

## **Company Profile**

GVM - Gesellschaft für Verpackungsmarktforschung mbH

Reliable Figures for Future-Oriented Decisions

Mainz, 2023

## B2B-Market Research with Focus on Packaging

We are a B2B-Market research institute specialized in the topics of packaging. Our long-standing expertise and constant data collection allow us to provide reliable figures for future oriented decisions.

We comprehensively describe the German market and conduct surveys under clients' mandate in the context of projects for the European market.

Our core competencies are:

- > Packaging analysis of packaging material flows from production to recovery and recycling
- > Packaging market Analysis of sales structures, market segmentation, distribution channels and competitors
- > Forecasting trend analyses, growth opportunities, market forecasts, substitution potentials
- > Packaging law, legislation and ordinance in Germany and Austria, especially in the context of packaging vs. non-packaging, waste collection points, disposable/ reusable etc.

Together we develop an optimal study for your issues of concern. We assist you to go from facts and figures to the decision and if necessary, also guide you through the implementation process.

Another key trait of our business as an owner-managed company is that we advise you confidently and independently, without being affected by the industries, associations, or by politics.



Gesellschaft für Verpackungsmarktforschung



#### Database analyses

Analyses using our in-house databases *Market volume packaging* and *Packaging samples* can be carried out quickly and inexpensively. Provided with outstanding up-to-date and in-depth information, you will be able to obtain valuable insights without having to do extensive and time-consuming field research.

#### **Commissioned studies**

Problems that cannot be solved by utilizing GVM' databases alone, will be tackled by collecting additional data and information using methods precisely tailored to suit your requirements. The results of the study, in principle, are made available to you exclusively.

#### Consulting / Expertise

Our reliable figures will serve you in your decision-making process. With many years of experience doing a wide variety of tasks, we have gained excellent industry expertise, from which you can also benefit as part of our consulting services.

#### **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, which are updated on a regular basis, will enable you to reliably derive trends and developments. You also have the option to submit requests for annual updates.

#### Available studies

GVM's studies for sales deal with topics on defined markets and are the quick and inexpensive solution if one of these topics fits your need. These studies are created without a direct involvement of our customers.



To answer your questions as comprehensively and reliably as possible, we use all available market research instruments and methods:

#### Primary research

Surveys, expert interviews, 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 from various data sources, systematic comparison of data and information, solving and explaining of contradictions, data selection, data aggregation, dependencies and correlations ...

#### Forecasts

Time series analysis and trend exploration taking into account socio-demographic factors, legal frameworks, consumer behavior, technical trends ...

Furthermore, our *GVM Database - Market Volume of Packaging* provides a comprehensive overview of the use and consumption of packaging in Germany. Numerous parameters are included, such as product segments, measurements and the structures of packaging waste collection point. Another important foundation of our research is the *GVM Database - Packaging Samples* which contains data on separate packaging components. Currently, it includes around 35,000 data sets.

## Methods Data Sources - The Foundation of Effective Market Research

		Surveys	Other Primary Research
B2B-Primary Research		<ul> <li>(Standardized) interviews (written, by telephone)</li> <li>Personal interviews (face-to-face)</li> <li>Discussion with experts</li> <li>Ad-hoc surveys</li> <li>Panel surveys</li> </ul>	<ul> <li>Field observation (Store-Checks)</li> <li>Test purchases</li> <li>Measurements (size, weight, material of packaging)</li> <li>Workshops</li> <li>Trade fair visits</li> </ul>
Excl	usive GVM-Sources	External Databases	General Media
and Aus • DB Pack • GVM Stu	aging Samples	<ul> <li>Address databases</li> <li>Research in industry and company databases</li> <li>(Dun &amp; Bradstreet, North Data, Bundesanzeiger u.a.)</li> </ul>	<ul> <li>Scientific journals</li> <li>Textbooks</li> <li>Daily newspapers</li> <li>Business journals and magazines</li> <li>Internet portals</li> </ul>
ary	Official Data	Company Information	Sector Sources
• Statistic – Desta	: Offices atis / Eurostat nent agencies and ministries	<ul> <li>Business and financial reports, balance sheets</li> <li>Company websites</li> <li>Sales brochures, price lists, etc.</li> </ul>	<ul> <li>Industry associations and chambers</li> <li>Sector analyses by banks and other financial institutions</li> <li>Studies by other market research and</li> </ul>



Our Database Market Volume of Packaging is a central tool of GVM and provides a comprehensive overview on the packaging usage and consumption in Germany for the last 20 years. For every single year there are about 35.000 unique data sets.

