

Aerospace and Defence

# Country Profiles

of  
the new EU Member States and Candidate Countries



V1.0  
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This document was prepared by AeroSME with support of the European Commission. It is regularly updated.  
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## Countries

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## Introduction

This document presents information on aeronautics, space and defence sectors and related topics of those Member States which joined the European Union on May 1st, 2004. Information on Bulgaria, Romania and Turkey has also been added. The objective is to provide representative information on the respective countries and to identify organisations which may be interested in joining EU RTD projects. Furthermore, any additional information on national points of contact, national associations etc. has been included.

Being prepared by AeroSME<sup>1</sup>, the focus of this document is primarily on support for small and medium sized enterprises.

As the data have been collected from various sources and since the industry is rapidly changing, the data presented below provide only a temporary overview from the autumn of 2004. It is the intention of the authors to provide the best information available. Any feedback to the AeroSME Helpdesk is welcome.

Readers searching for more detailed information on the countries should consult respective sources.

The data for this document have been compiled from many sources; some of them are listed below:

- AeroSME, ASD (former AECMA) internal information
- EC DG Enlargement; [http://europa.eu.int/comm/enlargement/index\\_en.html](http://europa.eu.int/comm/enlargement/index_en.html)
- The World Factbook; <http://www.cia.gov/cia/publications/factbook/>
- European Aeronautics Science Network – EASN; [www.easn.net](http://www.easn.net)
- CORDIS web site [www.cordis.lu](http://www.cordis.lu)
- Aerospace America, “New member boost of EU aerospace industry”; by Philip Butterworth-Hayes; 2004; [phayes@mistral.co.uk](mailto:phayes@mistral.co.uk)

All listed countries are eligible for participation in European Technology Projects!

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<sup>1</sup> AeroSME - Support for small and medium sized enterprises; the project is a supporting action of the European Union and ASD.

## General Situation

A study performed in Estonia, Lithuania, Latvia and Poland by IKED<sup>2</sup> list the following findings on SMEs in the Baltic States and Poland which may be typical for many of the new Member States of the EU:

- The SMEs do not have a strong presence in high value-added/high-tech sectors of the economy.
- Although SMEs account for a relatively low share of total exports of the Baltic States and Poland (20-44%), they are more export oriented than their EU counterparts where SME exports represent only 13% of total exports.
- The SMEs appear to have all the pre-requisites necessary (and rank well) on their capacity to innovate, yet are still competing on low cost or local natural resources rather than unique/innovative products and services.
- SMEs have an even tougher time than large-sized enterprises in developing innovative products and services, and lack the capital and networks to strengthen their innovative capacity

Despite lower productivity, the importance of Eastern Europe as both a potential new manufacturing base and an area of euro-rich customers have encouraged many Western European aerospace firms to consider major new investments in the region. Poland, the Czech Republic, and Hungary are all members of NATO; Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovak Republic, and Slovenia became NATO members on 29 March 2004 - all will require considerable investment to bring their military equipment to NATO standards. It will probably take at least 10 years for them to achieve this, according to NATO sources.

<b>WAGE RATES AND LABOR PRODUCTIVITY IN THE NEW EU</b>			
	Hourly labor costs, * euros 2000	Labor productivity per person employed, ** thousands of euros, 2002	Weekly working hours, 2002
EU 15	22.21	57.6	38.7
Czech Republic	3.90	16.9	42.4
Estonia	3.03	12.0	40.8
Cyprus	10.74	-	40.9
Latvia	2.42	12.0	43.6
Lithuania	2.71	10.7	39.4
Hungary	3.83	17.0	41.2
Malta	-	-	-
Poland	4.48	16.9	42.7
Slovenia	8.98	25.4	41.3
Slovakia	3.06	13.3	42.1

\*Hourly labor costs: total annual labor costs divided by the total number of hours worked.

\*\*Gross value added at current prices per person employed.

Source: Eurostat

Further expansion of the EU may see Bulgaria, Romania, and possibly Croatia joining in 2007. Albania, Macedonia, Bosnia-Herzegovina, and Serbia-Montenegro are also likely candidates; Turkey may possibly start membership negotiations in 2005. Beyond that, Belarus, Moldova, and Ukraine are also potential EU candidate states, as are Armenia, Azerbaijan, and Georgia.

<sup>2</sup> COMPETING IN THE SINGLE MARKET: SMEs and innovation in the Baltic countries and in Poland, S.Schwaag Serger and Emily Hansson, IKED 2004

## **Country Profiles**



## Bulgaria

Bulgaria became a People's Republic in 1946. Since 1990 it is moving towards political democracy and a market economy while combating inflation and unemployment. Well over 90% of Bulgarian companies are SMEs.

Accession negotiations with the EU started in 2000. NATO participation is envisaged.

<b>Population:</b>	7,517,973 (July 2004*)
<b>Languages:</b>	Bulgarian
<b>Area total:</b>	110,910 sq km
<b>GDP:</b>	purchasing power parity - €57.13 billion (2003*)
<b>GDP-real growth rate:</b>	4.4% (2003*)
<b>GDP-by sector:</b>	agriculture: 12.5% industry: 27.8% services: 59.7% (2002)
<b>Labour Force:</b>	3.83 million (2000*)
<b>Unemployment rate:</b>	13.5% (2003)
<b>State Budget:</b>	revenues: €6.68 billion
<b>Industries:</b>	electricity, gas and water; food, beverages and tobacco; machinery and equipment, base metals, chemical products, coke, refined petroleum, nuclear fuel
<b>Exports/ Imports:</b>	€7.337 billion f.o.b. (2003*)/ €9,723 billion f.o.b. (2003*)
<b>Export commodities:</b>	clothing, footwear, iron and steel, machinery and equipment, fuels
<b>Export partners:</b>	Italy 15.5%, Germany 9.6%, Turkey 9.4%, Greece 9.2%, France 5.3%, US 4.8%
<b>Import commodities:</b>	fuels, minerals, and raw materials; machinery and equipment; metals and ores; chemicals and plastics; food, textiles
<b>Import Partners:</b>	Russia 14.6%, Germany 14.4%, Italy 11.4%, Greece 6.1%, France 5.7%, Turkey 5% (2002)
<b>Currency:</b>	Lev; 1 EUR = 1,9559 BGN
<b>Military manpower:</b>	19 years of age (2004*)/males age 15-49: 1,829,203 (2004*)
<b>Military spending:</b>	€356 million (FY02) = 2.6% GDP
<b>EC Member State:</b>	No – but candidate country
<b>NATO Partner:</b>	as of March 2004

\* estimate

<b><i>Aeronautical Association:</i></b>	<b>Bulgarian Aerospace Agency (BASA)</b> Prof.Dr. Boris Bonev – President 69 Shipchenski Prokhorov blvd., fl. 3, BG-1574 Sofia, Bulgaria Mailing address: P. O. Box 59, BG-1000 Sofia Tel./Fax: +359 2 973 3271
<b><i>Space Association:</i></b>	-
<b><i>Defence Association:</i></b>	<b>The Atlantic Club of Bulgaria</b> (NATO-related) Lyubomir Ivanov (President) 29, Slavyanska Str., Sofia 1000, Bulgaria Tel./Fax: (+359 2) 981 06 99 E-mail: <a href="mailto:natoinfo@natoinfo.bg">natoinfo@natoinfo.bg</a> , Website: -
<b><i>ASD Member:</i></b>	No
<b><i>EC National Contact Point:</i></b>	<b>Solar -Terrestrial Influences Laboratory</b> , Dr. T. Dachev Block 3, Sofia, BG, BG-1113 Tel: +3592- 8700307, Fax: +3592-9797080 URL: <a href="http://www.stil.acad.bg">http://www.stil.acad.bg</a> , e-mail: <a href="mailto:tdachev@bas.bg">tdachev@bas.bg</a> .  <b>Space Research Institute</b> , S. Stavrev 6; Moskovska Str., Sofia, BG-1000 P. O. Box 799 Tel.: +3592-9753443, Fax:+3592-9813347 URL <a href="http://www.bas.bg">http://www.bas.bg</a> , e-mail: <a href="mailto:ssstavrev@pronto.phys.bas.bg">sstavrev@pronto.phys.bas.bg</a>  <b>Space Research Institute</b> , P. Angelov 6; Moskovska Str., Sofia, BG-1000 P. O. Box 799 Tel.:+3592-9883503, Fax: +3592-9813347 URL <a href="http://www.bas.bg">http://www.bas.bg</a> , <a href="mailto:pangelov@space.bas.bg">pangelov@space.bas.bg</a>
<b><i>AeroSME Point of Contact:</i></b>	-
<b><i>AeroSME Workshops:</i></b>	No
<b><i>Aeronautics sector</i></b>	Text to be added
<b><i>Space sector</i></b>	Text to be added
<b><i>Defence/Security sector</i></b>	

A governmental framework agreement signed in December 1999 with the Bulgarian Academy of Science started an inter-departmental collaboration in the field of research and technology applicable to Bulgarian national security and defence.

In 2004 two new military equipment programmes are envisaged following Bulgaria's NATO membership along with the modernisation and life extension of the service's current Mil Mi-17 and Mi-24 assault helicopters. The utility helicopter requirement is to be contested by European companies AgustaWestland and Eurocopter with competition also coming from Sikorsky. The emerging transport aircraft requirement appears set to be decided between EADS Casa's C-295 and the Lockheed Martin/Alenia C-27J.

## Overview on Industry and Research organisations

### Aircraft & Engine Manufacturers

Company	Size <sup>3</sup>	Main Product(s)	Contact
Dar-Aircraft Ltd.		Mfr. of light aircraft	<a href="http://www.dar.dir.bg">http://www.dar.dir.bg</a>

### Aeronautics related enterprises

Company	Size	Main Product(s)	Contact
None			

### Research Organisations & Universities

Company	Major Area of Work	Contact
Bulgarian Academy of Sciences Aerospace Technology	The Bulgarian Academy of Science is the largest national research center in Bulgaria with 67 research institutes and laboratories	Bulgarian Academy Sciences Ass. Prof. Dr. Petar GENOV <a href="mailto:spsbyte@bgcict.acad.bg">spsbyte@bgcict.acad.bg</a>
Bulgarian Academy of Sciences Space Research Institute		6 "Moskovska" str., Sofia 1000, Bulgaria Tel.+359 2 9883503, Fax.+359 2 9813347 Website: <a href="http://www.space.bas.bg/astr/o/">http://www.space.bas.bg/astr/o/</a>
Bulgarian Academy of Sciences Center for National Security and Defense research		1, 15 November Str., Sofia 1040, Bulgaria, <a href="mailto:cnsdr@iusi.bas.bg">cnsdr@iusi.bas.bg</a> <a href="http://www.icsr.bas.bg/cnsdr">www.icsr.bas.bg/cnsdr</a>
Technical University of Sofia Aerospace Division		Technical University of Sofia Aerospace Division 8, Kliment Ohridski St. 1000 Sofia Tel: +359-2-68-53-43, Fax: +359-2-62-30-73 E-mail: <a href="mailto:office_tu@tu-sofia.acad.bg">office_tu@tu-sofia.acad.bg</a> , Website: <a href="http://www.tu-sofia.acad.bg/">http://www.tu-sofia.acad.bg/</a>
Institute of Air Transport Svetoslav Stanulov and Tonko Petkov Sofia Airport		Sofia Airport P.O. Box 1034 1000 Sofia Tel: +359 2 945 92 43, Fax: +359 2 988 44 45 E-mail: <a href="mailto:ivt@tea.bg">e-mail: ivt@tea.bg</a> , Website: <a href="http://www.tea.org">www.tea.org</a>

### Airlines and Airports

Company	Contact
Bulgarian Air (former Balkan Airline)	<a href="http://www.balkanair.com">http://www.balkanair.com</a>

<sup>3</sup> Number of Employees





## The Republic of Cyprus

Independence from the UK was approved in 1960. A referendum between the Greek and Turkish parts of the Island on 21 April 2004 did not lead to a political unification. The Greek part became a member of the EU in May 2004.

<b>Population:</b>	724900(mid-year 2004)
<b>Languages:</b>	Greek, Turkish
<b>Area total:</b>	9,251 sq km (of which 35% - 3,355 sq km are in the Turkish Cypriot area)
<b>GDP:</b>	81, 5 of the EU25 average: purchasing power parity
<b>GDP-real growth rate:</b>	3.6% (2004)
<b>GDP-by sector:</b>	primary sector 4, 4%; industry 19, 1%; services 76, 5%
<b>Labour Force:</b>	344, 3 (2004)
<b>Unemployment rate:</b>	3, 5% (2004)
<b>State Budget:</b>	revenues: €4.4 billion, expenditures: €539 million, including capital expenditures
<b>Industries:</b>	food, beverages, , chemicals, metal products, wood products, tourism, business services.
<b>Exports/ Imports:</b>	€5758,5 million f.o.b. /: €6082 million f.o.b.. (2004)
<b>Export commodities:</b>	citrus, potatoes, pharmaceuticals, cement, clothing & cigarettes
<b>Export partners:</b>	UK 32%, Greece 9,2%, Germany 3,9%, Lebanon 3,4% (2003)
<b>Import commodities:</b>	consumer goods, petroleum and lubricants, intermediate goods, machinery, transport equipment.
<b>Import Partners:</b>	Greece 11, 9%, Italy 9,8%, UK 8,3%, Japan 5,6%, China 4,9%
<b>Currency:</b>	Cypriot pound; 1 EUR = 0.57838 CYP
<b>Military manpower:</b>	18 years of age (2004*)
<b>Military spending:</b>	€384 million (FY02)
<b>EC Member State:</b>	since May 2004
<b>NATO Partner:</b>	No

<i><b>Aeronautical Association:</b></i>	No
<i><b>Space Association:</b></i>	No
<i><b>Defence Association:</b></i>	No
<i><b>ASD Member:</b></i>	No
<i><b>EC National Contact Point:</b></i>	<b>Research Promotion Foundation</b> , Mr Antoniou, L. Apellis and P. Nirvana Str. P.O. Box 23422, CY-1683 Nicosia, CYPRUS Tel: +357-22-660292, Fax: +357-22-666117 URL: <a href="http://www.research.org.cy">http://www.research.org.cy</a> , Email: <a href="mailto:lanto@research.org.cy">lanto@research.org.cy</a>
<i><b>AeroSME Workshops:</b></i>	Exploratory meeting planned in 2005.
<i><b>Aeronautics sector</b></i>	No RTD activity
<i><b>Space sector</b></i>	No RTD activity
<i><b>Defence/Security sector</b></i>	No RTD activity

## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
Company	Size <sup>4</sup>	Main Product(s)	Contact
None			

<b>Aeronautics related enterprises</b>			
Company	Size	Main Product(s)	Contact
Upperstage Engineering			Kariatides Centre, Block A1, Office 206, 56 Stavrou Str. 2035 Nicosia, Cyprus Tel. +357 22879749 upperstage@cytanet.com.cy

<b>Research Organisations &amp; Universities</b>		
Company	Major Area of Work	Contact
University Of Cyprus		P.O. Box 20537 CY-1678 Nicosia, Cyprus Tel.: + 357 22892200 Fax: + 357 22892100 E-mail: admin@ucy.ac.cy http://www.ucy.ac.cy/
Frederic Institute of Technology		P.O. Box 24729 1303 Nicosia, Cyprus Tel.: +357-22431355 Fax: +357-22438234 E-mail: info@fit.ac.cy http://www.frederick.ac.cy
Intercollege		P.O. Box 24005 CY-1700 Nicosia, Cyprus Tel.: 357-22841656 Fax: 357-22355116 E-mail: shekeris.a@intercollege.ac.cy http://www.intercol.edu/
Cyprus College		P.O. Box 22006 CY-1516 Lefkosia, Cyprus Tel: +357-22713000, Fax: +357-22662051 E-mail: admit@cycollege.ac.cy http://www.cycollege.ac.cy

<b>Airlines and Airports</b>	
Company	Contact
CYPRUS AIRWAYS LTD	Tel. +357 – 80000008
EUROCYPRIA AIRLINES LTD	97 Artemidos Ave, 6027 Larnaka Tel. +357 - 24658000
HELIOS AIRWAYS LTD	22 Nitse, 6028 Larnaka Tel. +357 – 24815700

<sup>4</sup> Number of Employees



## Czech Republic

In 1989, Czechoslovakia regained its freedom through a peaceful "Velvet Revolution." On 1 January 1993, the country underwent a "velvet divorce" into its two national components, the Czech Republic and Slovakia. The Czech Republic is a member of the EU and NATO.

<b>Population:</b>	10,246.178 (July 2004*)
<b>Languages:</b>	Czech
<b>Area total:</b>	78,866 sq km
<b>GDP:</b>	purchasing power parity - €160.5 billion (2003*)
<b>GDP-real growth rate:</b>	2.5% (2003*)
<b>GDP-by sector:</b>	agriculture: 3.8% industry: 41% services: 55.2% (2001)
<b>Labour Force:</b>	5.203 million (1999*)
<b>Unemployment rate:</b>	10.5% (2003)
<b>State Budget:</b>	revenues: €16.7 billion
<b>Industries:</b>	metallurgy, machinery and equipment, motor vehicles, glass, armaments
<b>Exports/ Imports:</b>	€46.77 billion f.o.b. (2003*)/ €50.4 billion f.o.b. (2003*)
<b>Export commodities:</b>	machinery and transport equipment 44%, intermediate manufactures 25%, chemicals 7%, raw materials and fuel 7% (2000)
<b>Export partners:</b>	Germany 36.6%, Slovakia 7.7%, UK 5.8%, Austria 5.6%, Poland 4.7%, France 4.7%, Italy 4.1% (2002)
<b>Import commodities:</b>	machinery and transport equipment 40%, intermediate manufactures 21%, raw materials and fuels 13%, chemicals 11% (2000)
<b>Import Partners:</b>	Germany 32.9%, Italy 5.5%, Slovakia 5.3%, France 4.9%, China 4.7%, Russia 4.6%, Austria 4.4%, Poland 4.1% (2002)
<b>Currency:</b>	Czech koruna; 1 EUR = 31.634 CZK
<b>Military manpower:</b>	18 years of age (2004*)/ males age 15-49:2,623,386 (2004*)
<b>Military spending:</b>	€1,190.2 million (FY01 = 2.1% (FY01) GDP
<b>EC Member State:</b>	since May 2004
<b>NATO Partner:</b>	since March 12, 1999

\* estimate

- Aeronautical Association:*** **ALV ČR** - Association of the Aviation Manufacturers of the Czech Republic  
Beranových 130,  
199 05 Prague 9 - Letňany,  
Czech Republic  
Tel: +420 225 115 338  
[www.alv-cr.cz](http://www.alv-cr.cz)
- Space Association:*** -
- Defence Association:*** **Association of Defence Industry (ADI)**  
Czech representative in NATO Industrial Advisory Group (NIAG)  
Rytirska 110 00 Prague 1  
Tel: 420-2-2423-5320  
Fax: 420-2-2423-5319  
E-mail: [aop@mbox.vol.cz](mailto:aop@mbox.vol.cz)  
[www.aop.cz](http://www.aop.cz)  
Contact name: Jiri Pisklak, Vice President
- ASD Member:*** Yes
- EC National Contact Point:*** **Technology Centre AS CR**, Mr J. Fuchs  
Rozvojová street 135,CZ-16502  
Prague 6, CZECH REPUBLIC  
Tel: +420-2-20390727, Fax: +420-2-20922698  
[www.tc.cz/](http://www.tc.cz/), E-mail: [fuchs@tc.cas.cz](mailto:fuchs@tc.cas.cz)
- AeroSME Point of Contact:*** **La Composite, s.r.o., Ing. Bohuslav Cabrnach**  
Beranových 65, 199 02 Praha 9-Letňany, Czech Republic  
Tel: +420 234 313 216, Fax: +420 234 312 760  
E-mail: [Cabrnach@lacomposite.com](mailto:Cabrnach@lacomposite.com)  
[www.lacomposite.com](http://www.lacomposite.com)
- AeroSME Workshops:*** April 2002, November 2001

### ***Aeronautics sector***

The Czech aeronautics sector is based on a very long industrial tradition and is relatively important in the national economic context. The Czechs have a long industrial history of producing high quality aircraft and heavy equipment, as well as sophisticated technologies for radar. Aeronautics is considered to play a strategic role in the Czech economy and the government has always been actively involved in sustaining the local industry. This has been especially the case for the research base in aeronautics, which not only has preserved its capabilities but also gradually increased over the last years its resources in terms of employees.

