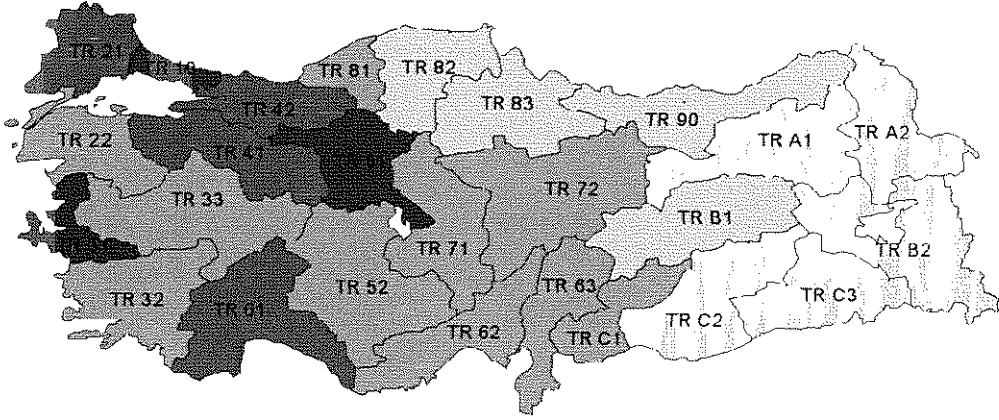


Republic of Turkey  
Ministry of Industry and Trade

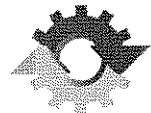


# REGIONAL COMPETITIVENESS OPERATIONAL PROGRAMME

(CCI No. 2007 TR 16 I PO 003)



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## LIST OF ABBREVIATIONS

CTPDR	Culture and Tourism Protection and Development Regions
DIS	Decentralised Implementation System
EC	European Council
EDIS	Extended Decentralised Implementation System
EIA	Environmental Impact Assessment
EMAS	Environmental Management and Audit Scheme
EU	European Union
EUROSTAT	European Statistical Institute
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GDP	Gross Domestic Product
ICT	Information and Communication Technologies
IFI	International Financial Institutions
IGEM	Enterprise Development Centre
ISGEM	Business Development Centre
IPA	Instrument for Pre-accession Assistance
IPARD	Instrument for Pre-Accession Assistance for Rural Development
IT	Information Technology
LFPR	Labour Force Participation Rate
KOSGEB	Small and Medium Sized Industry Development Organisation
MIPD	Multi-annual Indicative Planning Document
MoNE	Ministry of National Education
MoIT	Ministry of Industry and Trade
NUTS	Nomenclature of Territorial Units for Statistics
NGO	Non-governmental Organisation
NPC	National Productivity Centre
OECD	Organisation for Economic Co-operation and Development
OIZ	Organized Industrial Zones
OP	Operational Program
pNDP	Preliminary National Development Plan
PPP	Purchasing Power Parity
RCOP	Regional Competitiveness Operational Programme
SCF	Strategic Coherence Framework
SEDI	Socio-economic Development Index
SME	Small and Medium-sized Enterprise
SPO	State Planning Organisation
SSIE	Small Scale Industrial Estates
SWOT	Strengths, Weaknesses, Opportunities, and Threats
R&D	Research and Development
TDC	Technology Development Centre
TDZ	Technology Development Zone
TEN-T	Trans-European Network for Transport
TESK	Turkish Artisans and Craftsmen Confederation
TESKOMB	The Union of Turkish Artisans and Craftsmen Credit and Guarantee Cooperatives
TINA	Transport Infrastructure Needs Assessment
TOBB	The Union of Chambers and Commodity Exchanges of Turkey
TPI	Turkish Patent Institute
TURSTAT	Turkish Statistical Institute
TURKAK	Turkish Accreditation Agency
TTGV	Technology Development Foundation of Turkey
TSI	Turkish Standards Institute
TUBITAK	Scientific and Technical Research Council of Turkey

## **EXECUTIVE SUMMARY**

The *Regional Competitiveness Operational Programme (RCOP)* is one of the basic documents for the implementation of the **Instrument for Pre Accession (IPA)** in Turkey.

The aim of the programme is *contribute to prepare Turkey for the implementation and management of the Community's cohesion policy and thus to support Turkey in its preparation for EU membership*. As a candidate country, Turkey is eligible for 5 components under the IPA instrument. These components are Institutional Building and transitional support, Cross-Border Cooperation, Regional Development, Human Resources Development and Rural Development. The *Operational Programme for Regional Competitiveness* implements one of the three sub-components within the framework of the Regional Development Component.

The Ministry of Industry and Trade, as the Operating Structure for the Regional Competitiveness Operational Programme, has prepared this document with the active contributions of the central and regional stakeholders. The programme was prepared in accordance with the "Multi-annual Indicative Planning Document" and "Strategic Coherence Framework" which were prepared by the European Commission and State Planning Organization respectively.

The aim of support within the framework of the Regional Competitiveness Operational Programme is *to increase the competitiveness of Turkish economy to converge with the economy of the EU and to reduce regional socio-economic disparities*. In order to achieve these goals, the RCOP concentrates resources on a limited number of *sectors, regions and priorities* where the programmes impact and contribution will be highest.

The Programme, in terms of sectoral concentration, concentrates on **SMEs operating in manufacturing and tourism sectors, information society, research and development and innovation**. On the other hand, in terms of geographical concentration, the Programme concentrates on regions having an income per capita below the 75% of Turkish national average. Moreover, in terms of priorities, the *Programme* is based on two priorities:

### **Priority 1: Improvement of Business Environment**

Its measures focus on the development of industrial infrastructure, creation and development of financing instruments, improvement of research and development, innovation, technology and ICT environment and infrastructure and, improvement of tourism infrastructure, promotion and marketing activities.

### **Priority 2: Strengthening of Enterprise capacity and foster entrepreneurship**

Its measures focus on enhancement of research and development, innovation, ICT and entrepreneurial capacity of SMEs and strengthening of cooperation in industry corporate sector.

The Regional Competitiveness Operational Programme sets out the budget allocated to these sectors and regions during 2007-2009 as follows: in 2007 55.866 million Euros, in 2008 58.000 million Euros and in 2009 73.066 million Euros

The RCOP consists of 5 main chapters and annexes. The **first chapter** describes the complementarity and consistency of the RCOP with national and EU policies as well as the partnership mechanism and provides the summary of the ex-ante evaluation.

The **second chapter** provides a socio-economic analysis which also covers the macro-economic survey, setting out the fundamental findings and problems which were driven from these analyses, together with a SWOT analysis.

The **third chapter** sets out the strategy of the Programme, namely by addressing the weaknesses and threats and developing the opportunities derived from the SWOT analysis. Within the framework of this approach, the Programme describes clearly the basic intervention areas, priorities, measures and eligible actions.

The **fourth chapter** provides the financial tables for the distribution of the budget amongst the priorities and measures.

Finally, the **fifth chapter** describes the monitoring and evaluation processes, as well as the implementation mechanism.

# Operational Programme for Regional Competitiveness

## 1. Context, Consultation and Coordination

Turkey- EU relations entered into a new process with the recognition of Turkey as a candidate country in the Helsinki European Council of December 1999. Within this new process, the financial cooperation mechanism for Turkey was restructured and thus Turkey fully benefited from the pre-accession funds during the 2002 – 2006 period.

The Instrument for Pre-accession Assistance, covering the 2007-2013 period, aims to prepare candidate countries for Structural Funds and thus to support them in their preparation for EU membership. IPA also aims to assist candidate countries to align progressively with the standards and policies of the EU. Council Regulation (EC) no. 1085/2006 which constitutes the legal framework of this pre-accession assistance was adopted on 17<sup>th</sup> of July 2006.

IPA Council regulation is a framework regulation **which** entered into force following its publication in the Official Journal of the European Union on 31 July 2006 and is applicable from 1<sup>st</sup> of January 2007 to 31<sup>st</sup> of December 2013. On the other hand, the implementing provisions of this Regulation were set out in the Commission Regulation (EC) No. 718/2007 of 12 June, published in the Official Journal of the European Union on 29 June 2007, hereinafter referred as to the “Implementing Regulation.”

According to this regulatory framework, IPA consists of five different components. These components are, Transition Assistance and Institutional Building, Cross-Border Cooperation, **Regional Development**, Human Resources Development and Rural Development. According to the Regulation, candidate countries are eligible for all components under this instrument while potential candidate countries<sup>1</sup> are eligible only for the transition assistance and institutional building and cross-border cooperation components.

In this framework, Turkey is one of the beneficiary countries which are eligible for the all components under IPA. Programming, implementation, monitoring and evaluation of the IPA assistance processes are considered as the main tool for the preparation of Turkey to Structural Funds. The institutional mechanisms and preparation process that are designed for the Strategic Coherence Framework (SCF) and the Operational Programmes will be the main start up point for the Structural Funds.

In this respect, one of the most important axes of the IPA process is programming. The concrete outputs of the programming phase of the IPA Process are the Operational Programmes. One of the Operational Programmes under IPA is the **Operational Programme for Regional Competitiveness - RCOP**.<sup>2</sup> Under the Prime Ministry Circular....., the Ministry of Industry and Trade (MoIT) has undertaken the responsibility for the preparation and implementation of the RCOP.

### 1.1. National Policy and Socio-Economic Context

The RCOP has been prepared with the active participation of the relevant stakeholders under the coordination of the Ministry of Industry and Trade. The Programme has been prepared in compliance with the “9<sup>th</sup> Development Plan” and its Medium Term Programme, “Industrial Policy Document for Turkey (Towards EU Membership)”, “SME Strategy and Action Plan” and “Information Society Strategy”. (See **Table 1**)

<sup>1</sup> Candidate Countries are Turkey, Croatia and the Former Yugoslav Republic of Macedonia.

Potential candidate countries are Albania, Bosnia and Herzegovina, Montenegro, and Serbia including Kosovo.

<sup>2</sup> Regional Competitiveness is one of the sub-components under the Regional Development Component. The other sub-components under the Regional Development component are environment and transportation.

The objectives, strategy and areas of intervention of the Operational Programme correspond to the 9<sup>th</sup> **Development Plan** for the period 2007-2013. The main development axes of the Plan are to “*Increase the Competitiveness*” and to “*Ensure Regional Development*”. In the Plan, a balanced regional development policy has been introduced which aims to decrease regional development disparities as well as to increase competitiveness of the regions.

In this framework, the Plan developed a Growth Centres approach. The main idea of this approach is to define certain Growth Centres having high potential in terms of growth and serving to their surrounding especially in less developed regions. The major priorities set out in the Plan for these Centres are to improve their accessibility, to strengthen their physical and social infrastructure and to form new industrial focal points in the Centres by stimulating inward investments. This approach was also reflected in the Strategic Coherence Framework, as agreed by the Commission’s letter of 28<sup>th</sup> June 2007 and the RCOP.

The main objectives of the **Medium Term Program** are to improve the competitiveness of enterprises, ensure regional development and decrease the disparities.

The major thematic intervention areas of the Medium Term Program are given below:

- Supporting entrepreneurship,
- Supporting innovation, productivity and effective usage of technology,
- Diversification of financial instruments,
- Improvement of physical and technological infrastructure of enterprises and increasing the cooperation between enterprises,
- Wide spreading of institutionalization

The RCOP is in line with these thematic intervention areas. Furthermore, in terms of regional approach, there is also compliance between the RCOP and the Medium Term Programme. In the Programme, regional growth centres are foreseen in order to steer interregional emigration tendency to these regions.

The main objective of the **SME Strategy and Action Plan** is to increase the competitiveness of Turkish SMEs. The major interventions set out in the SME Strategy and Action Plan for the whole country in order to reach this objective are given below:

- Entrepreneurship Development
- Enterprise Development
- Integration of SMEs into International Market
- Improvement of Business Environment
- Development of Technological and Innovation Capacity

These thematic interventions are fully in compliance with the RCOP.

Another guiding document, which was taken into account during the preparation of the RCOP, is **Information Society Strategy** (2006-2010).

The implementation of the Strategy document and its Action Plan will contribute to the development of an information society in Turkey. The major interventions areas of the RCOP in the field of ICT have been developed pursuant to the Information Society Strategy.

The Strategy determines the major strategic priorities in the transformation process of Turkey to the Information Society. **Social transformation** appears to be the main axe of this strategy. Other strategic priorities mentioned in the document are as follows,

- Diffusion of the ICT Technologies to the business

- Citizen focused service transformation
- Modernisation in the public administration
- Competitive ICT sector in the global market
- Competitive, accessible and cheap communication infrastructure and services

Table 1: Coherence of the RCOP with the National Strategic Documents

Name of Document	Years	Main Intervention Axes		Intervention Area	
		Thematic	Regional	Thematic	Regional
9 <sup>th</sup> Development Plan	2007-2013	Increasing competitiveness,	Ensuring Development	<ul style="list-style-type: none"> <li>- Improvement of business environment,</li> <li>- Development of R&amp;D and Innovation,</li> <li>- Ensuring the transformation to high value added production structure in industry and services,</li> <li>- Development of labour market</li> </ul>	Ensuring development based on local dynamics and endogenous potentials
		Increasing employment,			
Medium Term Programme	2007-2009	Improvement of competitiveness of enterprises	Regional development and decreasing the regional disparities	<ul style="list-style-type: none"> <li>- Supporting entrepreneurship,</li> <li>- Supporting innovation, productivity and effective usage of technology,</li> <li>- Diversification of financial instruments,</li> <li>- Improvement of physical and technological infrastructure of enterprises and increasing the cooperation between enterprises</li> <li>- Wide spreading of institutionalization</li> </ul>	Orientation of Interregional Emigration Tendency to the centres by choosing the ones which show regional centre character
SME Strategy and Action Plan	2007-2009	Increase the efficiency, competitiveness and shares in added value of SMEs	Improvement of the competitiveness of Turkish SMEs	<ul style="list-style-type: none"> <li>- Increasing the share of SME credits within the total credit volume of the banking system</li> <li>- Increasing the effectiveness of support by means of developing communication and interaction between service providers and SMEs</li> <li>- The development of transfer capacity and quality improvement</li> <li>- Concentrating the supports in the areas of training, consultancy and R&amp;D directed to the development of the technological infrastructure of companies</li> </ul>	Measures towards the solution of the Turkish SMEs problems on the national scale
		SME Policy	Ensuring development of SMEs without any regional discrimination	<ul style="list-style-type: none"> <li>- Entrepreneurship Development</li> <li>- Enterprise Development</li> <li>- Integration of SMEs into International Market</li> <li>- Improvement of Business Environment</li> <li>- Development of Technological and Innovation Capacity</li> </ul>	Ensuring development of SMEs without any regional discrimination
Information Society Strategy	2006-2010	Social transformation	Competitive ICT sector in the global market	<ul style="list-style-type: none"> <li>- Diffusion of the ICT Technologies to the business</li> <li>- Citizen focused service transformation</li> <li>- Modernisation in the public administration</li> </ul>	Competitive, accessible and cheap communication infrastructure and services

In the light of all relevant national documents and strategies, the aim of support within the framework of the Regional Competitiveness Operational Programme is “to contribute both to Turkey’s approximation to the EU, and to the economic and social development of Turkey by reducing regional disparities”. In order to achieve these goals, the RCOP has sought to concentrate resources on a limited number of regions and sectors (geographical and thematic concentration) where the programme’s impact and contribution will be highest.

Within this framework, “increasing the competitiveness”, which is one of the development axis of the 9<sup>th</sup> Development Plan, has constituted the main ground for the thematic concentration while “ensuring regional development”, which is another development axis of the Plan, has been taken into account in terms of geographical concentration.

Furthermore, in order to ensure a further thematic and sectoral concentration, an approach focused on SMEs and entrepreneurship, which is also the thematic concentration of the Medium Term Programme and the Multi Annual Indicative Planning Document (MIPD)<sup>3</sup> has been developed. Besides, the manufacturing industry and tourism sectors which are the main sectors mentioned in the 9<sup>th</sup> Development Plan constitute the main elements for sectoral concentration under the RCOP. (Table 2)

**Table 2: Thematic and Regional Concentration of the Operational Programme for Regional Competitiveness**

Operational Programme for Regional Competitiveness Concentration		
	OBJECTIVE	SECTOR/REGION
THEMATIC CONCENTRATION	<i>Increasing the Competitiveness</i>	SMEs and Entrepreneurship Manufacturing and Tourism Sectors
GEOGRAPHICAL CONCENTRATION	<i>Ensuring Regional Development</i>	12 NUTS II Regions 15 Growth Centres

On the other hand, in terms of geographical concentration, the RCOP will concentrate on regions having an income per capita below 75% of Turkish national average. In addition to this concentration and in order to introduce a more comprehensive approach in terms of the geographical concentration principle, the Strategic Coherence Framework (SCF) has taken into account 15 Growth Centres for targeting actions to be supported under the RCOP. Thus according to the SCF, the majority of geographical concentration is on 15 Growth Centres which are selected among the 12 NUTS II Regions having an income per capita below 75% of Turkish national average. Thus, the 12 NUTS II<sup>4</sup> Regions which also include the 15 Growth Centres will be the main beneficiaries of the support under the RCOP. Nevertheless, the RCOP will give priority to *inter-regional cooperation* within the country. The *interaction of growth centres' with their hinterland* and the *interaction of the target regions with the rest of the country* particularly on R&D, innovation and networking were foreseen to be the important parts of the geographical concentration in the RCOP. The concentration strategy of the RCOP is given in details in the Chapter on “Strategic Priorities”.

The Turkish economy has demonstrated significant performance despite the 2001 crises. The macroeconomic policies and reforms which were implemented during 2002-2006 period have an indispensable role in this performance.

<sup>3</sup> Commission Decision C (2007) 1835 of 30 April 2007

<sup>4</sup> The NUTS II classification as referred to in this document is provisional pending the final outcome of the negotiations on the relevant chapters.

However there is still a need to manage a number of challenges in Turkey. For instance, although Turkey ranks 12<sup>th</sup> among the OECD Member Countries with its 459.8 billion US \$ GDP in 2000, there are still significant regional disparities in the country<sup>5</sup> and GDP per capita remains lower than in any other EU country.

On the other hand, low value added sectors have a large share in production, investments and exports. SMEs which constitute 98.6 % of Turkish enterprises have low level of competitiveness and productivity. Moreover, they suffer from insufficient access to finance and to information and consultancy services. Furthermore, the manufacturing industry enterprises in Turkey are mostly small and medium sized enterprises. The productivity, technology level and export capacities of these small scale enterprises are at a very low level. This structure brings with itself some problems such as lack of institutionalization, low productivity and difficulties of the public administration in making long term sectoral policies. It is because of these reasons that only 35% of SMEs in Turkey can export. Deficiency of sources, lack of information and low technology usage are the main barriers for exporting.

Despite the increasing foreign trade volume the deficit in the Turkish trade balance has not been reduced<sup>6</sup>. Although tourism revenues have a significant share in the foreign revenues of the country, there is still a lack of sufficient protection and commercialization of natural and historical heritage in Turkey. There is a significant potential for different kinds of tourism in different regions of Turkey but this potential is not fully explored due to some bottlenecks faced in the tourism sector. Insufficient protection, enhancement and commercialization of natural and historical heritage, lack of adequate infrastructure for diversification and geographical expansion, lack of effective promotion and marketing activities are some of these bottlenecks.

When the information society is concerned, it appears that the communication and information infrastructure in Turkey is inadequate. Besides, there is an insufficient usage of research and development and innovation within the industry. The economy is mostly based on low technology usage and cheap labour force. The usage of the ICT by SMEs can not be supported sufficiently to increase their economic development and competitiveness. In Turkey, more than three-fifths of the SMEs have computer, more than 50 % of them have access to internet and 20 % of them have broadband access.

Moreover, in order to contribute to the participation of the SMEs to the global markets, e-business and e-commerce practices have not been highly introduced to the enterprises and awareness in this field has not been developed in Turkey. Considering that the rate of Internet usage in businesses in the EU is around 90%, it becomes even more important to turn this awareness into action to increase usage of ICT in enterprises in the country.

When research and development activities are taken into account in Turkey, it is obvious that there is an inadequate number of enterprises, institution, research centres and universities carrying out R&D, innovation and technology based activities. Moreover, since there is a low cooperation between universities and enterprises, there are not enough SMEs carrying high-technology based activities and the number of SMEs capable of involving in such high-tech projects is quite low, while the existing ones need strong infrastructure and other types of support in order to carry out such projects.

On the other hand, despite the potential of a young labour force and population, the skill of the labour force is low and significant labour market imbalances exist within Turkey. The employment rate stands at 41 % and female and youth employment remains particularly low.

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<sup>5</sup> According to **2001 Eurostat data**, there are 5 times difference between **TR-42 NUTS II Region** having the highest GDP per capita income and **TR-A2 NUTS II Region** having the lowest GDP per capita income.

<sup>6</sup> Foreign trade deficit increased from 26.7 billion \$ in 2001 to 43.1 billion \$ in 2005.

In this framework, the RCOP aims to concentrate on these bottlenecks in order to improve the productivity of SMEs, to upgrade their research and development infrastructures, to increase ICT usage, to improve their service quality, advertisement and marketing capabilities. When these targets of the RCOP are combined with the Turkey's Long Term Strategy, covering 2001-2023 periods and aiming to attain more competitive production structure, and a higher level and better distribution of income, to complete its transition to information society, the road map of the Operational Programme for Regional Competitiveness becomes clearer.

## 1.2. Community Strategic Framework

**The Accession Partnership**, which is based on the pre-accession strategy, is one of the main documents providing Turkey with guidance in its preparations for accession. This document identifies needs for institution building, strengthening the regulatory infrastructure needed to ensure compliance with the *acquis*, and improving economic and social cohesion. Emphasizing the simplification of the business environment for SMEs, this document underlines the continuation of the development of the strategic framework for economic and social cohesion, aimed at reducing regional disparities.

The **Lisbon Strategy** which aims to make the EU the *most dynamic and competitive economy* by 2010, is another important policy document that involves a whole set of policy areas, from research and education to environment and employment. This strategy foresees a transition to a *competitive, dynamic, knowledge-based economy* and emphasises the need to adapt to the changes in the *information society* and to boost *research and development*. Together with the Lisbon Strategy, the revised Strategy (2005) which aims at focusing more efforts on the achievement of stronger, lasting *growth* and the creation of more and better *jobs* have been taken into consideration in this process.