MARKET STRUCTURE BY PRODUCTS		
Product	Since 1990, approximately 1,350 individual segments have been 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 size	in kilogramm, liter, piece, m <sup>2</sup>	
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		
Waste collection point	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)	



Another tool for our analyses is the **Database Packaging Samples**. It contains detailed data on packaging separated by its components. Currently, there are over 21.000 data sets.

PRODUCT DATA			
Product	Trade name and additional information provided by manufacturer Broken down into approx. 1,350 individual segments and 60 product groups		
Product variant	Specific product features (e.g., texture, dosage form, application)		
Product price	Final consumer price incl. VAT		
Date	Date of purchase		
MANUFACTURER / DISTRIBUTOR			
Distributor	Commercial enterprise, direct sales etc.		
Manufacturer	Packaging or filling company		
Brand	Brand name (also trade names)		
Origin	Germany / imported		
PACKAGING - all packaging and auxiliary packaging is recorded separately			
Nominal fill size	in ml, g, piece, m <sup>2</sup>		
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 can be determined		
Measurement categories	mass, surface area, mass per unit area (grammage), nominal fill, dimensions		

# Clients and References Selected Studies by GVM



#### **Published Studies with Free Access**

> Consumption and Recovery of Packaging Waste in Germany in 2020

Dessau-Roßlau 2022, on behalf of UBA (UBA Text 109/2022)

- German-wide Survey on Beverage Consumption filled in Reusable Packaging in 2020
   Dessau-Roßlau 2022, on behalf of UBA (UBA Text 131/2022)
- Consumption of Carrying Bags in Germany in 2019
- Mainz 2020, on behalf of HDE
- > Reusable in German Gastronomy: Status Quo, Challenges, and Potentials

Mainz 2023, on behalf of WWF

 Catalog of packaging subjected to the mandatory participation system *Mainz 2023, on behalf of ZSVR*

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

- > Packaging Recycling Report 2021, 29<sup>th</sup> edition Mainz 2022
- > Initial Distributors in Germany: Number, Total Volume, Structure

Mainz 2018

> Market for Flexible Packaging in Germany and Europa - Trends and Perspectives until 2021

Mainz 2017

#### **Available Studies for Purchase**

- Ecological Advantages of a Priority PET Material Cycle for Disposable Bottles in Germany Mainz 2023, on behalf of Coca-Cola
- > The Total Volume and The Recycling of PET Beverage Bottles in Germany in 2021 Mainz 2022, on behalf of the PET-Forum in IK
- > The German Market for Tinplate Packaging for Chemical and Technical Products in 2022 Mainz 2023, on behalf of the VMV (Industry Association Metal Packaging)
- > Potential of Recycled Plastic in Packaging Mainz 2020, on behalf of BKV
- Industry Statistics of Plastic Packaging
   Mainz 2022, on behalf of IK German Association for Plastics
   Packaging and Films
- Potential Substitution for Plastic Packaging Using Packaging from Corrugated Cardboard Mainz 2019, on behalf of RESY
- Packaging Market Volume and Top Consumer Good Distributors in Jordan

Mainz 2021, on behalf of the German Society for International Cooperation GIZ

- Effects of the Reusable Packaging Proportion from 70% on the German Market for Beverage Packaging Mainz 2019, on behalf of BGVZ
- > The German Market of Sales Packaging for Fresh Fruit and Vegetables 2019

Mainz 2019, on behalf of NABU

## **Clients and References** Clients



- > AGVU
- > ALPLA
- > AKÖG
- > APK
- > ARA (AT)
- > Ardian Buyout
- > Asahi
- > Ball Packaging
- > BASF
- > BDE
- > BellandVision
- > Berndt & Partner
- > BGVZ
- > Billerud
- > BiPv
- > Bischoff & Klein
- BKV >
- > BMBF
- > BML (AT)
- > BMUV
- > Bonus (AT)
- Bosch >
- > Boston Consulting
- > Brückner Maschinenbau > Gerolsteiner
- > BV Glas > C.F. Maier > Coca-Cola > Constantia > DAVR > Deutscher Brauerbund > Deloitte > Denkstatt > DPG > DSD > DSV > Elopak > Enviro Pack > Eurocommerce > Eurofoil > Evonik > FV der Gewürzindustrie > Felix Schöller > FFI > FHG IVV > FKN > GDB
- > Gebr. Heinemann

