

# **Company Profile**

GVM - Gesellschaft für Verpackungsmarktforschung mbH

Reliable Figures for Future-Oriented Decisions



# **B2B-Market Research Focused on Packaging**

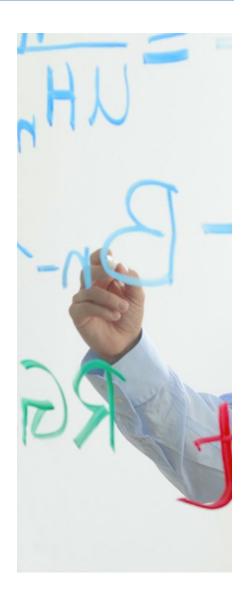
We are a B2B-Market research institute specialized on the topic of packaging. Long-time expertise and constant data collection allow us to supply reliable figures for future oriented decisions. We comprehensively describe the German market and conduct commissioned surveys in the context of projects for the European market.

#### Our core competencies are:

- > Packaging analysis of packaging material flows from production to recovery or recycling
- > Analysis of sales structures, market segments, distribution channels and competitors
- > Forecasts, trend analyses, growth chances, market forecasts, substitution potentials
- > Packaging law, legislation and ordinance in Germany and Austria, especially in the context of packaging vs. non-packaging, places where waste arises, reusable vs. one-way packaging etc.

Together with you we develop the optimum study for a solution to your problem. We help you to go from facts and figures to the decision and if necessary guide you through the implementation.

Independence of economy, associations and politics is a key trait of our business. As an owner-operated company GVM is uninfluenceable and sovereign.





#### **Database analyses**

Analyses with our own databases *Market volume packaging* and *Packaging samples* can be conducted both quickly and cost effectively. Outstanding, up-to-date and in-depth information often leads to valuable insights - even without extensive field research.

#### Commissioned studies

Questions that cannot be answered solely with the GVM databases will be answered by collecting additional data and information using the method most appropriate for your needs. In general, the results of commissioned studies are made exclusively available to you and are tailored precisely to your task formulation.

#### **Consulting / Expertise**

We provide not only reliable figures but also guide you to future oriented decisions. Along with precise results, we also offer consulting services providing excellent industry specific expertise.

#### **Multi-Client-Studies**

If you want to achieve high-quality results at reduced cost, our multi-client studies are an interesting alternative. Multi-Client-Studies by GVM are usually updated on a yearly basis which enables you to reliably deduct trends and developments. You also have the option to submit requests for individual changes from year to year.

#### Sales studies

GVM sales studies deal with questions and issues concerning thematically defined markets and are a quick and inexpensive solution if one of their issues matches your needs. These studies are usually created without a direct participation of our customers.

Find detailed information on our services at <a href="http://www.gvmonline.de/en/leistungen">http://www.gvmonline.de/en/leistungen</a>.



To answer your questions as comprehensively and reliably as possible we use a variety of instruments and methods:

#### Primary research

Surveys, interviews with experts, workshops, company visits, store checks, test purchases, panel surveys ...

#### Secondary research

Official statistics, publications from associations, research institutes, internal sources, company publications, our comprehensive survey and periodical archive, media of all kind, online research using professional database ...

#### Data analysis

Evaluation of data quality, comparison of definitions and methods of various data sources, systematic comparison of data and information, solving and explaining of contradictions, data selection, data aggregation, dependencies and correlations ...

#### **Forecasts**

Taking into account socio-demographic factors, legal frameworks, consumer behavior, technical trends and interviews with experts ...

Find out more about our market research at <a href="http://www.gvmonline.de/en/lMarktforschung">http://www.gvmonline.de/en/lMarktforschung</a>.

Furthermore, our *GVM Database Market Volume Packaging* provides an encompassing overview of the packaging use and consumption in Germany. Numerous parameters are included, such as filling good segments, measures and the structure of where the packaging waste arises. Another important foundation of our research is *DB Packaging Samples* which contains data on separate packaging components. Currently, it includes over 20,000 datasets.

Learn about our databases online at <a href="http://www.gvmonline.de/en/datenbanken">http://www.gvmonline.de/en/datenbanken</a>



# **B2B-Primary Research**

# Surveys

- (Standardized) interviews (written, by telephone)
- Personal interviews (face-to-face)
- · Discussion with experts
- Ad-hoc surveys
- Panel surveys

# Other Primary Research

- Field observation (Store-Checks)
- Sample purchases
- Measurements (e.g. size, weight, material of packaging)
- Workshops
- · Industry fair visits

# Secondary Research

#### **Exclusive GVM-Sources**

- DB Market Volume Packaging Germany and Austria
- DB Packaging Samples
- GVM Studies
- GVM Packaging Panel

# **External Databases**

- Address databases
- Research in industry and company databases

(Bureau van Dijk, Hoppenstedt, GBI, Bundesanzeiger, etc.)

