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B2B Strategy: Quantitative Analysis of Your Downstream Value Chain

June 21

2012

A guide for identifying and prioritizing revenue growth opportunities

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B2B STRATEGY – DATA DRIVEN OPPORTUNITY PRIORITIZATION

QUANTITATIVE ANALYSIS OF YOUR DOWNSTREAM VALUE CHAIN

The global recession of 2008 left an indelible mark on business strategists around the world; no longer could one expect to find growth through anecdote or rumor. Instead, accurate and meaningful quantitative methods are required to identify, prioritize and defend the careful alignment of resources with global business opportunities. As part of this process it is crucial for strategists in the areas of sales, marketing, operations and logistics to rigorously analyze their downstream value chain.

The aim of this white paper is to guide B2B strategists through the copious data available in National Statistics Offices, introducing techniques to effectively use this data and make strategic decisions. It focuses on practical applications such as mapping value chains, sizing revenue potential from target industries, determining enterprise concentration and assessing price sensitivity.

This whitepaper has four main parts:

1. Description of available data
2. Description of data applications
3. Case study: The complete demand picture
4. Limitations of data

DATA FROM NATIONAL STATISTICS OFFICES

National Accounts

Many business strategists are unaware of the data National Statistics Offices provide. Specific datasets called National Accounts are especially valuable for providing not only production, foreign trade, value added and other economic statistics by industry, but also makes these different types of compatible with one another. They also give strategists and business planners a 360 degree view of their industry as well as their client industries.

Input-Output (I/O) tables, part of National Accounts system, are the best examples of interconnected data. Developed by Wassily Leontief, a Nobel Prize winner in Economic Science, an I/O table is a matrix showing the relationships between industries operating and products sold in an economy. I/O framework is valued as an important tool for economic analysis and is now being used more often by corporations for B2B market analysis.

		Industries			Final Demand	Total Output
		Industry A	*Industry B*	*Industry C*		
Products by Industries	*Product A*	0	15	45	20	80
	Product B	20	0	10	5	35
	Product C	35	0	0	35	70
Value Added		25	20	15		
Total Inputs		80	35	70		

Intermediate consumption

A simplified I/O table

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Industry Surveys and Short Term Statistics

National Statistics Offices provide results of Industry Surveys for a number of metrics. Usually these include production, composition of each industry's value added (gross operating surplus, wages and taxes less subsidies), number of employees, total B2B expenditure and similar statistics. Short Term Statistics by industry usually include production values/volumes and producer price indices (PPI).

Structural Business Statistics

Additionally, National Statistics Offices have Structural Business Statistics (SBS) that evaluate the degree to which an industry is concentrated or fragmented. SBS give you the number of companies by size bracket (small, medium, large companies) for different industries, along with revenues. Statistics on employment, value added and profits are available for some countries.

