

“The Turkish Silicon Valley” is made alive ... Advanced Technology Industry Park (ATIP) from 1987 until now

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In this article published in the March 2010 and April 2010 issues of the MSI Monthly Defense Technologies Magazine in two sections, the development process of the Advanced Technology Industrial Park (ATIP) and its sub projects will be analyzed and under the light of these processes evaluations from the point of view of aviation maintenance repair and overhaul activities (MRO) which is one of the segments of the developing industry will be made and proposals will be presented.

The initialization of the Advanced Technology Industry Park (ITEP in Turkish) Project, located in Istanbul, spans to the midst of the years 1980. The ITEP model resting on the model being implemented in countries like the USA, Germany, Japan, Israel, England, Finland, France for years and whose directive idea has been established by the deceased Prime Minister of the period has been constructed upon the functions of;

- Production in advanced technology for the aviation industry,
- Establishment of a free zone for the marketing of the products to be produced and the smooth insurance of international relations,
- Establishment of an advanced technology institute to support the advanced technology production by research and development (R&D) and academic studies,
- Support by an airport to enhance a powerful transportation with the center to be established.

The project has been initialized with the establishment of ITEP in Kurtköy by the Defense Industry Executive Committee Decision dated October 8th, 1987 and No: 09(87/6).

In the ITEP Project;

- The Undersecretariat Defense Industry (SSM in Turkish) has been assigned for the planning, coordination, nationalization and the required infrastructure investments,
- The investments have been decided to be financed from the Defense Industry Support Fund.

With the decision of the Council of Ministers dated April 20th, 1988, land expanding to a 13 million square meter area has been nationalized in Pendik Kurtköy to be used in accordance to ITEP objectives.

With the ITEP project; aimed to provide support for the establishment of the dynamic, scientific and technologic infrastructure required to cover the advance technology needs of Türkiye from national resources together with the implementation of the dimension of the;

- Development of our country from the economic and social aspects,

- Innovation based industrial support, R&D, science and technology, education/training to increase the competing power of Türkiye in world markets, it has been evaluated in a manner to;
- Establish a new model to develop the technological infrastructure in Türkiye,
- Attract domestic and foreign investments,
- Self finance the project,
- Contribute to the provision of the post university education and R&D needs of the country,
- Establish additional capacity for air transportation.

The initial mission of the project being determined by the SSM as “to become a leading center of Türkiye from the renovation, technology and export oriented production aspects” has been envisaged to be completed in 25 years, while preferring its execution through a national coordination board considering the coverage of the project and its effective scale.

A wide based coordination group has been established like;

- General Directorate for the Construction of Railways Seaports and Airports,
- State Airports Administration,
- State Planning Organization,
- Administration Directorate of Development and Support of Small and Medium Sized Enterprises ,
- Ministry of National Defense,
- Air Transportation Directorate,
- Turkish Airlines and some commercial air transporters,
- Turkish Aerospace Industries Inc.,
- Turkish Standards Institute,
- Scientific and Technological Research Council of Türkiye,
- Turkish Union of Chambers and Commodity Exchanges,
- Universities,

for the preparation of the master plan of project which is predicted to be implemented in a process to cover the stages of prefeasibility, feasibility, strategic plan and master plan under the leadership of the SSM.

The first master plan of the project has been assigned to the Raytheon and Aer Rianta partnership during the dates in between April 1990 - January 11th, 1993.

In line with the conceptual framework determined by the “ITEP Project Master Plan” and as a result of the developing conditions; the project ITEP has been structured around four main units in relation with each other which is determined as,

- Technopark,
- Sabiha Gökçen Airport,
- Aviation Maintenance and Repair Center,
- Commercial-Social Zone,

with the objective to reach the desired targets when all of them is fully completed.

Within the scope of the project, ITEP Presidency Department has been established within SSM during the end of the 1990’s.

