mushroom import volume has risen by 7%, but export volume – by 27% (Figure 5).

**Figure 5. Germany's trade volume dynamics of mushrooms, thousand tonnes<sup>61</sup>**

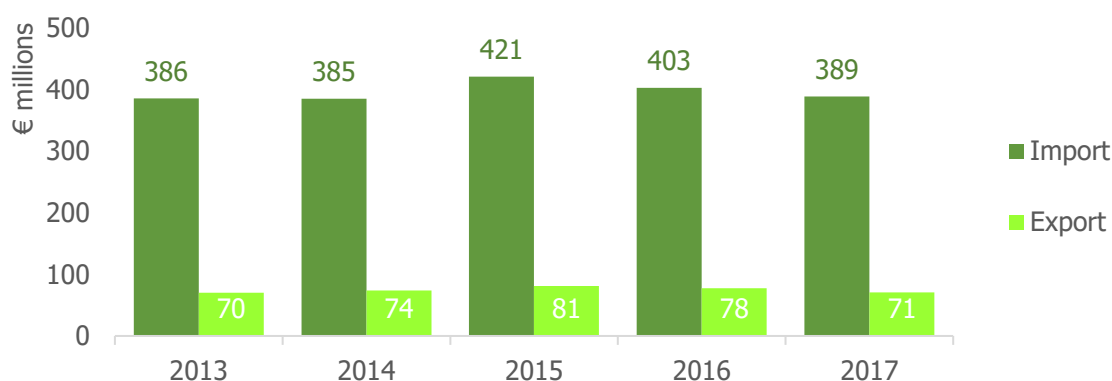


Germany's value dynamics of mushrooms, however, did not experience such a growth over the past 5 years, which leads to conclude that the wholesale price per unit has not been able properly grow within this period, most likely due to increasing competition (Figure 6). Both Germany's mushroom import and export value has grown only by 1%.

60 Eurostat database. Crop production in national humidity [apro\_cpnh1]. Available at: [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro\\_cpnh1&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro_cpnh1&lang=en)

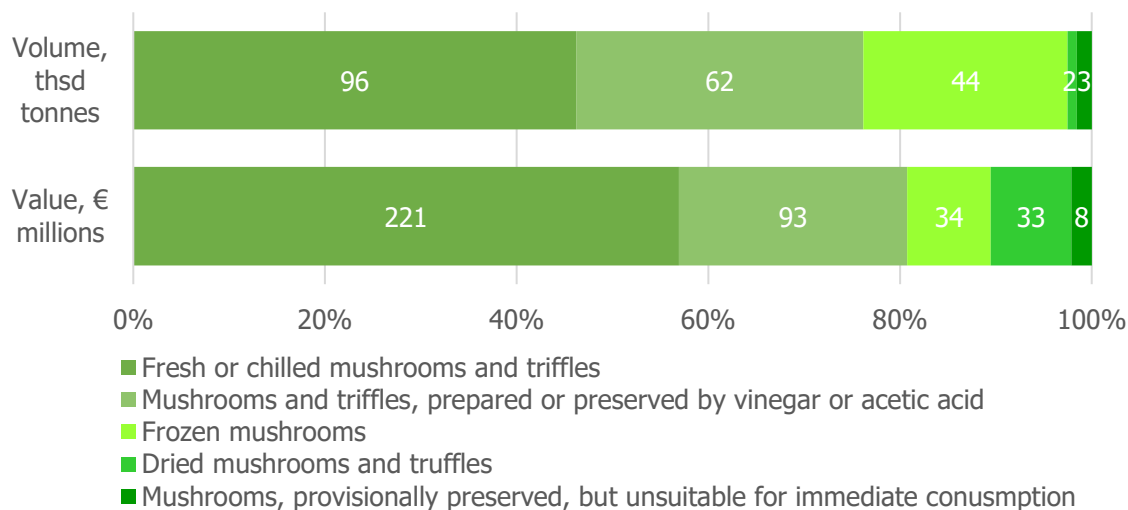
61 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

**Figure 6. Germany's trade value dynamics of mushrooms, € millions<sup>62</sup>**



Most of Germany's mushroom imports are constituted of fresh or chilled mushroom and truffles, specifically, in 2017, this category equalled to 46% of import volume and 57% of import value. This is also the largest net import category. The second largest import category are mushrooms and truffles, prepared or preserved by vinegar or acetic acid, making up 30% of import volume and 24% of import value. The third largest import category are frozen mushrooms, accounting for 21% of import volume and 9% of import value. Provisionally preserved mushrooms, but unsuitable for immediate consumption, constituted 2% of both import volume and value. And, finally, dried mushrooms made up 1% of all import volume and 8% of import value (Figure 7). Most of the imported mushrooms are champignons, with significantly smaller amounts of chanterelles and porcini mushrooms.

**Figure 7. Breakdown of Germany's imports of mushrooms in 2017<sup>63</sup>**



Most of the imported mushrooms in Germany originate from EU countries. In 2017, 90% of all import volume and 83% of all import value of mushrooms in Germany originated from EU countries, while just 10% of volume and 17% of value - from non-EU countries. Around half or 49% of mushrooms imported from EU countries are fresh or chilled, 29% - prepared or preserved by vinegar or acetic acid, and 21% are frozen. However, of mushrooms imported from non-EU countries, most or 42% are prepared or preserved

<sup>62</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

<sup>63</sup> Eurostat database (2018). DS-045409 - EU Trade Since 1988 by HS2, 4, 6 and CN8. Available at: <http://epp.eurostat.ec.europa.eu>

by vinegar or acetic acid, 25% are frozen and just 21% are fresh or chilled. The difference in import structure according to origin country explains why the proportion of import value is greater than import volume from non-EU countries, as these countries contribute more to imports of processed mushrooms (i.e. with added value).<sup>64</sup>

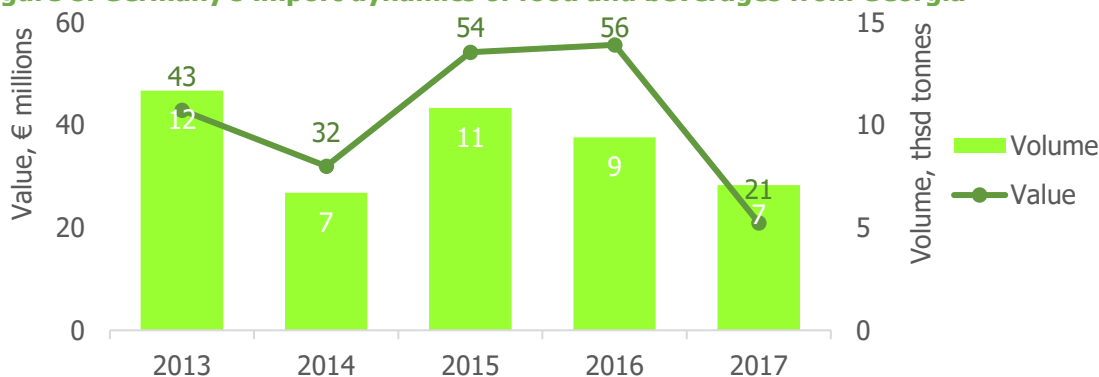
In 2017, the largest Germany's import partner country for mushrooms was the Netherlands, accounting for 42% of import volume and 36% of import value. Other largest import partners were Poland, China, Belgium and France. These leading 5 countries together make up an astounding 96% of mushroom imports in Germany in terms of volume and 88% in terms of value.<sup>65</sup>

There is no data on Germany's mushroom imports from Georgia in 2017. Within the last 5 years, there is only data from 2013, when Germany imported fresh or chilled mushrooms and truffles of volume less than 100 kg and worth just over €2 thousand. In fact, Georgia is not a major exporter of mushrooms to any of the EU countries. In 2017, Georgia's mushroom export volume and value to EU countries was less than 100 kg and a few hundred euros<sup>66</sup>.

## 4.2. Imports from Georgia

In 2017, Germany's food and beverages imports from Georgia accounted just for 0.03% in terms of value with €21 million and 0.01% in terms of volume with 7.1 thousand tonnes.<sup>67</sup> Over the past 5 years, import value and volume has fluctuated, and since 2016 is revealing a significant decline, which from the most part has resulted from smaller import volumes of fresh or dried fruit and nuts, as from lower import prices of preserved fruit and fruit preparations (Figure 8).