The **Multi Annual Indicative Planning Document** is one of the main IPA strategic planning documents which set the basis for programming each of the IPA components. In the MIPD, ensuring convergence by decreasing the regional disparities appears to be one of the main objectives of the IPA regional development component for Turkey. Taking the significant regional disparities in Turkey into account, this document foresees the improvement of business environment and SMEs in the NUTS II Regions having a per capita income below 75% of Turkish national average according to purchasing power parity. Moreover, this document strongly underlines the strengthening of the overall business environment, encouraging and supporting new business, supporting innovation and adoption of new technologies, enhancing SMEs access to the export market and strengthening SMEs' capacity to use ICT.

Another important national policy document that the Operational Programme for Regional Competitiveness has taken into account is the **Strategic Coherence Framework Document (SCF)**. This document has been prepared with the active participation of the Operating Structures under the coordination of Undersecretariat for State Planning Organization.

In terms of regional competitiveness, the SCF has foreseen to ensure convergence by decreasing regional disparities in Turkey. In order to ensure further concentration the SCF developed a growth centre approach. According to this approach 15 growth centres within the 12 NUTS II regions having a per capita income below 75% of Turkish national average have been determined. Taking into consideration the strengths and weaknesses, needs and potentials of these regions, the SCF underlines the encouragement of start-ups and consultancy services to develop production skills of the enterprises, development of clusters, encouragement of the agencies and institutions providing services to enterprises, improvement of tourism infrastructure and promotion of tourism, increasing the computer and internet usage of the enterprises, supporting entrepreneurship and institutionalization activities of the existing enterprises, establishment of cooperation networks among enterprises, encouragement of standardization, quality and certification activities of the enterprises, spreading venture and risk capital practices of enterprises, creating and promotion of Trademark, cooperation networks and clusters between enterprises and institutions, providing services to enterprises, improvement of supports for exporting activities, support to initiatives such as Technology

Development Zones (TDZ), Technology Development Centres (TDC) and incubators, protection and development of the Intellectual Property Rights (IPRs), increasing the number of IPRs, particularly patent numbers, supporting R&D and innovation activities of the enterprises and encouragement of high technology activities of the enterprises.

Taking into consideration all these interventions and axis of the relevant national and EU documents, the **Operational Programme for Regional Competitiveness** aims to increase competitiveness in the 12 NUTS II Regions and 15 Growth Centres having the GDP per Capita below the 75 % of Turkish national average. To achieve this goal, the RCOP will prioritize the *improvement of business environment and strengthening of enterprise capacity and foster entrepreneurship*.

In this framework the RCOP aims to contribute to policy development and mobilization of resources which will pave the way for decreasing regional disparities through investment in business infrastructure, access to finance and improvement of skills of the labour force with particular emphasis on the less developed regions in Turkey.

The “**Community Strategic Guidelines, 2007-2013**”, adopted by the Council Decision (2006/702/EC) of 6 October 2006 is one of the major strategic documents of the Cohesion Policy. It combines the competitiveness objective of the Lisbon Strategy and convergence objective of economic and social cohesion. This document provided important inputs and benchmarks to the RCOP as well as to the 9th Development Plan and SCF.

The main objectives of the Community Strategic Guidelines have therefore been taken into account, while designing the RCOP. In this regard, the main intervention areas of the RCOP are in line with the priorities of the Community Strategic Guidelines as indicated in the Table 3.

This table also shows that the strategic priorities mentioned in these documents provided an indication of the ownership of EU Lisbon Strategy and Community Strategic Guidelines. This is of particular importance in areas where proximity matters, such as in innovation and the knowledge economy, employment, human capital, entrepreneurship, support for small and medium-sized enterprises and access to finance.

To achieve the maximum impact, the Operational Programme for Regional Competitiveness attaches great importance to the coordination among the different components of the IPA. In this context, RCOP foresees some cooperation and complementarity areas especially with the OP for Human Resources and with other OP's on Environment, Transport and Rural Development. Details of this cooperation and complementarity are given in the Chapter 3.4 on “*Complementarities and Synergies with Other Forms of Assistance*”.

Table 3: Coherence of the RCOP with the Community Strategic Documents

Name of Document	Years	Main Intervention Axis		Intervention Area	
		Thematic	Regional	Thematic	Regional
Accession Partnership	2006	Enterprise and Industrial Policy	Regional policy and coordination of structural instruments	✓ Continue simplifying the business environment for SMEs	Continue to develop the strategic framework for economic and social cohesion, aimed at reducing regional disparities.
Lisbon Strategy	2000-2010	Competitive, dynamic, knowledge-based economy and society by better policies for the information society and R&D	To become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.	<ul style="list-style-type: none"> <li>✓ Ensuring an information society for all, Establishing a European Area of Research and Innovation.</li> <li>✓ Creating a friendly environment for starting up and developing innovative businesses, especially SMEs.</li> <li>✓ Efficient and integrated financial markets.</li> <li>✓ Ensuring more and better jobs, developing an active employment policy.</li> </ul>	To become the most competitive and dynamic knowledge-based economy in the world
Community Strategic Guidelines	2007-2013	Improving knowledge and innovation for growth	Making Europe and its regions a more attractive place to invest and work	<ul style="list-style-type: none"> <li>✓ Increase and improve investment in R&amp;D</li> <li>✓ Facilitate innovation and promote entrepreneurship</li> <li>✓ Promote the information society for all: improve access to finance</li> </ul>	<ul style="list-style-type: none"> <li>Expand and improve transport infrastructures</li> <li>Improve the environmental contribution to growth and jobs</li> <li>Address the intensive use of traditional energy sources</li> </ul>
		More and better jobs	Territorial Cohesion and co-operation	<ul style="list-style-type: none"> <li>✓ Attracting and retaining more people in employment and modernising social protection systems</li> <li>✓ Improving adaptability of workers and enterprises and the flexibility of the labour market</li> <li>✓ Increasing investment in human capital through better education and skills</li> </ul>	<ul style="list-style-type: none"> <li>The contribution of cities to growth and jobs</li> <li>Supporting the economic diversification of rural areas</li> <li>Cooperation: cross-border/trans-national/interregional</li> </ul>

<p>Multi-annual Indicative Planning Document (MIPD)</p>	<p>2007-2009</p>	<p><i>Strengthening the overall business Environment</i></p> <p>Encourage and support new business</p> <p><i>Support innovation and adoption of new technologies</i></p> <p>Enhance SMEs access to the export market</p> <p><i>Strengthen SMEs' capacity to use ICT</i></p>	<p>Ensuring Convergence by decreasing the regional disparities</p>	<ul style="list-style-type: none"> <li>✓ Provision of basic services and infrastructure</li> <li>✓ Stimulating innovation, entrepreneurship, technology transfer,</li> <li>✓ Provision of business related infrastructure and technology services,</li> <li>✓ Facilitate SMEs access to finance,</li> <li>✓ Promote SMEs participation in information society,</li> <li>✓ Assistance and services to SMEs to adopt and effectively use of ICT</li> </ul>	<p>Increasing the competitiveness by improvement of business environment and SMEs in the NUTS II Regions having a per capita income below 75% of Turkish national average according to purchasing power parity</p>
<p>Operational Programme for Regional Competitiveness</p>	<p>2007-2009</p>	<p><i>Increasing the Competitiveness</i></p>	<p><i>Ensuring Regional Development</i></p>	<ul style="list-style-type: none"> <li>✓ Encouragement of the Start-Ups</li> <li>✓ Consultancy services to develop production skills of the enterprises</li> <li>✓ Development of clusters</li> <li>✓ Encouragement of the agencies and institutions providing services to the enterprises</li> <li>✓ Improvement of tourism infrastructure and promotion of tourism</li> <li>✓ Increasing the computer and internet usage of the enterprises</li> <li>✓ Supporting entrepreneurship and institutionalization activities of the existing enterprises</li> <li>✓ Establishment of cooperation networks among enterprises</li> <li>✓ Encouragement of standardization, quality and certification activities of the enterprises</li> <li>✓ Spreading venture and risk capital practices of the enterprises</li> <li>✓ Creating and promotion of Trademark</li> <li>✓ Cooperation networks and clusters between enterprises and institutions providing services to enterprises</li> <li>✓ Improvement of supports for exporting activities</li> <li>✓ Support to the initiatives such as Technology Development Zones, IDCs and incubators</li> <li>✓ Protection and development of the IPRs, increasing the number of IPRs, particularly patent numbers</li> <li>✓ Supporting R&amp;D and innovation activities of the enterprises</li> <li>✓ Encouragement of high technology activities of the enterprises</li> </ul>	<p>12 NUTS II Regions and 15 Growth Centres having the GDP per Capita below the 75 % of Turkish national average</p>

### 1.3 Partnership Consultation

The partnership principle is fundamental for the implementation of the Regional Competitiveness Operational Programme. According to the IPA Implementing Regulation, “*assistance granted under IPA shall respect the principle of co-ordination and partnership.*”<sup>7</sup> In this context, the drafting process of the Operational Programme for Regional Competitiveness was directly launched with the involvement of the stakeholders who were invited to take part in the IPA Working Group set up within the Ministry of Industry and Trade. It is undeniable that their full contribution to the preparation of the RCOP will lead to their participation in the implementation process of the Programme.

The process of *partnership consultation* started with the establishment of *sectoral committees* (Manufacturing Industry and SMEs, R&D and Innovation, Information Society and Tourism) under the IPA Working Group. The stakeholders which have actively taken part in these Sectoral Committees have been selected with great care. These stakeholders are not only from public institutions but also from non governmental organizations. In this framework the “partnership principle” has been given great importance from the very beginning.

Thus relevant socio-economic partners of the RCOP are as follows,

RCOP stakeholders from the public institutions are,

- Some affiliated and related institutions of MoIT
  - Small and Medium Sized Industry Development Organisation -KOSGEB
  - Turkish Patent Institute - TPE
  - Turkish Standards Institute - TSE
  - National Productivity Centre - MPM
  - Turkish Accreditation Agency – TURKAK
- Ministry of Culture and Tourism
- Ministry of Labour and Social Security
- Ministry of Environment and Forestry
- Ministry of Agriculture and Rural Affairs
- Ministry of Transport
- State Planning Organization
- Undersecretariat for Treasury
- Undersecretariat for Foreign Trade
- Secretariat General for EU Affairs
- The Council of Higher Education
- The Scientific and Technical Research Council of Turkey (TÜBİTAK)
- Turkish Statistical Institute - TURKSTAT

RCOP stakeholders from the non-governmental organizations are,

- The Union of Chambers and Commodity Exchanges of Turkey (TOBB)
- Turkish Artisans and Craftsmen Confederation (TESK)
- Technology Development Foundation of Turkey (TTGV)
- Management Board of the OIZs and TDZs
- Sectoral Assemblies via TOBB
- Regional and Sectoral NGO's (See Annex-1)

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<sup>7</sup> Commission Regulation (EC) No. 718/2007, Article 3

In order to set up a rapid communication mechanism among the sectoral committees of the IPA Working Group, an e-mail communication group<sup>8</sup> was established. This paved the way for a swift dissemination of the documents prepared by the committees.

In order to ensure effective ownership of the Operational Programme by the relevant regional and local stakeholders, some **regional and local partners** from the targeted NUTS II regions were also included in the drafting process of the RCOP. In this respect, one representative from each relevant regional and local stakeholders (Chambers of Industry and Commerce, Organized Industrial Zones, Technology Development Zones and Centres, Relevant Sectoral Associations, Development and Service Unions and other relevant civil society organizations) in the targeted NUTS II regions were invited to take part in the preparation of the Operational Programme. These representatives were asked for their opinions on the draft Operational Programme through the questionnaires prepared for this purpose. The e-mail list of these representatives from regional and local stakeholders is presented in **Annex 1** of the Operational Programme.

In order to ensure further partnership consultation, the draft Turkish version of Operational Programme for Regional Competitiveness, an Executive Summary of the Operational Programme and a Questionnaire were put on the internet web site of the Ministry of Industry and Trade.<sup>9</sup> As of 17<sup>th</sup> of August 2007, more than 200 filled Questionnaires and 2000 hits were received in this consultation process. Through this consultation process, local and regional partners in the 12 NUTS II regions as well as the whole public in all over Turkey were given the opportunity to take part in the preparation process of the OP. The opinions proposed by these partners through these questionnaires were grouped and their proposals were reflected to the RCOP.<sup>10</sup> This permanent consultation process will be further developed and this kind of partnership mechanism will be ensured also during the implementation of the Operational Programme.

In order to ensure complementarity and consistency with the other Operational Programmes, some representatives of the Working Group have been nominated to take part in the studies of other OP's. Moreover, a **Technical Committee** has been established with the **Ministry of Labour and Social Security** to ensure regular dialogue and exchange of information on the interventions of the RCOP and the HRD OP which require close cooperation. Within the framework of the Technical Committee, three meetings have been organized to date (on 5<sup>th</sup> of October 2006, 3<sup>rd</sup> of November 2006 and 29<sup>th</sup> June 2007). This Committee will also be responsible for ensuring coordination during the implementation phase of the two OPs.

The MoIT also participates in the meeting of the Working Committees of **Transport and Environment OPs** and is involved in the Steering Committee of the Rural Development OP in order to contribute to the preparation process of these OPs in a way to ensure complementarity and to define demarcation between the RCOP and these OPs.

In order to ensure complementarity and avoid overlapping with the IPARD Programme, a meeting was held with the Ministry of Agriculture and Rural Affairs on 5<sup>th</sup> of March 2007. In this meeting, demarcation lines between the IPARD Programme and the RCOP have been made clear through a Memorandum of Understanding signed between both parties. (See the Chapter 3.4.1. Complementarities and Synergies with Other Operational Programmes)

Furthermore, an **Inter-ministerial Working Group** has been established with the participation of the line Ministries under the coordination of the Strategic Coordinator – SPO. This Working Group has prepared a draft Communication Action Plan for the promotion of the Operational Programmes **for the period before the start of the implementation of the Operational Programme**. According to this Draft

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<sup>8</sup> [ipa@sanayi.gov.tr](mailto:ipa@sanayi.gov.tr)

<sup>9</sup> [http://www.sanayi.gov.tr/IPAWeb/Dosyalar/ipa\\_anket.doc](http://www.sanayi.gov.tr/IPAWeb/Dosyalar/ipa_anket.doc)

<sup>10</sup> The questionnaire and the tables showing the reflection of the conclusions of the questionnaires to RCOP were given in the **Annex-2**.

Action Plan, the Operating Structures will pay visits to some provinces in the target NUTS II regions and organize seminars in these provinces to inform the relevant partners and beneficiaries.

In the upcoming period, the implementation process of the RCOP will be carried out through the active contribution of the central, regional and local stakeholders. These partners will be invited to take part in the “Consultation Meetings” which are going to be held periodically at the start of each year. The conclusions of these meetings will be reported to the Monitoring Committee. The Committee will, when required, take the conclusions of these meetings into consideration. On the other hand, the Ministry will ensure the rotating participation of some of the regional and local stakeholders to the Monitoring Committee.

Moreover, the Ministry of Industry and Trade will appoint a representative in its 43 Provincial Offices as a one-stop shop responsible for relations with the partners. This individual will act as a point of liaison between the partners and the Operating Structure. This consultation process will provide a broader cooperative network which will enable the Operating Structure to pool the resources and experiences.

#### 1.4. Ex-ante Evaluation

An ex-ante evaluation of the Operational Programme for Regional Competitiveness has been carried out in accordance with the *Article 166* of the IPA Implementing Regulation.

The Ex-ante Evaluation has been conducted by the technical assistance project called “*Support to State Planning Organization to Build Capacity at Central, Regional and Local Level to Implement Economic and Social Cohesion Measures*” According to this project, a consortium which was headed by GTZ has carried out the evaluation exercise of the Operational Programme. Although the project was prepared by the Strategic Coordinator - State Planning Organization, the evaluation of the Operational Programme was carried out under the responsibility of the Ministry of Industry and Trade through an interactive process based on a constructive dialogue between the MoIT and the external expert.

The first ex-ante evaluation report on the draft of the Operational Programme was delivered in May, 2007. The RCOP has been revised according to the main recommendations of the report. The second ex-ante evaluation report was delivered in August, 2007 based on the second draft of the RCOP dated 3<sup>rd</sup> of June, which was also submitted to the Commission. The current version of the RCOP is built on the main recommendations and results of the final ex-ante evaluation report. The key aspects of the draft ex-ante evaluation report and how they have been taken into account by the programming team are given in Annex 3.

Within the framework of the ex-ante evaluation, the “SWOT Analysis”, “Rationale and Overall Consistency of the Strategy”, “Indicators and Objectives”, “Expected Socio-Economic Impact and Justification of Policy and Allocation of Financial Resources”, “Quality of the Implementation and Monitoring Arrangements” of the RCOP have been assessed.

With regard to the “*SWOT Analysis*”, in the report, it is indicated that the programme is provided with an extensive analysis of regional disparities across Turkey and the general methodology of the programme is acceptable. On the other hand, some considerations have been recommended in order to improve the SWOT Analysis. In this respect, new strengths and weaknesses have been added to the SWOT Analysis in line with the recommendations mentioned in the report.

In order to analyse the “*Rationale and Overall Consistency of the Strategy*”, the evaluator has assessed the strategy/needs and coherence of the programme firstly by way of a matrix. As a result of this assessment the programme in general has been found as satisfactory to deal with existing key-needs and to enhance key-strengths highlighted by a generally correct SWOT Analysis. However, minor adjustments have been introduced to the cluster of strengths and weaknesses by the drafting team according to the recommendations of the evaluator.

Regarding the internal coherence of the programme, the report indicates that all priorities are coherent to a more than satisfactory degree, with the majority of planned activities important and often crucial for the others. In other terms, it is indicated that the programme is not only coherent but in general well integrated.

Concerning the external coherence of the RCOP, the report highlights that, the RCOP shows a sufficient level of coordination with the other relevant programmes and mostly positive reciprocal impacts. The actions and priorities of the RCOP, the SCF and the NDP have a good degree of mutual support.

With regards to the financial allocations, the allocated budgets per measure have been revised by the drafting team taking into account the recommendations mentioned in the ex-ante evaluation report and the Commission's comments on the eligible actions.

Regarding the *Indicators and Objectives*, all the suggestions given in the report have been taken into account and reflected in the programme.

The *Expected Socio-Economic Impact and Justification of Policy and Allocation of Financial Resources* have been analysed in the tables showing the socio-economic impact of each measure and matrixes for each targeted NUTS II regions. These analyses show a good potential impact of the programme for virtually every measure and most of the regions. From the analysis, it is concluded in the report, the RCOP will certainly benefit the targeted area, but its impact will be hardly visible due to the extremely small resources of the programme compared to the economic and demographic size of the targeted area, the large quantity of existing gaps in most targeted regions, and the complex nature of the existing socio-economic gaps.

The *Quality of the Implementation and Monitoring Arrangements* of the RCOP has been assessed based on six criteria. The institutional capacity of the Operating Structure and of the Strategic Coordinator have also been analysed taking into account their performance in the specific areas. As a conclusion of the analyses, the report indicates that, most aspects of sound implementation and its requirements are satisfactory for the Operating Structure in theoretical terms and the Strategic Coordinator should act as a source of skill transfer, considering that the MoIT is going to implement its first fully managed OP.

## 2. Assessment of medium term needs, objectives and strategic priorities

### 2.1. Socio-economic Analysis

The methodology applied in the socio-economic analysis included a macro-scale assessment country wide for each sub-chapter. Following this general assessment, a regional analysis has been made covering the geographical and sectoral concentration of the RCOP.

Within this framework, the socio-economic analysis evaluated the macro-economic environment both for the whole country and for the target regions of the RCOP.<sup>11</sup> Secondly, an enterprise oriented analysing method has been conducted with a special focus on manufacturing industry, SMEs and tourism enterprises. Thirdly, R&D, Innovation and Information Society themes have also been appraised, in line with the main intervention areas of the MIPD and the RCOP.

All socio-economic analyses illustrated in tables and figures for Chapter 2 have been evaluated firstly by taking into account the whole country, then, by considering geographical thresholds determined in the MIPD and the SCF.

The existing situation derived from the socio-economic analysis has revealed certain key points to determine the intervention areas of the RCOP, these key points have been mentioned as medium-term needs of Turkey and of the target regions. Similarly, the SWOT analysis which has been developed both for countrywide and for target regions is the backbone of Chapter 2.

The major intervention/development axes and the main intervention areas of the wider planning documents (MIPD, 9<sup>th</sup> Development Plan, Medium Term Programme and SCF) shown in Tables 1 and 3, have been taken into account in the development of the set of medium term needs, priorities and measures of the RCOP.

Cooperation and synergy between relatively less developed regions and the developed ones will ensure more efficient usage of the endogenous potential of the less developed regions. This fact justifies that the RCOP may implement measures supporting national policies and institutions or projects which have regional dimensions, which contribute to enhance the competitiveness of the less developed regions.

From this point of view, a major “*principle of the RCOP*” is the evaluation of the priorities and intervention areas, which are important for the competitiveness of the country, together with national social economic and industrial policies and implementation of these priorities mainly in the relatively lagging behind regions.

#### 2.1.1 Macro-Economic Background

This Section analyses the macro economic environment both for whole country and for the target regions of the RCOP. Within this framework, GDP per capita, demography, employment, foreign trade indicators and tourism revenues in the balance of payments will be analysed at national and regional level.

#### GDP and Income Per Capita

After the 2001 economic crises, the Turkish economy has *entered into a recovery and growth process* with the implementation of new macro-economic policies. GDP, which had gone through one of the most important declines in the country with a 9.5% decrease in 2001, has reached positive growth rates at 7.9% in 2002, 5.9% in 2003, 9.9% in 2004 and 7.6% in 2005.

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<sup>11</sup> The term “target regions” corresponds to the geographical concentration of the RCOP. According to the MIPD and the SCF, geographical concentration of the RCOP will be on 12 NUTS II regions including 15 Growth Centres. Therefore, the term “target regions” refers to 12 NUTS II regions including 15 Growth Centres.

GDP of the OECD Member Countries has increased by 7.85 % on average between 2000-2004. In this period, the highest growth rate with an increase of 34.9 % *was realised* in Greece. Turkey, which ranks 12<sup>th</sup> among the OECD Member Countries with its 459.8 billion US \$ GDP in 2000, has increased its GDP by 20 % and *preserved its rank* with 551.9 billion US \$ GDP in 2004 despite the 2001 economic crises.

When these figures are assessed comparatively, it is seen that *the gap* between Turkey and the OECD Member Countries *has not been reduced* in the period of 1970-2004 according to *purchasing power parity (PPP)*. This rate, corresponded to 27.7 % of the OECD average in 1970, *has decreased to* 27 % in 2004. *Likewise*, GDP per capita with current prices in Turkey in 2004 was 26.7% of EU-15 average, while this ratio was 28.1% in 1970.