With the aim to earn income, to create resources activities have been initiated with the airport in the project which is presented to the public opinion as the greatest project in Türkiye after the Southern Anatolian Project (GAP). Utilizing the infrastructure funds of NATO as the result of the airport tender made by the NATO Infrastructure Department, the project assumed by the enterprise association consisting of NATO Contractors the building foundation was performed on

the date February 8th, 1998 utilizing "Turkish Silicon Valley" qualifications of "the Project of the 21st Century".

While the construction was in progress, with the decision of the Council of Ministers dated December 17th, 1998 it has been decided to give the name of Sabiha Gökçen, the first female war pilot in the world, foster daughter of Atatürk.

In his speech of then the Minister of Defense Hikmet Sami TÜRK starting with the expression;

"Today I will provide information to you about the final condition of the "Sabiha Gökçen International Airport and Repair and Maintenance Center" project which is part of the Advanced Technology Industrial Park and Aviation Center having free zone statute executed by the Ministry of National Defense on the Anatolian side of İstanbul at Pendik Kurtköy location."

in his expression as the following;

"The units to be formed in the Project within 11years are these:

- 1. A technopark with free zone statute where the strategically dominated defense sector of the private sector and the related sectors will have a yearly advanced technology production of 5,5 billion dollars and will realize the integration of education-science-industry in its national interpretation,*
- 2. An International Aviation Maintenance, Repair and Modernization Center to contribute to the establishment of the infrastructure of the Aerospace Industry and Cargo Center,*
- 3. An international airport of a yearly capacity of 10 million passengers,*
- 4. A trading and social zone with a population of 14.400 in superior life standards, to provide for all kinds of needs of the brain power which will be occupied under the coverage of Teknokent,*
- 5. A High Technology Institute having the ability to assimilate and develop rapidly the modern technologies that can reply to the needs of the business world. (As an alternative in this topic, integration with an existing institute or a university is also considered.)"*

he has stated that "Sabiha Gökçen International Airport and Repair and Maintenance Center";

- Will have a Free Zone statute,
- There will be a "High Technology Institute" in the coverage of the project which will consist of four main units at the beginning,
- ITEP will be the greatest project of Türkiye after GAP.

Relevant to the subject, Airport Operation and Aviation Industries Inc. (HEAŞ) has been established on the date January 27th, 2000 under the leadership of SSM with the partnership of Turkish Armed Forces Foundation (TSKGV); Turkish Aerospace Industries Inc. (TUSAŞ), Turkish Aeronautical Association, HAVELSAN, ASELSAN (in a structure completely autonomous from the corporate operation aspect) which will

- Determine its operation and marketing strategies within its autonomous structure in accordance with the market forces,
- Evaluate the existing and future demands while performing the discussions with the aviation transportation, operation and industrial enterprises which are found appropriate and oriented to the domestic and external markets within the objectives of the ITEP Project.

Following this, ITEP Presidency Department under the structure of SSM has been made to become ITEP Branch Office.

The President of the Parliamentary Investigation Commission of the time Necati ALBAY has expressed the defined position of the coverage of the ITEP project in his speech dated 29 June 2000 during the Grand National Assembly of Turkey (TBMM) General Meeting as;

"Main objectives of the project can be summed under four basic headlines which are military, industrial-commercial, socio-cultural, economic- commercial:

Military objective: *It is a project for the provision of the increasing modernization requirements of the Turkish Armed Forces by the realization of an investment which can continuously create income for the Defense Industry Support Fund, the establishment of an industrial infrastructure which can support the defense industry activities and an airport where military flights can be realized within the framework of the requirements.*

Industrial-commercial objective: *The preparation of an environment where technologies in the electronic aviation and defense industry fields can be produced, marketed in the region and to make the region a center of new innovations which will be made by the effectuation of similar technologies. With this aim, the establishment of an advanced technology park with a free zone statute as well as an aviation center including the biggest aviation, maintenance, repair and modernization site of the Middle East and the Balkans has also been envisaged.*