- > Gerresheimer > Greiner Packaging (AT) > GVÖ > HDE > Heuchemer > Hydro-Aluminium > IK > Interseroh > Interseroh Austria (AT) > International Paper (BE) > IPV > KBS > Knauf > Kuka > Landbell > Ligmatech > Maag > Markenverband > McKinsey > MEG
  - > Metsäliitto Coop. (FI)
  - > Mondi (AT)
- > NABU
  - > Nestlé

- > Neupack > Optima Consumer > Partslife > PETCYCLE > Plastics Europe > Ponto Verde (POR) > PreZero > Pro Europe > Prognos > Pro-S Pack > Rasselstein > ReCarton > Reclay > PTS > Remondis > RESY > REWE
  - > RIGK
  - > RKD
  - > Roland Berger
  - > Schönwald Consulting
  - > Segezha Packaging
  - > SIG
  - > SITA

- > Smurfit Kappa
- > St. Gobain
- > Stora Enso
- > Suez
- > Tetra Pak
- > UBA
- > Uhde
- > VdF
- > VDMA
- > VDP
- > VdW
- > VKU
- > VMV
- > Veolia
- > Wafg
- > Walki
- > Weidmann
- > Westwind (AT)
- > Wipak
- > WWF
- > Zentek
- > ZSVR



The client is RESY Organization für Wertstoffentsorgung GmbH.

## > The Challenge

Plastic packaging is increasingly being criticized by the public and the demand for alternative packaging solutions based on renewable raw materials is increasing. The aim of the study is to determine which plastic packaging materials could be replaced by packaging solutions made from corrugated cardboard.

## > The Solution

In the first step, market players in the German corrugated cardboard industry are interviewed and asked about the possibilities of replacing plastic packaging as well as about the innovative packaging solutions made of corrugated cardboard. Based on that, in scenario analysis, concrete substitution alternatives from corrugated cardboard for each plastic packaging will be examined. The weight of the substitutions from corrugated cardboard will also be determined. By doing so, one can evaluate how the consumption of corrugated cardboard in the DACH region will change as well as how much plastic packaging could be saved by such substitutions.

## > The Result

The customer receives a scenario analysis with examples showing the feasibilities and limitations of replacing plastic packaging with corrugated cardboard packaging solutions. Provided with that, the client can enrich their public relation activities with facts and communicate with realistic expectations.



The study is carried out on behalf of BKV GmbH and is accompanied by an expert advisory board.

## > The Challenge

The EU Commission's plastics strategy predicts a substantial increase in the proportion of recycled material, or so-called recyclate, in plastic packaging by 2030. The study analyses how much recycled content in plastic packaging currently is and how much it can be in the future.

## > The Solution

By employing expert interviews and desk research, the fundamental legal and technical requirements for plastics in the most important markets are described and the minimum quality requirements are developed. GVM uses three different scenarios to determine how many plastic recyclates could potentially be used in packaging from a technical and legal point of view. This intermediate result is compared to the quantities that are currently being used or that could be provided in the future. Based on that, recommendations for all relevant stakeholders are developed with regards to how they can help to further develop the market for plastic recyclates in packaging.

## > The Result

The study provide information about the possibilities and restrictions of using recyclate in plastic packaging. It focuses on the key bottlenecks and develops recommendations for action, based on which the client can have discussions with politicians and stakeholders using concrete data and facts.



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 participation fees in the dual system. This raises the question of what percentage of plastic packaging currently being brought into the market can already be recycled and how much potential there is for optimization through eco-design and recycling-friendly packaging design.

#### > The Solution

Based on interviews and desk research, suitable criteria for the description of plastic packaging recyclability are defined. Consequently, GVM determines the share of nowadays plastic packaging that already fulfills these requirements for recyclability. In a subsequent scenario analysis, we calculate the amount of plastic packaging that could be redesigned to become more recycling-friendly without negatively impacting the main packaging functions. Finally, the results are evaluated and reflected with regards to the targets for the recycling rate indicated in the draft.

#### > The Result

The report determines opportunities and barriers for recycling plastic packaging. The customer receives an in-depth analysis, based on which he/ she can have discussions with politicians and stakeholders using concrete data and facts.



The customer is the Nature and Environment Conservation Association - NABU (Naturschutzbund Deutschland e. V.) in Berlin.

