

# Antalya Strategic scan of priority sectors

# **Draft final report**

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MDG-F UNJP Growth with Decent Work for All: National Youth Employment Program and Pilot Implementation in Antalya

# Executive summary

The main objective of the "Sector scan of potential sectors of Antalya" is to identify the existing, emerging and potential sectors in Antalya that have the highest potential of growth, sustainable socio-economic development and creating decent employment opportunities (particularly for young men and women) for the region. The output will constitute the basis for the clustering approach and relevant sector support schemes, which will be developed subsequently.

Analysis is provided here of each nine of the priority sectors. Full details of the analyses for each sector can be found in the sector reports in Appendix A1. A summary of the analyses and conclusions is shown here.

In the final analysis the tenth sector/sub sector grouping "general business services" selected by UNJP working group committee was not defined as a definable business sector, but represented a collection of important economic activities that support other business sectors. In consideration to the assessment techniques applied in the benchmarking analysis this sector was not subjected to a full international sector/region benchmarking assessment. However diamond analysis and key comments for Turkish business context, business growth potential and considerations for sector development have been provided in related section. In addition each of the nine benchmarking analysis has separate comments for "**producer services**" which can be linked directly to this sub sector.

On the basis of their potential (business investment and job creation opportunities, with lowest risk to implement, at the lowest cost, with the greatest job creation quality and economic benefits, in the shortest time) the top priority sectors are:

- Acclimatization equipment manufacture (76.7%)<sup>1</sup>
- Manufacture of building materials and hardware (e.g. pre-cast concrete products) (74.2%)
- Processed food manufacturing (71.6%)
- Manufacture of luxury yachts >20 meters (67.0%)

All four sectors present good economic development prospects and decent quality male employment. However only processed food manufacturing offers good employment prospects for female workers. The main production activities are quite capital intensive and therefore do not offer great potential to stimulate entrepreneurship. However all four sectors present opportunities for the development and delivery of producer services, such as maintenance, material processing, transport, cleaning, catering, training, which could be provided by small local companies and new entrepreneur businesses.

The next group of priority sectors, which present more risky development scenarios, longer gestation periods, more investment needed by government, but with good prospects for lower quality job creation, but including female employment are:

- Vegetable seed processing (64.9%)
- MICE<sup>2</sup> (meetings, incentive travel, conferences, exhibitions) tourism (64.6%)
- High value horticulture (58.9%)
- Retirement tourism (58.3%)

In this assessment the sector with the lowest potential was medical tourism, with a rating of 56.6%, despite this being an emerging, high value sector.

The report can be used as input for the next step of the UNJP by indicating strategic development hypotheses for Antalya region – including the identification of the advantages and disadvantages of the region for the priority sectors, and areas of possible intervention to improve the disadvantages. In particular the job creation potential for women and young population in line with the overall objective of the UNJP, is referenced through the report

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<sup>&</sup>lt;sup>1</sup> The percentages within parentheses for each sector indicates the score achieved in the sector/region benchmarking analysis, stage 3 of this report.

 $<sup>^{2}\,</sup>$  Meetings, incentives, conventions and exhibitions

**References to regions, provinces, states, countries etc.** The terms "region" and "regional" refer to Turkish provinces, and to a variety of other geographical domains in other countries, such as countries, states, communities, counties or provinces.

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ANFAŞ	International Expo Centre Antalya
BATEM	Akdeniz University and West Mediterranean Agricultural Research Institute
DENTUR	Turkish association for the development of yacht tourism and yacht building
EU	European Union
FDI	Foreign direct Investment
GDP	Gross domestic product
LQ	Location quotient
MDG-F	Millennium Development Goals Achievement Fund
MICE	Meetings, incentives, conventions and exhibitions
NACE	Nomenclature of economic activity
NGO	Nongovernmental organisation
NPG	Natural petroleum gas
OIZ	Organised industrial zone
SME	Small and medium sized enterprise (fewer than 250 employees; annual turnover not exceeding €50 million or an annual balance sheet total not exceeding €27 million; and 25% or more of the capital or the voting rights are not owned by one enterprise, or jointly by several enterprises falling outside this definition of an SME.)
SWOT	Strengths, weaknesses, opportunities, threats
TAGEM	General Directorate of Agricultural Research
TOR	Terms of reference
TURKSTAT	Turkish Statistical Institute
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNJP	United Nations Joint Program
USA	United States of America
WTO	World Trade Organisation

# List of particular acronyms and abbreviations used in this report

## Introduction

The main objective of the study is to identify the existing, emerging and potential sectors in Antalya that have the highest potential for growth in the province. Key to this would be sustainable socio-economic development and the creation of decent employment opportunities (particularly for young men and women) for the region. The output will constitute the basis for the clustering approach and relevant sector support schemes, which will be developed subsequently.

The sector scan is required to provide a clear picture of which sectors are both 'desirable' in terms of the socioeconomic benefit they may bring to Antalya, and 'attractive' in terms of the advantages that Antalya may be able to offer major investors from that sector. It is also to establish a series of development hypotheses, identifying the strength and weaknesses of the priority sectors as well as possible areas for intervention. This approach also included an assessment of issues and needs that will have to be taken into consideration for development of such selected sectors.

The starting point of this study included a review of various data sources and studies. After this, a series of indepth interviews with 30 and 40 stakeholders, and also a multi-stakeholder workshop were undertaken, in order to provide primary research inputs to the project, and a multi-stakeholder workshop.

The last part of the study involved an in-depth desk research analysis of ten priority industry sectors/sub sectors that offer potential to Antalya province. The sector analysis compares Antalya's region attractiveness with other Turkish provinces and international benchmark regions. It also assesses Antalya's potential to benefit from the sectors' development potential in the short and medium term. This sector scan also provides a picture of which sectors are both 'desirable' in terms of the socio-economic benefit they may bring to Antalya, and 'attractive' in terms of the advantages that Antalya may be able to offer major investors from that sector.

# Methodologies used in this study

## Interpretation of the TOR

The TOR refers to, but does not define the following concepts:

"socio-economic benefit"

"attractability and desirability"

"regional asset mapping"

The inception report provided interpretation, clarification and assumptions made of these phrases so that all expectations for this project are common and eventually realised.

<u>"Socio-economic benefit"</u> The expert team undertaking this study interpreted this as the benefits accrued to Antalya over the long term, through a successfully implemented industrial development strategy. Whilst the greatest emphasis was placed on the economic factors, social factors such as job creation, full long term employment, decent employment offering social benefits such as health insurance, and employment for young and female workers, were also fully considered. Opinions were sought from stakeholders on social factors such as (a) increased employment opportunities for women, encouragement of female entrepreneurship, options to increase the living standards of disadvantaged groups, and also environmental factors such as environmental sustainability.

<u>Attractability and desirability</u> Criteria listed in Table 1were assessed in this project, in respect of the priority sectors and their fit with key sectors and the Antalya economy. This list was developed by the expert team, and reviewed with other experts and stakeholders over the course of the project.

Table 1: Economic	, social and	l environmenta	l criteria
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Economic criteria	Social and environmental criteria
<ul> <li>Job creation</li> <li>Wage levels</li> <li>Value added activity</li> <li>Export value creation</li> <li>Import substitution</li> <li>Skilled employment</li> <li>Potential for attracting foreign direct investment</li> <li>Technology attraction and development</li> <li>Business cluster and supply chain development potential</li> <li>Tax receipts</li> </ul>	<ul> <li>Full and long term employment</li> <li>Employee benefits</li> <li>Employment in the community</li> <li>Female employment Employment suitable for migrant workers</li> <li>Workplace environment and health related issues</li> <li>Compliance with global standards for managing human rights in the workplace, e.g. as ILO SA: 8000</li> <li>Compliance with ISO 14000 environment management systems and standards.</li> </ul>

Government and national factors	Business factors
<ul> <li>Government macro sub factors, e.g. government attitude towards FDI, real interest rates, domestic inflation, country competitiveness</li> <li>Micro (enterprise level) sub-factors, e.g. Doing business index, enforcing contracts sub-index, corporate tax rates</li> <li>Personal sub factors, such as quality of life, cost of living, education, personal freedom and security</li> </ul>	<ul> <li>Real estate sub factors, such as the cost and availability of industrial serviced land and commercial property</li> <li>Labour sub factors, including the availability and cost of skilled, semi skilled and unskilled labour</li> <li>Logistics sub factors, for example the transit time and costs for sending good to the typical national or export markets</li> <li>Cluster sub factors, e.g. specialist input factors such as raw materials, specialised labour, also the availability of specialist suppliers and the degree of local demands</li> </ul>

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Government and national factors	Business factors
	<ul> <li>and competitiveness</li> <li>Competitive costs of electricity or other power/utility necessary for the cluster</li> </ul>
Marketing and location image factors	
International reputation of the country for FDI	National image of Antalya as a business region <sup>3</sup>

#### Regional asset mapping

Regional asset mapping is mentioned in the TOR, but without clarification of what is meant or expected by this. The scope and sophistication of regional asset mapping was scaled down to a level befitting the availability of resources of this study. A top level "listing" of all provincial assets identified during the research into the priority sectors was prepared. The regional asset mapping model used in this project included data collection as indicated in Table 2. The full listing can be found in Appendix A5.

### Table 2: Regional asset listing framework<sup>4</sup>

Regional assets	Data presented on Antalya province
Human capital	Sources of data and web links to demographics and employment data
Research and development institutions	Sources of data and web links to universities, technical institutes and training centres of relevance to priority sectors
Financial capital	Lists of the main banks and other sources of funding and finance in the province
Industrial base	Lists of the most significant enterprises in the priority sectors: name, address, website. Provided directly, or as references to established databases or directories
Connective organizations	Listing of the main trade associations, employers associations and labour unions relevant to the priority sectors
Legal and regulatory environment	Listings of the laws and regulations applying to businesses in the priority sectors
Quality of life	Links to sources of information regarding the physical environment, housing, leisure, retail etc.
Physical infrastructure	Links to sources of information regarding the province's main physical infrastructure as it relates to business: cities, roads, rail, airports, utilities, main industrial locations

#### Sector/region benchmarking

As per the TOR, the main focus of the expert team's work was placed on assessing the national and international competitiveness and growth potential of the main business sectors which could be expanded or established in the province and which could create significant and decent employment. For that reason the expert team focused on all of the main industrial and services sectors for the benchmarking assessment. This is described in the next section of the report.

<sup>&</sup>lt;sup>3</sup> The terms "region" and "regional" refer to Turkish provinces, and to a variety of other geographical domains in other countries, such as countries, states, communities, counties or provinces.

<sup>&</sup>lt;sup>4</sup> <u>http://www.compete.org/publications/detail/33/asset-mapping-roadmap-a-guide-to-assessing-regional-development-resources</u>

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#### Trade flow analysis

Trade data was reviewed in order to help understand the activities of sectors currently present in Antalya. It did not form part of the sector listing, as the relevance of past limited trade activities is limited. The team reviewed not only the regional trade flows (source and destination; exports and imports) but also for the international trade flows of the international benchmark regions. Provincial data from Turkstat (TUIK)<sup>5</sup>, international trade from the World Trade Organisation (WTO) International Trade Statistics<sup>6</sup> and UN Comtrade<sup>7</sup> data were analysed.

#### Sector scan methodology

The TOR specifies that a priority list of sectors should be subjected to a sectoral and regional benchmarking assessment. To identify the list of priority sectors the expert team implemented a longlisting and then a shortlisting procedure for all sectors. The NACE industry sector nomenclature and directory was assessed at the 1, 2, 3 and 4 digit levels.

The sector longlisting and shortlisting processes are shown in Figure 1 Sector scan - longlisting and shortlisting process. Full details of the sector scan statistical analytical methodology can be found in Table 3. The detailed reports can be found in Appendix A2.

#### Sector scan longlisting

Seven essential Antalya/industry related attractiveness criteria were used to long-list the sectors according to potential for consideration, and are described and defined in Table 3. The sector shortlisting process is iterative in nature, following several stages of analysis and review.

<u>ltem</u>	<u>Sector related</u> desirability metric	Description_	<u>Weight</u>
1	Potential for growth	The potential of an economic sector to grow substantially in the province, and have given the understanding of the existing economic presence and also the national and international trends for the related business sectors.	0.15
2	Relative sector specialization (LQ) <sup>8</sup> , size <sup>9</sup> and dominance <sup>10</sup>	This attractiveness criteria considers the degree to which an economic sector is already specialised in the province. The greater the specialisation of an economic sector in the province and the greater the prospect is that to the province can be successful with its economic sector, against national and international competition.	0.15
3	Relative export size and	This metric is used to assess the potential of the economic sector to provide exports, for both merchandise and services.	0.10

5 http://www.turkstat.gov.tr/AltKategori.do?ust\_id=4

6 http://www.wto.org/english/res\_e/statis\_e/statis\_e.htm

7 http://comtrade.un.org/db

<sup>8</sup> Specialization (LQ) The Location Quotient values measure the share of a given business sector's employment in a region relative to the region's share of total national employment. An LQ greater than1.5 indicates that there is an above average proportion of employment in a given business sector in a given region. Those sectors with an LQ value greater than 1.5 will be identified as key industries (high point sectors) Formula: (*Eij/Ej)/(Ein/En)* Where; *Eij : employment in business sector i in region j, Ej : total employment in region j, Ein : national employment in business sector i, En : total national employment.* 

<sup>9</sup> Size is the relative share of employment of a given sector compared to the total employment of the province Formula: (*Eij/Ein*).

<sup>10</sup> Dominance is the relative share of employment of a given sector in a province compared to the total employment in Turkey for the same sector Formula: (*Eij/Ej*).

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<u>ltem</u>	<u>Sector related</u> <u>desirability</u> <u>metric</u>	Description	<u>Weight</u>
	specialization		
4	Relative value addition	This attractiveness criterion is based on the potential for value addition from an economic perspective, and also value addition at the business sector/company level as described in Porter's value chain.	0.10
5	Local business environment fit	Economic sectors are considered by the relative ability to fit into the local/provincial economic and business environment. The greater the "fit" then potentially a more beneficial the economic sector will be.	0.10
6	Job creation	The potential for job creation is considered to be the most important individual criterion of the sector scan assessment.	0.25
7	Job quality	This metric assesses the job quality likely to be found in an economic/business sector, covering such matters as average wages, male and female employment potential, permanent working arrangements, insurance cover, and quality working environment.	0.15

#### Stage 1 longlisting

Business sectors at the 1 and 2 digit level, with their respective evaluations, were reported in "<u>Report 1</u>" and provided in two report formats.

#### Stage 2 longlisting

This process extended the initial analysis from Stage 1 to evaluate the relevant economic/business sub sectors on the basis of all evaluation metrics. This provided for "<u>Report 2</u>" – a scored and ranked evaluation of up to 1,000 sectors and sub sectors, together with the rationale for their shortlisting or their elimination from further consideration as a priority sector. Such elimination did not mean that the economic/business sector was not important per se. In many situations these sectors will be considered further as input factors to the selected priority sectors.

#### Stages 3 and 4 shortlisting

These processes ranked sectors according to the best combined evaluations for labour related metrics and again for other (non labour) related metrics.

## Stage 5 shortlisting

The final step of the sector scan process was to develop 10 groupings of related sub sectors that would form the recommended listing of "Priority sectors for Antalya". These priority sectors are presented in a sector scan report.<sup>11</sup>

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<sup>&</sup>lt;sup>11</sup> In the final analysis nine of the priority sector/sub sector groups were subjected to sector/region benchmarking assessments. The tenth sector/sub sector grouping (selected by a UNJP working group committee) was not defined as a definable business sector, but represented a collection of important economic activities that support other business sectors, and therefore and was not subjected to a full international sector/region benchmarking assessment.

Figure 1 Sector scan - longlisting and shortlisting process

	Stage 1	(	Stage 2	Stage 3	)	Stage 4	(	Stage 5
Objective	Ranking of sectors at 1 and 2 digit level.		Ranking of sectors at 3 and 4 digit level	Deliver sector shortlist according to labour criteria		Deliver sector shortlist according to non-labour criteria		Produce final Antalya sector/sub sector listing
Inputs	Turkstat trade data Rev 1.1; SGK 2009 employment by economic activity; ITC Trade Map data; available industry reports.	>	Report 1 plus: NACE v2.0 sector listing (3&4 digit); available industry reports, opinions from stakeholders.	Report 2 plus : Sector listing and ranking - 3&4 digit; available industry reports, opinions from stakeholders.	<b>→</b>	Report 2 plus: Sector listing and ranking - 3&4 digit; available industry reports, opinions from stakeholders.		Reports 3 and 4: available industry reports, opinions from stakeholders.
Analytical process	LE analyses approx. 100 NACE sectors at 1&2 digit level, using the seven evaluation metrics, short annotations made.		LE and IE score approx. 890 sub sectors at 3&4 digit level, using the seven evaluation metrics, short annotations made.	Iterative review: LE and IE sort Report 2 and skim off top ranked sectors.		Iterative review: LE and IE sort Report 2 and skim off top ranked sectors.		Iterative review: Reports 3 and 4 merged. Top sub sectors are then grouped together where possible.
Output	Report 1: Sector listing and ranking – 1 and 2 digit		Report 2:Sector listing and ranking - 3&4 digit -	Report 3: Sector listing and ranking according to labour criteria.	<b>→</b>	Report 4: Sector listing and ranking according to non- labour criteria.		Report 5: Selection of Antalya priority sectors, presented at workshop.