Socio-cultural objective: *Primarily to provide the second international airport of İstanbul and especially the Anatolian side of the Marmara region, it is a modern and sample settlement site changing the sight of the region as a whole which will include a university and an advanced technology institute that will educate the qualified personnel by taking advantage of the dynamic, scientific and technologic infrastructure to be formed in the region.*

Economic-commercial objective; *As a result of the realization of the above mentioned objectives, the 10 billion dollar investment to be made in the region of which 760 million dollars will be made by the public and 9,24 billion dollars will be by the private sectors, related to this with the provision of approximately an annual turnover of 3,5 billion dollars, along with the provision of an annual income of a minimum of 350 million dollars to the Defense Industry Support Fund it is also a project that will provide the Government of the Republic of Türkiye an annual income of 200 million dollars.*

With the completion of the investments in the region, a work force of a total of 35000 persons directly and of 90 000 persons indirectly will be created."

The coverage of the ITEP project has been expressed as;

"Advanced Technology Industry Park and Airport Project in the national techno-city to be established under the scope of the ITEP project in İstanbul Pendik-Kurtköy region:

- *Sabiha Gökçen International Airport,*
- *Free Zone Management*
- *With free zone statute;*

- *Advanced Technology Industrial Park,*
 - *International aviation, maintenance-repair-overhaul (MRO) center (HABOM),*
 - *Commercial and social region,*
 - *Advanced technology institute/ university,*
- will be present.”*

in the “Eighth Five Year Development Plan Machine Manufacturing Industry Special Expertise Commission Report” of the Prime Ministry State Planning Organization (DPT).

The construction of the airport has been completed in the last months of year 2000 and the first plane landing has occurred on January 8th, 2001.

In the ITEP Project starting from the end of the year 2004 important result focused developments have been started to be experienced in the stages of the plan related to Maintenance, Repair and Overhaul Center and Airport.

ITEP Branch Office functioning under the structure of the SSM, has been divided as, ITEP Managership and Technopark Managership, Technopark Project Management has been linked to the R&D and Technology Management Presidency Office.

The developments in time in the main units constituting the project have been examined separately as to the timely order of occurrence in each main project unit.

ITEP Aviation Repair Maintenance Center (HABOM)

25 year leasing based protocol between SSM and the Turkish Airlines (THY) has been signed with a ceremony on December 3rd 2004.

With this protocol with the aim to;

- Increase the share of THY, in the international repair and maintenance pie of 37 billion dollars of the world under the conditions of that day, which is below the 1% level to higher ratios,
- Establish a repair and maintenance base for the foreign airline companies flying to Far and Middle East,
- Increase the THY repair and maintenance income of 185 million dollars of today to 470 million dollars in the year 2010,

to have a 50 million dollar investment in the project in the year 2005 and to effectuate an investment of 200 million dollars having 2000 employers at completion at the end of 2007 has been targeted.

THY Technic HABOM Project has been planned to start with a project of 75 thousand square meters.

Under the scope of the activity of seeking a partner for the THY’s HABOM project it has been announced that;

- A Memorandum of Understanding of 300 million US Dollars for a strategic partnership with equal shares has been signed with Singapore Technologies Aerospace (ST Aero), the aviation branch of the ST Engineering company, to establish a new air vehicle MRO center at the Sabiha Gökçen International Airport during the Paris Air Show organized in June 2005,

the foundation of ARMC will be laid during August 2005.

Within the time passed, it has been announced that THY HABOM A.Ş., THY TEKNİK A.Ş. and THY EĞİTİM A.Ş. have been decided to be founded as companies each with separate judicial personalities on November 28th 2005.

When the activities under the coverage of the Memorandum of Understanding signed with ST Aero company has not resulted in a way to satisfy the parties, the land lease protocol signed on December 3rd 2004 for the HABOM Project between SSM and THY has been renewed on September 15th, 2006 to make the addressee THY Technic.

(For the rest of the article after this section HABOM abbreviation has been used to define the region spared for air vehicle MRO activities in ITEP.)

