IC
Interconnection
Consulting

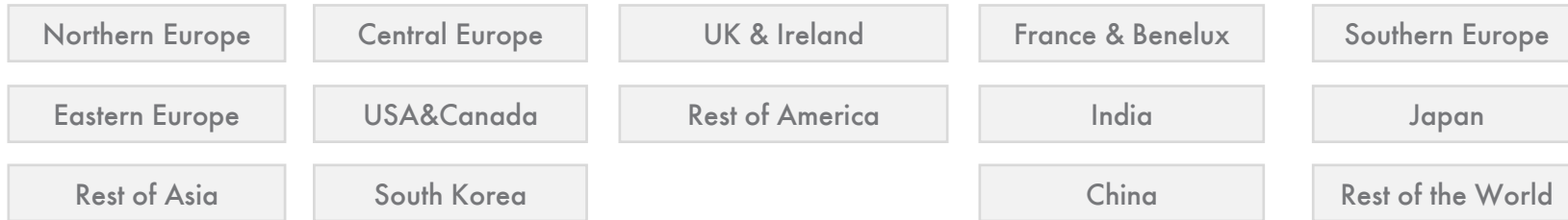we show you the way

www.interconnectionconsulting.com

IC Market Tracking

Glass Machinery Worldwide 2017

Offer September 2017

Your Benefits at a Glance

✓ You will receive an overview of the **overall market** in addition to **individual market segments.**

✓ A detailed **representation of the key markets by country and forecasting until 2020** based off on our econometric forecast model.

✓ Awareness of **market position** and development during the last two years in comparison with major competitors and with respect to:
- Total Market
- Regional Markets
- Product groups
- Customer Segments
- Distribution Channels

✓ Information about the most important **Factors of Influence**

✓ Graphic representation, interactive charts and tables which allow rapid application and utilization of the provided data.

IC Market Tracking® Glass Machinery

Northern Europe	Central Europe	UK & Ireland	France & Benelux	Southern Europe
Eastern Europe	USA&Canada	Rest of America	India	Japan
Rest of Asia	South Korea		China	Rest of the World

Market by ...

Product Groups

- Flat Glass
- Container Glass
- Specialty Glass
- Glass Fiber
- Others

Machine Groups

- Glass Producing Machines
- Glass Processing Machines

For each segment the total market and market shares of the top players for the last two years and forecasts for the next three years are available in the study

Definition and Demarcation

Product Groups

Flat Glass
Used as sheet and float glass for residential and commercial construction, automotive applications, tabletops and mirrors.

Container Glass
Used as hollow glass for the packaging of food, beverages, household chemicals, pharmaceuticals, cosmetics, etc.

Specialty Glass
Used as pressed and blown glass for tableware, cookware, lighting, television, liquid crystal displays, laboratory equipment, optical communications, etc. As well as Glass for the Photovoltaics Industry.

Glass Fiber
The long and thin Fibers can be processed into a lot of different products. They are used for data transfer, in the medical area and measurement engineering, for lighting purposes, for aerospace, for the automobile industry, etc.

Others
Other types of Glass Products, like Glass building blocks, Sol-Gel glass, etc.

Definition and Demarcation

Machine Groups

Producing Machinery

IS Machinery, Rotary machinery and conveyor belt machinery are used for the production of Hollow Glass. Glass melts and Annealing Lehrs are needed for the Float Glass Production. Glass melts are needed as well, for the Production of Fiber Glass.

Processing Machinery

Include all types of Machinery which are used for the processing of Glass such as Cutting Machinery, Drilling Machinery, Washing Machniery, Sandblasting Machinery etc.

Abbreviations

CAGR

Compound annual growth rate: 2013-2020

Avg. Share

Average Share: 2016-2020

**2017e/2018f**

Estimated/Forecasted

Definition and Demarcation

Regions		
US & Canada	Northern Europe	Norway, Sweden, Finland, Denmark, Iceland
India	Central Europe	Austria, Germany, Switzerland
China	UK & Ireland	England, Scotland, Wales, Ireland
Japan	France & Benelux	France, Belgium, Netherland, Luxembourg
South Korea	Southern Europe	Spain, Portugal, Greece, Italy
	Eastern Europe	Poland, Hungary, Czech Republic, Slovenia, Slovakia, Baltic Countries, Balkan Countries, Belarus, Russia, Ukraine, excluding Turkey
	Rest of Asia	Asia excl. India, China, Japan & South Korea, incl. Turkey
	Rest of America	North and South America excl. USA & Canada

What Do We Measure in Our Reports?

