

E-COMMERCE: FOOD & PERSONAL CARE

DATA AND ANALYSIS WITHIN THIS REPORT

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In cooperation with:

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E-COMMERCE MARKET

Market focus



Focus Segment



Other Reports

CHINA, UK AND THE USA ARE PIONEER MARKETS FOR ONLINE GROCERY SALES

Customer benefit

What is the actual customer benefit for ordering food and personal care products online?

The answer to this question is critical to market development and consumer adoption of purchasing everyday products online.

24/7 opening hours and home delivery of heavy products and bulky beverage crates seems very attractive to busy professionals or parents, who want to avoid the crowded retail stores.

But in-time deliveries, ensuring that the cold chain is not interrupted and that fresh products maintain their haptic appeal are major issues for any service in this space.

Online merchants deal with high complexity in terms of scaling and logistics compared to other product categories. Transforming a traditional supermarket into an online shop does not provide the same obvious benefit as it does for book stores or fashion retailers.

Orders have to be fulfilled at a very short notice, which makes **decentralized delivery** and logistic structures much more reasonable.

Therefore, only few online pure-players have established a relevant market position in the full-range trader segment.

Adapting to the online world and focusing on **predictable user behavior**, the successful online businesses have established different **niche segments by offering subscription services**, e.g. razor blades (**Dollar Shave Club**) and recipe boxes (**HelloFresh, Simply Cook**).

On the other hand, large retailers like Tesco, Walmart or Rewe use their existing store infrastructure to serve the people that:

- ▶ are very **convenience** oriented
- ▶ have **difficulties transporting** their daily shopping or
- ▶ are **very time-limited** for daily shopping trips.

Market size

The Food & Personal Care segment is the smallest e-Commerce category with a **global revenue of US\$104.7 billion**.

Food & Beverages account for **one-third of the category revenue**, while personal care products and pharmaceuticals account for the majority of revenues.

The three dominating regional markets, United States, China and Europe together represent **84% of the world market**. The regional revenue distribution in 2016 is roughly equal with the **United States** leading this comparison (33% or **US\$34.5bn**) followed by **China** (28% or **US\$28.9bn**) and **Europe** with 24% of the global market or **US\$25.0bn** in total revenue.

Compared to the offline sales volume of everyday products in large retail chains, the **online Food & Personal Care category is very small**. Even large multichannel retailers like Walmart

in the US generate only a small percentage of their online revenues with fresh products.

Another big player is Amazon with its **AmazonFresh** membership service, which is continuously expanding to more cities despite the high costs of establishing the logistic infrastructure.

In **Europe**, the **United Kingdom** is by far **the largest market**, followed by Germany and France. A major player is UK-based **Tesco**, benefiting from comparably high consumer adoption of online grocery shopping in the UK. Tesco took the risk of massive investments in developing a competitive online infrastructure in the past years, resulting in a strong market position.

In **China**, mobile shopping for foods and beverages is very popular. **Foreign food brands**, which are seen as **affordable luxury products**, are especially successful in the Chinese online grocery business.

UNBUNDLING SUPERMARKETS TO SPECIALIZED NICHE SERVICES IS AN IMPORTANT TREND

Future developments

The online Food & Personal Care segment is seen as one of the **most attractive growth areas** in the e-Commerce space.

With a **CAGR of 15.8%** globally, it is, in fact, the fastest growing category by 2021. The overall market volume is expected to double from **US\$105bn in 2016** to **US\$218bn in 2021**.

Even with this projected growth, it will remain the smallest category in comparison and the vast majority of everyday products will still be purchased in traditional brick-and-mortar stores.

The market is in a very **early stage of development**, even though first-movers started their business several years ago. One barrier to growth is the challenge to provide **cost-effective logistic services** in order to ensure prompt delivery over a wide area.

Because of this, today's services focus on **urban agglomerations** or product categories that are less dependent on personal delivery at

a short notice.

Great potential comes from **automated or semi-automated purchases** of everyday products through **subscription-based services, ad-hoc orders** through devices like the **Amazon Dash** button or via **voice-commerce** applications that will increasingly find their way into more and more households.

