Growth remains strong for market expansion services in Asia

Study highlights

Zurich, January 2017
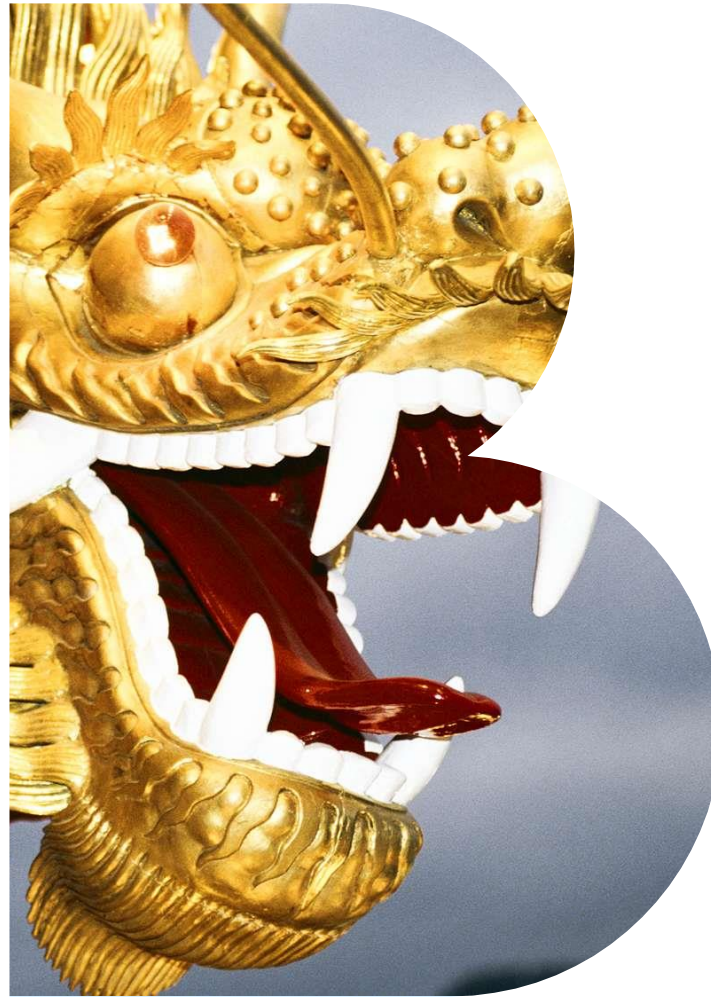
Market expansion services for FMCG, healthcare, specialty chemicals, and engineered products expected to grow with 6.5% p.a. until 2021

Overall market development for market expansion services [USD bn]

CAGR[1)]
['16-'21]