Interconnection measures the total sales at street prices without VAT per branch to the first buyer (without OEM)

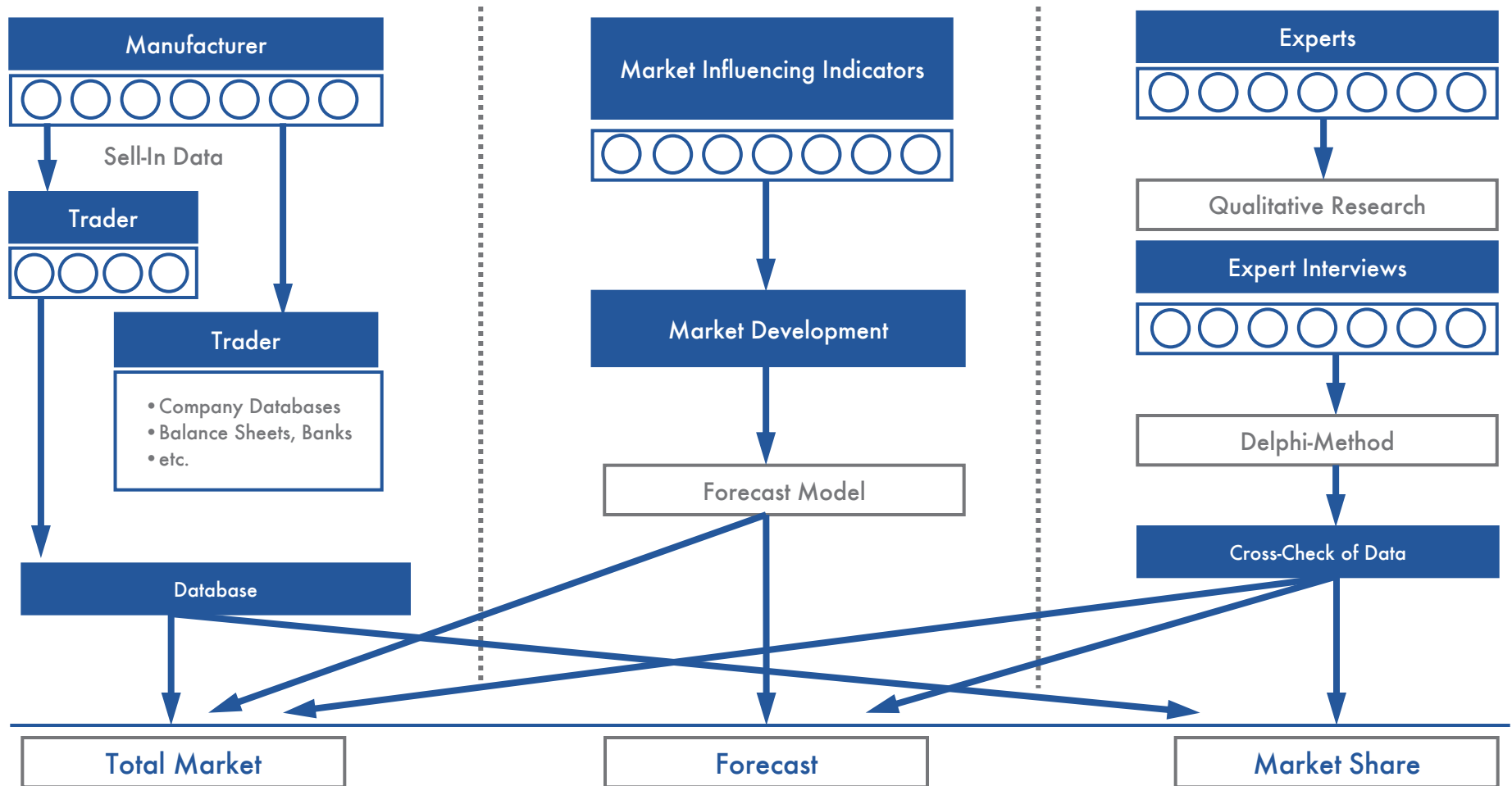Sales are segmented by the first distribution partner.
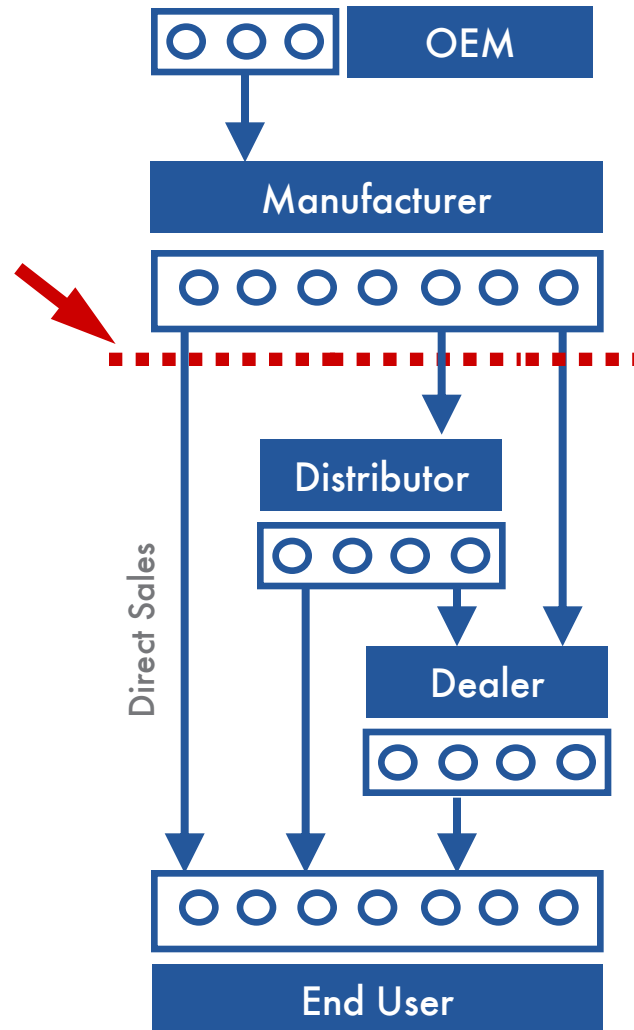
The basis for the analysis were interviews conducted with the most important manufacturers of the branches, who donated information through written questionnaires or telephone interviews. In return, cooperating companies receive parts for free, which guarantees a high rate of return.