We expect the largest growth to take place in **China** with a **CAGR of 25%** in this category between 2016 and 2021. The country will **account for about 40% of global online sales by 2021** in this category due to less developed offline retail infrastructure.

Europe and the **US** will see **annual growth** rates ranging at about **11%** in the same period with niche players growing much faster, while traditional supermarket chains will develop **advanced multichannel concepts**, that include click & collect or similar pre-ordering services.

Assumptions and sensitivity

We can observe that the early Food & Personal e-Commerce market focused on specialties, deli foods or **exclusive products**, e.g. super foods or cosmetics that are **not part of the traditional range of products** in local supermarkets.

In the future we believe that **online orders** will increasingly **substitute** offline retail purchases of everyday products.

Decentralized logistic and delivery structures are built by a growing number of relevant vendors, e.g. **Amazon, Uber**. Further, traditional delivery services are improving their capabilities in solving the **'last-mile'-problem**.

As the transformation of traditional supermarkets requires enormous investments in terms of **logistic infrastructure**, we believe that only few vendors will compete in this space. Most of the other successful ventures will focus on **unbundling** different products and services from

traditional brick-and-mortar stores and derive **new businesses** supported by evolving and convenient technology such as **voice-commerce, re-ordering** of products through dash buttons or **subscription services**.

"We don't know where the online train is going and how fast it is running. I only know that we need to be on board."

Alain Caparros, CEO Rewe Group

Some companies we see today bet on comparably **low product prices** by **economizing** the value and **distribution chain** with predictable subscription-models. Others focus on **premium quality** and curated product selections along with **additional services** such as recipes or simply well-executed content marketing.

As food and personal care are heavily connected to **lifestyle trends**, we expect a lot more startups in this space.

1: CAGR: Compound Annual Growth Rate/ average growth rate per year.

FOOD & PERSONAL CARE IN MAJOR REGIONS

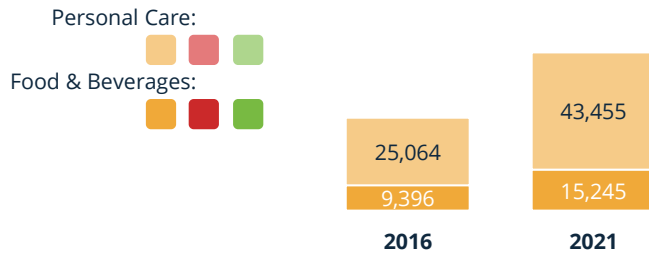
Market KPI comparison by region

United States

Revenue forecast

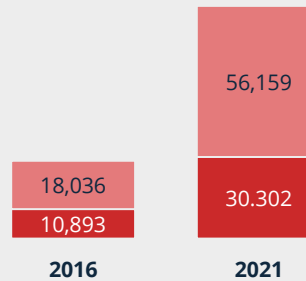
in million US\$ by region

+ 11.2% p.a.



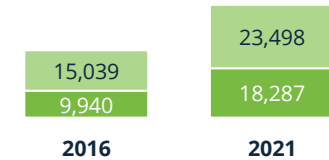
China

+ 24.5% p.a.



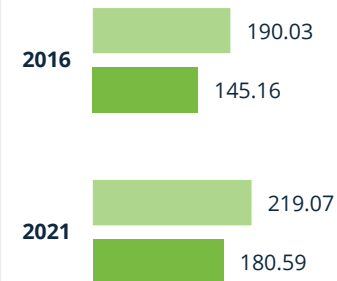
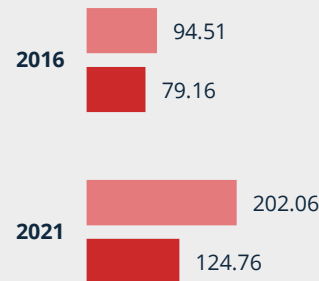
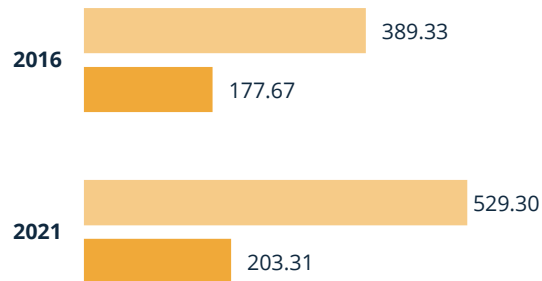
Europe

+ 10.8% p.a.