Local companies perform very little research activity but actively interact with national research institutions. Local research institutions in aeronautics however, offer first class research capabilities and are tightly networked in research programs and institutional agreements.

The industry still accounts for some State owned companies and State orders are very important for the national industry. Nevertheless, an extensive privatisation process is taking place and foreign investors have been increasingly interested in the country.

Most of aerospace research activities are concentrated in VZLÚ, a.s. (Aeronautical Research and Test Institute in Prague) and in IAE (Institute of Aerospace Engineering in Brno).

Together with Poland, the Czech Republic is a major aerospace power which joined the EU in May 2004. Talks on funding a new strategic partner were reported to be under way at the start of the year with BAE Systems and Airbus.

***Space sector*** Text to be added

### ***Defence/Security sector***

The country has begun a sweeping overhaul of its armed forces to create a smaller but more mobile force to support NATO operations. It has plans to increase defence spending this year to \$1.8 billion - around 1.9% of GDP. The country, like Hungary, has opted to lease Gripen fighters from BAE Systems/Saab. With offset contracts reported to be worth around 150% of the value of the contract over 10 years, one of the major beneficiaries of the deal should be Aero Vodochody, the troubled Czech manufacturer of advanced trainers and regional passenger aircraft. Until recently the firm had sought partnership deals with U.S., rather than Western European, companies.

The structure and ownership of major firms within the Czech defence sector are still going through a major transition. Many of these companies are looking for an injection of western technology and direct foreign investment to bring them in line to compete on an equal basis with their western counterparts. Czech companies are therefore seeking foreign partners to help them enter new western-style markets with competitive products.

Top modernization priorities of Ministry of Defence acquisitions in the next five years are Command, Control, Communication, Computer and Intelligence (C4I) systems integration and the upgrade of air defences.

Current Czech law prohibits government-to-government sales. Therefore, third party organizations are used to execute a purchase. These trading companies are required to have licenses. The responsibility for issuing licenses is shared by the Ministry of Foreign Affairs, the Defence Ministry, the Ministry of Interior and the Ministry of Industry and Trade.

There are more than 100 licensed military trading companies in the Czech Republic.

European manufacturers Mirage (France) and British Aerospace/Saab (Sweden), and their respective governments, are actively marketing advanced aircraft to the Czech Republic as well as to Poland and Hungary. Israeli's Nimda is participating in the project of T-72 modernization.

Since the Czech Republic was founded in 1993, the U.S. has played a leading role in helping the Czech military transition to NATO compatibility. Programmes such as the Warsaw Initiative and Foreign Military Sales (FMS) include advisory assistance for restructuring as well as funds for

acquisitions.

After Boeing in 1998 made the investment of 35% (\$39.5 million) ownership of Aero Vodochody, other U.S. companies, such as AlliedSignal and the former Rockwell-Collins, invested in the L-159 development project. After contracting for the sale of 72 of these aircraft to the Czech Air Force, this international consortium is actively pursuing sales in Western Europe, former Soviet bloc countries, Africa, Asia and South America.

U.S. company Allison was contracted as a supplier of transmissions for T-72 tank modernization. U.S. company Novus Holding acquired a 75% share in the Czech company Walter, a turboprop engines manufacturer.

In October 2004, the Czech government announced it would buy back the 35% stake held by Boeing in Aero Vodochody, following a dispute between the two sides over loan guarantees. Sales of the company's L-159 trainer/light combat aircraft—which features around 50% U.S. content by value—have not matched expectations, and production has ceased. Now the future of Aero Vodochody could well depend on Gripen offset agreements. In December 6, 2004 the Czech government has bought the Boeing stake in the company. Since that time the state is again the majority owner of the Aero Vodochody,

Aero Vodochody was awarded a seven-year contract worth \$230 million by Sikorsky Aircraft. The contract involves the production of the S-76C helicopters, and includes the production and sub-assemblies of more than 100 units. Production started in November 2000.

IN 2003, Aero Vodochody made a profit of 313 million CzK, but on top of heavy losses in previous years. The manufacturer is now making money predominantly from modernisation of its L-39 Albatros jet trainer, which it sold to countries including Algeria and Tunisia in the 1980s and 1990s. The Ae270 is in development.

The most promising seems to be the branch of the radar production and technology in the Czech Republic mainly in the connection with the building of the NATO AGS system where the consortium of EADS and Northrop Grumman (TIPS) is a major favourite in obtaining the contract. The Czech consortium in this bid is lead by the company Mesit Přístroje from Uherské Hradiště. Members of the consortium are also Aero Vodochody (Prague), Terex-Tatra (Kopřivnice), Ray Service (Kunovice), ERA (Pardubice) etc. But this project is still opened and was not officially issued.

## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
<b>Company</b>	<b>Size<sup>5</sup></b>	<b>Main Product(s)</b>	<b>Contact</b>
Aero Vochodovy Ltd.	2000	Ae270 utility transport aircraft; tools & technology equipment, composite structure	AERO Vodochody, a.s., 250 70 Odolena Voda 374, Tel.: +420255761 111, Fax: +420 255763 233, <a href="http://www.aero.cz">http://www.aero.cz</a>
Czech Aircraft Works, s.r.o	115	Light sport aircraft producer	Lucni 1824, 686 02 Stare Mesto T: +420 572 543 456 <a href="mailto:aircraft@czaw.cz">aircraft@czaw.cz</a> <a href="http://www.airplane.cz/">http://www.airplane.cz/</a>
Evektor-Aerotechnik	300	Ultralight airplane EV-97 Eurostar, prototype., tools, assemblies, repair & overhaul	Evektor - Aerotechnik, a.s., Letiště, 686 04 Kunovice Tel: +420572537111 Fax: +420 572 537 900 <a href="http://www.evektor.cz">http://www.evektor.cz</a>
LZ Aeronautical Industries, Inc. (Letecké Zavody a.s. Kunovice)	2.000	Development, product., repair & support of the turboprop aircraft & gliders (Manufacturing L-410,L-420)	LETECKÉ ZÁVODY, a.s., Kunovice 1177, 686 04 Tel: +420 572 816 161 Fax: +420 572 564 145 <a href="http://www.let.cz">http://www.let.cz</a>
TeST s.r.o.		Production of advanced ultra light airplanes	TeST s.r.o. Dobrovskeho 78 612 00 Brno tel/fax: +420-549 249 073 <a href="http://www.test.infoline.cz">www.test.infoline.cz</a>
Walter Prague, a.s.	750	Aircraft & industrial turbine engines	Walter, a.s., Jinonická 329, 150 07 Praha 5 - Jinonice, tel.: +420 251 041 300 fax: +420 257 216 983 <a href="http://www.walter.cz">http://www.walter.cz</a>
Zlín Aviation s.r.o.		Savage (sport aircraft)	Holešov Flughafen Czech Republic T +420-577 941 250 <a href="mailto:info@aerosavage.com">info@aerosavage.com</a> <a href="mailto:savage.ulm@tiscalinet.it">savage.ulm@tiscalinet.it</a>

<b>Aeronautics related enterprises</b>			
<b>Company</b>	<b>Size</b>	<b>Main Product(s)</b>	<b>Contact</b>
Aero Holding a.s.	28	Coordination of R&D and international cooperation programs	Company is in liquidation. Ing. F. Petrášek, CSc. Is responsible for liquidation since December 12, 2000.
AGA – Letiste, s.r.o.	18	Design Bureau	Jenečská 885, 253 01 Hostivice

<sup>5</sup> Number of Employees



AVIA Propeller s.r.o.	65	Design, manufacturing & repair of aircraft propeller and propulsion systems	Beranových 666, Praha-Letňany Tel (0)2-96 33 65 11 <a href="mailto:sales@aviapropeller.cz">sales@aviapropeller.cz</a> <a href="http://www.aviapropeller.cz">www.aviapropeller.cz</a>
Bohemia Aeroplanes		Landing gear systems, high-strength composite components	Pražská 444, 250 89 Lázně Toušeň
ERA a.s.		Research and development in radar technology	Průmyslova 387, 530 03 Pardubice
Evektor, spol. S r.o.		Design & Engineering: 3D modelling systems, CAD systems, EV-55 Project	Evektor, a.s., Letiště, 686 04 Kunovice Tel: +420572537111 Fax: +420 572 537 900 <a href="http://www.evektor.cz">http://www.evektor.cz</a>
Jihlavan. A.s.	250	Hydraulics	Jihlavan, a.s., Znojemska 64,586 52 Jihlava Tel: +420 567 303 153 Fax: +420 567 310 187 <a href="http://www.jihlavan.cz">http://www.jihlavan.cz</a>
Jihostroj, a.s.		Hydraulics; fuel control systems for aero-engines	Jihostroj, a.s., Budějovická 148, 382 32 Velešín Tel: +420 380 340 712 Fax: +420 380 340 612 Internet: <a href="http://www.jihostroj.cz">http://www.jihostroj.cz</a>
La Composite s.r.o.	40	Composite parts for Airbus, autoclave technology	216Beranových 65, 199 02 Praha 9- Letňany, Czech Republic Tel +420 234 313 <a href="mailto:info@lacomposite.com">info@lacomposite.com</a> <a href="http://www.lacomposite.com">http://www.lacomposite.com</a>
Letov letecká výroba s.r.o.	360		Beranových 65, Praha - Letnany <a href="http://www.llv.cz/llv_en.htm">http://www.llv.cz/llv_en.htm</a>
ULS Letov Simulatory Letnany company	80	Prod of training system & flight simulators	Beranových 65, PO Box 6, 199 21 Prague 9- Letňany Tel: +420 234 312 254 Fax: +420 234 312 020
UniControls a.s.	140	Control systems; multi-functional display for Ae 270	Křenická 2257, 100 00 Prague 10

### Research Organisations & Universities

Company	Major Area of Work	Contact
Brno University of Technology, Institute of Aerospace Technology	Flight Physics, Aero-structures, Flight Mechanics, Integrated Design and Validation – General, Air Traffic Management, Airports, RTD & testing for aircraft	Technická 2896/2 616 69 Brno Czech Republic <a href="mailto:klement@lu.fme.vutbr.cz">klement@lu.fme.vutbr.cz</a>
Centrum dopravního výzkumu = Transport Research Centre	Air Traffic Management, Human Factors	Líšeňská 33a, 636 00 Brno, Czech Republic; Tel. 420 548 423 711
Czech Technical University, Prague,	Aerostructures, Flight Physics, Propulsion	Karlovo nám. 13 121 35 Prague 2

Dept. of Aerospace Engineering		Czech Republic Václav Brož, Prof. Dr. Ing. <a href="mailto:brozv@fsik.cvut.cz">brozv@fsik.cvut.cz</a>
Institute of Physics of Materials ASCR		Na Slovance 2, 182 21 Prague 8, Tel: +420 220 318 111 Fax: +420 233 343 184 Internet: <a href="http://www.fzu.cz">www.fzu.cz</a>
Tomas Bata University, Zlin		Nám. T.G. Masaryka 275 CZ-762 72 Zlín Czech Republic Tel. +420 57 6031203 Prof. Ing. Lubomír Lapčík, PhD.; <a href="mailto:lapcik@ft.utb.cz">lapcik@ft.utb.cz</a>
VZLU Výzkumný a zkušební letecký ústav, a.s. The Aeronautical Research and Test Institute	Research, development, testing and certification of aircraft structural durability and of other engineering products, wind tunnel models & testing, propellers, electromagnetic compatibility, materials	Beranových 130, Prague - Letňany, 199 05 Tel. +420 2 663 10 518 <a href="mailto:vzlu@vzlu.cz">vzlu@vzlu.cz</a>

### **Airlines and Airports**

Company	Contact
CSA – Czech Airlines	Kletišti I, 160 08 Praha 6 - Ruzyně Tel: +420220561001 Fax: +420233324860 <a href="http://maintenance.csacz">http://maintenance.csacz</a>



## Estonia

After centuries of Danish, Swedish, German, and Russian rule, Estonia regained its freedom in 1991. It is a new member of the World Trade Organization. Almost 99% of all enterprises in Estonia are SMEs.

The economy is greatly influenced by developments in Finland, Sweden, Russia, and Germany.

**Population:**

1,341,664 (July 2004\*)

**Languages:**

Estonian (official), Russian, Ukrainian, Finnish

**Area total:**

45,226 sq km

**GDP:**

Purchasing power parity - €17.37 billion (2003\*)

**GDP-real growth rate:**

4.8% (2003\*)

**GDP-by sector:**

agriculture: 5.2%; industry: 29.3%; services: 65.5% (2002)

**Labour Force:**

608,600 (2001\*)

**Unemployment rate:**

5.5% (June 2003)

**State Budget:**

revenues: €3.13 billion

**Industries:**

engineering, electronics, wood and wood products, textile; information technology, telecommunications

**Exports/ Imports:**

€4.075 billion f.o.b. / €5.535 billion f.o.b. (2003\*)

**Export commodities:**

machinery and equipment 33%, wood and paper 15%, textiles 14%, food products 8%, furniture 7%, metals, chemical products (2001)

**Export partners:**

Finland 20.4%, Sweden 12.4%, Russia 10%, Germany 8.3%, Latvia 7.7%, UK 4.2%, Lithuania 4.1% (2002)

**Import commodities:**

Machinery and equipment 33.5%, chemical products 11.6%, textiles 10.3%, foodstuffs 9.4%, transportat. equipm. 8.9% (2001)

**Import Partners:**

Finland 15.6%, Russia 12%, Germany 11.1%, Sweden 8.4%, China 4.6%, Italy 4.1% (2002)

**Currency:**

Estonian kroon; 1 € = 15.6466 EEK

**Military manpower:**

Estonia has committed to retaining conscription up to 2010

**Military spending:**

€155 million (2002\*) = 2% GDP

**EC Member State:**

as of May 2004

**NATO Partner:**

as of March 2004

<b><i>Aeronautical Association:</i></b>	None
<b><i>Space Association:</i></b>	-
<b><i>Defence Association:</i></b>	-
<b><i>Space Agency:</i></b>	Estonian Space Agency
<b><i>ASD Member:</i></b>	No
<b><i>EC National Contact Point:</i></b>	<b>Archimedes Foundation</b> , Mr Hillar Toomiste EU Innovation Centre Väike-Turu 8, Tartu 51013 ESTONIA Tel.: +372 7 300 320 Fax: +372 7 300 336 E-mail: <a href="mailto:hillar.toomiste@archimedes.ee">hillar.toomiste@archimedes.ee</a> <a href="http://www.irc.ee">http://www.irc.ee</a> ;
<b><i>AeroSME Workshops:</i></b>	No – Baltic States workshop held in Vilnius in October 2004
<b><i>Aeronautics sector</i></b>	Text to be added
<b><i>Space sector</i></b>	Text to be added
<b><i>Defence/Security sector</i></b>	Text to be added

## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
Company	Size <sup>6</sup>	Main Product(s)	Contact
None			

<b>Aeronautics related enterprises</b>			
Company	Size	Main Product(s)	Contact
FEANOR OÜ		Design and supply of special cutting tools for aerospace & naval, defence, automotive; Industrial length metrology R&D in EU research projects (6th Framework Program) on calibration of measuring instruments and development of new measurement technologies for the automotive and defense industry, development of calibration strategies, MSA -measurement uncertainty analysis.	<a href="http://www.feanor.com/">http://www.feanor.com/</a>

<b>Research Organisations &amp; Universities</b>		
Company	Major Area of Work	Contact
Archimedes Foundation	Coordination and implementation of different EU programs and projects in the field of training, education, research, technological development and innovation	Tallin, Tartu <a href="http://AS-Country Profiles-v3.0-0408027.doc">http://AS-Country Profiles-v3.0-0408027.doc</a>

<b>Airlines and Airports</b>	
Company	Contact
Not listed	

<sup>6</sup> Number of Employees



## Hungary

In 1968, Hungary began liberalizing its economy. It held its first multiparty elections in 1990 and initiated a free market economy. 99% of companies registered in Hungary are classed as SMEs, mostly family businesses. It joined NATO in 1999 and the EU in 2004.