Interviews with distributors and specialised dealers act as a cross-check of the data. In addition, investigations of listings and average prices are carried out.

OEM

Manufacturer

Direct Sales

Distributor

Dealer

End User

How Do We Conduct Our Research?

Manufacturer

Sell-In Data

Trader

Trader

- Company Databases
- Balance Sheets, Banks
- etc.

Database

Market Influencing Indicators

Market Development

Forecast Model

Experts

Qualitative Research

Expert Interviews

Delphi-Method

Cross-Check of Data

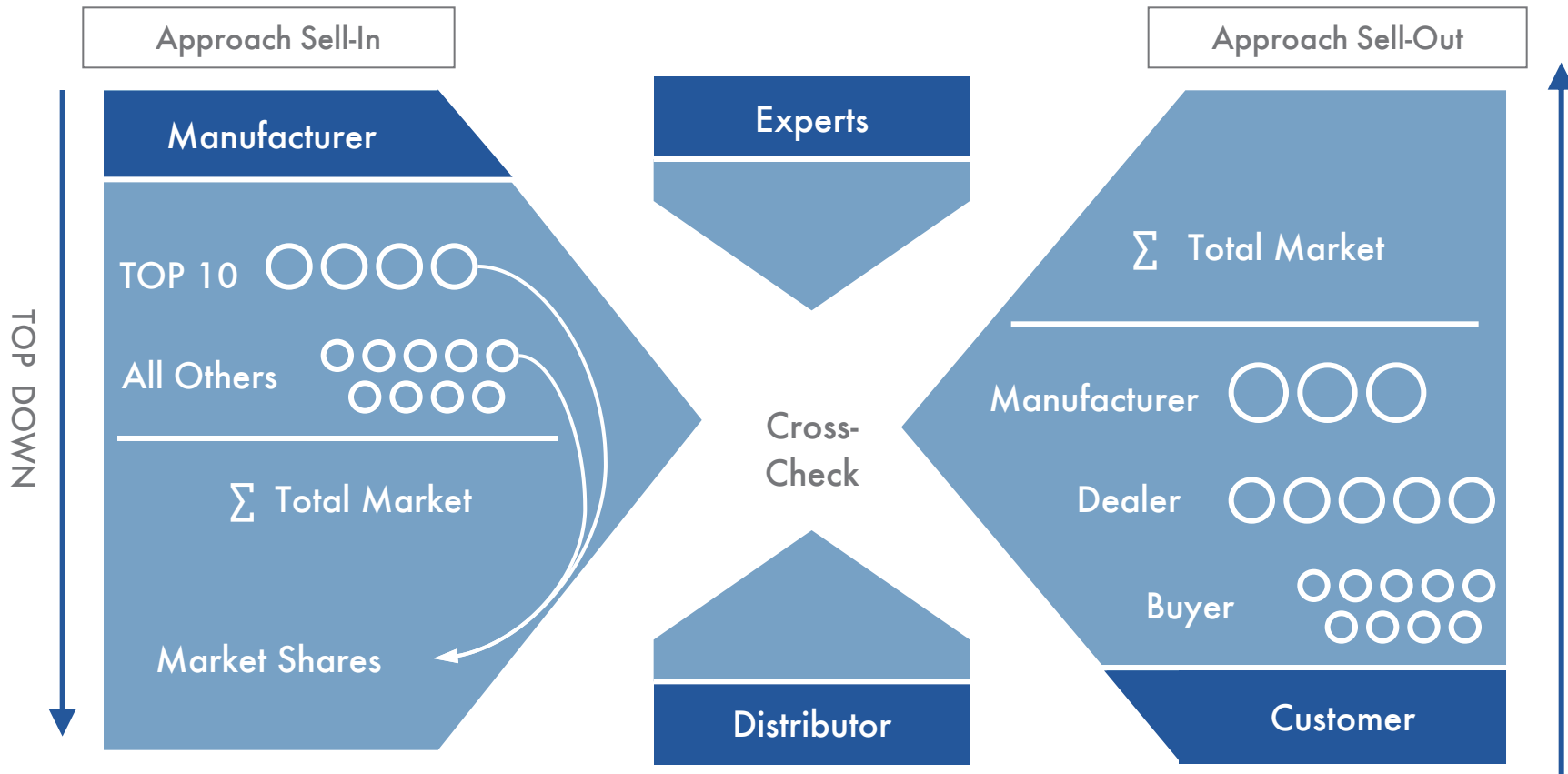**Total Market**

Forecast

Market Share

How Do We Cross Check the Data?

Description Structure of Survey Methodology
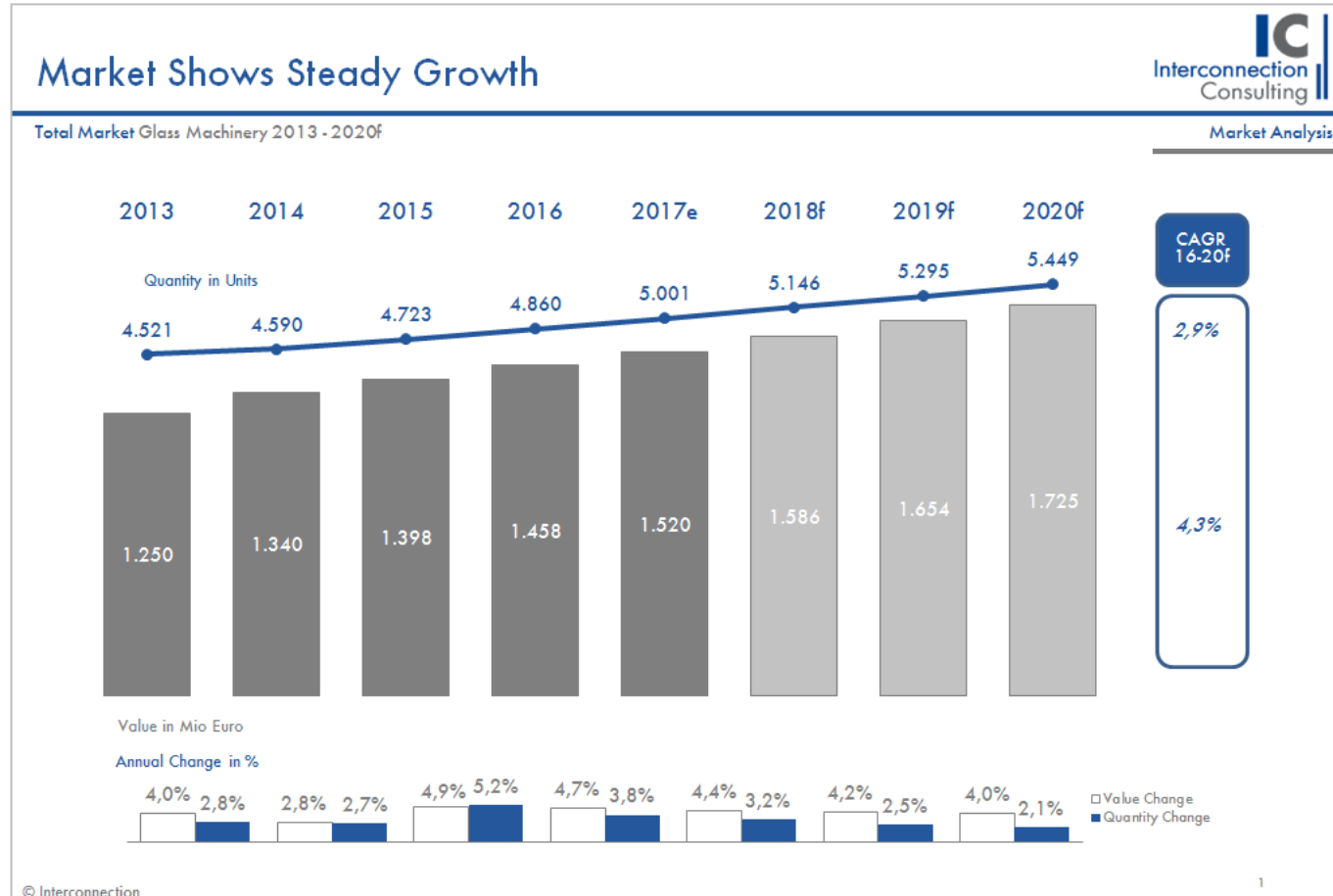
Content of the Report

The IC Market Tracking® is modularly built and consists of the following sections:

- The **Introduction** shows the definition and demarcation of product groups, regions, and methodology as well as the objectives of the study.