#### Sector long listing and shortlisting process

Note: for illustration only. The exact detail for each step may vary in practices. LE: Local Expert IE: International Expert

#### Reports 1, 2, 3, 4 and 5 can be found in Appendix A2.

#### Consultation on sector short listing

Three levels of consultation were undertaken in respect of the sector shortlisting process. The details are provided in separate reports that are summarised here.

- Consultative questionnaires consultation took place with regional stakeholders in a series of one-toone interviews and postal questionnaires
- Local stakeholder workshop a workshop which took place in Antalya on Friday, 4 June 2010. The sector prioritization was discussed with local stakeholders and project partners, along with many other issues that affect businesses in the province.
- A UNJP committee meeting with main stakeholders and project partners on June 29th 2010, in Ankara.

This feedback from these consultations, which has been analysed and reported on in a separate report, acts as the final form of inputs prior to the selection and recommendations of the priority 9 business sectors are shown in Table 4: Final selection of priority sectors for Antalya. The full report of the stakeholder consultations can be found in Appendix A6.

#### Excluded sectors

26 sectors at the NACE ver 2.0 1 and 2 digit level were not included in respect of the sector short listing. These are listed in Appendix A1, together with a brief rationale for exclusion. Where opportunities may lie at the sub sector level, the rationale refers to a possibility for development, dependant on other factors indicated. The list of excluded sectors can be found in Appendix A4.

#### Risk assessment of sector scan analytical process

The long listing and short listing process applied to the sectors was the most thorough procedure available bearing in mind the time and resources available to it. Whilst this methodology is powerful in that it uses a great variety of official and published statistical data, some of the limitations should be noted:

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- Current information, in publicly accessible format, of all the sectors and their potential for development in Antalya, was not available to the research team. So a methodology was used that combined the best knowledge and experience available at the time of study.
- Data sources vary according to their time period, and the sectors that they contain data on. In some cases certain sectors were not included in these statistical analyses. Furthermore there is a risk to using particular data as proxies for attractiveness criteria.
- The statistical results from the seven step initial sector scan were evaluated by the expert team, with the international expert making adjustments to the scoring in order to reflect more accurately the realistic situation in respect of the economic sectors and the closely related business sectors.
- Therefore the users of this research should consider the short listing process as being of value, but not necessarily completely accurate to the finest level of detail.

Table 4: Final selection of priority sectors for Antalya

<u>No.</u>	Priority business sector	Economic activity components	Explanation/comments	Benchmark provinces and international countries/ regions
1	Agriculture value production	Seed processing for propagation and plant propagation	Focus on vegetable seed and seedling as well	Bursa, Adana, Netherlands, USA
2	Agriculture value production	Growing of non perennial crops	Emphasis on cut flowers and opportunities to diversify into high value horticulture products	Yalova, İzmir, Netherlands, Israel
3	Tourism health/wellbeing	Human health activities	Surgical based hospitals/clinics	İstanbul, İzmir, Croatia, Poland
4	Tourism health/wellbeing	Human health activities	Retirement homes	İstanbul, Muğla, Croatia, Spain
5	Tourism (MICE)	Business related tourism	MICE (meetings, incentives, conventions and exhibitions)	İstanbul, İzmir, Germany, Spain
6	Ships and related services/ products	Building of pleasure and sporting boats	Luxury yachts >20 metres	İstanbul, Muğla, France, Germany
7	Processed food	Processing and preserving of fruit and vegetables	Packaging, processing and preserving of fresh fruit and vegetables, and cold chain logistics	Bursa, Mersin, Netherlands, Spain
8	Manufacture of metal products, machinery and equipment	Manufacture of fabricated metal products, except machinery and equipment manufacture of metal structures and parts of structures; manufacture of tanks, reservoirs and containers of metal; manufacture of central heating radiators and boilers; manufacture of ovens, furnaces and furnace burners	Focus on acclimatization equipment and ventilation channels for industrial/office/hotel application; boilers and heating equipment for hotels/greenhouses, industrial kitchens.	Kocaeli, Ankara, France, Spain
9	Manufacture of building materials and hardware	Manufacture of concrete products for construction purposes; manufacture of other articles of concrete, plaster and cement	Focus on concrete, plaster, cement and manufacture of concrete products for construction; prefabricated concrete construction components; precast concrete building materials (bricks, panels, columns, etc.)	Kocaeli, Ankara, France, Germany
10	General business services	Administrative and support services especially support for touristic activity	Cleaning, landscaping and passenger transportation (tourist transfer)	İstanbul, Muğla

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# Sector/region competitiveness benchmarking

The nine priority sectors derived from the sector scan analysis were subjected to sector/region competitiveness benchmarking. The benchmarking model that will be used is an established method which was developed in 2009 as part of another UNDP project<sup>12</sup>.

For each priority sector Antalya was benchmarked alongside two Turkish provinces and two international countries/regions. The benchmark locations were selected as suitable benchmark candidates for a number of reasons including these:

- Strong and established business sectors already exist in these countries/regions
- Already are national or international market leaders in the respective business sectors, or
- Are likely to become strong competitors to Turkey/Antalya in coming years
- Are facing competitive pressures that may present opportunities for Turkey/Antalya to capitalise on.

Therefore a total of 45 sector/region assessments, evaluating 1,350 data points, were undertaken.

For each priority sector/sub sector grouping a report is provided that includes all of the research, analysis and scoring data for Antalya and the respective benchmarked Turkish provinces and international countries/regions. These can be found in Appendix A1.

31 benchmark metrics organised in nine groups were applied to the sector/region benchmarking. The details for these and how they were evaluated, both quantitatively and qualitatively, are found in Appendix A2.

The sector/region benchmarking results, together with the data from the stakeholder interviews and stakeholder workshop, led to the comprehensive analyses of the nine investigated priority sectors, using Porter's Diamond Model<sup>13</sup> (also known as Modified Diamond<sup>14</sup>), as well as a SWOT<sup>15</sup> analysis. These summary reports follow in the next section of this report. As previously mentioned 10<sup>th</sup> subsector was not subject to benchmarking analysis but Diamond and overall conclusions were presented in the related section.

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<sup>&</sup>lt;sup>12</sup> Industrial Restructuring of Sanliurfa: Component A, Development of Integrated Industrial Development Plan <u>http://www.undp.org.tr/Gozlem.aspx?WebSayfaNo=1719</u>

<sup>&</sup>lt;sup>13</sup> <u>http://www.valuebasedmanagement.net/methods\_porter\_diamond\_model.html</u>

<sup>&</sup>lt;sup>14</sup> In the Modified Diamond model references to government initiatives and support are incorporated into the four main diamond elements as appropriate.

<sup>&</sup>lt;sup>15</sup> http://www.valuebasedmanagement.net/methods\_swot\_analysis.html

# Analyses of the priority sectors

Analysis is provided here of each nine of the priority sectors. Full details of the analyses for each sector can be found in the sector reports in Appendix A1. A summary of the analyses and conclusions is shown here.

In the final analysis the tenth sector/sub sector grouping "general business services" selected by UNJP working group committee was not defined as a definable business sector, but represented a collection of important economic activities that support other business sectors. In consideration to the assessment techniques applied in the benchmarking analysis this sector was not subjected to a full international sector/region benchmarking assessment. However diamond analysis and key comments for Turkish business context, business growth potential and considerations for sector development have been provided in related section. In addition each of the nine benchmarking analysis has separate comments for "**producer services**" which can be linked directly to this sub sector.

On the basis of their potential (business investment and job creation opportunities, with lowest risk to implement, at the lowest cost, with the greatest job creation quality and economic benefits, in the shortest time) the top sectors are:

- Acclimatization equipment manufacture (76.7%)<sup>16</sup>
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All four sectors present good economic development prospects and male employment. However, only processed food manufacturing offers good employment prospects for female workers. The main production activities are quite capital intensive and therefore do not offer great potential to stimulate entrepreneurship. However all four sectors present opportunities for the development and delivery of producer services, such as maintenance, material processing, transport, cleaning, catering, training, which could be provided by small companies and new entrepreneur ventures.

The next sector group, which present more risky development scenarios, longer gestation periods, more investment needed by government, but with potentially much higher overall job creation, including female employment are:

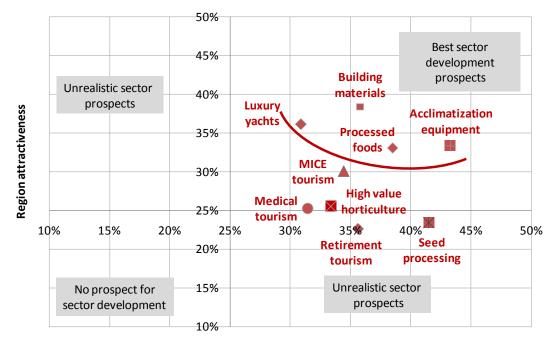
- Seed processing (64.9%)
- MICE tourism (64.6%)
- High value horticulture (58.9%)
- Retirement tourism (58.3%)

In this assessment the sector with the lowest potential was medical tourism, with a rating of 56.6%.

<sup>&</sup>lt;sup>16</sup> The percentages within parentheses for each sector indicates the score achieved in the sector/region benchmarking analysis, stage 3 of this report.

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#### Figure 2 Sector/region benchmarking summary



# Sector/ region potential: Priority sectors

Sector development potential

Figure 3 Sector/region benchmarking detail

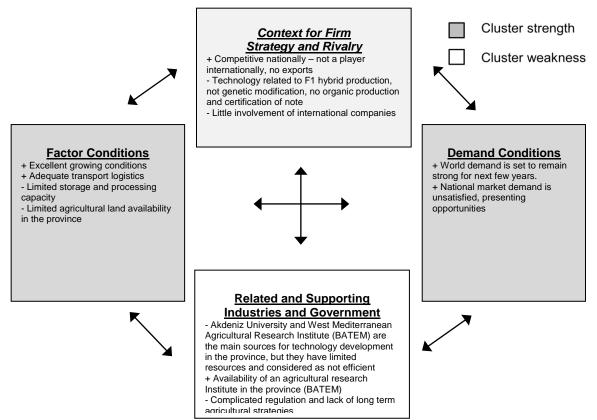
Prioirity sectors benchmark evaluation	Region attractiveness	Sector/region potential	Total
1 Acclimatization equipment	33.4%	43.3%	76.7%
2 Building materials	38.4%	35.8%	74.2%
3 Processed foods	33.1%	38.5%	71.6%
4 Luxury yachts	36.1%	30.9%	67.0%
5 Seed processing	23.4%	41.5%	64.9%
6 MICE tourism	30.1%	34.5%	64.6%
7 High value horticulture	25.6%	33.4%	58.9%
8 Retirement tourism	22.6%	35.6%	58.3%
9 Medical tourism	25.2%	31.4%	56.6%

Due to the nature of the tenth priority sector (general business services) it was not subjected to the international and statistical analysis. However Diamond assessment is provided together with the overall conclusions. The sectors' analyses and justification for these conclusions are now presented.

#### Priority Sector P01: Seed processing

Sector: Seed processing Example product: Vegetable seeds NACE code: A1.6.4 Served markets: Domestic/export Benchmarked regions Turkey provinces: Bursa, Adana Other countries: Netherlands USA

Figure 4 Diamond model for Antalya's seed processing sector



Source: Expert team analysis

Vegetable seed processing, with a total benchmark score of 64.9%, ranked as no.5 of the 9 priority sectors benchmarked. As Figure 5 indicates Antalya achieves a high score in respect of sector development potential, whilst its score for region attractiveness is on a par with Adana, and better than Bursa.

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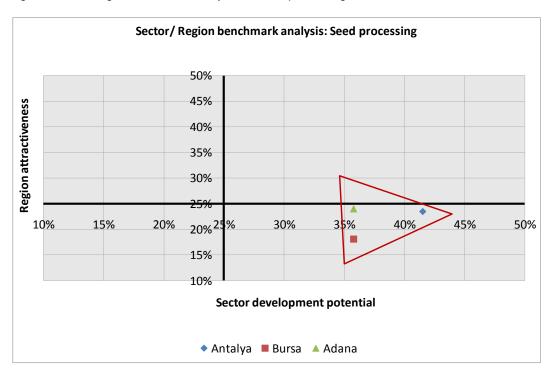
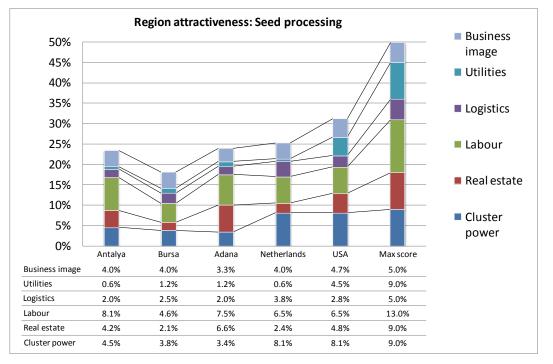


Figure 5 Sector/region benchmark analysis for seed processing

Figure 6 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions..

- Antalya is as attractive a region as Adana.
- It is also as competitive as Netherlands but for different reasons.
- Antalya scores well on labour and real estate factors.
- Netherlands scores very well on cluster power, innovation, logistics, but has high costs and limited land capacity.
- USA is stronger in every regard than Antalya.

Figure 6 Seed processing: region attractiveness



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- Figure 7 below shows that Antalya could develop benefits from the sector, more so than Bursa or Adana.
- This is dependent on Antalya being able to develop its local cluster.
- However it is unlikely that Antalya can modernise its cluster without substantial government support over the long term.

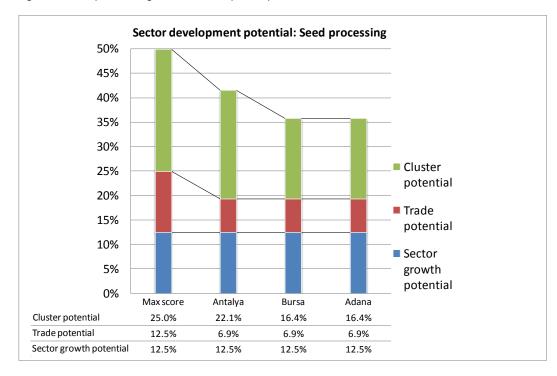


Figure 7 Seed processing: sector development potential

International market context

- Seed processing and plant propagation business is a relatively new industry and started to develop only after 1980's in line with developments in genetics. Today more farmers tend to buy seed rather than using seed from their own crops. Global seed trade is about 30 billion US\$ as of 1997. It may be estimated that it has been over double that amount by 2010.
- Turkey is one of the rare countries in the world by being self-sufficient in agricultural production. However it exports very little vegetable seed (26<sup>th</sup> largest exporter) and also imports little (20<sup>th</sup> largest importer).
- Antalya is known both in Turkey and internationally as an established province for this sector.
- There are many established local companies and a small number of international companies active in seed processing and plant propagation business in Antalya.
- Nationally, the sector has more than 40,000 establishments registered with the Chamber of Agriculture.

Business growth potential

- Certified vegetable seed production in Turkey is estimated as 1.5 million tons based on the 8th development plan data. The sector's growth rate is about 3 to 5% per year. New technologies incorporated for better quality and higher yields increases demand for processed seed and seedling.
- Population growth and scarcity of food globally, implies that the demand for seed and seedlings will
  increase and the sector has high potential.
- Turkey is a net importer of processed seed. Antalya's total agricultural imports for the year 2009 are about 60 million US\$. There is no detail data for Turkey's seed and seedling imports but it is estimated as 200 million US\$ per annum. It can be concluded that there is potential for import substitution.
- Total seed exports of Turkey are about 1,000 tons and it is not large amount. In case of patented seed production increases there is a demand and potential for exports. However Turkey will face competition both from high volume, low cost traditional vegetable seed producers like China and India, as well as from high tech seed producers such as Netherlands and USA.

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 Antalya's agriculture sector (plant based) has an average annual production of 4.5 billion TL which is almost double that of the benchmarked Turkish provinces. Vegetable production, both in greenhouses and field, is the leading subsector.

Considerations for sector development in Antalya

- There is already an established cluster in Antalya. However more NGO activities, university:industry collaboration mechanisms, innovation from technology development institutions and foreign investors are required to strengthen the cluster. Cluster development is unlikely to make much progress in the next five years, maybe 10 years.
- There is a tendency amongst the vegetable greenhouse companies to diverse into seed and seedling production as these products are their main inputs. Either these companies can grow the seed business or new entrepreneurs can be encouraged, based on good examples of pioneer companies in seed processing.
- There is potential for Antalya to attract investors because of the large national market, diversified product range and suitable climate.
- There are already producer services in Antalya. But new investments can be expected in packaging, marketing and international trade, and more jobs can be created.
- Companies do not have many resources for R&D. Some leading companies have their own patented products developed by them. Seed technology development is carried out by the state owned General Directorate of Agricultural Research (TAGEM) and its research centres all over Turkey.
- Akdeniz University and West Mediterranean Agricultural Research Institute (BATEM) are the main sources for technology development but they are not sufficient compared to international technology and innovation centres in USA, the Netherlands or Israel.