Briefly, when Turkey is compared with the EU-15 and OECD Member Countries, it is seen that Turkey could not decrease the gap in GDP per capita (PPP) in the last 35 years, on the contrary, this gap has increased and “*convergence*” between Turkey and developed countries has not been achieved.

When the *GDP per capita rates* are considered, Turkey is in the group of the countries having lower-middle income. GDP per capita at current prices *was* 2,879 US \$ in 2000 and reached 5,042 US \$ in 2005.

According to the 9<sup>th</sup> Development Plan (2007-2013), it is foreseen that GDP per capita at current prices will *reach* 10,099 US \$ by 2013 *with an average increase of 9.9%* and GDP per capita (PPP) will reach 15,332 US \$ with an average increase of 8.3 %.

On the other hand, when the *GDP per capita* is taken into account comparatively, as of 2005 data, the average GDP per capita of Turkey *corresponds to* 15 % of the EU-15 average<sup>12</sup>.

When the *purchasing power parity* is taken into account, Turkey is *relatively* in a better position compared to the EU-15 and GDP per capita corresponds to 25.8% of the EU-15 average<sup>13</sup>. When the OECD data is considered, Turkey has the lowest GDP per capita among the OECD countries with 7,687 US \$<sup>14</sup> according to purchasing power parity.

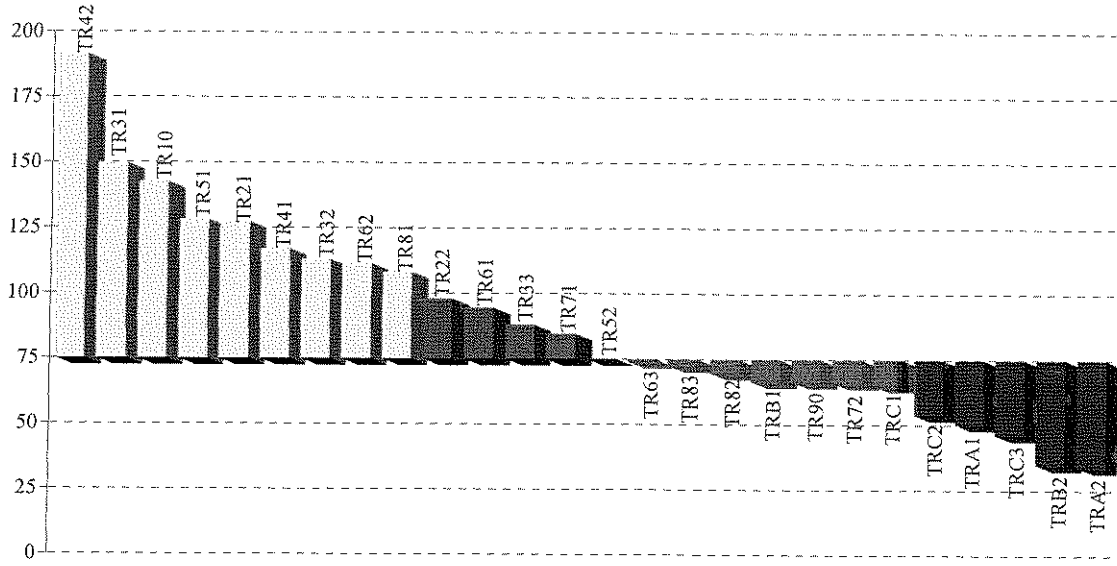
The distribution of GDP per capita (PPP) by NUTS II level is shown at the graphic below. According to this graphic, there are three different types of regions in Turkey in terms of GDP per capita. NUTS II regions having a per capita income *above* the Turkish average (Orange), NUTS II regions having a per capita income *below* the Turkish average whereas *above* 75% of the average (Green) and NUTS II regions having a per capita income *below* the 75% of Turkish average (Red).

<sup>12</sup> Average GDP per capita of EU-15 is 33,517 US \$ in 2005. (EUROSTAT)

<sup>13</sup> Average GDP per capita PPS of EU-15 is 31,503 US \$ in 2005.

<sup>14</sup> According to purchasing power parity in 2004, OECD Fact Book 2006

**Figure 1: GDP per capita According to Purchasing Power Parity by NUTS II Level  
(2001, TR=100)**



Source: EUROSTAT

The number of *NUTS II regions having a GDP per capita below 75 % of Turkish average* has increased from 11 in 1995 to 12 in 2001 with the inclusion of **TR-63**.

According to 2001 data, there are five times difference between **TR-42** (Kocaeli, Sakarya, Düzce, Bolu, Yalova - 191.45) having the highest GDP per capita income (PPP) and **TR-A2** (Ağrı, Ardahan, Iğdır, Kars – 34.00) having the lowest GDP per capita income.

When the target regions (red) are assessed in terms of GDP per capita, it appears that there are significant differences in GDP per capita among these NUTS II regions. **TR-63** (Hatay, Kahramanmaraş, Osmaniye) has the highest per capita income with 74.51 ratios, whereas **TR-A2** (Ağrı, Ardahan, Iğdır, Kars) is the lowest with 34 ratios among these 12 NUTS II regions.

As it can be seen from the **Table 4**, there are important differences between the NUTS II and NUTS III levels in terms of GDP per capita. Certain NUTS III regions introduced as *Growth Centres* (**Samsun, Elazığ and Kayseri**), which are in NUTS II regions having GDP per capita below the 75% of Turkish average, are above the 75% threshold.

**Table 4: Geographical Concentration in GDP per capita according to 12 NUTS II Regions and 15 Growth Centres**

NUTS II Regions	GDP Per Capita Ranking, 2001 (by 26 NUTS II)	GDP Per Capita, 2001 (TR=100)	GDP Per Capita Ranking, 2001 (by 81 NUTS III)	GDP Per Capita, 2001 (TR=100)	Growth Centres
TR-42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova)	1	191,4	1	287,3	Kocaeli
TR-31 (İzmir)	2	149,8	2	196,5	Bolu
TR-10 (İstanbul)	3	142,7	3	167,3	Kırklareli
<b>Turkish National Average</b>	-	<b>100</b>	-	<b>100</b>	
TR-63 (Hatay, K. Maraş, Osmaniye)	15	74	41	73,8	K. Maraş
TR-83 (Amasya, Çorum, Samsun, Tokat)	16	72,6	37	<b>78,3</b>	Samsun
TR-82 (Çankırı, Kastamonu, Sinop)	17	69,8	33	<b>82,9</b>	Kastamonu
TR-B1 (Bingöl, Elazığ, Malatya, Tunceli)	18	66,6	36	<b>79,4</b>	Elazığ
			51	66,0	Malatya
TR-90 (Artvin, Giresun, G. Hane, Ordu, Rize, Trabzon)	19	66,5	45	70,2	Trabzon
TR-72 (Kayseri, Sivas, Yozgat)	20	66,3	31	<b>84,2</b>	Kayseri
			52	65,2	Sivas
TR-C1 (Adıyaman, G. Antep, Kilis)	21	65,1	39	74,2	Gaziantep
TR-C2 (Diyarbakır, Ş. Urfa)	22	53,9	54	61,2	Diyarbakır
			67	47,0	Şanlıurfa
TR-A1 (Bayburt, Erzincan, Erzurum)	23	50,4	64	49,6	Erzurum
TR-C3 (Batman, Mardin, Şırnak, Siirt)	24	46,3	56	56,7	Batman
TR-B2 (Bitlis, Hakkari, Muş, Van)	25	34,9	72	40,0	Van
TR-A2 (Ağrı, Ardahan, Iğdır, Kars)	26	34	71	41,3	Kars

Source: TURKSTAT, 2001 (15 Growth Centres figures are on NUTS III level)

## Demography

According to the census of 2000, Turkey's population was registered as 67.803.927. In that period of time, 65% of the population was living in the urban area while 35 % was living in the rural areas. In accordance with the same data, population density was measured as 86 people per square kilometre. Nonetheless, it is predicted that Turkey's population was around 72.065.000 in the middle of 2005.

In 2000, the average birth rate of Turkey's population was 1.66 %, whereas this ratio decreased to 1.49 % in 2004. The 9<sup>th</sup> Development Plan foresees that a recognizable improvement in the demographic index will be recorded and that the birth rate will come closer to the one in developed countries. According to this projection, in the year of 2013, the birth rate in Turkey will be brought down to 1.01 % and total population will be estimated at 79 million.

Turkey is among the 20 most populous countries in the world. Besides, the proportion of the youth in the population is the same as in developing countries. Turkey's demographical structure is much younger than OECD and EU countries. (Table 5)

**Table 5: Demographic Projection (2015)**

	Annual population growth rate (%)		Population under age 15 (as % of total population)		Population age 65 and above (as % of total population)		Fertility Rate (%)		Urban population (as % of total population)		
	1975-2001	2001-2015	2001	2015	2001	2015	1970-1975	2000-2005	1975	2001	2015
<b>Turkey</b>	<b>2.0</b>	<b>1.20</b>	<b>31.20</b>	<b>25.00</b>	<b>5.60</b>	<b>6.70</b>	<b>5.20</b>	<b>2.40</b>	<b>41.60</b>	<b>66.20</b>	<b>71.80</b>
OECD	0.80	0.50	20.40	17.90	13.10	16.00	2.50	1.80	70.40	77.10	80.40
OECD – High Income	0.70	0.40	18.30	16.50	14.60	18.00	2.20	1.70	73.70	79.10	82.30
World	1.60	1.10	29.80	26.10	7.00	8.30	4.50	2.70	37.90	47.70	50.70

Source: UNDP – Human Development Report – 2003

The population in the 12 NUTS II regions, where the RCOP will be implemented, accounts for **37 %** of Turkey's total population. On the other hand, the 15 Growth Centres, which will be the basis for geographical concentration of the RCOP, cover only **19.9 %** of the total population. For a detailed population analysis, see **Table 6**.

In some of the NUTS II regions to be covered by the RCOP, birth rate of population is over Turkey's average and net immigration rate is negative.

However, these significant ratios that have been derived from the tables below can be one of the most important reasons for Turkey's lagging behind position in terms of competitiveness.

**Table 6: Population in 12 NUTS II Regions and 15 Growth Centres**

NUTS II Regions		Growth Centres	
	Total Population	Population	
TR-63 (Hatay, K.Maraş,Osmaniye)	2,704,242	998,915	K.Maraş
TR-83 (Amasya, Çorum,Samsun,Tokat)	2,995,433	1,208,000	Samsun
TR-82 (Çankırı, Kastamonu, Sinop)	874,312	377,437	Kastamonu
TR-B1 (Bingöl, Elazığ, Malatya,Tunceli)	1,764,188	567,277	Elazığ
		848,589	Malatya
TR-90 Artvin,Giresun,G.Hane,Ordu,Rize,Trabzon)	3,122,890	969,024	Trabzon
TR-72 (Kayseri,Sivas, Yozgat)	2,498,442	1,056,690	Kayseri
		755,921	Sivas
TR-C1 (Adıyaman,G.Antep,Kilis)	2,011,087	1,275,768	Gaziantep
TR-C2 (Diyarbakır, Ş.Urfa)	2,781,433	1,353,585	Diyarbakır
		1,427,849	Şanlıurfa
TR-A1 (Bayburt,Erzincan,Erzurum)	1,348,720	934,585	Erzurum
TR-C3 (Batman, Mardin,Şırnak,Siirt)	1,765,935	452,813	Batman
TR-B2 (Bitlis,Hakkari,Muş,Van)	1,941,210	869,113	Van
TR-A2 (Ağrı,Ardahan,Iğdır,Kars)	1,154,318	326,325	Kars
<b>Total of 12 NUTS II Regions</b>	<b>24,955,805</b>		
<b>Total of 15 Growth Centres</b>		<b>13,421,891</b>	
<b>Total of TURKEY</b>	<b>67,420,000</b>		
12 NUTS II Regions as % of Turkey	<b>37</b>		
15 Growth Centres as % of Turkey		<b>19.9</b>	
15 Growth Centres as % of 12 NUTS II Regions		<b>53.7</b>	

Source: TURKSTAT (mid-year estimations-2001)

## Employment

According to 2005 TURKSTAT's employment figures, the *total labour force* in Turkey is approximately 24.5 Million and *total employment* is about 22.1 Million. According to 2006 EUROSTAT's data, with its 45.9 % *labour force participation rate* on an average, Turkey is relatively lagging behind compared with the EU Member States.

On the other hand, when 2006 EUROSTAT general unemployment figures are taken into account, Turkey ranks 3<sup>rd</sup> with 9.9 % general unemployment rate after Poland (13.8 %) and Slovakia (13.4%)

**Table 7: Indicators Related to Employment (%)**

	2000	2002	2005
<b>Sectoral Breakdown of the Employment</b>			
Agriculture	36.0	34.9	29.5
Industry	17.7	18.5	24.7
Services	46.3	46.6	45.8
<b>Unemployment</b>			
Unemployment Rate	6.7	10.6	10.5
Non-agricultural Unemployment Rate	9.4	15.0	13.6
Young Unemployment Rate	13.1	19.2	19.3
Educated Youth (Over Lycee) Unemployment Rate	28.2	38.0	30.9
<b>Labour Force Participation Rate</b>			
Women	52.4	52.3	51.3
Men	28.0	29.5	26.5
	76.9	75.1	76.2
<b>Employment Rate</b>	48.9	46.7	45.9

Source: TURKSTAT

As is seen from the Table 7, the major problems of Turkish labour market are structural unemployment, low labour force participation rate especially low female labour force participation and the low level of educational attainment.

Because of the decrease of employment in the agriculture sector and the effect of the 2001 crises, the general unemployment rate has reached up to 10.5 % in 2005 while it was 6.5 % in year 2000. *Non-agricultural unemployment rate* was 9.4 % in 2000, 15 % in 2002 and 13.6 % in 2005. *Young unemployment rate* which is two fold higher than the general unemployment rate remains very importance. (Table 7)

Another structural problem of Turkish labour market is low labour force participation rate compared to the EU Member States. Most important is women's low participation to labour force compared to men. *In 2005*, the labour force participation rate was 76.2 % for men and 26.5 % for women. (Table 7)

When the labour force participation rates of women in Turkey are compared with the EU Member States, it is clearly seen that there is a huge gap between Turkey and the EU in terms of female labour force participation rates. For the 15-64 age group, in Turkey, male labour force participation rate of 76.2 % is close to EU25 average of 77.9 % whereas female labour force participation rate of 26.5 % is substantially lower than the EU25 average of 62.9 %.

Low level of educational attainment and unregistered employment are the other major structural problems of the Turkish labour market. In 2005, 62 % of the labour force has under the secondary school level of education and only 12 % of total labour force is high school and university graduates.<sup>15</sup>

<sup>15</sup> Human Resources Development Operational Programme (HRD OP), Ministry of Labour and Social Security

When the employment figures of *the 12 NUTS II regions* are analysed it is seen that **44.4 %** of the employment in *these regions* is concentrated on the **agriculture** sector while the average rate of the labour force employed in **services** sector is **41 %**. It is approximately **15 %** in the **industry** sector. (Table 8)

**51.8 %** of the labour force employed in the agriculture sector in all Turkey takes place in the 12 NUTS II regions. In spite of this factor, when it is taken into consideration that **37 %** of the total population of Turkey lives in these 12 NUTS II regions, it can easily be stated that economic activities in these regions are, to a considerable extent, dependent on an agricultural structure.

According to this analysis, it is obvious that the NUTS II regions chosen for the concentration of the intervention axis of the RCOP, have low GDP and employment creation capacity since the agricultural activities have low added value production potential.

In **Table 8**, it can be understood that the general unemployment rate in some NUTS II regions in which industry and services sectors are relatively developed is higher than the average rate of the country. Within this framework, since there are not enough data regarding the **TR-A1** (Erzurum City Centre), **TR-B1** (Malatya and Elazığ City Centre), **TR-B2** (Van City Centre), **TR-C1** (Gaziantep City Centre), **TR-C2** (Diyarbakır and Şanlıurfa City Centre), **TR-72** (Kayseri and Sivas City Centre), **TR-90** (Trabzon City Centre), a detailed analysis couldn't be done on the basis of employment.

**Table 8: Employment Figures of 12 NUTS II Regions (2005)**

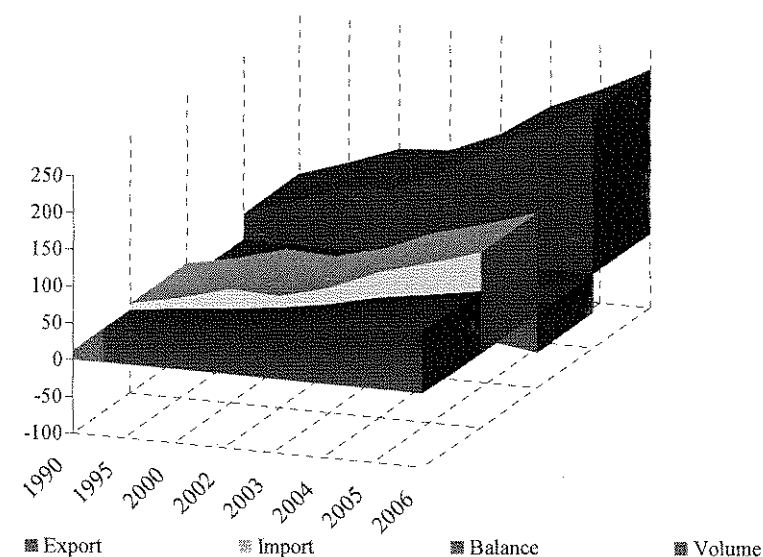
NUTS II REGIONS	Total Labour Force (000)	Employment (000)	Agriculture (000)	Industry (000)	Services (000)	Agriculture (%)	Industry (%)	Services (%)	Unemployed (000)	Labour Force Participation Rate (%)	Unemployment Rate (%)
TR-A1 (Erzurum, Erzincan, Bayburt)	466	444	276	23	146	62,2	5,2	32,9	22	53,5	4,7
TR-A2 (Ağrı, Kars, Iğdır, Ardahan)	337	326	201	18	107	61,7	5,5	32,8	11	49,6	3,2
TR-B1 (Malatya, Elazığ, Bingöl, Tunceli)	542	445	192	61	192	43,1	13,7	43,1	98	44,8	18
TR-B2 (Van, Muş, Bitlis, Hakkari)	457	417	200	49	168	48,0	11,8	40,3	40	40,8	8,8
TR-C1 (Gaziantep, Adıyaman, Kilis)	577	497	103	167	227	20,7	33,6	45,7	80	42	13,8
TR-C2 (Şanlıurfa, Diyarbakır)	615	551	210	77	264	38,1	14,0	47,9	64	35,5	10,4
TR-C3 (Mardin, Batman, Şırnak, Siirt)	366	325	95	48	182	29,2	14,8	56,0	41	33,7	11,1
TR-63 (Hatay, K. Maraş, Osmaniye)	904	763	263	166	334	34,5	21,8	43,8	141	47,8	15,6
TR-72 (Kayseri, Sivas, Yozgat)	776	690	250	151	289	36,2	21,9	41,9	86	44,1	11,1
TR-82 (Kastamonu, Çankırı, Sinop)	242	221	97	36	87	43,9	16,3	39,4	21	39,1	8,6
TR-83 (Samsun, Tokat, Çorum, Amasya)	1,190	1122	643	132	347	57,4	11,8	31,0	68	56,2	5,7
TR-90 (Trabzon, Ordu, Giresun, Rize, Artvin, G. Hane)	1,531	1,446	834	136	475	57,7	9,4	32,8	85	65,4	5,6
<b>Total of 12 NUTS II Region (000 Per)</b>	<b>8,003</b>	<b>7,247</b>	<b>3,364</b>	<b>1,064</b>	<b>3,165</b>	<b>44,4</b>	<b>14,9</b>	<b>40,7</b>	<b>757</b>	<b>46</b>	<b>9,7</b>
<b>TURKEY TOTAL (000 Person)</b>	<b>24,565</b>	<b>22,046</b>	<b>6,493</b>	<b>5,452</b>	<b>10,101</b>	<b>29,5</b>	<b>24,7</b>	<b>45,8</b>	<b>2,520</b>	<b>48,3</b>	<b>10,3</b>
<b>12 NUTS II Regions as % of Turkey</b>	<b>32,5</b>	<b>32,8</b>	<b>51,8</b>	<b>19,5</b>	<b>31,3</b>				<b>30</b>		

Source: TURKSTAT

## Foreign Trade and Tourism Revenues

One of the most important indicators in determining the “*competitiveness and development*” is *foreign trade figures*. Turkish total exports progressed from 12,9 Billion Dollars in 1990 to 85,5 Billion Dollars in 2006, an increase of **166 %**.

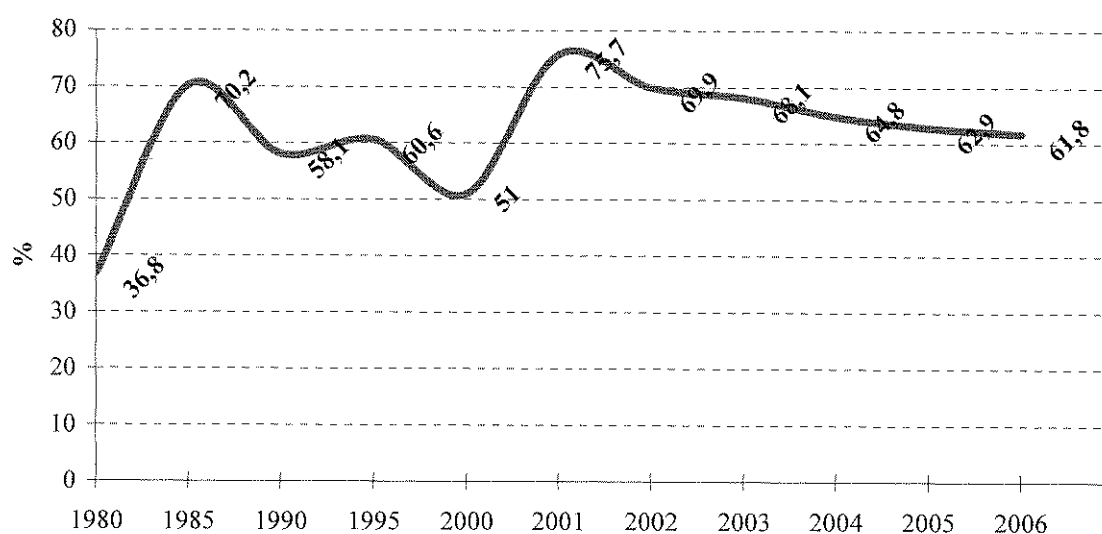
**Figure 2: Total Export-Import, Volume and Balance of Foreign Trade**



Source: UoFT

The **export compensation rate** progressed from 36.8 % in 1980 to 61.8 % in 2006, an increase of approximately 62 %. (Figure 3)

**Figure 3: Export Compensation Rate**



Source: TURKSTAT

In the period 2001-2006, foreign trade volume progressed from 82.3 to 223.798 Billion Dollars. On the other hand, for the same period, foreign trade deficit progressed from -26.7 to -52.8 Billion Dollars, despite the fact that export increase rate was higher than import increase rate. Foreign trade

deficit has reached - **52.8** Billion Dollars, an increase of 97.3 % in 2006. In summary, increasing foreign trade volume *has not contributed positively* to foreign trade balance of the country.