**Figure 8. Germany's import dynamics of food and beverages from Georgia<sup>68</sup>**



Most Germany's food and beverages imports from Georgia constitutes of fresh and processed fruit and vegetables (Figure 9). In 2017, fruits and vegetables represented 93% of all Germany's food imports from Georgia in terms of value and 88.7% in terms of volume. Fresh or dried fruits and nuts made up 61% of import value, but just 37.3% of import volume, preserved fruit and fruit preparations – 19.9% of import

64 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

65 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

66 Eurostat database (2018). DS-045409 - EU Trade Since 1988 by HS2, 4, 6 and CN8. Available at: <http://epp.eurostat.ec.europa.eu>

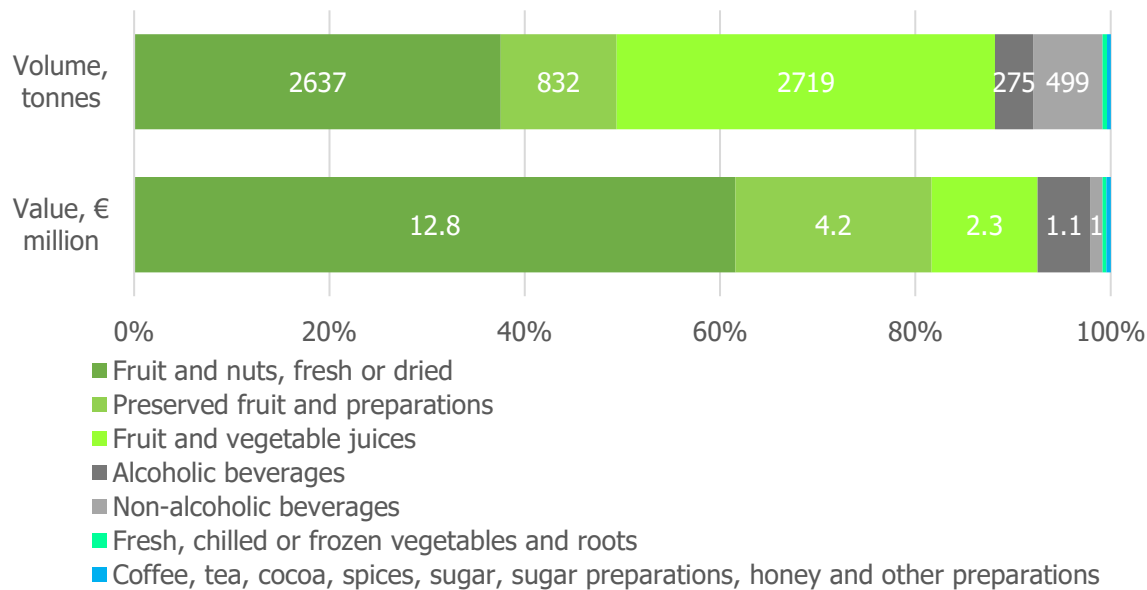
67 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

68 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>



value and mere 11.8% of import volume, fruit and vegetable juices – 10.8% of import value, but 38.5% of import volume.

**Figure 9. Breakdown of Germany’s imports of food and beverages from Georgia in 2017<sup>69</sup>**



Although imports from Georgia have declined in the past few years, this product group presents good further growth opportunities, especially for fruits and nuts, as local production in Germany of these products is very limited. However, because fruits and vegetables is the most highly demanded import product group in Germany with high import share from non-EU countries, the largest threat is the Germany’s closest trade partners specializing in such imports, i.e. Italy, France and Spain which have lower logistics costs and other advantages characteristic for countries which are part of the EU.

## 5. Consumption and market trends

### 5.1. Consumption and eating habits

For German consumers, two of the key factors leading their purchasing decisions are quality and price. The steep market competitiveness and widespread availability of grocery discounters has led to high consumer demands and an increasing attentiveness to the concept of value for money. At the same time, part of consumers are also becoming more aware on the environmental and societal costs of producing cheap foods, and are turning towards organic and fair trade products, even though they are higher priced. Consciousness of health, wellness and sustainability also has resulted in a growing consumption of fresh and locally grown produce, for which consumers are ready to pay extra.

Consumption is also being influenced by the ageing population in the country. In Germany, consumers aged 50+ is the largest and the fastest growing target group holding over 50% of per capita purchasing power.<sup>70</sup> However, old stereotypes regarding this age group do not apply anymore, as today these consumers are more active as ever before, and, with the high mobility of younger generations, home-

<sup>69</sup> Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

<sup>70</sup> Germany Trade & Invest. Available at: <http://www.gtai.de/GTAI/Navigation/EN/Invest/Industries/Consumer-industries/consumer-markets-retail.html>

cooked meals are becoming replaced by eating foods on-the-go (such as street foods or snacks) and embracing food services either in the form of eating out or ordering food deliveries at home. In contrast to previous decades, today these convenient formats are expected to provide just as healthy options as home-cooked meals.<sup>71 72</sup>

German eating habits are similar to those in other European countries. However, the 7 million foreigners who live in Germany have changed eating habits of the locals and have introduced nearly every cuisine - Asian and Mediterranean, Turkish and African, Thai, Chinese, Indian and Vietnamese, Greek, Italian, Spanish and Moroccan.<sup>73</sup> This is also reflected in popularity of non-traditional ethnic food service operators.

Traditional German breakfast includes bread, toast or rolls with either marmalade and honey, or eggs, cold meats, such as ham and salami, and various cheeses, and a strong cup of tea or coffee. However, with today's busy lifestyles Germans are more often eating cereals rather than a heavy meal. Mid-day meals are usually consumed away from home, and they are becoming lighter, sometimes consisting only of snacks. The main meal or Germans nowadays is dinner rather than lunch, usually eaten at home. While traditional German dinner consists of whole grain bread, deli meats and sausages and cheese, today's eating habits have shifted towards warm dinner meals, with pork, beef, poultry and a variety of vegetables being the favourite main dishes. But the major influence from other culture cuisines and openness to new foods, have resulted in a greater consumption of seafood, like fresh herring, mackerel, salmon, sardines, trout, salmon, bream and carp. Noodles and dumplings in all forms are also very common - especially in the south. As a dessert, Germans consume their traditional cakes and pastries, accompanied by a hot cup of coffee or tea. Nevertheless, desserts and sweets are being consumed significantly less often.<sup>74</sup> Health-consciousness is the most significant factor for the changing German diet.

## 5.2. Consumption of mushrooms

Germany's domestic consumption data of mushrooms reveals a considerable growth over the past 5 years. In 2017, Germany's domestic consumption of all types of mushrooms – fresh, preserved, frozen and dried, was 256 thousand tonnes, revealing a growth of 9.4% (Figure 10). From one side, this could be because of the fast growth rates of German population, which has increased by 2.6% in this period.<sup>75</sup> But, from the other side, data allows to conclude that per capita consumption has also grown. In 2017, the annual per capita consumption in Germany of all types of mushrooms – fresh, preserved, frozen and dried, amounted to 3.1 kg (of that, fresh mushrooms are estimated at 1.8 kg per capita<sup>76</sup>). In comparison, 5 years ago the total annual per capita consumption was 2.9 kg. Fresh mushrooms account for around 60% of

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71 Euromonitor (2017). Packaged Food in Germany. Available at: <http://www.euromonitor.com/packaged-food-in-germany/report>

72 Euromonitor (2017). Consumer Lifestyles in Germany. Available at: <http://www.euromonitor.com/consumer-lifestyles-in-germany/report>

73 Federal Ministry of Education and Research. Living in Germany. Food and drink. Available at: <https://www.research-in-germany.org/en/discover-germany/food-and-drink/breakfast-lunch-and-dinner.html>

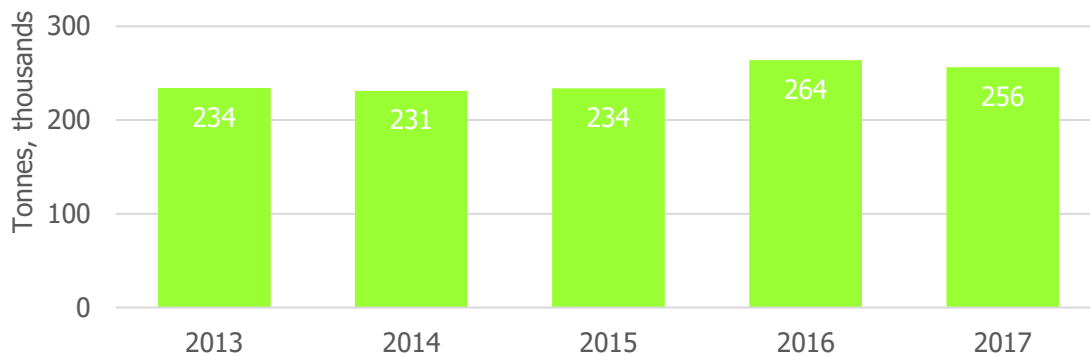
74 Federal Ministry of Education and Research. Living in Germany. Food and drink. Available at: <https://www.research-in-germany.org/en/discover-germany/food-and-drink/breakfast-lunch-and-dinner.html>