#### Employment potential of the sector

- Seed processing is a labour intensive business and has high potential for job creation, albeit of low pay, seasonal and without social benefits.
- No problem exists to identify unskilled labour availability. Mostly migrant families from South-east and Central Anatolia regions are employed.
- Stakeholders stressed the problem of finding semiskilled midlevel staff in agri-business.
- Unemployment level in Antalya is low compared to other provinces of Turkey. Unemployment rate is 12.7% as per 2009 TURKSTAT data, which is below the national average and much better than the benchmarked provinces. The number of unemployed persons is 120,000 in TR61 region (Antalya, Isparta, Burdur) In-migration is very high in Antalya as well as the benchmarked provinces.
- Minimum official salary is 760.50TL/month (approximately \$2.60 per hour). However, agricultural wages are below minimum wage for Antalya and Adana which is about \$1.42 per hour. Social costs are not paid in many instances and social security is not covered for unskilled labour.
- Skilled labour (agricultural engineers) is available but the qualifications are not satisfactory according to stakeholders but generally cost benefit analysis is not practiced by the employers in Turkey. It may be a biased opinion of the employers that are asking for high levels of qualification but are not prepared to pay a fair and decent salary. Skilled labour salaries for blue collar workers in Antalya and Adana are similar and estimated in the range of TL1500-2000 per month (\$5.12 to \$8.54 per hour).
- So in summary this sector whilst offering good employment and female employment opportunities, nonetheless poses a "quality" employment disadvantage.

## Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

SWOT

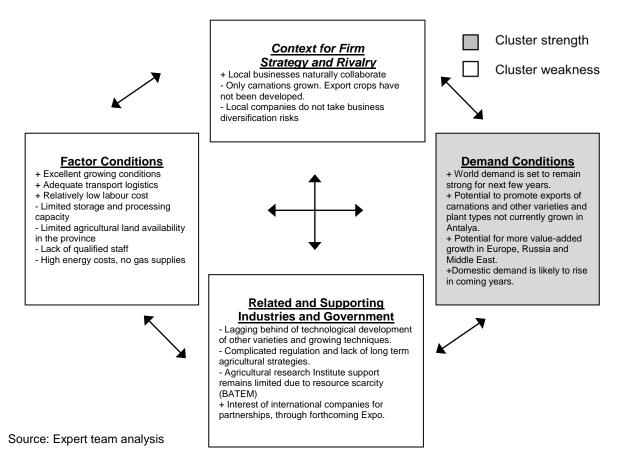
# P01 Agriculture value production (Seed processing for plant propagation and plant propagation) Nace Rev.2 Listing A1.6.4 Seed processing for propagation, A1.3.0 - Plant propagation

Str	engths	Weaknesses
Region/country attributes	Fertile land suitable for agriculture Favourable climate and radiation International competitiveness of agriculture sector Culture of collaboration amongst businessmen Effective logistics and easy access to markets Established agriculture cluster Accumulation of expertise Relatively low labour cost Availability of agricultural engineers Being close to customers Development of customized seeds that are best suited for the local soil, climate and other demand conditions	<ul> <li>Lack of capital accumulation</li> <li>Lack of qualified staff</li> <li>Limited agricultural land</li> <li>High energy costs</li> <li>Lagging behind of technological developments</li> </ul>
Attributes of wider environment	Product developments, new technologies Favourable conditions for producing a vast variety of vegetable and fruit products in Antalya High growth of market with strong national and global demand Increasing demand for "Good agricultural practices" State supports for seed processing and use of certified seeds Availability of an agricultural research Institute in the province (BATEM) Interest of international companies for partnerships	<ul> <li>Unplanned cultivation and fluctuation of the agricultural outputs</li> <li>Domination of the sector by large multi-national companies, monopolized market conditions</li> <li>Import of seeds</li> <li>Global warming</li> <li>Complicated regulation and lack of long term agricultural strategies</li> </ul>

Priority Sector P02: High value horticulture

Sector: High value horticulture Example product: Flowers, pot plants, high value fresh horticulture NACE code: A1.3 Served markets: Domestic/export Benchmarked regions Turkey provinces: Yalova, Izmir Other countries: Netherlands, Israel

Figure 8 Diamond model for Antalya's high value horticulture sector



High value horticulture, with a total benchmark score of 58.9%, ranked as no. 7 of the 9 priority sectors benchmarked, so not the best prospect for the longer term. As Figure 9 indicates Antalya achieves a 33% score in respect of sector development potential, whilst its score for region attractiveness is average, though better than Yalova and Izmir.

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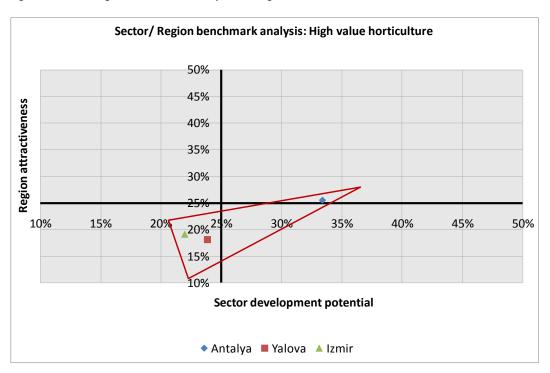
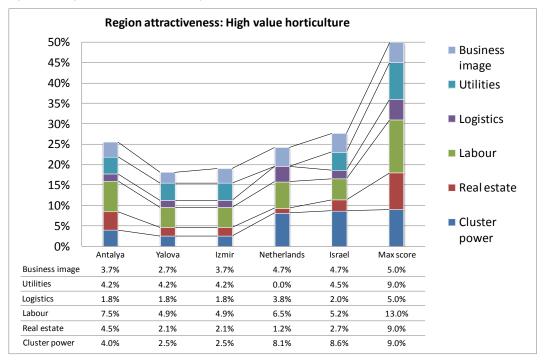


Figure 9 Sector/region benchmark analysis for high value horticulture

Figure 10Figure 6 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions..

- Antalya is competitive with the Netherlands and but less competitive than Israel.
- Antalya scores well on labour and real estate factors.
- Netherlands and Israel score well on cluster power and innovation.
- Netherlands has high costs and limited land capacity.
- Israel has limited land capacity, limited water supply present and logistics issues to contend with.

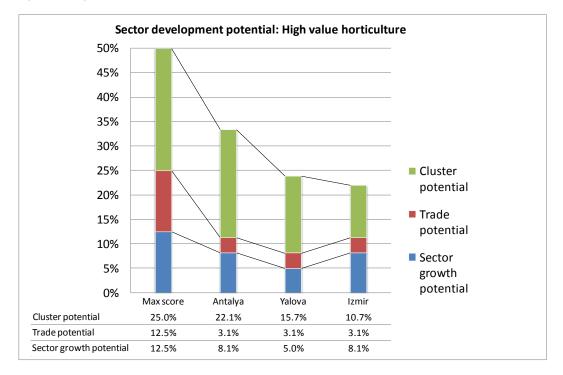
Figure 10 High value horticulture: region attractiveness



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Figure 11below shows that Antalya has greater sector development potential than either Yalova or Izmir. This is dependent on Antalya being able to develop its local cluster. However it is unlikely that Antalya can modernise its cluster without substantial national and provincial government support over the long term.

Figure 11 High value horticulture: sector development potential



#### International market context

- Floriculture is a \$45bn global business. International trade in floriculture currently stands at \$11bn (2006) and is projected to be \$16bn by 2010. US, Japan and Europe (largest) are the main markets others are growing fast: India, M East, and S E Asia.
- 250,000 ha. of floriculture are under cultivation in 120 countries. Total cut-flower sales of €2.48 billion in 2008 were 2.9% down annually.
- The main consumer markets are USA, Japan, Germany, France, UK, and Italy.
- US supplies come mainly from Ecuador and Colombia.
- Europe is supplied mainly from Netherlands, Kenya and Israel.
- 48% of decorative plants is cut flowers. Roses were the bestselling cut flower at \$1.2 billion, although that is a meagre unchanged from 2007. Chrysanthemum sales were second; tulips, third on the list, grew by 9.2% to €223m. Over 3.7 billion imported stems, mainly from Kenya, Israel and Ethiopia, make up the rest.
- Most exports went to Germany (€871m of cut flowers). Britain and France followed, worth €604m and €446m respectively.

Business growth potential

- Turkey has less than 1% of the world market, but has a large agriculture sector. 48% of Turkey's total production of decorative plants is cut flowers. Global export value was \$25m in 2007 and in 2008 (0.5% of world exports value) of which 34% was exported to the UK, 28% to Russia and Ukraine, 20% to Netherlands and other EU, 12% to Romania.
- 2007 data shows that Turkey's production area for floriculture is just 1,300 ha.
- 2010 Turkey's overall cut-flowers exports increased by 16% whereas main competing countries' (Kenya, Colombia) exports are reduced by 30%.
- The current market is depressed by 5-10% due to global economic downturn, but is expected to recover.
- Consumption of flowers is high in EU, US and Japan and is increasing in other countries. However production demands are seasonal, so exports can be variable in quality and value. For example, Israel exports more than \$50 million worth of produce (25% of annual exports) to the EU in the two week period leading up to Valentine's Day.

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- The main countries for Turkish exports are the Netherlands, Russia, Romania and UK. Other markets need to be developed.
- Based on Turkey's export figure of cut flowers (approx. \$25 million in 2009) and exports of \$120m for Ethiopia, one can estimate a potential to create between \$50-100m incremental exports per annum within five years.

Considerations for sector development in Antalya

- Antalya is Turkey's main growing area. There are about 200 companies in the province, of which 17+ are actively marketing their flowers internationally. There is a high potential for Antalya to attract investors because of large market, diversified product range and suitable climate.
- According to 2008 records, 86% of cut flowers is exported from Antalya. So the province is known internationally. The growing area is not big. 80% of production is made in 1,200-1,300 sqm growing plots.
- Most production is based on the carnation flower. But this is not one of the world's top 10 exported cut flowers.
- Antalya's floriculture industry has been fast developing in the last10 years. Antalya companies extended their operations to Burdur and Isparta provinces to benefit from cooler climate during summer months to carry on uninterrupted production.
- Cluster components of the sector are already partly developed in Antalya.
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed). Much state support is provided for agricultural production based on the crop types. But despite this, agricultural support is considered indifferent or negligible.
- High technology is not used everywhere many producers are using traditional methods. Only a few
  companies are growing mother plants and have some high tech green houses with computerized
  climate control systems.
- Some research is done by private companies in collaboration with West Mediterranean Agricultural Research Institute (BATEM).
- Logistics time for sea freight to Moscow by refrigerated container is about 12 days (not preferred) land haulage is 4-6 days to Russia and 6-8 days to EU destinations. Air freight is an average of 3-4 hours to all main destinations (expensive and only preferred during high seasons like Christmas, Valentine's Day etc.)
- Raw materials are mostly imported, imported from Israel, Italy, Spain and Holland. Raw material costs are 30% of all production costs. Growing stock can be purchased. Fertiliser and medium technology equipment is readily available locally.
- Agricultural land is available but scattered and less than optimal in plot sizes due to inheritance. Feasible land parcel for cut-flowers is 200 da. (0.2 ha) However, land availability is seen as a problem and weakness by the stakeholders. They have solved this problem for the moment by extending their production to neighbouring provinces.
- 10,000 sqm agricultural land purchase price is \$20,000. Long leases are also possible with annual lease
  price of \$150 per acre. But many problems have been faced in the past due to inflationary valuations of
  land and unfair requests for rent increases by the leaser.
- Sufficient production facilities are mostly adjacent to growing areas. Annual rental cost for 5,000 sqm greenhouse is \$20,000.
- Agricultural enterprises are charged a special electricity price by the energy market regulatory board and it is the same for all Turkish provinces. Electricity cost is \$0.1241 /KwH for irrigation purposes and \$0.1396 /KwH for agricultural warehouse consumption. Electricity costs are not critical to the sector in Turkey.
- Antalya has plentiful water resources compared to Turkish benchmarked provinces, and also Israel.
- The province has superior advantages over many countries in case of air freight. Generally 20% of exports are transported by air. But by comparison to the Netherlands (which is the actual location of the European flower markets) the costs are much greater, hence the score.
- Cost of air cargo is approximately 3 times more than land transport (i.e. \$20,000 40" container equivalent). The cost of land haulage for a 40" container load is approximately \$6.900 to Russia. Sea freight is about \$2,000 to Moscow for same size container.
- The business culture is well established. Generally the image of the province is very good and attractive for investors and employees. The province's worker productivity is at a good level.
- Because of agriculture structure of the province and its existing activities, we can say that there is an almost perfect culture fit.
- So in summary, there is good potential in Antalya because of the suitable climate and fast logistics.
- But note that Antalya's cut flower exports are about \$60 million (0.02% market share) and the current industry target is \$500 million. The ability to extend this e.g. 100 times in order to be competitive in world

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markets will be a major challenge, in terms of companies, varieties, innovation, supply chain logistics and, of course, land.

Employment potential of the sector

- Cut flower is a labour intensive business and has high potential for job creation. Plant propagation business is developing and there is possibility for new business establishments.
- No problem exists to find unskilled labour. Mostly migrant families from South-east and Central Anatolia regions are employed. Stakeholders stressed the problem of finding semiskilled midlevel staff in agribusiness.
- Agricultural wages are below minimum wage for Antalya and Adana which is about \$1.42 per hour. Compare with minimum official salary is 760.50TL/month (approximately \$2.60 per hour). Social costs are not paid in many instances and social security is not covered for unskilled labour.
- Mostly female labour is used. Exporter companies typically use 50% permanent labour (57% female), 50% temporary (85% female).
- Skilled labour (agricultural engineers) is available but the qualifications are not satisfactory, according to stakeholders. It may be a biased opinion of the employers that are asking for high levels of qualification but are not prepared to pay a fair and decent salary. Cost benefit analysis is not much practiced by the employers in Turkey. Skilled labour salaries for blue collar workers in Antalya and Adana are similar, in the range of TL1500-2000 per month (\$5.12 to \$8.54 per hour).
- With a strong stimulus the sector could attract 10 jv and/or local businesses, or equivalent activities through expansions of existing businesses, each adding 100-200 jobs to the province.
- Producer services will be required, in such areas as training, high tech greenhouse equipment supply, maintenance and packaging. 5-10 large/small producer services companies could be supported, each employing 50-100 staff.
- So in summary this sector whilst offering good employment and female employment opportunities, nonetheless it poses a "quality" employment disadvantage.

#### Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

### SWOT

P02 Agriculture value production (Cut-flowers)
Nace Rev.2 Listing A1.1.9 - Growing of other non-perennial crops

	Strengths	Weaknesses
Region/country attributes	<ul> <li>Fertile land suitable for agriculture</li> <li>Favourable climate and radiation</li> <li>International competitiveness of agriculture sector</li> <li>Culture of collaboration amongst businessmen</li> <li>Effective logistics and easy access to markets</li> <li>Established agriculture cluster</li> <li>Accumulation of expertise</li> <li>Relatively low labour cost</li> <li>Availability of agricultural engineers</li> <li>Being close to customers</li> </ul>	<ul> <li>Lack of qualified staff</li> <li>Limited agricultural land</li> <li>High energy costs</li> <li>Lagging behind of technological developments</li> </ul>

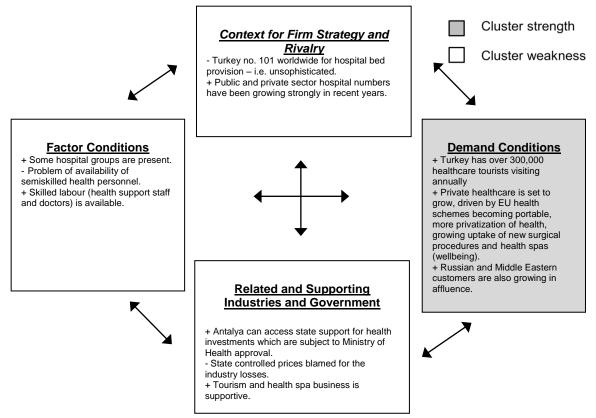
	Opportunities	Threats
Attributes of wider environment	<ul> <li>Product developments, new technologies</li> <li>Favourable conditions for producing carnation</li> <li>High growth of market with strong national and global demand</li> <li>Availability of an agricultural research Institute in the province (BATEM)</li> <li>Interest of international companies for partnerships</li> </ul>	<ul> <li>Complicated regulation and lack of long term agricultural strategies</li> </ul>

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#### Priority Sector P03: Medical tourism

Sector: Tourism Example product: Medical tourism NACE code: e.g. Q86.2, 155.2 Served markets: Domestic, export Benchmarked regions Turkey provinces: Istanbul, Izmir Other countries: Croatia, Poland

Figure 12 Diamond model for Antalya's Medical tourism sector



Source: Expert team analysis

Medical tourism, with a total benchmark score of 56.6%, ranked as no. 9 of the 9 priority sectors benchmarked. As Figure 13 indicates Antalya achieves a high score in respect of sector development potential, whilst its score for region attractiveness today is only average. The performance of Istanbul, whilst also unimpressive in respect of regional attractiveness, was scored significantly stronger than Antalya.