The structuring of the ITEP HABOM region has entered a new phase with the signing of the agreement between MRO Teknik Servis Sanayi Ticaret A.Ş. (myTECHNIC) and HEAŞ during January 2007.

myTECHNIC

myTECHNIC established as a special initiative to establish and operate a MRO center oriented for the international market,

- In an area of 60 thousand square meters reserved previously for THY Technic for;
 - Aircraft,
 - Engine,
 - Components,
 - By completing the construction which has been started in March 2007 to be completed in June 2008,
 - As the first industrial private initiative,
- has started its activities with the opening ceremony made on September 27th, 2008.

As an independent MRO center of which the site and processes has been initiated from greenfield with lean principles, myTECHNIC with its team over 450 persons, is providing repair and education services for aircraft, engine and components of national and international customers by developing the best applications in a style to establish a model for the aviation industry with its international certificates and by using the management software it has developed. During this period myTECHNIC;

- Has been rewarded with the "Overhaul & Maintenance Outstanding Achievement Award" for the year 2009 by Aviation Week as the first world greenfield MRO center to operate with its site, process and, infrastructure to be designed with lean principles,
- Has been announced as "the First Enterprise Title Within Green Airport of Türkiye" by the Ministry of Transportation Civil Aviation General Management on October 28th, 2009.

Turkish Engine Center (TEC)

In the region assigned to THY Technic within HABOM a mutual initiative agreement has been signed between THY and Pratt & Whitney for aircraft engine repairs in the rest of a 25 thousand square meters area on January 8th, 2008.

As to this agreement 51% portion of the partnership belongs to Pratt & Whitney and 49% portion belongs to THY Technic companies.

The proceeding activities of the enterprise registered with the title TEC as of October 10th 2008 will step to a new phase with the site opening ceremony to be made during the first months of 2010.

THY Technic HABOM

It has been planned to start the project construction activities in the year 2010 with the prediction that the site to be established within 36 months following the restart of the activities by THY Technic which is oriented for the planes and components within the region assigned for THY Technic within ITEP will have;

- To be constructed in a total area of 20 hectares where 364 thousand square meters will be indoor space,
- A total of 440 thousand square meters of indoor space in two separate hangars (in a way to provide space for the repair of 12 single aisle planes in one hangar and 3 wide double aisle airplanes in the other one at the same time),
- Maintenance plants related to the avionic systems, landing gears, cabin and other components.

The tender for the establishment of a facility of two big plane hangars with maintenance facilities with a value around 500 million dollars under the coverage of THY Technic HABOM project has been signed on February 19th, 2010 and YDA company has obtained the contract.

ITEP İstanbul Sabiha Gökçen International Airport

The airport traffic of which the construction has been finalized at the last months of the year 2000 has increased parallel to the increasing demand starting from the year 2005 and the operation of the terminal has been put on an open tender on the date July 9th, 2007 where the Build-Operate-Transfer (BOT) model has been adopted.

The tender performed by the SSM was obtained by;

- Limak İnşaat A.Ş.
- GMR Infrastructure Ltd.
- Malaysia Airport Holding Berhad,

partnership initiative group, the transfer of the tender was approved by the Supreme Planning Council on February 4th, 2008.

By completing the construction of the outgoing lines terminal with a yearly capacity of 25 million within a short period of time, it has started its activities with the opening ceremony organized by the operator İstanbul Sabiha Gökçen Uluslararası Havalimanı Yatırım Yapım ve İşletme A.Ş. on October 31st, 2009.

In the four layered boutique hotel next to the terminal under the name "Airport Otel" positioned on the air space and land space side (two of which is designed for handicapped) there are 128 rooms, 5 meeting rooms and a health club. "Airport Otel" is the biggest boutique hotel of the airports of Türkiye.

The construction of the second runway of the airport is expected to be started within a short period of time with the completion of its planning.

ITEP Technopark

As stated in the "3. Technopark Summit" organized relevant to techno parks, as to the definition made by the International Association of Science Parks (IASP); a technopark is an initiative resting on incentives and ownership which is;

- Related to one or more than one university/universities or other higher education organizations and research centers on an official or activity basis,
- Designed so as to promote the establishment and development of industrial companies based on information and advanced technologies to be included in its body,
- Having a management function of providing support to the leasing firms it includes in the topics of technology transfer and business management.