<b>Population:</b>	10,032,375 (July 2004*)
<b>Languages:</b>	Hungarian 98.2%, other 1.8%
<b>Area total:</b>	93,030 sq km
<b>GDP:</b>	purchasing power parity - €139.7 billion (2003*)
<b>GDP-real growth rate:</b>	2.8% (2003*)
<b>GDP-by sector:</b>	agriculture: 4.3% industry: 28.4% services: 67.3% (2001*)
<b>Labour Force:</b>	4.2 million (1997)
<b>Unemployment rate:</b>	6.1% (2003*)
<b>State Budget:</b>	revenues: €13 billion
<b>Industries:</b>	Mining, metallurgy, construction materials, processed foods, textiles, chemicals (especially pharmaceuticals), motor vehicles
<b>Exports/ Imports:</b>	€42.03 billion f.o.b. (2003*)/ €46.19 billion f.o.b. (2003*)
<b>Export commodities:</b>	machinery and equipment 57.6%, other manufactures 31.0%, food products 7.5%, raw materials 1.9%, fuels and electricity 1.9% (2001)
<b>Export partners:</b>	Germany 35.5%, Austria 7.1%, Italy 5.8%, France 5.7%, UK 4.7%, Sweden 4.3%, Netherlands 4.2% (2002)
<b>Import commodities:</b>	machinery and equipment 51.6%, other manufactures 35.3%, fuels and electricity 8.2%, food products 2.9%, raw materials 2.0% (2001)
<b>Import Partners:</b>	Germany 24.2%, Italy 7.5%, Austria 6.9%, Russia 6.1%, China 5.6%, France 4.8%, Japan 4.2% (2002)
<b>Military manpower:</b>	18 years of age (2004*)/ males age 15-49: 2,519,052 (2004*)
<b>Military spending:</b>	€1.08 billion (2002*)= 1.75% (2002*) GDP
<b>Currency:</b>	Forint; 1 EUR = 248.85 HUF
<b>EC Member State:</b>	as of May 2004
<b>NATO Partner:</b>	as of 1999

\* estimate

***Aeronautical Association:*** -

***Space Association:*** -

***Defence Association:*** -

***ASD Member:*** Via the defence association represented by the Hungarian Ministry of Economy and Transport, Industry department

***EC National Contact Point:*** **National Office for Research and Technology** (contact for aeronautics)  
Ms Ildiko Helvei  
Szervita tér 8., H-1052, Budapest, HUNGARY  
Tel: +36-1-4842515, Fax: +36-1-3178717  
URL: <http://www.om.hu>  
E-mail: [ildiko.helvei@nkth.gov.hu](mailto:ildiko.helvei@nkth.gov.hu)

**Hungarian Space Organisation**, Dr. Eniko Patkos  
Alkotmány u. 27, H-1054 Budapest, HUNGARY  
Tel: +36-1-3010969; Fax: +36-1-3010979  
E-mail: [patkos@hso.hu](mailto:patkos@hso.hu)

***AeroSME Point of Contact:***

***AeroSME Workshops:*** November 2003

***Aeronautics sector:*** Text to be added

### ***Space sector***

Hungary has been engaged in over fifty years of space research. For about the past 25 years, Hungarian scientists have carried out bilateral cooperation with the former Soviet Union, within the framework of the Intercosmos organization. Hungary has participated in planetary missions such as Vega probes to Venus and Comet Halley or Phobos probes to Mars. In 1980, a Hungarian cosmonaut was the first Hungarian to visit the Soviet space station, Salyut-6.

Hungary established a new space organization in 1992. Hungarian space activities have been directed by the Hungarian Space Board and co-ordinated by the Hungarian Space Office (HSO), based on the advice and guidance of the Scientific Council on Space Research. The programmes are financed by the Government in the form of regular and occasional support for space through the Innovation and Technology Fund. The Ministry of Traffic, Telecommunications and Water Management supervises the budget of the Hungarian Space Office.

Hungary's space activities are carried out in nearly 30 different research institutions, belonging mostly to universities, research institutes of the Hungarian Academy of Sciences and other national institutions and organizations.

Since 1992, nearly all of Hungary's national space programmes have been realized through international cooperation with Russia, Ukraine, the central European countries, the European Space Agency (ESA) with which Hungary recently signed a letter agreement for stronger ties, and, most recently, NASA.

### ***Defence/Security sector***

Hungary joined NATO on March 12, 1999, along with Poland and the Czech Republic. As a NATO country, Hungary has been moving towards the interoperability and communication requirements that NATO membership requires. Since joining NATO, Hungary has been making procurements based upon NATO requirements for closer integration within the Alliance. Hungary has a set of "Force Goals" that each of the other newer NATO members (Hungary, Poland and the Czech Republic) is required to meet over a period of years.

The production value of the Hungarian defence industry was HUF 10 billion (€ 40 million) in 2001, reflecting both growth since the end of the recessionary period in 1996 and the effect of offset requirements in major defence procurement contracts. Much of Hungary's defence industry has been privatized since at least the late 1990s and those companies that have been able to find a civilian market in addition to the small defence market have been most successful. According to the Ministry of Economic Affairs, there are about 65 companies involved in the defence industry. About 35 companies actually produce items for defence, while the rest are primarily import/export trading companies. Currently, Hungary's defence related exports total about €9 million, with approximately, 80 percent of the exports originating from ten companies in Hungary.

The ten major defence industry companies cover such activities as aircraft maintenance and upgrading, armoured vehicle development, ammunition production, military simulation devices, radar and missile manufacturing, gas masks and protective clothing, handguns, and defence electronics systems.

There are plans to privatize several 100 percent state-owned defence-industry companies which are listed below. The state plans to retain 50 percent plus one share in these companies.

Since 1996, the U.S. Government has provided Hungary with Foreign Military Funding (FMF) grant money with which the Hungarian MoD can purchase U.S. defence items through the Foreign Military Sales (FMS) system. However, U.S. companies face strong European competition in Hungary. In the past year, the Hungarian MoD seems to be reflecting a general GoH preference for European products and services, a situation possibly linked to Hungary's efforts to achieve EU accession. Therefore, while U.S. firms can expect opportunities in Hungary through the USG provided FMS system, American firms seem to face significant obstacles even when supplying technologically superior, competitively priced equipment through the GoH tendering process.



## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
Company	Size <sup>7</sup>	Main Product(s)	Contact
Danubian Aircraft Company	400	Aircraft and helicopter overhaul, service and modification, manufacture of rubber components, of plexiglas and composite parts	H-2316 Tököl, P. O. Box 23 <a href="http://www.danubian.hu">www.danubian.hu</a>
Aeroplex Central Europe		An aircraft heavy maintenance facility	
Lufthansa Technik Budapest		In March 2000, MALEV and Lufthansa Technik AG established a Budapest-based joint venture to carry out D-checks on Boeing 737s in two hangars rented from LRI (an investment of EUR 15 million). Lufthansa Technik AG holds 85% of the joint venture firm, the rest is held by MALEV.	P.O. Box 13 1615 Budapest T +36 1 296 3000 <a href="http://www.lufthansa-technik.com">www.lufthansa-technik.com</a>

<b>Aeronautics related enterprises</b>			
Company	Size	Main Product(s)	Contact
eR Group Engineering Advisory Lps (Limited Partnership), (eR Group Mernoki Tanacsado Bt.)		Activity in training, organization of conferences, price evaluation, taxation, etc. most for aviation industry	Participant of Berlin Air Show Brokerage Event / ILA 2004. See in <a href="http://irc.cordis.lu/bemt/participants.cfm?eventid=1139">http://irc.cordis.lu/bemt/participants.cfm?eventid=1139</a>
EUROCONTROL -Ceats Research Development and Simulation Centre			<a href="http://www.eurocontrol.int/src/public/contact/src_membership_hungary.html">http://www.eurocontrol.int/src/public/contact/src_membership_hungary.html</a>
Kotem Hungary		Developer of software for metrology	<a href="http://www.kotem.com">http://www.kotem.com</a>
MTA Számítástechnikai és Automatizálási Kutató Intézet (Computer and Automation Institute, SZTAKI)			<a href="http://www.sztaki.hu/sztaki/portraits/index.jhtml">http://www.sztaki.hu/sztaki/portraits/index.jhtml</a>
SLOT CONSULTING LTD		Market research, airline representation, air transport related projects with institutes, universities, airports, airlines and innovative companies	<a href="http://www.slotconsulting.hu/">http://www.slotconsulting.hu/</a>
W.E.T. Automotive Systems Hungary Kft. (W.E.T. Automotive Systems AG)		Manufacturer of seat heating systems and conductive components	Pilisszentiván <a href="http://www.wet.de">http://www.wet.de</a>

<sup>7</sup> Number of Employees

### ***Research Organisations & Universities***

<b>Company</b>	<b>Major Area of Work</b>	<b>Contact</b>
Department of Aircraft and Ships at the Budapest University of Technology and Economics		<a href="http://rht.bme.hu/index.php?newlang=english">http://rht.bme.hu/index.php?newlang=english</a>
National Defence University Institute for Transport Sciences Ltd		
University of Veszprém		

### ***Airlines and Airports***

<b>Company</b>	<b>Contact</b>
Malev Airlines	
CityLine Hungary Ltd.	



## Latvia

Latvia re-established its independence in 1991. Strong Russian minority of some 30% of the population. SMEs make up 99% of all Latvian enterprises and employ a total of 60% of the working population.

Latvia joined EU and NATO in 2004.

<b>Population:</b>	2,306,306 (July 2004*)
<b>Languages:</b>	Latvian (official), Lithuanian, Russian, other
<b>Area total:</b>	64,589 sq km
<b>GDP:</b>	purchasing power parity - €23.77 billion (2003*)
<b>GDP-real growth rate:</b>	6.8% (2003*)
<b>GDP-by sector:</b>	agriculture: 4.5% industry: 20.9% services: 74.6% (2002)
<b>Labour Force:</b>	1.1 million (2001*)
<b>Unemployment rate:</b>	8.7% (2003*)
<b>State Budget:</b>	revenues: €2.4 billion
<b>Industries:</b>	buses, vans, street and railroad cars, synthetic fibres, agricultural machinery, fertilizers, washing machines, radios, electronics, pharmaceuticals, processed foods, textiles; note - dependent on imports for energy and raw materials
<b>Exports/ Imports:</b>	€3 billion f.o.b. (2003*)/ €4.921 billion f.o.b. (2003*)
<b>Export commodities:</b>	wood and wood products, machinery and equipment, metals, textiles, foodstuff
<b>Export partners:</b>	Germany 15.3%, UK 14.4%, Sweden 10.4%, Lithuania 8.2%, Estonia 5.9%, Russia 5.8%, Denmark 5.6%, US 4.3% (2002)
<b>Import commodities:</b>	machinery and equipment, chemicals, fuels, vehicles
<b>Import Partners:</b>	Germany 17.2%, Lithuania 9.8%, Russia 8.8%, Finland 8%, Sweden 6.4%, Estonia 6.2%, Poland 5%, Italy 4.2% (2002)
<b>Currency:</b>	Latvian Lat; 1 EUR = 0.6586 LVL
<b>Military manpower:</b>	19,655 (as of 1 August 2002)
<b>Military spending:</b>	102.55 million lats (US\$ 165.4 million), 2% of GDP (draft 2003 budget).
<b>EC Member State:</b>	as of May 2004
<b>NATO Partner:</b>	as of March 2004

\* estimate

**ASD Member:** No

**EC National Contact Point:** **Riga Technical University**  
Department of Vice-Rector for research  
Ms Sandra Vasilevska  
Kalku iela 1,  
LV-1658 Riga Latvia  
Tel. +371 7089356; Fax +371 7820094  
ULR <http://www.rtu.lv>, E-mail [sandra.vasilevska@rtu.lv](mailto:sandra.vasilevska@rtu.lv)

**AeroSME Point of Contact:** -

**AeroSME Workshops:** March 2004; Baltic States workshop held in Vilnius in October 2004

### ***Aeronautics sector***

Latvia does not have its own aviation industry. However, in Latvia there are a number of research establishments connected to some extent with the problematic of aeronautical science and technology and currently successfully working in this area. It is envisaged that within several decades applied research will be carried out in the field of aerodynamics, airframe strength and fatigue durability, designing and calculations of light and super light experimental aircrafts, the theory and structure of engines etc in Latvia.

In the Aviation institute of the Riga Technical University (AI RTU), the scientific - experimental centre of aerodynamics (AERKOM, Ltd), and the firm NORTH DESIGN BUREAU Ltd (NDB) aerodynamic researches on the following basic directions have been carried out:

- Research aircraft AC in a wide range of angles of attack and sideslip angles in unsteady flow (including gusts) with ground effect, power-plant run and icing simulation;
- Researches vehicles, sporting facilities, buildings and constructions AC and investigations in the area of wind energetic;
- Development of experimental equipment (wind tunnels, strain-gauge balances, devices for unsteady flow production, the automated means of metrology and control) for objects aerodynamic characteristics research;
- Development of experimental equipment for WT tests in expected conditions of operation (icing, turbulent atmosphere, rain showers, ground effect);
- Development of the equipment and methods of transportation is carried out cargoes on an external suspension bracket of the helicopter.

Modern means for theoretical and experimental researches specified establishments carried out by experienced personnel are in existence. For example: some low-speed wind tunnels, the biggest of them have the area of cross-section 16 m<sup>2</sup>, the complex of experimental facilities for research of aerodynamic characteristics (AC), the automated experimental data acquisition systems.

Much of the theoretical and experimental researches for airframe strength and fatigue durability were executed in AI RTU and the scientific - experimental centre Aviatest-LNK:

- Stress State and Fatigue Durability of Rivet-Joins

- State of Stress and Fatigue of Cylindrical Connection with High Press Tight Fit
- Fatigue Cracks Research Method in Aviation Frames in Operation Conditions
- The crack resistance analysis of massive units of structure
- Fracture Model of Thin Layer of a Fibrous Composite
- Regularities of Acoustic Emission at Fatigue Fracture of an Aluminium Alloy
- Structural Elements and Its Joints Diagnostic by Surface Waves Method
- Analysis of reliability of fatigue-pron airframe structure components
- The theory of fatigue damage accumulation in composite material
- Full-scale static, dynamic and fatigue testing of airframes structural components (Aircrafts: Tu-134A, Tu-154, Jak-40, Tu-334; Helicopters: Mil-8, Kamov-126/226, Mil-26).

Modern methods and means of researches are widely used: Analytical Methods of Solid Mechanics and Fracture Mechanics; Applied Mathematic Statistics; The high performance software (ANSYS, Mechanical Desktop, Autodesk Inventor, AutoCAD, MATCAD and others). Test equipment: Multi-channel control systems; hydraulic actuators; data acquisition systems; strain measuring systems; universal servo-hydraulic testing systems.

In the field of progressive materials and structures the researches are carrying out in Institute of Materials and Structures of RTU and Institute of the Mechanics of Polymers of the Latvian Academy of Sciences: Finite element analysis of sandwich and laminated composite structures; Damping analysis of composite materials and structures; Optimal design and identification of properties for composite materials and structures; Interlaminar fracture analysis of laminated composites.

There are some SMEs engaged in applied researches and manufacturing of various means of mechanization of technological processes at the airports: truck conveyor; truck with a lifting platform; telescopic air stairs for passengers; aprons bus with trail-type lounge; aircraft covering cleaning from ice and snow and others ( Firms LAS-1, TTS-AVIO, Turbo).

### ***Space sector***

Applied researches of space are conducted in Ventspils International Radio Astronomy Centre (VIRAC). The main purpose of the VIRAC is to take part in observations of cosmic sources of natural and artificial radiation in order to accumulate observational data for fundamental and practical research programs in radio astronomy, astrophysics, cosmology, geophysics, geodynamics, geodesy, coordinate-time service and other.

### ***Defence/Security sector***

The current structure of the NAF consist of Land Forces, Naval Forces, Air Forces, special operations Forces, Military Police, and the National Defence Academy. In order to insure well-directed and efficient performance of the NAF structure in peacetime, developing the self-defence capabilities of the State and interoperability with NATO, the Provision Forces have been formed in addition to the above structure. The task of these two new organisations is to centralise and make more efficient the NAF provision and military education.

## Overview on Industry and Research organisations

### Aircraft & Engine Manufacturers

Company	Size <sup>8</sup>	Main Product(s)	Contact

### Aeronautics related enterprises

Company	Size	Main Product(s)	Contact
Akciju sabiedriba DATI			
ALTA Ltd.		air navigation services and air traffic control	Vadim Stroitelev www.lgs.lv
Aviatest Link		Independent test laboratory; facilities for static, dynamic and fatigue tests of airframes and their components mainly on Tupolev aircrafts and helicopters Mi-8 and Mi-26	Aleksandr Sorokin E-mail: aviatest@hotmail.com www.aviatest.lv
LAS-1		Developer, manufacturer and supplier of equipment for airports terminals	Boris Lilovs www.las1.lv
AERCOM		Theoretical and experimental aerodynamics; facilities for aerodynamics research	Sergey Flerov

### Research Organisations & Universities

Company	Major Area of Work	Contact
Riga Technical University, Aviation Institute	Aircraft strength and Fatigue life laboratory, avionics	Aviation Institute of Riga Technical University 1 Lomonosova str. Riga, Latvia Tel: +371-7089356, Fax: +371-7315705 Email: sandra.vasilevska@rtu.lv URL: <a href="http://www.zinatne-5.lv">http://www.zinatne-5.lv</a>

### Airlines and Airports

Company	Contact
Air Baltic	

<sup>8</sup> Number of Employees



## Lithuania

On 11 March 1990, Lithuania became the first of the Soviet republics to declare its independence. Lithuania subsequently has restructured its economy for eventual integration into Western European institutions. It joined EU and NATO in 2004.

**Population:**

3,607,899 (July 2004\*)

**Languages:**

Lithuanian (official), Polish, Russian

**Area total:**

65,200 sq km

**GDP:**

purchasing power parity - €40.17 billion (2003\*)

**GDP-real growth rate:**

7.1% (2003\*)

**GDP-by sector:**

agriculture: 7.1% industry: 26.6% services: 66.3% (2002\*)

**Labour Force:**

1.5 million (2001\*)

**Unemployment rate:**

10.7% (2003\*)

**State Budget:**

revenues: €1.59 Billion

**Industries:**

metal-cutting machine tools, electric motors, television sets, refrigerators and freezers, petroleum refining, shipbuilding (small ships), furniture making, textiles, food processing, fertilizers, agricultural machinery, optical equipment, electronic components, computers, amber

**Exports/ Imports:**

€7.89 billion f.o.b. (2003\*)/ €9.2 billion f.o.b. (2003\*)

**Export commodities:**

mineral products 23%, textiles and clothing 16%, machinery and equipment 11%, chemicals 6%, wood and wood products 5%, foodstuffs 5% (2001)

**Export partners:**

UK 13.4%, Russia 12.1%, Germany 10.4%, Latvia 9.7%, Denmark 5.1%, Sweden 4.2%, France 4.1% (2002)

**Import commodities:**

mineral products 21%, machinery and equipment 17%, transport equipment 11%, chemicals 9%, textiles and clothing 9%, metals 5% (2001)

**Import Partners:**

Russia 22.2%, Germany 17.8%, Italy 5.1%, Poland 5% (2002)

**Currency:**

Litas; 1 EUR = 3.4527 LTL

**Military manpower:**

16 years of age (2004\*)/ males age 15-49: 943,063 (2004\*)

**Military spending:**

€230.8 million (FY01)/ 1.9% (FY01)

**EC Member State:**

as of May 2004

**NATO Partner:**

as of March 2004

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\* estimate

***Aeronautical Association:***      **LAPIA - Association of Aviation Industries of Lithuania**  
J. Bakanausko 29  
LT-3018 Lietuva  
Tel+Fax: +370 7 42 07 43  
E-mail: [lapia@takas.lt](mailto:lapia@takas.lt)

***Space Association:***                -

***Defence Association:***            -

***ASD Member:***                      No

***EC National Contact Point:***    **Agency for International Science and Technology  
Development Programmes**  
Dr. B. Mikulskiene  
A. Gotauto 12-219, LT-1108 Vilnius, LITHUANIA  
Tel: +370-5-2644713; Fax: +370-5-2312292  
URL: <http://www.tpa.lt>; E-mail: [b.mikulskiene@kti.mii.lt](mailto:b.mikulskiene@kti.mii.lt)

***AeroSME Point of Contact:***    **Agency for International Science and Technology  
Development Programmes**  
Dr. B. Mikulskiene

***Relevant memberships:***        -

***AeroSME Workshops:***            March 2004; Baltic States workshop held in October 2004

### ***Aeronautics sector***

Companies are mainly involved in general aviation and maintenance. Avionics activities are solely related to aircraft of the former Soviet Union.