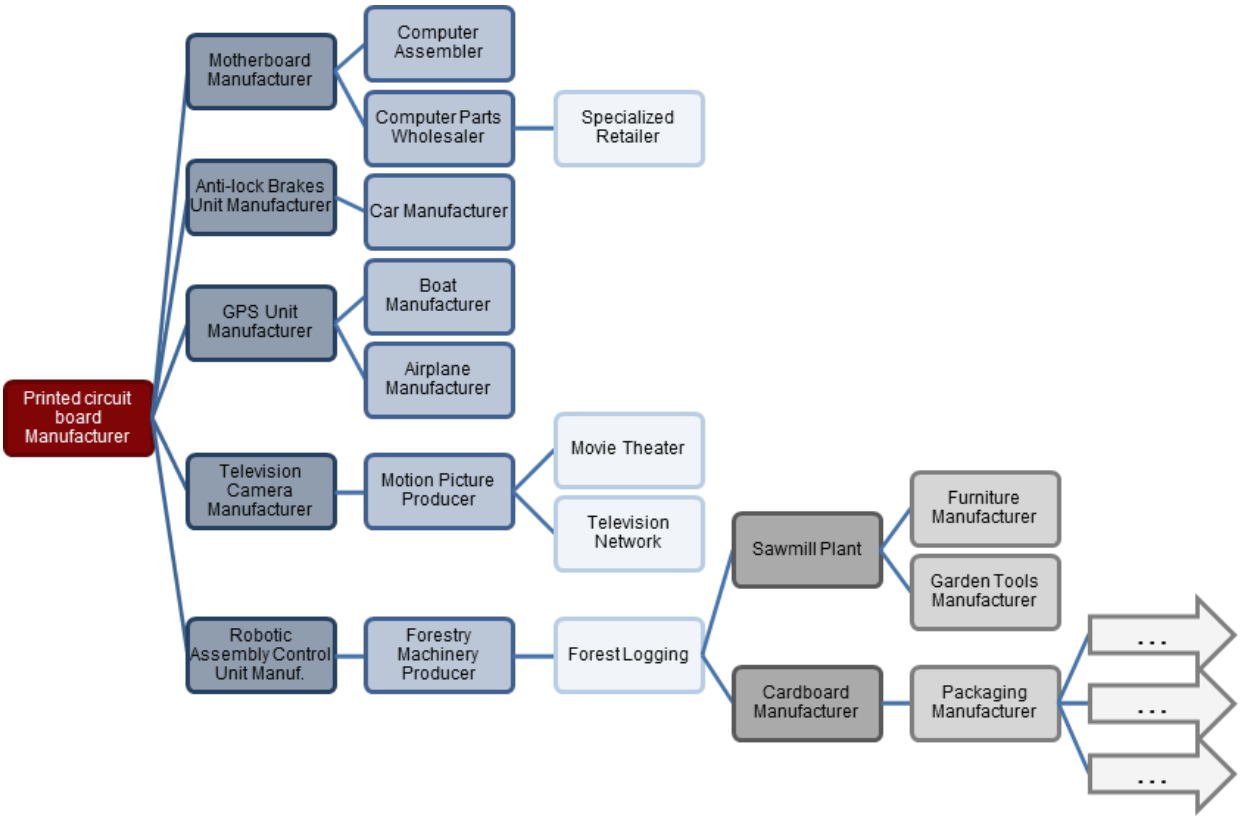
APPLICATIONS

In this section we focus on how to maximise the use of the above mentioned data:

1. Map your downstream value chain
2. Size your income potential from target industries
3. Investigate the corporate landscape
4. Analyze client sensitivity to pricing changes

Mapping Your Place in the Value Chain

Mapping the value chain is a first step towards deeper analysis of your B2B marketplace. I/O tables allow strategists to illuminate even the most complicated value chains, such as those starting with primary or intermediary products and branching in multiple directions.



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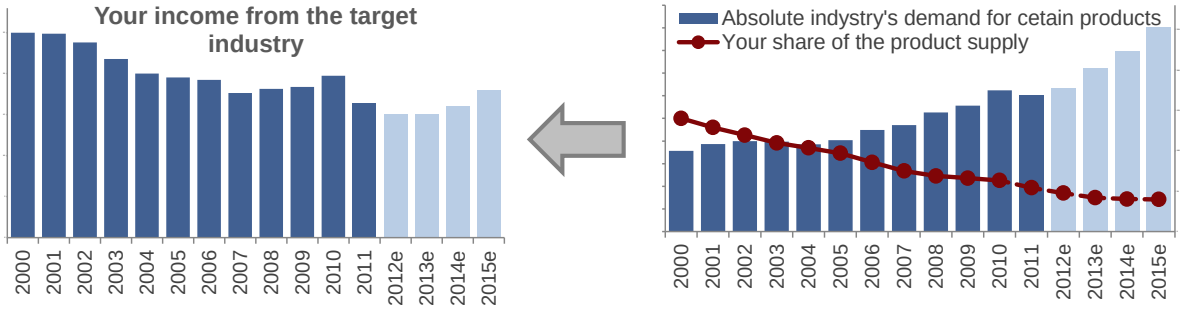
I/O tables show which industries consume a certain product, enabling investigation of each industry's contribution to overall demand. It is a particularly versatile tool for developing an accurate and calibrated value chain map, providing visibility into lesser known primary, secondary and tertiary industry connections.

