

Trends in IT Sector in Turkey

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AGENDA

- **MOTIVATION**
- **SOFTWARE DEVELOPMENT ORGANIZATIONS**
- **GOVERNMENT INCENTIVES**
- **TECHNO PARKS**
- **SOFTWARE DEVELOPMENT EXPORT MARKET**
- **TURKEY'S SOFTWARE EXPORT MARKET**
- **HUMAN CAPITAL AND SOFTWARE ENGINEERING EDUCATION IN TURKEY**



MOTIVATION

- In recent years Turkey is increasingly positioning itself as an all-round provider of IT services
- The Turkish software sector has accelerated its efforts in various service areas, particularly in banking, insurance, defense, telecom, tourism, transport, logistics and contracting
- Gartner recently identified Turkey among the top 30 countries for IT offshore services between Europe, the Middle East and Africa group



CONSEQUENTLY,

- This paper presents an overview of software sector scenario in Turkey in terms of current trends in
 - Software process
 - Testing and quality (*)
 - Agile methods adoption (*)
 - Along with techno parks and incentives provided by the government.



SOFTWARE DEVELOPMENT ORGANIZATIONS

- IT companies in Turkey have been constructed and organized around Technology Development Zones (TGZs).
 - 45 such zones have been established by law and 2012, 32 of them are active.
 - TGZs host Techno Parks/Cities and around 1,800 technology establishments
 - IT and Software Development companies 57%



SOFTWARE DEVELOPMENT ORGANIZATIONS

- In addition to TGZs,
 - Technology Development Centers (TEKMER)
 - Technology Free Zones (TEKSEBs) host IT companies.
- Total 1 600 IT companies in TGZ, TEKMER and TEKSEB
- 77% in Ankara, İstanbul and İzmir
- 35 large scale SOFTWARE companies
 - MILSOFT CMMI Level 5
 - Others CMMI Level 3

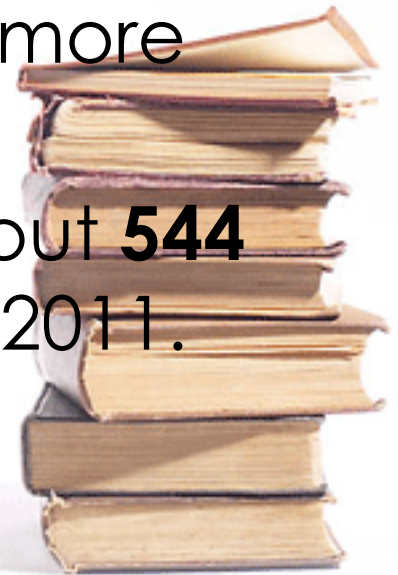


Government Incentives	Type of incentive
Tax advantages for TDZs	Income and Corporate Tax Exemption (valid until 31 December 2013)
	Income Tax Withholding Exemption (valid until 31 December 2013)
	Exemption from Tax, Duties and Fees
	Value Added Tax (VAT) Exemption (valid until 31 December 2013)
Direct support through projects	Support for R&D project activities by the Turkish Scientific and Technical Research Council – TÜBİTAK, and Technology Monitoring and Evaluation Board - TİDEB)
	Capital support by the Turkish Technology Development Foundation - TTGV
Indirect incentives	Support for expenditures of patents, useful model certificates - The Turkish Patent Institute



TECHNOPARKS

- All techno parks/cities in Turkey are located in the 32 active TGZs
- hosts about 1,800 technology (1,000 in IT) establishments and
- provides job opportunities to more than 15,000 employees.
- total amount of exports is about **544 million USDs** as of December 2011.



Techno Park Summary Data

Number of companies	1,800
Number of employees	15,822 (12,808 R&D, 8,052 Support)
Number of completed proj.	8,052
Number of ongoing proj.	4,979
Number of foreign investors	66
Exports	544 Million US Dollars
Number of patents	301

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http://www.cyberpark.com.tr/tr/ Cyberpark

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Sayfa Güvenlik Araçlar

 **BİLKENT CYBERPARK**

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Bilkent Cyberpark

Bilkent Cyberpark is a science and technology park, which is established jointly by Bilkent University, which is the best private university in Turkey, and its affiliate Bilkent Holding, which has many companies with software development and R&D functions.