There are sixteen companies in Lithuania, working in the Aeronautics sector with a global turnover of 453.2 million Litas (131.4 MEuro). 2,483 people are employed in this sector. Lithuanian Aeronautics sector could be divided into Airports, Shipment or transportation and Aircraft building. A single leading company covers almost 75-91% of the total turnover in each of the groups.

LAL Ltd (Lithuanian Airlines) is certified for repairing Boeing and Saab aircraft. Some of the companies supply spares for helicopters or provide service charter flights. Many companies have business relations with other countries, for instance the UK, the USA, Germany, Sweden, France, and the Czech Republic. LAL has some research capabilities. They co-operate with Boeing and Saab Corporations for the modernisation of the aircraft. Helisota Ltd takes part in the FP5 project – “COCOPAN”. AviaBaltica Ltd. is a member of the European Repair Companies.

A. Gustaitis Aviation institute by Vilnius Gediminas technical university is the only organization in Lithuania that specializes in training pilots.

***Space sector***                            Text to be added

***Defence/Security sector***            Text to be added



## Overview on Industry and Research organisations

### Aircraft & Engine Manufacturers

Company	Size <sup>9</sup>	Main Product(s)	Contact
None			

### Aeronautics related enterprises

Company	Size	Main Product(s)	Contact
AB Kauno aviacijos gamykla		Established in 1919. Test flight of the first aircraft in 1922. Repair and overhaul of famous Antonov An-2, repair of aviation technical equipment, painting; interior design and works; pilots' training	J. Bakanauskas g. 29 LT-3018 Kaunas Tel +370-7-420 395 E-mail: <a href="mailto:kag@kaunas.omnitel.net">kag@kaunas.omnitel.net</a> <a href="http://www1.omnitel.net">www1.omnitel.net</a>
AB Sportinė Aviacija		30 years experience in composite gliders, sailplanes and motor glider design and manufacture; Serial production LAK-17A, GENESIS-2 gliders	AB Sportinė Aviacija Pociunai, LT-4340 Prienų raj. Tel +370-49-60 235 Email <a href="mailto:sportavia@prienai.omnitel.net">sportavia@prienai.omnitel.net</a> Homepage <a href="http://www.lak.lt">www.lak.lt</a>
AviaBaltica Aviation Ltd.		<ul style="list-style-type: none"> <li>– Sales of aircraft engineering</li> <li>– Arrangement of aircraft engineering overhaul</li> <li>– After-warranty and service maintenance of aircraft engineering</li> <li>– Supply of units, spare parts, consumables, tools and ground equipment for aircraft engineering repair and maintenance</li> <li>– Overhaul of all modifications of Mi-8, Mi-17 helicopters</li> <li>– Coordination of activities of the affiliates and representative offices of the Holding in different countries of the world</li> </ul>	AVIABALTIKA AVIATION Vilniaus St. 86a, Karmelava LT-4301 Kaunas, LITHUANIA Tel.: (+370 37) 399131, 399141 Fax: (+370 37) 399305, 399161 Email: <a href="mailto:aviabalt@kaunas.omnitel.net">aviabalt@kaunas.omnitel.net</a>
Helisota Ltd.		Overhauls and repair services for Mi-8, Mi-17 helicopters and their modifications, spare parts, assemblies and units for these helicopters. Two seat composite Ultralight basic trainer aircraft – LAK-X	J. Bakanauskas g. 29E LT-3018 Kaunas Tel +370-7-421 006 E-mail: <a href="mailto:helisota@helisota.lt">helisota@helisota.lt</a> <a href="http://www.helisota.lt">www.helisota.lt</a>
LSC Panevezio Aviacija		Former military repair factory, Antonov An-2 repair, painting; special additional equipment for aircraft and helicopter manufacturing.	AB "Panevezio aviacija" J. Biliuno-12 LT-5319 Panevezys Te. +370-5-434 187
UAB "Termikas"		Airframe repair (max. 2,5 to MTOW); maintenance, repair and overhaul of YAK-50, YAK-52, YAK-55 aerobatic aircraft, engine and propeller overhaul; pilot training	UAB Termikas Pociunai, LT-4340 Prienų raj. Tel. +370-49-60520 <a href="mailto:termikas@prienai.omnitel.net">termikas@prienai.omnitel.net</a> <a href="http://www.termikas.balt.net">www.termikas.balt.net</a>
UAB Europarama		Professional advice and help in preparing projects for the European RTD Programmes	<a href="mailto:leona.bandzaityte@europarama.lt">leona.bandzaityte@europarama.lt</a> J. Galvydžio g. 3 LT-08236 Vilnius Mobile:+370 (6) 8614280

<sup>9</sup> Number of Employees

UAB LKSoft Baltic		Software developer;	
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### **Research Organisations & Universities**

<b>Company</b>	<b>Major Area of Work</b>	<b>Contact</b>
Vilnius Gediminas Technical University	Flight Physics, Aerostructures, Air Traffic management, Human factors, Flight mechanics	Antanas Gustaitis Aviation Institute, Rodunes kelias 30 LT-2038 Vilnius, Lithuania avinst@ai.vtu.lt
Kaunas University of Technology	Aero structures; Flight mechanics-failure and hazard studies integrated design and validation - general	Kaunas University of Technology Faculty of Mechanical Engineering Department of Mechahnics of Solids Kestucio Str. 27-126 LT-3004 Kaunas Lithuania

### **Airlines and Airports**

<b>Company</b>	<b>Contact</b>
Air Lithuania	
Lithuanian Airlines	



## Malta

Being part of the Commonwealth Malta became independent in 1964. A decade later Malta became a republic. Since about the mid-1980s, the island has become a freight transshipment point, financial centre, and tourist destination. Malta joined the EU in May 2004.

**Population:**

396,851 (July 2004\*)

**Languages:**

Maltese (official), English (official)

**Area total:**

316 sq km

**GDP:**

purchasing power parity - €7.082 billion (2003\*)

**GDP-real growth rate:**

0.8% (2003\*)

**GDP-by sector:**

agriculture: 3% industry: 23% services: 74% (2002\*)

**Labour Force:**

160,000 (2002\*)

**Unemployment rate:**

7% (2003\*)

**State Budget:**

revenues: €1.5 billion

**Industries:**

tourism; electronics, ship building and repair, construction; food and beverages, textiles, footwear, clothing, tobacco

**Exports/ Imports:**

€2.175 billion f.o.b. (2003\*)/ €2.761 billion f.o.b. (2003\*)

**Export commodities:**

machinery and transport equipment, manufactures

**Export partners:**

Singapore 17.3%, US 11.4%, UK 9.4%, Germany 9.2%, France 7.3%, China 6.5%, Italy 5.9% (2002)

**Import commodities:**

machinery and transport equipment, manufactured and semi-manufactured goods; food, drink, and tobacco

**Import Partners:**

Italy 18.2%, France 12%, South Korea 11.3%, UK 7.5%, Germany 5.3%, Singapore 5.3%, Japan 4.9%, US 4.6%, Spain 4.2% (2002)

**Currency:**

Maltese Lira; 1 EUR = 0.4261 MTL

**Military manpower:**

males age 15-49: 99,324 (2004\*)

**Military spending:**

€33.3 million (2003) = 0.7% (2003) GDP

**EC Member State:**

as of May 2004

**NATO Partner:**

No

\* estimate

<b><i>Aeronautical Association:</i></b>	<b>Malta Aviation Society</b> Joe Ciliberti (President) P.O. Box 27 MIA Tel: +356-21-444089, Fax: +356-21-641380 E-mail: <a href="mailto:secretary@mas.org.mt">secretary@mas.org.mt</a> , Website: <a href="http://www.mas.org.mt">www.mas.org.mt</a>
<b><i>Space Association:</i></b>	-
<b><i>Defence Association:</i></b>	-
<b><i>ASD Member:</i></b>	No
<b><i>EC National Contact Point:</i></b>	<b>University of Malta</b> Dr. Ing. D. Zammit-Mangion Department of Microelectronics, Msida MSD 06, Malta Tel: +356- 2340 2072, Fax: +356- 2134 3577 URL: <a href="http://www.um.edu.mt">http://www.um.edu.mt</a> E-mail: <a href="mailto:dzmang@eng.um.edu.mt">dzmang@eng.um.edu.mt</a>
<b><i>AeroSME Point of Contact:</i></b>	<b>University of Malta</b> Dr. Ing. D. Zammit-Mangion Department of Microelectronics, Msida MSD 06, Malta Tel: +356- 2340 2072, Fax: +356- 2134 3577 E-mail: <a href="mailto:dzmang@eng.um.edu.mt">dzmang@eng.um.edu.mt</a>
<b><i>AeroSME Workshops:</i></b>	December 2002

### ***Aeronautics sector***

Because of Malta's small size there is no research structure dedicated to Aeronautics development. However the Malta Development Corporation together with Malta International Airport has recently identified areas near by that could be used to set up an Aviation Park. Hopefully stimulating SMEs and larger enterprises to set up industries aimed at providing specialised services required by aircraft therefore pushing for activities in the aircraft field.

As Malta has one of the longest runways in Europe and relatively low traffic, Malta can be used as a test base for new aircraft, perhaps attract testing activities in the future.

The aeronautic sector consists of one helicopter turbo-engine company, the maintenance and repairing facility of Lufthansa Technik, small manufacturing companies without design capabilities and a larger number of automotive SMEs.

***Space sector*** No activity

***Defence/Security sector*** No activity

## Overview on Industry and Research organisations

### Aircraft & Engine Manufacturers

Company	Size <sup>10</sup>	Main Product(s)	Contact
None			

### Aeronautics related enterprises

Company	Size	Main Product(s)	Contact
Lufthansa Technik Malta			<a href="http://cms.lufthansa.com">http://cms.lufthansa.com</a>
NCA International		Maintenance	
Sarchem A.G.			
Sputnik Precision Engineering Co Ltd.	7	Design and manufacture of press tools, <a href="#">Injection and blow moulds</a> , <a href="#">dies and precision tooling</a> which can be undertaken by means of its <a href="#">CNC milling facility</a> . The Company undertakes <a href="#">Electrical Discharge Machining equipped with orbiting sparking</a> .	Factory KW 19G, Corradino Industrial Estate, Paola, PLA 08, Malta Telephone: (+356) 21674009 Fax: (+356) 21697160 <a href="mailto:sputnikprecision@yahoo.com">sputnikprecision@yahoo.com</a>

### Research Organisations & Universities

Company	Major Area of Work	Contact
University of Malta		University of Malta Msida MSD 06 MALTA T: +356-21333903-6 <a href="mailto:intoff@um.edu.mt">intoff@um.edu.mt</a> <a href="http://www.um.edu.mt/">http://www.um.edu.mt/</a>

### Airlines and Airports

Company	Contact
Air Malta	

<sup>10</sup> Number of Employees



## Poland

Labour turmoil in 1980 led to the formation of the independent trade union "Solidarity" that over time became a political force and by 1990 had swept parliamentary elections and the presidency. Poland has been successful in creating a satisfactory commercial environment which has helped to establish new dynamic businesses, attracting high levels of direct foreign investment. SMEs represent 99% of all Polish businesses. They generate a total of 61% of employment and 45% of GDP in Poland. Poland joined NATO in 1999 and the EU on 1 May 2004.

**Population:** 38,626,349 (July 2004\*)

**Languages:** Polish

**Area total:** 312,685 sq km

**GDP:** purchasing power parity - €426.7 billion (2003\*)

**GDP-real growth rate:** 3.6% (2003\*)

**GDP-by sector:** agriculture: 3.1% industry: 30.4% services: 66.5% (2003\*)

**Labour Force:** 17.6 million (2000\*)

**Unemployment rate:** 18% (2003)

**State Budget:** revenues: €49.6 billion

**Industries:** machine building, iron and steel, coal mining, chemicals, shipbuilding, food processing, glass, beverages, textiles

**Exports/ Imports:** €57.6 billion f.o.b. (2003\*)/ €63.65 billion f.o.b. (2003\*)

**Export commodities:** machinery and transport equipment 30.2%, intermediate manufactured goods 25.5%, miscellaneous manufactured goods 20.9%, food and live animals 8.5% (1999)

**Export partners:** Germany 32.3%, France 6%, Italy 5.5%, UK 5.2%, Netherlands 4.5%, Czech Republic 4% (2002)

**Import commodities:** machinery and transport equipment 38.2%, intermediate manufactured goods 20.8%, chemicals 14.3%, miscellaneous manufactured goods 9.5% (1999)

**Import Partners:** Germany 24.3%, Italy 8.4%, Russia 8%, France 7% (2002)

**Currency:** Zloty; 1 EUR = 4.4310 PLN

**Military manpower:** 19 years of age (2004\*)/ males age 15-49: 10,291,628 (2004\*)

**Military spending:** €3.5 billion (2002) = 1.71% (2002) GDP

**EC Member State:** as of May 2004

**NATO Partner:** as of 1999

\* estimate

<b><i>Aeronautical Association:</i></b>	<b>APAI (Association of the Polish Aviation Industry)</b> Al. Krakowska 110/114 02-256 WARSAW Poland Tel: (48) 22 846 25 12 Fax: (48) 22 846 25 12 E-mail: mmajewski@pzl.swidnik.pl
<b><i>Space Association:</i></b>	-
<b><i>Defence Association:</i></b>	-
<b><i>ASD Member:</i></b>	Yes, as of January 2004
<b><i>EC National Contact Point:</i></b>	<b>IFTR PAS, Institute of Fundamental Technological Research, Polish Academy of Sciences</b> Mr Z. Turek Swietokrzyska 21, PL-00-490 Warsaw, POLAND Tel: +48-22-8287481; Fax: +48-22-8285370 URL: <a href="http://www.npk.gov.pl">http://www.npk.gov.pl</a> ; E-mail: <a href="mailto:zturek@ippt.gov.pl">zturek@ippt.gov.pl</a>
<b><i>AeroSME Point of Contact:</i></b>	<b>IFTR PAS, Institute of Fundamental Technological Research, Polish Academy of Sciences,</b> Mr Z. Turek
<b><i>Relevant memberships:</i></b>	-
<b><i>AeroSME Workshops:</i></b>	December 2002

### ***Aeronautics sector***

Poland has a long history in aeronautics. However, it has suffered severely from the collapse of its traditional markets, from a view that it was locked into outdated technologies and from the uncertainty and disruption associated with privatisation of the industry. Its main focus in the past was in the defence sector but it has successfully developed a number of areas of competence that can be developed, such as agricultural aircraft and gliders.

There has recently been an inflow of investment from large manufacturers, notably Pratt & Whitney and General Electric, which has led to a growth in the sector focused on the South East corner of the country, where a new industry association has just been set up and the basis of an aviation cluster is emerging.

Traditionally there have been close links between the research sector and industry, and this is continuing including the development of a number of specific industry led research centres, often in co-operation with the Institute of Aviation, which is the focus of research in this sector in Poland. The Polish R&T capabilities are mainly shared in 3 Institutes, 5 Universities, 10 Design and Development Departments of Polish Aviation Industry factories.

The Polish aerospace industry employs around 11,000 staff in 21 companies. PZL-Swidnik, a company where 50% of the work is subcontracted from Western European companies, has made fuselages for both the AgustaWestland A109 Power and A 119 Koala, cockpit modules for the Dassault Mirage 2000-5, components for Ratier-Figeac, and passenger doors for the Airbus A319/A320/A321 family. It also works with Boeing, Bell, and Cessna. Other Polish aerospace companies are more closely tied to West European partners.

In October 2001 EADS CASA took a 51% share in PZL Ockie as part of a contract to supply eight C-295M transports to the Polish air force. The integration of the company into EADS will extend its aero-structures work; the company makes wings, loading doors, seats, and electric harnesses for the CASA C-295 and is developing the PZL-130 TC-II ORLIC advanced trainer. Meanwhile, PZL-Polskie Zaklady Lotnicze (Polish Aviation Factory), the former WSK-PZL Mielec, undertakes subcontract work for the BAE Systems Hawk, the Boeing 757, GKN Westland, Saab, and Pratt & Whitney.

***Space sector***                      Text to be added

### ***Defence/Security sector***

Prior to 1989, the Polish defence industry benefited from many advantages. Companies manufacturing for the defence sector were given absolute priority in the acquisition of raw materials, technology and preferential credits. Also, they were exempt from paying taxes. Poland exported 50% of its military production to the Soviet Union. In 2001, Poland exported only about 13% of its military production.

According to current data, 80% of the present production of previous defence companies is destined for civilian use and the remaining 20% goes to military applications. The total present output represents only 40% of the defence industry's military production capacity.

The defence industry believes that if its products are made compatible with NATO standards they could again become competitive, particularly if quality remains high and the price of the finished product remains low.

The Polish defence industry, however, still looks to the government for strong assistance. The country's draft defence budget for 2004 includes a 16% increase in funds over 2003 for equipment modernization, although defence spending remains at just 1.95% of GDP.

None of the Polish manufacturer produce only defence articles. Plants manufacture a wide range of equipment, including aircraft engines and components, automotive/diesel engines and subassemblies, forging machines, air traffic control and navigation related equipment, electronics, tools, golf carts, appliances, agricultural equipment and wheel chairs. Many of these areas are also best prospects for the Polish market.

The defence industry continues to search for new export markets, particularly in developing countries and in the Middle East. Polish defence companies seek cooperation agreements or joint venture opportunities with foreign defence companies because the relatively lower cost of production in Poland (particularly for tanks, armoured vehicles, artillery, ships, aircraft, and helicopters) will be attractive to potential customers. They believe that only such arrangements will permit them to survive through the current transition.



In 1998, Poland was the only invitee country to sign the Central European Defence Loan (CEDL) agreement, a USD 100 million programme with the U.S. CEDL funds, that can only be spent through the Foreign Military Sales programme, opened up more opportunities for U.S. companies. Through fiscal year 1999-2000, the United States has provided approximately USD 135 million in Foreign Military Financing (FMF) programme grants, the majority of which are directly committed to programmes and services in support of Poland's NATO force goals and minimum military requirements. This funding has been allocated to projects in air space management, command and control, search and rescue operations, communications equipment, mapping, meteorology, acquisition training, computers and more.