75 DeStatis. Population. Available at: <https://www.destatis.de/EN/FactsFigures/SocietyState/Population/Population.html>

76 Association of German Mushroom Growers (2017). Top vegetables: Mushrooms in the Top 10. <http://www.der-champignon.de/?p=3433>

consumption, while processed mushrooms – just 40%, with the gap widening, as Germans increasingly prefer fresh produce.<sup>77</sup>

**Figure 10. Domestic consumption of mushrooms in Germany, thousand tonnes<sup>78 79</sup>**



The key factors to per capita consumption growth of mushrooms in Germany, particularly of fresh produce, are their perceived healthiness (variety of minerals, vitamins and low level of calories), as well as the growing vegetarian and vegan trend among Germans. Fresh mushrooms is the most often consumed mushroom category in Germany with the best future prospects, particularly white and brown champignons, chanterelles, as well as oyster and porcini mushrooms.<sup>80</sup> Preserved mushrooms are also often consumed, but their sales are stagnating.<sup>81</sup> Preserved mushrooms are mostly consumed as a convenience food, mostly as appetizers or as an ingredient in preparing cold dishes such as salad. Dried mushrooms are consumed more rarely, as they tend to be rather expensive, but their concentrated taste makes them well-favoured in preparing in soups, stews and sauces, and also as a snack in a form of dried mushroom chips. Among dried mushrooms, porcini and shiitake varieties are the most common.<sup>82</sup>

Despite the high domestic demand, foreign importers of mushrooms face several limiting factors in the German market, with the key ones being the strong preference for fresh, locally grown and cultivated mushrooms, or at least produced in EU countries. This is why importers from non-EU countries should focus on supplying preserved, frozen and dried mushrooms, or exotic specialties. The increased consumption of exotic and rare mushrooms in Germany is a distinctive trend which has boomed over the past few years with the rising income. Such varieties include velvet shank mushrooms, beech mushrooms, maitake and hedgehog mushrooms. Although mostly cultivated and imported from Asian countries, the imports from EU countries and local production of rare mushrooms is also increasing due to market demand, however, it is still at a very low level, compared to traditional mushroom varieties. Because of the

77 Association of German Mushroom Growers (2015). Fresh mushrooms from Germany become increasingly popular. Available at: <http://www.der-champignon.de/?p=2070>

78 Author's calculations from data in Eurostat database, dataset Crop production in national humidity [apro\_cpnh1], available at: [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro\\_cpnh1&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro_cpnh1&lang=en), and dataset EU Trade Since 1988 By SITC (DS-018995), available at: <http://epp.eurostat.ec.europa.eu>

79 Eurostat database (2018). DS-018995 - EU Trade Since 1988 By SITC. Available at: <http://epp.eurostat.ec.europa.eu>

80 Association of German Mushroom Growers (2017). Consumers prefer local fresh mushrooms. Available at: <http://www.der-champignon.de/?p=3420>

81 Association of German Mushroom Growers (2015). Fresh mushrooms from Germany become increasingly popular. Available at: <http://www.der-champignon.de/?p=2070>

82 RP Online. The most popular mushrooms. Available at: [https://rp-online.de/leben/gesundheit/ernaehrung/die-beliebtesten-pilze-und-wofuer-sie-sich-eignen\\_bid-9412711#2](https://rp-online.de/leben/gesundheit/ernaehrung/die-beliebtesten-pilze-und-wofuer-sie-sich-eignen_bid-9412711#2)

limited assortment of such varieties among local producers, this offers great potential for foreign importers.<sup>83</sup>

### 5.3. Key market trends

#### 5.3.1. Vegetarian and vegan foods

The vegetarian and vegan sectors is one of the fastest growing in the German market. As many as 7% of German adults consider themselves to be vegetarian, while 5% count themselves as vegan. These diet choices are particularly common among younger generations, 16-24 year olds.<sup>84</sup> However, vegetarian and vegan sectors are growing also because of the general trend towards natural, unprocessed and wholesome products. Many German consumers opt for vegetarian and vegan products due to perceived superior healthiness and a lesser amount of additives, as well as impact on the animal wellbeing and environment.<sup>85</sup>

These popular diet choices are also being supported by vegan-only grocery retailers, such as Veganz, Dr. Pogo and Vallagares, as well as by food producers, which are actively working on new product development. In 2016, Germany was the leading country in the world for new vegan product launches, with 18% of all global vegan product launches occurring in Germany. Moreover, among all food and beverage launches in Germany in 2016, 13% had vegan claims and 7% had vegetarian claims, marking a massive growth in sector activity during the past 5 years.<sup>86</sup> Following the trend, grocery retailers have rapidly adapted and developed their own private-label vegetarian and vegan products.

The vegetarian and vegan trend has contributed to growth of many alternatives of meat and meat products. One of the products which has gained popularity because of this trend, are mushrooms, whose consumption in Germany has significantly increased over the past decade. Although not as nutritious as meat, the meaty texture and savoury flavour of mushrooms are increasingly favoured both in their fresh form and as an ingredient for vegetarian versions of several meat dishes.

The rapidly growing vegetarian and vegan product sector in Germany has been strengthened by adopting strict labelling rules for such products in 2016, even before this was done by the EU. As a result, products can be only labelled as vegetarian and vegan products if they conform to legal definitions for the terms. Also, only conforming products can be marked with the V-Label, the international symbol for vegan and vegetarian products (Figure 11).

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83 Oekoland Bau. Organic mushroom cultivation - a lucrative niche? Available at: <https://www.oekolandbau.de/erzeuger/pflanzenbau/spezieller-pflanzenbau/pilzbau/oekologischer-pilzbau/>

84 Mintel (2017). Germany hosted the highest number of vegan launches worldwide in 2016. Available at: <http://www.mintel.com/press-centre/food-and-drink/germany-hosted-the-highest-number-of-vegan-launches-worldwide-in-2016>

85 USDA Foreign Agricultural Service (2017). Vegan Market is Cooking in Germany. Available at:

[https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vegan%20Market%20is%20Cooking%20in%20Germany\\_Berlin\\_Germany\\_8-16-2017.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vegan%20Market%20is%20Cooking%20in%20Germany_Berlin_Germany_8-16-2017.pdf)

86 Mintel (2017). Germany hosted the highest number of vegan launches worldwide in 2016. Available at: <http://www.mintel.com/press-centre/food-and-drink/germany-hosted-the-highest-number-of-vegan-launches-worldwide-in-2016>

**Figure 11. V-Label symbols for vegetarian and vegan products**



It is highly advisable to obtain the rights to use this symbol, as it will improve the product visibility, especially for lesser-known foreign brands. The most promising vegetarian and vegan products to offer in the German market are meat substitute products, alternative milk products, as well as breakfast dishes (muesli, corn flakes, various curds, etc.) and non-gluten products.<sup>87</sup>

### 5.3.2. Organic foods

The movement for organic foods has long since achieved mainstream status in Germany due to high consumer health-consciousness, especially among younger generation aged 16-24 years. In 2016, the average annual expenditure on organic foods per capita rose to €97, which is nearly 2 times the average expenditure in the EU28 - €47.<sup>88 89</sup>

Today, Germany is the 2<sup>nd</sup> largest organic food market after the United States with retail sales of €9.48 billion in 2016. For the past 5 years, the organic food market in Germany has been recording an average annual growth of 8%. As a result, organic share of the total food retail sales has grown from 3.4% in 2010 to 5.1% in 2016. Although part of the sales growth can be attributed to rise in prices, most product categories also recorded sales volume increase. This was most explicit for organic food categories such as vegetable oils, poultry, potatoes, fruits and vegetables.<sup>90</sup> Organic trend is also quite prominent within food categories like dried fruits, nuts and seeds. Projections for the largest growth in the next years point out to categories such as organic instant meals, dairy products, confectionary and non-alcoholic beverages.<sup>91</sup>