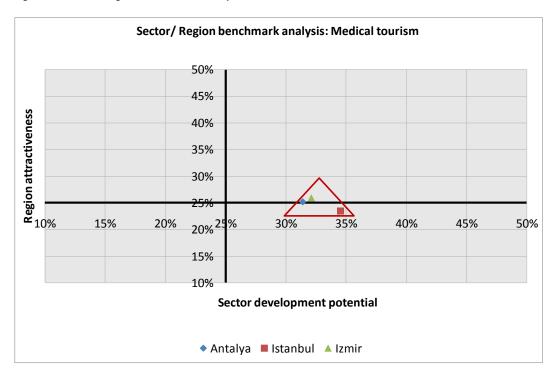


Figure 13 Sector/region benchmark analysis for medical tourism

Figure 14 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- The region attractiveness today of Antalya, Izmir and Istanbul are similar to each other, as well as to Croatia.
- Poland's attractiveness is significantly stronger, as it already has an established, if small, medical tourism sector, which is being well promoted.

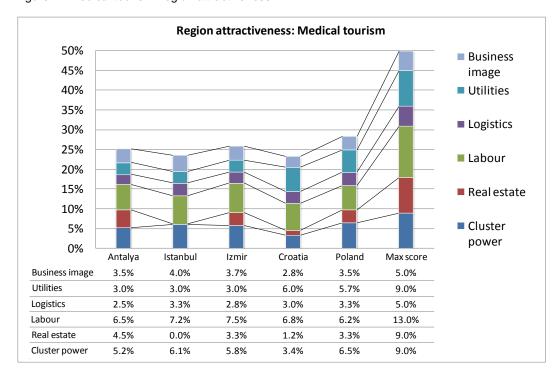


Figure 14 Medical tourism: region attractiveness

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Figure 15 below shows that Antalya has significantly less sector development potential for medical tourism at present than Istanbul.

- Realistically, Antalya would need to stimulate early catalyst investments for the sector.
- The analysis points out that Istanbul will be more successful in developing a cluster of medical health related facilities for short term visitors.

Sector development potential: Medical tourism 50% 45% 40% 35% 30% Cluster 25% potential 20% Trade 15% potential 10% Sector growth 5% potential 0% Max score Istanbul Antalva Izmir **Cluster** potential 25.0% 18.9% 21.4% 19.6% Trade potential 12.5% 2.5% 2.5% 3.1% Sector growth potential 12.5% 10.0% 10.0% 10.0%

Figure 15 Medical tourism: sector development potential

#### International market context

- Global healthcare spending in 2009 is estimated to have been US\$ 5,460bn, a 3% decline compared to the previous year.
- In the same year, healthcare spending represented 10.1% of global GDP, slightly higher than in 2008 (10.0%), showing the resilience of the sector during the economic crisis.
- Turkey ranks 101st worldwide for hospital bed provision, with 2.6 hospital beds per 1,000 population. Hospital bed capacity in Antalya is 4,427 as of 2007.
- In 2006 there were 15 registered private hospitals. This number is expected to have doubled to over 10,000 bed capacity in 2010, through new hospital investments.
- Turkey has over 300,000 healthcare tourists visiting annually. This number is expected to increase with new and modern hospital investments. 16% growth is expected by 2013. Turkey has a 5% global share in health market with revenues of about \$1.5 to 2 bn. Antalya could attract up to 30% of this sector in Turkey.

Business growth potential

- The healthcare system in Turkey is evolving under the 2003-2013 Health Transformation Programme.
- Turkey's annual healthcare spending in 2009 was an estimated US\$ 38bn, representing 6.2% of total GDP.
- Both public and private sector hospital numbers have been growing strongly in recent years. The total of 1,276 hospitals in 2007 is expected to reach 1,418 by the end of 2013.
- A private healthcare segment of domestic market may also grow, as Turks take up on the medical and health trends, for new surgical procedures and health spas (wellbeing).
- Key drivers such as population growth, demographic ageing and treatment demands from patients, along with economic recovery, are expected to generate a recovery of healthcare spending after this temporary downturn in 2009.
- Private healthcare is set to grow, driven by EU health schemes becoming portable, more privatization of health, growing uptake of new surgical procedures and health spas (wellbeing). Russian and Middle Eastern customers are also growing in affluence.

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Considerations for sector development in Antalya

- There is a good potential for Antalya to attract 5+ international investors because of the large market, incoming tourist base, favourable tourist activities and hospital/hotel assets.
- Due to the capital intensive nature of the sector the potential to create new local entrepreneurs is limited. But there are possibilities for JV activities.
- Akdeniz University Hospital and many private hospitals and clinics have formed a cluster with all healthcare units established.
- Some hospital groups are present, including with foreign capital investment. These investments are expected to increase. Local hospital chains include Memorial, Medical Park, Dünya Göz.
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed) There are many state supports provided for health investments but investments are subject to Ministry of Health approval based on the need analysis.
- Equipment and medicines are produced or imported. As Turkey is a large health market, all inputs are accessible.
- Commercial land is available for hospital construction and there is no problem as the city expands quickly urban planning offers available lots for this purpose. 10,000 sqm commercial land purchase price is \$6,500,000. Long lease is also possible with annual lease price of \$500,000 but not commonly practiced.
- Commercial buildings in city centre are available for hospital investments. The city is expanding very fast and new areas suitable for hospitals will be available. Annual rental cost for 5,000 sqm building for commercial use in city centre is \$240,000.
- During summer time low cost scheduled daily flights are available from up to 10 target European cities. At other times expensive scheduled flights are needed, with flight transfers in Istanbul. Travel costs from up to 10 target European cities, also Russia, Iran, is approx. €250-600.
- Utilities: the residential/ commercial electricity price is determined by the energy market regulatory board and it is the same for all Turkish provinces. Electricity cost is \$0.168 /KwH. NPG costs are decided by the distribution company. NPG price is \$0.416 per m3. NPG distribution to city centre will be available within one year. However, this utility is not critical to the sector. Water price for commercial use is \$2.51 per m3 (maximum consumption tariff). This does not compare well with the US (California) rate of \$0.40 for commercial water. However, this utility is not critical to the sector.
- Business culture is well established. Companies collaborate to a degree even if it could and should be better. The general image of the province is very good and attractive for investors and employees. But it is not known internationally.
- The understanding is that worker loyalty is not, and should not become, an issue for business.
- The image of the province's customer service is good, though it still has room to develop in sophistication and quality.
- So it can be said that the cluster component is already partly developed this could and will need to extend. Producer services will be required to develop, in such areas as training, high tech equipment supply, maintenance, marketing, accommodation, transport.

Employment potential of the sector

- Job creation potential is medium because of non-labour intensive nature of this sector
- However, every new hospital is expected to create about 150 to 250 jobs. 5-10 smaller clinics are possible, creating 15-20 skilled positions each.
- Unskilled labour is not required by this industry. There is a problem with availability of semiskilled health personnel.
- Skilled labour (health support staff and doctors) is available. Skilled labour salaries are estimated in the range of TL1,500-2,000 per month (\$5.12 to \$6.83 per hour).
- This is an equal opportunity industry sector. In fact we can assume that there may be more female
  employment opportunities for the health support and sick care positions.
- Employment potential is good both for existing urban centres and also the surrounding countryside.

## Sector SWOT analysis

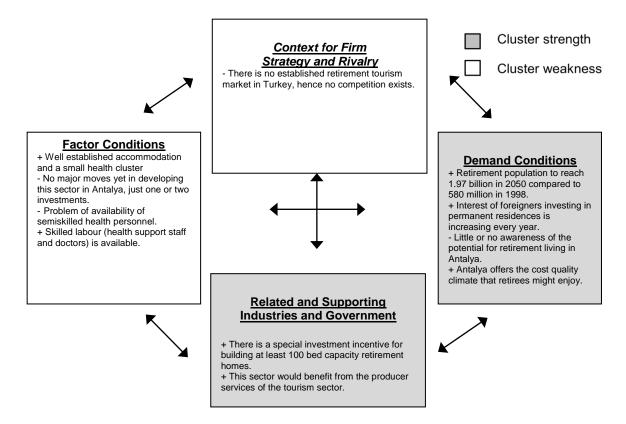
The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

	Strengths	Weaknesses
Region/country attributes	<ul> <li>Modern hospitals with high quality surgical and accommodation facilities</li> <li>High technology scanning and diagnostic equipment</li> <li>Experienced surgeons and dentists</li> <li>Bi-lingual staff available in Antalya hospitals/clinics</li> <li>Well established health sector</li> <li>Growing population, increase in tourists, improving demographic indicators</li> <li>Growing healthcare investments, including foreign investments in recent years</li> <li>Health sector regulations in line with EU</li> <li>Government's commitment to healthcare industry improvements</li> <li>Relative low cost of surgical operations compared to EU and USA</li> <li>Many alternative accommodation opportunities for the after surgery rehabilitation period</li> </ul>	<ul> <li>No aware or image for this sector amongst custome base.</li> <li>Lack of qualified support staff (nurses, paramedical personnel)</li> <li>High employee turnover</li> <li>Per capita healthcare spending (US\$ 530) much below of the EU countries average</li> <li>High dependence on the import of high-tech drugs</li> <li>State controlled prices blamed for the industry losses.</li> </ul>
	Opportunities	Threats
Attributes of wider environment	<ul> <li>Fast developing province with high tourist population visiting</li> <li>International client (patient) base</li> <li>General health insurance system introduced by the government</li> <li>Growing potential with the harmonization to EU and modernization of the sector</li> <li>Significant scope for growth, given the size of the population and current low consumption rate</li> <li>Recent introduction of the new R&amp;D legislation designed to facilitate investments</li> <li>One of the fastest growing industries in the world</li> <li>Healthcare reforms, such as centralised health insurance/social security, leading to wider and easier access to healthcare</li> <li>Bi-lateral agreements with EU countries for the provision of health services covered under foreign</li> </ul>	<ul> <li>The new healthcare system created hospitals dependent on the state paid business</li> <li>High risk in case of state policy changes</li> <li>Negative effect of government control on health investments and pricing</li> <li>Need to address the substantial deficit in the healthcare system</li> </ul>

#### Priority Sector P04: Retirement tourism

Sector: Tourism Example product: Retirement tourism NACE code: e.g. 155.2 Served markets: Export Benchmarked regions Turkey provinces: Istanbul, Mugla Other countries: Croatia, Spain

Figure 16 Diamond model for Antalya's retirement tourism sector



#### Source: Expert team analysis

Retirement tourism, with a total benchmark score of 58.3%, ranked as no. 8 of the 9 priority sectors benchmarked. As Figure 17 indicates Antalya achieves a high score in respect of sector development potential, whilst its score for region attractiveness is below average and no better than the benchmarked provinces of Istanbul and Mugla.

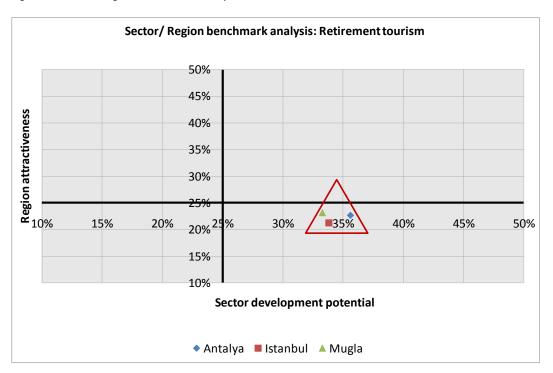
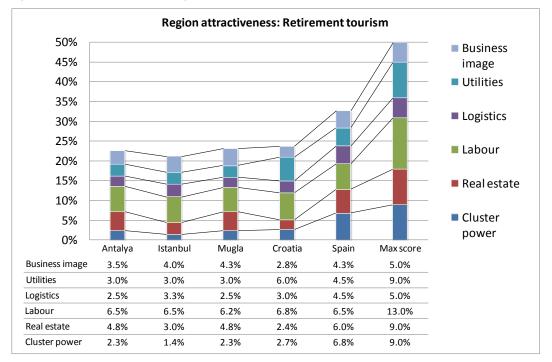


Figure 17 Sector/region benchmark analysis for retirement tourism

Figure 18 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- Antalya's attractiveness as a region for retirement tourism is average, and similar to Istanbul, Mugla and also Croatia.
- This average score may be attributable to the fact that this market has not, as yet, been demonstrated in Turkey.
- Whereas there are more examples of the emerging sector in Spain, a country which has a greater understanding amongst retiring Europeans.

Figure 18 Retirement tourism: region attractiveness



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Figure 19 below shows that Antalya has marginally better potential in development than either Istanbul or Mugla, due to its better performance in aspects such as "trade potential" – the ability to attract retirees for long stay in the province.

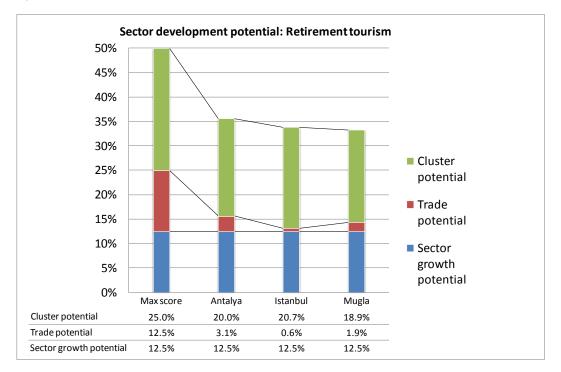


Figure 19 Retirement tourism: sector development potential

International market context

- The world's population is getting older since last 50 years due to better living conditions, developed healthcare technologies and nutrition.
- Turkey has over 27 million incoming tourists annually. Almost one third of all tourists are visiting Antalya.
- The country and the province are well known by those people and is an attractive place to spend their retirement time.
- Interest of foreigners investing in permanent residences in Antalya is increasing every year. Expatriates from Germany, Netherlands and Scandinavian countries are notable.
- Quality of life is high and cost of living is low. The potential is therefore considered high.

Business growth potential

- Global population of old people is expected to reach 1.97 billion in 2050 compared to 580 million in 1998. This projection confirms the high potential of retirement homes and geriatrics. In addition, people are living more solitary lives compared with the past. Family ties are getting weaker in developed countries.
- Similar to global trends the number of old persons is increasing in Turkey. According to a research the share of the population over 65 years of age is increased to 7% in 2003 from 6% in 1998.
- If the presently available services for old people are considered, it can be concluded that there is a huge potential in domestic market as well.
- There is a high potential for Antalya to attract 5+ international investors because of large market, incoming tourist base, favourable touristic activities and hospital/hotel assets.
- Due to low capital intensity there is much potential to create new local entrepreneurs. There are also several possibilities for JV.
- Producer services will be required, in such areas as training, security, maintenance, marketing, catering services, transport.
- There is a good fit for the sector in both existing urban centres and also the surrounding countryside.
- In summary, an industry to accommodate retired people is not established yet. No discernible presence
  of recognised industry groups present. But since cluster components are already well established a
  recognised industry cluster could be established in 5-7 years.

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Considerations for sector development in Antalya

- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed). There is a special investment incentive for building at least 100 bed capacity retirement homes.
- There is only one retirement home with 150 bed capacity (State owned) in Antalya as of 2000.
- There are plans from Alarko group (a leading diversified industrial and service sector group in Turkey) to
  have retirement resort investment according to some stakeholders. The same source says the land for
  this project is already acquired.
- No innovation is yet seen in Antalya in respect of retirement accommodation and related services.
- Everything required by this sector can be found or sourced locally.
- Residential/tourism land availability is limited for retirement home construction. 10,000 sqm residential/tourism land purchase prices are \$1,000,000 to \$3,000,000 depending on the location.
- Short stay residential/ tourism buildings are available in resorts but not in urban centres. No dedicated buildings are available, but could be developed/ converted quickly. Annual rental cost for 5,000 sqm building for this purpose is \$100,000.
- During summer time low cost scheduled daily flights are available from up to 10 target European cities. At other times expensive scheduled flights are needed, with flight transfers in Istanbul. Travel costs from up to 10 target European cities, also Russia, Iran, is approx. €250-600.
- Utilities: residential/ commercial electricity price is determined by the energy market regulatory board and it is the same for all Turkish provinces. Electricity cost is \$0.168 /KwH. NPG costs are decided by the distribution company. NPG price is \$0.416 per m3. NPG distribution to city centre will be available within one year. However, this utility is not critical to the sector. Water price for commercial use is \$2.51 per m3 (maximum consumption tariff). This does not compare well with the US (California) rate of \$0.40 for commercial water.
- The business culture in Antalya is well established. Companies collaborate to a degree even if it is not as good as it could or should be. The general image of the province is very good and attractive for investors and employees. But it is not known internationally.
- The understanding is that worker loyalty is not, and should not become, an issue for business.
- The image of the province's customer service is good, although there is no experience of service in this sector.