Sizing your Income Potential from the Target Industry

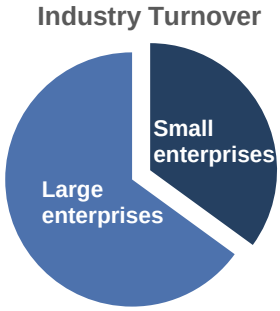
Another straight-forward application of the I/O matrix is measuring the demand for your products from an industry of interest. This determines the full income potential from a target industry, which is more informative than using the industry size. Moreover, such information helps sort out what part of the overall industry's demand for a product or service your business covers. If it is a substantial portion, it would indicate your dominance among suppliers, while a minor portion might mean there's room for expansion.



As illustrated above, combining demand and share metrics provides an informative view of income changes from the target industry. In this particular example, company sales are decreasing due to losses in share even though demand from the target industry is on the rise. Statistics Offices do not provide forecasts, and forecasting methodology is out of the scope of this white paper, but if you are able to arrive at demand projections you can estimate your future income based on your share expectations.

Assessing Corporate Landscape

An important but often overlooked aspect of B2B marketplace analysis is the investigation of the corporate landscape. Structural Business Statistics (SBS) are particularly useful when entering a new market, identifying the composition of the potential client base. Different size groups require a different approach and sometimes even a different product offering. Knowing which group offers more value potential might prove very beneficial when creating a sales strategy. Often it is more efficient to target small businesses through external distributors, while a direct approach might be a better choice for larger enterprises.



Although resources to track all the players of target industries are limited, it is wise to keep an eye on the largest as their operating performance often is a good reflection of the industry as a whole. This might alert you to near-term challenges before it is too late to react. For instance, a sharp drop in their order backlog might signal a similar demand decline of your products in the months to come. Listed enterprises regularly publish financial reports discussing the business environment, associated risks and opportunities. Tracking them will give you a clue of what is hot presently.

Assessing Opportunities to Raise Prices

One of the Value Added components - gross operating surplus - is a rather close approximation of an industry's EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization). Combined with other information from I/O tables, it provides the insight needed to test the impact of pricing changes.

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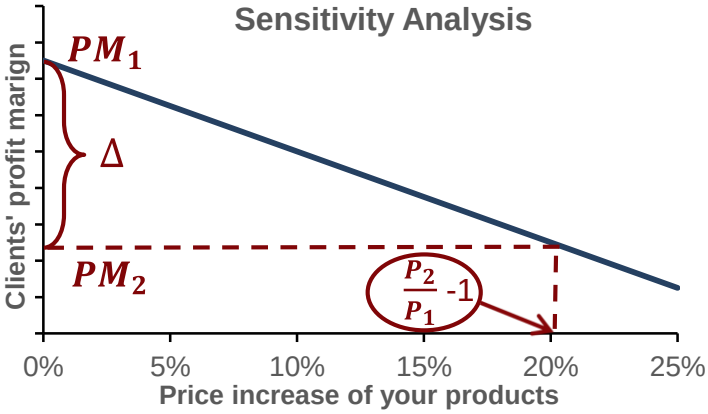
If you increase the unit price of your products, your clients would have to either lift their product prices or take a direct hit in profitability. You can determine how serious the hit would be if you know their profit margin and your contribution to their expenses. Then it is a matter of simply doing the math.