Most of organic food sales in Germany are made by supermarkets – 57.5%, and natural food stores and markets – 30.1%.<sup>92</sup> As the demand for organic foods exceeds the local production capabilities, most organic products in Germany are imported. With the limited choice, most consumers do not pay particular attention to the origin country of the product. In 2016, the most imported organic categories in 2016 were soy beans, field peas, carrots, butter, grain maize and apples.<sup>93</sup>

87 USDA Foreign Agricultural Service (2017). Vegan Market is Cooking in Germany. Available at: [https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vegan%20Market%20is%20Cooking%20in%20Germany\\_Berlin\\_Germany\\_8-16-2017.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vegan%20Market%20is%20Cooking%20in%20Germany_Berlin_Germany_8-16-2017.pdf)

88 Germany Trade and Invest (2016). The food & Beverage Industry in Germany. Available at: [https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Industry-overviews/industry-overview-food-beverage-industry-en.pdf?v=7](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Industry-overviews/industry-overview-food-beverage-industry-en.pdf?v=7)

89 Euromonitor (2017). Organic Packaged Food in Germany. Available at: <http://www.euromonitor.com/organic-packaged-food-in-germany/report>

90 Agricultural Market Information Company (2017). The organic market in Germany - highlights 2016. Available at: <http://orgprints.org/31200/7/schaack-2017-organic-market-germany-biofach2017.pdf>

91 Germany Trade and Invest (2016). The food & Beverage Industry in Germany. Available at:

[https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Industry-overviews/industry-overview-food-beverage-industry-en.pdf?v=7](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Industry-overviews/industry-overview-food-beverage-industry-en.pdf?v=7)

92 Agricultural Market Information Company (2017). The organic market in Germany - highlights 2016. Available at:

<http://orgprints.org/31200/7/schaack-2017-organic-market-germany-biofach2017.pdf>

93 Agricultural Market Information Company (2017). The organic market in Germany - highlights 2016. Available at:

<http://orgprints.org/31200/7/schaack-2017-organic-market-germany-biofach2017.pdf>

Nearly all German supermarket chains are intensifying their activities to increase the variety of organic products in their assortment, as there is a still strong dominance of just a few major organic producers, such as Hipp and Alnatura Produktions. This is a counter move to expansion of organic-only retail chains, with the key players being Alnatura, Denn's, BioCompany and Basic. Some supermarket chains, like Edeka and Rewe, are even creating their own organic (as well as vegetarian and vegan) private-labels to retain customers. And, as supermarket private-labels tend to be lower priced than international imported brands, they have a significant advantage, as the key factors in organic food purchases for German consumers are price and value-for-money.

Another factor playing a significant role for German consumers is labelling, as producers must conform to rigorous standards in order to obtain the right to use certain organic recognition symbols. The most popular and widely trusted symbols are the Bio-Siegel logo, regulated by the German government, Demeter logo of the largest biodynamic agriculture certification organization Demeter International, as well as the EU's organic logo Euro Leaf, which is mandatory for all organic pre-packaged food produced within the EU in order to make organic products easily identifiable by the consumers (Figure 12).

**Figure 12. Symbols for organic food products - Euro Leaf, Demeter and Bio-Siegel**



In Germany, mushrooms is one of the product categories where organic certification is used as a means to boost consumption. Market for organic mushrooms in Germany is growing, as consumers are paying more attention to the environmental and societal impact of agricultural/horticultural practices, which translates into a growing offering of organic produce not only on the shelves of specialized retailers, but major German supermarkets and even discounters as well. Although organic certification is not as popular for mushrooms as it is for other products in Germany, it is still commonly used and account for around 4% volume and 8% value share of all mushrooms sold in retail and around 10% of all mushrooms produced in Germany.<sup>94</sup>

### **5.3.3. Healthy snacks and convenience foods**

The busy lifestyles of modern German consumers is one of the key factors for growth of portable snack foods which offer both nutrition and convenience, including fruit snacks, snack bars, packs of dried fruits and nuts, and healthy biscuits. In 2017, retail current value sales increased by 3%, following the trend of previous years.<sup>95</sup> Producers also boost category's growth by continuing to innovate with healthier

<sup>94</sup> Ami Informiert. Organic mushrooms demanded from consumers. Available at: <https://www.ami-informiert.de/ami-maerkte/maerkte/ami-maerkte-oekolandbau/meldungen/single-ansicht/singleview/news/artikel/bio-speisepilze-beim-verbraucher-gefragt.html>

<sup>95</sup> Euromonitor (2017). Sweet biscuits, snack bars and fruit snacks in Germany. Available at: <http://www.euromonitor.com/sweet-biscuits-snack-bars-and-fruit-snacks-in-germany/report>

products, more portable or mini-sized packaging and different flavours. Consumers, too, are looking more closely at nutritional value and aim to choose products with the lowest sugar and fat content. Similarly, healthy convenience foods, such as cereals and yogurt supplemented with dried fruits, nuts and seeds, are slowly becoming more common than less healthy convenience foods. Although products in this category are generally more expensive, expansion of the economy and high levels of consumer confidence allowed the category to bloom. Moreover, this trend goes hand-in-hand with the boosted consumption of organic foods, as the targeted consumer groups often overlap, thus producers tend to combine claims on both product healthiness and its organic certifications.

The health and wellness trend within the category also has promoted growth of both demand and supply of new superfood products, such as supergrains, dried superfruits and superseeds. According to market research company Mintel, Germany is the 2<sup>nd</sup> most innovative market for new superfood launches, following the lead of the US. In 2017, 9% of global food and drink launches carrying a superfood claim occurred in Germany, up from a 6% share in 2016.<sup>96</sup> It has been projected that growth in this category will expand beyond the initial focus on popular ingredients such as chia, amaranth and quinoa, with the growing use of other lesser known superfood ingredients. Dried superfruits, such as cranberries, goji berries, blueberries and mulberries, also are growing in popularity due to being easily consumed as their own as a snack on-the-go.

Overall, healthy snacks and convenience foods continued to be led by major private-labels of discounters Lidl and Aldi, as well as supermarket grocery chains EDEKA and REWE. Private-labels in Germany benefit from strong brand recognition, similar to that of traditional brands, as well as consumer appreciation of products with a good value-for-money.

#### **5.3.4. Private labels**

One of the growth factors of German grocery retail sales is the increased focus on private-label products. Half of German consumers believe that buying private-label products is something that savvy shoppers would do.<sup>97</sup> Germany has one of the highest shares of private-label sales in Europe, due to the strong presence of major discounter chains Lidl and Aldi, as well as increasing own private-label development across largest supermarket chains, such as Rewe Group and EDEKA Group.

German supermarkets have borrowed the success model from the leading discounters and managed to build higher-value private-label ranges over recent years, which are cheaper than branded products but, at the same time, are perceived as having a better value-for-money than discounter private-labels. The number of new private-label product launches has grown exponentially for the past 5 years.<sup>98</sup> According to market research company Nielsen, private-label share of food products in Germany reached 36% in 2016,

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<sup>96</sup> Mintel. Germany is now the world's second most innovative market for superfood launches. Available at: <http://www.mintel.com/press-centre/food-and-drink/germany-is-now-the-worlds-second-most-innovative-market-for-superfood-launches>

<sup>97</sup> Yumda. Europe at the forefront of private label premiumisation. Available at: <http://www.yumda.com/en/news/1154722/europe-at-the-forefront-of-private-label-premiumisation.html>

<sup>98</sup> Agriculture and Agri-Food Canada (2016). Private Label Trends - Packaged Food in Germany. Available at: <http://www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/europe/market-intelligence/private-label-trends-packaged-food-in-germany/?id=1463150219477>

showing an increase by 1% point in 2014. Higher shares were reached only in the UK and Spain.<sup>99</sup> Private label share of organic food products is estimated to be slightly lower, at 29%, revealing a high growth potential due to massive demand and high imports.<sup>100</sup>

As German consumers are responding positively to expanding share of private-labels not only in discounters but in supermarkets as well, and appreciate their perceived value-for-money, more novelties are becoming to appear in store shelves, such as expensive high quality premium products. The fastest growing private-label categories are organic, ethical, premium, free-from, vegetarian, vegan, and ready meals.<sup>101 102</sup> However, as private labels begin to focus less on price and more on brand and added value, there is a risk that private labels will lose their cost edge.