The first systematic example of the technopark idea is the technopark which is known today as the "Silicon Valley" that has come into being with the efforts of the commercialization of the researches under the pioneership of the Stanford University in the beginning of the 1950's. Many global companies like Google, Intel, Adobe Systems, Yahoo, VeriSign are positioned in this technopark. As to the data relevant to the subject, there have been regions where over 800 thoughts have been transferred to life resting on innovations of a global scale developed under the leadership of the Silicon Valley.

The first thought of technopark in Türkiye has appeared during the beginning of the years in 1980's. Legislation related to the establishment, operation and the audit of technoparks existing in the Technology Development Region has been administered by;

- "Technology Development Regions Law" with no 4691 and date of acceptance 26.06.2001,
- The following "Technology Development Regions Implementation Regulations" with acceptance date 19.06.2002.

As to the current/effective regulations the first study on the topic of Technology Development Region which is executed under the control and authorization of the Ministry Of Industry and Trade has been initiated by the Middle East Technical University in the year 1991.

As of today, it has been announced in the Official Gazette that a total of 37 Technology Development Regions of which 21 is still operating has been completed in Türkiye.

Technopark İstanbul

The establishment of a technopark within the ITEP Project where there will be a center to realize advanced technology production based on technology, national innovation and exports with Defense Industry Executive Committee Decisions;

- Dated October 8th, 1987 and No: 87/6,
- Dated May 3rd, 1999 and No. 99/10.

The infrastructure which is designed to be established with the ITEP master plan is based on the concept of technopark or technocity which is implemented with success in gradually increasing scale in the world in the topic of producing technology, transferring the produced technologies into practical life.

In the land nationalized with the Cabinet Decision dated April 20th, 1988 in Pendik Kurtköy having a span of 13 million square meters to be used an accordance to the project

objectives within the area spared for the establishment of a technopark of approximately 250 hectares (2, 5 million square meters) there is also a forest area of approximately 140 hectares, assigned to the SSM for 49 years.

In time, with the activities within SSM body, the topic technopark has taken the name "Technopark İstanbul".

Relevant to the Founding Committee of "Technopark İstanbul" on February 12th, 2009, a letter of intent has been signed between;

- SSM,
- İstanbul Chamber of Commerce (İTO),
- İstanbul Commerce University (İTİCU),

with the addition of HEAŞ in time, the formation of the Founders Committee has been completed.

The activities oriented to the establishment of Technopark İstanbul under the coordination of SSM has gained speed with the Technology Development Region application to the Ministry of Industry and Trade on the date April 24th, 2009.

The establishment of İstanbul Technology Development Region (Technopark İstanbul) announced as the 37th by the Ministry of Industry and Trade on an area of 2.271.875,88 m² within İTEP, has been announced by the Cabinet Decision numbered 2009/15439 at the Official Gazette dated 03.10.2009 and No: 27365.



- A : Özel Yatırım Alanı
- T + O : Teknopark Alanı
- C : Ticari ve Sosyal Alanlar
- H : Sabiha Gökçen Uluslararası Havaalanı
- HA : HABOM Alanı
- HG : Havaalanı Genişleme Bölgesi
- L : Lojistik Bölgesi

"..

The vision of Technopark İstanbul has been determined as:

Technopark İstanbul will be;

- A center where R&D and the business world will conjoin.
- A center inclusive of the perfectness centers in the targeted industries.
- An international technopark attracting domestic and foreign investors.
- More than a technopark providing high life and working standards, a first class living area.