Revenue per user

in US\$ by region



FOOD & PERSONAL CARE IN MAJOR REGIONS

Market KPI comparison by region

United States

China

Europe

Revenue

Segment	Unit	2016	2017	2018	2019	2020	2021	CAGR ¹ 16 - 21	2016	2017	2018	2019	2020	2021	CAGR ¹ 16 - 21	2016	2017	2018	2019	2020	2021	CAGR ¹ 16 - 21
Total:	mUS\$	34.459	38.840	43.833	49.103	54.351	58.700	+11,2%	28.929	40.417	54.220	66.850	77.426	86.461	+24,5%	24.979	28.090	31.541	35.120	38.683	41.786	+10,8%
Food & Beverages:	mUS\$	9.396	10.474	11.704	13.002	14.298	15.245	+10,2%	10.893	14.132	18.020	22.203	26.306	30.302	+22,7%	9.940	11.434	13.134	14.932	16.741	18.287	+13,0%
Personal Care:	mUS\$	25.064	28.366	32.129	36.100	40.053	43.455	+11,6%	18.036	26.285	36.200	44.647	51.120	56.159	+25,5%	15.039	16.656	18.407	20.188	21.942	23.498	+9,3%

Users

Segment	Unit	2016	2017	2018	2019	2020	2021	CAGR ¹ 16 - 21	2016	2017	2018	2019	2020	2021	CAGR ¹ 16 - 21	2016	2017	2018	2019	2020	2021	CAGR ¹ 16 - 21
Food & Beverages	m	53	58	63	68	73	75	+7,2%	138	154	174	195	218	243	+12,0%	68	75	81	88	95	101	+8,1%
Personal Care	m	64	68	73	77	80	82	+5,0%	191	206	224	242	261	278	+7,8%	79	85	90	96	102	107	+6,3%

1: CAGR: Compound Annual Growth Rate/ average growth rate per year
Source: Digital Market Outlook 2016

KEY TAKE-AWAYS BY REGION

Market sizing subjects for Food & Personal Care forecast

	United States	China	Europe
Market size 	<ul style="list-style-type: none">› In 2016, the US market is the largest globally at a total volume of US\$34.5 billion in the Food & Personal care category› AmazonFresh, Safeway, Instacart & Walmart are nationwide operating services in this market	<ul style="list-style-type: none">› The Chinese market accounts for US\$28.9bn in 2016› Walmart subsidiary Yihaodian is a leading and nation-wide operating online grocery store in China› Most of the local online supermarkets focus on Shanghai as a target region	<ul style="list-style-type: none">› The United Kingdom accounts for 39% of the European US\$25.0bn online Food & Personal Care market› Online sales in large offline retail markets such as in Germany and France is still very low› Tesco is one of the major online players in this category
Growth rate 	<ul style="list-style-type: none">› Continuous double-digit growth in both subsegments, food & beverages as well as personal care› Overall CAGR of 11.2% by 2021› Market value is expected to reach US\$58.7bn by 2021 – a 70% increase compared to 2016	<ul style="list-style-type: none">› China is expected to overtake the US in terms of revenue in 2017› Average annual growth is at 24.5%, which is twice as high as it is in Europe or the United States› By 2021 China will account for 40% of the global online food & personal care market	<ul style="list-style-type: none">› Online sales of Food & Beverages is expected to grow faster (13.0% CAGR) than Personal Care (9.3% CAGR '16-'21)› High price sensitivity and discount-orientation, e.g. in Germany, is a barrier for competitive online services› All major retail chains invest in expanding their online business
Trend signals 	<ul style="list-style-type: none">› Leading position in developing new ways of local logistic or courier services, e.g. Uber› Home country of Amazon, which is not only an innovative pioneer in terms of re-ordering, and voice-commerce, but also optimizes the last-mile delivery› High demand for convenience services	<ul style="list-style-type: none">› Very high population density in urban areas allows rapid scaling for short range transportations & delivery› Less strongly developed brick-and-mortar retail infrastructure› Availability of non-local products online drives willingness to buy	<ul style="list-style-type: none">› Europe faces demographic changes, which will have strong impact on the local supply in rural areas› Evolving startup landscape, e.g. Berlin-based IPO-candidate HelloFresh› Unilever's acquisition of US-based Dollar Shave Club (US\$1bn) underlines the great market opportunity