#### General Media

- Journals
- Professional literature
- Newspapers
- Internet portals

# Official Data

- Statistic Offices
- Destatis / Eurostat
- · Government agencies and ministries
- Umweltbundesamt (UBA)
- BMUB, LAGA, BMWi
- Other organizations (NGOs etc.)

# **Company Information**

- Business and financial reports, balance sheets
- Company websites
- Sales brochures, price lists, etc.
- Product data sheets and descriptions
- Company statistics

#### **Sector Sources**

- Industry associations and chambers
- Sector analyses by banks and other financial institutions
- Studies by other market research and consulting companies (GfK, Nielsen, IRI, etc.)
- Industry institutes (Ifo, DIW, etc.)

# **DB Market Volume Packaging**



Our **Database Market Volume Packaging** is a central tool of GVM and provides a comprehensive overview on the packaging usage and consumption in Germany for the last 15 years. For every single year there are about 35.000 unique data sets.

MARKET STRUCTURE BY	PRODUCTS						
Fillers	Since 1990 approximately 1,350 individual segments recorded and regularly updated in line with market development (new products or product variants) and increasing market research penetration (new research areas).						
Product groups	Summaries of filler segments by product groups (20 to 80, depending on inquiry)						
PACKAGING							
Nominal fill	in kilogramm, liter, piece, sq m						
Material group	glass, paper, plastic, tinplate, aluminum, compounds, wood etc.						
Packaging material	HDPE, LDPE, PP, PS, PET, ABS; paper, cardboard, corrugated cardboard, pulp molding etc.						
Shape	box, cup, bottle, bag, winder, closure etc. in addition to main packaging material also: labels, closures, partition insert, multi packs etc.						
Packaging level	primary packaging, collective packaging, transport packaging etc.						
Disposable / Reusable	disposable, reusable, deposit-bearing disposable beverage packaging						
Measurement categories	mass, surface area, nominal fill, brim measure						
ORIGIN IN ACCORDANCE	WITH PACKAGING ORDINANCE						
Source of waste generation	Commercial consumers; large commercial end consumers; private final consumers						
MARKET QUANTITIES							
Data availability	annual, time series of at least 10 years						
Market level	domestic bottling, import, export, domestic consumption						
Packaged fill quantity	in tons, 1,000 liters etc.						
Packaging	quantity (in 1,000 pieces), surface area (in 1,000 sq m), mass (in tons)						

# **GVM DB Packaging Samples**



Another tool for our analyses is the **Database Packaging Samples**. It contains detailed data on packaging separated by its components. Currently, there are over 20.000 data sets.

PRODUCT DATA							
Product	Trade name and additional information provided by manufacturer Broken down into approx. 1,300 individual segments and 60 product groups Specific product features (e.g. texture, dosage form, application) Final consumer price incl. VAT						
Product variant							
Product price							
Date	Date of purchase						
MANUFACTURER / DISTRI	BUTOR						
Distributor	Commercial enterprise, direct sales etc.						
Manufacturer	Packaging or filling company						
Brand	Brand name (also trade names)						
Origin	Germany / abroad						
PACKAGING - all packagin	ng and auxiliary packaging is recorded separately						
Nominal fill	in ml, g, piece, sq m						
Material group	glass, paper, plastic, tinplate, aluminum, compounds, wood etc.						
Packaging material	HDPE, LDPE, PP, PS, PET, ABS, PA/PE, PET/PE; chromo cardboard, corrugated cardboard, pulp molding etc.						
Shape	box, cup, bottle, bag, partition insert, winder, closure etc. (in addition to main packaging material also labels, closure material, multi packs etc.)						
Packaging level	primary packaging, collective packaging, transport packaging etc.						
Disposabale / Reusable	disposable, reusable, deposit-bearing disposable beverage packaging						
Packaging manufacturer	as far as determinable						
Measurement categories	mass, surface area, mass per unit area (grammage), nominal fill, dimensions						

#### Clients and References

# Selected Studies by GVM



#### **Published Studies**

- > Volume and Recovery of Packaging Waste in Germany 2015 Dessau-Roßlau 2017, on behalf of UBA (UBA Texte 106/2017)
- Leverage Points for Increasing the Licensing Level of Private Final Consumer Sales Packaging - Update 2016
   Mainz 2017, on behalf of BHIM Zentrale Wertstoffstelle Projektgesellschaft mbH
- > Filling of Beverages in Reusable and Ecologically-Advantageous One-Way Packaging - Reporting Year 2015 Dessau-Roßlau 2017, on behalf of UBA (UBA Texte 52/2017)
- > Potential of Plastic Packaging with Regards to its Recyclability According to § 21 WertstoffG-E