#### > The Challenge

NABU wants to provide its members with recommendations on how to make the sale of fresh fruits and vegetables more environmentally friendly. Thus, they require an analysis of the relevant packaging on the market 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 broken down according to fruit and vegetable types and packaging material groups. Especially the development of the packaging and filling good structure for the 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 lists typical packaging for individual types of fruit and vegetables in data sheets.

#### > The Result

The report provides the customer with a detailed presentation of packaging cost and material efficiency of sales packaging for fresh fruits and vegetables. Based on this data, NABU can start to develop well-founded recommendations for its members.



The clients are BKV GmbH, IK Industrievereinigung Kunststoffverpackungen e.V. as well as the Handelsverband Deutschland - HDE e.V..

## > The Challenge

Considering the environmental debate about avoiding carrier bags, the clients need 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 regulate carrier bags with a film thickness of less than 50µm.

#### > The Solution

The initial analysis is based on interviews about the use of carrier bags (variations, quantities etc.) with retail 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 recycling of plastic carrier bags is quantified on the basis of the results of HTP GmbH & Co KG and the GVM recycling balance sheet.

#### > The Result

The customer is provided with a comprehensive 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 50µm criterion is not effective.



The client is a leading European waste management company.

#### > The Challenge

The client operates various recycling plants in Europe and is considering whether they should open a new plant with a partner to produce plastic recyclates from plastic packaging for the household sector. In order to be able to make investment decision, the company needs reliable figures about market volume and input volume for recycling of plastic packaging in Europe, broken down by type of plastic.

#### > The Solution

GVM carries out a market analysis tailored to the client's demands. To be more specific, waste collection systems, sorting structures and recycling processes in Belgium, Germany, France, Great Britain, Italy, Luxembourg, the Netherlands and Spain are intensively researched using market expert interviews and desk research. Values that cannot be obtained directly are estimated using a complex estimation model based on existing data and validated by comparison with statistical framework data such as product consumption per capital adjusted for purchasing power.

## > The Result

The customer receives reliable information with which they can make investment decision. The results are broken down by country as well as by packing category and type of plastic. Additional information such as the breakdown of HDPE bottles by application and detailed breakdowns of dimensionally stable HDPE packaging by packaging type allow the customer to understand and classify the results.



The client is Forum PET of the German Association for Plastics Packaging Industry (IK Industrievereinigung Kunststoffverpackungen e.V.).

#### > The Challenge

The study aims to establish a material flow model which clearly shows the quantities of PET beverage bottles that are brought into the German market each year and how the recycling paths are structured.

#### > The Solution

GVM surveys 25 market participants in structured interviews. Actors all along the value chain are included: PET producers, plant manufacturers, deposit service providers, recyclers, bottlers, associations, experts 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.



The research project is funded by the Federal Minister of Education and Research. Beside GVM, the project coordinator Ökopol, Otto, Tchibo, Avocadostore and Cargo Plast are also involved in the joint project.

#### > The Challenge

The research object is the user-integrated development and testing of business model for practical reusable packaging solutions in online retail. GVM's main task is to contribute the overview of the mail order packaging currently in use.

#### > The Solution

Working in interaction with other partners involved in the project, GVM researches relevant information on the mail order business, such as the number of shipments, return rates, types of packaging and size classes. The German market for mail order packaging is modeled in over 50 product groups (B2B and B2C) with the help of the GVM database market quantity packaging.

#### > The Result

A comprehensive database on the consumption of mail order packaging in Germany is created. The status quo is presented according to product groups, packaging types, materials and size classes. The results provide helpful benchmark for future optimizations.



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<sup>+</sup>. 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.



The customer is an international investment company specializing in the packaging market.

#### > The Challenge

The client is considering investing in a major European plastic packaging manufacturer. In view of the current discussion about the supposedly negative ecological effects of plastic packaging, the question arises as to whether such an investment should be generally discouraged.

#### > The Solution

packstrategy starts a comprehensive PESTEL environment analysis. For this purpose, it is examined which external factors influence the specific target markets and the product portfolio of the manufacturer. packstrategy analyzes and explains all relevant political, economic, social, technological, ecological and legal influencing factors. Among other things, legal opportunities and risks are discussed, the business model and the competitive environment are examined, consumer acceptance of plastic packaging is discussed, and possible substitution technologies are evaluated.

#### > The Result

The analysis provides a clear statement as to whether the client should pursue the investment opportunity or not. They also receive detailed materials that justify the decision and help to better understand the company's target market.

> What can we do for you? Find out more at <u>https://packstrategy.de</u> or call us at: +49 89 189565-44. We will be happy to advise you!

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