+ 6.5%

866

632

2016
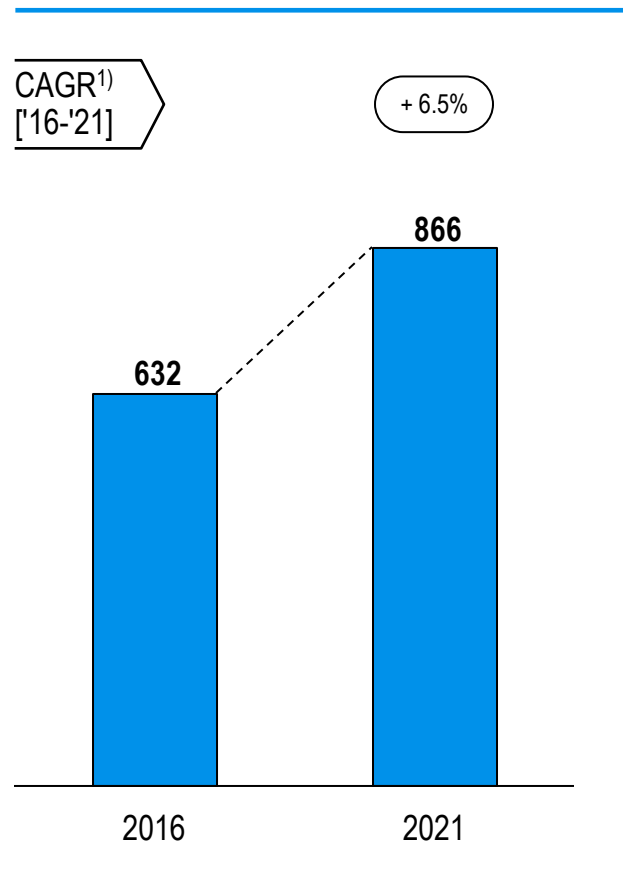
2021

> Until 2021, market expansion services are expected to grow by 6.5% annually across all industries analyzed
> The overall MES penetration growth rate remains stable at 0.9% p.a.
> Asian markets are still exhibiting robust growth, mainly due to the growing wealth of the middle-class with higher disposable income as well as initiatives of governments and policy-makers towards improved infrastructures, free trade, and increased employment rates
> The demand for market expansion services is further increasing as
  – companies are increasingly focusing on their core competencies
  – supply chain efficiency becomes more important as competitive pressure accelerates
  – increasing regulations across many sectors and countries require in-depth market knowledge and experience
> Among the pan-Asian cross-industry market expansion services providers, DKSH continues to be the leading player[2)] - Other market participants, with partial regional and cross-industry coverage, being LF Asia/DCH[3)] and Jebsen & Jessen

Southeast Asia and consumer goods sector being growth drivers whilst China and the engineered products sector are slowing down

Overall market development for market expansion services by region and industry [USD bn]

Region	2016	2021	CAGR[1]
Southeast Asia	111	167	8.5%
Greater China	323	472	7.8%
Northeast Asia	198	227	2.8%
Total	**632**	**866**	**6.5%**

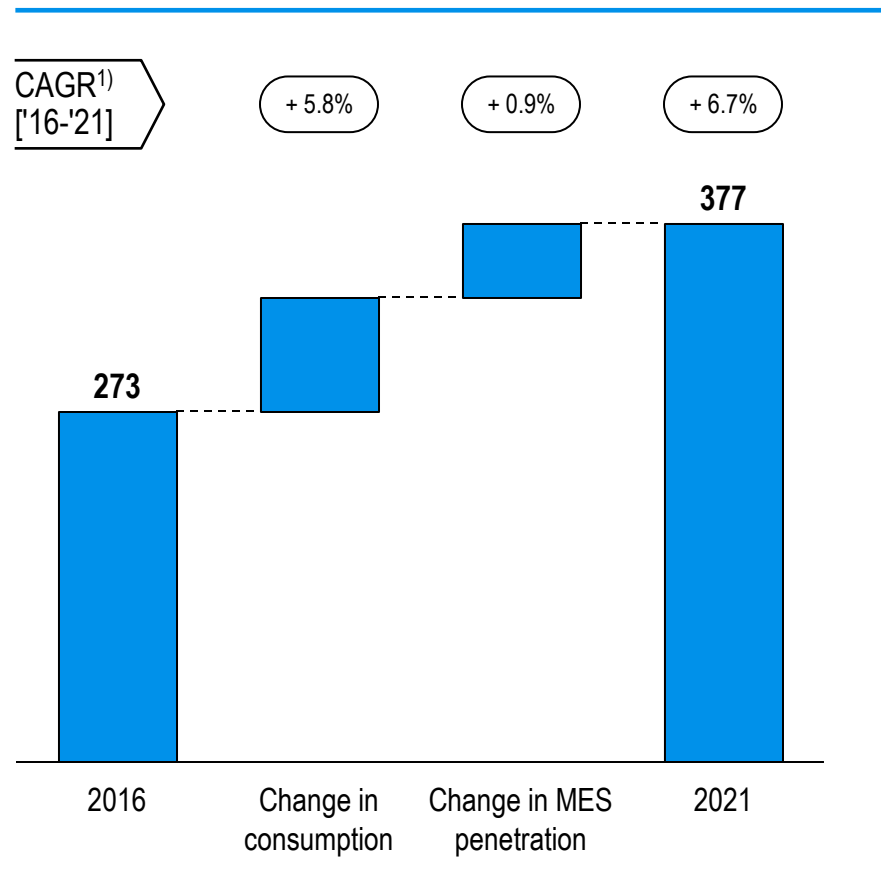| Industry	2016	2021	CAGR[1]
FMCG	273	377	6.7%
Healthcare	212	301	7.2%
Specialty chemicals	37	49	6.1%
Engineered products	110	139	4.8%
Total	**632**	**866**	**6.5%**