The NATO Security Investment Program (NATO-SIP) was established to help finance the military infrastructure development and modernization projects of its members. NATO-SIP will make USD 650 million available to Poland. About USD 380 million of the NATO-SIP funds are to be allocated to the modernization and renovation of seven military airfields, five fuel and material depots and two navy bases. About USD 10 million are earmarked for the development of Poland's military telecommunications system. The NATO-SIP funds have been made available up to the year 2006.

#### EADS Projects in Poland

- Orlik - modernisation (confirmed)
- C-295 aircraft (MTA)
- Mi-24 helicopter upgrade (EC)
- MICA for Air Force, Land Forces,
- Space Systems (Services)
- T-72 upgrade (Matra)
- MiG-29 (Military Aircraft)
- Mobile Hospital (D&C Systems)
- Border Control System (D&C Systems)
- C3I (D&C Systems)

#### The Polish Military Market – Threats

- There are a lot of changes concerning the plans of equipment purchasing on different levels of authorities.
- Strong influence from Israel, USA, Sweden
- There is not good policy of privatisation
- There are strong activities of labour union

## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
<b>Company</b>	<b>Size<sup>11</sup></b>	<b>Main Product(s)</b>	<b>Contact</b>
Polskie Zakłady Lotnicze – Mielec Sp. z o.o. (Polish Aviation Factory) -	1500	Designer and producer of transport aircraft M28 Skytruck, agricultural aircraft M18 Dromader; M26 M26 Iskierka; producer producer components	<a href="http://www.pzlmielec.pl">http://www.pzlmielec.pl</a> , MIELEC
EADS PZL Warszawa-Okęcie S.A.	800	Designer and producer of light aircraft: multipurpose aircraft: PZL-104M 104M Wilga, agricultural PZL-106TB Kruk trainer PZL PZL-112 Junior and military trainer PZL PZL-130 130 Orlik.	<a href="http://www.pzl-okecie.com.pl/">http://www.pzl-okecie.com.pl/</a>
PZL Świdnik SA	2980	Producer of helicopters SW-4, W-3 Sokol family, Mi-2, PZL , PZL –Kania; gliders: PW-5 and PW-6; airframe structures.	<a href="http://www.pzl.swidnik.pl">www.pzl.swidnik.pl</a> , Świdnik
WSK PZL-Kalisz S.A		Aircraft piston engines, engines, gears, shafts, oil pumps, gear transmission, screw gears, etc.	62-800 Kalisz, ul. Częstochowska 140 T (48 62) 504 61 00, Fax (48 62) 503 24 33 <a href="http://www.wsk.kalisz.pl/">http://www.wsk.kalisz.pl/</a>
WSK PZL-Rzeszów S.A.		Producer of jet, turboprop and turboshaft engines, transmissions for helicopters, turbochargers, aviation components (blades and vanes, castings and gears, discs and shafts, machine parts	<a href="http://www.wskpzlrz.com.pl">http://www.wskpzlrz.com.pl</a>
Aviation Farm Ltd.	20	Mfr. light aircrafts, J-5 version, glass-fiber structures	
PZL "Warszawa-Okęcie" S.A.	800	Manufacturer light aircrafts, J-5 version, glass-fiber structures, Mfr.light aircrafts, J-5 version; glass-fiber structures - now part of EADS	<a href="http://www.pzl-okecie.com.pl/">http://www.pzl-okecie.com.pl/</a>
SZD Bielsko	350	Research, development & production of SZD sailplane	<a href="http://www.szdusa.com/comp any1.html">http://www.szdusa.com/comp any1.html</a>
WSK "PZL-Rzeszow"		Manufacture of aviation components and complete aircraft power plants	<a href="http://www.wskpzlrz.com.pl">http://www.wskpzlrz.com.pl</a>
Zakład Remontów i Produkcji Sprzętu Lotniczego	34 + workers periodically employed	Production of aerobatic glider, R&D in composite parts for light aircraft	<a href="http://www.marganski.com.pl">http://www.marganski.com.pl</a>
Zakłady Lotnicze 3Xtrim Sp.z o.o.		Manufacturer of two-seater airplane	<a href="http://www.3xtrim.pl">http://www.3xtrim.pl</a>

<sup>11</sup> Number of Employees

<b>Aeronautics related enterprises</b>			
<b>Company</b>	<b>Size</b>	<b>Main Product(s)</b>	<b>Contact</b>
AERO Ltd.		AT-3 microflyer manufacturer	<a href="http://www.aero.com.pl/firma_e.htm">http://www.aero.com.pl/firma_e.htm</a>
AIR-POL Sp. Z o o.		Design, manufacturing and repairing of parachutes, Para gliders and balloons. Main products: DEDAL troop parachute, AD-2000 tactical 2000 tactical parachute, SK-94 emergency parachute.	Legionowo
AVIAPOL		Consultancy in the area of the area of aviation, industry electronics, agro aviation and fire-fighting services; aircraft and equipment trading.	Warsaw, Poland
BF Goodrich KROSNO Sp. Zo.o.		Manufacturer of components for landing gears	<a href="http://www.frenoplast.pl">http://www.frenoplast.pl</a>
Dionar Sp. z.o.o.		Electronics	<a href="http://www.dionar.com.pl/aero@dionar.com.pl">http://www.dionar.com.pl/aero@dionar.com.pl</a>
DWLKK - Aircraft Composite Structures - Development and Production Ltd.		Prototyping, design and fabrication of advanced composite structures	<a href="http://dwlkk.meil.pw.edu.pl">http://dwlkk.meil.pw.edu.pl</a>
E.MARGANSKI i Wspolnicy ZAKLADY LOTNICZE Spolka Komandytowa		Manufacturer of sport airplanes, Highway Construction	<a href="http://www.marganski.com.pl">www.marganski.com.pl</a>
Ecolot		Design & mfr. of Jk-1, Jk-3, Jk5	<a href="http://www.ekolot.pl">www.ekolot.pl</a>
ETC-PZL Aerospace Industries Sp. Z o o.		Polish MoD's primary simulator supplier; simulators and training devices for fixed wing, helicopters, armoured vehicles and weapons systems as well as railway systems.	Warsaw, Poland
FiatAvio Polska Sp. Z o.o		Engineering centre for aeronautical engine components, systems design and analysis production of commercial engine components (2003)	Bielsko -Biala
Glider Factory Jeżów		Manufacture of wooden and metal components for all types of gliders produced by SZD Bielsko-Biala	<a href="http://www.szdezew.com.pl">http://www.szdezew.com.pl</a>
Military Aircraft Works No. 1		Helicopters; Overhaul, repair and upgrade of Mi Mi-2, Mi 2, Mi-8, Mi 8, Mi-14, Mi 14, Mi-17 and 17 and Mi Mi-24 helicopters	Łódź, Poland
Military Aircraft Works No. 2		Jet aircraft; Overhaul and in-service maintenance of TS-11 Iskra, Su-22 and and MiG-29 aircraft; repair and modernization of hydraulic equipment.	Bydgoszcz, Poland
Military Aircraft Works No. 3		Overhaul of MiG-21 aircraft in all versions and modifications; basic repair of aircraft engines and their systems.	Dęblin Dęblin-Lotnisko, Poland
Military Aircraft Works No. 4		Jet engines: Overhaul of turbojet engines, turboshaft engines, and traction engines up to 150kW; test chambers for turbojet and turboshaft engines.	Warsaw, Poland

PZL Hydral S.A.	1050	Producer of power hydraulics, fuel supply and control systems for aviation; castings and forgings; components for aircraft equipment.	Wrocław <a href="http://www.hydral.com.pl">http://www.hydral.com.pl</a>
SNECMA POLSKA		Producer of gears for civil and military aviation engines & gear boxes	Sędziszów w <a href="http://www.snecma.com/fr/press/press_release/release.php?comm_id=260">http://www.snecma.com/fr/press/press_release/release.php?comm_id=260</a>
WSK PZL-Warszawa II S.A.	400	Producer of flight navigation instruments, aircraft equipment, marine autopilots, special gyro-based equipment, elastic, pneumatic valves.	<a href="http://www.pzl.com.pl/en/firma.html">http://www.pzl.com.pl/en/firma.html</a>

### Research Organisations & Universities

Company	Major Area of Work	Contact
Air Force Institute of Technology Instytut techniczny Wojsk lotniczych	Scientific research, design and development of aircraft; equipment; flight tests, operational phase management, simulation and modelling, diagnostics of aircraft, weapon and airfield aircraft, weapon and airfield systems.	Warsaw
Polskiej Akademii Nauk; Institute of Fundamental Technological Research Polish Academy of Sciences		<a href="http://www.pan.pl/index.php?newlang=english">http://www.pan.pl/index.php?newlang=english</a>
Cracow University of Technology [Politechnika Krakowska]		<a href="http://www.pk.edu.pl/e-pk.html">http://www.pk.edu.pl/e-pk.html</a> <a href="mailto:r-0@admin.pk.edu.pl">r-0@admin.pk.edu.pl</a>
Institute of Fundamental Technological Research, Polish Academy of Sciences		<a href="http://www.pan.pl/index.php?newlang=english">http://www.pan.pl/index.php?newlang=english</a>
Instytut Lotnictwa - Institute of Aviation	Fundamental research, airplane and helicopter design, aircraft engine design and testing; CFD and experimental aerodynamics; strength, fatigue and dynamics analysis and tests, flight tests; avionics and system integration, engineering design services	Instytut Lotnictwa Al. Krakowska 110/114 02-256 WARSZAWA tel.: +48 (22) 846-00-11 fax: +48 (22) 846-44-32 E-mail: <a href="mailto:ilot@ilot.edu.pl">ilot@ilot.edu.pl</a> <a href="http://www.ilot.edu.pl/">http://www.ilot.edu.pl/</a>
Polskiej Akademii Nauk; Instytut Maszyn Przepływowych im Roberta Szwalskiego		<a href="http://www.pan.pl/index.php?newlang=english">http://www.pan.pl/index.php?newlang=english</a>
Lublin University of Technology	Faculty of Helicopter Design	Nadbystrzycka 38d, 20-950 Lublin <a href="http://www.pollub.pl/?kat=171">http://www.pollub.pl/?kat=171</a>
Polskiej Akademii Nauk; Engineering		<a href="http://www.pan.pl/index.php?newlang=english">http://www.pan.pl/index.php?newlang=english</a>
Politechnika Warszawska - Warsaw University of Technology	Aerodynamics, Fatigue tests, Polymer Composite Structures, Ultrasonic diagnostics, Applied mechanics	<a href="http://www.easn.net">http://www.easn.net</a>

Poznan University of Technology	CFD - Flow stability and control AeroelasticityAerolasticity - Coupled computa	<a href="http://www.easn.net">http://www.easn.net</a>
Rzeszow University of Technology	Control systems theory, flight control systems, digital control systems, onboard data recording systems	<a href="http://www.easn.net">http://www.easn.net</a>
Silesian University of Technology	Welding	<a href="http://www.easn.net">http://www.easn.net</a>
Szewalski Institute of Fluid Flow Machinery		
Technical University of Czestochowa	Flight Physics: Computational fluid dynamics; Wind tunnel measuring techniques; laminar-turbulent transition; Computational methods; Combustion	Ul. Armii Krajowej 21 42-200 Czestochowa Tel +48 34 32-50-555 Prof. A. Boguslawski <a href="mailto:abogus@imc.pcz.czest.pl">abogus@imc.pcz.czest.pl</a>
Technical University of Koszalin		<a href="http://www.tu.koszalin.pl">http://www.tu.koszalin.pl</a>
Technical University of Lodz (Politechnika Lodzka)		ul. Żeromskiego 116 90-924 Łódź Tel. +48-42-631 21 51 Fax +48-42-636 56 15 <a href="http://www.p.lodz.pl">http://www.p.lodz.pl</a>
Technical University of Szczecin		<a href="http://www.tuniv.szczecin.pl">http://www.tuniv.szczecin.pl</a>
Warsaw Institute of Aviation	Aero-structures, structural analysis & design	al. Piastów 14, 70-310 Szczecin, tel. (091) 434 67 51, fax: (091) 449 40 14 <a href="http://www.easn.net">http://www.easn.net</a>

### ***Airlines and Airports***

<b>Company</b>	<b>Contact</b>
Polish Airlines LOT S.A	<a href="http://www.lot.com">www.lot.com</a>
EuroLot SA	<a href="http://www.eurolot.com.pl">www.eurolot.com.pl</a>
Air Polonia	<a href="http://www.airpolonia.com.pl">www.airpolonia.com.pl</a>
White Eagle Aviation SA	<a href="http://www.whiteeagle.com.pl">www.whiteeagle.com.pl</a>



## Romania

Nicolae CEAUSESCU, who took power in 1965, was overthrown and executed in late 1989. Bucharest is addressing corruption, while invigorating lagging economic and democratic reforms. Romanian policy regarding SMEs does not fully comply with European Union principles and objectives and the lack of a predictable environment remains a problem for developing them.

Romania is a candidate to join the European Union.

<b>Population:</b>	22,355,551 (July 2004*)
<b>Languages:</b>	Romanian (official), Hungarian, German
<b>Area total:</b>	237,500 sq km
<b>GDP:</b>	purchasing power parity - €155 billion (2003*)
<b>GDP-real growth rate:</b>	4.9% (2003*)
<b>GDP-by sector:</b>	agriculture: 13.1% industry: 38% services: 48.8% (2001)
<b>Labour Force:</b>	9.28 million (1999*)
<b>Unemployment rate:</b>	7.2% (2003)
<b>State Budget:</b>	revenues: €17.06 billion
<b>Industries:</b>	textiles and footwear, light machinery and auto assembly, mining, timber, construction materials, metallurgy, chemicals, food processing, petroleum refining
<b>Exports/ Imports:</b>	€17.63 billion f.o.b. (2003*)/ €22.17 billion f.o.b. (2003*)
<b>Export commodities:</b>	textiles and footwear, metals and metal products, machinery and equipment, minerals and fuels, chemicals, agricultural products
<b>Export partners:</b>	Italy 24.3%, Germany 15.7%, France 7.4%, UK 6.7%, Turkey 5.1% (2002)
<b>Import commodities:</b>	machinery and equipment, fuels and minerals, chemicals, textile and products, basic metals, agricultural products
<b>Import Partners:</b>	Italy 20.8%, Germany 14.9%, Russia 7.2%, France 6.4%
<b>Currency:</b>	Leu; 1 EUR = 40,946 ROL
<b>Military manpower:</b>	20 years of age (2004)/ males age 15-49: 5,952,834 (2004)
<b>Military spending:</b>	€985 million (2002) = 2.47% (2002)
<b>EC Member State:</b>	No, but candidate country
<b>NATO Partner:</b>	as of March 2004

\* estimate

- Aeronautical Association:*** **O.P.I.A.R. - Association of Romanian Aerospace Companies**  
Neculai Banea, President  
Bd. Ficusului nr. 44 A  
Tel: +40 1 232 63 16
- Space Association:*** **Romanian Space Agency (ROSA)**  
Mr. Marius-Ioan PISO  
str.Mendeleev 21-25  
70168 Bucharest  
Tel: +40 21 2128222, Fax: +40-21-3128804  
E-mail: [marius-ioan.piso@rosa.ro](mailto:marius-ioan.piso@rosa.ro),  
Website: <http://www.rosa.ro>
- Defence Association:*** **Inter-ministerial Group for Security Research and Development**  
Established in September 2004 by the Government Decision no. 1574/2004, having ROSA as the secretariat and Executive President; including representatives from: Ministry of Education and Research – President, Romanian Space agency – Executive President, Ministry of National Defence, Ministry of Economy and Commerce, Ministry of Administration and Interior, Ministry of Communications and Information Technology, Romanian Intelligence Service, Foreign Intelligence Service, The Protection and Guard Service, Special Telecommunications Service, Ministry of Foreign Affairs, Ministry of European Integration
- ASD Member:*** No
- EC National Contact Point:*** **Ministry of European Integration**  
Ms Antoaneta Popescu  
str. Mendeleev 21-25, RO-70168  
Bucharest, ROMANIA  
Tel: +40-21-2128706, Fax: +40-21-2109275  
URL: <http://www.mct.ro>, E-mail: [apopescu@mct.ro](mailto:apopescu@mct.ro)
- Romanian Space Agency (ROSA)**  
Mrs Anca Racheru  
str. Mendeleev 21-25, RO-70168  
Bucharest, ROMANIA  
Tel: +40-21-2128722, Fax: +40-21-3128804  
URL: <http://www.mct.ro>, E-mail: [anca.racheru@rosa.ro](mailto:anca.racheru@rosa.ro)
- AeroSME Point of Contact:*** **Romanian Space Agency (ROSA)**  
Mrs Anca Racheru
- AeroSME Workshops:*** December 2004

### ***Aeronautics sector***

Romania's aerospace industry is already closely tied to that of Western Europe. In December 2002 Eurocopter gained a 51% stake in Romania's IAR Brasov and is now overhauling Pumas for the U.K. Ministry of Defence.

The development of the aeronautical industry which presently includes the manufacturing, based on original design or under license, of more than twenty types of transport airplanes, helicopters, passenger medium couriers, and light airplanes.

The small aeronautics industry community consists of eight main companies, dominated by the two larger enterprises Aerostar and Turbomecanica SA:

- Turnover around EUR 70 million, with EUR 40 million exports
- Employment around 9,000
- Predominantly involved in manufacture and assembly of aircraft sub-systems
- Particular strengths in maintenance and repair; involvement in upgrading programmes
- Strategic alliances with a growing number of European, US and Israeli businesses
- Major customers in EU, including BAE Systems, EADS
- Research and technology is conducted mainly in research institutes and especially the national aeronautical laboratory INTAS
- No national civil aeronautical research programme, however government both provides core funding to applied research institutes and the ministry of defence is a major customer for several of the laboratories

### ***Space sector***

The national co-ordinating body of the space activities is the Romanian Space Agency (ROSA), established in 1991 and reorganized by a Government Decision in 1995 as an independent public institution under the auspices of the Ministry of Research and Technology.

The missions of ROSA are to promote and coordinate development and national efforts in the field, and, as a Government representative, to promote international cooperation. ROSA is developing its own research and development projects.

One of ROSA's main responsibilities is to coordinate and integrate the activities of the national space research and development programme. In co-operation with the Science Council for Aeronautics and Space of the Government's Advisory Board for Research and Development, the public financing body, ROSA co-ordinates projects towards: basic space science, space structures, technologies, microgravity, communications, information, education, Earth observation and remote sensing applications, life sciences and medicine. Since 2001, ROSA is the contract authority for the National Aeronautics and Space Programme.