  Berlin 2016, on behalf of BKV GmbH in cooperation with Prognos AG
- > Consumption of Plastic Carrier Bags in Germany Mainz 2017, on behalf of HDE
- Development of Plastic Packaging's Efficiency in Germany 1991 to 2013
   Mainz 2015, on behalf of BKV

#### **Multi-Client-Studies**

- > Packaging Recycling Report 2016, 22nd edition Mainz 2017
- Flexible Plastic Packaging Market in Germany and in Europe
   Trends and Perspectives until 2021 by Product Categories
   Mainz 2017
- > The Packaging Market for Paper Composites in Germany Mainz 2012, in cooperation with Sciendea+

# **Publicly Communicated Studies**

- > The German Market for Tin Plate Packaging for Chemical and Technical Goods Mainz 2017, on behalf of VMV (Industry Association Metal Packaging)
- > Industry Statistics Plastic Packaging
  Mainz 2017, on behalf of the German Association for Plastics
  Packaging and Films
- > The German Market for Produce Sale Packaging Mainz 2015, on behalf of NABU
- > Recovery of PET Beverage Bottles in Germany 2015 Mainz 2016, on behalf of Forum PET
- > The German Market for Blockbottom Bags Mainz 2012, on behalf of IPV

# Clients and References

# Clients



>	AGVU	>	Bundesmühlenkontor	>	Gerolsteiner	>	Markenverband	>	Rexam
>	ALBA	>	BV Glas	>	Gerresheimer	>	McKinsey	>	RIGK
>	AKÖG	>	Coca-Cola	>	Greiner Packaging (AT)	>	Metsäliitto Coop. (FI)	>	RKD
>	APK	>	Constantia Teich	>	GVÖ	>	Mondi (AT)	>	Roland Berger
>	ARA (AT)	>	DAVR	>	HDE	>	NABU	>	Schönwald Consulting
>	Asahi	>	Deutscher Brauerbund	>	Heuchemer	>	Nestlé	>	SIG
>	Bain & Company	>	Deloitte	>	Hettmannsperger &	>	Neupack	>	SITA
>	Ball Packaging	>	Denkstatt		Löchner	>	Optima consumer	>	St. Gobain
>	BASF	>	DPG	>	Holsten	>	Partslife	>	Stora Enso
>	BDE	>	DSD	>	Hydro-Aluminium	>	PETCYCLE	>	Tetra Pak
>	BellandVision	>	DSV	>	IK	>	Plastics Europe	>	UBA
>	Berndt & Partner	>	Elopak	>	Interseroh	>	Ponto Verde (POR)	>	Uhde
>	BGVZ	>	ELS	>	Interseroh Austria (AT)	>	pp Druck + Verpackung	>	VdF
>	BHIM	>	Enviro Pack	>	International Paper	>	Private Brauereien	>	VDMA
>	Billerud	>	Eurofoil		(BE)		Bayern	>	VdW
>	BiPv	>	Evonik Degussa	>	IPV	>	Pro Europe	>	VKU
>	Bischoff & Klein	>	FV der Gewürzindustrie		KBS	>	Prognos	>	Veolia
>	BKV	>	Felix Schöller		Kilian-Verpackung	>	Pro-S Pack	>	Vereinigte
>	BMLFUW (AT)	>	FHG IVV		Knauf	>	Rasselstein		Papierwarenfabriken
>	BMUB	>	FKN		Kobusch-Sengewald	>	ReCarton	>	Wafg
>	Bonus (AT)	>	Garant		Kuka	>	Reclay	>	Walki
>	Bosch		Maschinenhandel		Landbell	>	PTS		Westwind (AT)
>	Doston Consutting		GDB		Ligmatech	>	Remondis	>	Wipak
>	Brückner Maschinenbau	>	Gebr. Heinemann	>	Maag	>	REWE	>	Zentek

# **Analysis of Potential Strategic Partners**



#### > The Customer

The customer is a global leading manufacturer of machines and systems for packaging technology.

# > The Challenge

In order to develop new synergies for its existing packaging technology, the customer is seeking further strategic partners to cooperate with. For this purpose, potential strategic partners were to be identified and evaluated using relevant criteria, and ranked as a basis for decision-making.