- The **Executive Summary** gives a short overview of the results of the study and analyses key facts.

- As an introduction key factors influencing the market are analysed in the **Economic Environment**: You will find the most important data on consumer behaviour, main economic indicators, etc.

- The **Total Market Analysis** shows the development of the market surveyed by value and quantity in different dimensions, such as regions, product groups, and ways of distribution. A forecast for the next years is an essential part of this analysis.

- The **Competition Analysis** shows in detail the development of the top companies in the market by finding out about the market shares in different categories, changes in market position, benchmarks, average prices, etc.
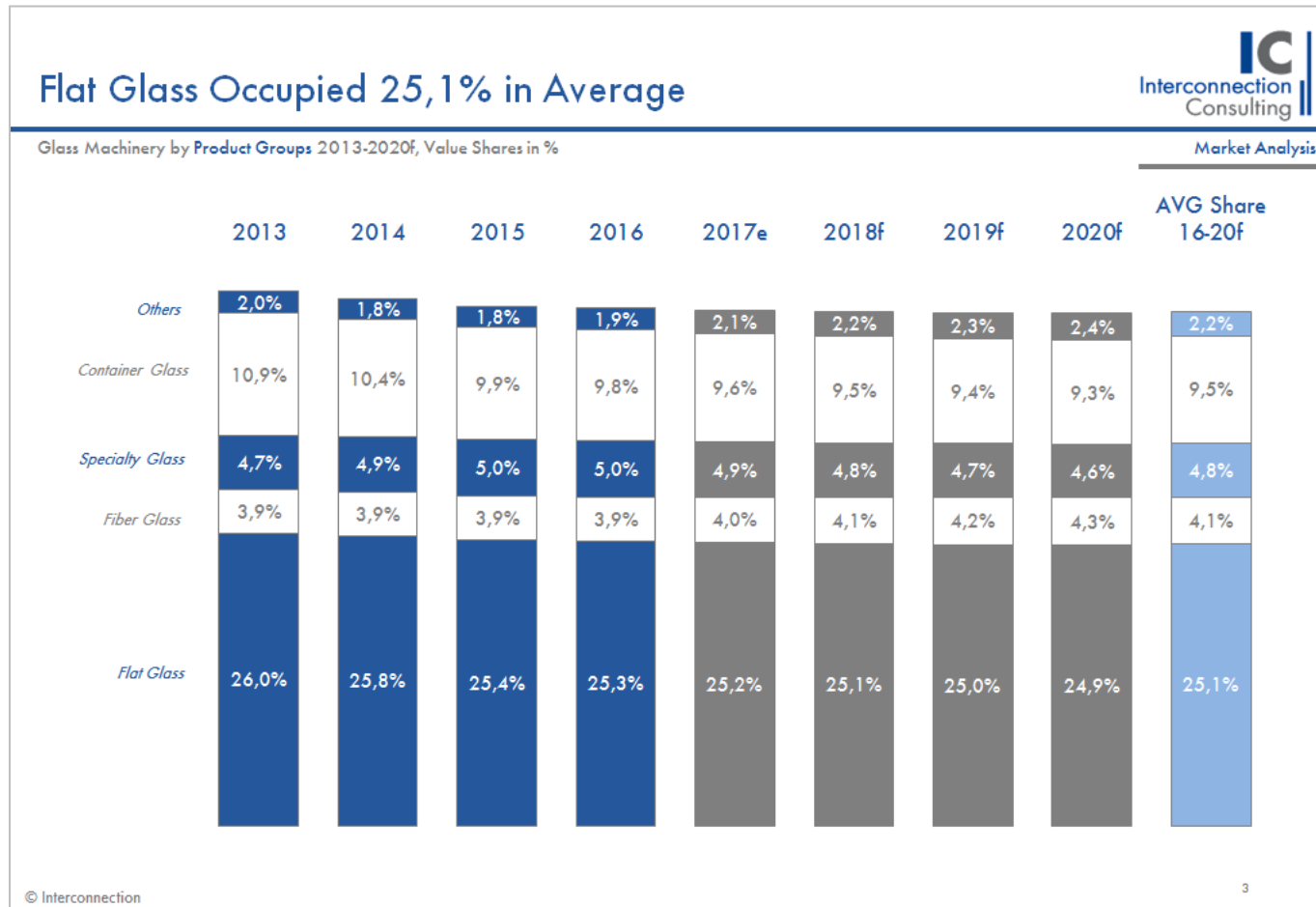
What Is the Total Market Development?