Tourism revenues, on the other hand, have a significant share in the foreign revenues of the country as well as exports. The tourism sector is an important instrument in meeting the foreign trade deficits and improving the balance of payments by contributing with a significant amount of foreign exchange. (Table 9)

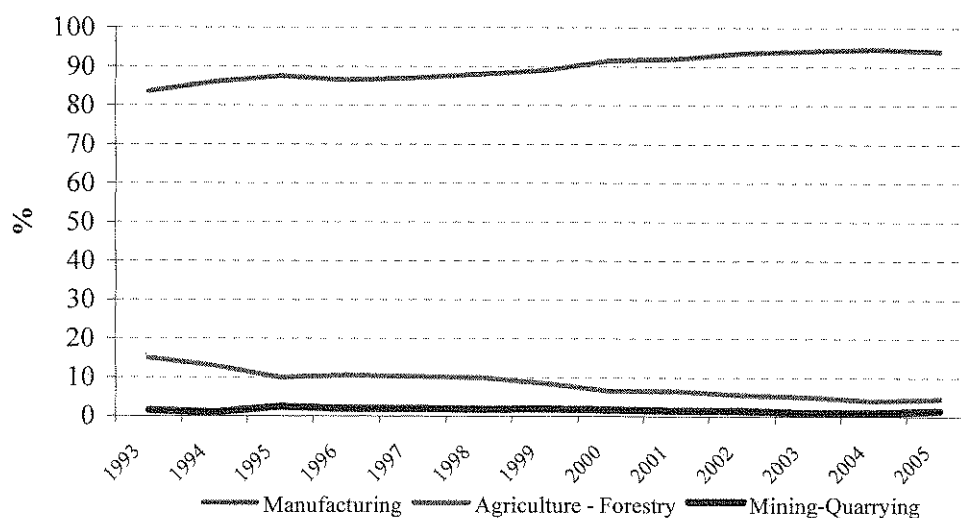
**Table 9: The Compensation Rate of the Tourism Revenues to the Foreign Trade Deficits**

Year	Foreign Trade Deficits (billion \$)	Tourism Revenue (billion \$)	The Compensation Rate (%)
2000	26,6	7,6	28,6
2001	9,3	10,1	107
2002	15,7	11,9	76,3
2003	21,8	13,6	62,5
2004	34,3	15,9	46,4
2005	42,6	18,0	42,3

Source: CBRT

Over the same period, structural changes have occurred in the composition of exports as a result of the new development and growth model based on exports and the share of the industrial goods in exports has reached to 93.7 % in 2005 from 36 % in the beginning of the 1980s.

**Figure 4: Composition of Export**



Source: TURKSTAT

Between 2001-2005, food, textile-clothing and iron and steel sectors have preserved their importance in the manufacturing industry while automotive, machinery, electronic, metal goods, petroleum products and rubber-plastic sectors have increased their share. The main export items of Turkey can be seen in Table 10.

**Table 10: Major Export Items**

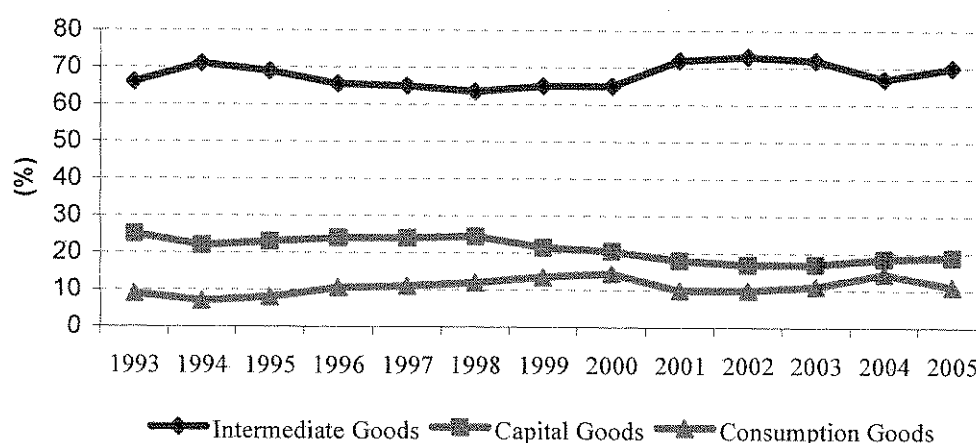
Top Ten Chapters In Exports – According to value in 2006 (000 USD)			
	2004	2005	2006
Vehicles Other Than Railway Or Tramway Rolling-Stock and Parts	8.288.799	9.566.435	11.885.549
Articles of apparel and clothing accessories, knitted or crocheted	6.259.222	6.590.352	6.937.140
Electrical machinery and equipment and parts thereof	4.793.599	5.426.197	6.324.491
Nuclear reactors, boilers, machinery and mechanical appliances, parts ..	4.122.641	5.243.569	6.515.552
Iron and steel	5.359.512	4.973.475	6.272.831
Articles of apparel and clothing accessories, not knitted or crocheted	4.536.829	4.862.368	4.709.132
Articles of iron or steel	2.226.923	2.731.357	3.334.507
Mineral fuels, mineral oils & products of their distillation,	1.429.186	2.641.145	3.567.424
Edible fruit and nuts, peel of citrus fruit or melons	1.902.515	2.501.025	2.387.052
Other made up textile articles, sets, worn clothing and worn textile artic.	1.856.536	1.969.748	1.920.219
<b>LIST TOTAL</b>	<b>40.775.761</b>	<b>46.505.672</b>	<b>53.853.897</b>
<b>TOTAL EXPORTS</b>	<b>63.167.153</b>	<b>73.475.881</b>	<b>85.502.238</b>
<b>PERCENTAGES IN TOTAL EXPORTS</b>	<b>64,6</b>	<b>63,3</b>	<b>62,9</b>

Source: TURKSTAT

However, foreign trade deficit has not declined substantially due to the decrease in the export in the traditional sectors and increasing demand for imports. Increase in the importation of intermediate goods has reached 30 % from 9.5 % in the period of 1981-2001.

When the developments in foreign trade are considered from the point of imports, it is seen that Turkish imports recorded an increase of 19.7 % and 18.4 % in 2005 and 2006, respectively. Turkish imports have reached up to 138.3 billion US \$ in 2006 from 54.5 billion US \$ in 2000, an increase of **154.2%**. This significant rise in imports stemmed from strong domestic demand, high oil prices, revaluation of Turkish Lira and growth in demand for Turkish export products which are highly dependent on imported inputs in production. According to the main commodity groups, the share of capital goods in total imports was 17 %, an increase of 15 % over 2004.

**Figure 5: Composition of Import**



Source: TURKSTAT

The imports of intermediate goods on the other hand constituted 71.5% of total imports. An increase of 50% was recorded in the imports of consumption goods at the end of 2004 with a slight decrease in 2005. The share of consumption goods in total imports was 8.5 % in 2005. (**Figure 5**)

As for the main sectors, the share of agricultural products in total imports was 2.3% in 2005. Imports of mining and quarrying products took a share of 14%. In 2005, manufactured products remained the largest product group in imports. Certain import items of Turkey can be seen in **Table 11**. The share of manufactured products was 94.207 billion US \$ in 2005 with an increase of 17% compared to the previous year.

**Table 11: Major Import Items**

Top Ten Chapters in Imports - According to value in 2005 (000 USD)			
	2004	2005	2006
Mineral fuels, mineral oils & products of their distillation,	14.407.288	21.255.575	28.584.028
Nuclear reactors, boilers, machinery and mechanical appliances, parts ...	13.411.276	16.335.800	18.802.316
Vehicles other than railway or tramway rolling-stock and parts	10.237.024	10.552.792	11.332.974
Electrical machinery and equipment and parts thereof	8.417.452	9.728.045	10.790.709
Iron and steel	8.031.522	9.457.831	11.298.563
Plastics and articles thereof	4.763.094	5.795.491	6.856.093
Pearls, precious stones and metals, coin	3.763.424	4.226.881	4.370.647
Organic chemical products	3.014.784	3.528.805	3.621.658
Pharmaceutical Products	2.710.136	2.849.272	3.016.152
Optics, photograph, cinema, measurement, control and adjustment equipments, medical devices	1.927.983	2.472.698	2.702.914
<b>LIST TOTAL</b>	<b>70.683.983</b>	<b>86.203.190</b>	<b>101.376.054</b>
<b>TOTAL IMPORTS</b>	<b>97.539.766</b>	<b>116.773.061</b>	<b>138.295.379</b>
<b>PERCENTAGES IN TOTAL IMPORTS</b>	<b>72,5</b>	<b>73,8</b>	<b>73,3</b>

Source: TURKSTAT, UoFT

When the export figures in the 12 NUTS II regions are taken into account, the export figure of these regions is **6.175 billion US \$** as of 2006, which accounts for **7.2 %** of total export. (See **Table 12**)

It is noteworthy to mention that export performance of these 12 NUTS II regions is above the Turkish average and it has recorded an increase of **186.8%** in the period of 2001-2005

On the other hand, the export figures of the 12 NUTS II regions having a GDP per capita (PPP) below 75% of Turkish average, are not stable. As can be seen from the table below, these regions having approximately **37 %** of Turkish population have **7.2 %** and **3.7 %** share in total export and import respectively. (**Table 12**)

There are three NUTS II regions (**TR-63, TR-90, and TR-C1**) whose export percentages in total export are higher than 1%. However, their relatively good export and import performance stems from their logistic superiorities but not from their indigenous potential. Existence of ports having developed export and import infrastructure in **TR-63** and **TR-90** has led to especially different export figures of these regions.

Table 12: Foreign Trade Statistics of 12 NUTS II Regions

NUTS II REGIONS	Total Export (000 USD)	Share in Total Export (%)	Total Import (000 USD)	Share in Total Import (%)	Foreign Trade Volume (000 USD)	Share in Total Foreign Trade Volume (%)	Balance of Foreign Trade (000 USD)
TR-63 (Hatay, K.Maraş,Osmaniye)	983,973	1.15	1,493,298	1.07	2,477,271	1.1	-509,325
TR-83 (Amasya, Çorum,Samsun,Tokat)	220,686	0.25	402,143	0.29	622,829	0.27	-181,457
TR-82 (Çankırı, Kastamonu, Sinop)	71,070	0.08	75,490	0.05	146,560	0.06	-4,420
TR-B1 (Bingöl, Elazığ, Malatya,Tunceli)	187,496	0.21	92,899	0.06	280,395	0.12	94,597
TR-90 (Artvin,Giresun,G.Hane,Ordu,Rize,Trabzon)	1,611,855	1.88	208,605	0.15	1,820,460	0.81	1,403,250
TR-72 (Kayseri,Sivas, Yozgat)	728,955	0.85	974,649	0.7	1,703,604	0.76	-245,694
TR-C1 (Adıyaman,G.Antep,Kilis)	1,654,382	1.93	1,730,018	1.25	3,384,400	1.51	-75,636
TR-C2 (Diyarbakır, Ş.Urfa)	89,273	0.1	134,595	0.09	223,868	0.1	-45,322
TR-A1 (Bayburt,Erzincan,Erzurum)	22,773	0.02	16,386	0.01	39,159	0.01	6,387
TR-C3 (Batman, Mardin,Şırnak,Siirt)	471,898	0.55	51,238	0.03	523,136	0.23	420,660
TR-B2 (Bitlis,Hakkari,Muş,Van)	59,104	0.06	9,239	0.006	68,343	0.03	49,865
TR-A2 (Ağrı,Ardahan,Iğdır,Kars)	72,601	0.08	45,219	0.03	117,820	0.05	27,382
<b>TOTAL OF 12 NUTS II</b>	<b>6,174,066</b>		<b>5,233,779</b>		<b>11,407,845</b>		<b>940,287</b>
<b>TOTAL OF TURKEY</b>	<b>85,502,238</b>		<b>138,295,379</b>		<b>223,797,617</b>		<b>-52,793,141</b>
The Share of 12 NUTS II Regions to Turkey (%)		7.2		3.7		5.09	

Source: UoFT (2006 – including only city centres total)

On the other hand, there are significant differences between the export figures of NUTS II and III regions. As an example, Gaziantep NUTS III region in **TR-C1** NUTS II region has important share in total export (**1.93%**). However **98.2 %** of total export of this NUTS II region is realised by Gaziantep, while other regions forming part of the same TR-C1 region (Adıyaman, Kilis) have a small share (**1.8%**) in the export of the region. This situation is also valid for the import. When **TR-C1** region is considered in terms of import, it is seen that **97.8%** of the total import of the region is realised by Gaziantep. To sum up, Gaziantep is the major driving force of the industry and foreign trade of the **TR-C1** region.

For detailed foreign trade indicators of 15 Growth Centres, see **Table 13**.

The total exports of the 15 Growth Centres represented 4.2 billion US \$ in 2005, which accounts for **4.96 %** of total Turkish exports. However, the export capacity of these 15 Growth Centres has shown great performance with an increase of **205.1%** in the period of 2001-2005. Gaziantep, Kayseri and Trabzon provinces being major driving forces in the 15 Growth Centres have realised **88.7%** of the total export of 12 NUTS II regions in 2005.

Table 13: Foreign Trade Figures of 15 Growth Centres

Growth Centres		Total Export (000 USD)	The Share in Total Export (%)	Total Import (000 USD)	The Share in Total Import (%)	Foreign Trade Volume (000 USD)	The Share in the Foreign Trade Volume (%)	Balance of Foreign Trade (000 USD)
	Samsun	158,329	0.18	346,691	0.25	505,020	0.22	-188,36
	Elazığ	68,265	0.07	85,400	0.06	153,665	0.06	-17,135
	Malatya	149,586	0.17	43,893	0.03	193,479	0.08	105,693
	Trabzon	728,710	0.85	74,421	0.05	803,131	0.35	654,289
	Kayseri	751,085	0.87	1,093,252	0.79	1,844,337	0.82	-342,167
	Sivas	21,701	0.03	77,096	0.05	98,797	0.04	-55,395
	G. Antep	1,856,942	2.17	1,834,350	1.32	3,691,292	1.64	22,592
	Diyarbakır	66,942	0.07	37,518	0.02	104,460	0.04	29,424
	Ş. Urfa	45,922	0.05	149,176	0.1	195,098	0.08	-103,254
	Erzurum	20,546	0.02	15,424	0.01	35,970	0.01	5,122
	Van	15,306	0.01	10,372	0.01	25,678	0.01	4,934
	Kastamonu	59,381	0.06	59,770	0.04	119,151	0.05	-389
	Kars	1,945	0.002	1,082	0.001	3,027	0.001	863
	Kahramanmaraş	286,213	0.33	435,705	0.31	721,918	0.32	-149,492
	Batman	17,991	0.01	11,488	0.01	29,479	0.01	6,503
<b>TOTAL OF 15 GROWTH CENTRES</b>		<b>4,248,864</b>		<b>4,275,640</b>		<b>8,524,504</b>		<b>-26,776</b>
<b>TOTAL OF TURKEY</b>		<b>85,502,238</b>		<b>138,295,379</b>		<b>223,797,617</b>		<b>-52,793,141</b>
<b>The Share of 15 Growth Centres to Turkey (%)</b>			<b>4.96</b>		<b>3.09</b>		<b>3.8</b>	
<b>The Share of 15 Growth Centres to 12 NUTS II Regions (%)</b>			<b>68.8</b>		<b>81.6</b>		<b>74.7</b>	

Source: UoFT (2006 – including only city centres total)

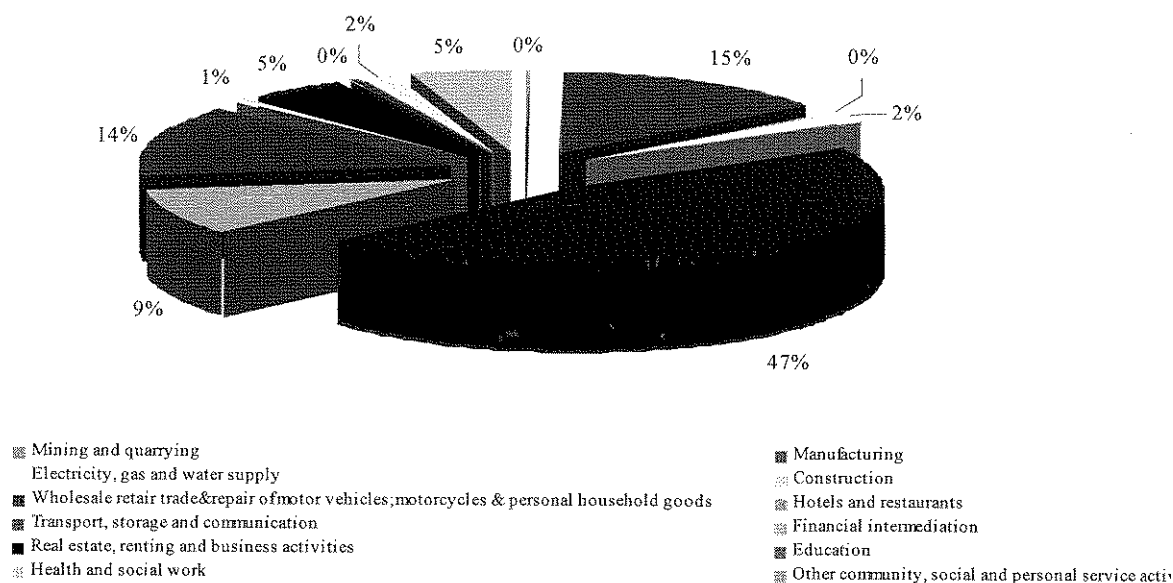
### 2.1.2. Enterprises

In Turkey, enterprises are represented by the Turkish Artisans and Craftsmen Confederation (TESK) and the Union of Chambers and Commodity Exchanges of Turkey (TOBB). TESC and TOBB with their large number of members are the highest legal entities in Turkey representing the private sector. Today, there are *13 Professional Federations, 82 Unions of Tradesmen and Craftsmen Chambers and 3,166 Chambers of Tradesmen and Craftsmen affiliated to the TESC*. Furthermore, TOBB has *364* members in the form of local chambers of commerce, industry, commerce and industry, maritime commerce and commodity exchanges. In this framework, the major function of the TOBB and TESC is to guide and lead the Turkish entrepreneurs.

#### Number of Enterprises and Sectoral Distribution

According to TURKSTAT data in 2002, there were 1,858,191 enterprises in Turkey. This number excluded rural enterprises and individual farmers.

**Figure 6: Breakdown of enterprises by sectors (2002)**



The breakdown of these enterprises by sectors is given in **Figure 6**. The breakdown of the enterprises in Turkey constitutes a consistent distribution in terms of the components of Turkish GNP and the characteristics of the developing countries. At the same time, from the point of entrepreneurship, the economic and political developments directly affect the decisions of enterprises in setting up new businesses and/or shifting their sectoral distributions.

However, even though Turkey is still under the effect of an agriculture based industrialisation process, the manufacturing sector is considered as the locomotive sector in order to provide the sustainable development in GNP growth, increase in export and employment rates, and balance income distribution by taking into account its employment generating capacity.

A similar approach can be seen in countries undergoing a transition process from agriculture based society to industrialised society from there to the information society in line with the normal development processes.

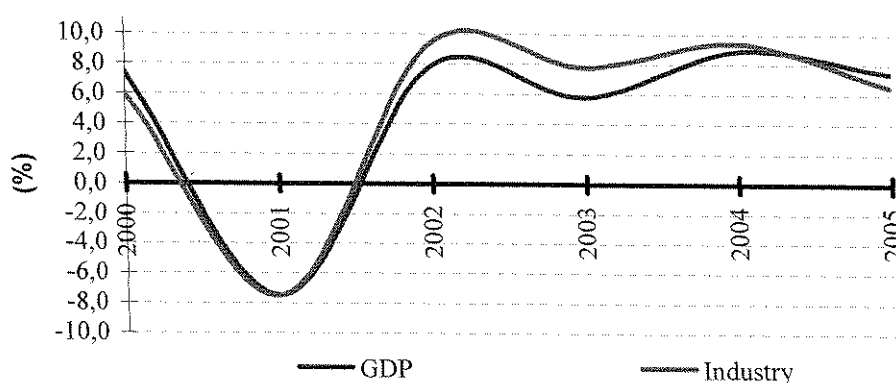
In Turkey, even though the number of enterprises in the service sector is 3,5 times higher than those of the manufacturing sector, with regard to job-creation the manufacturing sector has the same capacity of service sector. Therefore, creation of new start-ups in the manufacturing sector and supporting of existing ones will have important effects on job-creation and decrease in unemployment rate.

When the regional distribution of enterprises is considered, it is seen that **25.7% of the enterprises in Turkey are located in the 12 NUTS II regions** which are below the 75% threshold and **14% of them are in 15 Growth Centres**. When the sectoral distribution of these enterprises is taken into account, wholesale and retail trade, manufacturing industry and hotels and restaurants are the important sectors for the 12 NUTS II Regions and 15 Growth Centres. Wholesale and retail trade ranks first among other sectors. Approximately 50% of the total enterprises in the 12 NUTS II Regions and the Growth Centres operate in the wholesale and retail trade. Manufacturing industry and hotels and restaurants sectors are ranking 3<sup>rd</sup> and 4<sup>th</sup> respectively following wholesale and retail trade and transport, storage and communication. **21.5% of manufacturing industry enterprises and 22.2% of hotels and restaurants are located in the 12 NUTS II Regions, while 12.7% of manufacturing industry enterprises and 11.9% of hotels and restaurants are located in the 15 Growth Centres** (See Annex 4 / Table 50 - 51).

### 2.1.2.1. Manufacturing Industry

The Turkish economy has demonstrated a significant performance in the last 25 years owing to the substantial achievements in the manufacturing industry. It can be said that, the driving force behind the growth performance of the Turkish economy is the development in the industry sector. This development has not only contributed positively to the expansion of the service sector but has also demonstrated a higher growth than total GDP. (Figure 7)

Figure 7: Growth Rates (%)



Source: TURKSTAT

The growth rates in the industry sector have been more than 4 % in four consecutive years. (Figure 7, Table 14). The productivity increase which has come up after this process has a vital effect in this continuous growth. However, it is noteworthy to mention that the growth which occurred after the 2001 crises stemmed from the fact that firms have decided to increase their productivity by adjusting their labour force structures according to the new conditions.

