



Pilot Action Plan Implementing region: Adana

Textile and Metal-Manufacturing Technology e-Platform

Executive Summary

Main objective	Launching a “Textile and Metal-Manufacturing Technology e-Platform” for Enhancing the cooperation between regional innovation actors
Main activities	<ol style="list-style-type: none"> 1. Specifying the methods of the activities and prepare the detailed project plan 2. Preparing the web application software and subsections 3. Collecting the data of the e-platform 4. Trial-runs and the modification studies of the e-platform.
Expected results and outcomes	<ul style="list-style-type: none"> - The number of memberships for using interactive application in the web site. - The number of SMEs and intermediaries’ visits per month made to website. - The number of participants on forums about subjects that will be determined by the project team. - The number of cooperation projects initiated between Universities and SMEs. Expected number is min 5 annually. - The number of academic personnel which give consultancy service as a result of SMEs’ visiting the e-platform. - The number of SMEs which apply for national/EU funds for their projects. Expected number is min 3 annually. - The number of seminars, conferences and training courses which are suggested by SMEs and intermediaries by means of this e-platform. Expected number is min 5 annually.
Direct and indirect beneficiaries	<p>Direct beneficiaries : technological intermediaries, regional enterprises, SMEs</p> <p>Indirect beneficiaries : Adana USAM</p>
Implementing organisation	Adana USAM
Partner(s)	Cukurova University and Adana Chamber of Industry
Duration	1 year
Estimated budget	150.000 €

1. Problem identification

1.1. Introduction

In Turkey, recently first steps were taken to ensure more coordination in the implementation of policy strategies by conducting surveys among the actors of the NIS (National Innovation System) to identify the level of progress and problems encountered during implementation.

Important action still needs to be taken to ensure the successful functioning of the system. The increased commitment of the government to science and technology and the recent improvement of macroeconomic conditions and political stability have given a new initial impetus to Turkish innovation policy.

However, the limited number of innovation measures and a policy mix which is not strategically focused on priorities continue to result in an insufficient innovation performance. There are also weaknesses in innovation governance since there are no regional bodies for policy making and implementation.

Turkey has relatively well structured government institutions in the NIS at national level. But there is no regional approach to innovation policy in Turkey, yet. However, the crucial need for the establishment of regional innovation systems and the design and implementation of regional policies has been realized by central government¹.

Preliminary Development Plan implicitly covers innovation-related objectives at regional level, specifically in the priority fields of ‘strengthening human resources, and – particularly – ‘increasing the self-employment potential’ and ‘supporting existing SMEs and SMEs to be established, and increasing their competitiveness by fostering the co-operation partnership potential in the form of network organizations’. The law incorporates significant details for the development and governance of regional innovation systems, as shown in Table 1.

In the beginning of the SUPER SME project, the most important step for Adana was to select SME’s and S&T intermediaries and convincing them to join the project. In order to get SME’s and S&T intermediaries together, we prepared a document containing project aim, phases of project, project budget, international project partners, and operational objectives. And the most importantly, benefits of partner SME’s and S&T intermediaries and benefits of the region from the project outcome were highlighted in this document. Also questionnaires, that was digging out the co-operation level between SME’s and S&T intermediaries and missing services of S&T intermediaries, were filled by face to face interviews. In the light of our performance during the SUPER SME project, we have concluded that there have been problems in communication and co-operation between S&T Intermediaries and SMEs in both directions.

The interim results of the SUPER-SME project, carried out in Adana region, have not only provided valuable inputs for the regional innovation system, it also provided the state of the innovation system in the region.

¹ This subsection is based on the EC report ‘Annual Innovation Policy Trends and Appraisal Report Turkey 2006’

There are 2 important reasons for launching a “Textile and Metal-Manufacturing Technology e-Platform”

- ‘supporting existing SMEs and SMEs to be established, and increasing their competitiveness by fostering the co-operation partnership potential in the form of network organizations’ which is one of the this priority fields of Preliminary Development Plan represented in table 1
- lack of networking problems among S&T Intermediaries and between SMEs and S&T Intermediaries

By creating such a platform on two important sectors of Adana region, as a first crucial step, will help the region for information flow between the S&T Intermediaries and SMEs and between S&T Intermediaries.

Due to the existence of many textile and metal manufacturing companies a decision has initiated for the establishment of “*Textile and Metal-Manufacturing Technology e-Platform*” The creation of such platform on two important sectors of Adana region will help to establish better information flow between the S&T Intermediaries and SMEs in both directions as a common meeting e-platform. The pilot project which will be initiated by Adana USAM will bring the two important sectors of the region in the same platform. The pilot e-platform is expected to attract some metal manufacturers to develop new textile machineries to sustain the competitiveness of both sectors in the region. This is expected to be the most important output of the pilot e-platform.