$$\Delta = \frac{EXP_1}{REV} * \frac{P_2}{P_1} - 1$$

EXP_1 - Original expenses by the target group on products you produce

REV - Revenues generated by the target group

P_1 – original price; P_2 – new price

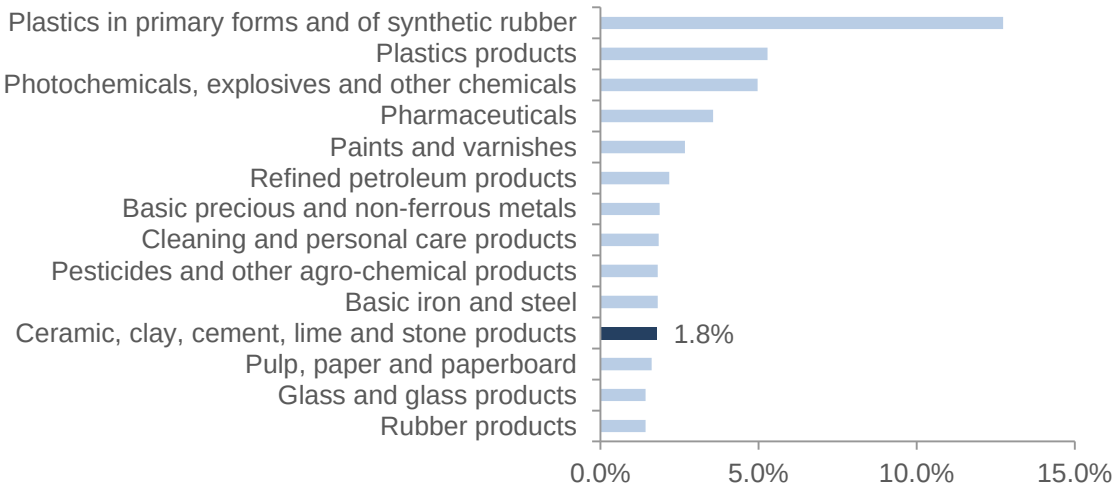
Sensitivity to pricing is determined by what portion of your clients' revenues is balanced by expenses on your products. In turn, the ratio $\frac{\Delta}{PM_1}$ tells what part of their profit margin would be trimmed[1].

For some clients a seemingly slight upward shift in pricing might cut their profits in half, while others will witness minor effects. Naturally, all else equal, you should favor the latter group, because it offers more room for pricing maneuvers.

CASE STUDY: THE COMPLETE DEMAND PICTURE

The following case study incorporates the quantitative analysis techniques described above.

A chemical product manufacturer with a global presence wanted to better understand demand sources for their products as well as assess new market opportunities.To begin, the company mapped the first layer of its downstream value chain. The chart below lists the main buyers of basic chemicals in Germany, France, UK, US, Brazil, China and Japan.