When the added value created in the manufacturing industry is considered, the average annual growth rate has been 6.6 % in 1980-1990 period, 4.2 % in 1990- 2000 and 5.1 % in 2000-2005 periods.

Table 14: Manufacturing Industry Indicators

Indicators (%)	2000	2005	2001-2005 Average	EU (2004)
The Share in the GDP	19.2	20.8	20.4	20.5 (1)
Production Increase (With Constant Prices) (2)	6.5	4.8	4.9	2.8(3)
Export Increase (With Current Prices)	6.7	15.2	21.9	9.5(4)
Import Increase (With Current Prices)	29.8	16.6	16.3	8.8(4)
The Share in the Private Sector Investments	26.5	41.4	35.5	-
Private Sector Capacity Usage Rate	74.6	78.9	74.6	-
Partial Productivity Increase Per Employee	8.8	5.6	6.0	-0.3(5)

Source: TURKSTAT-EUROSTAT

(1) EU-25 Industry Data

(2) Increase rate in the Industry Production Index is used.

(3) EU-25 Manufacturing Industry 2005 Figure

(4) EU-25 SITC Classification

(5) EU-15

As can be seen from the Figure 6, approximately 15 % of the enterprises are operating in the manufacturing industry.

**Table 15: Distribution of the Enterprises in the Manufacturing Industry**

Number of Employee	Number of Enterprise	%	Employment	%
1 – 9	245.789	90.2	588.31	27
10 – 49	21.236	7.8	444.694	20.3
50 – 150	3499	1.3	298.009	13.6
151 – 250	875	0.3	168.31	7.7
251 +	1083	0.4	683.94	31.4
<b>Total</b>	<b>272.482</b>	<b>100.00</b>	<b>2.183.286</b>	<b>100.00</b>

Source: TURKSTAT (2002)

About 98 % of the enterprises in the manufacturing industry are small scale enterprises which employ 1-49 workers. (Table 15) Small and medium sized enterprises constitute 99.6 %, medium scale enterprises constitute 1.6 % and large scale enterprises constitute 0.4 % of the manufacturing industry. This structure brings with it some problems such as lack of institutionalization, low productivity and difficulties of the public administration in making long term sectoral policies. Micro scale enterprises which have to operate under free market conditions lack information regarding the production processes and demand and this situation causes to the withdrawal of too many enterprises from the market. In a nutshell, this is the cause of the short-lived enterprises.

The concentration of the micro-scale enterprises in low value added sectors where global competition intensified rapidly (Table 16) has negative effects on their profitability. From this perspective, low profitability restricts the growth demands of the firms in terms of increasing their business and investment capital on one hand and hinders the operations of the enterprises for long years on the other.

The productivity, technology level and export capacities of small scale enterprises also remain at a very low level. In order to enhance their competitiveness, firms should adapt to demand movements and establish cooperation networks with big scale firms and among the institutions giving service to these firms.

When the sectoral distribution and scales of the enterprises in Turkey are taken together into consideration, it appears that total demand is below the internal production capacity in macro level and that competition becomes destructive due to the fact that total supply is above the total demand in some specific sectors.

As a result of the harsh competition environment to which enterprises are exposed in the free market conditions, besides their scale problems, enterprises prefer to meet the demand which is below the production cost; this kind of demand does not give rise to additional employment opportunities to micro-scale enterprises.

**Table 16: Breakdown of Manufacturing Industry Sectors which employ 50.000 and more Workers**

Production Area	Number of enterprises	%	Employment	%
Manufacturing of Textile Products	20.432	8,28	400.026	19,31
Manufacturing of Clothing, Fur Processing etc.	31.592	12,8	302.219	14,59
Manufacturing of Food and Beverage	27.781	11,25	257.037	12,41
Information Management System Manufacturing of Eq. & Mac.	17.643	7,15	139.525	6,73
Metal Industry excluding Equipment and Machinery	33.304	13,49	137.163	6,62
Production of Other Mineral Products other than metals	11.130	4,51	131.485	6,35
Manufacturing of Furniture, Inf. Management System and other	31.695	12,84	115.200	5,56
Manufacturing of motor vehicles and trailer etc.	3.798	1,54	84.171	4,06
Manufacturing of plastics and Plastic and rubber	7.950	3,22	83.746	4,04
Manufacturing of wood and cork products (excluding furniture )	26.861	10,88	78.120	3,77
Manufacturing of chemicals and its products	3.786	1,53	76.497	3,69
Metal Industry	5.616	2,27	75.467	3,64

Source: TURKSTAT - 2001

**Table 17: Production and Exportation Structure of the Manufacturing Industry (%)**

Technology Intensity (1)	TURKEY						EU Export (4)
	Production			Export			
	2000(2)	2002	2005 (3)	2000	2002	2005	2003
High	5.9	5.1	6.3	7.8	6.2	6.0	21.5
Medium High	22.5	18.2	25.3	20.4	24.3	28.5	41.9
Medium Low	30.4	26.7	27.0	20.5	22.8	26.9	15.9
Low	41.2	50.0	41.4	51.3	46.8	38.7	20.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: TURKSTAT, OECD STAN Database

(1) OECD Science, Technology and Industry Scoreboard Classification,

(2) Covers 10+Employees,

(3) SPO Estimation with 2002 Prices,

(4) EU Countries which are OECD members

The share of the medium and high technology sectors in the manufacturing industry has increased to a substantial level due to the increases in the production and exportation during the 2002-2005 period. However, when compared with the EU countries, the share of these sectors remains still low. On the other hand, despite the high level of imported input dependency in these sectors, the increase of added value can not reach to an expected level (Table 17).

Despite the relative increase of the competitiveness of Turkish manufacturing industry, this ratio still remains low when compared with the countries which can be deemed as the competitors in the process of EU integration. Turkish market share has reached from 1.7 % to 2.5 % in the group of 20 products whose import figures have increased most rapidly in the last 10 years in the EU. However, the same increase has been realized much more in the competing countries.

Today, the research and development expenditures in the high-tech sectors are extremely high. Information and technology production in high tech sectors and the cost of the labour force in the low technology sectors are the characteristics of competitiveness. It is observed that information and innovation can make the difference in the activity fields of both sectors.

Another point which has to be taken into consideration while analyzing the competitiveness in Turkey is the change of share in the total exports of the sectors whose competitiveness is increasing. This means that the structure of exports concentrates on the sectors which have high competitiveness.

However, it is observed that while some sector's competitiveness is increasing, competitiveness of some others which have substantial share in production and employment is decreasing. Growth does not create a symmetric effect in all sectors of the manufacturing sector.

When the 12 NUTS II Regions are analyzed on the base of "*number of employees and enterprises in the manufacturing industry*", it is estimated that **21.5 %** of the enterprises and **15.2 %** of the employees are in these 12 NUTS II regions. (See Annex 4 - Table 52)

On the other hand; when the *15 Growth Centres* are analyzed on the bases of "*number of employees and enterprises in the manufacturing industry*", these centres cover **12.7 %** of the enterprises and **8.5 %** of the employees in Turkey. Moreover, when these 15 Growth Centres are compared with the 12 NUTS II regions, it is observed that **59%** of the enterprises and **56%** of the employees are in 15 Growth Centres. (See Annex 4 - Table 52)

When the *12 NUTS II level* is considered, the region, which has the highest share of employee employed in the manufacturing industry, is the **TRC1 region** with its **2.9%** share within the total employment and the regions which have the smallest share of employee are **TR-A2** and **TRC3 regions** with their **0.2%** share.

When the *Growth Centre level* are taken into consideration, the Growth Centres in which the number of employee employed in the manufacturing industry is the highest, is **Gaziantep** with its **2.6 %** share and the Growth Centres, in which the number of employee employed in the manufacturing industry are the lowest, are **Batman** and **Kars** with their **0.1 %** share.

In the previous chapters it was mentioned that macro level figures of the manufacturing industry are at a very low level when compared with those of the developed countries. Although Turkey has natural resources and raw materials for certain industrial sectors, the value added produced from these resources is not sufficient and this situation is one of the reasons of the low competitiveness level of Turkey compared to the EU Member Countries.

### **Sectoral Breakdown and Concentration**

When the 26 NUTS II Regions throughout the country are examined in terms of sectoral concentration in manufacturing industry, it is seen that there are accumulations in food processing, products of wood, non-metallic mineral products and basic metal products (**Annex 4 - Map 8**). Reluctance on high technology usage and qualified work, production to meet basic needs, easy and cheap access to raw material and realisation of investments by relatively small amounts of capital are the main reasons behind these sectoral concentrations.

In spite of this, printing and publishing, coocking coal, refined petroleum products, nuclear fuel production, office equipments and computer production, manufacture of electrical machinery and equipments n.e.s and recycling are the sectors which are not concentrated in any region. However, notably in the provinces like Istanbul (TR-10), Izmir (TR-31), Ankara (TR-51), Kocaeli (TR-42), Adana (TR-63) and Bursa (TR-41) where there is sectoral diversity and extent, these sectors provide significant contributions to the industrial developments of their regions. Yet these sectors have not emerged as leading sectors in medium or less developed regions, particularly in the 12 NUTS II regions, as these sectors require specialisation, high tech usage, qualified labour force and large scale investments that are lacking in less developed regions.

Industries such as aeroplane, defence, optic, medical, manufacture of telecommunication equipments and automotive production which use high technology and knowledge have a tendency to concentrate in rather developed provinces like Istanbul, Ankara, Izmir, Kocaeli, Manisa and Tekirdağ (**See Annex 4 - Map 8**). The existing universities and research centres, qualified work force and human capital potentials and infrastructures of these provinces present the suitable ground for emerging and development of these high-tech sectors.

On the other hand, when the sectoral concentration is examined in the less developed regions (12 NUTS II Regions) where the aforementioned infrastructures and potentials are not sufficient for medium and high-tech production, it can be detected that the most concentrated sector is the food processing and beverages. Following this sector, textile, clothing and wearing apparel production sector is the second in almost all 12 NUTS II Regions. The products of wood and corks and furniture production are highly common in notably TR-A1, TR-90, TR-A2, TR-82 and TR-B2 levels. Likewise, other non-metallic mineral products are widespread in TR-C2, TR-A1, TR-83 and TR-C3 levels. (See **Annex 4 – Table 53**)

In the same way, when the sectoral concentration in the 15 Growth Centres is analysed (See **Annex 4– Table 54**), it can be noticed that the food processing and beverages sector is highly concentrated in all Growth Centres. In addition to this sector, textile and wearing apparel production is another leading sector in Gaziantep, Malatya, Sanliurfa, Kahramanmaraş, Kayseri and Kastamonu. Other mining and quarrying products are highly widespread in Diyarbakır, Sivas, Elazığ, Trabzon, Van and Kastamonu. Manufacture of machinery and equipments n.e.s are concentrated in Samsun, Kayseri and Sivas.

As mentioned in the Foreign Trade section, the share of 12 NUTS II Regions in export revenues of Turkey is 8.4%. The major export items of both 12 NUTS II Regions and 15 Growth Centres are food processing and beverages, manufacture of machinery and equipments n.e.s and textile products. (See **Annex 4 / Table 53 – 54**)

Sectoral clustering is crucial in current competition conditions, particularly for the regions whose development level is less than national average or at around average. If the potentials, development orientations, sectoral concentration structures, bonds of these sectors in the production chain and the basic roles of regions within economic activities are determined through regional and sectoral strategy documents, the competitiveness of these less developed regions can be strengthened by implementation of the policies defined in strategy documents.

Sectors which show high geographical concentration rate in Turkey are given in **Annex 4– Map 8**.

### **Physical Infrastructure of Manufacturing Industry**

When the spatial distribution of the manufacturing industry throughout the country is examined, the concentration can be seen around the big cities and major harbours. The big cities like Istanbul (TR-10), Ankara (TR-51), and Izmir (TR-31) keep their central positions in manufacturing and services sectors through developed socio-economic potentials and facilities such as highways, railways, airport and harbours, qualified human resources and capital accumulation. Furthermore, in the regions around these big cities like TR-42, TR-41, TR-21, TR-33 the manufacturing industry have developed due to the positive effect of these big cities. Similarly, in certain cities of Anatolia such as Gaziantep (TR-C1), Denizli (TR-32), Konya (TR-52), manufacturing industry have found the ground to develop and these cities have become the driving forces of their regions by the added value and employment capacity they produce.

In all those regions, Organized Industrial Zones (OIZs) and Small Scale Industrial Estates (SSIE) have presented a proper environment for the industrial development through their common infrastructure and waste water treatment facilities. These zones and estates are established by the credit support, supervision and control of the Ministry of Industry and Trade. Almost half of the manufacturing enterprises are in function in OIZs and SSIEs.

There are 93 OIZs and 399 SSIEs in function throughout the country whereas there are on going 108 OIZs and 69 SSIEs projects at different stages of establishment or infrastructure construction. When the spatial distribution of completed or on going OIZs and SSIEs, which are the most appropriate areas for investments of SMEs is examined, the homogenous spatial distribution of these zones and estates can be seen in all regions of Turkey. However, the occupancy rate of these zones and estates differs according to the development rates of the regions they belong to. For instance, the occupancy rate of OIZs and SSIEs is low in less developed regions whereas it is high in developed regions. Although the

proper investment areas are presented to the investors by the establishment of OIZs and SSIES, attracting investments to those zones requires the existence of other socio-economic infrastructures in the region. Therefore, establishment of physical industrial infrastructure is not merely enough in less developed regions without supporting and ensuring complementarity by other policy areas.

The distribution of OIZs and SSIEs in the 12 NUTS II Regions and 15 Growth Centres is given in Table 18 and Table 19.

**Table 18: Distribution of Organized Industrial Zones (OIZs)**

Turkey (81 Provinces)		12 NUTS II Regions				Growth Centres			
Comp.	On-going		Comp.	On-going		Comp.	On-going		
93	108	TR-63(Hatay, K.Maraş,Osmaniye)	3	3	K.Maraş	-	1		
		TR-83 (Amasya, Çorum,Samsun,Tokat)	5	11	Samsun	1	-		
		TR-82 (Çankırı, Kastamonu, Sinop)	3	5	Kastamonu	1	-		
		TR-B1 (Bingöl, Elazığ, Malatya,Tunceli)	4	5	Malatya	1	1		
					Elazığ	2	2		
		TR-90 (Artvin,Giresun,G.Hane,Ordu,Rize,Trabzon)	2	7	Trabzon	-	-		
		TR-72 (Kayseri,Sivas, Yozgat)	3	4	Kayseri	1	-		
					Sivas	1	2		
		TR-C1 (Adıyaman,G.Antep,Kilis)	5	5	G.Antep	3	2		
		TR-C2 (Diyarbakır, Ş.Urfa)	1	3	Diyarbakır	-	1		
					Ş.Urfa	1	1		
		TR-A1 (Bayburt,Erzincan,,Erzurum)	3	3	Erzurum	1	2		
		TR-C3 (Batman, Mardin,Şırnak,Siirt)	2	3	Batman	-	1		
		TR-B2 (Bitlis,Hakkari,Muş,Van)	-	4	Van	-	1		
		TR-A2 (Ağrı,Ardahan,Iğdır,Kars)	1	4	Kars	1	-		
		<b>TOTAL</b>	<b>32</b>	<b>57</b>		<b>13</b>	<b>14</b>		

Source: MoIT, 2007

**Table 19: Distribution of Small Scaled Industrial Estates (SSIEs)**

Turkey (81 Provinces)		12 NUTS II Regions				Growth Centres			
Comp	On-going		Comp	On-going		Comp	On-going		
399	69	TR-63(Hatay, K.Maraş,Osmaniye)	14	6	K.Maraş	3	1		
		TR-83 (Amasya, Çorum,Samsun,Tokat)	25	3	Samsun	2	-		
		TR-82 (Çankırı, Kastamonu, Sinop)	19	1	Kastamonu	2	-		
		TR-B1 (Bingöl, Elazığ, Malatya,Tunceli)	12	3	Malatya	3	-		
					Elazığ	4	-		
		TR-90 (Artvin,Giresun,G.Hane,Ordu,Rize,Trabzon)	19	5	Trabzon	3	-		
		TR-72 (Kayseri,Sivas, Yozgat)	22	6	Kayseri	2	-		
					Sivas	5	-		
		TR-C1 (Adıyaman,G.Antep,Kilis)	10	6	G.Antep	5	-		
		TR-C2 (Diyarbakır, Ş.Urfa)	10	2	Diyarbakır	3	1		
					Ş.Urfa	2	-		
		TR-A1 (Bayburt,Erzincan,,Erzurum)	8	3	Erzurum	3	1		
		TR-C3 (Batman, Mardin,Şırnak,Siirt)	5	4	Batman	1	-		
		TR-B2 (Bitlis,Hakkari,Muş,Van)	15	3	Van	3	1		
		TR-A2 (Ağrı,Ardahan,Iğdır,Kars)	7	2	Kars	1	-		
		<b>TOTAL</b>	<b>166</b>	<b>44</b>		<b>42</b>	<b>4</b>		

Source: MoIT, 2007

As is seen from **Tables 18 and 19** there are completed 32 OIZs and 166 SSIE and on going 57 OIZs and 44 SSIEs projects in 12 NUTS II Regions. While in the 15 Growth Centres there are completed 13 OIZs and 42 SSIEs and on going 14 OIZs and 4 SSIEs projects. In terms of the number of completed and on going OIZs and SSIEs, the highly developed NUTS II regions are TR-83, TR-72 and TR-C1 whereas TR-A2, TR-B2, TR-A1, TR-C2 and TR-C3 are the less developed NUTS II Regions among 12 NUTS II levels. In 15 Growth Centres the provinces such as Gaziantep and Sivas are the ones that have the highest numbers of OIZs and SSIEs while in Van, Diyarbakır and Trabzon there is sufficient numbers of OIZs and SSIEs as the interest of investors to these provinces is modest and the occupancy rates in existing ones is low. As can be seen from **Table 18-19**, each NUTS II Region and each Growth Centre (except Trabzon city centre, though, their counties have completed or on-going OIZs) has at least one completed or on going OIZs and SSIEs which are established depending on the demand from the investors.

As it is understood from **Table 18 and 19**, in the 12 NUTS II Regions and in the 15 Growth Centres there are enough numbers of completed and on going OIZs and SSIEs which present proper mutual infrastructure facilities for the SMEs' investments. The main problem in those regions for on going OIZ and SSIE projects is the completion of the infrastructure constructions and reaching the optimum occupancy rates of these zones by attracting the interest of investors and creating new entrepreneurs. Otherwise, those zones and estates would be idle and the transferred scarce public resources to build these zones can not be exploited for the fullest. Therefore, the promotion of new investments and entrepreneurship in the 12 NUTS II Regions and in the 15 Growth Centres is important to make profitable investments in the OIZs and SSIEs and increase their occupancy rates.

When the figures are analyzed in terms of OIZs and SSIEs on the bases of provinces, it is clear that the number of these zones and estates are sufficient in Turkey. On the other hand, when it comes to the completed OIZs and SSIEs, it is important to ensure support and consultancy mechanisms for the enterprises located in OIZs and SSIEs. This support should particularly be concentrated on management and business administration, quality and standardisation, clustering and networking, exporting and marketing, technology transfer, R&D and innovation to keep their business in competition conditions and to improve their skills and capacities.

Moreover, it is an urgent need of enterprises to access consultancy and support services through Enterprise Development Centres (IGEMs) and Business Development Centres (ISGEM)<sup>16</sup>, incubators or to common usage laboratories and workshops rather than establishment of new OIZs and SSIEs infrastructures.

KOSGEB provides training, consultancy, infrastructure and superstructure, exporting, technology development and start-up services and support in accordance with the changing business conditions and the needs of SMEs through Regional Industry Development Centres.

The Incubation Centres which are called as ISGEMs are established under the coordination of KOSGEB. They provide working space to SMEs whose property rights belongs to the local or private entities, machinery and equipment for common usage, secretariat, training, consultancy for business development and coaching services. ISGEM is an entrepreneurship and local development model in Turkey.

In **Table 20**, the distribution of IGEMs/Regional Industry Development Centres and ISGEMs is given in the 12 NUTS II Regions and 15 Growth Centres. As it is seen in **Table 20**, there are 11 IGEMs/Regional Industry Development Centres in the 43 provinces of the 12 NUTS II Regions and all of them are in the Growth Centres. Also, there are 6 ISGEMs in the 43 provinces of the 12 NUTS II Levels and 4 out of 6 are in the 15 Growth Centres. Although each NUTS II Regions and Growth Centres has at least one OIZ and SSIE, there is no ISGEM and IGEM in each NUTS II Region and

<sup>16</sup> IGEMs are the local support centres of KOSGEB while the ISGEMs are the incubators established by the local partners with the initiation of KOSGEB.

Growth Centres because the occupancy rates of those zones is low and the number of enterprises located in the zones and taking benefit from the services of IGEMs and ISGEMs is not substantially high. The awareness of the companies on the services of the IGEMs and ISGEMs should be raised by basic information and consultancy support to stimulate the establishment of IGEMs and ISGEMs in the target regions.

**Table 20: The Distribution of IGEMs and ISGEMs**

Turkey (81 Provinces)		12 NUTS II Regions				Growth Centers			
IGEM	ISGEM	NUTS II	ISGEM (Incubation Centres for SMEs)		IGEM/Regional Industry Development Centers	PROVINCE	ISGEM (Incubation Centres for SMEs)		IGEM/Regional Industry Development Centers
			Existing	At the planning Stage			Existing	At the planning Stage	
20	17	TR-63 (Hatay, K.Maraş,Osmaniye)	-	-	1	K.Maraş	-	-	1
		TR-83 (Amasya, Çorum,Samsun,Tokat)	1	1	2	Samsun	1	-	1
		TR-82 (Çankırı, Kastamonu, Sinop)	-	-	-	Kastamonu	-	-	-
		TR-B1 (Bingöl, Elazığ, Malatya,Tunceli)	1	-	1	Malatya	-	-	1
						Elazığ	1	-	-
		TR-90 (Artvin,Giresun,G.Hane,Ordu,Rize, Trabzon)	-	-	1	Trabzon	-	-	1
		TR-72 (Kayseri,Sivas, Yozgat)	1	-	1	Kayseri	-	-	1
		TR-C1 (Adıyaman,G.Antep,Kilis)	-	-	1	G.Antep	-	-	1
		TR-C2 (Diyarbakır, Ş.Urfa)	1	-	2	Diyarbakır	1	-	2
		TR-A1 (Bayburt,Erzincan,,Erzurum)	-	-	1	Erzurum	-	-	1
		TR-C3 (Batman, Mardin,Şırnak,Siirt)	-	-	-	Batman	-	-	-
		TR-B2 (Bitlis,Hakkari,Muş,Van)	1	-	1	Van	1	-	1
		TR-A2 (Ağrı,Ardahan,Iğdır,Kars)	-	-	-	Kars	-	-	-
		TOTAL	5	1	11		4	-	11

Source: KOSGEB, 2007

#### 2.1.2.2. Small and Medium Size Enterprises (SMEs)

SME definition in Turkey has been aligned with the EU definition and put into force on 18 May 2006 (Table 21). It is a single definition for all institutions and organizations. Although the number of workers is the basic determinant in this new SME definition, the value of fiscal balance, annual net sale revenue, etc. have also been taken into consideration. Furthermore, the scale of enterprises will be decided upon to examination of the data acquired after three years period.