- Overview of the total Market until the current year and Forecast for the upcoming three years.

- *This chart shows dummy figures.*

Market Shows Steady Growth

Total Market Glass Machinery 2013 - 2020f

Market Analysis

	2013	2014	2015	2016	2017e	2018f	2019f	2020f	CAGR 16-20f
Quantity in Units	4.521	4.590	4.723	4.860	5.001	5.146	5.295	5.449	2,9%
Value in Mio Euro	1.250	1.340	1.398	1.458	1.520	1.586	1.654	1.725	4,3%

Annual Change in %

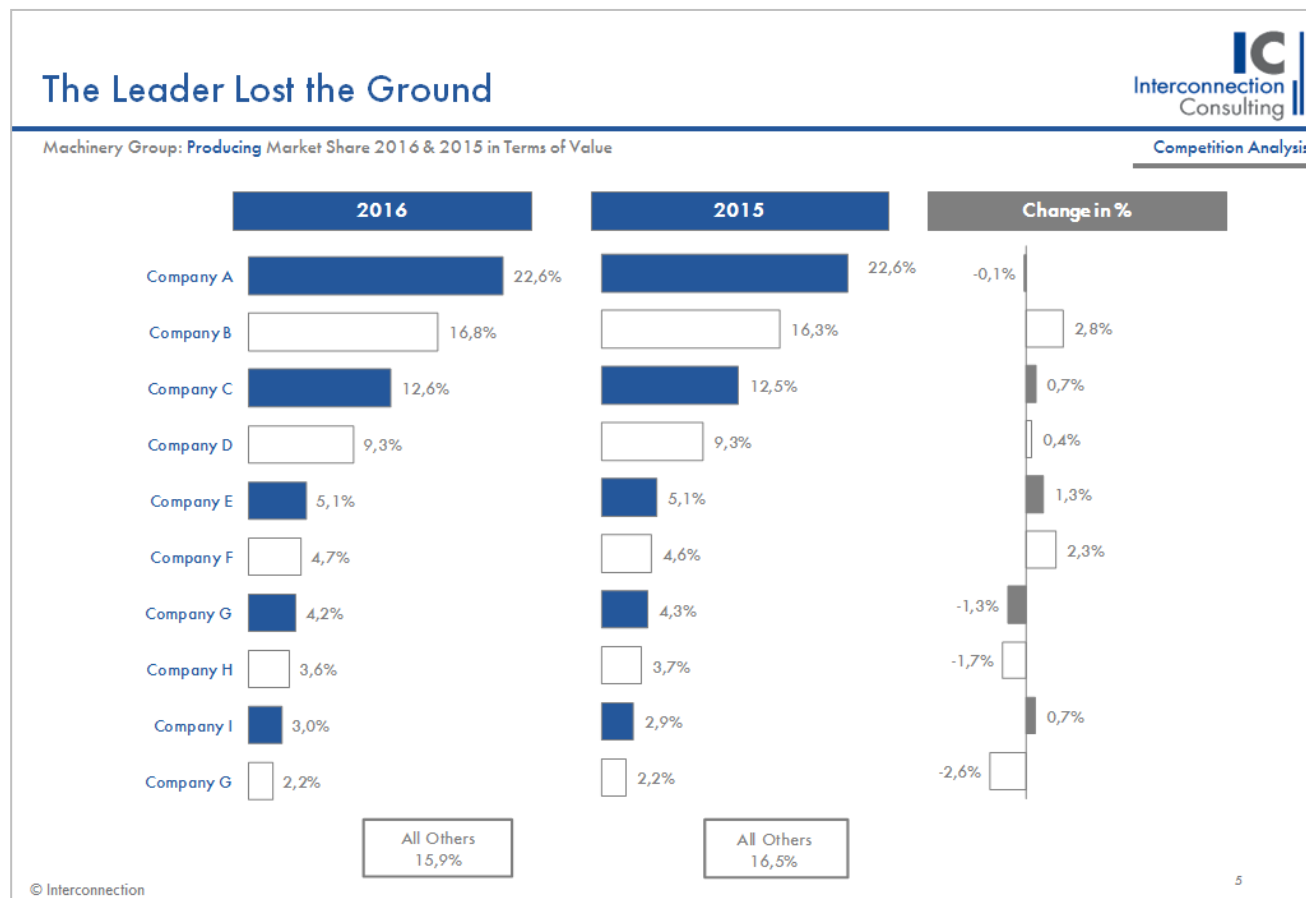|	Value Change	Quantity Change
2014	4,0%	2,8%
2015	2,8%	2,7%
2016	4,9%	5,2%
2017e	4,7%	3,8%
2018f	4,4%	3,2%
2019f	4,2%	2,5%
2020f	4,0%	2,1%

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Which Product Groups Will Be Profitable?