On behalf of the Government, ROSA is the national representative in the co-operative agreements with international organizations, such as European Space Agency (ESA) and Committee on Space Research (COSPAR).

International cooperation: the main goal of the Romanian Space Agency is the full integration in the European Space Agency. Cooperation with ESA begun with the Agreement between the Government of Romania and the European Space Agency concerning cooperation in the



exploration and use of outer space for peaceful purposes, signed in Paris in 1992, agreement ratified by the Parliament (law 40/1993). The second Agreement Romania – ESA was signed in 1999 in Bucharest and it included the possibility of participation of Romania in the ESA programs.

Domains of cooperation between ROSA and ESA:

- Space science - missions PLANCK, SPORt, ROSETTA, CLUSTER, FAST
- Microgravity - ISS, ESA microgravity campaign
- Earth observation - utilization of ERS data, training and preparations for ENVISAT, flood monitoring, Black Sea coastal studies
- Telemedicine - project SHARED (1998)
- Precision farming - project ADAM (ESA- CNES-ROSA)
- Training courses, seminars, workshops
- Software - LEOWORKS

### ***Defence/Security sector***

The defence and security industrial sector in Romania is relatively developed, covering a wide range of fields: military aeronautics, electronics and communications, general warfare. Most of the companies and plants were re-organised after the '90's and part of them were privatised. The defence industry is ensuring the basic needs of the national armed forces. Re-orientation of several sectors is undergoing after the entrance of Romania in NATO (2004).

On 24<sup>th</sup> of October 2004, the Romanian Government adopted decision 2080/2004 regarding the update of the National Research, Development and Innovation Plan, by adding a new R&D programme: “Security and defence research, technology and systems – SECURITY”.

The programme is to be launched during 2005. The management of the programme is ensured by the Inter-ministerial Group on Security Research, having the Romanian Space Agency as executive president.

The purpose of this new program:

- R&D of new models, methods, systems, technologies and products with civil and military applications in defence/security.
- to prepare the Romanian participation in security area in FP7
- to support Romania's integration in R&D programmes of EU, NATO and other organizations with significant role in security and defence
- to maintain and develop national R&D capabilities in defence and security and to enhance cooperation between R&D units and users;
- to enhance the knowing level and interest in security both at policy makers and citizens level

The objectives/thematic of the programme

- to develop the national capacity to participate at “European Security Research Programme”
- to sustain participation in projects following EUROPA memorandum and European Research Grouping arrangement

- to support the achievement of the objectives following the integration of Romania in NATO
- to develop interoperable defence and security technologies, systems and technologies, according to the operational requirements of national defence and security system's structures
- systems and technologies for protection against terrorism
- optimization of network security and protection
- crisis management systems, detection, prevention and alert systems
- interoperability, integration and security enhancement for communication and information systems
- research and experiment of new technologies and pilot-systems for aerial, marine and terrestrial frontiers protection
- global spatial infrastructure utilization (communication, positioning, observation) in defence and security applications
- methods, technologies and systems development for network infrastructures protection: communications, transport, utilities, informational networks (electronic commerce, banking, GRID, public administration)
- national research and industry competitiveness enhancement

#### Estimated results

- national organizations participation at EU R&D programmes
- portable systems and equipment for detection, localization, positioning, communication, trace and identification capabilities enhancement
- integrated security systems for strategic objectives ( industrial units, airports, military units, oil containers and pipes)
- sensors, systems, equipment and technologies for detection, identification and neutralization of local crisis generator factors (dangerous substances, chemical and biological agents, mines, armament, explosives)
- methods, systems and technologies for data and communication networks protection (GRID, data mining, local networks, authentication and encoding techniques)
- methods, systems and data bases for aerial and spatial surveillance and recognition (UAV, IMINT, GNSS-Galileo, NAVSTAR, GMES)
- systems and equipment for citizens protection, security and rescue, including diagnosis and treatment means
- advanced systems for crisis and disasters management
- interoperability with Euro-Atlantic organisations in common actions against terrorism
- multidisciplinary centres of excellence for research, training, information and representation in security area
- interoperable C3I (Command, Control, Communication and Information) systems for defence and security capabilities coordination

## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
Company	Size <sup>12</sup>	Main Product(s)	Contact
Aerostar	2100	Production of light aircraft (Festival, JAK-52), of hydraulic equipment for aviation and piston engines, production of electronics and other specialized equipment	www.aerostar.ro
Turbomecanica SA	1060	Manufacturing of components and subassemblies for turbojets and turboshafts and overhaul/repair of aeroengines and dynamic components for PUMA helicopters	Bucharest

<b>Aeronautics related enterprises</b>			
Company	Size	Main Product(s)	Contact
Aerofina	251	Design, development, fabrication and testing of control systems, associated test equipment and ground support equipment	No. 5, Fabrica de Glucoza Str., 202331, Bucharest Tel: +40 21 242 0265 Fax: +40 21 242 0912 Web: <a href="http://www.aerofina.ro">www.aerofina.ro</a> e-mail: <a href="mailto:serv@erofina.ro">serv@erofina.ro</a>
BS C ROMAERO S.A.	1363	The former assembler of the ROMBAC 1-11, subcontractor of Boeing, Bombardier, etc, aircraft maintenance & repair, design services	44 Ficusului Blv., sect.1, 013975, Bucharest Tel: +40 21 232 3735 Fax: +40 21 232 2082 Web: <a href="http://www.romaero.ro">www.romaero.ro</a> e-mail: <a href="mailto:management@romaero.rdsnet.ro">management@romaero.rdsnet.ro</a>
IAR Brasov	1200	Mfr. & overhaul light aircraft, gliders and under license for Puma & Alouette	1 Aeroportului Str., 507075, Brasov Tel: +40 268 475 108 Fax: +40 268 476 981 Web: <a href="http://www.iar.ro">www.iar.ro</a> e-mail: <a href="mailto:president@iar.ro">president@iar.ro</a>
INAV SA	41	Activities: aero&flight dynamics, hydraulic systems, avionics, structures	44 Ficusului Blv., sect.1, 013975, Bucharest Tel: +40 21 232 6882 Fax: +40 21 232 0302 Web: <a href="http://www.inav.ro">www.inav.ro</a> e-mail: <a href="mailto:inav@inav.ro">inav@inav.ro</a>
Microelectronica S.A.		Optoelectronic devices, special applications, new materials and devices, design, mask making, wafer processing, testing and packaging for integrated circuits; applications in mobile telecommunications, surveillance and security or safety systems	126, Iancu Nicolae Str., 077190, Voluntari, Ilfov Tel: +40 21 230 9445 Fax: +40 21 490 8405 Web: <a href="http://www.microel.ro">www.microel.ro</a> e-mail: <a href="mailto:jaliv@jaclyn.ro">jaliv@jaclyn.ro</a>

<sup>12</sup> Number of Employees

Aeroteh	204	Hydraulic/pneumatic mechanisms for aircrafts and helicopters; also hydraulic control; servo-valves, gas meters, HP/LP pumps	Bulevardul Iuliu Maniu 220A, sect.6, 061126, Bucharest Tel: +40-21-220 70 75 Fax: +40-21-220 80 35 Web: <a href="http://www.aeroteh-sa.ro/">http://www.aeroteh-sa.ro/</a> e-mail: <a href="mailto:marian@aeroteh-sa.ro">marian@aeroteh-sa.ro</a>
UTI Systems	2200	Domains: transport, defence, energy; activity: Systems integration, software (RT, critical), control electronics	31 Vasile Lascar Str., sector 2, 020492, Bucharest Tel: +40-21-201.23.00 Fax: +40-21-211.05.42 Web: <a href="http://www.uti.ro">www.uti.ro</a> e-mail: <a href="mailto:mihai.gradinaru@uti.ro">mihai.gradinaru@uti.ro</a>
A-E Electronics	130	electronics equipment, cables harnesses, test equipment design	9 Condorilor Str., 600302, Bacau Tel: +40-234-58.58.00 Fax: +40-234-58.59.00 Web: <a href="http://www.aee.ro">http://www.aee.ro</a> e-mail: <a href="mailto:office@aee.ro">office@aee.ro</a>
Electromecanica	410	Projectiles, anti-hail rockets, containers; testing, treatments/ coatings	Road Ploiesti-Targoviste, Km 8, Ploiesti Tel: +40-244-144.440 Fax: +40-244-513.301 Web: <a href="http://www.elmec.ro">www.elmec.ro</a> E-mail: <a href="mailto:elmec@elmec.ro">elmec@elmec.ro</a>
Elprof	120	Defence, medical & industry, RF (VHF/HF) equipment, digital com, power conditioning, testing	82, Baicului Str. Sect. 2, 021784 Bucharest Tel: +40-21-252.38.15 Fax: +40-21-252.36.36 Web: <a href="http://www.elprof.ro">www.elprof.ro</a> e-mail: <a href="mailto:elprof@elprof.ro">elprof@elprof.ro</a>
ProOptica	110	Defence, general industry, Optical, opto-mechanical or electronic systems, components, coatings	4, Bucovina Str., Sect. 3, 030393, Bucharest Tel: +40-21-324.49.84 Fax: +40-21-324.43.12 Web: <a href="http://www.prooptica.ro/">http://www.prooptica.ro/</a> e-mail: <a href="mailto:prooptic@fx.ro">prooptic@fx.ro</a>
Intergis	33	Geodesy, topography, GIS; Experience: Land Parcel IS, Danube monitoring	86 Basarabia Blv, A3, Sect. 2, 022119, Bucharest Tel: +40-21-324.10.67 Fax: +40-21-324.58.81 web: <a href="http://www.intergis.ro">http://www.intergis.ro</a> e-mail: <a href="mailto:o.balota@intergis.ro">o.balota@intergis.ro</a>
Rartel	14	Telemetry service (Telespazio); VSAT, VPN and Radio networks	70 Dr. Felix Str., sect. 1, 011041, Bucharest Tel: +40-21-212.57.15 Fax: +40-21-212.57.18 Web: <a href="http://www.rartel.ro/">http://www.rartel.ro/</a> e-mail: <a href="mailto:rartel@rartel.ro">rartel@rartel.ro</a>
Geosystems	7	RS related S/W & application development, GIS & RS services	8 ROMA Str., 011774, Bucharest tel: +40-21-230.73.81 Fax: +40-21-321.12.77 Web: <a href="http://www.geosystems.ro">http://www.geosystems.ro</a> e-mail: <a href="mailto:geosys@geosystems.ro">geosys@geosystems.ro</a>

Bitnet	6	Public R&D, industry, Network software, sensor applications, satcom terminal integration	6 Str. I. Madach Str., 400464, Cluj Napoca, Tel: +40-722-859.286 Fax: +40-264-595.040 Web: <a href="http://www.bitnet.info/">http://www.bitnet.info/</a> e-mail: <a href="mailto:octavian.cristea@bitnet.info">octavian.cristea@bitnet.info</a>
SIMULTEC S.A.		Research and development in airspace simulators: full scope simulators, trainers, CBTS, aircraft models, real-time programming, visual generation, mechanical / electrical design.	Platforma Magurele, C.P.24, Bucharest Tel: +40-21-457.42.83 Fax: +40-21-493.02.70 Web: <a href="http://www.simultec.ro">www.simultec.ro</a> e-mail: <a href="mailto:Cbotea@xnet.ro">Cbotea@xnet.ro</a>
ELECTROMAGNETICA S.A.		Production, development in electrical equipment and components.	Bucharest, Postal Code 050912 Tel: +40-21-404 21 29 Fax: +40-21-404 21 77 Web: <a href="http://www.electromagnetica.ro">www.electromagnetica.ro</a> e-mail: <a href="mailto:Eugens@elmg2.canad.ro">Eugens@elmg2.canad.ro</a>
ROMSYS		complex information technology and communications solutions; design, development and implementation of advanced information and communications systems solutions, on a variety of hardware, software and networking platforms	169 A, Calea Floreasca, 014459, Bucharest Tel: +40-21-230 08 10 Fax: +40-21-230 08 15 Web: <a href="http://www.romsys.ro/eng/index.html">www.romsys.ro/eng/index.html</a> e-mail: <a href="mailto:Management@romsys.ro">Management@romsys.ro</a>
AUTOMATICA - S.A.		ELECTRICAL & ELECTRONICAL INDUSTRIAL EQUIPMENT	159 Calea Floreasca Str. 159, sect 1, 014457, Bucharest Tel: +40-21-230.48.04 Fax: +40-21-230.28.41 Web: <a href="http://www.automatica.ro">www.automatica.ro</a> e-mail: <a href="mailto:autom@ipa.ro">autom@ipa.ro</a>
ROSEAL S.A.		Research, design, production and sales of mechanical and magnetic liquid seals and spare parts of carbographite materials, high aluminum content ceramics, elastomers and metals as well services in mechanical and magnetic liquid seals domain	5/A, N. Balcescu Str., Jud. Harghita, 535600, Odorheiu Secuiesc Tel: +40-266-215.998 Fax: +40-266-215.912 Web: <a href="http://roseal.topnet.ro/">http://roseal.topnet.ro/</a> e-mail: <a href="mailto:roseal@topnet.ro">roseal@topnet.ro</a>

### Research Organisations & Universities

Company	Major Area of Work	Contact
National Institute for Aerospace Research - "Elie Carafoli" (INCAS)	Complex research in the aeronautics, aerodynamics, flying dynamics and space, RTD for experimental models, stands, pilot stations and installations realization	bd. Iuliu Maniu nr. 220, Sector 6 77538 Bucuresti Tel: +401 434 00 83, Fax: +401 434 00 82 <a href="mailto:incas@aero.incas.ro">incas@aero.incas.ro</a> <a href="http://www.incas.ro/">http://www.incas.ro/</a>
Research and Development Institute for Electrical Engineering – S.C. ICPE-CA SA	Electrical engineering materials, electrochemical/anticorrosive technologies, sensors, microactuators	Splaiul Unirii 313 R-74204 Bucharest 3 Tel: +40 1 322 28 13, Fax: +40 1 321 37 69 <a href="http://www.icpe.ro/">http://www.icpe.ro/</a>

Romanian Space Agency	Coordination and integration of the activities of the national space research and development programme. In particular ROSA coordinates projects towards: basic space science, space structures, technologies, microgravity, communications, information, education, Earth observation and remote sensing applications, life sciences and medicine.	21-25 Mendeleev Str., sect.1, 010362, Bucharest Tel: +40 21 212 8722 Fax: +40 21 312 8804 <a href="http://www.rosa.ro/rosa.htm">http://www.rosa.ro/rosa.htm</a> <a href="mailto:rosa@rosa.ro">rosa@rosa.ro</a>
Technical University of Iasi		Bd. Mangeron, nr. 67, 700050 Iasi IS T: +40-232-278628 <a href="http://www.tuiasi.ro/derin">http://www.tuiasi.ro/derin</a>
Military Technical Academy	Education, research activities, in many activity domains. Among these domains: - Aircraft: - Aircraft and aircraft engines; - Aircraft systems and equipment.	B-dul George Cosbuc 81-83 Sect. 5, 050141, Bucharest Tel: +40 21 335 4660 Fax: +40 21 335 5763 Web: <a href="http://www.mta.ro">www.mta.ro</a> e-mail: <a href="mailto:atm@mta.ro">atm@mta.ro</a>
University "Politehnica" of Bucharest Faculty of Aerospace Engineering	Specialities: -Aerospace Engineering -Propulsion Systems -Avionics Scientific research in: -Computational Aerodynamic -Studies and Research in Model Aerodynamic Tunnel -Flight Dynamics and Stability - Aviation Structure Stability - improvement of aerojet engine - computer use for the flight system automation and navigation	Faculty of Aerospace Engineering Prof. STANCIU Virgil (Head of Research unit) Calea Grivitei 132 Tel: +4021-650 23 87 Website: <a href="http://www.pub.ro/English/Faculties/aero.htm">http://www.pub.ro/English/Faculties/aero.htm</a>
Straero SA - Institute for Aeronautic Structures Research	Fundamental and aplicative researches in aeronautic and aerospace structure calculation	220 Iuliu Maniu Blv.,sect. 6, 061126, Bucharest Tel: +40 21 413 2320 Fax: +40 21 413 2057 Web: <a href="http://www.straero.ro">www.straero.ro</a> <a href="mailto:ionita@aero.incas.ro">ionita@aero.incas.ro</a>
National Institute of Meteorology and Hydrology	R&D in meteorology, atmospheric physics, weather data & info processing, operational weather & radar weather services	97 Sos. Bucuresti-Ploiesti, 013686, Bucharest Tel: +40-21-230.32.40 Fax: +40-21-230.31.43 Web: <a href="http://www.inmh.ro">www.inmh.ro</a> <a href="mailto:relatii@meteo.inmh.ro">relatii@meteo.inmh.ro</a>
Research Institute of Soil Science and Agrochemistry (ICPA)	Monitoring agriculture with RS; validation of medium spatial resolution land satellite products	61 Marasti, Blv., 011464, Bucharest Tel: +40-21-222.94.42 Fax: +40-21-222.59.79 <a href="http://www.icpa.ro/">http://www.icpa.ro/</a> e-mail: <a href="mailto:mdumitru@icpa.ro">mdumitru@icpa.ro</a>
Institute for Space Science (ISS)	Space physics; microgravity; technologies & applications; celestial mechanics, AI, magnetic fluids, GRID technologies	111 Atomistilor Str. , sect. 5, 077125, Bucharest, Tel: +40-21-457.44.71 Fax: +40-21-457.44.71 <a href="http://venus.nipne.ro/">http://venus.nipne.ro/</a> <a href="mailto:hasegan@venus.nipne.ro">hasegan@venus.nipne.ro</a>

Romanian Centre for Remote Sensing Apply in Agriculture - CRUTA	Agriculture info/stats; RS & GIS projects (image processing,...)	35-37, Sos. Oltenitei, 041293, Bucharest, Tel: +40-21-332.20.01 Fax: +40-21-332.20.01 Web: <a href="http://www.cruta.ro">www.cruta.ro</a> e-mail: <a href="mailto:cruta@rosa.ro">cruta@rosa.ro</a>
Astronomy Institute	Opto-electronic systems, signal processing, data handling, software, thermal control, Asteroseismology, stellar systems for space guiding, applying new techniques	5 Cutitul de Argint Str. , 040557, Bucharest, Tel: +40-21-335.68.92 Fax: +40-21-337.33.89 Web: <a href="http://www.astro.ro">www.astro.ro</a> <a href="mailto:magda@aira.astro.ro">magda@aira.astro.ro</a>
National Institute for Laser, Plasma and Radiation Physics	Lasers, solid state quantum electronics, plasma physics/nuclear fusion	111 Atomistilor Str., 077125 , Bucharest Tel: +40-21-457.44.89 <a href="http://www4.ro.freebsd.org">http://www4.ro.freebsd.org</a> <a href="mailto:medianu@ifin.nipne.ro">medianu@ifin.nipne.ro</a>
National Institute fo Material Physics (INFIM)	Advanced materials, low T & semiconductor physics, magnetics, material development and testing	105BIS Atomistilor Str., 077125, Bucharest, Tel: +40-21-493.01.95 Fax: +40-21-493.02.67 Web: <a href="http://www.infim.ro/">http://www.infim.ro/</a> e-mail: <a href="mailto:ioachim@infim.ro">ioachim@infim.ro</a>
National Institute for R&D in Microtechnologies	R&D on Micro & nano systems (ex. RFMEMS, physical / chemical sensors) & production/testing	32B Erou lancu Nicolae Str., Ilfov, 077190, Voluntari Tel: +40-21-490.84.12 Fax: +40-21-490.82.38 Web: <a href="http://www.imt.ro">www.imt.ro</a> e-mail: <a href="mailto:dascalu@imt.ro">dascalu@imt.ro</a>
Rare and Radioactive Metals Research and Designing Institute S.A. Bucharest (INMR)	Special metal alloys, ceramics, processes, coatings, analysis/test	78 Carol Blv., 050456, Bucharest Tel: +40-21-315.23.41 Fax: +40-21-313.12.58 e-mail: <a href="mailto:lcpmrr@iodes.ro">lcpmrr@iodes.ro</a>
National Research and Development Institute for Welding and Material Testing - ISIM -TIM	R&D in welding (electron, laser, MIG) & material testing,	300222, Timisoara Tel: +40-256-491.828 Fax: +40-256-492.797 Web: <a href="http://Www.isim.ro">Www.isim.ro</a> e-mail: <a href="mailto:Nfarbas@isim.ro">Nfarbas@isim.ro</a>
ICPE	R&D (electrical eng), small electric machines/devices & cable prod., Components for UAV, space and electric vehicles	313 Splaiul Unirii, sect.3, 030138, Bucharest. Tel: +40-21-346.72.29 Fax: +40-21-346.72.68 Web: <a href="http://Www.icpe.ro">Www.icpe.ro</a> e-mail: <a href="mailto:Nvasile@icpe.ro">Nvasile@icpe.ro</a>

## Airlines and Airports

Company	Contact
TAROM	



## Slovak Republic

In 1918 the Slovaks joined the closely related Czechs to form Czechoslovakia. In 1993 the Slovaks and the Czechs agreed to separate peacefully. Slovakia was invited to join NATO and the EU in 2004.