> Growth varying across countries studied:
  – Southeast Asia with highest growth rates
  – Northeast Asia is growing at comparably low pace
  – Greater China still major MES market
> Industry-wise, the markets are showing robust growth but there are differences among the industries studied:
  – Consumer Goods with stable growth, driven by increase in income, rising middle class, and growing population in many Asian countries
  – Healthcare with robust growth due to ageing population with higher disposable income and public investments in healthcare systems
  – Specialty Chemicals profiting from development of end-consumer industries, environmental initiatives and public infrastructure investments
  – Engineered products' growth slowing, influenced by investment restraints in the Chinese market

1) Compound annual growth rate 2016-2021
Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

| 3

For FMCG, Asia-Pacific region growing at high levels – Main drivers are the growing middle class, increasing population, and incomes

Market development for market expansion services – FMCG [USD bn]

CAGR[1] ['16-'21]

+ 5.8%   + 0.9%   + 6.7%

377

273

| 2016 | Change in consumption | Change in MES penetration | 2021 |

> Market expansion services for the FMCG industry are expected to show a robust growth of 6.7% whereof 5.8% stems from a change in consumption and 0.9% from a change in MES penetration

> Overall growth in the FMCG market is driven by population growth, rising share of middle class households, increasing disposable income and the rise of new sales channels (e.g. digitization)

> Additionally, increasing number of trade-agreements (e.g. TPP[2]) and lower trade barriers across analyzed countries continue to stimulate consumption in the FMCG market

> Trends towards outsourcing expected to continue as relevance of "frugal products" (products being tailor-made for the specific needs of the middle-class of emerging countries) for western firms is constantly growing – Specific knowledge about local conditions and customer groups is vital but widely lacking among western firms

1) In some cases 'Change in consumption' and 'Change in MES penetration' do not add up to 'Compound annual growth rate' (CAGR) due to rounding errors
2) Trans-Pacific Partnership
Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Growth of FMCG in Southeast Asia profiting from rising employment – China's growth driven by more affluent and sophisticated customers

Market development for market expansion services by country – FMCG [USD bn]