- *In the long run, a respected brand of the science and technology world.*

The mission of Technopark İstanbul is to:

- *Contribute to the national innovation system.*
- *Pace the process of the transformation into information society.*
- *Increase the international competitiveness by providing an incentive for the growth of the existing firms by supporting the entrepreneurship in the industry areas which are targeted by the transformation of academic and scientific activities to technological products.*

Targeted Industries and the Technology Areas with Priorities (oriented to the objective of becoming one of the leading countries in high technology) are:

- *Aviation and space technologies including education, maintenance and repair activities,*
- *Defense industries,*
- *Marine industries,*
- *Electronics,*
- *Telecommunication,*
- *Aviation,*
- *Marine electronics,*
- *Micro-processors,*
- *IT technologies,*
- *Nano and micro material/ equipment,*
- *Flexible production and automation technologies,*
- *Sensitive engineering and robot technologies,*
- *Bio-technologies,*

..”

by SMM.

As to the determinations made relevant to “Technopark İstanbul”, at the end of a development period of 25 years the provision of;

- An indoor space of approximately 720 thousand square meters,
- More than a total of 900 operating firms,
- A total of more than 18 thousand working expert R&D personnel and qualified staff,
- Creation of domestic contribution in the advanced technology field and of which at least 10% is based on production with a value of 10 billion USD is targeted.

The initiative chances coming into existence with “Technopark İstanbul” are determined as;

- Legal company and income tax exemptions for Technopark enterprises (as a requirement of the “Technology Development Regions Law” No 4691),
- Exemption of the income of the academic personnel from university liquid capital deductions and in addition the possibility for the academic personnel to establish companies to commercialize research results,
- Incentives for companies having off-set obligations,
- The possibility of Technopark enterprises to reach business world easily through İstanbul Chamber of Commerce,
- The support - facility of many infrastructure services for the Technopark enterprises,
- Access to law offices and other related consultation services,
- With the advanced informatics infrastructure in Technopark structure professional site management and security service,

- A complete life and business center covering a large area with its widespread forest, sports, and health and congress/fair centers.

The condition related to "Technopark İstanbul" is stated as;

- ..
- "Technopark İstanbul" urban design project is prepared. As to this project;
 - Technopark is designed to have a construction area of approximately 720 thousand square meters.
 - The project is planned to be completed in 4 phases.
 - As the first step related to the construction of "Technopark İstanbul" the R&D and Management Building will have a construction area of approximately 19 thousand square meters.
 - This site will provide office facilities in various sizes as its function and will include the management units which the "Technopark İstanbul" management company will need.
 - The construction of the first site construction is expected to start during the first half of the year 2010.
 - On March 12th, 2010 for the establishment of the "Technopark İstanbul" Management Company a "Management Company Partnership and Articles of Association Agreement" will be signed between;
 - SSM,
 - İstanbul Chamber of Commerce (İTO),
 - İstanbul Commerce University (İTİCU),
 - Havaalanı İşletme ve Havacılık Endüstrileri A.Ş. (HEAŞ),
 - Savunma Teknolojileri Mühendislik ve Ticaret A.Ş. (STM),
 - Pre- applications to rent office and land in "Technopark İstanbul" has already started from the link www.Technoparkistanbul.com .."

as of the end of February 2010 by SSM.

It is evaluated that the establishment of "Technopark İstanbul" with the target to be an international brand which is respected in the scientific and technology world will be one of the big steps in the development of the main idea of ITEP initialization.

ITEP Commercial and Social Region

The 20 hectare land positioned in the west of the area spared for Technopark is planned in the first ground plan as congress/meeting center and hotel area oriented to provide for the social and commercial requirements of the technopark.

It is understood that this region is made to become special investment area with the last arrangements.

Evaluation

As the vision on which ITEP is based on, aviation is an industry;

- That is based on highly qualified human resources and its need in this aspect is continuous and increasing,
- That uses high technologies,
- That is rapidly developing,
 - Within the next 20 years (2009-2028),

- The passenger-kilometer (RPK) income will triple to surpass 14 trillion dollars,
- The aircraft to be sold recently approximately more than 25.000 will create a commercial volume of more than 3 trillion dollars
- The other related/effected sectors will also show a parallel development,
- Where absolute consistency with the requirements and developments is compulsory.