### 5.3.5. Online shopping

The strong presence of discounters, which traditionally do not have online stores and the high density of smaller grocers are the main factors that has lagged the development of grocery online shopping in Germany. In 2017, grocery online sales in Germany accounted only for 1.7% of the total grocery sales. In contrast, the share in the UK was 7.5% and in France – 5.6%.<sup>103</sup>

Although online shopping still accounts for a low share of the total grocery retail sales in Germany, considerably less than in other European countries, it is continuing to increase its share due to obvious time-saving benefits and convenience factor. It has been estimated that in 2017, around 15% of German consumers purchased more than half of their groceries online and this proportion is due to increase in 2018, as 20% of consumers are planning to do so in the next 12 months.<sup>104</sup>

The change in German shopping habits started to take off after the expansion of Amazon grocery operations in the market, most notably the entrance of Amazon Pantry in 2015, and Amazon Fresh online supermarket in 2017. Online sales of groceries are also growing due to retail chains Rewe and Edeka expanding their online operations, as well as a few start-ups. Growth has been recorded in all food and beverages categories, but most explicitly - for products such as specialty foods, non-alcoholic beverages and alcoholic beverages.<sup>105 106</sup> Specialty products are particularly often purchases online, as they are not readily available in the nearest stores. This explains the popularity of online specialty stores, such as Gourmondo.

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99 Nielsen. Rise and Rise Again of Private Label. Available at: <http://www.nielsen.com/content/dam/nielsen-global/ru/docs/2018.02%20-%20Global%20-%20The%20Rise%20and%20Rise%20Again%20of%20Private%20Label.pdf>

100 Euromonitor (2015). Private label in Western Europe: Developments and future prospects.

Available at: [https://www.wabel.com/sites/default/files/market\\_data/Euromonitor\\_Grocery%20SUMMIT.pdf](https://www.wabel.com/sites/default/files/market_data/Euromonitor_Grocery%20SUMMIT.pdf)

101 Agriculture and Agri-Food Canada (2016). Private Label Trends - Packaged Food in Germany. Available at: <http://www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/europe/market-intelligence/private-label-trends-packaged-food-in-germany/?id=1463150219477>

102 IGD (2017). German grocery market to grow 10.5% to 2021. Available at: <https://www.igd.com/about-us/media/press-releases/press-release/t/igd-german-grocery-market-to-grow-105-to-2021/i/17008>

103 Kantar World Panel (2017). E-commerce grocery market has grown 30%. Available at: <https://www.kantarworldpanel.com/global/News/E-commerce-grocery-market-has-grown-30#download>

104 PwC. Vier von zehn Deutschen wollen Lebensmittel online bestellen. Available at: [www.pwc.de/de/handel-und-konsumguter/vier-von-zehn-deutschen-wollen-lebensmittel-online-bestellen.html](http://www.pwc.de/de/handel-und-konsumguter/vier-von-zehn-deutschen-wollen-lebensmittel-online-bestellen.html)

105 Euromonitor (2016). Grocery Retailers in Germany. Available at: <http://www.euromonitor.com/grocery-retailers-in-germany/report>

106 USDA Foreign Agricultural Service (2017). Retail Foods – Germany. Available at:

[https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Foods\\_Berlin\\_Germany\\_8-7-2017.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Foods_Berlin_Germany_8-7-2017.pdf)



Grocery retailers are taking notice regarding their online presence also due to the ROPO effect or the concept of “researching online, purchasing offline.” In Germany, it is becoming increasingly popular to research products online and compare prices of different brands, and afterwards going to stationary retail store where they can receive the best value-for-money. Alternatively, consumers can engage in ROPO activities even on the retail spot via smartphones. According to Deloitte survey, 38% of frequent online shoppers in Germany reported researching products online prior to visiting a store, with another 25% of frequent shoppers having researched online while in store. This research concept, also referred to as “multichannel retailing”, has resulted in low brand loyalty levels and high demands, especially among Millennials and Gen Z-ers, for whom switching brands and retailers is easy when not satisfied.<sup>107</sup>

## 6. Food trade regulations

### 6.1. General food trade regulations

Germany’s food and beverages laws and regulations are based on EU regulations and directives, such as the General food law and food safety regulation no. 178/2002, Food hygiene regulation no. 852/2004, General requirements for all food contact materials no. 1935/2004, Regulation on contaminants and traces no. 315/93/EEC, Regulation for organic food and farming no. 834/2007 and others. The main responsibility of regulations regarding imports and trade of food in Germany lie in domain of the Federal Ministry of Food and Agriculture, supported by the Federal Office of Consumer Protection and Food Safety.

The key legal foundation regulating food production, import and trade in Germany is the German Food, Commodities and Feed Act.<sup>108</sup> The Act covers all stages of the food value chain, and applies to food, beverage, feed and cosmetics goods with the main aim to regulate actions of manufacturers, dealers and distributors by ensuring traceability throughout the production and processing stages, as well as guaranteeing safety and quality of the goods. The Act consists of ordinances on topics such as hygienic and veterinary requirements, labelling, packaging, as well as numerous rules for special product groups.

#### 6.1.1. Import regulations

The strict food and feed legislation applies to all foods and feeding stuffs, both originating from within and outside of the EU. For most agricultural products, such as grains, milk, meat, olive oil, fruits and vegetables, wine, sugar, as well as food supplements, imported into Germany from a country outside of the EU, the admissibility of products largely depends on a conformity certificate or a disclaimer, as well as of an agricultural certificate of origin. The importer must be able to present a valid conformity certificate from either the Federal Agency for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung - BLE)<sup>109</sup>, which is the main authority for imports of agricultural products, or from a recognised inspection service in a third country. If none of the mentioned certificates are present, the Federal Agency of Agriculture and Food is able to issue a disclaimer in some cases.

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<sup>107</sup> Germany Trade & Invest. Available at: <http://www.gtai.de/GTAI/Navigation/EN/Invest/Industries/Consumer-industries/consumer-markets-retail.html>

<sup>108</sup> Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch

(Lebensmittel- und Futtermittelgesetzbuch - LFGB). Available at: <https://www.gesetze-im-internet.de/lfgb/LFGB.pdf>

<sup>109</sup> Bundesanstalt für Landwirtschaft und Ernährung. Available at: [www.ble.de](http://www.ble.de)

The competent customs administration authority in Germany for all products imported from countries outside the EU is the Customs and Excise Board (Bundeszollverwaltung).<sup>110</sup> The documentary basis for customs declarations is the single administrative document, which is used within the framework of trade with third countries and for the movement of non-EU goods within the EU. The document may be presented both by the importer or its representative either by physically lodging it at the designated Customs office or via submitting it electronically on the Customs and Excise Board website.

There are no additional import duties for agricultural imports from Georgia, as since July 1<sup>st</sup> of 2016, a preferential trade regime between Georgia and the EU came into force - the Deep and Comprehensive Free Trade Area (DCFTA), based on the principles of the World Trade Organisation. Since then, the new trade regime has removed all import duties on goods, as well as allowed Georgian companies to set up a subsidiary or a branch office in the EU on a non-discriminatory basis and enjoy the same benefits as domestic companies do.

### **6.1.2. Food safety and hygiene**

Germany has an excellent reputation for its high level of food safety, as well as high standards of hygiene, as EU countries can impose stricter national requirements in addition to the EU standards. The German Food, Commodities and Feed Act provides that operators across the whole food production and trade chain, including producers, importers, distributors and retailers, are all responsible for products they place on the market. However, even if products do not comply with the national requirements, they can be imported to ensure free movement of goods, as long as they are legal in another EU member state. However, in such case, importers will need to obtain a special permit, issued by the Federal Office of Consumer Protection and Food Safety (BVL).<sup>111</sup>

Generally, food vendors do not need a special permission, except for sales of novel and dietetic foods, which are subject to general authorization requirements. However, even if all the requirements have been taken into account, customs authorities can sometimes initiate an additional investigation of imported food products, especially if a national or European institution has given an alert. In such cases, an official laboratory report proving the product's safety is usually requested.<sup>112</sup>

Most food hygiene standards have been harmonized across the EU, including phytosanitary standards in order to avoid diseases and pests. For plants, fresh fruits and vegetables, as well as raw and unprocessed nuts, a phytosanitary certificate is also required. The competent authority for phytosanitary inspections is the Julius Kühn Institute (Julius Kühn Institut - Bundesforschungsinstitut für Kulturpflanzen)<sup>113</sup>, overseen by the Federal Ministry of Food and Agriculture.