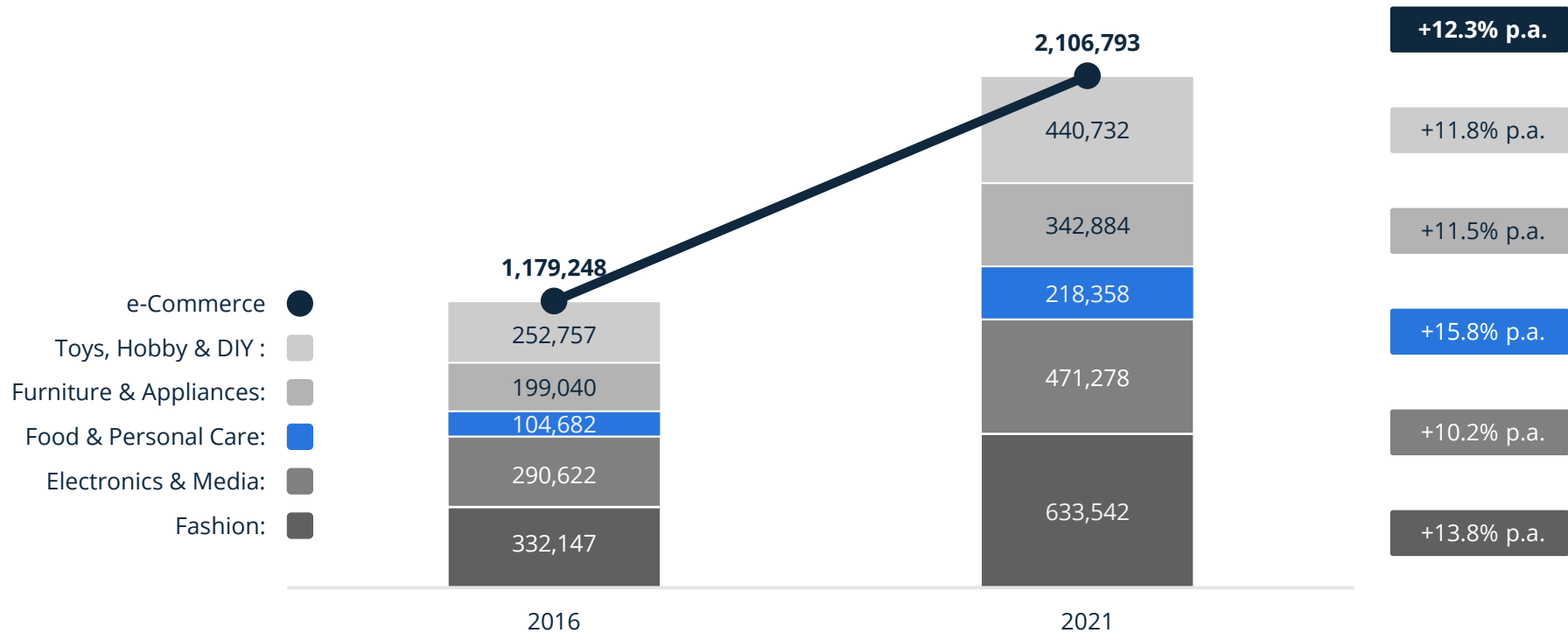
FOOD & PERSONAL CARE - SMALLEST SEGMENT

Food & Personal Care global segment size and growth rates

Global¹ e-Commerce Revenue

CAGR² 16 – 21

in million US\$ by segment



1: Only includes countries listed in the Digital Market Outlook
 2: CAGR: Compound Annual Growth Rate/ average growth rate per year
 Source: Digital Market Outlook 2016

DRIVING FORCE: LAST MILE SOLUTIONS

POWERED BY **TREND ONE**

Trend Explanation

E-commerce has **changed consumer behaviour for good**. The “last mile” from the delivery service’s distribution point to the recipient of the parcel has become a direct **part of the shopping experience**.