The air vehicle MRO area in this industry is a division; having licenses and /or certificates with international recognition; using

- Labor force (engineers, technicians, others),
- Facility, material, equipment,
- Method;

where human resource has a strategic importance in the provision of the cohesion to the development of the aviation industry.

Today, more than one third of the commercial air vehicles MRO market which is more than 45 billion dollars and which will reach 70 billion dollars in the coming 10 years is located at a 3-4 hour flight distance to the İstanbul center. There are approximations that the global business volume of this field in the defense aviation is close to values which are twice the commercial aviation values.

As the aviation sector having the greatest investment and employing the highest number of certified personnel in Türkiye; the air vehicle MRO sector will support the global MRO market with our national resources assigned to air vehicle MRO sector, its applications and education of highly qualified personnel and it has the potential to increase the share in this market rapidly.

In the 10th Transportation Council Conclusion Declaration organized by the Ministry of Transportation;

"...

- *Construction of 1 airport with 60 million passenger capacity in İstanbul and 2 other of 30 million and 2 of 15 million capacity in Türkiye,*
- *Establishment of airplane shuttle/ taxi enterprises and spreading it,*
- *By using sea-air vehicles addressing the tourism living centers close to locations like the seas and lakes, provision of development in this field,*
- *Establishment and supporting of revolving wing air vehicle transportation,*
- *Declaration of airports suitable to air cargo transportation as "free zones",*
- *Enabling the provision of the air vehicle or component certification availability in Türkiye,*
- *Realization of the production of at least 2 types of internationally recognized single/double engine propeller and double engine light jet airplanes as domestic production,*
- *Civil Turkish airline transportation fleet structure to reach one that will include 750 airplanes consisting of 100 double aisle, 450 single aisle and 200 regional planes in the year 2023,*
- *Establishment of Aviation Industry Expertise Organized Industrial Zones,*
- *Integration of the usage of unmanned air vehicles' air space into the civil aviation system,*
- *Development, spreading of the airway transportation and making our country the regional air transportation center in the international field,*
- *By supporting the private sector entrepreneurship in airport management, passenger terminal and cargo sites management completion of the , liberalization process,*
- *Establishment of the "Transportation Research Center" which will realize the scientific research, development and education activities in the transportation sector,*

..."

topics are some of the matters related to aviation.

Along with the technologic opportunity and qualifications another progress foresight closely related to the air vehicle MRO sector from its market value aspect can be listed as;

"...

- *The Council of Ministers Decision published in the year 1998 about the "The Basics of the Turkish Defense Industry Policy and Strategy" numbered 98/11173 essentially foresees the opening of the military factories production oriented present abilities to the use of the private sector. Therefore there will be an attempt to make a feasibility study to determine the present condition of the military factories. The measures that are foreseen to be taken related to the military factories in the first phase are;*
 - *Whether or not to make a separate warehouse level maintenance ability investment in military factories for products whose domestic progress and production has been made,*
 - *For the capabilities existing in the industry prohibition of making repetitive investments,*
 - *The evaluation of the existing production and maintenance and repair capacities in the military factories under the coverage of procurement projects through the main supplier channel,*

..."

as stated under the heading of Military Factories in the recently updated 2009-2016 Defense Industry Sectoral Strategy Document.

The investment/investment agreements of some global aviation companies willing to benefit from the qualifications of Türkiye in aviation industry in the form of;

- In ITEP;
 - Turkish Engine Center (Pratt & Whitney and THY Technic joint venture) , starting activity at the beginning of the year 2010 (with the objective of aircraft engine overhaul in regional scale),
 - Nacelle Service Center (Goodrich Corporation and THY joint venture) where its Memorandum of Understanding has been signed on November 2007 (with the objective of thrust reverser maintenance/repair),
- Around ITEP;
 - Türkiye Technology Center (General Electric and TEI joint venture in Gebze, Kocaeli), where the opening was in June 2009 (with the objective of design and progress oriented to all the commercial and military General Electric engines in a regional scale)
 - Engine Parts Production Center (in Tuzla İstanbul, Pratt & Whitney and Kale Havacılık joint venture) where the Memorandum of Understanding has been signed in June 2009 (with the objective to produce airplane engine parts)

attracts the attention. It is evaluated that the attempts in this manner will increase more in the next 5 years.