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<sup>110</sup> Bundeszollverwaltung. Available at: [www.zoll.de](http://www.zoll.de)

<sup>111</sup> IXPOS, The German Business Portal. Food and beverage. Market access. Available at: <https://www.ixpos.de/IXPOS/Navigation/EN/Your-business-in-germany/Business-sectors/Consumer-goods/food-and-beverage,t=market-access-,did=263444.html>

<sup>112</sup> IXPOS, The German Business Portal. Import regulations. Available at: <http://www.ixpos.de/IXPOS/Navigation/EN/Your-business-in-germany/Market-entry/import-regulations,did=271212.html>

<sup>113</sup> Julius Kühn Institut - Bundesforschungsinstitut für Kulturpflanzen. Available at: [www.jki.bund.de](http://www.jki.bund.de)

### 6.1.3. Labelling and packaging

Companies exporting products to Germany also must take into account the the EU marketing standards, especially those regarding health claims, as well as labelling and packaging requirements which emphasize consumer safety and environmental friendliness. Products that already are in conformity with any standards adopted by the United Nations Economic Commission for Europe (UNECE), are considered as conforming to the general marketing standard in the EU, regarding such criteria as quality, size, labelling, packaging and presentation. The compliance with food marketing standards in Germany is controlled by the Federal Agency for Agriculture and Food.

The specific requirements for Germany is that the contents of the labelling must be in German language, and there are also specific provisions for different types of products. Particular emphasis is also on the provision of proper and well visible food information to consumers, such as all food ingredients, allergens, precise nutritional value and instructions for use. Traceability of food products is also of utmost importance. For example, the country of origin must always be listed on food labels and all intermediaries, such as suppliers and distributors, must be included as well.<sup>114</sup>

In addition, German mentality for environmental-friendliness is reflected in requirements for product packaging as well. Importers, distributors and retailers must make sure that their food packaging materials comply with the EU's and Germany's regulations in terms of recycling and waste disposal. All transport, secondary and commercial packaging, must be collected including all additional packs that reach the consumer. In case of large packaging volumes (50-80 tonnes), responsible authorities must be warned and the waste must be recycled.<sup>115</sup>

## 6.2. Trade regulations of mushrooms

### 6.2.1. Import regulations

In order to export mushrooms to the EU countries, including Germany, EU requirements for product quality should be fulfilled. Product quality is a key factor for German buyers, therefore it is recommended to follow not only the minimum EU and national regulations, but to ensure that the product adheres to internationally recognized quality guidelines as well. Key international regulations for mushrooms include Codex Alimentarius standards, such as Standard 38-1981 for Edible Fungi and Fungus Products<sup>116</sup>, Standard 39-1981 for Dried Edible Fungi<sup>117</sup> and Standard 40R-1981 for Fresh Fungus Chanterelle<sup>118</sup>, as well

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114 IXPOS, The German Business Portal. Food and beverage. Market access. Available at: <https://www.ixpos.de/IXPOS/Navigation/EN/Your-business-in-germany/Business-sectors/Consumer-goods/food-and-beverage,t=market-access-,did=263444.html>

115 Deutscher Industrie- und Handelskammertag. Overview of the German Packaging Ordinance. Available at: [http://www.ixpos.de/IXPOS/Content/EN/Your-business-in-germany/\\_SharedDocs/Downloads/overview-of-the-german-packaging-ordinance-2014.pdf?v=5](http://www.ixpos.de/IXPOS/Content/EN/Your-business-in-germany/_SharedDocs/Downloads/overview-of-the-german-packaging-ordinance-2014.pdf?v=5)

116 FAO. CODEX Standard 38-1981 for Edible Fungi and Fungus Products. Available at: [http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCODEX%2B38-1981%252FCXS\\_038e.pdf](http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCODEX%2B38-1981%252FCXS_038e.pdf)

117 FAO. CODEX Standard 39-1981 for Dried Edible Fungi. Available at: [http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCODEX%2B39-1981%252FCXS\\_039e.pdf](http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCODEX%2B39-1981%252FCXS_039e.pdf)

118 FAO. Regional CODEX Standard 40R-1981 for Fresh Fungus Chanterelle. Available at: Available at: [http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCODEX%2B40R-1981%252FCXS\\_040Re.pdf](http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCODEX%2B40R-1981%252FCXS_040Re.pdf)

as UNECE standards, such as UNECE Standard FFV-24 concerning the marketing and commercial quality control of cultivated mushrooms<sup>119</sup> and UNECE Standard FFV-54 concerning specifically porcini mushrooms (ceps).<sup>120</sup> Even though these standards are not legally binding, they are highly recommended for all suppliers who want to access the German market.

Guidelines should be followed both for cultivated and wild mushroom producers, but especially for the latter, since product quality has been an issue specifically within the wild mushroom segment and several varieties being misrepresented as more expensive varieties.<sup>121</sup> This is why a common requirement from German buyers includes signing a code of conduct for suppliers, in which the exporter declares that it conducts business in a responsible manner.

In all EU countries, including Germany, official controls are regularly conducted to ensure that all products entering the market are safe and comply with the set EU requirements. Controls can be carried out at all stages of import and marketing, but most take place at the points of entry into the EU. Imports of mushrooms from non-EU countries must come through designated Border Inspection Posts and are subject to a series of checks before being allowed to enter. Products that are not considered safe will be denied access to the market. In general, there are 3 types of import controls – documentary checks, identity checks and physical checks. In the event of repeated violations, more intensive controls can be set or emergency measures imposed for certain exporters.

Buyers in Germany are not only rigorous in terms of expected quality standards, but also demand straightforward and transparent information on their potential partners and products they import. This includes clear and elaborate documentation, including product specifications (quality specifications, price indication, packaging), production capacity (turnover, number of employees), processing capabilities (certificates, quality management), as well as company structure (history, mission, vision and activities). Importers also require exporters to show proof of origin and take traceability measures, as traceability is an important issue in the EU. Additional documentation, such as health certificates, should be provided for customs. The documentation should correspond exactly with the mushroom supplies contained in the consignment, including the indicated volumes, number of pallets and boxes, and names of growers. Moreover, new buyers will often require samples, which should be representative of the product delivered.

### **6.2.2. Food safety and hygiene**

Food safety and hygiene regulations for mushroom import and trade in Germany comply with the general EU legislation for food products, such as EC Regulation no. 178/2002 on the general principles and requirements of food law, and procedures on food safety, as well as EC Regulation no. 852/2004 on

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119 UNECE (2012). UNECE Standard FFV-24 concerning the marketing and commercial quality control of cultivated mushrooms. Available at: [https://www.unece.org/fileadmin/DAM/trade/agr/standard/fresh/FFV-Std/English/24Cultivated\\_mushrooms\\_2012.pdf](https://www.unece.org/fileadmin/DAM/trade/agr/standard/fresh/FFV-Std/English/24Cultivated_mushrooms_2012.pdf)

120 UNECE (2010). UNECE Standard FFV-54 concerning the marketing and commercial quality control of ceps. [https://www.unece.org/fileadmin/DAM/trade/agr/standard/fresh/FFV-Std/English/54Ceps\\_2010.pdf](https://www.unece.org/fileadmin/DAM/trade/agr/standard/fresh/FFV-Std/English/54Ceps_2010.pdf)

121 Centre for the Promotion of Imports (2014). Dried Mushrooms in Germany. Available at:

[https://www.cbi.eu/sites/default/files/market\\_information/researches/product-factsheet-dried-mushrooms-germany-processed-fruit-vegetables-edible-nuts-2014.pdf](https://www.cbi.eu/sites/default/files/market_information/researches/product-factsheet-dried-mushrooms-germany-processed-fruit-vegetables-edible-nuts-2014.pdf)

hygiene of foodstuffs.<sup>122 123</sup> To guarantee food safety and to allow appropriate action in cases of unsafe food, producers must ensure that mushrooms are traceable throughout the entire supply chain, and risks of contamination must be limited. One important aspect involved in controlling food-safety hazards is defining critical control points (HACCP) by implementing food-management principles. For exporting to Germany, it is recommended to have a certification of HACCP, although it is not a legal requirement. HACCP is one of the most commonly used certificates in Germany, providing the company with a risk management tool for food safety risks.