## > The Solution

- > In coordination with the customer, relevant assessment criteria are developed. GVM creates a method for operationalization, so that the criteria can be evaluated using research indicators.
- > Suitable companies are identified and indicators such as sales, EBIT, product portfolio, location and patents are researched.
- > With this information, GVM creates company profiles and rankings revealing strengths, weaknesses and suitability of the companies studied as strategic partners.

#### > The Result

The customer receives an overview of the attractiveness of potential partners and herefrom resulting recommendations for action. Ranking, ranking scale and all evaluation relevant information is made available to the customer, enabling him to dynamically adapt the attractiveness ranking to changing preferences.

# Strategic Analysis of the Market for Paper Compounds



#### > The Customer

Customers include packing and packaging material manufacturers, machine manufacturers, other suppliers and research institutes.

# > The Challenge

From the market player side there is a demand for in depth market data, to identify trends at an early stage: New coating technologies raise some high expectations in market growth for paper compounds.

# > The Solution

To evaluate the growth potential for the German market a market and competitor analysis is conducted in cooperation with the consulting firm sciendea. In detail, this includes:

- > Market overview of filler industries with segmentation by packaging material variants and packaging shapes, market forecasts, industry trends
- > Value chain analysis from paper production, paper web finishing, through to filling and distribution
- > Competitor analysis with sales ranking and 60 detailed company profiles including a strengths and weaknesses analysis
- > Industry structure analysis according to Porter for the TOP 5 filler industries
- > Systematic analysis of the success factors and business models of the market leader and innovation leader
- > Conclusions and action recommendations

# > The Result

The result of the analysis is the identification of profitable markets. The focus here is on the evaluation of the future sustainability of the industries and herefrom resulting action options for the market players. By deriving the optimal positioning in the competitive environment, the study provides strategic decision making support for corporate planning.

# **Expansion Strategy Packaging Machines**



#### > The Customer

The business segment, packaging machines, of a global leading manufacturer of machines and systems.

# > The Challenge

For existing packaging technology, the company is seeking an expansion potential outside the current core market. Growth markets are to be identified and competitive situations strategically analyzed.

#### > The Solution

At a customer workshop, the technological requirements for potential target markets are initially defined. Subsequently GVM experts evaluate the company's own database "Market Volume Packaging" in accordance with previously defined criteria and develop a tool for standardized target market evaluation in terms of market potential, market dynamics and technological feasibility.

In the second part of the project, the consultants of our strategic cooperation partner sciendea<sup>+</sup> identify direct and indirect competitors and, in detailed profiles, determine their market shares, turnovers, EBIT-margins, products, target markets, technological performance and success factors of the respective business models.

In summary, the project team develops expansion scenarios, which are then strategically evaluated based on implementation and success probability.

# > The Result

The detailed study provides the customer with an overview of trends, potentials and competitive structures in the - for the existing packaging technology - relevant target markets. The analysis is thus the sound basis for a sustainable expansion strategy.

# **Location Test**



#### > The Customer

A medium-sized company focused on manufacturing corrugated cardboard packaging.

# > The Challenge

The company pursues an organic growth strategy. The market attractiveness of a second production site in Germany is to be tested to create a sound basis for investment decision-making.

#### > The Solution

The project was conducted in cooperation with Berndt + Partner and comprised following analysis steps:

- > Analysis of the customer's product portfolio and market analysis of consequential target industries with the aim to clarify attractiveness of the customer's product portfolio for the target industries.
- > Identification of possible customers and their sales potential for the surrounding region of the prospective location.
- > Survey of a selection of potential customers to identify market demands and market entry barriers.
- > Conduction of a competitor analysis with a focus on the new location including an assessment of the strengths and weaknesses of competitors in comparison with the customer.

The various analysis results were compared with sales expectations at the potential location. Opportunities and threats were evaluated. This led to recommendations, which were discussed with the customer at a workshop.

# > The Result

Detailed analyses provide the customer with an overview of the market framework conditions for a second location. The decision was quickly made.

# Use and Utilization of Plastic Carrier Bags



#### > The Customer

BKV Beteiligungs- und Kunststoffverwertungsgesellschaft mbH (society for holding and plastic recycling), IK Industrievereinigung Kunststoffverpackungen e.V. (industrial association for plastic packaging) as well as the Handelsverband Deutschland - HDE e.V. (German association of trade).

# > The Challenge

Considering the environmental debate about avoiding carrier bags the client needs a reliable data structure on the consumption and utilization of plastic carrier bags in Germany. Therefore, the focus is on the EU Commission's proposal to legally adjust carrier bags with a film thickness beneath 50µ.