Table 1. Regional governance of innovation policy matters

Level of regional/local government	Legislative &/or administrative authorities	Powers related to innovation policy, if any
There are 81 provinces and 850 towns with local governments in Turkey.	The Turkish government is in the process of creating 26 "Regional Development Agencies", covering all NUTS2 regions.	<p>The innovation-related duties of the regional development agencies, as defined by the law, include :</p> <ul style="list-style-type: none"> - Implementing and supporting research for the identification of natural, economic and human resources, and increasing the economic development and competitiveness of the region - Promoting the business and investment potential of the region at national and international level in co-operation with the relevant institutions - Supporting small and medium sized enterprises and start-ups in terms of management, production, promotion, marketing, technology, finance, organisation and human resources training in co-operation with relevant institutions - Promoting activities in bilateral or multinational programmes in which Turkey participates in the region and contributing to the efforts of project development in that respect.

Source: 2006 Turkey Trend Chart Report

1.2. Pilot project focus

The Enterprise of Adana University-Industry Joint Research Center Association was established as continuation of TUBITAK Adana University-Industry Joint Research Center which has a vision to provide interaction between Cukurova University and regional industry, to increase technological creativeness and to make basic and applied research for industrial development in Adana since 2000. Based on the established vision, the enterprise has formed the first regional platform in the frame of TUBITAK program called "Scientific and Technological Cooperation Networks and Platforms Establishment Initiative Support Program" (STCN-PEISP) in August 2007.

The new support programme (STCN-PEISP) of TUBITAK has found a reasonable acceptance by university, industry and public sections since economical, social and cultural development require gaining R&D capability in the field of advanced technology and require improving innovation skills. However, more time is needed to fully establish the new support programme in Turkey.

One of the most important targets of Adana USAM is to form a network between university, industry and S&T intermediaries by considering university-industry collaboration

establishment and providing its continuity. When Adana USAM is achieving its targets, it will take advantage of its previous experiences, prestige and trust gained in Adana region which has been created at the last 7 years by a university, industry and S&T intermediaries framework. Briefly, the first and crucial step of Adana ÜSAM after status change made in January 2007 will be to form a network as a “*Textile and Metal-Manufacturing Technology e-Platform*”.

The necessity of forming such an e- platform was realized during the questionnaire studies and brainstorming sessions of business panels that were made in WPs of SUPER_SME project. In a certain extent, an e-platform as a pilot project will fill the gap in the sectors and service areas that are undeveloped or absent or must be better developed. Few areas and services were identified as undeveloped or missing areas in the region. These are

Area 1: Collective actions

Service: Collecting and disseminating information on relevant existing technologies

Area 2: Support for technological and scientific cooperation

Service: Search for international industrial partners for R&D projects, and S&T support

Area 3: Networking and clustering

Service: Supporting and creating clusters, and promotion of SMEs and research base participation

Service: Supporting and creating business networks (B2B)

Area 4: Support for technological and scientific cooperation

Area 5: Networking and clustering

Table 2 represents the strong and weak points of the regional S&T intermediation system. In the SMEs perspective, existence of Adana USAM is the strong point of the region. Forming an e-platform by Adana USAM may help to turn the weak points “Insufficient communication and collaboration”, “not accessibility”, “insufficient structuring and insufficient effort for establishing networks” to strong points in near future.

Table 2. Strong and weak points of the regional S&T intermediation system

	Strong points		Weak points	
	S&T intermediaries	SMEs	S&T intermediaries	SMEs
<i>S&T intermediation organisational capabilities (budget, human resources etc.)</i>	<ul style="list-style-type: none"> – They have sufficient members 	<ul style="list-style-type: none"> – There are specialist human resources in the region 	<ul style="list-style-type: none"> – Limited personnel employment – Many bureaucratic difficulties for supporting of members financially – Low financial source and low public substantiate for S&T 	<ul style="list-style-type: none"> – Insufficient technological equipment – No Financial support – No specialized clerk at intermediaries – Excessive and intensive bureaucracy, long-term documantation
<i>Service areas and services delivered</i>	<ul style="list-style-type: none"> – There are effective S&T intermediaries in the region – There are respectable and strong universities in the region – There is a tendency to receive technology services from university 	<ul style="list-style-type: none"> – Have technical information – Existence of universities in the region – Aim at evolution and development – Have learned technology 	<ul style="list-style-type: none"> – There is not enough institution for research and technology transfer – Services are not effectively used by SME's 	<ul style="list-style-type: none"> – No information about S&T intermediaries
<i>Connections between different organisations in the system</i>	<ul style="list-style-type: none"> – There is a potential for collaboration – Existence of USAM – Most of them have web sites, newspapers, newsletters etc. – Intention for better collaboration 	<ul style="list-style-type: none"> – Existence of USAM – Encouraging factors, understanding behaviour of managers – Existence of Mersin Technoscope 	<ul style="list-style-type: none"> – Insufficient communication and coordination. 	<ul style="list-style-type: none"> – Insufficient communication and collaboration – Not accessibility – Insufficient structuring – Insufficient effort for establishing networks.