In an environment created by the political and economic developments in the global scale, ITEP has the strategic position and importance to provide more than what is expected in the needs felt from the aviation sector point of view; this chance obtained is too big to be missed.

Suggestions

Taking into consideration the sector developments in the global scale as well as the implementation samples like the like Dubai Aviation City and the initialization central idea put forward related to ITEP;

- To establish a status to enterprises at the ITEP region operating in the field of air vehicle MRO activities where they shall take advantage of supports applied to the activities in Free Zones or in Technopark (like providing exemptions and advantages on subjects such as income taxes, customs taxes and duties, Social Security premiums, taxes imposed on financing funds),
- To establish the new high school and college education institutions which are to be founded related to aviation business line at the ITEP region and with the consideration of the enterprises operating in this region and if possible planning so that these enterprises will have the participation priority,
- To provide supports for the **"myACADEMY"** professional education idea that will rapidly increase the strategic power coefficient in the regional scale by educating the mechanic, technician, engineer and manager to the national/regional/global MRO market which will be realized in the ITEP region with all its staff and dynamics under the umbrella of **"myCAMPUS"** Project,
("myCAMPUS" Project is a project thought that is envisaged as an aviation habitat formation program process where the human resource that will be working in the aviation industry, having completed its progress in a manner to take its place in the sector with the applied programs and at the end of the time spent within, so that they have assimilated the elements of the aviation culture in an environment where they have breathed aviation in all its dimensions which has arisen from an idea which is thought to provide a crucial contribution to the development of the national aviation and whose application possibilities are evaluated.)
- In İstanbul Technopark which is at the field of interest of İTİCU by the "Memorandum of Understanding" signed by the SMM, İTO and İTİCU it will be appropriate to,
 - Make the air vehicle MRO enterprises a priority, the acceptance of aviation sector enterprises and giving them a front and the priority in the sectoral advantages to be granted,
 - Accept the ITEP region as a center of attraction for the formation of SME's having technologic expertise in technologies supporting aviation/ MRO related activities and provision of systematic development in the subject of air vehicle MRO by encouraging SME investments oriented to supporting technologies in the region,
 - Establish the orientation and other motivators required for the provision of solution flexibility to the customers and creating additional value added, enabling opportunities for the formation of abilities that can perform applications of type conversions, retrofitting and cabin interior furnishing including composite interior structural elements in air vehicles (VIP, cargo) with the provided facilities considering the present complementary technologies oriented to the automotive and marine sectors and the work power advantage in the region,
 - Establish the environment that will make investments to be made in Türkiye in ITEP instead of Europe, CIS, Middle East countries with the objective to provide production and support service for the regional market starting from the design phase of the national (having commercial and defense objectives) platform and system supply programs of the related international investors and system producers and support technology enterprises, supporting of those enterprises having activities in this line by the relevant governmental enterprises/associations,
- With additions like aircraft parking spot, hangars supporting the general aviation to bring the park in a condition open to the operation of all air vehicles and providing support for all,

- Establish the international culture, convention and exhibition center with aviation and defense sector dominance in the ITEP region planned in such a way to use the platform(s) of the Sabiha Gökçen International Airport.

For the national success of the air vehicle MRO sector whose requirement is increasing/will increase parallel to the development of the global MRO market using,

- High qualification personnel,
- Advanced technologies,

earning foreign exchange and hinders foreign exchange loss there is a need for the close concern, orientation and support of all sectoral, corporate and individual role players and expectants.

It is evaluated that the requirement to make and implement an integrated master plan covering the national resources in order to enhance a development appropriate to the global aviation dynamics, to meet the expectations of the sector and its sub elements will be felt more and more each day.

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