- Overview of the Segmentation by Machine and Product Groups.

- *This chart shows dummy figures.*

Flat Glass Occupied 25,1% in Average

Glass Machinery by **Product Groups** 2013-2020f, Value Shares in %

Market Analysis

	2013	2014	2015	2016	2017e	2018f	2019f	2020f	AVG Share 16-20f
Others	2,0%	1,8%	1,8%	1,9%	2,1%	2,2%	2,3%	2,4%	2,2%
Container Glass	10,9%	10,4%	9,9%	9,8%	9,6%	9,5%	9,4%	9,3%	9,5%
Specialty Glass	4,7%	4,9%	5,0%	5,0%	4,9%	4,8%	4,7%	4,6%	4,8%
Fiber Glass	3,9%	3,9%	3,9%	3,9%	4,0%	4,1%	4,2%	4,3%	4,1%
Flat Glass	26,0%	25,8%	25,4%	25,3%	25,2%	25,1%	25,0%	24,9%	25,1%

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Competition Analysis and Market Shares

- Competition Analysis contains the detailed description of the most important companies in the examined market by reference to Market Shares, Changes, BCG-Portfolios, etc.

- *This chart shows sample figures.*

The Leader Lost the Ground

Machinery Group: **Producing** Market Share 2016 & 2015 in Terms of Value

Competition Analysis

	2016	2015	Change in %
Company A	22,6%	22,6%	-0,1%
Company B	16,8%	16,3%	2,8%
Company C	12,6%	12,5%	0,7%
Company D	9,3%	9,3%	0,4%
Company E	5,1%	5,1%	1,3%
Company F	4,7%	4,6%	2,3%
Company G	4,2%	4,3%	-1,3%
Company H	3,6%	3,7%	-1,7%
Company I	3,0%	2,9%	0,7%
Company G	2,2%	2,2%	-2,6%
All Others	15,9%	16,5%	

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Analysis of the Market Drivers

- The data for the market environment consists of main factors such as general economy data, demography, income statistics, construction environment and sentiment indicators.

- *This chart shows sample figures.*

GDP per Capita in China Doubled
in the last 5 Years, Russia Suddenly Back to the 2010 Level

Worldwide: **GDP per Capita 2005-2010-2015 by Countries** in current US $

International Economy

	GDP per Capita 2005	GDP per Capita 2010	GDP per Capita 2015
United States	44.307	48.374	56.115
United Kingdom	41.524	38.708	43.919
Japan	37.217	44.507	34.523
Canada	36.189	47.445	43.315
Germany	34.696	41.788	41.178
Australia	33.983	51.845	56.290
Mexico	7.894	8.861	9.005
Russia	5.325	10.675	9.329
Brazil	4.730	11.121	8.677
China	1.753	4.560	8.069

Source: World Bank 2017

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Pivot Table

- In addition to the visualized report a Pivot Table will be included.

- This tool allows individual and selective analyses to be made by the user with the available data, especially when it comes to future trend and segmentation modelling.

- Pivot tables are available for the competition analysis as well as for the total market and forecast studies.

How to use Pivot Tables

1. Generally, the desired sub-categories (i.e. Technology - A) can be selected with the ordinary drop down menus.

Technology	A
Distribution	(All)
Quarter	4
Quantity/Value	Quantity
Weight Classes	(All)
Country	Germany
Brand	(All)
Ø Price in € (Classes)	(All)

Sum - #	
Segments	Results
Segment A	18.592
Segment B	8.434
Segment C	5.310
Segment D	3.290
Segment E	1.332
Total	36.958

2. If you want to analyse a different category (i.e. Technology), click on the gray field and drag it down to the table.

Distribution	(All)
Quarter	4
Quantity/Value	Quantity
Weight Classes	(All)
Country	Germany
Brand	(All)
Ø Price in € (Classes)	(All)

Sum - #	Technology		
Segments	A	B	C
Segment A	3.290	5.452	7
Segment B	5.310	8.925	21
Segment C	8.434	10.794	
Segment D	18.592	14.624	13
Segment E	1.332	2.229	6
Total	36.958	42.025	47