**Table 21: Classification of Enterprises through the Legislation of SME Definition**

# of Employee	Scale	Value of Tax Balance Sheet (YTL)	Annual Net Sales Proceeds (YTL)
0-9	Micro	1.000.000	1.000.000
10-49	Small	5.000.000	5.000.000
50-249	Medium	25.000.000	25.000.000
≥250	Large	≥25.000.000	≥25.000.000

Source: Legislation of SME Definition, 2005

As is mentioned in Chapter 2.1.2 “Enterprises”, in Turkey there are 1,858,191 enterprises in all scales. When their scale is taken into account, according to TURKSTAT’s 2002 General Census of Industry and Business Establishments, *micro enterprises* represent 96% of total enterprises, while *small and medium sized enterprises* constitute 3.6% of total enterprises. Micro enterprises and small and

medium sized enterprises are described as SMEs and when their share in total enterprises is taken into account together, the share of *SMEs* in total enterprises reaches to **99.9%**. The total number of SMEs (1-249 employees) in Turkey is **1,856,340**

When the regional distribution of the SMEs in the target regions, where the RCOP will be implemented, is taken into account, **25.7% of SMEs (0-250 employees) in Turkey are in 12 NUTS II Regions** and created employment in these SMEs is 1,186,187 which corresponds to **22.1%** of total employment created by SMEs in Turkey. When 15 Growth Centres are considered, **12.5% of SMEs and 11.8% of total employment** created by SMEs in Turkey are in Growth Centres. (See Table 22) Food processing, machinery and textile are the main sectors for these SMEs.

**Table 22: Number of SMEs and Employment Generated by SMEs in 12 NUTS II Regions and 15 Growth Centres**

NUTS II REGIONS	Number of SMEs	Employment	Growth Centres	Number of SMEs	Employment
TR63 (Hatay, K.Maraş, Osmaniye)	60 298	141 472	K.Maraş	18 078	39 877
TR83 (Samsun, Tokat, Çorum, Amasya)	75 494	185 433	Samsun	34 016	90 475
TR82 (Kastamonu, Çankırı, Sinop)	22 380	49 152	Kastamonu	11 837	24 683
TRB1 (Malatya, Elazığ, Bingöl, Tunceli)	32 073	81 909	Elazığ	12 398	31 751
			Malatya	14 325	39 595
TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane)	69 790	175 366	Trabzon	21 080	56 261
TR72 (Kayseri, Sivas, Yozgat)	48 470	142 959	Kayseri	22 714	85 328
			Sivas	15 239	35 222
TRC1 (Gaziantep, Adıyaman, Kilis)	47 178	135 160	Gaziantep	34 411	109 769
TRC2 (Şanlıurfa, Diyarbakır)	41 594	95 115	Diyarbakır	17 297	44 772
			Şanlıurfa	24 297	50 343
TRA1 (Erzurum, Erzincan, Bayburt)	20 658	50 670	Erzurum	14 168	34 885
TRC3 (Mardin, Batman, Şırnak, Siirt)	20 063	44 725	Batman	4 460	13 281
TRB2 (Van, Muş, Bitlis, Hakkari)	22 073	49 418	Van	12 102	28 749
TRA2 (Ağrı, Kars, Iğdır, Ardahan)	17 450	34 808	Kars	5 068	10 792
<b>Total of 12 NUTS II Regions</b>	<b>477 521</b>	<b>1 186 187</b>			
<b>Total of 15 Growth Centres</b>				<b>233 884</b>	<b>631 833</b>
<b>Total of Turkey</b>	<b>1 856 340</b>	<b>5 352 627</b>			
<b>The Share of 12 NUTS II Regions to Turkey (%)</b>	<b>25.7</b>	<b>22.1</b>			
<b>The Share of 15 Growth Centres to Turkey</b>				<b>12.5</b>	<b>11.8</b>
<b>The Share of 15 Growth Centres to 12 NUTS II Regions</b>				<b>48.9</b>	<b>53.2</b>

Source: TURKSTAT - 2002 General Census of Industry and Business Establishments

76.7 % of total employment and also 26.5 % of total added value are created by SMEs in the country. Although it shows changes year by year, the shares of SMEs in total export is on average 10 %. Although the number of SMEs in EU countries and contribution to the employment are shown similarity with Turkey, SMEs in EU produce 2 times greater added value than Turkey. Another important difference is that the share taken by SMEs in total credit in Turkey is approximately 24 % whereas it reaches up to 35-40 % in EU.

According to EUROSTAT, in the EU, 89,1% of enterprises are micro enterprises and 11,3% are small and medium sized enterprises. According to the distribution of the number of workers, the share of big enterprises is 33,1 %, micro scale is 27,8 % and small and medium sized is 38,9 %. In the EU, the added value is 40,3 % in enterprises which have more than 250 workers, the share of micro enterprises is 20,8 %, the share of small and medium sized firms is 38,9 %. The added value created by firms described as SME is approximately 59,7 %. Export rate of EU SMEs is approximately 41 %.

When the export rates, technology usage and value added created by Turkish and European SMEs are compared, competition with the European SMEs is rather difficult for Turkish SMEs with their current capital structure. Therefore, SMEs competing in the global markets have to be aware of the market information such as the position of their competitor, demand, product price and marketing activities, and financial issues such as selffinance, foreign finance, leasing, factoring, venture capital and credits along with the technical information such as product development, product design, technology, production and investment planning, modernisation-renovation, standards and scale economies.

The studies on the need assessments for Basic Information Support and Consultancy Services for SMEs conducted by the National Productivity Centre in some of the provinces of the target regions (Rize, Kahramanmaraş, Ordu, Batman, Mardin, Diyarbakır, Şanlıurfa, Yozgat, Malatya, Elazığ ve Adıyaman) by 353 SMEs and according to the Field Study conducted by KOSGEB covering 50.000 companies throughout the country have shown that training and consultancy needs of SMEs concentrate in the areas of: production planning and control, sale-marketing and consumer satisfaction analysis, productivity, quality management systems, human resources management, foreign trade, health and security at work place, institutionalisation, management skills, CE marking, standardisation and certification and accounting.

Within the framework of the concepts such as “clustering”, “partnership”, “public-private sector cooperation”, “good governance”, “technological innovation”, “globalisation”, the dialog and collaboration between the public sector and the private sector is highly important and needs to be improved.

### **On-going SME support activities**

On this account, the Istanbul Textile and Apparel Exporters' Associations (ITKIP) has launched the EU funded cluster project called '**Fashion and Textile Cluster**' in 2003, to increase networking among SMEs in the textile and clothing sector, at local, national and European levels, as well as with business support organisations and structures. At the end of the first phase of the Project, a Cluster Analysis has been conducted, a Cluster Co-ordination Agency, a Textile R&D Centre and a Fashion Institute have been established and Institutional capacity of ITKIB and other relevant business organisations increased. The second phase of this project started in 2005 and the necessary “common use equipment” infrastructure for a Cluster Coordination Agency, Fashion Institute, R&D Centre, Consultancy Centre and Joint Projects will have been supplied and operational. The support services of Fashion and Textile Cluster for SMEs will have been formed, developed and functional.

Furthermore, the Undersecretariat for Foreign Trade (UFT) has launched a EU funded Project in 2005 called 'Development of a Clustering Policy in Turkey' to develop a comprehensive and visionary clustering policy that contributes to the sustainable social, environmental and economic development in Turkey. By this Project it is aimed that the institutional capacity of UFT and other relevant organisations will be increased and national clusters will be mapped and roadmaps will be developed. After the first phase of the project, 10 clusters will be supported during the 2nd and 3rd phases of the Programme.

Apart from these EU funded projects, clustering and sector strategies were discussed in the studies conducted by the *EU-Turkey Business Centres* (Gaziantep ABIGEM- EU Turkish Business Centre) on 'Strategies for the Machinery and Machinery Equipment, Handicrafts Sector and Carpert Sector in Gaziantep' and also in the research studies conducted by Şanlıurfa, Adıyaman, Mardin and Diyarbakır *GAP- Entrepreneur Support Centres- GIDEMs* (GAP GIDEM is an EU-funded SME development

project, executed by UNDP in cooperation with GAP Regional Development Administration) on cluster analysis for the sectors like marble, textile and confection and organic agriculture. These studies have clearly presented that sectoral clustering and building networks among different regions is highly important so as to improve those sectors in the relevant provinces and also to keep track with the tough regional and global competition environment.

The outcomes of above mentioned EU funded clustering projects and the studies conducted in some provinces of the target regions will be a basis for supporting clustering and networking projects in the 12 NUTS II Regions, to lower transaction costs, to develop new skills, to overcome (or create) entry barrier in markets, to use a common infrastructure, resource and labour pool advantage and eventually to speed up the learning process.

The Small and Medium Industry Development Organisation (KOSGEB), which was established to support SMEs operating in the manufacturing industry, provides services in the fields of raising competitiveness, opening up to the world market, technology production and/or usage of new technologies, development of human resources, involving e-business by means of ICT to SMEs through its countrywide centres. Within this framework, there are 20 Enterprise Development Centres, 18 Technology Development Centres, 15 Regional Industry Development Centres, and 8 Incubators Without Wall. Besides, initiatives towards the establishment and operation of “Synergy Focuses” have been launched in 2004 to generalise services and supports given to the SMEs. Synergy Focuses are established in cooperation with the Chambers of Industry/Commerce, Commodity Exchanges, Unions of Artisans, Cooperatives of Artisans, Management Boards of Organised Industrial Zones and Small Scale Industrial Estates and SME foundations and associations as an example of a new cooperation model. Municipalities and universities may also participate in this model. As of September 2006, Synergy Focuses are in function in 75 provinces/districts.

Technology Development Centres (TDC) functions as “Business Incubation Centres” aiming to support technology oriented development. The main goal of TDC is to decrease the initial costs of start-ups and failure risk of a developing enterprise. The major objective is integration of developed enterprises which can cope with the market conditions to the market and creation of technology oriented enterprises. The Public (KOSGEB)-University-Chambers of Industry Cooperation Model has been applied in TDC. Management of TDC and decisions on SME and R&D projects which will be supported are carried out by the Boards composed of representatives of the KOSGEB, University and Chambers of Commerce. It is planned that TDC will be specialised on sectoral bases later on. Furthermore, Incubation Centres without Wall provide TDC services excluding office allocation.

Provinces appropriate for clustering have been defined based on the branches of business of 48.000 enterprises which have been defined as a result of the field survey conducted in the countrywide by KOSGEB. In this respect, branches of business and clustering potential have been determined for 34 provinces.

When the problems of Turkish SMEs and possible solutions to these problems are evaluated the following issues are important:

Macro-economic changes and crises directly affect SMEs. In order to minimise these adverse effects it is crucial that a professional management concept is applied to develop more flexible production and management models in SMEs. The problems of SMEs may affect the general economy and social structure because of employment and production capacity created by them. Within the framework of the encouragement of the existing and potential entrepreneurship, it is necessary therefore to support enterprises through convenient advisory and training activities from establishment to development phase, in order to increase their competitiveness.

Regional disparities require different approaches. It is necessary to activate the local dynamics and to support the regional competitiveness characteristics of each region. SME supports in different regions show differences according to their characteristics which provide competitiveness such as local conditions, local sectors, technology usage of enterprises, innovation, design, skilled labour force,

good governance. Within this, it is also important to provide interaction and coordination with other policy areas by considering the effects of the local characteristics which provide competitiveness.

### Access to Finance

Another problem of SMEs in Turkey is *insufficient access to the financial instruments*. This problem stems from the unwillingness of micro sized enterprises to use financial tools due to the harsh conditions and insufficient numbers of financial instruments are available to support SMEs.

The results from a field survey on "*Small Enterprises Finance in Turkey*", which was supported by the European Union and *Kreditanstalt für Wiederaufbau (KfW)* and conducted by Banakademie International in March 2005, highlighted the supply and demand side obstacles in SME finance. The survey is very relevant in terms of its target group, region and theme thus the outputs of the survey are extensively used in the relevant parts of RCOP.

The survey region (Batman, Diyarbakır, Elazığ, Erzurum, Gaziantep, Kahramanmaraş, Kayseri, Samsun, Siirt, Sivas, Trabzon, Şanlıurfa and Van) substantially coincides with the target regions of RCOP. All the cities except Siirt are Growth Centres.

The study was conducted on 653 enterprises in thirteen pre-selected cities using a semi-structured questionnaire. The focus was on small enterprises with less than 50 employees. The small enterprises in the sample employ 9 people on average. A large majority of the surveyed enterprises (72 percent) are micro enterprises with 1 to 9 employees.

The study identifies the below mentioned obstacles in accessing finance:

- The collateral requirements by commercial banks clearly are the most striking barrier. An overwhelming 83 percent of the enterprises quoted this obstacle either as the first, second and third rank.
- Interest rates are the second major obstacle mentioned by over half (54 percent) of the enterprises. The general view was that the interest rates were too high.
- Bureaucratic and cumbersome procedures on the side of the commercial banks were mentioned as third major obstacle by 26 percent of the respondents.

Therefore, SMEs in Turkey are in need of additional financial resources to follow up new technologies and implement modern business administration and management skills. Particularly, SMEs in the manufacturing industry have difficulty in obtaining sufficient capital for their investments. This is also relevant for the enterprises which are at the start-up phase. In this initial phase, the enterprises have to provide equity capital from their own savings in the short run. In this context, insufficient capital appears to be the fundamental bottleneck for start-ups.

However, SMEs generally do not opt to use financial instruments since strong collateral amounts are required, especially for new and small size enterprises, to get bank credit. On the other hand, SMEs have difficulties in providing the required guarantee or collateral because of their size, capital, organizational structure and low levels of production. They prefer credit schemes applying low interest rates and requesting more simple procedures. Naturally, this situation leads to a low level of bank credit utilization rates by SMEs. According to available figures, the amount of credit received by SMEs in 2000 was 6 % while this figure has reached to 24% in 2006, largely due to adjustments in the regulations and SME definition made in the last 6 years. After the reformation process in the financial sector started in 2001, financial institutions (banks, factoring and leasing companies) became more willing to work in cooperation with SMEs. In this framework, the ratio of credit to GNP reached 41 % in 2006 while it was 23 % in 2002. On the other hand, the volume of factoring increased to 12 billion Euro and the volume of leasing reached 4 billion Euros in 2006.

Nevertheless, financial institutions and banks consider that the risk of SME financing is high whereas its profit is low in Turkey. This leads to an *ineffective and insufficient* number of financial instruments to support SMEs.

For instance, in terms of *venture capital*, there are 2 operational Venture Capital Investment Trusts in Turkey. "**İs Venture Capital Investment Trust**" (ISRISK) is a private company operational since 2001. The other one is a public incorporated company, **KOBİ Venture Capital Investment Trust Inc. Co.**, which acts as an efficient risk capital intermediary in the Turkish financial market by providing financial instruments for promising SMEs. According to the figures obtained from these Trusts, the utilisation of venture capital by SMEs in Turkey is 2 % which is very low.

On the other hand, in terms of *credit guarantee systems*, the *Credit Guarantee Fund Operating & Research J.S.C.* (KGF) is the single fund operating in Turkey since 1994. The main objective of this Fund is to support SMEs by providing a guarantee for their financing and increasing the credit usage. KGF acts as an intermediary organization and makes it possible for SMEs with inadequate collaterals to apply for bank credits, increasing the number of customers for the banks and minimizing their risks. By the end of 2005, KGF granted 81.8 million Euro worth of guarantees for 982 firms. According to KGF figures, in 2005 85 % of the guarantees were granted for *manufacturing industry* while 5 % of the total guarantees were demanded for the Eastern Anatolian Region of Turkey.<sup>17</sup>

Another important SME financing instrument operating in Turkey is the *Union of Turkish Artisans and Craftsmen Credit and Guarantee Cooperatives (TESKOMB)*. There are 921 Artisans and Craftsmen Credit and Guarantee Cooperatives affiliated to TESKOMB. TESKOMB gives guarantees to credits which are allocated to the artisans and craftsmen by Halkbank. The share of enterprises given guarantees by TESKOMB to all enterprises is 12%.

There is not any micro loan mechanism operating in Turkey.

When all these aspects are taken into account not only from the SMEs point of view but also from financial instruments in Turkey, it is clear that there is a need to improve the conditions of enterprises in terms of access to financial instruments, by establishing and/or supporting financing mechanisms.

## Research and Development

Achievements realised in the industrial property rights are also important for ensuring competitiveness and technological development. However, when the number of trademarks, patent and utility model taken by the Turkish and European SMEs is taken into account, there are significant differences between both parties.

Almost all patent applications are composed of foreign applications and the registration rate of domestic applications is 10%. Domestic applications are higher in the utility model, whereas half of these applications result with the approval. Although the number of design application is increasing yearly, it is still insufficient. However, the rate of trademark applications and registration is high and 60% of these applications result in registration. An increasing tendency is also observed in industrial design applications.

If the number of the registered patent and utility model in the 12 NUTS II Regions having an income per capita below 75 % of national average and 15 Growth Centres are taken into account, it is seen that there is a significant imbalance between these regions and relatively developed regions of the country. The number of registered patent and utility model in the 12 NUTS II Regions are 8 and 199 respectively which corresponds to 6.5% and 12% of the total patent and utility model registered in Turkey. With regards to the 15 Growth Centres, the number of registered patent and utility model are 5 and 188 respectively representing 4% and 11.3% of the total patent and utility model registered in

<sup>17</sup> The guarantees received were 44 % at Marmara Region, 26 % at Aegean, 17% at Mid-Anatolian and 8 % at Black Sea region.

Turkey. These figures also show that the 15 Growth Centres have a significant place in the 12 NUTS II Regions in terms of the number of registered patent and utility model. Regarding the utility model, the share of Growth Centres to 12 NUTS II Regions is 94%, while this ratio is 62.5% for registered patent.

### Export Capacity

One of the clear indicators of regional competitiveness is the exporting capacity of enterprises. The companies which produce products with suitable cost and quality according to demand and export their products make a valuable contribution for regional development and employment capacity by providing added value. According to the Field Study conducted by KOSGEB, which covers 50.000 companies throughout the country, only 35% of SMEs in Turkey can export (**Table 23**). Deficiency of source and lack of information are the main barriers for exporting (**Table 24**).

One of the main problems of SMEs is quality. The number of enterprises which have the required certificates for exporting, and to reach the international standards and quality is very low. It's known that SMEs have low capacity in skilled labour force. On the other hand, existing universities, engineering colleges or vocational high schools are not able to meet the needs of SMEs. The syllabus of these schools has to be developed according to the needs of the market and the needed labour force profile. More importance must also be given for developing a dialog and coordination between enterprises and these educational institutions.

In **Table 25**, the breakdown of the exports to the EU countries is given. From these tables, it can be observed that Turkish SMEs need necessary knowledge and consultancy support concerning internal and external markets and exporting strategies to improve their exporting capacities. Turkish SMEs are more active in the German market, but they must also pursue other European and global markets, particularly, in the neighbouring Middle East.

**Table 23: Export Capacity of SMEs**

Do they export?	Number of Companies	Percentage%
Yes	18.423	36,53
No	29.615	58,72
No reply	2.398	4,75
<b>Total number of companies</b>	<b>50.436</b>	<b>100,00</b>

Source: KOSGEB Field Study

**Table 24: Main Problems of SMEs in Exporting**

Fact	Number of Companies	Percentage%
Insufficient resources	15.571	28,09
Lack of External Market Knowledge	8.568	15,46
Lack of Intermediator	5.957	10,75
Satisfaction in Internal Market	9.089	16,40
Disadvantage of price	5.590	10,08
Products of poor quality	5.431	9,80
Lack of foreign Language	5.224	9,42

Source: KOSGEB Field Study

**Table 25: Export to EU Member States**

<b>Countries</b>	<b>Number of the Company</b>	<b>Percentage %</b>
Germany	6.025	25,34
The UK	2.838	11,93
France	2.685	11,29
Greece	2.530	10,64
The Netherlands	2.111	8,88
Italy	1.888	7,94
Belgium	1.193	5,02
Spain	1.032	4,34
Austria	602	2,53
Denmark	564	2,37
Poland	405	1,70
Hungary	389	1,64
Sweden	386	1,62
The Czech Republic	209	0,88
Portugal	203	0,85
Ireland	175	0,74
Finland	162	0,68
Lithuania	102	0,43
Slovenia	97	0,41
Slovakia	64	0,27
Malta	55	0,23
Estonia	29	0,12
Luxemburg	16	0,07
Latvia	9	0,04
<b>Total</b>	<b>23.769</b>	<b>%100,00</b>

Source: KOSGEB Field Study

The information and technology base of SMEs need to be supported to make R&D, design and to create brand marks for providing production of service and high value added product in an innovative manner. Competitiveness of SMEs also needs to be increased. Competitiveness is directly proportional to the productivity of SMEs. The productivity of micro and small scaled firms can be increased by developing the commercial relationships and networks between the small scaled and large scaled firms. Productivity and added value of SMEs can be increased through widespread clustering and adoption of EU best practices.

### **Lessons Learned**

In the framework of European Union assistance to the Economic and Social Cohesion sector in Turkey, there are two main areas of assistance. The first one is Business Development and the other is Regional Development

Under Business Development Assistance, the following projects have been completed/on-going or just started:

#### *GAPRDP SMIE*

The project supports the improvement of managerial, entrepreneurial and operational capacities of SME in the region. In the scope of the Programme 800 participants from numerous companies participated in training programmes relating to various areas of entrepreneurship, business management and development, and competitiveness. 700 trainees participated in vocational training at the Adiyaman Training Centre for Textiles to improve their skills and employability. Over 600 clients received business development services, and over 500 received advisory and consultancy services.

Comprehensive feasibility studies, surveys, sector analyses and market research studies have been published on existing and potential regional activities. A SME database for the region has been developed, and the recently launched web-site will soon start promoting the products of women entrepreneurs in the region.