It’s the customers who now decide **when, where and how** the goods reach them. This change poses a great challenge to the CEP service providers¹. For them, the “last mile” is an **important competitive factor** that causes half the costs in the delivery process.

Innovations in the food delivery service are related to the mechanics behind the **“goods to customer”** concept. Personally delivering food within a specified time frame on the same day is the ideal solution. This drives the development of digital services towards an optimum **synchronisation** of recipient and provider.

If it is not possible for the goods to

be received in person, the CEP service providers have to offer **alternatives, such as storage solutions**.

As a matter of fact, most customers are not willing to pay **additional fees** for in-person deliveries or comparable services. Therefore, vendors need to keep their solutions **affordable** in order to reach **mass market adoption**.

Consumers now have the final word on the “last mile”.

Future applications:

- › The goods are delivered **to the trunk** of the customer’s car.
- › **Package boxes** on the front door allow goods to be deposited.
- › **Live-tracking** lets customers follow and change routes and delivery times.
- › **Instant deliveries** in 30 to 60 minutes ensure that goods can be received as quickly as possible.

Micro-Trend: Amazon Prime Now



The retail giant Amazon has recently launched the “Prime Now” service in Germany (Berlin and Munich). “Prime Now” enables packages to be delivered to customers within 60 minutes.

This service has already been tested in New York, London and Milan. Customers pay €7 per super-fast delivery.

Micro-Trend: Telekom PaketButler

Deutsche Telekom has developed a delivery box called the “PaketButler” which uses an integrated SIM card to send the recipients of a package a message when the box arrives.

The “PaketButler” consists of a tear-proof cloth bag. The box can be fitted to the front door and used again by users, even for sending returns.



1: CEP service providers: Courier, express and parcel service providers

DRIVING FORCE: CONVERSATIONAL COMMERCE

POWERED BY **TREND ONE**

Trend Explanation

Digital conversations are the **new form of customer interaction**. Messenger apps are right at the heart of this trend. In the private sector, they have already replaced e-mail and phone calls as the primary communications channel.

Retailers, brands and service providers are just starting to see the potential of these new touchpoints. **Chat logs can be used** to recommend products, advise customers, as well as complete the entire ordering and payment process.

Consumers are no longer forced to use special apps or retailer websites. They remain within the **familiar eco-system** of their Messenger. Providers and brands run their chat channels there. As well as chats with real staff, **chat bots** are also used for **automated communication**.

Voice-based smart home systems like Amazon Echo completely do away with graphic user interfaces. Users can simply

place orders by voice command, without having a device at hand.

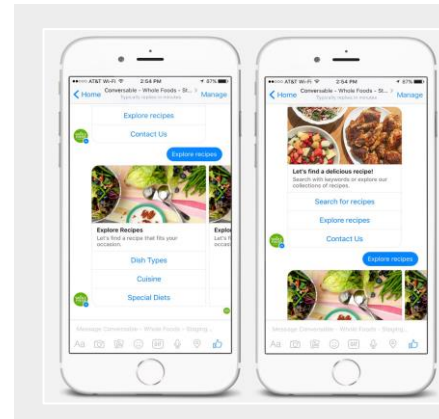
Voice commerce is a completely **new way of interacting between buyer and merchant** and will most likely have **significant impact on** everyday product purchases of the **Food & Personal Care segment** with comparably low customer involvement.

Whether by text, voice or video – conversations determine customer communication.

Future applications:

- ▶ Via a **Messenger app**, customers can be informed of discounts and special offers.
- ▶ Recipe and diet tips are offered by a coach in a **video chat**.
- ▶ **Chatbots** automatically ask if they should order food for a BBQ during hot summer weather.
- ▶ **Amazon Echo** suggests food for the next shopping stint.

Micro-Trend: Whole Foods Chatbot



The American supermarket chain Whole Foods Market has launched a chatbot for Facebook Messenger.

This service lets customers look for products in the store and then order them. By entering a banana or jalapeño emoji, they receive **curated recipe suggestions**.