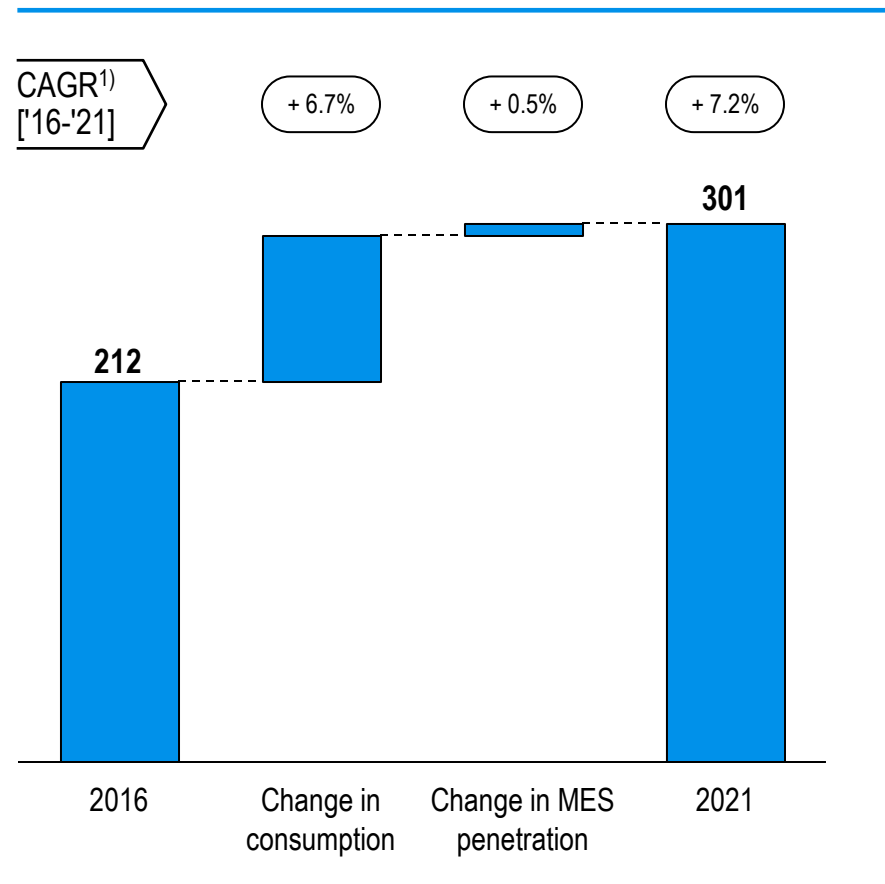| Country	2016	2021	CAGR[1]
Cambodia	0.5	0.8	8.8%
Indonesia	21.8	35.4	10.1%
Laos	0.3	0.4	8.6%
Malaysia	5.4	7.2	6.0%
Myanmar	1.8	3.2	12.5%
Philippines	12.7	18.7	8.1%
Singapore	1.5	1.9	4.7%
Thailand	12.7	17.2	6.1%
Vietnam	7.5	12.6	10.9%
Southeast Asia[2]	**64.3**	**97.5**	**8.7%**
China	119.7	179.2	8.4%
Hong Kong	4.0	5.5	6.3%
Taiwan	5.2	6.3	3.8%
Greater China[2]	**128.9**	**190.9**	**8.2%**
Japan	64.4	70.7	1.9%
South Korea	15.0	17.9	3.6%
Northeast Asia[2]	**79.4**	**88.6**	**2.2%**

> Southeast Asia's growth is largely driven by the growing markets in Myanmar, Vietnam, and Indonesia

> In Indonesia, household consumption is projected to increase given easing inflation, tax cuts for lower-income workers, and higher government allocations for village funds to building village infrastructure

> Private consumption in Myanmar expected to profit from rise in employment and lifted US sanctions, which is driven by new governmental policies focusing on deregulation, improved education and training, and more efficient government services

> Vietnam's consumer goods market profiting from rising employment (the country's labor force is growing at more than 1 million people per year), government reforms to modernize the economy as well as a lower level of inflation

> China is mainly driven by three forces: the rise of upper-middle-class and affluent households, a new generation of freer-spending, sophisticated consumers, and the increasing demand for value-adding services

1) Compound annual growth rate   2) In some cases, values might not match with sum of single values due to rounding errors

Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Asian healthcare market driven by an ageing population with higher disposable income and investments in healthcare infrastructure

Market development for market expansion services – Healthcare[1] [USD bn]

CAGR[1] ['16-'21]

(+ 6.7%)   (+ 0.5%)   (+ 7.2%)

212   301

2016 | Change in consumption | Change in MES penetration | 2021

> Market expansion services for the healthcare industry are expected to grow by 7.2% whereof 6.7% stems from a change in consumption and 0.5% from a change in MES penetration
> Asian healthcare market remains very promising, mainly because of:
  – General growth of populations in most countries as well as growing disposable income and higher standards of living
  – Significant ageing of the population (APAC being fastest ageing region in the world) with an increase of 71% in the number of elderly people by 2030, compared to increases of 55% in North America and 31% in Europe over the same period
  – Developing healthcare infrastructure (e.g. hospitals or pharmacies) and increasing focus of governments to provide sufficient healthcare insurance/ coverage

1) In some cases 'Change in consumption' and 'Change in MES penetration' do not add up to 'Compound annual growth rate' (CAGR) due to rounding errors

Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Governmental healthcare initiatives are fostering growth in the Asian markets – Southeast Asia and China being major growth drivers

Market development for market expansion services by country – Healthcare [USD bn]

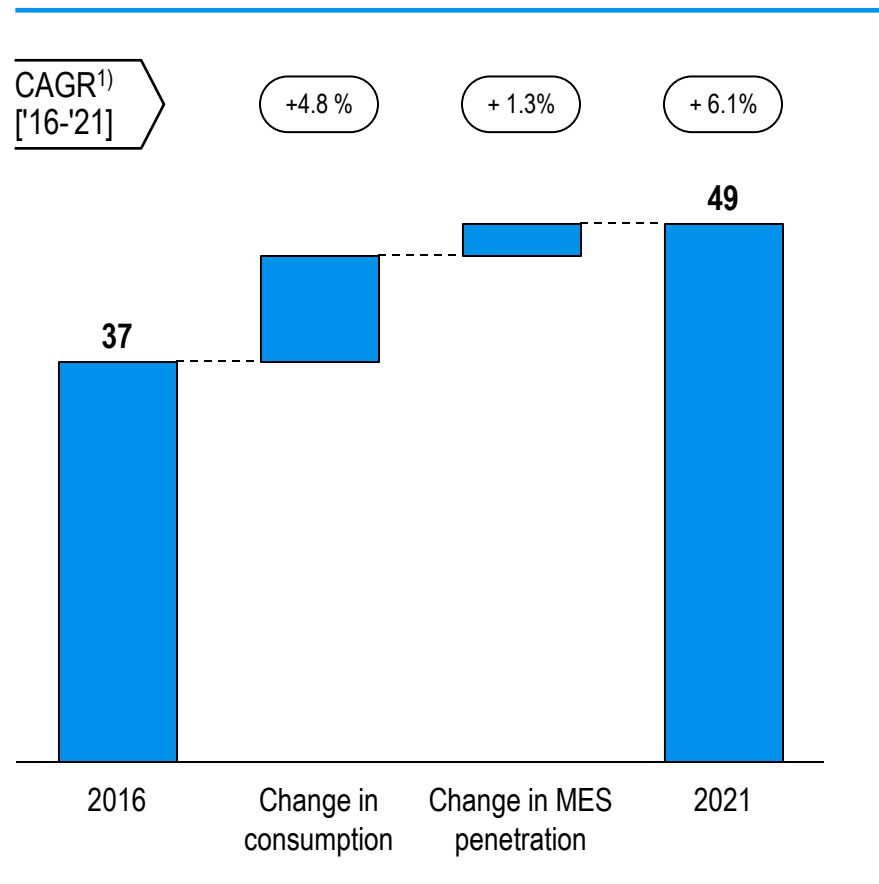| Country	2016	2021	CAGR[1)
Cambodia	0.2	0.3	12.8%
Indonesia	2.9	4.6	9.7%
Laos	0.1	0.2	12.9%
Malaysia	1.7	2.7	9.2%
Myanmar	0.6	1.2	14.0%
Philippines	2.7	4.2	8.7%
Singapore	1.0	1.3	6.1%
Thailand	4.5	6.5	7.9%
Vietnam	2.5	4.2	11.1%
Southeast Asia[2]	**16.2**	**25.1**	**9.2%**
China	102.7	167.4	10.3%
Hong Kong	1.6	2.1	5.8%
Taiwan	4.5	5.7	4.7%
Greater China[2]	**108.8**	**175.1**	**10.0%**
Japan	75.5	85.2	2.4%
South Korea	12.0	15.3	5.0%
Northeast Asia[2]	**87.5**	**100.5**	**2.8%**