<b>Population:</b>	5,423,567 (July 2004*)
<b>Languages:</b>	Slovak (official), Hungarian
<b>Area total:</b>	48,845 sq km
<b>GDP:</b>	purchasing power parity - €72.29 billion (2003*)
<b>GDP-real growth rate:</b>	3.9% (2003*)
<b>GDP-by sector:</b>	agriculture: 4.5% industry: 34.1% services: 61.4% (2000)
<b>Labour Force:</b>	3 million (1999)
<b>Unemployment rate:</b>	15% (2003*)
<b>State Budget:</b>	revenues: €5.2 billion
<b>Industries:</b>	metal and metal products; food and beverages; electricity, gas, coke, oil, nuclear fuel; chemicals and manmade fibres; machinery; paper and printing; earthenware and ceramics; transport vehicles; textiles; electrical and optical apparatus; rubber products
<b>Exports/ Imports:</b>	€21.25 billion f.o.b. (2003*)/ €21.9 billion f.o.b. (2003*)
<b>Export commodities:</b>	machinery and transport equipment 39.4%, intermediate manufactured goods 27.5%, miscellaneous manufactured goods 13%, chemicals 8% (1999)
<b>Export partners:</b>	Germany 26%, Czech Republic 15.2%, Italy 10.8%, Austria 7.7%, Hungary
<b>Import commodities:</b>	machinery and transport equipment 37.7%, intermediate manufactured goods 18%, fuels 13%, chemicals 11%, miscellaneous manufactured goods 9.5% (1999)
<b>Import Partners:</b>	Germany 22.6%, Czech Republic 15.1%, Russia 12.5%, Italy 6.9%, France
<b>Currency:</b>	Slovak koruna; 1 EUR = 40.025 SKK
<b>Military manpower:</b>	18 years of age (conscripts serve nine months of basic military service; term of service will be reduced to six months effective 2004) (2004*)/ males age 15-49: 1,477,017 (2004*)
<b>Military spending:</b>	€406 million (2002) = 1.89% (2002)
<b>EC Member State:</b>	as of May 2004
<b>NATO Partner:</b>	as of March 2004

\* estimate



<b><i>Aeronautical Association:</i></b>	No Aeronautics Association
<b><i>Space Association:</i></b>	-
<b><i>Defence Association:</i></b>	<b>Slovak Defense Industry Association ZOP</b> Združenie obranného priemyslu Slovenskej republiky Kožušnícka 4, 911 50 Trenčín Tel: +421 32/ 6572 511 Fax: +421 32/ 6583 744 E-mail: <a href="mailto:zopsr@dmd.sk">zopsr@dmd.sk</a> ; <a href="http://www.zop.sk">www.zop.sk</a>
<b><i>ASD Member:</i></b>	No
<b><i>ESA Member:</i></b>	No
<b><i>EC National Contact Point:</i></b>	<b>University of Zilina,</b> Ms B. Surmova, Moyzesova 10, SK-010 26, Zilina SLOVAKIA Tel: +421-41-5621781, Fax: +421-41-5623495 E-mail: <a href="mailto:surmova@rekt.utc.sk">surmova@rekt.utc.sk</a>
<b><i>AeroSME Point of Contact:</i></b>	University of Zilina, Ms B. Surmova
<b><i>AeroSME Workshops:</i></b>	Meeting in October 2004

### ***Aeronautics sector***

Generally, the Slovak aircraft industry is characterized by a lack of a major aircraft manufacturer. There is a small size aeroplane manufacturer, Aerospool that produces light plane WT9 Dynamic. SK aeronautics sector consists mainly of SME companies, a couple of which found their niches and offer products and services on a worldwide competitive level (ALES, VRM) The strengths of the sector can be found in R&D of advanced computer-aided systems for ATC/ATM applications.

Examples of R&D actors:

- VRM - Virtual Reality Media has unique experience and capabilities in the world of VR technologies and simulations. It offers products ranging from a single component to a large and complex system (full mission simulation). It rates number one position in CEE countries.
- ALES - Automotive Aviation Systems provides the whole range of activities and product services starting with sophisticated ATM systems, through advanced radar systems, to console programmes and simulation and training systems. ALES co-operate with companies worldwide. Trade marked LETVIS ATM systems can be delivered in a variety of customer specific configurations.

Example of R&D education actor:

- Department of Air Transport at the University of Zilina proves competence within the domain of ATM. Further research activities are directed to future airport concepts and air transport operation in general. Dpt. of Air Transport is recognized abroad.

Examples of industrial actors:

- Povazske strojarne, Letecke motory -PSLM, the aircraft engine company produces turbine engine characterized by low weight, resistance to damages and low operating costs.
- Letecke opravovne Trencin –LOT, large overhaul and Repair Company provides range of repairs of civil and military aircraft and helicopters.
- Aerospool manufactures two-seat light airplane WT9 Dynamic.

### ***Space sector***

By the decision on November 1999, the Government of Slovak Republic established Commission on Research and Peaceful Uses of Space. Commission coordinates space research and industrial activities in Slovak Republic and fulfils the role analogous to Space Agencies in other countries. It proposes state space policy to the Government of SR. Commission prepares reports on space activities in Slovak Republic for COPUOS and other international organizations involved in space activities. It collects scientific and technological information on space research and peaceful use of space and assures a transfer of knowledge to education process and to industry. It organizes scientific symposia, conferences and workshops on key issues of space research and peaceful use of space. Commission supports participation of Slovak Republic in international space research activities. There are six Boards of Specialists working in the frame of Commission, representing the main problems of space activities in SR:

1. Space meteorology
2. Remote sensing
3. Space physics
4. Space biology and medicine
5. Satellite technique, telecommunication, space technology and material research
6. Space law

Among activities on the exploration and peaceful use of outer space, there were several projects realized by several institutions in Slovakia. In remote sensing, for instance, a methodology of classification of forest tree damage in Slovakia was developed in Forest Research Institute in Zvolen.

The Institute of Experimental Physics, SAS provide research in Space Physics. Among other activities, the Department of Space Physics in Kosice, deals with monitoring of cosmic radiation. “Space weather with consequences on technological systems on satellites, on airplanes and on the ground.” is the topic they can contribute to considerably with their measurements.

In addition to the research activities framed by Commission on Research and Peaceful Uses of Space, there are activities scattered at universities and institutes like the Transport Research Institute in Zilina or the Research Institute of Post and Telecommunications in Banska Bystrica. For example the Transport Research Institute in Zilina is active in research activities related to FP6 Space programme Galileo (introducing Galileo services using EGNOS).

### ***Defence/Security sector***

Slovakia has a skilled, creative human potential working in the field of applied research, development, production and testing. The Slovak defence industry has demonstrated its ability to integrate into western and eastern technologies. Considering such effect of technical modernisation of Slovak made machinery, there is enough room for development of cooperation with many significant European and other companies. The specific fields of activity are:

- Artillery systems and weapons incl. ammunition
- Light and medium armoured combat and transport vehicles
- Electronic control systems for weaponry and mobile command vehicles
- Short and long range radar systems
- Communication and control systems
- Simulator training equipment for ground and air technology
- Remote detection of battle chemical agents
- Main clearing systems and engineer machinery

## Overview on Industry and Research organisations

<b>Aircraft &amp; Engine Manufacturers</b>			
<b>Company</b>	<b>Size<sup>13</sup></b>	<b>Main Product(s)</b>	<b>Contact</b>
Aeropro, s. r. o.		Manufacturing and sale of EUROFOX aircraft.	Kostolná 42 949 01 Nitra Slovenská republika / Slovak Republic Tel.: +421 37 6526355 Fax: +421 37 6526355 e- mail: <a href="mailto:aeropro@stonline.sk">aeropro@stonline.sk</a>
Aerospool spol. s r.o.		WT9 D small aircraft with Rotax 912 UL s & WT3 glider	Letisková 10 971 03 Prievidza Slovak Republic tel.: +421 46 518 32 00 fax: +421 46 518 32 50 <a href="mailto:aerospool@aerospool.sk">aerospool@aerospool.sk</a> <a href="mailto:dynamic@aerospool.sk">dynamic@aerospool.sk</a> <a href="http://www.aerospool.sk">www.aerospool.sk</a>
PSLM - Považské strojárne Letecké motory (member of HTC holding) Považské strojárne Letecké motory		Design, manufacture, testing and service of aircraft turbine engine, Repairs and overhauls of aircraft turbine engines Production of spare parts for aircraft engines. Maintenance of ground equipments on basis of turbine engines Production of parts for steam and gas turbines Production of investment castings made of steels and special metal materials Production of forgings made of steels and special metal materials Heat treatment of metal parts Coating and surface treatment of metal parts Common machinery production	Robotnícka ulica, 017 01 Považská Bystrica Tel: +421-42 -43 222 86 URL: <a href="http://www.pslm.sk/">http://www.pslm.sk/</a>
Way Industry, a. s.		Production: - loaders LOCUST L 752 and L 1203 - aircraft hauler TALET 30 – mine clearing flail system BOŽENA 3	Priemyselná 937/4 963 01 Krupina Slovenská republika / Slovak Republic Tel.: +421 45 5501401 Fax: +421 45 5511021 <a href="http://www.way-industry.sk">http:// www.way-industry.sk</a> e-mail: <a href="mailto:jmikos@way-industry.sk">jmikos@way-</a> <a href="mailto:jmikos@way-industry.sk">industry.sk</a>

<sup>13</sup> Number of Employees

<b>Aeronautics related enterprises</b>			
<b>Company</b>	<b>Size</b>	<b>Main Product(s)</b>	<b>Contact</b>
Aero Nitra, s. r. o. - NITRAVIA		Maintenance, modifications, repairs of aircraft, new and repairs paints.	Letisko Nitra, Dlhá ulica 949 07 Nitra Slovenská republika / Slovak Republic Tel.: +421 37 6561007/ +421 905 652940 Fax: +421 37 7334805
Aeroprogress Ltd.		Overhauls of helicopters, deliveries of spare parts for helicopters (Mi-2, MI-8, MI-17,M-24) and aircrafts (SU, Mig, L-410 UVP-E)	<a href="http://www.aeroprogress.sk/">http://www.aeroprogress.sk/</a>
Aerospool, s.r.o		A fast "low winged" 912S equipped ultralight plane from Slovensko.	Aerospool spol. s r.o. Letisková 10 971 03 Prievidza Slovak Republic tel.: +421 46 518 32 00 fax: +421 46 518 32 50
Aerotech Slovakia, s. r. o.		Maintenance and repair of aeroplanes and helicopters (Mi-8, Mi-2, Z-137, An-2, SMG-92, Do 28G-92). Manufacture of aeroplanes (Dornier Do 28G-92, Turbo Finist SMG-92). Research and development.	Letisko M. R. Štefánika 820 01 Bratislava Slovenská republika / Slovak Republic Tel.: +421 2 43292524/ +421 2 48575510 Fax: +421 2 43292524 mail: <a href="mailto:aerotech@nexta.sk">aerotech@nexta.sk</a>
Aircraft and Helicopters Overhaul Factory – LOT: Letecké opravovne Trenčín		Major overhauls, repairs, and revisions of aircraft and helicopters. Major overhauls, repairs, and revisions of aviation ground support equipment. Modernisation of aircraft and helicopter equipment.	Legionárska 160 911 04 Trenčín Slovenská republika / Slovak Republic Tel.: +421 32 6565111 Fax.: +421 32 6565500 +421 32 6565505 <a href="http://www.lotn.sk">http:// www.lotn.sk</a> e-mail: <a href="mailto:marketing@lot.pvt.sk">marketing@lot.pvt.sk</a>
Aircraft repair plant in Banska Bystrica - LOBB LOBB š. p. Banská Bystrica		Satisfying the civil interest in the area of repair of defence equipment. <a href="http://www.lobb.sk/vyrobnny_program_falco_95.html">http://www.lobb.sk/vyrobnny_program_falco_95.html</a> FALCO 95 A high wing tractor with an empty weight of 265 kg using a Jabury 2200 engine made in Slovakia	Sládkovičova 29 974 03 Banská Bystrica Slovenská republika / Slovak Republic Tel.: +421 48 4345111 Fax: +421 48 4345602 e-mail: <a href="mailto:director@lobb.sk">director@lobb.sk</a>
Automated Aviation Systems – ALES, a.s; Automatizované letecké systémy		Development and production of advanced computer-aided systems for both ATC/ATM and Air Defence applications, radar modernization and consoles manufacturing for the above purposes, as well.	Legionárska 160 911 04 Trenčín Slovenská republika / Slovak Republic Tel.: +421 32 6582580 Fax: +421 32 6521941 <a href="http://www.ales.sk">http://</a> <a href="http://www.ales.sk">www.ales.sk</a> e-mail: <a href="mailto:ales@ales.sk">ales@ales.sk</a>
BAE systems		International company developing advanced defence and aerospace systems.	URL: <a href="http://www.hawk.sk">http://www.hawk.sk</a>

<b>Aeronautics related enterprises</b>			
<b>Company</b>	<b>Size</b>	<b>Main Product(s)</b>	<b>Contact</b>
CD engineering		Creating models of individual parts of the aeroplane, constructing laminating appliances that use under pressure to make press power before the thermic curing of the material. Experiences with creating the plugger and milling appliances for laminating segments, constructing pressing tolls for laminate.	Bellova 696/2 Liptovský Mikuláš 031 01 Slovensko Tel: +421-44-55 70 981 Fax: +421-44-55 70 980 URL: <a href="http://www.cd-sro.sk/English/o_nas_en.htm">http://www.cd-sro.sk/English/o_nas_en.htm</a> e-mail: <a href="mailto:obchod@cd-sro.sk">obchod@cd-sro.sk</a>
Comp-Let s. r. o.		Production of composite parts for aeroplanes Diamond Aircraft DA40, Katana, SuperDimona, Aerospool Dynamic, Flysynthesis Texan.	P. O. Box 110, Železničná 344 Letisko 905 01 Senica Slovenská republika / Slovak Republic Tel.: +421 34 6574228 Fax: +421 34 6510187 <a href="http://www.complet.sk">http:// www.complet.sk</a> e-mail: <a href="mailto:complet@complet.sk">complet@complet.sk</a>
Ing. Makara Jozef - AERO SERVIS		Logistic providing of repairs, construction and maintenance of avionics technic (metallurgical and joint stuff, chemical products, electronic material, oils and lubricants, flight and navigation instruments, spare parts, pneu and others).	Trieda 1. mája 35/4 052 05 Spišská Nová Ves Slovenská republika / Slovak Republic Tel.: +421 53 4424552/ +421 905 662688 Fax: +421 53 4424552 <a href="http://www.aeroshop.sk">http://</a> <a href="http://www.aeroshop.sk">www.aeroshop.sk</a> e-mail: <a href="mailto:info@aeroshop.sk">info@aeroshop.sk</a>
Tech-Mont Helicopter Company, s. r. o.		Aerial works by helicopters Mi-8, Mi-2, airplanes Z-37. Maintenance, service, repairs of aeroplanes and helicopters. Buy & sale of aeroplanes, and aviation technology.	Levočská 3312/27 058 01 Poprad Slovenská republika / Slovak Republic Tel.: +421 52 7722126 Fax: +421 52 7724168 <a href="http://www.techmont.sk">http:// www.techmont.sk</a> <a href="mailto:techmont@techmont.sk">techmont@techmont.sk</a>
Virtual Reality Media, a. s.		Development, manufacturing, implementation and logistic support of trainers, simulators and complex training systems compatible with NATO standards and JAR regulations. Production of allcomposite sport airplanes.	Letisko M. R. Štefánika 823 12 Bratislava Slovenská republika / Slovak Republic Tel.: + 421 2 48575698 Fax: + 421 2 48575697 <a href="mailto:vrmillennium@vrmillennium.sk">vrmillennium@vrmillennium.sk</a>
Virtual Reality Media a. s. – VRM; Trenčín, Slovakia		Research & Development, Production, Sales and Marketing for Simulators and Training systems Advisory in STT area (Flight, air defence and land armament simulators.) First contract for a simulator with Letecke opravovne s.p. for the Slovak Air Force in May 1995. In 2001, improved set of simulation components (6-DOF motion platforms, projection screens, control loading systems, control cockpit electronics, power vision image generator software, 3D models of object).	Soblahovská 2050 911 01 Trenčín Slovenská republika / Slovak Republic Tel.: +421 32 6518100/ +421 32 6518103 Fax: +421 32 6518222 URL: <a href="http://www.vrm.org/">www.vrm.org/</a> <a href="http://www.vrm.sk">http:// www.vrm.sk</a> e-mail: <a href="mailto:marketing@vrml.sk">marketing@vrml.sk</a>
Willing International s.r.o.		Company provides after-guarantee service for aircraft MiG-29, repairs of heavy machinery and also delivery of spare parts for the mentioned aircraft.	Moyzesova 38 960 01 Zvolen Slovenská republika / Slovak Republic Tel.: +421 45 5321621/ Fax: +421 45 5321612 e-mail: <a href="mailto:willing@willing.sk">willing@willing.sk</a>