Source: Euromonitor International

[1] *This does not apply to profit after income taxes*

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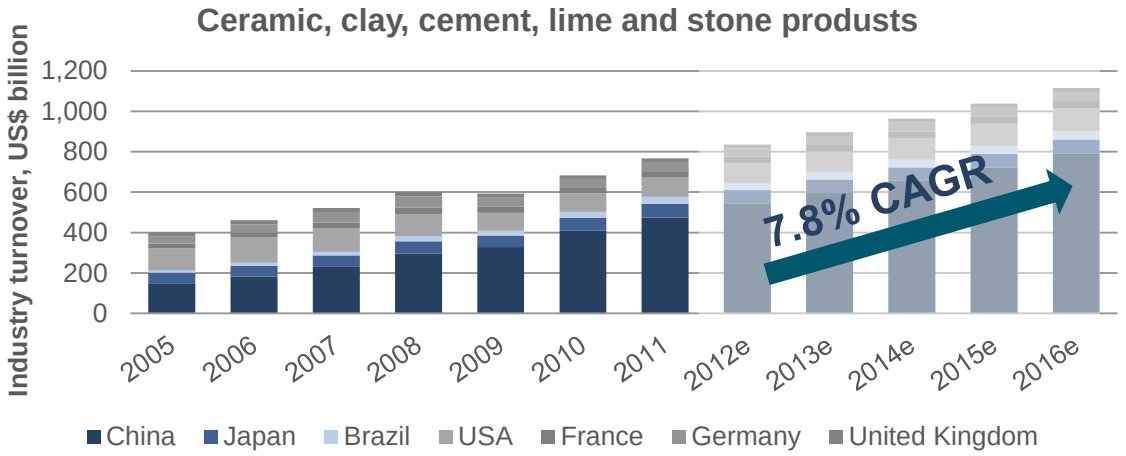
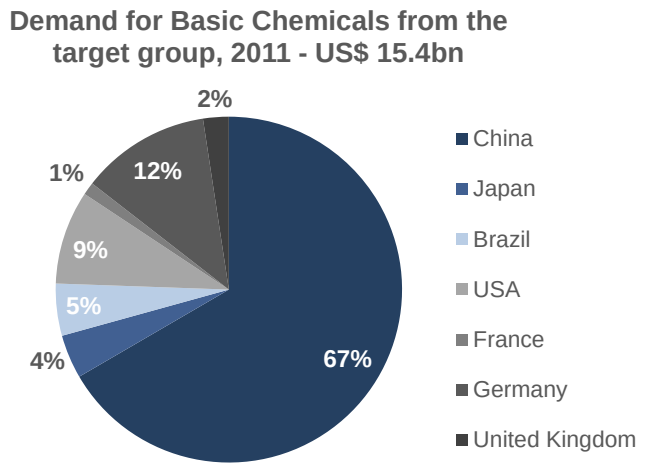
Each industry was separately analyzed and for illustration purposes, we will use Ceramic, clay, cement, lime and stone producers as the featured example. At the time of this analysis the company had virtually no business with such producers but wanted to assess the possibility of expanding in that direction.

The process began with an analysis of the historic development of the Ceramic products industry and a study of its growth projections. In the period from 2005 to 2011 industry turnover nearly doubled to reach US$767 billion and forecasts projected a continued phase of robust growth.



Source: Euromonitor International



Source: Euromonitor International

Turnover trends tell much about the industry's development; however, what matters most is the business potential, that is, how much ceramic manufacturers spend on chemicals. Data revealed that within the analyzed countries the industry's spending on basic chemicals amounted to US$ 15.4 billion in 2011. That turned out to be a significant market worthy of further analysis.

Information on each country was then gathered to get a detailed picture. The metrics of most interest were the demand potential in each country, growth forecasts and corporate landscape.

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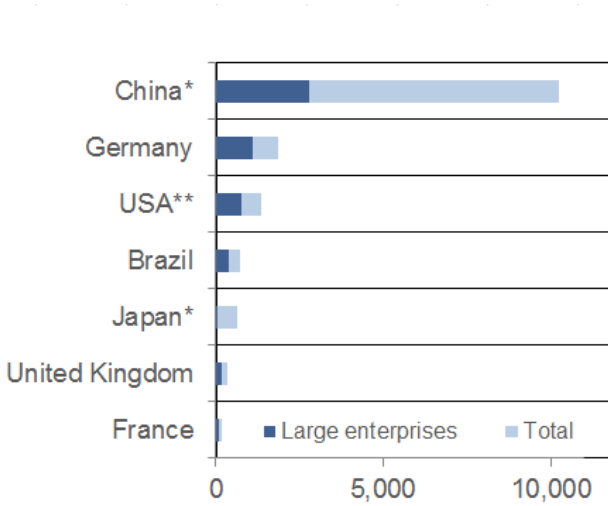
For each country, the table below lists the following:

1. Total demand by ceramic manufacturers for basic chemicals
2. Five-year industry growth estimate
3. Demand by large enterprises (over 250 employees)
4. Number of large enterprises
5. Average demand by a single large enterprise