Employment potential of the sector

- Job creation potential of this sector is good because it is quite labour intensive. Every new hospital/ retirement village is expected to create about 150 to 250 jobs. Smaller retirement centres are possible, creating 15-20 skilled positions each.
- Unemployment levels in Antalya are low compared to other provinces of Turkey; 12.7% as per 2009 TURKSTAT data, which is below the national average and much better than the benchmarked provinces.
- The number of unemployed persons is 120,000 in TR61 region (Antalya, Isparta, Burdur). So there is no problem for unskilled labour availability.
- But training is needed for semiskilled mid level positions.
- Minimum official salary is 760.50TL/month (approximately \$2.60 per hour). Health staff can gain a little more than minimum wage which is expected as \$3.42 per hour.
- Skilled labour (health support staff and hospitality) is available. Skilled labour salaries are estimated in the range of TL1,500-2,000 per month (\$5.12 to \$6.83 per hour).
- There is an equal opportunity in this industry but we can assume that there may be more female employment opportunities for the health support and sick care positions. Furthermore the quality of employment conditions will be better than either the tourism or agriculture sectors.

## Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

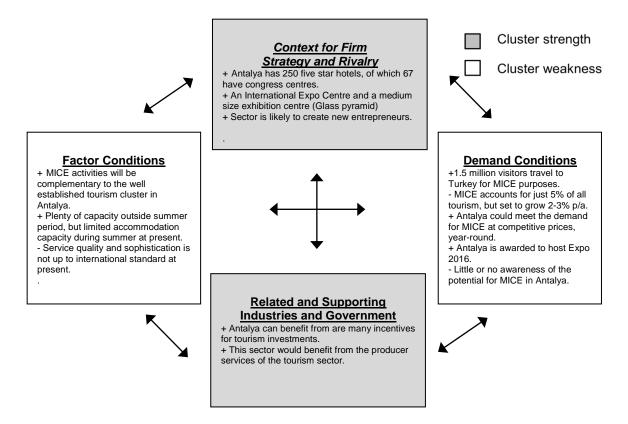
#### SWOT P04 Tourism health/wellbeing (Retirement Homes) Nace Rev.2 Listing Q87.3 - Residential care activities for the elderly and disabled

	Strengths	Weaknesses
Region/country attributes	<ul> <li>Well established accommodation and health cluster</li> <li>Bi-lingual staff already experienced in hotel business</li> <li>Favourable climate and natural beauties of Antalya</li> <li>Advanced air transportation from many EU and East European centres with affordable pricing</li> <li>Low cost accommodation and elderly care services</li> <li>High quality of life in Antalya</li> <li>Many alternatives for sports activities and personal hobbies available</li> <li>Vast variety of fresh healthy fruits, vegetables and herbs growing in Antalya</li> <li>Sea, sand and sunshine around the year</li> <li>Good location of Antalya being maximum 4 hours flight to a large population of elderly people of Europe and Asia</li> </ul>	<ul> <li>Lack of qualified staff for elderly care</li> <li>Insufficient promotion of Antalya as a place to live</li> <li>Infrastructure problems</li> <li>Lack of enough recreation areas within the city</li> <li>Negative attitude of religious people towards foreigners and cultural barriers</li> <li>Failure to protect natural and historical assets</li> <li>Low quality and insufficient public services for handicapped people</li> </ul>
	Opportunities	Threats
Attributes of wider environment	<ul> <li>New incentive legislation providing supports for establishment of retirement homes in Antalya</li> <li>Utilization of already available excess bed capacity in accommodation sector all around the year</li> <li>High potential of old population in Europe</li> <li>Increased life expectancies</li> <li>Better life standards can be achieved in Antalya with the retirement packages compared to Europe</li> <li>Rehabilitation packages for old people offered by insurance companies</li> <li>Many expatriates relocated in Antalya for their retirement set an example for the other people to decide easier</li> <li>Growing demand for geriatrics</li> </ul>	<ul> <li>Decrease in purchase power of the potential clients</li> <li>Terror incidents and security problems</li> <li>Global warming and climate changes</li> <li>Over valuation of Turkish Lira that decreases purchase power of foreign currencies</li> <li>Unethical business practices of local proprietors (i.e. unjust pricing for foreigners)</li> <li>Unplanned urbanization</li> <li>Global economic crisis</li> </ul>

## Priority Sector P05: MICE<sup>17</sup> business tourism

Sector: Tourism Example product: MICE business tourism NACE code: e.g. I55.2 Served markets: Export Benchmarked regions Turkey provinces: Izmir, Istanbul, Other countries: Germany, Spain

Figure 20 Diamond model for Antalya's MICE business tourism sector



#### Source: Expert team analysis

The MICE business tourism sector, with a total benchmark score of 64.6%, ranked as no. 6 of the 9 priority sectors benchmarked. As

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<sup>&</sup>lt;sup>17</sup> The Meetings, Incentives, Conventions and Exhibitions (MICE) segment of tourism caters to such corporate programmes tailor-made to suit the client's requirements in any part of the world. The size of the convention, facilities required, competitive pricing, natural attractions, safety and opportunities to shop are some of the factors considered before selecting a MICE destination.

Figure 21indicates Antalya achieves a high score in respect of sector development potential and also a good score for region attractiveness. In fact the scores are similar to those for both Izmir and Istanbul.

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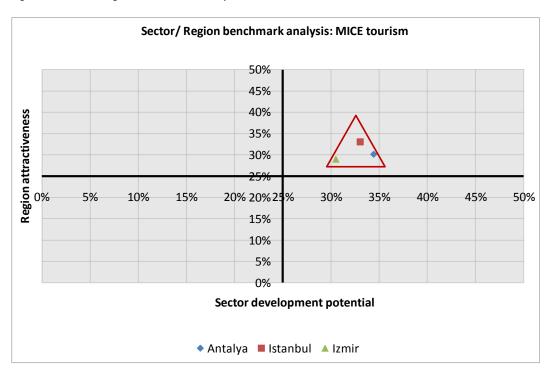


Figure 21 Sector/region benchmark analysis for MICE business tourism

Figure 22 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- Antalya's region attractiveness today is essentially the same as for Istanbul and Izmir.
- The reason for Antalya's relative strength is its existing hotel and conference facilities that have spare capacity.
- However both Germany and Spain scored significantly better than Antalya. These countries have an established history in, and dedicated infrastructure for MICE tourism and are better known by European customers.

**Region attractiveness: MICE tourism** 50% Business 45% image 40% Utilities 35% Logistics 30% 25% Labour 20% 15% Real estate 10% Cluster 5% power 0% Istanbul Max score Antalya Izmir Germany Spain **Business** image 4.2% 4.5% 4.3% 5.0% 4.3% 5.0% Utilities 3.0% 3.0% 3.0% 6.0% 6.3% 9.0% Logistics 2.5% 2.8% 2.8% 5.0% 5.0% 5.0% Labour 9.1% 8.8% 9.1% 4.6% 6.5% 13.0% Real estate 4.5% 0.6% 3.3% 4.5% 4.8% 9.0% Cluster power 6.8% 8.3% 6.5% 8.3% 8.1% 9.0%

Figure 22 MICE business tourism: region attractiveness

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Figure 23 below shows that Antalya should be able to develop a MICE sector better than Izmir and on a par with Istanbul.

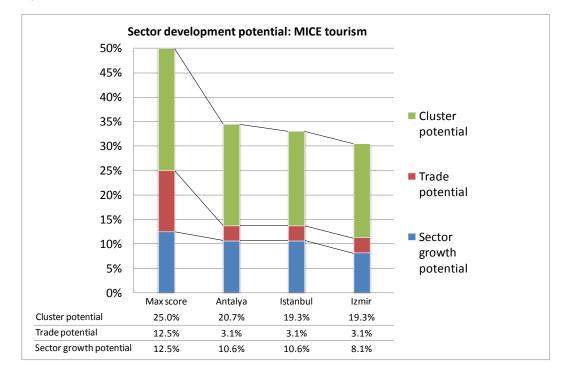


Figure 23 MICE business tourism: sector development potential

#### International market context

- Tourism is one of the largest industries in the world providing a strong momentum to global economic development.
- The sector employs more than 210 million people worldwide (7.6% of global employment). In 2009, the industry generated an estimated US\$ 5,474 billion of economic activity, which accounted for 9.4% of global GDP. Approximately 5% of this amount is considered to be generated by MICE activities.
- Despite the current economic conditions the market is set to grow 2-3% annually.
- According to tourism statistics about 1.5 million foreign visitors travelled to Turkey for convention and exhibition attendance purposes. Estimated revenues generated from MICE activities are \$1 billion. This amount could be increased with more effective promotional efforts.
- Increasingly business tourism is seeking new destinations and more competitive prices, as well as yearround potential. In that regard Turkey has potential to grow the MICE market value, maybe even market share

#### Business growth potential

- Tourism is the strongest cluster in Turkey.
- Turkey and Antalya already offer enough MICE facilities for existing Turkish business. Furthermore there is little "export" of these kinds of services by Turkish business at present. So the impact on trade substitution (Turkish businesses going overseas for their MICE activities) would be negligible.
- MICE activities will be complementary to the well established tourism cluster in Antalya.
- There is a high potential for Antalya to attract investors because of large market, incoming tourist base.

#### Considerations for sector development in Antalya

• The province is prioritized by Ministry of Culture and Tourism under convention and exhibition tourism strategy. Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed) Organization of international trade fairs are supported by Export development centre of Turkey. There are many incentives for tourism investments.

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- Domestic business is mainly dependant on the convention and incentive travel activities. Antalya has a high potential of increasing its share in this sub-sector, and to attract 5+ new international companies.
- Antalya has about 250 five star hotels and resorts, of which 67 have congress centres (as of 2004).
- An (ANFAŞ) and a medium size exhibition centre (Glass pyramid) are now present. Antalya is awarded to host Expo 2016.
- Furthermore Antalya has a diverse touristic activities and convention facility/hotel assets. It also has a strong transportation infrastructure especially for land and air transport.
- The knowhow accumulated and high quality hospitality services are main advantages of cluster organization.
- Convention/exhibition organization is a low capital investment and is likely to create new entrepreneurs. It is also expected that companies dedicated for marketing of available premises may emerge.
- Antalya Exhibition Inc. (ANFAŞ) is newly established and needs to be promoted. The convention and exhibition centres are equipped with the high technology equipment needed.
- Land is available for building convention or exhibition centre but limited for accommodation investments especially in the coastal band.10,000 sqm commercial/tourism land purchase prices are \$6,500,000 to \$8,000,000 depending on the location.
- Commercial buildings in the city centre are available for hospital investments. The city is expanding very fast and new areas suitable for hospitals will be available. Annual rental cost for 5,000 sqm building for commercial use in city centre is \$240,000.
- During summer time low cost scheduled daily flights are available from up to 10 target European cities. At other times expensive scheduled flights are needed, with flight transfers in Istanbul. From up to 10 target European cities, also Russia, Iran, approx. €250-600.
- The business culture is well established. Companies collaborate to a degree even if it could and should be better.
- Worker loyalty is understood not to be an issue for business. The image of the province's customer service is good, though it still has room to develop in sophistication and quality. Antalya is not known internationally in respect of this sector.
- In summary, everything required by this sector can be found or sourced locally.

Employment potential of the sector

- Job creation potential from direct activities such as organization and operations would not be high but will have more potential for indirect activities like logistics and accommodation. Convention/exhibition organization can create up to 30 permanent and 300 temporary jobs as direct activities.
- Producer services' job creation potential is more than direct MICE activities. Transport/logistics, accommodation, travel agency services are expected to provide permanent jobs during off-season from which the tourism cluster would benefit.
- This business sector has a high ability to create female employment.
- Unemployment levels in Antalya are low compared to other provinces in Turkey, but still no problem exists for unskilled/ semiskilled labour availability.
- Minimum official salary is 760.50TL/month (approximately \$2.60 per hour).
- Skilled labour is available as the province already has an established tourism sector that has some experience in MICE tourism, and has established recruitment and training procedures.
- Skilled labour salaries are estimated in the range of TL1,500-2000 per month (\$5.12 to \$6.83 per hour)
- MICE would be a good fit for the existing business culture and the attractiveness of the province.

## Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

SWOT

### *P05 Tourism alternative MICE (Meetings, incentive travel, convention and education travel) Nace Rev.2 Listing*

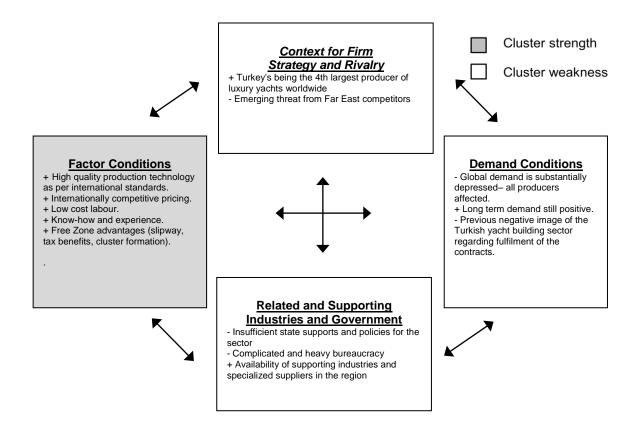
N79.1 - Travel agency and tour operator activities, I55.2.0 - Holiday and other short-stay accommodation, N82.3.0 - Organisation of conventions and trade shows

Strengths		Weaknesses
<ul> <li>Favourable</li> <li>Modern an including a</li> <li>Know-how services a</li> <li>Well traine</li> <li>Advantage origins with</li> <li>Historical a registered</li> <li>Strong tranair and lan</li> <li>Competitive</li> <li>Convention many hote</li> <li>Newly esta</li> <li>Antalya's g</li> </ul>	d and experienced workforce ous location, easy access to tourist nin 4 hours of flight and cultural assets many of which is under UNESCO cultural heritage nsportation infrastructure especially for d transports	<ul> <li>Insufficient physical infrastructure</li> <li>Unplanned urbanization and unpleasant city sight</li> <li>Unsatisfactory urban public transportation</li> <li>Investors without tourism experience resulting with management failures</li> <li>High employee turnover rates</li> <li>Ineffectiveness of government offices for advocating critical issues of the sector</li> <li>Failure to protect natural and historical endowments</li> <li>Insufficient number of foreign language speaking staff</li> <li>Insufficient promotion and marketing</li> <li>Increase in input costs</li> </ul>
te capacity es Growing p European, EXPO 201 New direct other carris Availability off-season	l cultural organizations and student	<ul> <li>Threats</li> <li>Terror activities, natural disasters and global epidemic diseases</li> <li>Subsidies provided in competing countries like Egypt</li> <li>Overvaluation of Turkish Lira against main currencies</li> <li>Continued in-migration that exhausts the capacity of the infrastructure and public services</li> <li>Global economic crisis, decrease in travel expenditures</li> </ul>

Priority Sector P06: Luxury yacht manufacture

Sector: Boat building Example product: Luxury Yacht NACE code: e.g. C30.1.2 Served markets: Export Benchmarked regions Turkey provinces: Istanbul, Mugla Other countries: Germany, Italy

Figure 24 Diamond model for Antalya's luxury yacht sector

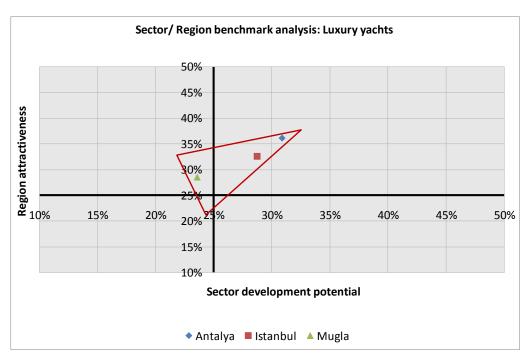


#### Source: Expert team analysis

Luxury yacht building, with a total benchmark score of 67%, ranked as no. 4 of the 9 priority sectors benchmarked. As

Figure 25 indicates Antalya achieves high scores in respect both of sector development potential and regional attractiveness. These are substantially better than the benchmark provinces of Istanbul and Mugla.

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#### Figure 25 Sector/region benchmark analysis for luxury yacht building

Figure 26 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- The size of gap in Antalya's region attractiveness today is significant.
- Antalya scores better in respect of its real estate offering (the Free Zone) and the cost of utilities.
- Istanbul scores marginally better in respect of business image something that Antalya will need to address.
- Italy and Germany, whilst having successful industry clusters, score less well than Antalya. This is because their labour profile (especially labour costs) and their real estate attributes (again costs) are constraining factors.