The Entrepreneur Support Centres (GIDEM) established in four provinces to provide business-related information, consultancy, and training services are expected to improve competitiveness.

#### *SME Finance Facility*

The project provided an exchange risk cover fund (ERCF) to protect banks against the risk of Turkish Lira inflation. It also made funds available to the on-lending banks (OLB) at an attractive interest rate, and permitted on-lending to SME at close to market rates, in provinces designated as development areas. Only 7.9 Million euros or 37% of the 21.3 Million euros SME credit line capital provided by KfW has been disbursed in 60 loans to 55 firms, with three businesses having repeat loans. OLB disbursement ended in December 2006, and reallocation of the ERCF has yet to be decided.

#### *SELP 1*

Small Enterprise Loan Programme (SELP 1) has contributed to change in the participating OLB. It has directly influenced lending performance, and the focus on smaller loans has resulted in 67% being under 20,000 Euros. Additionally, SELP 1 has had a significant impact on long term small enterprise financing, with 71% of loans having a maturity of more than 12 months. The 1,607 SELP 1 loans have, in turn, had a noticeable impact on the local economies and secondary markets there, by enabling the creation 2,281 new jobs, and safeguarding 15,299 existing jobs. The resulting cost of a SELP 1-enabled new job is 11,476 Euros.

#### *SELP 2*

Research undertaken by SELP 1 demonstrates that micro and small enterprises are still under-served by banks, particularly so in the less developed regions of eastern Turkey. Although the SME Finance Facility experienced difficulties in disbursement, partly due to lack of geographical focus and relatively few bank branches in less developed regions, SELP 2 will also address these areas. All OLB from SELP 1 have expressed interest in participating in SELP 2. All have opened additional branches, and are committed to programmes which expand their networks considerably.

*Fashion Textile Cluster* (See page 46, On-going SME support activities)

*Development of a Clustering Policy* (See page 46, On-going SME support activities)

#### *Supporting Women Entrepreneurship*

The project is composed of 2 components. The first component is to be implemented by the Turkish Confederation of Craftsmen and Tradesmen, provides entrepreneurship and management training and consultancy for women, through two-tier training centres to be established in 25 provinces. It will develop the capacity of the Association of Craftsmen and Tradesmen in relevant provinces to sustain the training centres, and to replicate the activities in other regions. The component 2 will establish four business incubators under the supervision of KOSGEB, each accommodating at least 20 businesses. The locations were selected by KOSGEB. This component will also develop the capacity of the incubators to support entrepreneurs, and to operate as self-sustainable, not-for-profit enterprises. This component also supports the development of KOSGEB's overall SME policy and incubator practices.

Under Regional Development Assistance the following projects have been completed/on-going or just started:

### Eastern Anatolia Development Programme (EADP)

This grant programme covers TRB2 NUTS II region, which is composed of Bitlis, Hakkari, Muş and Van Provinces has been implemented under the coordination of Undersecretariat of State Planning Organization (SPO). 309 grants were contracted with total grant funding of 29.091 Million euros.

### GAP Regional Development Programme - Rural Development & Micro Credit Component

87 grants have now been contracted and there has been significant training activity to support grantees in the areas of project management, procurement, and monitoring.

### GAP Regional Development Programme – Cultural Heritage

The South East Anatolia Cultural Heritage and Tourism Development Union (SEACHTDU) has now been formally established to promote and monitor implementation of the ISAP, and it is operational. The grant-funded restoration works and cultural heritage activities are in progress

### Regional Development in Samsun, Kastamonu and Erzurum NUTS II Regions

396 grant projects were contracted by the end of May 2006, accounting for 98% of the 37 Million euros EU allocation. 14,696 people have benefited from grant-funded training activities, including 3,425 women, 3,185 young people, and 386 disabled persons. 1,637 people are employed part-time or full-time by the grant-funded projects.

### Regional Development in Konya (Konya and Karaman), Kayseri (Kayseri, Sivas, Yozgat), Malatya (Malatya, Bingöl, Elazığ and Tunceli) and Agri (Agri, Iğdır, Kars and Ardahan) NUTS II Regions

Information, training, and publicity activities directly involved some 7,000 people in three regions between April and June 2006. In total 1,680 project proposals were submitted to the CFCU, of which 509 were contracted by the end of November 2006, accounting for 105% of the original 61.25 Million euros EU allocation.

### Regional Development in TR90 NUTS II Regions

### Support to the Solution of Economic and Social Integration Problems in Urban Areas as Major in-Migrant Destinations in Priority NUTS

#### **Key issues for SME development**

As a conclusion of the above analysis the major difficulties faced by the SMEs in the target regions are summarised below:

- The share of SMEs in total enterprises reaches to **99.9%. 25.7% of the enterprises in Turkey are located in 12 NUTS II regions and 14% of them are in 15 Growth Centres.** The created employment in the SMEs located in 12 NUTS II regions is 1,186,187 which correspond to **22.1%** of total employment created by SMEs in Turkey. SMEs in the 12 NUTS II regions tend to concentrate in wholesale and retail trade, manufacturing industry and hotels and restaurants.
- The SME share in the 12 NUTS II regions and 15 Growth Centers is low, equally the share of employment creation by SMEs in these regions is also low,
- Manufacturing industry enterprises are mostly small and medium sized enterprises. This structure brings with itself some problems such as lack of institutionalization, low productivity and difficulties of the public administration in making long term sectoral policies.

- Micro scale enterprises which have to operate under free market conditions lack information regarding the production processes and demand giving rise to the withdrawal of too many enterprises from the market.
- Micro-scale enterprises concentrate in low value added sectors where the global competition intensified rapidly with negative effects on their profitability. From this perspective, low profitability restricts the firms' capacity in terms of increasing their business and investment capital on one hand and hinders long term survival of the enterprises.
- The productivity, technology level and export capacities of the small scale enterprises are very low.
- Total demand is below the internal production capacity in macro level and that competition becomes destructive due to the fact that total supply is above the total demand in some specific sectors.
- Enterprises tend to meet demand which is below the production cost which does not give rise to additional employment opportunities to micro-scale enterprises.
- The high level of imported input dependency in most of the sectors prevents the increase of added value to an expected level.
- OIZs and SSIEs are the most appropriate areas for investments of SMEs; however, the occupancy rate of these zones and estates differs according to the development rates of the regions they belong to.
- A more urgent need of enterprises is access to consultancy and support services through Enterprise Development Centres (IGEMs) and Business Development Centres (ISGEM), incubators or common usage laboratories and workshops rather than establishment of new OIZs and SSIEs infrastructures.
- A more effective cooperation between public and private sector has to be ensured and SMEs should be trained and guided by experienced personnel. Similarly, it is necessary to develop the dialog among enterprises, private and public institutions and to provide guidance and consultancy to the enterprises through public institutions.
- It is necessary to support enterprises through convenient advisory and training activities from their establishment to development phase in order to increase their competitiveness.
- The number of registered patent and utility model in 12 NUTS II Regions are 8 and 199 respectively which corresponds to 6.5% and 12% of the total patent and utility model registered in Turkey.
- The number of enterprises having the required certificates for exporting, and to reach the international standards and quality is very low. It's known that SMEs have low capacity in skilled labour force.
- Only 35% of SMEs in Turkey can export. Deficiency of source and lack of information are the main barriers for exporting

### **2.1.2.3. Tourism Enterprises**

Given both the role of tourism in the Turkish economy and the constraints to develop this sector, the development and competitiveness of tourism enterprises is an issue of key concern. The development of tourism is of crucial importance for the development of the regional economy building on the local

characteristics, values and development potential, since it is an essential opportunity of endogenous growth.

The objectives of the 9<sup>th</sup> Development Plan to be reached by 2013 in tourism are to guide the sector to contribute to a decrease in welfare and development disparities in the country, to increase contribution of tourism to the economic and social development in the regions having unexploited tourism potential, to improve promotion, marketing, service quality and infrastructure in the sector as well as to create new capacity.

In line with the objectives set out in the 9<sup>th</sup> Development Plan, in the SCF it is stated that there is a need for improvement in the tourism infrastructure, service quality, advertisement and marketing capacity. Furthermore, in the MIPD, manufacturing and tourism are considered important sectors for SME development in Turkey.

Turkey has a rich socio-cultural heritage, a long and largely unspoiled coastline, and a well-developed tourism infrastructure in certain regions. Turkey is located on the land with the legacy of many civilizations dating back to 8000 B.C. The historical and cultural assets coupled with remarkable natural resources and amazing climatic conditions make her one of the most sought after destinations offering tourists a variety of rewarding travel experience.

The tourism sector in Turkey has developed especially after 1980s and has become an important instrument to meet foreign trade deficits, improve the balance of payments by contributing with a significant amount of foreign exchange and reducing unemployment. In Turkey, the tourism sector has paramount importance in terms of employment generation capacity. One unit direct employment in the tourism sector creates 1.5 unit indirect employments in the related sectors. Thus, as of today, the sum of the direct and indirect employment created by the sector is approximately 2 million, which constitutes 18 % of the total employment in Turkey, while this share is 6 % in the EU Member States.

In Turkey, the share of the tourism revenues to GDP was 5.5 per cent in 2005 while this share is 2% in EU25. Besides, the share of the tourism to the export has increased from 13.8 % in 1980 to 24.5 % in 2005 while this share is 7 percent in developed countries and 9.6 percent in developing countries.

According to WTO statistics (2004), Turkey ranks 4<sup>th</sup> following France, Spain and Italy in the Mediterranean region, 6<sup>th</sup> among EU25 countries and 12<sup>th</sup> in the overall global ranking, with 16,8 million overnight visitors and 2.2 % market share in terms of international tourist arrivals.

In terms of tourism revenues, Turkey ranks 4<sup>th</sup> in the Mediterranean region following Spain, France and Italy and 8<sup>th</sup> in the overall global ranking, with 15,9 billion \$ tourism revenue and 2.6 % market share.

According to the sectoral distribution of enterprises in Turkey in 2002, there were over 174 thousand tourism enterprises (hotels and restaurants). This constitutes 9.4 per cent of the total enterprises which ranks tourism enterprises 4<sup>th</sup>. (Source: TURSTAT) The spatial distribution of tourism enterprises are given in the following section. (See **Table 27**)

As of the end of 2005, the number of beds in accommodation establishments was estimated at over 1 million. Apart from this, 260,000 beds are at the level of investment. In the European Union countries it is estimated that the number of beds which are at the level of international standards are 9.5 million.

Despite all these developments, the annual average occupancy ratios and prices of tourism enterprises in Turkish tourism sector are below standards. The main problem of the tourism enterprises is the lack of effective marketing and promotion activities.

Another significant problem of the tourism sector is the lack of sufficient protection, commercialisation and promotion of natural and historical heritage. Protection, enhancement, commercialisation and promotion of historical and natural assets will increase the attractiveness of the

region concerned. This will directly affect tourism enterprises in the region, increase in the business stock and create new jobs. When the employment rates by sector in the target regions are taken into account, the importance of the tourism sector for the target regions is higher than in relatively developed regions of the country.

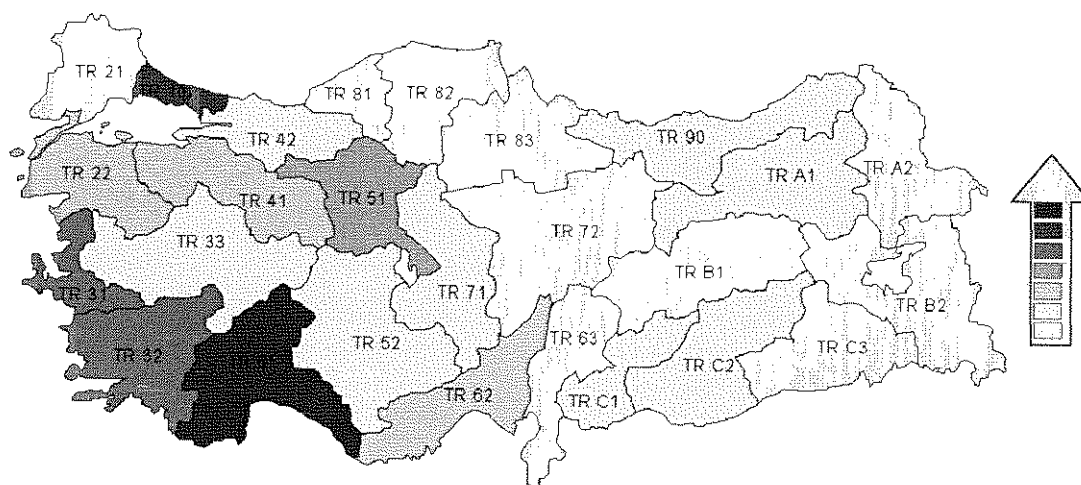
Protection and commercialisation of natural and historical heritage is also important for the diversification and geographical expansion of the tourism.

Expansion of the tourism sector to all regions by increasing its economic benefits and expansion of the tourism season throughout the year are fundamental factors to be taken into consideration in ensuring regional development and decreasing regional disparities in Turkey. Due to lack of diversified tourism products, the same coastal regions are visited in the same seasons, while alternative tourism potential in other regions of the country is not commercialised. In this framework, advertisement, promotion and marketing of the different tourism products such as thermal, highland, winter, mountain, Great Silk Road, archaic cities, historical centres, river, cave, diving and congress tourism rather than Sea-Sun-Sand oriented tourism should be given utmost importance. This will have great contributions in the development of the tourism sector and in reducing regional disparities.

### Spatial Distribution of Tourism Enterprises

The demand in tourism is regionally concentrated. Current bed capacity and high quality accommodation establishments are concentrated mainly in the Mediterranean and Aegean coasts. (Map 2)

**Map 2: Tourism Bed Capacity/Population Map by NUTS II Regions**



74.2 % of the tourists arriving to Turkey pay visits to the provinces which are on the coastal lines such as Antalya, Istanbul, Muğla, Izmir and Aydın. Moreover, at the same time, 70 % of the accommodation establishments with investment licensed and 65.7 % of the accommodation facilities with operation licensed are located in these provinces.

On the other hand, when the 12 NUTS II regions, which are below the 75% threshold, and 15 Growth Centres are taken into account, it is clearly seen that these regions have a small share in terms of **tourist arrivals** compared to the coastal regions in Aegean and Mediterranean. The share of the 12 NUTS II Regions and 15 Growth Centres to Turkey is **10.3%** and **5.16%** respectively. (Table 26)

**Table 26: Number of Arrivals in Qualified Establishments Licensed by the Municipalities by 12 NUTS II Regions and 15 Growth Centres**

12 NUTS II Regions		Growth Centres	
TR-63 (Hatay, K.Maraş,Osmaniye)	204, 493	K.Maraş	63,435
TR-83 (Samsun, Amasya, Çorum, Tokat)	326, 072	Samsun	181,171
TR-82 (Çankırı, Kastamonu, Sinop)	99, 341	Kastamonu	53,641
TR-B1 (Malatya, Elazığ, Bingöl,Tunceli)	107, 217	Malatya	53,268
		Elazığ	10,240
TR-90 (Trabzon, Artvin,Giresun,G.Hane,Ordu,Rize)	363, 477	Trabzon	164, 656
TR-72 (Kayseri,Sivas, Yozgat)	181, 050	Kayseri	63,268
		Sivas	61,420
TR-C1 (Gaziantep, Adıyaman,Kilis)	64, 926	Gaziantep	47, 317
TR-C2 (Diyarbakır, Şanlıurfa)	135, 544	Diyarbakır	20,714
		Şanlıurfa	114,830
TR-A1 (Erzurum,Erzincan,Bayburt)	311, 472	Erzurum	232, 588
TR-C3 (Batman, Mardin,Şırnak,Siirt)	70, 619	Batman	13,568
TR-B2 (Van, Muş,Bitlis,Hakkari)	194, 759	Van	108, 769
TR-A2 (Ağrı,Ardahan,Iğdır,Kars)	174, 703	Kars	29,170
<b>Total of 12 NUTS II Regions</b>	<b>2, 233, 673</b>		
<b>Total of 15 Growth Centres</b>			<b>1, 111, 882</b>
<b>Total of Turkey</b>	<b>21, 538, 878</b>		
<b>The Share of 12 NUTS II Regions to Turkey (%)</b>	<b>10. 3</b>		
<b>The Share of 15 Growth Centres to Turkey (%)</b>			<b>5.16</b>

Source: Ministry of Tourism and Culture (2004)

When the regional distribution of tourism enterprises is concerned (hotels and restaurants), it is seen that 22.2 % of the total tourism enterprises in Turkey is located in the 12 NUTS II regions, which are below the 75% threshold, while 11.9% of them are in the 15 Growth Centres. (Table 27)

**Table 27: Geographical Distribution of Tourism Enterprises by 12 NUTS II Regions and 15 Growth Centres**

12 NUTS II Regions		Growth Centres	
TR-63 (Hatay, K. Maraş, Osmaniye)	4, 357	K. Maraş	1,348
TR-83 (Samsun, Amasya, Çorum, Tokat)	6, 428	Samsun	2, 993
TR-82 (Çankırı, Kastamonu, Sinop)	1, 949	Kastamonu	1,009
TR-B1 (Malatya, Elazığ, Bingöl, Tunceli)	2, 942	Malatya	1, 112
		Elazığ	1, 203
TR-90 (Trabzon, Artvin, Giresun, G. Hahe, Ordu, Rize,)	7, 398	Trabzon	2, 378
TR-72 (Kayseri, Sivas, Yozgat)	3, 289	Kayseri	1, 392
		Sivas	1,072
TR-C1 (Gaziantep, Adıyaman, Kilis)	3, 411	Gaziantep	2, 542
TR-C2 (Diyarbakır, Şanlıurfa)	2, 804	Diyarbakır	1, 709
		Şanlıurfa	1, 095
TR-A1 (Erzurum, Erzincan, Bayburt)	1, 949	Erzurum	1, 255
TR-C3 (Batman, Mardin, Şırnak, Siirt)	1, 170	Batman	341
TR-B2 (Van, Muş, Bitlis, Hakkari)	1, 632	Van	870
TR-A2 (Ağrı, Ardahan, Iğdır, Kars)	1, 508	Kars	477
<b>Total of 12 NUTS II Regions</b>	<b>38, 837</b>		
<b>Total of 15 Growth Centres</b>			<b>20,796</b>
<b>Total of Turkey</b>	<b>174, 199</b>		
<b>The Share of 12 NUTS II Regions to Turkey (%)</b>	<b>22.2</b>		
<b>The Share of 15 Growth Centres to Turkey (%)</b>			<b>11.9</b>

Source: TURKSTAT – 2002 General Censuses of Industry and Business Establishments

Furthermore, in terms of bed capacity, the 12 NUTS II Regions represent only **6.39 %** of total bed capacity in Turkey, while the 15 Growth Centres represent **3.76 %**. (Table 28)

**Table 28: Total Bed Capacity in Tourism Investment and Operation Licensed Accommodation Establishments by 12 NUTS II Regions and 15 Growth Centres**

NUTS II Regions	Total Bed Capacity	Number of bed per 10,000 person*	Growth Centres	Total Bed Capacity	Number of bed per 10,000 person*
TR-63 (Hatay, <b>K.Maraş</b> ,Osmaniye)	3.898	13.78	K.Maraş	701	6.77
TR-83 (Amasya, Çorum, <b>Samsun</b> ,Tokat)	4.968	16.73	Samsun	1491	12.55
TR-82 (Çankırı, <b>Kastamonu</b> , Sinop)	1.171	14.97	Kastamonu	816	25.26
TR-B1 (Bingöl, <b>Elazığ</b> , Malatya,Tunceli)	2.587	14.06	Elazığ	877	14.73
			Malatya	1002	10.85
TR-90 (Artvin,Giresun,G.Hane,Ordu,Rize, <b>Trabzon</b> )	11.924	37.39	Trabzon	5128	48.33
TR-72 ( <b>Kayseri</b> ,Sivas, Yozgat)	3.883	15.32	Kayseri	2800	25.54
			Sivas	689	9.69
TR-C1 (Adıyaman, <b>G.Antep</b> ,Kilis)	5.114	23.21	Gaziantep	4281	30
TR-C2 ( <b>Diyarbakır</b> , <b>Ş.Urfa</b> )	3.630	11.36	Diyarbakır	1818	12.16
			Ş.Urfa	1812	10.65
TR-A1 (Bayburt,Erzincan,, <b>Erzurum</b> )	3.703	27.24	Erzurum	3196	33.32
TR-C3 ( <b>Batman</b> , Mardin,Şırnak,Siirt)	2.016	10.24	Batman	611	11.79
TR-B2 (Bitlis,Hakkari,Muş, <b>Van</b> )	2.627	12	Van	1478	14.59
TR-A2 (Ağrı,Ardahan,Iğdır, <b>Kars</b> )	4.559	39.40	Kars	2805	97.73
<b>Total / Average</b>	<b>50.080</b>		<b>Total / Average</b>	<b>29.505</b>	
<b>Total of Turkey / Average</b>	<b>783.319</b>	<b>107.3</b>		<b>783.319</b>	<b>107.3</b>
<b>The Share of Bed Capacity to Turkey (%)</b>	<b>6,39</b>			<b>3,76</b>	

Source: Ministry of Tourism and Culture (2006) \* Source: TURKSTAT 2000-2010 Mid-year population projections

### Geographical and Seasonal Diversification of Tourism

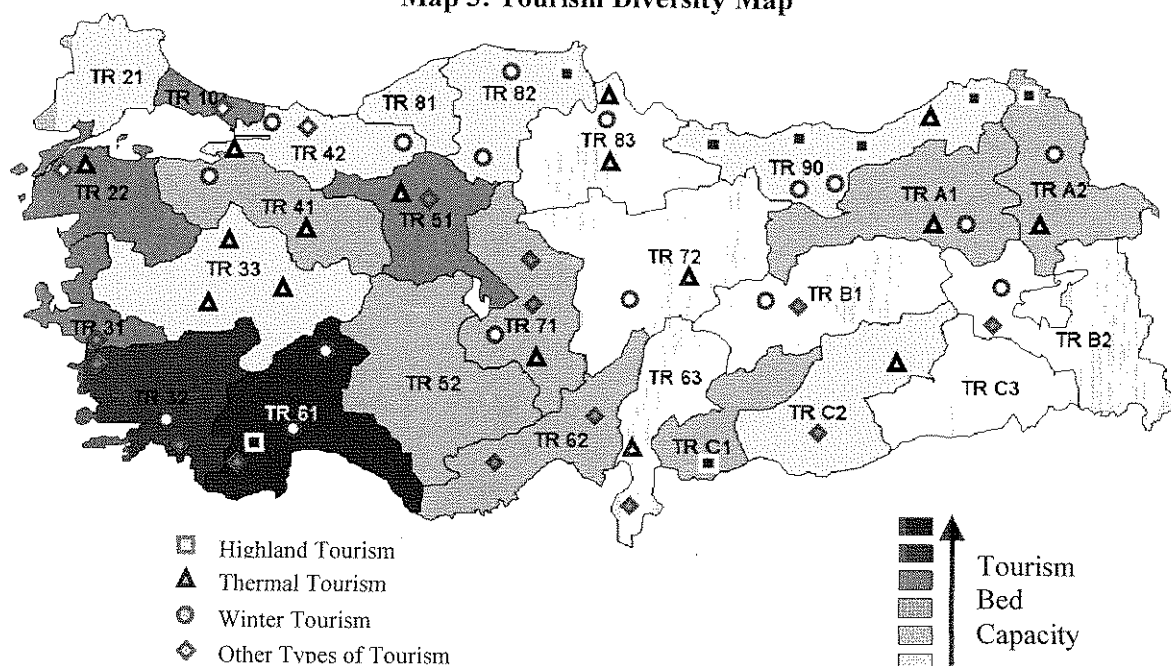
The region, in which the OP will be implemented, has important natural and historical potential for development of certain types of tourism. This potential has not yet been sufficiently utilised.