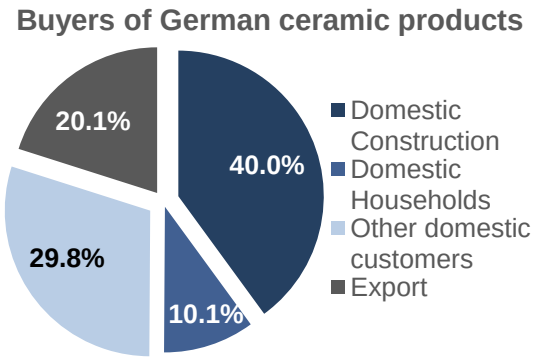


	Total demand	5Y CAGR forecast	Demand by large comp.	Nr of large	Average demand
China*	US$ 10,232m	10.8%	US$ 2,793m	3,457	US$ 0.8m
Germany	US$ 1,857m	0.0%	US$ 1,099m	87	US$ 12.6m
USA**	US$ 1,347m	3.5%	US$ 773m	501	US$ 1.5m
Brazil	US$ 747m	3.3%	US$ 383m	135	US$ 2.8m
Japan*	US$ 629m	-0.3%	US$ 57m	34	US$ 1.7m
United Kingdom	US$ 368m	3.0%	US$ 201m	39	US$ 5.2m
France	US$ 183m	2.8%	US$ 94m	37	US$ 2.6m

**China and Japan data for large enterprises with over 300 employees; **USA – over 500 employees*
Source: Euromonitor International

The chemical company had a longstanding practice of using a direct sales force and placed their preferences on working with large enterprises. Therefore, Germany stood out as the most appealing corporate landscape where 59% of industry turnover generated by large companies (250+ employees). Assuming the overall industry's cost structure was a good approximation for the large companies, they were able to estimate that, on average, large Ceramic producers in Germany spend US$12.5m on basic chemicals.

The company went on to investigate the second layer of its downstream value chain and found the main demand drivers for ceramic products in Germany. In 2011, 20% of local manufacturers' output was exported. Meanwhile, half of local production was consumed by the construction industry, and 13% by households. Assuming the breakdown by consumer groups is similar for both imported and domestically manufactured products; our client could draw the demand structure, which is shown on the diagram to the right.



Due to the relatively healthy state of Germany's economy, the chemical company was not worried about domestic consumption, but was a bit troubled about the exports. In particular, the company was interested in the exposure to other Eurozone countries with the toughest sovereign debt issues. The study of foreign trade data revealed combined shipments of ceramic products to Greece, Ireland, Portugal, Spain and Italy accounted for only 9.1% of the overall industry's exports. The company was relieved to find that the bulk of exports travelled to less vulnerable economies.

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Finally, a cross-country assessment of industry sensitivity to pricing changes was conducted. The table below shows how on average a ceramic manufacturer's profits would be affected if the price of basic chemicals was lifted by 10% and the price was not passed through to the buyers of ceramic products.

	China	Germany	USA	Brazil	Japan	UK	France
Profit margin	12.5%	14.5%	16.2%	11.9%	11.7%	10.4%	10.1%
Spending/Turnover	2.1%	4.2%	1.4%	2.1%	0.9%	2.1%	0.6%
Effect on profit	1.7%	2.9%	0.9%	1.8%	0.8%	2.0%	0.6%

Source: Euromonitor International

The ceramic industry's spending on basic chemicals is relatively insignificant, therefore the sensitivity to pricing changes are quite low across all regions. If chemical prices were to increase by 10%, the median impact on profit would be 1.7%. In comparison, the median effect on the Plastics in Primary Forms and Synthetic Rubber industries would be 22%. The chemical company differentiates based on high standards of production rather than low-end products; therefore, low sensitivity to pricing is desired.

This exercise put the company in a position to decide and recommend the best-fitting expansion scenario. Further, the intelligence gathered provided a foundation to be used again when developing long-term plans, conducting risk management and helping better understand the needs of customer industries.