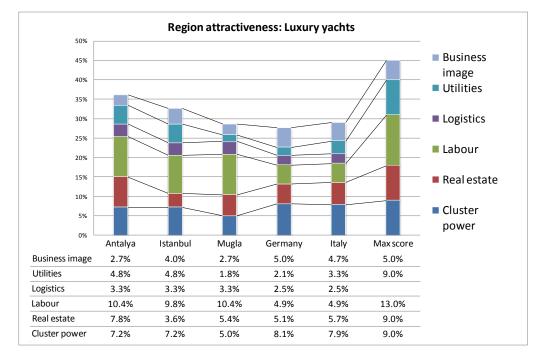


Figure 26 Luxury yacht building: region attractiveness

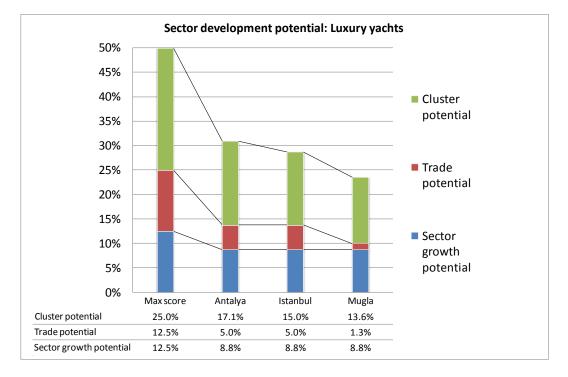
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Antalya scores better in respect of cluster potential – but it is substantially weaker than the maximum possible score.

Figure 27 below shows that Antalya could develop a stronger industry cluster than either Istanbul or Mugla.

• Antalya scores better in respect of cluster potential – but it is substantially weaker than the maximum possible score.

Figure 27 Luxury yacht building: sector development potential



International market context

- The global ship and yacht building sector's annual production volume is estimated at \$40 to 50 billion according to a survey published by the association for development of yacht tourism and yacht building (DENTUR).
- Turkey has become one of the important yacht building countries since last 10 years. Construction of 35 new marinas alongside the coasts of Turkey has increased the boat ownership among the Turkish people and the yacht market grew very fast. Around 20% of luxury yachts built in Turkey are sold in the local market. Yacht imports are also a sign of growing local market.
- Turkey's ship and yacht exports are around \$3 billon per annum out of amount \$300 million is estimated as the luxury yacht exports. Turkey's share in global yacht building industry is not much and there is more potential.

Business growth potential

- Although there had been some substantial negative effects on the sector caused by the recent global financial crisis and economic downturn (the market has declined by around 40% in 2007-2009), it is expected that the sector will recover within a couple of years.
- The number of multi millionaires continues to increase and this creates demand for luxury yachts. There is a tendency among boat owners to shift to a larger yacht as well. More people are interested in marine sports and leisure year by year.
- Turkish annual yacht imports are estimated at \$40 million. This is not a large amount but there is still an import substitution potential through development of the sector.

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- Antalya has good potential to attract investors because of the available infrastructure and the Free Zone incentives.
- There is also potential for JVs with the established companies with larger established players in Germany and Italy possibly willing to expand into Turkey.
- Producer services are also required that can be established with lower capital requirements (i.e. maintenance, decoration, design, refit). Local companies have the potential to grow through collaborative marketing efforts.

Considerations for sector development in Antalya

- 547 companies are registered at Antalya Free Zone for yacht building, trading, maintenance, decoration, dock operation and yacht supplies. 24 of these are active yacht building companies as of 2008.
- There is no special investment incentive for this sector but the Free Zone provides some extra advantages such as tax exemption.
- The Antalya yacht cluster has not evolved as desired. There are many missing elements such as designers, suppliers of raw materials and equipment etc. So a cluster development strategic plan is much needed.
- There are ongoing plans and negotiations for establishment of a specialized yacht building organized zone in Manavgat county of Antalya.
- Latest technologies are used in Antalya for the production of luxury yachts. Highest quality materials are used for production. Hull and superstructure inputs are locally available. Engine and navigation systems are imported without problems. Some items are available from Istanbul.
- Most of local and foreign investors are internationally recognized: Farmont Yachts GmbH, Peer Gynt Yachts, Peri Marine vessels Inc., Sunrise Yachting, Vicem Yachts are some examples.
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed)
- Producer services will be required, in such areas as training, supplies, maintenance, electricity, mechanic, dyeing services and marketing.
- Land is available for long lease from Free Zone or in OIZ. More land will be available with new Manavgat specialized Organized zone project. 10,000 sqm industrial land for 25 years long lease price is \$2.42 per sqm/ year (i.e. \$605,000 for total period) or \$350,000 in Antalya OIZ.
- Office building space is available. Annual rental cost for 5,000 sqm building for this purpose is \$60,000
- Yachts are delivered from Antalya; transportation time is not an issue in the sector. If delivery to Europe is agreed than voyage time is around a week which is better than USA origin yachts. The cost of transportation (i.e. diesel and captain/crew expenses) is much lower than comparable US or Far East origin yachts.
- Utilities: Electricity cost in Free Zone is \$0.13 per KwH and \$0.10 in Antalya OIZ. NPG costs are decided by the distribution company. NPG price is \$0.416 per m3. NPG distribution to city centre will be available within one year. Water price in the Free Zone is \$1.32 per m3 and in OIZ \$0.13 per m3.
- The yacht making business culture is well established. Companies collaborate even if it is not as much as they could or should.
- The general image of the province is very good and attractive for investors and employees.
- However there is a problem of worker loyalty in the sector. Turnover rate is high due to tourism job alternatives.
- Generally, the province's worker productivity is low and is something that should be addressed.

Employment potential of the sector

- Job creation potential is medium to high because labour intensive nature of this business. Every new business is expected to create about 50 to 250 jobs.
- There is no problem to find unskilled labour availability, but training needed for semiskilled mid level positions. Unemployment levels in Antalya are low compared to other provinces in Turkey. Unemployment rate is 12.7% as per 2009 TURKSTAT data which is below the national average and much better than the benchmarked provinces. Number of unemployed persons is 120,000 in TR61 region (Antalya, Isparta, Burdur).
- Minimum official salary is 760.50TL/month (approximately \$2.60 per hour). Semiskilled staff can gain a little more than minimum wage which is expected as \$3.42 per hour.
- Skilled labour availability is not a problem. Skilled labour salaries are estimated in the range of TL1500-2000 per month (\$5.12 to \$6.83 per hour).
- This business line has low ability to create female employment due to hard work nature of construction.

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## Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

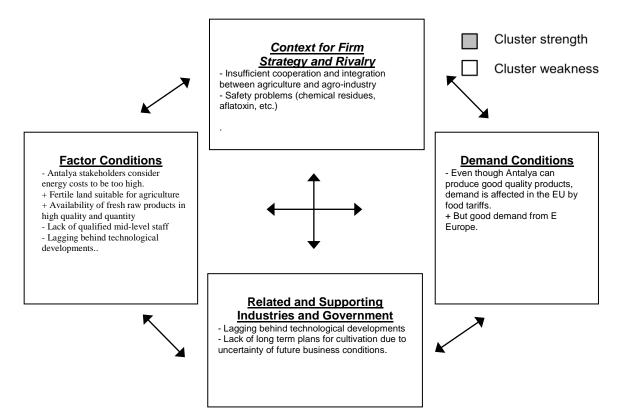
## SWOT P06 Luxury yachts > 20 metre Nace Rev.2 Listing C30.1.2 - Building of pleasure and sporting boats

	Strengths	Weaknesses
Region/country attributes	<ul> <li>High quality production technology as per international standards</li> <li>Internationally competitive pricing</li> <li>Low cost labour</li> <li>Know-how and experience</li> <li>Availability of supporting industries and specialized suppliers in the region</li> <li>Turkey's being the 4th largest producer of luxury yachts worldwide</li> <li>Suitable infrastructure for boat building</li> <li>Free Zone advantages (slipway, tax benefits, cluster formation)</li> <li>Easily accessible location for international clients</li> <li>Proximity to main buyer markets</li> <li>Favourable climate and environmental conditions suitable for yacht building</li> </ul>	<ul> <li>Limited financial resources of the sector</li> <li>Previous negative image of the Turkish yacht building sector regarding fulfilment of the contracts</li> <li>Insufficient state supports and policies for the sector</li> <li>Complicated and heavy bureaucracy</li> <li>Time consuming and ineffective import regulations preventing just-in-time supply of inputs</li> <li>Insufficient international marketing</li> <li>Lack of long term financial credit plans for yacht purchases</li> <li>Low skilled workers</li> </ul>
	Opportunities	Threats
Attributes of wider environment	<ul> <li>Growing demand for larger super yachts</li> <li>Socio-cultural developments that are increasing the interest of a wider public for yachting</li> <li>Increase in life standards</li> <li>New marina investments all around Mediterranean that can accommodate super yachts</li> <li>Only 3% of multi-millionaires globally having a yacht at the present implies the high potential</li> </ul>	<ul> <li>Global economic crisis</li> <li>Political conflicts, and turmoil</li> <li>New competitors from Far East (low quality at the present but is a threat for the future)</li> </ul>

#### Priority Sector P07: Processed foods

Sector: Processed foods Example product: Processing and packaging of fresh fruit and vegetables NACE code: C10 Served markets: Domestic/export Benchmarked regions Turkey provinces: Bursa Mersin Other countries: Netherlands, Spain

Figure 28 Diamond model for Antalya's processed foods sector



#### Source: Expert team analysis

Processed foods, with a total benchmark score of 71.6%, ranked as no. 3 of the 9 priority sectors benchmarked.

- As Figure 29 indicates Antalya achieves high scores in respect both of sector development potential and regional attractiveness. These are substantially better than Bursa and marginally ahead of Mersin.
- Despite scoring quite well the Diamond assessment is mainly weak and negative.

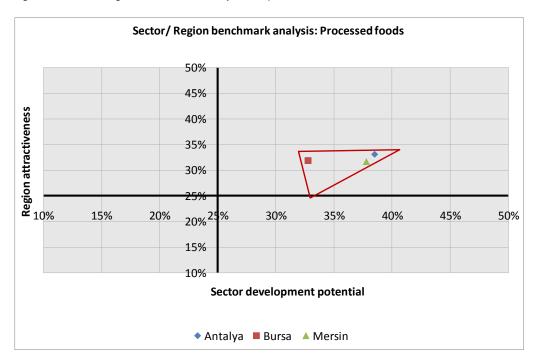


Figure 29 Sector/region benchmark analysis for processed foods

Figure 30 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- In comparison with Spain and the Netherlands, Antalya is also a more attractive region in all respects except for cluster strength and logistics.
- Both Spain and the Netherlands however relatively high costs the benefit from strong established clusters and good logistics.
- The Netherlands also benefits from a strong business image.
- Regional attractiveness assessments for all three Turkish Provinces are almost identical. Therefore Antalya does not present advantages over the other two provinces.

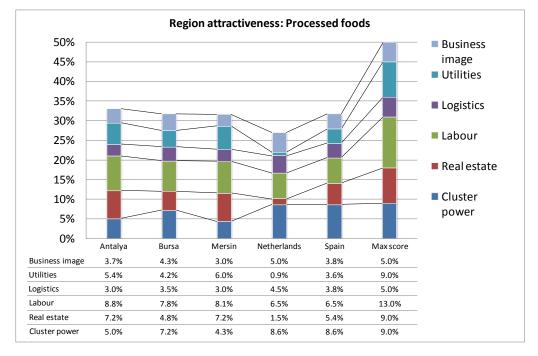


Figure 30 Processed foods: region attractiveness

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Figure 31below indicates that the sector development potential of Antalya and Bursa scores highly, with a slight edge to Antalya. Bursa is notably weak in this regard, mainly due to its limitations in cluster development potential.

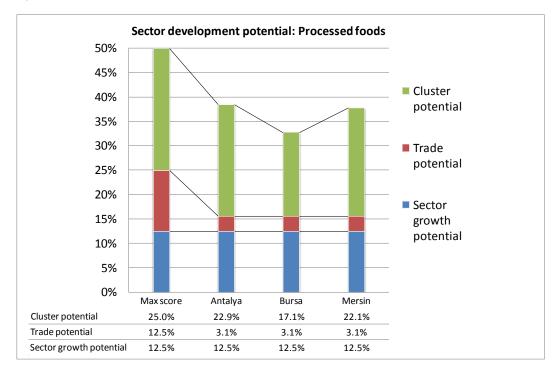


Figure 31 Processed foods: sector development potential

International market context

- The world canned food trade volume is \$38 billion as of 2008 figures. Leading canned food exporters are China, Italy, Spain and USA Turkey is at the 8th position of leading exporters globally. Total exports of the world for canned fruit and vegetables increased from \$17 bn in 2005 to \$26 bn in 2009.
- Turkey is one of the leading global producers of fresh fruit and vegetables with 43 million tons per annum. 5% of this production is exported as fresh and remaining amount is processed as frozen and canned food or consumed locally.
- Turkey's canned fruit and vegetables production is about 1 million tons per year and has an export volume of over \$1 billion.
- Frozen fruit and vegetable production is 160,000 tons. 70% of production is exported and annual export revenues are about \$100 million.

#### Business growth potential

- Total processed fruit and vegetables (except juices and soft drinks) are about \$1.5 billion. World trade has been doubled since last 5 years.
- Global market growth is substantial; there is further high growth potential for the future.
- Market opportunities are visible and it can be expected that many new entrepreneurs will start-up businesses in this sector at least as packers.
- There is not much potential for import substitution as imports are limited in this product range.
- There is a high potential for Antalya to attract investors because of availability of high quality fresh inputs, large market, diversified product range and suitable climate.

Considerations for sector development in Antalya

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- There is very easy to access high quality raw materials. There is already an established agriculture cluster in Antalya. The only missing elements are processor factories to complement the cluster. There is a high potential to strengthen the existing cluster.
- Antalya has no substantial food processing industry except for jam making, small scale fruit juice
  production (Akdeniz gida and yörükoğlu are the leading ones),packaging and sorting of fresh fruits and
  vegetables. Almost all of the production is consumed in Turkey's high population provinces or exported
  as fresh. It is not possible to evaluate the current business profile as a processed food cluster as the
  canned or frozen food processing is missing in the value chain.
- This sector is a good fit for Antalya as agriculture is the main business area apart from tourism.
- Marketing, canning, fruit juice, pulp and concentrate companies may invest in Antalya.
- There are already producer services in Antalya but new investments can be expected in cold chain logistics and international trade to create more jobs.
- With the new food safety legislation all agricultural products should be traceable. This measure suggests
  the minimum need for packing the fresh goods. "Good agricultural practices" applications of large
  supermarket chains create substantial potential for processed food sector.
- Akdeniz University and West Mediterranean Agricultural Research Institute (BATEM) are the main sources for technology development but they are not sufficient compared to international technology and innovation centres.
- Akdeniz Gida and Yörükoğlu are the leading companies that have some sort of international activity. Some leading companies have their own patented products developed by them. Access to technology is not a problem.
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed) Food and beverages production and cold chain warehousing is supported under investment incentives regime. There are some state support measures for R&D, exports and equipment investment, which applies equally to all Turkish provinces.
- Land for food processing facilities is available for long lease from the Free Zone or in OIZ. 10,000 sqm industrial land for 25 years long lease price is \$2.42 per sqm/ year (i.e. \$605,000 for total period) or \$350,000 in Antalya OIZ.
- Factories in the industrial zones or offices in the city centre are readily available. Annual rental cost for 5,000 sqm building for this purpose is \$60,000.
- At present the main country for exports is Russia. Logistics time for sea freight to Moscow by refrigerated container is about 12 days (not preferred). Land haulage is 4-6 days to Russia and 6-8 days to EU destinations. The main local market is Istanbul (12 hours by road).
- The average cost of a 40" refrigerated container land haulage to Moscow is \$6,900, to Istanbul is \$600. Sea freight to Moscow is \$4,000 /truck+ ship.
- Utilities: electricity costs in the Free Zone are \$0.00623 per KwH and \$0.13 in Antalya OIZ. NPG costs are decided by the distribution company. NPG price is \$0.416 per m3 where available. Water prices in Free Zone are \$1.32 per m3 and in OIZ \$0.13 per m3.
- The business culture is well established. Many NGOs are active in the province. Companies collaborate to a degree even if it is not as good as it could or should be. The general image of the province is very good and attractive for investors and employees. Worker loyalty is sufficient for this sector. But in general, labour productivity is low.

Employment potential of the sector

- The sector is a good fit for female labour. It is a labour intensive business and has high potential for job creation.
- There is no problem to identify unskilled labour, but training is needed for semiskilled and mid level positions. Unemployment level in Antalya is low compared to other provinces in Turkey. Unemployment rate is 12.7% as per 2009 TURKSTAT data which is below the national average and much better than the benchmarked provinces. The number of unemployed in TR61 region (Antalya, Isparta, Burdur) is 120,000.
- The official minimum wage is 760.50TL/month (approximately \$2.60 per hour).
- Skilled labour salaries for blue collar workers in Antalya and Adana are similar and estimated in the range of TL1500-2000 per month (\$5.12 to \$6.83 per hour).
- Skilled labour (food and agricultural engineers) is available but the qualifications are not satisfactory according to stakeholders. Cost benefit analysis is not practiced by the employers in Turkey. So it may be a biased opinion of the employers that are asking for high levels of qualification but are not prepared to pay a fair and decent salary.

## Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

## SWOT P07 Processed food Nace Rev.2 Listing C10.3 - Processing and preserving of fruit and vegetables

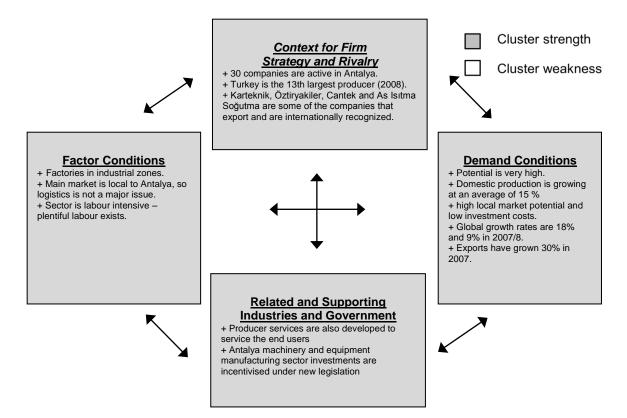
	Strengths	Weaknesses
Region/country attributes	<ul> <li>Fertile land suitable for agriculture</li> <li>Availability of fresh raw products in high quality and quantity</li> <li>Accumulation of expertise and experience in the province</li> <li>Availability of a vast variety of sub-tropical and tropical fruits, vegetables and other agricultural products (i.e. culture mushrooms) thanks to many micro-climate regions within the province</li> <li>High local, regional and international demand for these produce</li> <li>Strategic location being close to Russia and other East European countries that have high demand for Antalya's agricultural products</li> <li>Established cluster for agriculture</li> <li>Presence of an agricultural research institute in the province (BATEM)</li> <li>Relatively low cost labour</li> <li>Decrease in cost of production with increase of yields</li> </ul>	<ul> <li>Limited feasible agricultural land parcels due to fractured lots by heritage</li> <li>High energy costs</li> <li>Low technology green houses</li> <li>Lack of long term plans for cultivation due to uncertainty of future business conditions</li> <li>Lack of capital accumulation in the sector</li> <li>Lack of qualified mid-level staff</li> <li>Lagging behind technological developments</li> <li>Insufficient cooperation and integration between agriculture and agro-industry</li> <li>Safety problems (chemical residues, aflatoxin, etc.)</li> </ul>
	Opportunities	Threats
Attributes of wider environment	<ul> <li>New technologies in agricultural production, food processing and preserving methods</li> <li>Liberation of trade with Eastern European countries and increasing foreign trade</li> <li>Expansion of production in neighbour provinces with different climate during hot summer months in Antalya</li> <li>Utilization of Antalya's highlands and coastal band for different types of fruits and vegetables suitable for growth in those areas</li> <li>New food safety regulations imposed requiring traceability and packaging</li> <li>Need for extension of shelf life of fresh products</li> <li>Dried, frozen, canned or concentrated fruit and vegetables processing and preserving techniques that would prevent price fluctuations due to high or low yields in different years and provide better production planning</li> </ul>	<ul> <li>Complicated regulation and lack of long term agricultural strategies</li> <li>Environmental pollution</li> <li>Global warming</li> <li>Decrease in soil quality because of excess usage of fertilizers and pesticides</li> <li>Ignorance of agriculture sector in Turkey</li> <li>Non-tariff barriers applied by the EU countries for Turkish agricultural products (i.e. residue tests done in Turkey are not accepted and products are retested in Bulgaria causing loss of time, money and decrease in product quality)</li> <li>Shrinkage of agricultural land due to urbanization</li> <li>Low investments in research and development</li> <li>Capacity utilization problems of food processing SMEs</li> </ul>

• Development of food retailing chains in Turkey

Priority Sector P08: Acclimatization equipment

Sector: Manufacture of tanks, reservoirs and containers of metal Example product: Acclimatization equipment for buildings NACE code: C25.2 Served markets: Domestic/export Benchmarked regions Turkey provinces: Kocaeli, Ankara Other countries: France, Spain

Figure 32 Diamond model for Antalya's acclimatization equipment sector



Source: Expert team analysis

Processed foods, with a total benchmark score of 76.7%, ranked as the top scoring priority sector benchmarked.

As

- Figure 33 indicates Antalya all three Turkish provinces achieved high scores, which indicates that competition is very strong in this sector in Turkey.
- Whilst Antalya, Kocaeil and Ankara are equally interesting from a regional profile perspective, Antalya has the best potential for development of the sector.
- The Diamond assessment is the one of just two sectors to be categorised as strong in each quadrant.

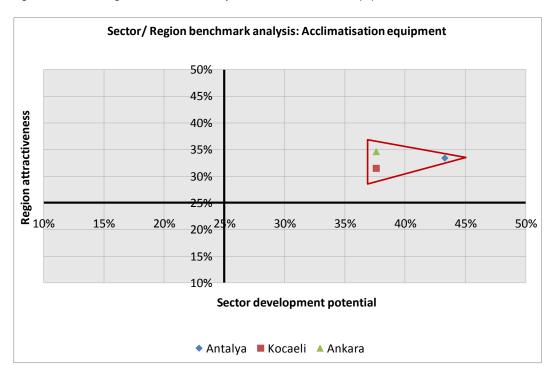


Figure 33 Sector/region benchmark analysis for acclimatization equipment

Figure 34 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- All three Turkish provinces score better than France and Spain.
- Antalya and the other two Turkish provinces are stronger in respect of real estate, labour and utilities conditions.

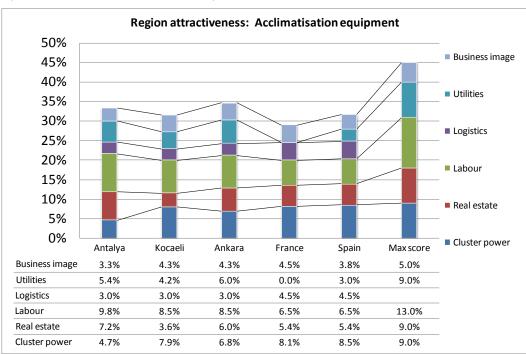


Figure 34 Acclimatization equipment: region attractiveness

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Figure 35 below shows that Antalya scores better than the Turkish rival provinces in terms of sector development. This is because Antalya will make better strides to develop a cluster, and also because the trade potential for Antalya is greater.

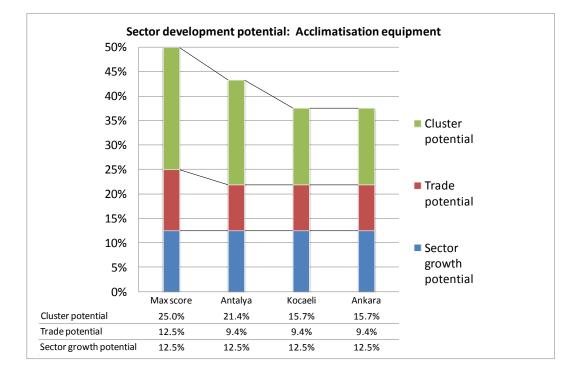


Figure 35 Acclimatization equipment: sector development potential

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International market context

- Global trade in this sector is approximately \$148 billion as of 2008. Leading producers are China, Germany, Italy and USA Turkey is the 13th largest producer as of 2008 data. Global growth rates are 18% and 9% for the years 2007 and 2008 respectively.
- The overall market is expected to continue to grow, driven by higher living standards, and greater expectations to implement climate control in business and agriculture, as well as in the domestic market.
  Innovation in low energy and environmental technologies will stimulate the replacement market in
- Innovation in low energy and environmental technologies will stimulate the replacement market in coming years.
- Imported products under this sector accounts to \$1.5 to \$2 billion per years between 2006-2008
- Turkey exports \$2.5 billion worth products of this industry per annum at an average since last 5years. Exports have grown 30% in 2007 compared to 2006 figures and become steady due to global financial crisis. It is expected that export volume will increase within 2 years.

#### Business growth potential

- Domestic production is growing at an average of 15 % per annum between 2006 and 2009, with production value of \$4.8 billion in 2009. Imports are about \$1.5bn and exports are about \$2.5bn.
- Domestic market consumption is estimated as \$3.8 billion for 2009. The potential is very high.
- Due to the sub-tropical climate effective on a large area of Turkey acclimatization is a need and air conditioning and heating (HVAC) equipment is widely used.
- The Turkish acclimatization and heaters industry continuously grows, except during periods of economic crisis.
- Antalya has an acclimatization and heater equipment sector, as the products are required both in the tourism and agriculture sectors. About 30 companies are active in this cluster, with manufacturing facilities in the OIZ. Producer services are also developed to service the end users.
- There is good potential for Antalya to attract investors because of the high local market potential and low investment costs.

Considerations for sector development in Antalya

- Antalya may be expected to have a cluster established in the medium term (i.e. 10 years).
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed) Machinery and equipment manufacturing sector investments are incentive under new legislation
- Karteknik, Öztiryakiler, Cantek and As Isitma Soğutma are some of the companies that have exports and internationally recognized.
- There is good access to high quality raw materials
- Akdeniz University is the main sources for technology development but the University is not efficient according to stakeholders.
- Generally, access to technology is not a problem for business. Some R&D related companies are established in Akdeniz Teknokent. Some leading companies have developed their own patented products.
- Some state support is available for R&D, exports and equipment investments which applies equally to all Turkish provinces.
- Land is available for long lease from Free Zone or for purchase in OIZ. 10,000 sqm industrial land for 25 years long lease price is \$2.42 per sqm/ year (i.e. \$605,000 for the total period) or \$350,000 in Antalya OIZ.
- Factories in industrial zones or offices in the city centre are readily available. Annual rental cost for 5,000 sqm building for this purpose is \$60,000.
- The main market is local to Antalya, so logistics is not a major issue. In case of exports the main countries are UK, Germany and France. Long haulage time is about 6-8 days and sea shipment is 11-14 days to main EU ports. Long haulage to EU destinations is \$4,300 for a 40ft container.
- Utilities: Electricity cost in Free Zone is \$0.13 per KwH and \$0.10 in Antalya OIZ. NPG costs are decided by the distribution company. NPG price is \$0.416 per m3 where available. Water price in the Free Zone is \$1.32 per m3 and \$0.13 per m3 in the OIZ.
- The business culture is well established. Many NGOs are active in the province. Companies collaborate to a degree even if it is not optimal. The general image of the province is good and attractive for investors and employees.
- Worker loyalty is sufficient for this sector but in general labour productivity is low.
- Overall this sector is a good fit for Antalya because of high market potential for products used in the tourism and agricultural sectors as well as for commercial and residential air conditioning due to the hot climate.

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Employment potential of the sector

- Generally, this sector is labour intensive and has high potential for job creation.
- There is high potential for especially producer services like system establishment, maintenance, parts and inputs supply etc.
- It is a male intensive business sector. There may be some office or marketing positions available for female personnel.
- There is no problem to identify unskilled labour, but training is needed for semiskilled and mid level positions. Unemployment levels in Antalya are low compared to other provinces in Turkey. Unemployment rate is 12.7% as per 2009 TURKSTAT data which is below Turkey average and much better than the benchmarked provinces. The number of unemployed persons in TR61 region (Antalya, Isparta, Burdur) is 120,000.
- The minimum official salary is 760.50TL/month (approximately \$2.60 per hour). Semiskilled labour cost is \$3.41 per hour.
- Skilled labour (engineers) is available but the qualifications are not satisfactory according to stakeholders but generally cost benefit analysis is not practiced by the employers in Turkey. It may be a biased opinion of the employers who asking for qualifications at less payment.
- Skilled labour salaries for blue collar workers in Antalya and Adana are similar and are estimated to be in the range of TL1,500-2,000 per month (\$5.12 to \$6.83 per hour).

#### Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

## SWOT

# P08 Manufacture of metal products machinery and equipment (acclimatization, heating equipment and industrial kitchen)

Nace Rev.2 Listing C25 - Manufacture of fabricated metal products, except machinery and equipment, C25.2.1 - Manufacture of central heating radiators and boilers, C28.2.1 - Manufacture of ovens, furnaces and furnace burners

Strengths	Weaknesses
<ul> <li>Low cost labour and engineering services compared to developed countries and other developed regions in Turkey</li> <li>High flexibility and adaptation capabilities of SMEs in the province</li> <li>Easy access to raw materials</li> <li>Product development and design capacity and know-how accumulation</li> <li>High local demand for metal machinery and equipment due to population growth and tourism enterprises</li> <li>High demand from agricultural sector for air conditioning needs (heating and acclimatization)</li> <li>Growth in exports</li> <li>Established supporting industries available in the region</li> <li>Having technology development zone in the Province (Teknokent)</li> <li>Logistics and after sales service advantages for being close to the consumers in the Province</li> <li>Well established base metal sector in Turkey</li> </ul>	<ul> <li>Lack of qualified and trained staff needed by the industry</li> <li>Reluctance to invest in high technology production</li> <li>Low level of University-Industry collaboration</li> <li>Insufficient branding and marketing</li> <li>Low profit margins due to competition on prices</li> <li>High energy costs</li> <li>High employment burden (taxes, social security and severance payments)</li> <li>Insufficient R&amp;D budgets and state supports</li> <li>Uncompetitive production costs compared to fareast</li> </ul>

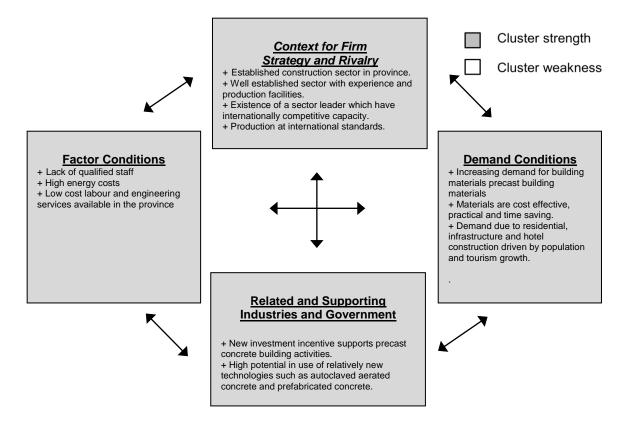
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Opportunities	Threats
<ul> <li>Product developments, use of new technologies</li> <li>Attractive location for foreign investments</li> <li>High growth in tourism, agriculture and construction sectors</li> <li>SME supports provided by the state</li> <li>Liberalization of trade, decrease in import taxes of new non-EU markets and increase in costs of fareastern competitor countries</li> <li>Vicinity to fast growing and demanding Russia, East Europe and Middle East markets</li> <li>Marketing efforts and promotions creating awareness and demand for Turkish machinery and metal products</li> <li>Business potential in Middle East countries is expected to increase by the recent developments in political relations</li> </ul>	<ul> <li>Financial bottlenecks due to cash flow inconsistency</li> <li>Lack of professionalism in management</li> <li>Global economic crisis</li> <li>Self trust problems of Turkish people phrased as "We are not capable of developing technology"</li> <li>Lack of original ideas and copy-cat nature of business</li> <li>Instability in Turkeys economic growth</li> <li>New metal sector investments in East European countries that would be competing with local industries</li> <li>Overvaluation of Turkish Lira against major currencies</li> </ul>

#### Priority Sector P09: Building materials

Sector: Building materials Example product: Pre cast concrete products NACE code: C23.6.1 - Manufacture of concrete products for construction purposes Served markets: Domestic/export Benchmarked regions Turkey provinces: Kocaeli, Ankara Other countries: France, Germany

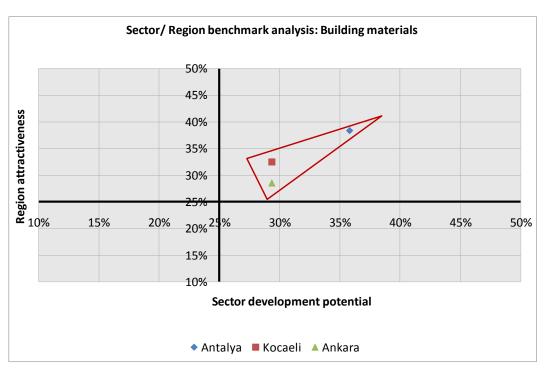
Figure 36 Diamond model for Antalya's building materials' sector



#### Source: Expert team analysis

Building materials, with a total benchmark score of 74.2%, is ranked as the second best scoring priority sector benchmarked.

- As Figure 37 indicates Antalya scores substantially better than both Kocaeil in respect of both regional attractiveness and also sector development potential.
- The Diamond assessment is the one of just two sectors to be categorised as strong in eacAntaAh quadrant.