## Research Organisations & Universities

Company	Major Area of Work	Contact
Military Academy in Liptovsky Mikulas Faculty of Air Defence; Vojenská Akadémia V Liptovskom Mikuláši Fakulta Protivzdušnej Obrany	Faculty of Air Defence prepares military professionals for the Air Force of the Slovak Republic by providing university and career education.	P. O. Box 45, 031 01 Liptovský Mikuláš Slovenská republika / Slovak Republic Tel.: +421 44 5525376 e-mail: <a href="mailto:sopoci@valm.sk">sopoci@valm.sk</a> http:// <a href="http://www.valm.sk">www.valm.sk</a>
Slovak Air Force Institute of Research and Testing; Vojenský letecký technický a skúšobný ústav, Košice	Applied research, development and testing. Supervisory, expert, and norms creating activities. Solution of technical tasks for the Slovak Air Force and Air Defence.	Rampová 7 041 21 Košice Slovenská republika / Slovak Republic Tel.: +421 55 6322938 Fax: +421 55 6334802 E-mail: <a href="mailto:vltsu@vltsu.sk">vltsu@vltsu.sk</a>
University of Žilina, Air Traffic Department; Žilinská Univerzita V Žiline Katedra Leteckej Dopravy	University MSc and BSc courses in Air Transport Engineering, pilot courses up to ATP L according JAR FCL, Air Traffic Controlers courses, courses for civil aviation personnel in line with JAR requirements.	Moyzesova 20 010 26 Žilina Slovenská republika / Slovak Republic Tel.: +421 41 5133355, 5572178 Fax: +421 41 5655739, 5572411 http:// <a href="http://www.kld.utc.sk">www.kld.utc.sk</a> e-mail: <a href="mailto:kld@fpedas.utc.sk">kld@fpedas.utc.sk</a>
Military Aviation Academy of Gen. M. R. Štefánik in Košice; Vojenská Letecká Akadémia Generála Milana Rastislava Štefánika V Košiciach	The AFA is an institution accredited to university level education that provides the Air Force staff baccalaureate, graduate, postgraduate and doctoral studies as well as conversion courses and continuous education.	Rampová 7, 041 21 Košice Slovenská republika / Slovak Republic Tel.: +421 55 6335175 Fax: +421 55 6335192 http:// <a href="http://www.vlake.sk">www.vlake.sk</a> Email: <a href="mailto:rektor@vlake.army.sk">rektor@vlake.army.sk</a>
Slovak university of technology in Bratislava; Technická univerzita v Bratislave		<a href="http://www.stuba.sk">http://www.stuba.sk</a>

## Airlines and Airports

Company	Contact
Slovak Airlines	e-mail: <a href="mailto:slovakairlines@sl.sk">slovakairlines@sl.sk</a> http:// <a href="http://www.slovakairlines.sk">www.slovakairlines.sk</a> Trnavská cesta 56 821 01 Bratislava Slovenská republika / Slovak Republic Tel./Phone: +421 2 44454064/+421 2 44450096 Fax: +421 2 44450097
SkyEurope Airlines	e-mail: <a href="mailto:info@skyeurope.com">info@skyeurope.com</a> http:// <a href="http://www.skyeurope.com">www.skyeurope.com</a> Ivanská cesta 26 821 04 Bratislava Slovenská republika / Slovak Republic Tel./Phone: +421 2 48501110
Air Slovakia BWJ	e-mail: <a href="mailto:airslovakia@airslovakia.sk">airslovakia@airslovakia.sk</a> http:// <a href="http://www.airslovakia.sk">www.airslovakia.sk</a> P. O. Box 2 Letisko M. R. Štefánika 820 01 Bratislava Slovenská republika / Slovak Republic Phone/Fax: +421 2 43422742, +421 2 43422744



## Slovenia

After World War II, Slovenia became a member of the Republic of Yugoslavia. The Slovenes succeeded in establishing their independence in 1991. A strong economy and a stable democracy have assisted in Slovenia's transformation to a modern state which joined EU and NATO in 2004.

Almost 98% of all enterprises in Slovenia are SMEs. They represent 40% of total employment and contribute 38% of GDP.

<b>Population:</b>	2,011,473 (July 2004*)
<b>Languages:</b>	Slovenian 92%, Serbo-Croatian 6.2%, other 1.8%
<b>Area total:</b>	20,273 sq km
<b>GDP:</b>	purchasing power parity - €36.89 billion (2003*)
<b>GDP-real growth rate:</b>	2.5% (2003*)
<b>GDP-by sector:</b>	agriculture: 3.1% industry: 32.7% services: 64.2% (2002*)
<b>Labour Force:</b>	876,100 (2003)
<b>Unemployment rate:</b>	11.2% (2003*)
<b>State Budget:</b>	revenues: €9.9 billion
<b>Industries:</b>	ferrous metallurgy and aluminium products lead and zinc smelting, electronics (including military electronics), trucks, electric power equipment, wood products, textiles, chemicals, machine tools
<b>Exports/ Imports:</b>	€11.98 billion f.o.b. (2003*)/ €12.63 billion f.o.b. (2003*)
<b>Export commodities:</b>	manufactured goods, machinery and transport equipment, chemicals, food
<b>Export partners:</b>	Germany 24.7%, Italy 12.1%, Croatia 8.7%, Austria 7.1%, France 6.7%, Bosnia and Herzegovina 4.5% (2002)
<b>Import commodities:</b>	machinery and transport equipment, manufactured goods, chemicals, fuels and lubricants, food
<b>Import Partners:</b>	Germany 19.2%, Italy 17.9%, France 10.2%, Austria 8.3% (2002)
<b>Currency:</b>	Tolar: 1 EUR = 239.92 SIT
<b>Military manpower:</b>	19 years of age (2004*)/ males age 15-49: 525,983 (2004*)
<b>Military spending:</b>	€370 million (FY00) = 1.7% (FY00) of GDP
<b>EC Member State:</b>	as of May 2004
<b>NATO Partner:</b>	as of March 2004

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\* estimate



<b><i>Aeronautical Association:</i></b>	-
<b><i>Space Association:</i></b>	-
<b><i>Defence-Association:</i></b>	-
<b><i>ASD Member:</i></b>	No
<b><i>EC National Contact Point:</i></b>	<b>Ministry of Education, Science and Sport</b> Dr. Boris Pukl Trg OF 13, SI-1000, Ljubljana, SLOVENIA Tel: +386-1-4784684, Fax: +386-1-4784719 URL: <a href="http://www.rtd.si/eng/Default.asp">http://www.rtd.si/eng/Default.asp</a> or <a href="http://www.mszs.si">http://www.mszs.si</a> E-mail: <a href="mailto:boris.pukl@gov.si">boris.pukl@gov.si</a>
<b><i>AeroSME Point of Contact:</i></b>	<b>Ministry of Education, Science and Sport</b> Dr. Boris Pukl
<b><i>Relevant memberships:</i></b>	-
<b><i>AeroSME Workshops:</i></b>	March 2003

#### ***Aeronautics sector***

In Slovenia, there is no specialized industry in the fields of Aeronautics and Space. This is why Slovenia is not a member of any international organisation or agency in the fields of Aeronautics and Space, as yet. It also does not have any national association in either field, nor does it have specific research or other programmes in these areas. For these reasons Slovene research entities did not participate until now in specific Aeronautics and Space RTD programmes on EU level.

However some 10 – 15 % of the about 2500 researchers, mainly in universities and research institutes, have adequate competencies which could fit in to the Aeronautics and Space Work Programme.

<b><i>Space sector</i></b>	Text to be added
<b><i>Defence/Security sector</i></b>	Text to be added

## Overview on Industry and Research organisations

### Aircraft & Engine Manufacturers

Company	Size <sup>14</sup>	Main Product(s)	Contact
None			

### Aeronautics related enterprises

Company	Size	Main Product(s)	Contact
Airnet d.o.o.		Dealer/ manufacturer light aircraft	Cesta 62 Ljubljanska SLOWENIEN <a href="http://www.airnet.si/">http://www.airnet.si/</a>
FOTONA proizvodnja optoelektronskih naprav D.D.		Manufacturing of laser for medical, industrial and defence use	<a href="http://www.fotona.si">http://www.fotona.si</a>
HIPOT-HYB proizvodnja hibridnih vezij, d.o.o		Industrial sensors and thick film hybrid circuits	<a href="http://www.hyb.si">http://www.hyb.si</a>
KOMSAD Andreja Kompare s.p.			
MARTEN Alojz Zupan s.p.			
Uscom d.o.o.		Manufacturing of radio equipment	<a href="http://www.uscom.si">www.uscom.si</a>
Zavod ZRCZ			

### Research Organisations & Universities

Company	Major Area of Work	Contact
Center za računalništvo v mehaniki kontinuuma - modeliranje in trzenje		
Faculty of Electrical Engineering		
Jožef Stefan Institute		Prof. Dr. Vito Turk (Dir.) Jamova 39 1000 Ljubljana Tel.: +386 61 177 39 00, Fax: +386 61 219 385 E-mail: Vito.Turk@ijs.si, Website: <a href="http://www.ijs.si/">http://www.ijs.si/</a>
University of Ljubljana, Faculty of Mechanical Engineering	Flight physics-CFD Flight physics- Computational acoustics Aircraft avionics, systems & equipment- cabin systems - Environmental control systems	<a href="http://www.easn.net/">http://www.easn.net/</a>
University of Maribor		Slomskov trg 15 2000 Maribor T +386 2 2355 280 rektorat@uni-mb.si <a href="http://www.uni-mb.si/podrocje.aspx?id=0&amp;langID=1033">http://www.uni-mb.si/podrocje.aspx?id=0&amp;langID=1033</a>
Slovak University of Technology in Bratislava		<a href="http://www.stuba.sk/eng/">http://www.stuba.sk/eng/</a>

<sup>14</sup> Number of Employees

Slovak Academy of Sciences		<a href="http://www.sav.sk/">http://www.sav.sk/</a>
Scientific Research Centre of the Slovenian Academy of Sciences and Arts – SASA		SASA Novi trg 2 Ljubljana Tel: +386 1 470-6-100, Fax: +386 1 425-52-53 E-mail: <a href="mailto:zrc@zrc-sazu.si">zrc@zrc-sazu.si</a> , Website: <a href="http://www.zrc-sazu.si/">http://www.zrc-sazu.si/</a>

### ***Airlines and Airports***

Company	Contact
Adria Airways	<a href="http://www.adria-airways.com/">www.adria-airways.com/</a>



## Turkey

Modern-day Turkey was founded in 1923. Since then it has been a secular democracy closely aligned with the West. Turkey was a founding member of the United Nations, and a member of NATO (since 1952), the Council of Europe (1949), the OECD (1961) and an associate member of the Western European Union (1992). Ankara chose to open close co-operation with the then European Economic Community in 1959,

and Turkey's prospective membership in the EEC's successor, the European Union, has been a source of much debate since.

**Population:** 68,893,918 (July 2004\*)

**Languages:** Turkish

**Area total:** 779,452 sq km

**GDP:** purchasing power parity - \$455.3 billion (2003\*)

**GDP-real growth rate:** 5% (2003\*)

**GDP-by sector:** agriculture: 11.9%, industry: 29.6%, services: 58.5% (2002\*)

**Labour Force:** 23.8 million

**Unemployment rate:** 11.3% (plus underemployment of 6.1%) (2003\*)

**State Budget:** \$42.4 billion

**Industries:** textiles, food processing, cars, mining (coal, chromite, copper, boron), steel, petroleum, construction, wood, paper

**Exports/ Imports:** \$62.43 billion f.o.b. (2003\*)/ \$49.12 billion f.o.b. (2003\*)

**Export commodities:** apparel, foodstuffs, textiles, metal manufactures, transport equipm.

**Export partners:** Germany 16.6%, US 9.2%, UK 8.5%, Italy 6.4%, France 6% (2002)

**Import commodities:** machinery, chemicals, semi-finished goods, fuels, transport equipment

**Import Partners:** Germany 13.7%, Italy 8%, Russia 7.5%, US 6%, France 6%, UK 4.7%, Switzerland 4.2% (2002)

**Currency:** Turkish lira; 1 EUR = 1,799,918 TRL

**Military manpower:** 20 years of age (2004\*)/ Males age 15-49: 19,828,702 (2004\*)

**Military spending:** \$12.155 billion (2003) = 5.3% (2003) of GDP

**EC Member State:** No, but Candidate Country

**NATO Partner:** February 1952

- Aeronautical Association:*** -
- Space Association:*** -
- Defence Association:*** **SaSaD Defence Industry Manufacturers Association**  
Paris Caddesi Yazanlar Sok. No: 4/206  
06680 Kavaklıdere- ANKARA  
Tel: +90 312 426 2255  
Fax: +90 312 426 2256  
[sasad-w@sasad.org.tr](mailto:sasad-w@sasad.org.tr)  
[sasad@tr.net](mailto:sasad@tr.net)
- ASD Member:*** Joined ASD through the merger of AECMA-EDIG in 2004
- EC National Contact Point:*** **TUBITAK** – Dr T. Ozalp  
TUBITAK, Ataturk Bulv. 221, Kavaklıdere  
TR-06100, Ankara, TURKEY  
Tel: +90-312-4272302, Fax: +90-312-4274024  
URL: <http://www.tubitak.gov.tr>  
E-mail: [ncpaero@tubitak.gov.tr](mailto:ncpaero@tubitak.gov.tr)
- AeroSME Point of Contact:*** -
- Relevant memberships:*** -
- AeroSME Workshops:*** October 2003

### ***Aeronautics sector***

Turkey not only is a large aviation market in its own but has a burgeoning domestic aerospace industry that could develop into a major player in regional and even world markets. U.S. industry is effectively embedded in the Turkish aerospace and defence sectors. But Turkey has a growing involvement in the European aerospace sector. It has joined the Airbus A400M military transport consortium and has ordered 10 of the type. Turkey's participation is worth 5.56% of the program, and the country's main aerospace firm, Tusas Aerospace Industries (TAI), will be given a production work share of around 7.15%. The forward centre fuselage, hatches, tail cone, ailerons, spoilers, lighting, and water/waste water systems will be developed and manufactured by TAI. Turkish engine manufacturer Tusas Motor Sanayi (TEI) will also have a share of the Euro-Prop International TP400-D6 engine for the A400M. TEI has an agreement with ITP (Industria de Turbo Propulsores) of Spain to co-operate in the production of the three-shaft turboprop engines.

There is a lack of R&D investment which the government wants to cure by encouraging R&D and export business among offset arrangements for foreign companies.

***Space sector*** Text to be added

## ***Defence/Security sector***

Over the last few years Turkey has been one of the world's top four importers of defence equipment and currently buys around 80% of its defence materiel from abroad. It has been a major customer of the U.S. aerospace industry. For instance, it has taken delivery of 240 F-16C/D fighters which mostly were assembled in Turkey. The country joined the JSF program in July 2002 as a Level Three participant (100 aircraft). It signed a contract with Boeing in 2003 for the acquisition of four B737-700 airborne early warning and control aircraft - providing \$195 million worth of business for Turkish companies such as Aselsan, Havelsan, Marconi-Selenia, Mikes, and Turkish Airlines.

Turkey invariably tops the league of NATO nations measured by defence spending as a percentage of national budget. An EU membership - even the process of becoming a member - could mean a cutback to the relatively high level of defence expenditure.

## ***Overview on Industry and Research organisations***

<b><i>Aircraft &amp; Engine Manufacturers</i></b>			
<b>Company</b>	<b>Size<sup>15</sup></b>	<b>Main Product(s)</b>	<b>Contact</b>
Tusas Aerospace Industries (TAI)			PO Box 18 TR-06692 Kavaklıdere, Turkey Tel.: +90 312) 811 18 00 Fax: +90 312) 811 14 25
Tusas Motor Sanayi (TEI)			Tusas Motor Sanayi AS Muttalıp Mevkii 26000 Eskişehir Tel: +90-222-322 20 30 Fax: +90-222-322 20 57

<b><i>Aeronautics related enterprises</i></b>			
<b>Company</b>	<b>Size</b>	<b>Main Product(s)</b>	<b>Contact</b>
Meteksan Sistem ve Bilgisayar Teknolojileri A. S.			
ASELSAN Elektronik Sanayii ve Ticaret A.Ş		ASELSAN is a leading company in design, development and production of critical and strategically electronic technologies in the areas of command control and communications, electronic warfare, microwave, radar, Electro-optics and microelectronics. Aselsan's Quality Systems comply with NATO Publication AQAP-110 Military Specification MIL-Q-9858 and International Standards ISO-9001. TAFF holds 83,1 percent of Aselsan shares.	www.aselsan.com.tr

<sup>15</sup> Number of Employees

Havelsan		Founded in 1982. The main interest areas of Havelsan are avionics, simulation, electronics, and command and control information management systems. Havelsan also develops software and system integration projects in the automation and security fields. TAFB holds 98.7 percent of Havelsan shares.	Havelsan hava elektronik sanayii a.ş. Eskişehir Yolu 7.km 06520, Ankara Tel: +90-312-287 3565 Fax: +90-312-287 3568 info@havelsan.com.tr www.havelsan.com.tr
Marconi-Selenia			Selenia Komünikasyon A.Ş. Konya Yolu 25.km 06830 Gölbaşı-Ankara T: +90-312-4845181(pbx) T: +90-312-4844330 F: +90-312-4844332 www.marconi-selenia.com.tr
Electric Electronic Systems Corporation (EES)			Simon Bolivar Cad No 32/16 TR-06550 Gankaya Ankara Tel.: +90-312-241 32 00 +90-312-241 32 02
Tusas Engine Industries Inc. (TEI)		Established in 1985 as a joint venture company between the Turkish Government and the General Electric Company (GE). The start-up goals and objectives were to transfer aircraft engine manufacturing technology, to establish aircraft engine parts manufacturing capabilities and to establish F 100-engine assembly and test capability. The start-up phase was completed in 1989. TEI has penetrated to commercial components markets as well.	Cevre Yolu No:356 26003 ESKİSE HIR info@tei.com.tr http://www.tei-tr.com

### Research Organisations & Universities

Company	Major Area of Work	Contact

### Airlines and Airports

Company	Contact
Turkish Airlines	

End of document