All imported mushrooms should be prepared and handled in accordance with EU regulations and the main recommended international code of practice - the Codex General Principles of Food Hygiene CAC/RCP 1-1969.<sup>124</sup> A particular hygiene issue that has arisen lately in EU countries are high amounts of detected nicotine in certain mushrooms, mainly in wild porcini mushrooms, but also in truffles and chanterelles (above the set default level of 0.01 mg/kg). The maximum residue levels of nicotine, as well as other pesticides found in mushrooms are set in the EU Regulation No. 396/2005.<sup>125</sup> Moreover, a heightened issue are contaminants such as arsenic, mercury and salmonella found in imported mushrooms. The basic principles of EU legislation on contaminants, microbiological contamination and residues of pesticides can be found in EC Regulation No. 315/93/EEC<sup>126</sup>, while maximum threshold limits can be found in EC Regulation No. 1881/2006<sup>127</sup>. Another relevant legislation document is the EU Directive No. 95/2/EC<sup>128</sup> on food additives other than colours and sweeteners, which mostly concerns dried and preserved mushrooms.

### 6.2.3. Labelling and packaging

Labelling of mushrooms sold in Germany must comply with the rules and regulations applying in the EU market, as laid out in European Commission (EC) Regulation no. 1169/2011 on the provision of food information to consumers<sup>129</sup>. As stated in the regulation, labelling of consumer packs cannot contain any toxic ink or glue. In Germany, it is required that the contents of the labelling must be in German language. The key information that must be included on the product labelling is as follows:

- The name of the product, and, if applicable, its treatment;
- List of ingredients;
- Quantity of an ingredient or category of ingredients;
- Net quantity (the amount of food in the container or package);
- Date of minimum durability;

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122 The European Parliament and the Council of the European Union. Regulation (EC) No. 178/2002 On the general principles and requirements of food law. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32002R0178>

123 The European Parliament and the Council of the European Union. Regulation (EC) No. 852/2004 On the hygiene of foodstuffs. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:139:0001:0054:en:PDF>

124 FAO. General principles on good hygiene CAC/RCP 1-1969. Available at: [http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?Ink=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCAC%2BRCP%2B1-1969%252FCXP\\_001e.pdf](http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?Ink=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCAC%2BRCP%2B1-1969%252FCXP_001e.pdf)

125 European Commission. Regulation No. 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32005R0396>

126 European Commission. Council Regulation (EEC) No 315/93 of 8 February 1993 laying down Community procedures for contaminants in food. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31993R0315>

127 European Commission. Commission Regulation No. 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32006R1881>

128 European Commission. EC Directive No. 95/2/EC of 20 February 1995 on food additives other than colours and sweeteners. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1995L0002:20060815:EN:PDF>

129 European Commission. Regulation (EU) No 1169/2011. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32011R1169>

- Use and special storage instructions;
- Name and address of the manufacturer or packager or EU buyer/retailer
- Place of origin or provenance of the product;
- Batch number;
- Certifier control number for organic products;
- Organic certification logo, if applicable;
- Retailer logo in case of a private label brand, if applicable;
- Traceability information, such as bar, producer and/or packager code.

In general, it is advised take into account the recommendations of CODEX Alimentarius for labelling of packs for consumers or for catering purposes, specifically, Guidelines on the Labelling of Pre-packaged Foods CODEX STAN 1-1985<sup>130</sup> and Guidelines on the Nutrition Labelling CAC/GL 2-1985.<sup>131</sup> Furthermore, on the labelling of pre-packed mushrooms, it is necessary to clearly indicate the presence of allergens, e.g. any extraneous material that can cause allergic reactions. The labelling requirements regarding allergens are set in EC Regulation no.1169/2011.<sup>132</sup>

The use of nutrition and health claims on labelling is regulated by EC Regulation no. 1924/2006.<sup>133</sup> Specific requirements apply to niche markets, such as organic or fair trade mushrooms. In order to trade organic products in the EU and Germany, the producer must use the organic production methods, specified in EU legislation, for at least 2 years before marketing products as organic. In addition, an import authorization from an EU organic control body must be acquired. Only after being audited by an accredited certifier, the organic logo on products can be affixed.

Regarding packs or other type of packaging, bulk packaging, such as carton boxes or polyethylene bags, must contain mushrooms of the same commercial type and must have a uniform net weight. In practice, the bulk packaging varies depending on the type and processing level of the product (e.g. fresh, preserved, frozen or dried), but the most common bulk packaging are wooden chip baskets or carton boxes with polythene inserts, weighing around 1-5 kg, or polythene bags ranging in weight from 300g up to 2.5 kg (Figure 13).

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130 FAO. General Standard for the Labelling of Pre-packaged Foods. CODEX STAN 1-1985. Available at: [www.fao.org/input/download/standards/32/CXS\\_001e.pdf](http://www.fao.org/input/download/standards/32/CXS_001e.pdf)

131 FAO, WHO. CODEX Guidelines on Nutrition Labelling CAC/GL 2-1985. Available at: [http://www.fao.org/fao-who-codexalimentarius/sh-proxy/es/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCAC%2BGL%2B2-1985%252FCXG\\_002e.pdf](http://www.fao.org/fao-who-codexalimentarius/sh-proxy/es/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252Fstandards%252FCAC%2BGL%2B2-1985%252FCXG_002e.pdf)

132 European Commission. EC Regulation no.1169/2011. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2011R1169:20111212:EN:PDF>

133 European Commission. Regulation (EU) No. 1924/2006. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A02006R1924-20121129>

**Figure 13. Example of a typical bulk packaging of mushrooms in Germany (Niklas, fresh chanterelles in a tray, 3kg<sup>134</sup>; Just Ingredients, dried shiitake mushrooms, 1kg, plastic bag<sup>135</sup>)**



Packaging of mushrooms for retail also varies significantly, according to the type and processing level of the product. Fresh mushrooms are typically pre-packed in plastic or pulp punnets or trays with transparent stretch film, with weight ranging from 100 g – 500 g, or, alternatively, they are available in bulk trays for consumers to choose the exact amount they want. Frozen mushrooms are usually pre-packaged in plastic bags weighing from 200 g – 600 g. Preserved mushrooms are available mostly in either glass jars or metal cans weighing from 100 g – 500 g. And, finally, dried mushrooms have the widest range of packaging – they are packed in either plastic bags or jars weighing anywhere from 15 g – 1kg (Figure 14). However, it has to be noted that German consumers are increasingly preferring smaller packaging sizes due to shrinking German households.<sup>136</sup>

**Figure 14. Example of a typical retail packaging of mushrooms (RNP, fresh brown champignons in a plastic punnet, organic, 200 g<sup>137</sup>; EDEKA, preserved white champignons in a glass jar, 280 g<sup>138</sup>; Niklas, frozen porcini mushrooms, 300 g<sup>139</sup>; Wagner, dried porcini mushrooms, cut, 30 g<sup>140</sup>)**



134 Niklas. Fresh mushrooms. Available at: <https://www.pilze-niklas.com/produkte/frische-pilze/>

135 Amazon. Just Ingredients, dried shiitake mushrooms, 1kg. Available at: [https://www.amazon.de/JustIngredients-Essential-Shiitake-Pilze-1er-Pack/dp/B00CJ8A650/ref=sr\\_1\\_21?s=grocery&ie=UTF8&qid=1527019642&sr=1-21&keywords=1kg+pilze](https://www.amazon.de/JustIngredients-Essential-Shiitake-Pilze-1er-Pack/dp/B00CJ8A650/ref=sr_1_21?s=grocery&ie=UTF8&qid=1527019642&sr=1-21&keywords=1kg+pilze)

136 Association of German Mushroom Growers (2017). Consumers prefer local fresh mushrooms. Available at: <http://www.der-champignon.de/?p=3420>

137 Allyouneedfresh. RNP, fresh brown champignons. Available at: <https://www.allyouneedfresh.de/info/-bio-champignons-braun-200-g?artikel=32158>

138 EDEKA. EDEKA, preserved white champignons. Available at: <https://www.edeka24.de/Lebensmittel/Konserven/Gemuesekonserven/EDEKA-Champignons-1-Wahl-in-Scheiben.html?listtype=search&searchparam=champignon&order=>

139 Allyouneedfresh. Niklas, frozen porcini mushrooms. Available at: <https://www.allyouneedfresh.de/info/niklas-tiefgekuehlte-steinpilze-300-g?artikel=60997>

140 Allyouneedfresh. Wagner, dried porcini mushrooms. Available at: <https://www.allyouneedfresh.de/info/green-forest-wagner-steinpilze-getrocknet-kleinstueckig-30-g?artikel=26765>

All types of packaging must ensure a proper protection of the product. Materials used inside of the package must be of good quality and clean of foreign matter to avoid causing any damage. Any material used inside the package should be new, waterproof and harmless to human health. Packaging should ensure adequate protection against humidity during storage and transport of the product.