Micro-Trend: Campbell Soup recipes

The consumer goods company Campbell Soup offers its customers recipes via Amazon Echo. "Alexa" can send the recipe by e-mail as well as offer further features, like drawing up shopping lists.

This service is intended to encourage customers to buy more of Campbell's products.



FUTURE OUTLOOK 2025

POWERED BY **TREND ONE**

Autonomous drones and robots ensure deliveries with no waiting times



Both on land and in the air, autonomous shipping solutions will efficiently accelerate delivery processes. This will involve **delivery robots** and **drones**. Retailers and logistics companies around the world are already testing the potential of these technologies.

The company Starship Technologies has developed a **marketable delivery robot**. It starts the delivery from the drop-off vehicle or pick-up station and transports the goods over short distances to the customer's front door. In future, cities will be supplied by autonomous fleets of robots.

To completely avoid waiting times, **Google, Amazon and DHL** are testing deliveries by drone.

Local food can be taken directly from the producer and delivered straight to the kitchen. **"Farm to table"** concepts make regionality and freshness the most important competitive

factors. **Setting up air corridors** at 30-40 metres above the ground still requires a legal framework.

Patent applications by Google show that the company is working on **self-driving delivery vehicles**. Fitted with lockers that can be opened with a PIN or via NFC, autonomous vehicles enable **24/7 delivery**. Whether in the office or at home, the deliveries easily reach their recipients wherever they are.

Governments and companies see the potential in autonomous delivery technologies to connect **regions with poor infrastructures** to the closely-knit supply network of nearby large cities.

FOOD & PERSONAL CARE REVENUE STREAMS

Market Structure and definition

Segment

Sub-segments

Food & Personal Care	<p>Food & Beverages</p> <p>This segment covers online sale of fresh and packaged foods (excluding baby food), delicacies and beverages. Products include sale of fruit, vegetables, pasta, snacks, sweets, refrigerated products, frozen food, soft drinks and alcoholic drinks via a digital channel. The most significant channel for the online sale of food and beverages are, at present, the online shops of the large supermarkets and warehouse stores, for example, walmart.com or subscription services such as HelloFresh.</p>
	<p>Personal Care</p> <p>This segment includes the sale of medical, pharmaceutical and cosmetic products via a digital channel (including the sale of prescription drugs), for example via online pharmacies or via the online shops of drugstores and other individual traders (e.g. cvs.com, walmart.com). Alongside medicines, this market segment also includes cosmetic, cleaning and care products as well as nutritional products.</p>

Out of segment

- Delivery Services**

Ready-to-eat meals provided by services such as takeaway.com, Domino's or Grubhub
- Baby-Food**

Milk powder, baby and toddler food etc. are part of the Toys & Baby category
- Business-to-Business**

The sale of food & personal care products, e.g. as part of office supply, is not included
- Professional medical supply**

Sales of medical devices for professional use by doctors and care personnel is not included



In scope



Other segment



Out of scope

ABOUT DIGITAL MARKET OUTLOOK

9 Markets, 34 segments & 85 sub-segments



Digital Media

Video-on-Demand, Digital Music, Video Games, ePublishing



FinTech

Digital Payments, Business Finance, Personal Finance



eTravel

Online Travel Booking, Mobility Services



eServices

Event Tickets, Fitness, Dating Services, Food Delivery



eHealth

Diabetes, Hypertension, Heart Failure



Connected Car

Connected Hardware, Vehicle Services, Infotainment Services



Smart Home

Home Automation, Security, Home Entertainment, Ambient Assisted Living, Energy Management



e-Commerce

Fashion, Electronics & Media, Food & Personal Care, Furniture & Appliances, Toys, Hobby & DIY



Digital Advertising

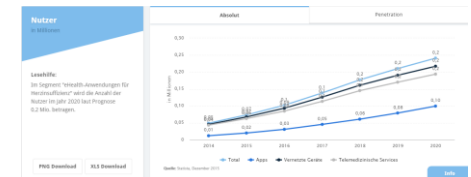
Banner Ads, Video Ads, Search Ads, Social Media Ads, Classifieds

Details

- › 50 countries
- › Direct access & downloads
- › 7-Year coverage: 2015 - 2021
- › Revenue forecasts



› User count & penetration



› Comparable data



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