> Markets in Southeast Asia, e.g. Indonesia, Philippines, and Vietnam, profiting from governmentally promoted universal healthcare systems
> Growth in Myanmar profiting from public investments but hampered by low purchasing power of population
> Malaysia is promoting generic drugs and Thailand reference prices in order to cut costs – Both approaches are expected to reduce growth
> China's healthcare sector will be positively driven by two major forces:
> – Government policy focusing on enhancing healthcare accessibility and affordability to the general public
> – Emergence of new technologies and care models such as mHealth and wearable devices
> Japan's ageing population drives healthcare expenditures, however, growth potentials are limited since Japan being the second-largest single-country market for healthcare in the world already

1) Compound annual growth rate   2) In some cases, values might not match with sum of single values due to rounding errors

Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Market expansion services for specialty chemicals are expected to grow by 6.1% annually until 2021

Market development for market expansion services – Specialty chemicals [USD bn]

CAGR[1] ['16-'21]

+4.8 %   + 1.3%   + 6.1%

37

49

2016   Change in consumption   Change in MES penetration   2021

> Market expansion services for the specialty chemicals industry are expected to grow by 6.1% whereof 4.8% stems from a change in consumption and 1.3% from a change in MES penetration

> Growth of specialty chemicals mainly driven by
  – Growing demand in end user industries, especially in electronics, construction, automotive, and plastics
  – Rising investments in infrastructure, development, and construction projects, especially in China and India

> The MES penetration rate is expected to further grow due to specific industry features:
  – Increasing, country-related environmental regulations require specific knowledge about local regulations
  – Ongoing focus on research and development – Outsourcing of sales and distribution to realize efficiency gains

1) In some cases 'Change in consumption' and 'Change in MES penetration' do not add up to 'Compound annual growth rate' (CAGR) due to rounding errors

Southeast Asia remains the key area of growth in specialty chemicals, China increasingly conscious of environmental issues

Market development for market expansion services by country – Specialty chemicals [USD bn]

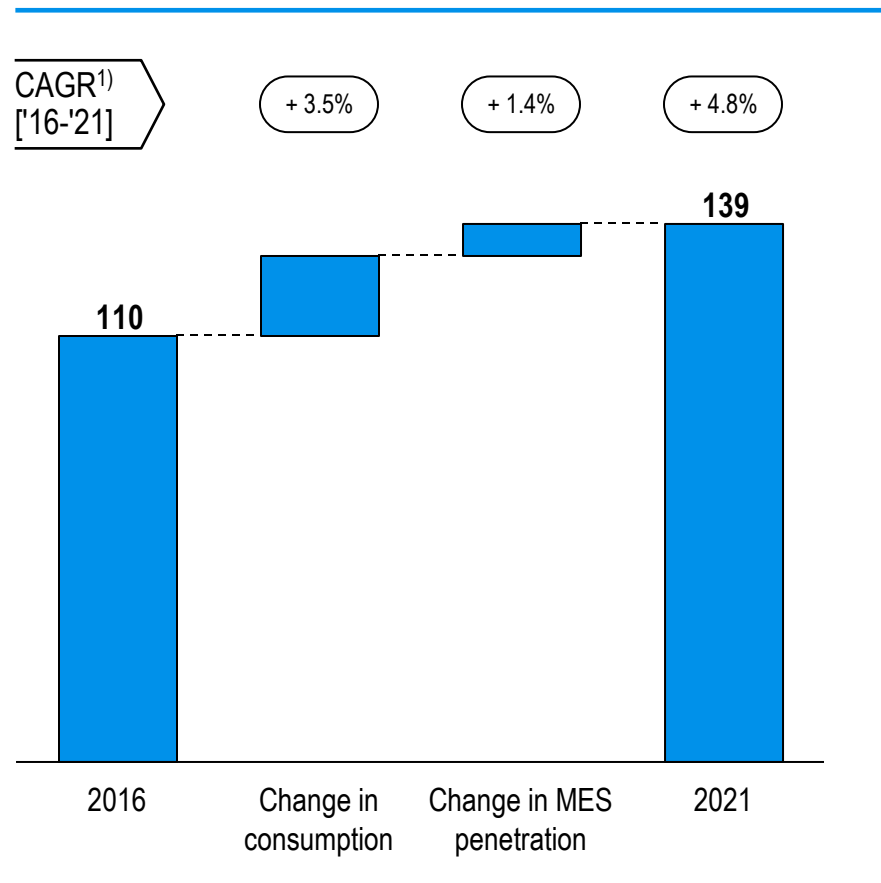| Country	2016	2021	CAGR[1]
Cambodia	0.1	0.1	8.9%
Indonesia	1.4	2.0	6.9%
Laos	0.1	0.2	8.8%
Malaysia	0.6	0.9	6.1%
Myanmar	0.5	0.8	10.2%
Philippines	0.9	1.4	9.0%
Singapore	0.5	0.6	4.8%
Thailand	1.3	1.8	6.0%
Vietnam	0.5	0.8	8.1%
Southeast Asia[2]	**6.0**	**8.5**	**7.2%**
China	18.5	26.3	7.2%
Hong Kong	0.1	0.2	4.0%
Taiwan	1.0	1.3	5.7%
Greater China[2]	**19.6**	**27.7**	**7.1%**
Japan	7.6	8.6	2.3%
South Korea	3.5	4.6	5.5%
Northeast Asia[2]	**11.2**	**13.2**	**3.3%**