Since the start of the new millennium Turkey has placed greater emphasis on tourism diversification and sustainability. Destination based tourism development and promotion strategy is in line with this policy and promotes sustainability in terms of both contributing to local economic development and reducing regional concentration of tourism activities.

One of the main tools for diversification of tourism is “Culture and Tourism Protection and Development Regions (CTPDRs)”, which are identified within the Tourism Encouragement Law No 2634. CTPDRs are declared by the Council of Ministers upon proposal of the Ministry of Culture and Tourism (MoCT) and take into account natural, historical, archaeological and socio-cultural tourism assets of the region.

Within this context, 85 Coastal Tourism Regions, 34 Health, Wellness and Thermal Tourism Centres, 19 Winter Sports Tourism Centres and 25 Highland Tourism Centres have been declared up to date. (See Map 3)

Map 3: Tourism Diversity Map



Source: Ministry of Culture and Tourism, Ministry of Industry and Trade

As is seen from the Tourism Diversity Map, the 12 NUTS II Regions and 15 Growth Centres have significant potential in terms of *thermal, winter and highland tourism* as well as *other types of tourism*.

As a conclusion, the major problems of the tourism sector in the target regions are summarised below:

- Insufficient protection, enhancement and commercialisation of natural and historical heritage.
- Lack of adequate infrastructure for diversification and geographical expansion in tourism and economic benefits of tourism have not been spread to all regions.
- Lack of effective promotion and marketing activities.
- Tourism SMEs and facilities have difficulty in meeting the needs of their infrastructure.

### 2.1.3. Research & Development and Innovation

The rapid implementation of research & development and innovation outputs in the economy is indispensable for increasing competitiveness.

Likewise, in the 9<sup>th</sup> Development Plan, one of the main development axis is increasing the competitiveness of the country. In order to achieve this objective, development of R&D and innovation is considered as one of the main instruments in the Plan. The major goals set out for R&D and innovation in the Plan, which will be achieved by 2013, are:

- Increasing the share of R&D expenditures in GDP and the private sector contribution
- Promotion of a technology based and innovative entrepreneurship via financial instruments such as venture capital
- Encouraging the establishment of Research Institutes and or Centres by the private sector
- Organising awareness raising activities in the fields of Science, Technology and Innovation
- Designation of the R&D activities performed by the universities in a way to contribute to the economic, social and cultural development of the country
- Development of university-industry cooperation
- Accomplishment of the infrastructures of the Technology Development Zones (TDZs) and encouragement of their specialisation in the priority sectors

- Establishment of Technology Transfer Centres, which will transform the knowledge stemming from the R&D activities to the industry and production.

In line with the objectives set out in the 9<sup>th</sup> Development Plan, in the SCF, it is stated that Technology Development Zones, Technology Development Centres, Technology Transfer Centres and research infrastructure will be established and conditions of existing ones will be improved, networking, clustering and collaboration among enterprises and their cooperation with universities, research institutions and facility structures will be developed, awareness and capacity of enterprises on appropriate production technology selection and innovation will be increased.

In the MIPD, specific areas of intervention in the fields of R&D and innovation include stimulating innovation, entrepreneurship, technology transfer, namely through development of business networks and clusters and provision of business related infrastructure and technology services to SMEs.

When the general picture of Turkey's R&D system is analyzed with the aim of increasing the competitiveness of enterprises through research, technology development and innovation, the ratio of the R&D expenditures to GDP is 0.61% in the year 2003. This value has reached to 0.67% in the year 2004 (**Table 29, Figure 8**), the estimated value from the 9<sup>th</sup> Development Plan is around 0.8% for the year 2006, and the target value taken by the Supreme Council of Science and Technology (SCST), which is the highest policy making body in science and research composed of representatives of the government, universities, industry and NGOs, is 2% for 2010 in order to achieve the overall Lisbon objectives. However, currently is almost one-third of the EU-25 average, which is 1.9%. (**Figure 9**)

According to calculations based on public surveys made for the research unions and staff in the public and private sector and final accounts, investment programmes budget and personnel inventories of the universities, GDP expenditures of Turkey on research and development was 2,197 Million TL in 2003 and 2,898 Million TL in 2004.

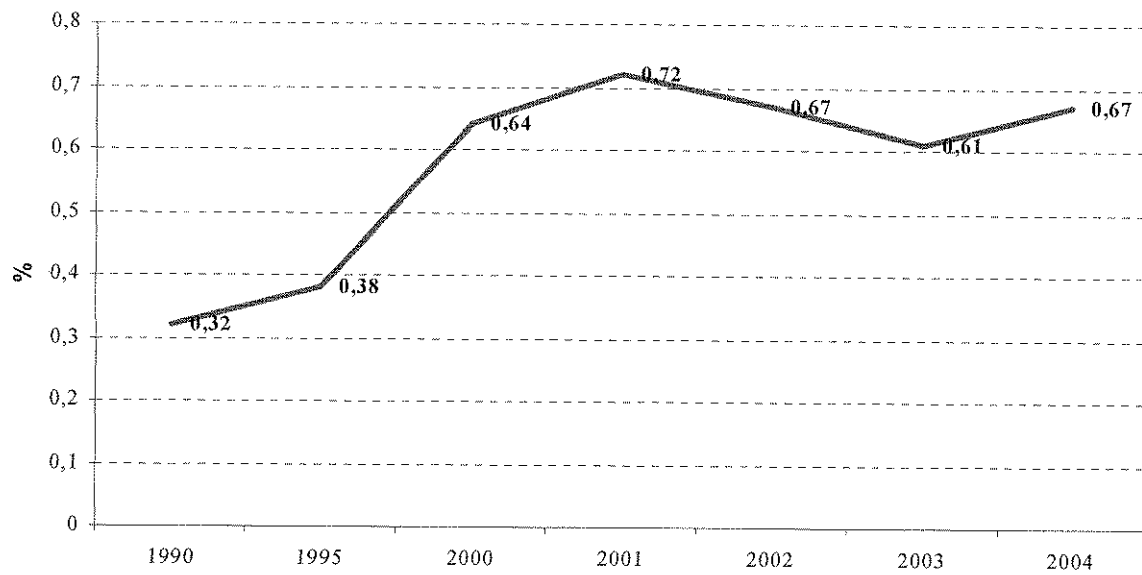
When the 2004 R&D expenditures are measured in terms of purchasing power parity, this figure has increased up to 3,653 Million US \$ in 2004, from 2,920. Million US \$ in 2003 which is a 31.6 % increase. On the other hand, R&D expenditures per capita in the same years have increased from 41.6 USD to 51.4 USD.

**Table 29: GDP Expenditure on R&D in Turkey**

	Current Prices (TL)		Purchasing Power Parity (USD \$)	
	2003	2004	2003	2004
Total R&D Expenditure (Million)	2,197.09	2,897.52	2,920.1	3,653.4
R&D Expenditure/GDP (%)	0.61	0.67	0.61	0.67
R&D Expenditure per capita	31.28	40.72	41.58	51.35

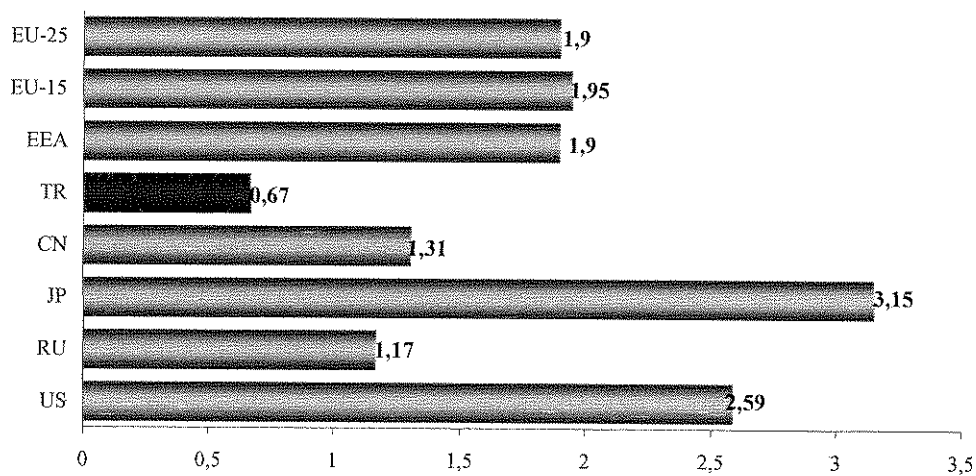
Source: TURKSTAT

**Figure 8: R&D expenditure/GDP (%) of Turkey**



Source: TURKSTAT

**Figure 9: R&D Expenditure as a % of GDP**



Source: OECD

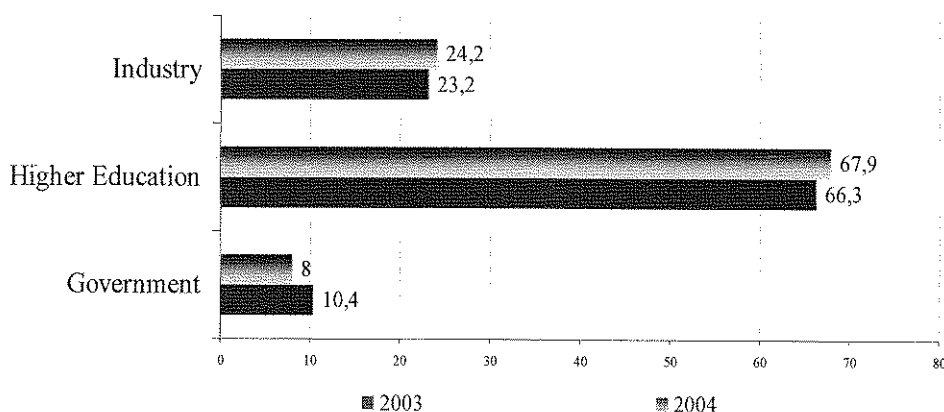
**Table 30: Breakdown of the expenditure of Turkey on R&D as a % of GDP**

Gross Domestic Expenditure of Turkey on R%D							
	% performed by			% financed by			
	Higher Education	Industry	Government	Government	Industry	Domestic Sources	Foreign Sources
2003	66.3	23.2	10.4	57.0	36.2	5.2	1.6
2004	67.9	24.2	8.0	57.0	37.9	4.7	0.4

Source: TURKSTAT

It really matters to increase the R&D expenditures of the private sector beside the increasing public budget for R&D investments and supports in order to increase the rate of R&D expenditures in GDP. As can be seen from **Table 30** an important portion of R&D investment is made by governmental institutions or universities (around 70 %), while in developed countries the engine of the technological development is the private sector. By 2013, it's targeted that private sector will perform at least 60% of the R&D investment in Turkey. Within this scope, public support must be provided in order to increase the R&D activities of private sector.

**Figure 10: Breakdown of R&D Expenditure of Turkey as a % of GDP**



Source: TURKSTAT

When the general situation of Turkey with regard to scientific and technological development and R&D capacity is examined, it is observed that important advances have been made in recent years. There is an important potential of an educated young population and an impressive progress in the scientific output, namely, in the number of scientific publications by the Turkish scientists. This figure was 493 in 1985 with the ranking 44<sup>th</sup> elevating to 9303 in 2002 with the ranking 22<sup>nd</sup> in 2004 it was 13.773 with the ranking 20<sup>th</sup> (Science Citation Index).

Turkey has 15 universities in the regions which fall below the 75% threshold. The names, locations and investment rates of these universities in the years of 2005 and 2006 are shown in **Table 31**.

In addition to these universities, 15 new universities were established by the Law 5467 which was published on 17th of March 2006 in the Official Gazette. Nine of these universities are located in the target area of the RCOP.<sup>18</sup> Furthermore, 17 universities were also established by the Law 5662 which was published on 29th of May 2007 in the Official Gazette. Twelve of them are located in the target area of RCOP.<sup>19</sup> The tables on the universities in the target regions do not include these new universities because they are still in their initial stages.

As can be seen from **Table 31** in 2006 there was a significant increase in the amount of investments provided to the universities. The amount of investments provided to the public universities in the 12 NUTS II regions has reached to 32,385 thousand TL in 2006 with an increase of 377 % compared to 2005 values. This amount corresponds to 12.73 % of the total budget allocated to all public universities in Turkey. It's clearly seen that the universities in the 15 Growth Centres have a

<sup>18</sup> The names of these universities established in the target regions are as follows: Amasya University (Amasya), Hitit University (Çorum), Kastamonu University (Kastamonu), Giresun University (Giresun), Ordu University (Ordu), Rize University (Rize), Bozok University (Yozgat), Adıyaman University (Adıyaman), Erzincan University (Erzincan)

<sup>19</sup> The names of these universities established in the target regions are as follows: Ağrı Dağı University (Ağrı), Sinop University (Sinop), Siirt University (Siirt), Kilis 7 Aralık University (Kilis), Çankırı Karatekin University (Çankırı), Artvin Çoruh University (Artvin), Bitlis Eren University (Bitlis), Osmaniye Korkut Ata University (Osmaniye), Bingöl University (Bingöl), Muş Alparslan University (Muş), Mardin Artuklu University (Mardin), Batman University (Batman)

substantial portion in terms of investment budget allocated to the universities in the 12 NUTS II regions. The share of the universities in the 15 Growth Centres to the universities in the 12 NUTS II regions was **92.46%** in 2006.

**Table 31: Investment Budget Allocated for the Universities in the 12 NUTS II Regions**

University	Location	Amount of Investment 2005 (1000 TL)	Amount of Investment 2006 (1000 TL)
Atatürk University *	Erzurum	900	2,552
Cumhuriyet University *	Sivas	400	1,875
Dicle University *	Diyarbakır	98	2,791
Erciyes University *	Kayseri	770	2,610
Fırat University *	Elazığ	463	996
Gaziantep University *	Gaziantep	413	3,503
Gaziosmanpaşa University	Tokat	463	1,645
Harran University *	Urfa	458	273
İnönü University *	Malatya	138	4,939
Kafkas University *	Kars	369	499
Kahramanmaraş Sütçü İmam University *	K.Maraş	507	821
Karadeniz Technical University *	Trabzon	297	2,916
Mustafa Kemal University	Hatay	721	796
Yüzüncü Yıl University *	Van	460	1,844
19 Mayıs Üniversitesi*	Samsun	329	4,325
Total of 15 Universities in 12 NUTS II Regions		6,786	32,385
Total of 15 Growth Centres		5,602	29,944
Total of Turkey		<b>119,040</b>	<b>254,415</b>
		Share Rates according to years (%)	
		<b>2005</b>	<b>2006</b>
The Share of 12 NUTS II Regions to Turkey		5.70	12.73
The Share of 15 Growth Centres to Turkey		4.71	11.77
<b>The Share of 15 Growth Centres to 12 NUTS II Regions</b>		<b>82.55</b>	<b>92.46</b>

\* Located in 15 Growth Centres

Source: SPO

As is seen from **Table 32**, the number of publications of the universities in Turkey was **16,836**, while the number of publication in the 15 abovementioned universities was **3,789** in 2005, which corresponds to **22.51%** of the total number of publications in Turkey. The share of the 15 Growth Centres to 12 NUTS II regions and Turkey was **93.48%** and **21.04%** respectively in 2005.

In the same manner, from **Table 33**, in 2004-2005 education years, the total number of lecturers in the 15 universities was **6,682**, which corresponds to **20.83%** of the total number of lecturers in all universities in Turkey. The share of the 15 Growth Centres to the 12 NUTS II regions and Turkey was **92.19%** and **19.21%** respectively in 2004-2005 education years.

It's clearly seen from the data that the universities in the regions having a per capita income below 75% of Turkish average have insufficient capacity in terms of the total investment allocated to the public universities, the number of research personnel and publications and, also the universities, which have the high capability of R&D, are located in the west part of the Turkey. So it's important to carry out R&D projects in these regions in order to get a considerable success for SMEs.

**Table 32: Number of Publications (SCI+SSCI+AHCI) of the 15 Universities in the 12 NUTS II Regions (2006)**

Name of the University	Number of Publications
Atatürk University*	448
Cumhuriyet University*	165
Dicle University*	194
Erciyes University*	436
Fırat University*	402
Gaziantep University*	193
Gaziosmanpaşa University	133
Harran University *	153
İnönü University *	329
Kafkas University*	83
Kahramanmaraş Sütçü İmam University *	168
Karadeniz Teknik University *	312
Mustafa Kemal University	114
19 Mayıs Üniversitesi*	457
Yüzüncü Yıl University *	202
Total of 15 Universities in 12 NUTS II Regions	3789
Total of 15 Growth Centres	3542
Total of Turkey	16836
	Share Rate (%)
The Share of 12 NUTS II Regions to Turkey	22,51
The Share of 15 Growth Centres to Turkey	21,04
The Share of 15 Growth Centres to 12 NUTS II Regions	93,48

Source: Higher Education Council

\* 15 Growth Centres \*Only full articles were used in the evaluation.

**Table 33: Number of Lecturers of the 15 Universities in the 12 NUTS II Regions (2006)**

Name of the University	Number of Lecturers
Atatürk University*	1120
Cumhuriyet University*	419
Dicle University*	442
Erciyes University*	544
Fırat University*	596
Gaziantep University*	289
Gaziosmanpaşa University	244
Harran University *	271
İnönü University *	392
Kafkas University*	145
Kahramanmaraş Sütçü İmam University *	234
Karadeniz Teknik University *	624
Mustafa Kemal University	278
19 Mayıs Üniversitesi*	734
Yüzüncü Yıl University *	350
Total of 15 Universities in 12 NUTS II Regions	6682
Total of 15 Growth Centres	6160
Total of Turkey	32073
	Share Rate (%)
The Share of 12 NUTS II Regions to Turkey	20,83
The Share of 15 Growth Centres to Turkey	19,21
The Share of 15 Growth Centres to 12 NUTS II Regions	92,19

Source: Higher Education Council

\* 15 Growth Centres \*The data on the number of Faculty Member (Asst.Prof., Assoc.Prof., Prof.) is obtained from the 2005-2006 academic year Higher Education Statistics of Student Selection and Placement Centre.

It is worth emphasizing that the Turkish R&D system is performing better than expected (namely, better than the economic performance), despite its rather disadvantaged position as reflected by the

R&D input indicators, like low R&D expenditure (0.67% Gross Expenditure on R&D-GERD per Gross Domestic Product-GDP as of 2004, while the OECD average is more than 2%) and low number of patents issued. While the number of triadic patents in Turkey was 2 in 1994, it raised to 9 by 2002. However, these numbers are still very low compared to EU and OECD countries.) The imbalance between the number of scientific publications and patents is also a key indicator showing the inability to convert the scientific studies into practical R&D.

The main reasons of this situation are that most of R&D infrastructure is established in universities and public research institutions. As a corollary most of R&D activities are performed by universities and public research institutions, there is not enough number of SMEs carrying high-technology based activities. The number of SMEs capable of involving in such high-tech projects is quite low, while the existing ones need strong infrastructure and other types of support in order to carry out such projects.

Turkish participation in the EU 6th Framework Programme proves this fact as well. Almost all Turkish participants to existing projects are from the academic community. A university-industry relation needs to be encouraged to increase the synergy among these two groups. Because of insufficient cooperation between academia, public institutions and industry, the results of R&D activities performed by universities and research institutes cannot be commercialised or are distant from the needs and demands of the industry. The Turkish Research Area (TRA) has been established therefore, coordinated by the Scientific and Technological Research Council of Turkey (TUBITAK), to provide synergy among institutions carrying out R&D activities (universities, public research institutions and private firms), institutions demanding R&D (private and public sectors) and institutions funding R&D activities (public and private sectors).

Another major problem of Turkey is the lack of human resources on R&D and Innovation. Total R&D personnel per thousand total employments are one of the lowest values in OECD countries, and most of these personnel are employed in universities contrary to situation in developed OECD countries.

**Table 34: R&D Human Resource according to Occupation Group and Sector**

Occupation Group	Year		Sector								
			Industry			Government			Higher Education		
			T	F	M	T	F	M	T	F	M
Total	2003	Number	10848	2464	8384	8572	2041	6531	63861	23975	39886
		FTE	7837	1823	6014	6245	1542	4704	24225	9079	15146
	2004	Number	12398	2879	9519	8747	2115	6632	65535	25014	40521
		FTE	8836	2118	6718	6383	1580	4802	24742	9431	15311
Researcher	2003	Number	6090	1479	4611	4569	1284	3285	63861	23975	39886
		FTE	4788	1159	3628	3646	991	2655	24225	9079	15146
	2004	Number	6841	1706	5135	4734	1355	3379	65535	25014	40521
		FTE	5372	1343	4029	3762	1041	2721	24742	9431	15311
Technician	2003	Number	3045	590	2455	1299	169	1130	-	-	-
		FTE	2200	440	1761	892	125	767	-	-	-
	2004	Number	3412	680	2732	1297	187	1110	-	-	-
		FTE	2434	497	1938	907	140	767	-	-	-
Other Supporting Staff	2003	Number	1713	395	1318	2704	588	2116	-	-	-
		FTE	849	224	625	1707	425	1282	-	-	-
	2004	Number	2145	493	1652	2716	573	2143	-	-	-
		FTE	1029	278	751	1713	399	1314	-	-	-

FTE: Full Time Equivalent, T=Total, F=Female, M= Male

Source: TURKSTAT, R&D Actions Report, 2006.

The number of full time equivalent R&D personnel in Turkey is 38308 in the year 2003 and 39960 in the year 2004, which is well below the EU-25 average **Figure 11** shows the breakdown of the researchers by sector. (Private, public and higher education).