## **7. Conclusions and recommendations**

With the expansion of German economy, high consumer confidence levels and increased household spending, for foreign importers it is now as attractive market as ever. Although local food production is increasing and competition among importers is tightening, the astounding number and diversity of German consumers means that with proper knowledge of the local market and regional differences, nearly every business can find their niche.

However, consumers are becoming increasingly savvy and are using all information channels to find products with the best value-for-money. With all consumer groups in Germany being price-conscious, discounters such as Lidl and Aldi have become direct competitors to supermarkets like EDEKA and REWE, and private-label share in grocery retail is among the highest in Europe. At the same time, German consumers also demand high quality, as well as healthy and environmentally friendly products. With the key consumption trends being organic and fair trade products, vegetarian and vegan foods, healthy snacks and convenience foods, the German market is driven by new product developments and numerous launches each year.

The high consumer demands also are reflected onto supply purchasing process. Competition is increasing among producers and retailers, and a major price pressure is put on trade operators across all product supply chain. Also, all products, especially when supplied from non-EU countries, are a subject to strict quality requirements. Although Germany in general complies with the common EU regulations, German businesses often have additional demands to ensure superb quality, which a necessity in such a competitive market. Also, country-specific requirements such as product labelling in German, packaging and disposal fees, and rules regarding disposal and recycling of packaging must be taken into account.

Besides regulations, German businesses also are rather traditional and prefer to cooperate with long-time partners, which is why successful representation and recognition of the supplier and its products is of major importance. Online presence and local trade show visits are a must when trying to establish new trade connections in Germany.

Mushrooms is one of the most attractive product category to import in Germany from foreign producers. Germany is the largest importer and net importer of mushrooms in the EU, both in terms of volume and value. Its increasing population and growing per capita consumption, especially of fresh mushrooms, makes it impossible to cover the demand with the supplies by local producers only. However, with Germans strongly preferring local produce, or at least produce originating from the EU, most of mushroom imports in Germany come from EU countries, especially fresh and chilled produce, with non-EU countries accounting for a considerably smaller share, and mostly consisting of prepared and preserved mushrooms.



Also, it is very difficult to compete with branded products in the German market, especially if the brand originates from smaller non-EU countries. Only major producers, such as from the Netherlands or France, are able to compete with the local German brands. Some foreign producers even take unusual measures to be able to mark their products with the label “Made in Germany”, like bringing their produce in mobile trucks and harvesting them just right after the German border. At the same time, the role of brands is diminishing, as the German supermarket and discounter shelves are flooded with various types of mushroom products under retailer private-labels, which are often developed by contracted specialized importers/processors/packers of mushrooms.

Therefore, in order to succeed in a German market as a supplier of mushrooms from non-EU country, the recommended path is to trade in bulk with the target consumer being retailers with own private-labels, food service industry, as well as in food processing industry, especially producers/processors of convenience and canned foods, and ready meals. The niche with particularly great prospects are that of exotic and rare mushrooms, which are not sufficiently produced by local growers, like velvet shank mushrooms, beech mushrooms, maitake and hedgehog mushrooms. Organic mushrooms also provide good opportunities.

Taking all of this into account, the most efficient trade channels for foreign producers of mushrooms to enter the German market are specialized importers and wholesalers, which have good knowledge of the legal requirements and the local market, as well as offer a wider contact network. A particularly attractive trade channel is those importers which also are processors and marketers of their own branded products or offer private-label development services for major retailers. Accordingly, several key entry models for Georgian producers of bay leaves have been compared in the table below, such as direct export to retailers, food producers and food service industry, as well as indirect export via importers and wholesalers.

**Table 14. Key market entry models for Georgian producers of mushrooms**

	Entry Model	Advantages	Disadvantages	Suitability
<i>Bulk products</i>	Indirect export via importers/wholesalers	<ul style="list-style-type: none"> <li>• Good accessibility</li> <li>• Local knowledge and contact network</li> <li>• Assistance with trade requirements</li> <li>• Many importers also act as processors/ private label developers</li> </ul>	<ul style="list-style-type: none"> <li>• Must mainly compete with either the price or be able to offer rare or exotic mushrooms</li> </ul>	High

<i>Bulk products</i>	Direct export to food processors, producers and food service providers	<ul style="list-style-type: none"> <li>• Ability to compete with lower prices due to cutting out middlemen</li> <li>• Full control over the supply process</li> <li>• An in-depth knowledge of the client needs</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to establish connections</li> <li>• Must ensure fulfilment of specific purchase requirements</li> <li>• Must mainly compete with price or able to offer rare or exotic mushrooms</li> <li>• Specific purchase requirements</li> </ul>	Medium
<i>Bulk products</i>	Direct export to retailers	<ul style="list-style-type: none"> <li>• Ability to compete with lower prices due to cutting out middlemen</li> <li>• Good opportunities for supplying mushrooms for private-label development</li> <li>• An in-depth knowledge of the client needs</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to establish connections</li> <li>• Must have good knowledge of German consumers and trade requirements</li> <li>• Must mainly compete with either the price or be able to offer rare or exotic mushrooms</li> <li>• Specific purchase and delivery requirements</li> </ul>	Medium to low
<i>Branded products</i>	Indirect export via importers/wholesalers	<ul style="list-style-type: none"> <li>• Good accessibility for foreign importers</li> <li>• Local knowledge and contact network</li> <li>• Assistance with marketing, promotion and trade requirements</li> <li>• Good opportunities for rare and exotic mushroom suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• Must have good knowledge of German consumers and trade requirements</li> <li>• Need to have a strong brand to compete</li> <li>• Consumers prefer local brands</li> <li>• Packaging and marketing related costs</li> </ul>	Medium to low
<i>Branded products</i>	Direct export to retailers	<ul style="list-style-type: none"> <li>• Ability to compete with lower prices due to cutting out middlemen</li> <li>• Full control over the supply process</li> <li>• An in-depth knowledge of the client needs</li> <li>• Good opportunities for rare and exotic mushroom suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to establish connections</li> <li>• Must have good knowledge of German consumers and trade requirements</li> <li>• Need to have a strong brand to compete</li> <li>• Consumers prefer local brands</li> <li>• Packaging and marketing related costs</li> <li>• Specific purchase and delivery requirements</li> </ul>	Low

By comparing main advantages and disadvantages of each model for Georgian producers of mushrooms, it was determined that the most suitable models are indirect export models based on trade in bulk, particularly – indirect export via importers and wholesalers, especially importers who also act as processors and private-label developers. The indirect export trade models are recommended as they have more advantages and present less barriers than others. Also, in these models there are no additional costs associated with marketing and the competition is based more on the price. For exporting and distributing widely available varieties of mushrooms, traditional trade partnerships are recommended, but for high

quality, organic and fair-trade specialties, as well as rare or exotic mushrooms, specialized wholesalers should be contracted. Best prospects for trade in bulk are for prepared or preserved mushrooms, and fresh, chilled or dried rare or exotic mushrooms (the latter also have good opportunities in the pre-packed and branded segment). Export of packed and branded mushrooms is only recommended for those producers who are ready for long-term commitment to German market and are willing to heavily invest into marketing.

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#### ABOUT EDA:

EDA was founded in 2012 with the mission to help Georgian enterprises grow and diversify their exports through advocacy, advisory and promotion. EDA is a member-driven association uniting up to 100 Georgian export-oriented producers and service providers. EDA offers Georgian exporters building capacity, develop an export marketing plan, provide export management service, select target export market and break down the barriers to trade. Most of EDA members are in production sectors, but EDA also affiliates tourism industry representatives. We offer permanently updated product/market briefs for exporters and Inspire Georgian companies to engage in exporting to expand their business horizons and grow internationally. Our key expertise is identification and execution of market entry strategies.

#### ABOUT GATEWAY & PARTNERS:

Gateway & Partners, formerly GatewayBaltic, was established in 2004 and is specialized in developing local exporters internationally. The mission is to boost customers' export sales by introducing them into new markets and discovering vital market information. Throughout the years Gateway & Partners has carried out projects for more than 1000 customers across various industries. Clients are individual local exporters, trade promotion agencies and clusters. Gateway & Partners works in any market where their clients wish to grow, as close as the Nordics and Europe and as far as Mexico and China.



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