> Overall MES size has been adjusted in comparison to previous reports due to the introduction of new data sources (baseline) and a reconfiguration of the overall specialty chemicals model

> Indochina (Cambodia, Laos, and Vietnam) being among the region with highest growth rate, whilst growth in more developed countries is less significant

> Laos is expected to grow less than in previous years, mainly due to reduced growth in agricultural sector as well as decreasing government spending

> Growth in the Philippines is further increasing, mainly due to increased private (e.g. cars, private construction) and governmental spending (strongly driven by increase in infrastructure investments to 5% of GDP by 2016)

> China is exhibiting over-average growth despite the initiatives of the Chinese government to address environmental issues, leading to stricter environmental laws and plant shut-downs

1) Compound annual growth rate   2) In some cases the market sizes do not add up to the regional totals du to rounding errors

Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Market expansion services in the engineered products industry are expected to grow 4.8 % annually despite economic slowdown

Market development for market expansion services – Engineered products [USD bn]

CAGR[1] ['16-'21]

+ 3.5%   + 1.4%   + 4.8%

139

110

2016   Change in consumption   Change in MES penetration   2021

> Market expansion services for the engineered products industry are expected to grow by 4.8% whereof 3.5% stems from a change in consumption and 1.4% from a change in MES penetration, thus predicting lower growth than in last year's report

> Southeast Asia is forecasted to see the strongest growth within the region, profiting from increase of domestic demand as well as foreign direct investments

> In China, however, the restraints on investments and the overall economic uncertainty have a negative influence on demand for engineered products

> Japan and South Korea as traditionally more technologically advanced countries in Asia will be facing stronger competition in the region due to the growing technological competencies of adjacent economies

1) In some cases 'Change in consumption' and 'Change in MES penetration' do not add up to 'Compound annual growth rate' (CAGR) due to rounding errors

Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Southeast Asia with significant growth of engineered products due to positive influences by policy-makers – China's growth slackening

Market development for market expansion services by country – Engineered products [USD bn]

Country	2016	2021	CAGR[1]
Cambodia	0.3	0.6	11.6%
Indonesia	3.5	5.6	9.5%
Laos	0.3	0.4	9.2%
Malaysia	3.9	4.7	3.6%
Myanmar	0.6	1.2	15.9%
Philippines	3.6	4.8	6.0%
Singapore	1.2	1.5	5.0%
Thailand	6.5	8.9	6.4%
Vietnam	4.9	8.4	11.7%
Southeast Asia	**24.8**	**36.0**	**7.8%**
China	57.4	68.7	3.6%
Hong Kong	2.0	2.3	3.7%
Taiwan	5.9	7.6	5.3%
Greater China	**65.3**	**78.7**	**3.8%**
Japan	7.5	9.0	3.6%
South Korea	12.5	15.7	4.7%
Northeast Asia	**20.0**	**24.7**	**4.3%**