2. Pilot action specification

2.1. Objective and purpose

The objective of this pilot project is to link S&T intermediaries and SMEs in textile and metal manufacturing sector on a common e-platform. “*Textile and Metal-Manufacturing Technology e-Platform*” will enable to Exchange information and data in an efficient, reliable and low cost manner. The web platform is expected to speed up communication, to share and promote skills, to develop a strategy and to create networks of partnership through the use of the development of scalable and maintainable web applications

2.2.Approach: tools and methods

There are many web sites that aim similar activities in Turkey but they are not as extensive as the e-platform, which is going to be established as a pilot project. This e-platform will be an active combination of similar kind of available platforms. A membership will be requested from the users who would like to benefit from the “*Textile and Metal-Manufacturing Technology e-Platform*”.

“Textile and Metal-Manufacturing Technology e-Platform” as a pilot action plan will cover and provide the following features:.

- Provide an access to all S&T intermediaries and their services in the region.
- Provide an access to all SMEs in the textile and metal manufacturing sector.
- Provide a forum page to share common problems and enable to find solutions to these problems.
- Meet SMEs with S&T intermediaries in a web platform.
- Provide laboratory infrastructures of SMEs in textile and metal manufacturing sectors. So SMEs in the same sector will help to each other’s R&D studies by supporting testing and analyzing opportunity.
- Provide laboratory and research infrastructures of regional universities and S&T intermediaries. So SMEs which are willing to do R&D studies but have no opportunities to test their studies can access this database.
- SMEs will able to search partners for their R&D projects in their sectors and in S&T intermediaries.
- There will be links to all universities in Turkey. All university academic personnel in the field of textile and metal manufacturing with their area of specialization will be accessed on this web site directly.
- Share knowledge about accessing national and EU project funds between SMEs who had these funds and who haven’t had yet.
- SMEs will able to announce their R&D personnel needs, so the S&T intermediaries which educate researchers can enable to find R&D personnel for them.

2.3.Target groups and beneficiaries

The target groups for this pilot project are intermediaries such as universities, non-governmental organizations, technology parks, governorships, chambers of commerce and industry, organized industrial zones, vb. in the region (south of Turkey). Also the beneficiaries of this pilot project are SMEs.

2.4.Implementing body and partnership

The Enterprise of Adana University-Industry Joint Research Center (USAM) Association is the leading implementing body of this pilot project. Cukurova University and the Adana Chamber of Industry (ADASO) will be partners of the project. TUBITAK will be funding body of the project.

Cukurova University occupies a foremost place among other Turkish universities with its 10 faculties, 1 state conservatory, 3 colleges, 9 vocational colleges, 3 institutes and 29 research and application centers. The university, with its 1909 member teaching staff, offers courses to over 32.700 undergraduate, post graduate and doctorate students.

ADASO is a chamber which supply collective needing, simplify of career activity, provide solution for the economic and social problems of Adana as well as the problems of their members, render perfect and faster services based on the Institutional Law to the society, members, staff and executives, develop the quality consciousness of the Chamber staff and members and be a role-model for our members.

It is foreseen that the project will be funded by TUBITAK program, called “Scientific and Technological Cooperation Networks and Platforms Establishment Initiative Support Program”. Also Çukurova University and Adana Chamber of Industry may provide technical and knowledge support.

2.5.Policy context

There are some web sites focused on SMEs in Turkey such as “www.kobifinans.com.tr, www.kobi-efor.com.tr, www.kobias.com.tr, www.kobinet.org.tr, vb. But they do not focuse to regions and regional problems. Also in the extent of these web sites, there are no forums that SMEs can share their problems, solutions, opinions about their sectors, works, projects, etc. Furthermore these web sites do not fully provide the features that were listed in Section

2.2.

“Textile and Metal-Manufacturing Technology e-Platform” as a pilot project will firstly cover the regional SMEs and intermediaries but in the course of time the scope may be expanded to a national level as an technological national e-platform .

While designing the e-platform, the e-platform team will cooperate with regional SMEs and intermediaries and derive benefit from their portfolio of beneficiaries, customers, web infrastructures etc. Furthermore the team will take advantage of intermediaries’ web infrastructures, applications and demonstrations.

2.6. Monitoring and evaluation system

The most important indicator for monitoring and evaluation of the pilot project is the number of memberships for using interactive application in the web site.