INPUT-OUTPUT FRAMEWORK LIMITATIONS AND HOW TO SOLVE THEM

I/O tables are inconsistent across countries and therefore present a range of challenges, the most notable being industry detail, time series updates and cross country comparability

National Statistical Offices compile I/O tables for roughly 60 countries. The most robust levels of detail provide up to 500 industry classifications and are primarily limited to the US, Canada and Japan. The majority of other countries provide fewer than 60 industries. Lower levels of detail result in industry pools too broad to be used in the aforementioned examples.

The dynamic nature of global markets requires data inputs to be timely and reflective of recent developments. However, the comprehensive research techniques used to develop I/O tables commonly result in lag times of 4-5 years.

The third and often more challenging hurdle relates to the lack of consistent definitions across countries. Strategists interested in a comparable assessment of global opportunities will confront a varied mix of industry classifications.

Overcoming these limitations requires the skills of highly trained econometricians and mathematicians well versed in National Accounts and I/O tables' methodology that are able to leverage sound techniques for forecasting missing and future time series and developing homogenized datasets with comparable definitions.

WHAT'S NEXT?

Once this analytical exercise is complete and the business case for resources is granted, firms are in position to execute their expansion strategy. Those who have selected to increase prices may wish to conduct objective trade interviews to uncover the qualitative elements that can be used to shape their value-add offerings and inform their sales and marketing strategy. Those interested in expanding into new industries and markets often wish to quicken the pace of success by conducting on-the-ground research projects to uncover market dynamics and provide the intelligence necessary to avoid common mistakes and effectively compete for market share. It is important to select research partners well-versed in projects such as this that are experienced in conducting research within desired geographies.

Business interactions are the essence of the B2B market; therefore, before making strategic decisions it's important to understand the relationships between industries in your value chain.

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About the Authors:

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Indre is a head of Euromonitor International's research for its Passport: Industrial database. In her current role, she manages a team of industry, data and company analysts. Under her guidance, the team has expanded the universe of countries covered nearly threefold in less than two years, and added a number of new features.

Indre started her carrier as Associate Researcher in BICEPS (The Baltic International Centre for Economic Policy Studies) in 2007. In 2009 she joined Euromonitor as Industry Analyst. After a year Indre was promoted to Project Manager and after six months took full responsibility of Industrial research unit. She is an expert in industry classifications, industry data collection and standardization.

Indre graduated from Stockholm School of Economics in Riga and holds BSc in Economics and Business Administration.

Giedrius Rudis, Company Analyst, Euromonitor International

Since his start at Euromonitor in 2011, Giedrius has developed a new company research methodology and now oversees company data collection for Passport Industrial. In addition, he specializes in Fertilizers and Pesticides industries.

Giedrius has a background in sell-side equity research. Before joining Euromonitor, he spent over three years working in a team of 10 analysts, the head of which won a prestigious Norwegian stock picking competition 7 times in a row. In his former role, the excess return on Giedrius' recommendations was the highest among all the team members, according to official StarMine ratings. As a research analyst, he was in a constant contact with the top management of companies researched. Giedrius was also engaged in advisory work a few times, helping the company to close corporate deals.

Giedrius has a bachelor degree in Finance and Actuarial mathematics from the Vilnius University. Currently he is a CFA candidate.

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We deliver market research solutions to support strategic planning for today's increasingly international business environment. Our research offers in-depth market analysis on finished goods and service industries for 80 countries worldwide in addition to demographic, macro- and socio-economic data on consumers and economies in 210 countries. Our research allows organizations to evaluate their strengths and opportunities within their industry or client base, and understand ways in which they can expand their business.

Specific areas of expertise include:

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- Companies & Brands
- Product Categories & Distribution Channels
- Production & Supply Chains
- Economics & Forecasting
- Comparable data across markets

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Passport: Industrial

Passport: Industrial is the leading online market researche system for strategic market planning, delivering an unrivalled level of research and analysis for 177 industries covering all activities in an economy across 18 of the largest global markets (78% of global GDP). It offers intuitive navigation through powerful statistics and reports, helping you make clear, confident decisions.

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- Cost structure segmented by Suppliers
- Attractiveness Rating and other metrics

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