> Southeast Asia expected to profit from several positive developments:

– The launch of the ASEAN Economic Community (AEC) is set to become a key influence on the manufacturing landscape in Southeast Asia by creating a single-market and production place

– As China is transforming into a higher added-value manufacturing place, Southeast Asia is becoming a hub for low-cost manufacturing

– Investments in infrastructure, e.g. improved railway network in Thailand and Myanmar, are facilitating industry growth

> China is characterized by slowing industry growth on the one hand and transformation into a high-value manufacturing country (e.g. increased automation, more widespread use of up-to-date production technologies) on the other hand

1) Compound annual growth rate

Source/Notes: Detailed information can be obtained from the associated Roland Berger report 2017

Methodology

For the purposes of this study, Roland Berger developed a market model that covers four main industries (including nearly 40 sub-industries and segments) in 14 Asian countries. The model provides a market outlook through 2021. Detailed information regarding 'data sources used for each industry', 'market sizing', 'market breakdown', 'market projection' can be obtained from the associated Roland Berger report 2017

Restrictions

As with any model, forecasting methodology or competitive analysis, our analysis tool is subject to certain limitations. For the methodology described above, the most important restrictions are as follows:

Market size: The market sizes are based on market data from leading institutes. As explained above, incomplete data was modeled on the basis of the best available proxies. However, the market sizes modeled are only approximations and may differ from actual market sizes.

Market breakdown: The market breakdown is the result of our analysis of quantitative and qualitative information consolidated from market reports and interviews with experts. Qualitative information is necessary for a realistic market breakdown. By consequence, however, estimates are inherent in the methodology, resulting in best approximations that may again differ from actual market sizes. In order to assure latest and state of the art analysis of the market breakdown, we reviewed the underlying assumptions of the model and added an additional criterion compared to last year's report; the assessment of the political stability proves to be an important factor on economic developments.

Market forecasts: The market forecasts are projections of the future and can never fully take account of all eventualities. It follows that any unpredictable events that impact economic developments cannot be mirrored in such forecasts. The forecasts made in this report incorporate expected future market trends based on the information available at the time of quantification. Certain deviations are to be expected.

Data sources: As with all external data sources, they change over time. We adapted and included new data sources where needed and appropriate (especially specialty chemicals) and added new subindustries for specialty chemicals such as agrochemicals and polymers & plastic additives. Following from these changes, the size of the market for specialty chemicals changed in comparison to last year's model.

Despite these significant restrictions, we are convinced that our analysis presents a true and fair picture of the markets analyzed.

Disclaimer

To create transparency in an industry not yet researched by any independent analysis, this report, commissioned by DKSH, has been prepared by Roland Berger AG on a neutral, objective and independent basis.

The present report is provided by Roland Berger AG for information purposes only. Each recipient should conduct its own analysis of the information contained in this report. No recipient is entitled to rely on the work of Roland Berger AG in this report for any purpose. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this report. To the extent permitted by law, Roland Berger AG, its members, employees and agents accept no liability, and disclaim all responsibility for the consequences of the recipient or anyone else acting, or refraining to act, in reliance on the information contained in this report or for any decision based on it. Any estimates or projections of future economic performance are influenced by numerous factors that may impact the various components of the estimates or projections. Although Roland Berger AG exercises reasonable care when making forecasts or predictions, factors in the process, such as market behavior, are inherently uncertain. As such, future events may not unfold as expected and actual results achieved for the forecast periods covered may vary from the information presented. Any estimates or projections will only take into account information available to Roland Berger AG up to the date of delivery of this report; hence, findings may be affected by new developments. Accordingly, we do not guarantee that any outcome presented in this report will be achieved. Further, events may have occurred since we prepared this report which may affect it and its findings.

Roland Berger AG has indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within this report. Roland Berger AG is under no obligation in any circumstances to update this report, in either oral or written form, for events occurring after the report has been issued in final form. The recipient must not reproduce, disclose or distribute the information herein without the express prior written consent of Roland Berger AG.

Roland
Berger