The other important indicators are as follows:

- The number of SMEs and intermediaries' visits per month made to website.
- The number of participants on forums about subjects that will be determined by the project team.
- The number of cooperation projects initiated between Universities and SMEs. Expected number is min 5 annually.
- The number of academic personnel which give consultancy service as a result of SMEs' visiting the e-platform.
- The number of SMEs which apply for national/EU funds for their projects. Expected number is min 3 annually.
- The number of seminars, conferences and training courses which are suggested by SMEs and intermediaries by means of this e-platform. Expected number is min 5 annually.

One of the most important output indicator is to attract some metal manufacturers to develop new textile machineries to sustain the competitiveness of both sectors in the region. Textile machinery sector have been a newly developing sector in Adana region. The e-platform is expected to speed up the development process.

3. Duration and detailed action plan

Table 3 provides the detailed work plan for the pilot action to develop *“Textile and Metal-Manufacturing Technology e-Platform”*

Table 3. Pilot action organisation

Year 1	Month												
Activity	1	2	3	4	5	6	7	8	9	10	11	12	Implementing body
Specifying the methods of the activities and prepare the detailed project plan													Adana USAM
Preparing the software and subsections													Adana USAM
Collecting the data of the e-platform													Adana USAM
Trial-runs of the e-platform and the modification studies													Adana USAM

Following steps are the main activities of creating a technology e-platform:

1. Specifying the methods of the activities and prepare the detailed project plan
2. Preparing the web application software and subsections
3. Collecting the data of the e-platform
4. Trial-runs and the modification studies of the e-platform.

In the frame work of these main activities, the project will be carried out by Adana USAM. The first step is to specify the methods of the activities and prepare the detailed project plan which includes design and software infrastructure and body of knowledge. In order to meet the need of the knowledge, project team will be in contact with the S&T intermediaries, Universities, Adana Chamber of Industry, Small and Medium Industry Development Organisation Bureau of Adana. After building up the e-platform, the e-platform will be run for trial-runs in order to carry out necessary modifications in the earlier period of the development.

4. Management and human resources

In order to successfully complete this project, four project engineers and an office staff will work for the project. The engineers will be electronics engineer, computer engineer, textile and mechanical engineer. This team will be managed by a director. Such a team has currently formed in Adana USAM. They are experienced in communicating with SMEs, S&T intermediaries and universities. The current team will have the opportunity to transfer their abilities to the e-platform. But two additional engineers are planned to be employed in order to speed up the development. As a result, the team will consist of 6 project officer, an office staff and a director.

The e-platform is expected to be developed and tested in 1 year. Based on the above human resources, estimated measure (man/months) to implement the project is as follows:

1. Specifying the methods of the activities and prepare the detailed project plan:
3 months, 4 people (director, 2 engineers, office staff)
2. Preparing the web platform and subsections: 7 months, 8 people (director, 6 engineer, office staff)
3. Collecting the data of the e-platform: 7 months, 8 people (director, 6 engineer, office staff)
4. Trail of the system and the modification studies. : 2 months, 3 people (2 engineer, office staff)

5. Budget and sustainability

5.1. Budget

Detailed budget plan for each planned activity is provided in Table 4.

Table. 4 Budget table for the development of an “*Textile and Metal-Manufacturing Technology e-Platform*”

in euros	Human Resources	Equipment & Supplies	Subcontract	Travel	Other (office etc)	Overhead
Creating a technology e-platform	110.000	20.000	-	10.000	10.000	-
					TOTAL	150.000

5.2. Sources of funding

It is foreseen that the project may be funded by TUBITAK program called “Scientific and Technological Cooperation Networks and Platforms Establishment Initiative Support Program” (STCN-PEISP). Also Çukurova University and Adana Chamber of Industry may provide technical assistance and support.

6. Dissemination

- After the e-platform is launched, it will be announced to all regional SME’s, S&T Intermediaries and regional actors through e-mail, regional journals of the relevant sectors, regional televisions, annual newsletter of Adana USAM.
- In national wide, annual reports of the project studies will be announced in the e-platform also it will be sent to TUBITAK.
- The e-platform will be introduced to listeners and visitors taking place in national and regional conferences and, meetings of Adana USAM.
- Some statistics (technological development statistics of the sectors, etc.) of the e-platform will be launched in the web site, so the relevant sectors can track their sectorial statistics on-line.

7. Sustainability and follow on

Since this pilot project has become one of the activities of Adana USAM, it will sustain with the project of “Scientific and Technological Cooperation Networks and Platforms Establishment Initiative Support Program” (STCN-PEISP). Since it will be the first regional technological e-platform, it will be accepted, used and adopted in principle by the regional SMEs and S&T intermediaries. The e-platform will also fill the communication gap in the relevant sectors; as a result it will be sustained and up-dated by the feedbacks provided by the regional actors.