IC Market-Tracking® Glass Machinery Worldwide

	Signle Issue	Subscription*
Total Market - America	€ 2,950.-	
Total Market - Asia	€ 3,650.-	IC SUBSCRIPTION 20 % PRICE ADVANTAGE
Total Market - Europe	€ 5,950.-	
Worldwide (Single License)	€ 8,662.50	
Worldwide (Group License)**	€12,487.50	

<u>In specific analyzed regions:</u>

America: USA & Canada, Rest of Americas
Asia: China, India, Japan, Korea, Rest of Asia
Europe: Northern Europe, Central Europe, UK & Ireland, France & Benelux, Eastern Europe, Southern Europe

* Annual price for at least two orders of the study (order year and the following year). The subscription can be cancelled after two purchases of the study, but not later than at the 31.12. of the year in which the last study has been received. Price changes must be announced by Interconnection at least two months before the issue of a new study. In case of not-cancellation the subscription extends for a further year automatically.

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- **Price advantage** IC Standard Subscription (annual receipt of an IC study or IC study package): **20% price advantage** compared to single issue taking into account the **scale of discount**

- **Annually updated reports** on fixed dates

- One time a year **free web conference** with the Analyst of the report (presentation of key results, background information, answering of questions)

- **Info-Hotline**: answering of questions with regards to the report and on methodological issues relating to market research

- **Flexible subscription packages**: 2-year intervals, alternating countries, product change, etc., if possible. Conditions on request

- **Easy termination**: After 2 issues each subscription can be terminated easily

Interconnection Delivers Data for Company Decisions

- Interconnection is one of the leading institute for market data in the glass machinery industry.

- Our studies support the leading companies in the determination of targets, definition of marketing strategies, competition monitoring and control of marketing actions.

- Interconnection draws its Know-how from over 100 international market studies per year and a number of Ad-hoc studies in the glass machinery industry.

- Next to market data we offer for the boat sector Ad-hoc studies in the field of distribution analyses, pricing, market entry strategies, customer satisfaction, image analyses etc.

- Our Consultant supports companies also in the implementation of data in actions = in the development of marketing strategies.

Our Market-Intelligence Tools

Market Analysis

Market Volume

Market Shares & Entry

Competition Analysis

Distribution Analysis

Channel Map

Distribution Matrix

Margins

Customer Insight

Focus Groups

Buying Motives

Customer Benefits

Market Forecasts

Indicator Models

Life Cycle Models

Econometric Analysis

E-Commerce

Brand Analysis

Brand Scorecards

Brand - Triangle

Brand Affinity

Customer Satisfaction

Importance/Satisfaction Portfolios

Customer Loyalty

Customer Typology

Price Research

Price-Sales-Function

Price-Simulation-Tool

Optimal Pricing

Webverstärker

E Commerce Insights

Search Engine Marketing

Web Channel Analysis

If there are any questions please
do not hesitate to contact us!

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IC

we show you the way

Factsheet: Glass Machinery Worldwide 2017

Included in the Report
- interactive PDF, Pivot Tables
- Pages (approx.) 500
- Optional: Hard Cover

Price
- per region: 2,950€ / 5,950€
- all regions: 8,662.5 €
- Hard Cover: 150 €

Detailed Information about special offers, scale of discount as well as subscription prices are presented within the order form or the interactive price calculator.

Options of ordering – Fax:+43 1 5854623 30
- Click „Buy Now" on the website and make your order with the interactive price calculator.
- Print out your order form (at the end of the "Full Details" document and fill in your data.

Content of the Market Report

Structure of the Study

Language of the report
English, German on Request

Introduction, Market Structure & Executive Summary Definition and demarcation of product groups, regions and methodology; summary of study results.

Market Drivers
Key economic factors influencing the market: consumer behaviour, main economic indicators etc.
Import & export statistics

Total Market Analysis
Total market development and forecasts for all market segments in quantity and value by regions, product groups, driving system types and application fields and automation.

Competition Analysis

Market development by value for each region and segment. Market shares of the top manufacturers for each region and for each application for the last two years.

Market Structure

Regions:

Northern Europe, Central Europe, UK & Ireland, France& Benelux, Southern Europe, Eastern Europe, USA & Canada, Rest of America, China, India, Japan, South Korea, Rest of Asia, Rest of the world.

Product Groups

Flat glass, container glass, specialty glass, fiber glass, others.

Machinery Groups

Producing machines, Processing machines

Methodology

Methodology and Data Sources

The market and competitive analysis is conducted through interviewing the most important manufacturers in the respective industry. All data are cross-checked for plausibility and evaluated by means of additional sources of information.

The market models and forecasts are based on economic indicator models, which are developed individually for each market. The influencing factors are analysed by means of multivariate regression analysis and updated each year.

The economic indicators and environmental data are a result of secondary research of prestigious statistical institutes and are supplemented by internal market analyses.