# > The Solution

The differentiated analysis is based on interviews on the use of carrier bags (variations, quantity etc.) with trading companies of different distribution chains. GVM conducts store checks at retailers to determine sales-specific formats and film thicknesses of carries bags. A systematic evaluation of key data of the German trade as well as the GVM data base *Market Volume Packaging* the analysis of this pattern forms the essential basis for the extrapolation of the interview results.

## > The Result

The customer is provided with a profound overview of the consumption and recycling of plastic carrier bags, which helps to objective the political debate. The study concludes that an application of a 50µ criterion is not effective.

# Material Flow of PET Beverage Bottles



#### > The Customer

The client is Forum PET of the German industry association for plastic packaging (IK Industrievereinigung Kunststoffverpackungen e.V.).

# The Challenge

Create a material flow model that comprehensively details which amounts of PET beverage bottles are put on the market per year, and shows in which ways PET beverage bottles are recycled and recovered.

#### The Solution

GVM surveys 25 market participants with structured interviews. Actors all along the value chain are included: PET producers, engineering companies, deposit scheme operators, recyclers, fillers, associations and other industry experts. The GVM database Market Volume Packaging is the foundation for the calculation of PET beverage bottle usage. Via systematic desk research additional data and information is gathered. Finally, all acquired insight is compiled and aggregated in a detailed material flow model.

# The Result

For the first time the existing data and knowledge on the recycling of PET beverage bottles is combined into a single unified closed-form material flow model. In addition, every level of the material flow is assigned a tonnage for the study's reference year.

# Sales Packaging for Produce



#### > The Customer

The customer is the main federal office of NABU (Nature And Biodiversity Conservation Union) in Berlin.

# > The Challenge

NABU wants to provide its members with recommendations on how to make the selling of fresh fruit and vegetables more ecofriendly. Thus, they require an analysis of the packaging market for produce with regards to quantity (in tons of packaging) and efficiency (weight of the packaging per kilogram of packaged good).

## > The Solution

With the aid of our GVM database "Market Volume Packaging" fruit and vegetable purchases by private households are quantified and subdivided by fruit and vegetable sorts as well as by packaging types. Especially the development of the packaging and filling good structure for select years between 2000 and 2014 is of interest. Attention is also given to the comparison of material efficiency of service packaging and industrial packaging. In addition, GVM list typical examples for produce packaging in concise datasheets.

#### > The Result

The report provides the customer with a detailed account of packaging use and material efficiency of sales packaging for produce. Based on this foundation, NABU can start to develop profound recommendations for its members.

# Recyclability of Plastic Packaging



#### > The Customer

The survey is conducted as a subcontractor for Prognos AG on behalf of BKV GmbH.

# > The Challenge

The survey is created in context of a draft for a new German packaging law (VerpackG). § 21 aims to create incentives to increase the recyclability of packaging by revising the dual system's licensing fees. This raises the question what percentage of plastic packaging currently on the market is already recyclable and how much potential for optimization through eco-design and recycling-friendly packaging design remains.

## > The Solution

Based on interviews and desk research, criteria for the proper description of plastic packaging recyclability are defined. Consequently, GVM determines the share of plastic packaging that already fulfills these criteria of recyclability today. In a subsequent scenario calculation, we calculate the amount of plastic packaging that could be redesigned to become more recycling-friendly without negatively impacting essential packaging functions. Finally, the results are contemplated and evaluated with regards to the targets for the recycling quota in the draft for a new packaging law.

#### > The Result

The report defines potential and barriers for plastic packaging recycling. The customer receives an profound analysis with which he can on which he can Die Studie ist eine Standortbestimmung der Möglichkeiten und Barrieren der werkstofflichen Verwertung von Kunststoffverpackungen. Der Auftraggeber erhält eine Analyse, auf deren Basis er die Diskussion mit Politik und Interessensvertretern anhand konkreter Daten und Fakten führen kann.



Kurt Schüler Managing Company Shareholder

+49 (0)6131-33673 22 k.schueler@gvmonline.de



Alexander Reitz Authorized Representative Project Manager

+49 (0)6131-33673 27 a.reitz@gvmonline.de



Anke Leighty Head of Business Segment Beverages and Milk

+49 (0)6131-33673 25 a.leighty@gvmonline.de



Nicolas Caye Project Manager

+49 (0)6131-33673 30 n.caye@gvmonline.de



# Reliable Figures for Future-Oriented Decisions - GVM



Gesellschaft für Verpackungsmarktforschung mbH Alte Gärtnerei 1 D-55128 Mainz

Fon +49 (0) 6131.33673 0 Fax +49 (0) 6131.33673 50 info@gvmonline.de www.gvmonline.de