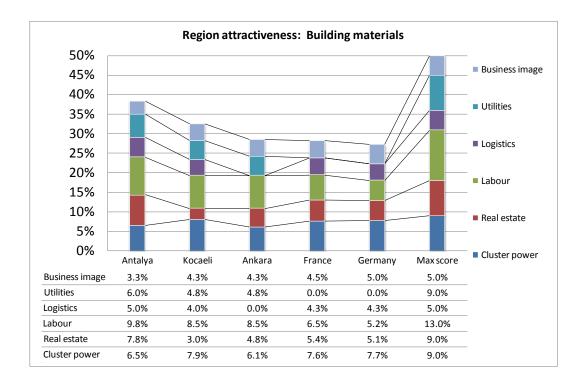


#### Figure 37 Sector/region benchmark analysis for building materials

Figure 38 indicates the region attractiveness of the three benchmarked Turkish provinces and also the two selected international countries/ regions.

- Antalya is strongest of all other sectors the only occasion this has happened in the benchmarking assessment.
- Antalya scores better than Ankara and Kocaeli in respect of real estate options and also for utilities.

Figure 38 Building materials: region attractiveness



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Figure 7 below indicates that Antalya is predicted to have a better chance to develop its cluster and also to develop is trade than either Ankara or Kocaeli – much more so than in other priority sectors assessed.

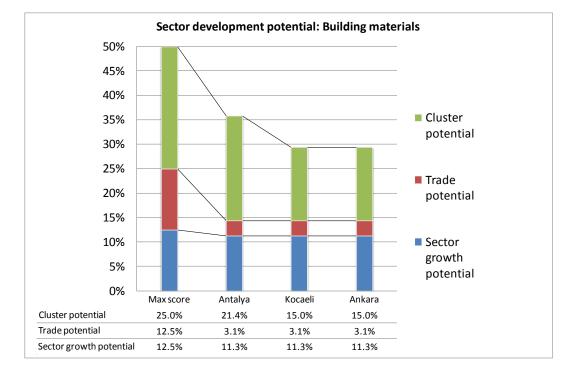


Figure 39 Building materials: sector development potential

#### International market context

- Due to the global financial crisis and economic downturn construction spending is reduced in the western economies. Global purchase power is expected to increase by 3.6% in 2010.
- Whilst EU and USA markets are negatively affected from the crisis, there are no observations of reduction of construction expenditure in Middle East countries. Global trade volumes in 2009 per product group are as follows; cement \$13 billion, concrete, lime and plaster products \$11 billion, prefabricated buildings \$7.8 billion. The sector will grow 1.6% in Europe in 2011.
- Turkey has been the number one exporter globally in 2008, with an export volume of \$1.1 billion. Main export markets are; Iraq, Syria, Italy, Egypt and Libya. Concrete, lime and plaster products annual exports are about \$110 million and prefabricated building exports are about \$220 million per annum.
- As Turkey is one of the largest producers of these products, import substitution is not a major issue.
- Turkey has 64 cement producers. Cement production amount has reached to 53.9 million tons in 2009 with a 4.6% increase compared to previous year.
- Turkey's imports for this group are low, as follows; cement \$6 million, concrete, lime and plaster products\$36 million and prefabricated buildings \$23 million.

#### Business growth potential

- About 1.3 million people are employed in construction sector constituting 6% of the national workforce.
- The building materials sub-sector has 10% share in total Turkish industrial production.
- About 10 large companies have a combined market share of about 70%. In total there are around 6,500 manufacturers in Turkey.
- Antalya's neighbour provinces Burdur and Isparta are both producers of cement and direct their exports through Antalya port.
- There is good potential for Antalya to attract investors because of the availability of substantial local market potential, vicinity to main export markets, port facilities suitable for bulk shipments.
- There is high potential for especially producer services like decoration implementation, erection of prefabricated elements, logistics and marketing.

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Considerations for sector development in Antalya

- The building materials sector had a fast development especially since 1990s, with the acceleration of construction, infrastructure development, residential and commercial projects.
- It may be expected to have a cluster established in the medium term (i.e. 10 years), Antalya's construction sector is one of the province's main economic areas together with tourism. The sector is a high employment provider.
- The main producer in Antalya is Adogroup which is a leading company. Antalya also has Ado Group and Turk Ytong Ind. Inc. in this sector, which are internationally recognized, with high export volumes of building materials.
- There are many other SME construction material producers. These are aerated concrete bricks, precast columns, concrete and plaster products for decoration and isolation.
- Prefabricated buildings are only incentivized in Antalya. There is a probability of further large investments, such as that of Adogroup's Fabrik Ev.
- Akdeniz University is the main sources for technology development but the University is not efficient according to stakeholders. There are some R&D companies established in Akdeniz Teknokent. Some leading companies have their own patented products developed by them. Access to technology is not a problem.
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed) Prefabricated building materials investments are incentivized under new legislation
- There are some state supports for R&D, exports and equipment investments which apply equally to all Turkish provinces.
- There is good access to high quality raw materials
- Land is available for long lease from the Free Zone or for purchase in the OIZ. 10,000 sqm industrial land for 25 years long lease price is \$2.42 per sqm/ year (i.e. \$605,000 for the total period) or \$350,000 in Antalya OIZ.
- Factories in the industrial zones and offices in the city centre are readily available. Annual rental cost for 5,000 sqm building for this purpose is \$60,000.
- The main export markets are Syria and Iraq (via Syrian ports). Vessel voyage time to Lattakia is 2-3 days. Bulk shipment price by sea is \$10/tonne.
- Utilities: electricity costs in the Free Zone are \$0.00623 per KwH and \$0.13 in Antalya OIZ. NPG costs are decided by the distribution company. NPG price is \$0.416 per m3 where available. Water prices in the Free Zone are \$1.32 per m3 and in OIZ \$0.13 per m3.
- The business culture is well established in Antalya. Many NGOs are active in the province. Companies do collaborate, though this could be more so. The general image of the province for investors and employees is good and attractive.
- Worker loyalty is sufficient for this sector but labour productivity is low.

Employment potential of the sector

- New investments are expected. It is a labour intensive business and therefore has high potential for job creation.
- There is high potential for job creation regarding producer services.
- This sector is dominated by male employment. There may be some office or marketing positions available for female personnel.
- No problem for unskilled labour availability but training needed for semiskilled mid level positions. Unemployment level in Antalya is low compared to other provinces of Turkey. Unemployment rate is 12.7% as per 2009 TURKSTAT data which is below Turkey average and much better than the benchmarked provinces. The number of unemployed in TR61 region (Antalya, Isparta, Burdur) is 120,000.
- Minimum official salary is 760.50TL/month (approximately \$2.60 per hour). Semiskilled labour cost is \$3.41 per hour. Skilled labour (e.g. an engineer) is available but the qualifications are not satisfactory according to stakeholders but generally cost benefit analysis is not practiced by the employers in Turkey. It may be a biased opinion of the employers asking for too highly qualified personnel at low salary levels.
- Skilled labour salaries for blue collar workers in Antalya and Adana are similar and estimated in the range of TL1,500-2,000 per month (\$5.12 to \$6.83 per hour).

## Sector SWOT analysis

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

SWOT

P09 Manufacture of building materials and hardware (Manufacture of articles of concrete, plaster and cement) Nace Rev.2 Listing C23.6.1 - Manufacture of concrete products for construction purposes C23.6.9 - Manufacture of other articles of concrete, plaster and cement

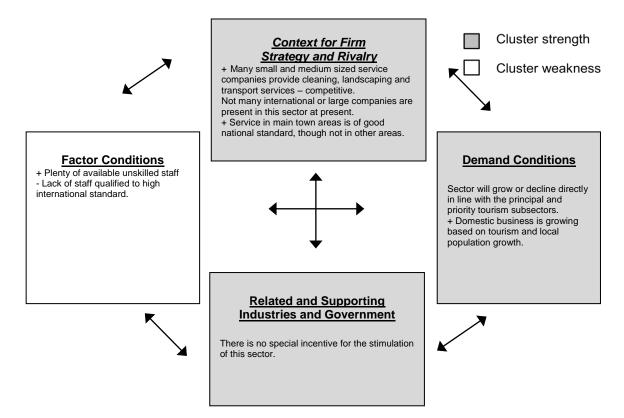
Strengths	Weaknesses
<ul> <li>Established construction sector in the province</li> <li>Increasing demand for building materials due to residential, infrastructure and hotel construction driven by population and tourism growth</li> <li>Precast building materials are cost effective, practical and time saving for use in construction</li> <li>Low cost labour and engineering services available in the Province</li> <li>Well established sector with experience and production facilities</li> <li>Existence of a sector leader which have internationally competitive capacity</li> <li>Production of goods at international standards and quality</li> <li>Foreign direct investments in the sector</li> <li>Raw materials are available in the province and neighbour provinces</li> <li>First prefabricated building producer in Turkey is established in the province</li> </ul>	<ul> <li>Lack of qualified staff</li> <li>High energy costs</li> <li>Dependence on import of new technologies and investment goods</li> <li>Insufficient R&amp;D</li> <li>Unregistered employment practices in the construction industry providing a slightly higher dail wage(without social security and tax) than the minimum wage rates</li> </ul>

Opportunities	Threats
<ul> <li>Increasing hotel, industrial and residential investments</li> <li>Export potential of Middle East countries especially for cement</li> <li>Vibrant economy supported by tourism and property purchases by foreigners</li> <li>Infrastructure investments relevant to Expo 2016 organization</li> <li>New regulations calling for use of standardized concrete and concrete products</li> <li>New investment incentive regime supporting precast concrete building elements investments in the province</li> <li>Success of Turkish contractors in international markets</li> <li>High potential in use of relatively new technologies such as autoclaved aerated concrete and prefabricated concrete</li> </ul>	<ul> <li>Instability in the economy</li> <li>Unfair competition from low quality and substandard producers</li> <li>Price limitations imposed by the state for some raw materials</li> <li>Insufficient audit and inspections with regard to the construction and product standards</li> </ul>

Priority Sector P10: General business services

Sector: General business services Example product: Cleaning, landscaping and passenger transportation NACE code: 49.10, 49.30, 50.30, 51.10, 52.20, 55.10, 55.20, 68.32, 81.10, 81.20, 81.21, 81.22, 81.29, 81.30 and others. Served markets: Domestic (local) Benchmarked regions Turkey provinces: İstanbul,Muğla Other countries: not benchmarked

Figure 40 Diamond model for Antalya's general business services sectors



Source: Expert team analysis

Turkish market context

- These business types are sub-segments of business support services, mainly serving tourism and an integral part of the tourism cluster. The tourism cluster is well established in Antalya, compared with other parts of Turkey, with almost all cluster elements are in place.
- There are many small and medium sized service companies providing cleaning and landscaping services to the accommodation sector.
- Passenger transport is also an important business line, handling about 9 million tourists per year in the province. Transfers are mostly organized by incoming travel agents sub-contracted by tour operators. Some luxury hotels have their own client transportation.
- The exact number of companies and staff employed is not available but it may be concluded that Antalya has a large cluster in this business line.
- Most of the companies are SMEs and there are no internationally recognized industry groups except for large sized tour operators organizing tourist transfers.

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Business growth potential

- This collection of economic sectors will grow or decline directly in line with the principal and priority tourism subsectors. In particular, domestic business is growing based on the tourism sector and local population growth.
- Passenger transportation is the backbone of the tourism industry.
- Currently the market is growing with the construction of new hotels, commercial buildings and high traffic creator points like airports.
- Outsourcing practices are very common for services such as cleaning, landscaping, private security.
- There is a high potential for Antalya to attract new investors or stimulate new enterprises because of the large market and incoming tourist base.
- Large business groups may be expected to diversify into this service line especially for total facility management type of business.

Considerations for sector development in Antalya

- Job creation potential is high because it is a labour intensive business. Every new business is expected to create about 50 to 500 jobs.
- It is a low capital investment business and likely to create many entrepreneurs.
- These business are producer services themselves and do not require other producer services.
- Antalya is classified under zone 2 as per new incentive legislation (1: most developed, 4: least developed) There is no special incentive for the stimulation of this sector.
- Outsourcing of cleaning and landscaping services becoming more common. Employment potential of the sector.
- Commercial land is available as required; 500 sqm commercial land purchase prices are \$40,000 to \$650,000 depending on the location.
- Office buildings space is available; annual rental cost for 500 sqm building for this purpose is \$15,000 \$48,000, which is competitive in Turkey.
- Although the unemployment level in Antalya is low compared to other provinces of Turkey, there is still
  no problem to identify unskilled labour for this sector. The unemployment rate is 12.7% (2009
  TURKSTAT data) which is below Turkey average and much lower than the benchmarked provinces.
- Specifically, the number of unemployed persons is 120,000 in TR61 region (Antalya, Isparta, Burdur). The minimum official salary is 760.50TL/month (approximately \$2.60 per hour).
- Skilled labour is available. Skilled labour salaries are estimated in the range of TL1,500-2,000 per month (\$5.12 to \$6.83 per hour).
- However training is needed for the semiskilled mid level positions.
- The tourism business culture is well established. Companies have some collaboration even if it is not at best. General image of the province is very good and attractive for investors and employees. Furthermore, worker loyalty has not yet become an issue for businesses. The province's worker productivity is at a good level.
- These business subsectors have a high ability to create female employment, especially in cleaning services. However the quality of employment may be low, with only temporary employment contracts, low salaries and few or no social benefits such as health provision and pension contributions.

The Antalya stakeholder opinion survey gives the following SWOT analysis for this sector.

## SWOT

## P10 General business services (Cleaning, landscaping and passenger transportation)

## Nace Rev.2 Listing N81.2 - Cleaning activities, N81.3 - Landscape service activities,

	Strengths	Weaknesses
Region/country attributes	<ul> <li>High demand for such services from the tourism sector (hotels, restaurants, airport, etc.)</li> <li>Low cost investment needs</li> <li>Accumulation of experience and knowhow</li> <li>Large scale service companies operating in Antalya</li> <li>Low labour costs</li> <li>Good customer relations established with the buyer of these services</li> </ul>	<ul> <li>Lack of qualified and trained staff</li> <li>Seasonality of the business</li> <li>High employee turnover</li> </ul>
	Opportunities	Threats
Attributes of wider environment	<ul> <li>Expo 2016 organization awarded to Antalya</li> <li>Increasing tourism business</li> <li>New residential, office and shopping mall projects that will require these business services</li> <li>A number of conventions and trade shows that takes place in Antalya</li> </ul>	<ul> <li>Terror activities and natural disasters that would jeopardize tourism business</li> <li>Economic crisis</li> </ul>

## Appendices

Detail and analyses to substantiate and support the findings of this study can be found the appendices.

- A1 Sector/region benchmarking full analysis of priority sectors Sources of information and other references
- A2 Sector/region benchmarking metrics and analyses
- A3 Sector scan sector longlisting and shortlisting analyses
- A4 Excluded sectors
- A5 Antalya's regional asset listing
- A6 Stakeholder interview reports
- A7 Sources of information for main report

#### Appendix A1 Sector/region benchmarking - full analysis of priority sectors

This appendix contains the full analysis of the ten priority sectors as the third phase of this study "Sector/region benchmarking".

The appendix also contains a full listing of the sources of information and other references that were used in this analysis.

Documents provided separately:

#### A1 Antalya sector region benchmarking detail.docx

#### Appendix A2 Sector/region benchmarking metrics and analyses

This appendix contains the details of the sector/region benchmarking metrics, their definitions and weightings. It also contains the balanced scores for each Turkish region and for the other countries under evaluation. The graphics used for this report can be found here.

Document provided separately:

#### A2 Antalya benchmark 1\_9.xlsx

#### Appendix A3 Sector longlisting and shortlisting analyses

This appendix contains the report and analyses that was provided at stage two of this project.

Documents provided separately:

A3 Sector scan report .docx

#### Appendix A4 Excluded sectors

A number of NACE sectors were excluded from the sector/region benchmarking stage of this project. The reason for their exclusion is that these sectors are considered as producer services to other sectors. Producer services "service" core sectors which, over time, attractive and support both local and foreign investors.

Nevertheless, these producer services have been evaluated in terms of their strengths and weaknesses, in respect of the core sectors.

Document provided separately:

A4 Excluded sectors.xlsx

#### Appendix A5 Antalya's regional asset listing

This appendix provides a comprehensive listing of the main physical and institutional assets of Antalya that play a direct or indirect role in the local business and industry community.

Document provided separately:

#### A5 Antalya Asset List.xlsx

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#### Appendix A6 Stakeholder interview report

This appendix contains the detailed information derived from the stakeholder interviews and also much of the feedback from the stakeholder workshop.

Document provided separately:

A6 Stakeholder interview report.docx

#### Appendix A7 Sources of information for the main report

This appendix contains a list of the main information points and reference documents used in the main part of this study. These are listed as "Turkish data sources" and "International data sources". Other data sources are also listed in each of the sector/region benchmarking reports found in Appendix A1.

Document provided separately:

A7 Antalya info\_sources.pdf

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