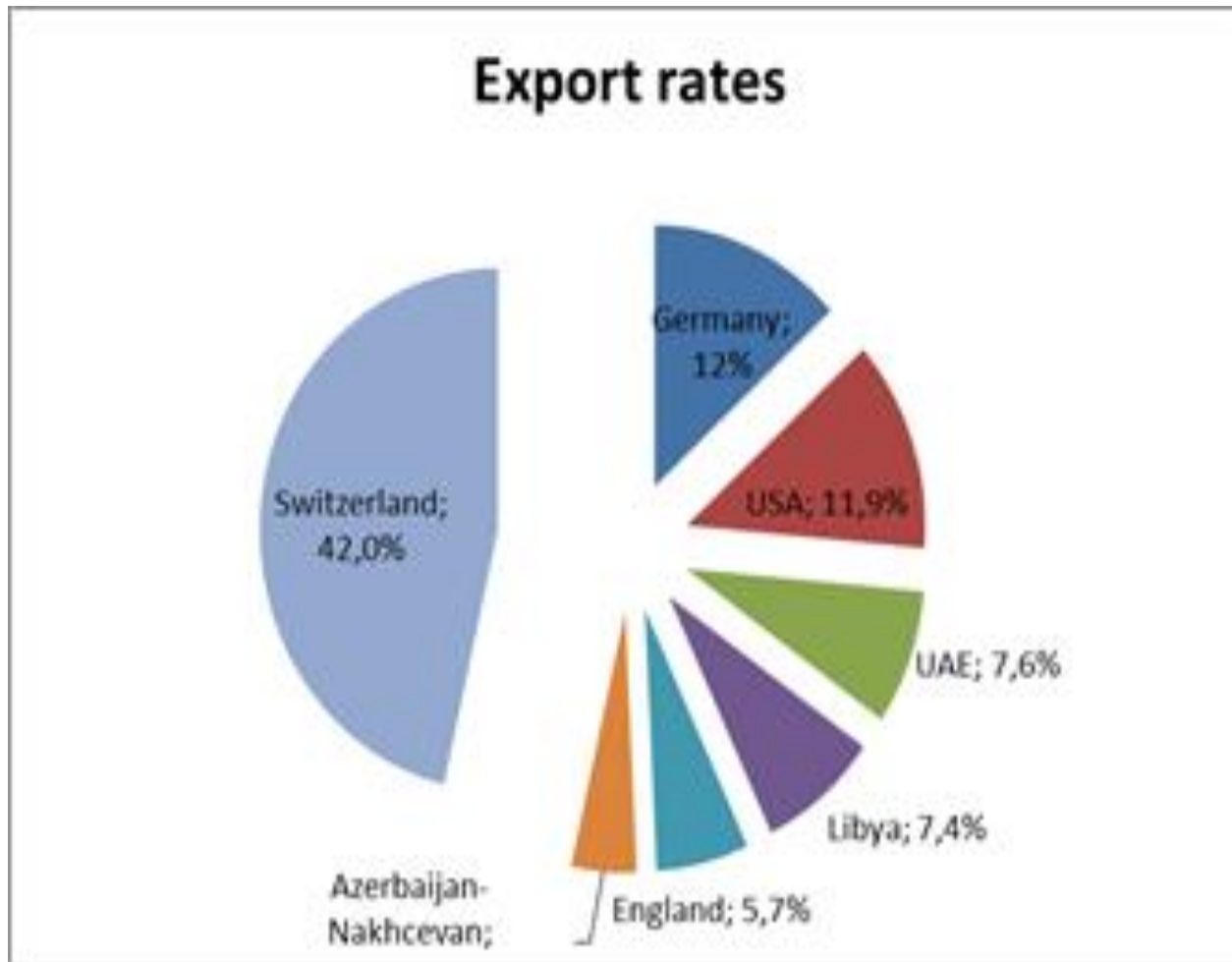
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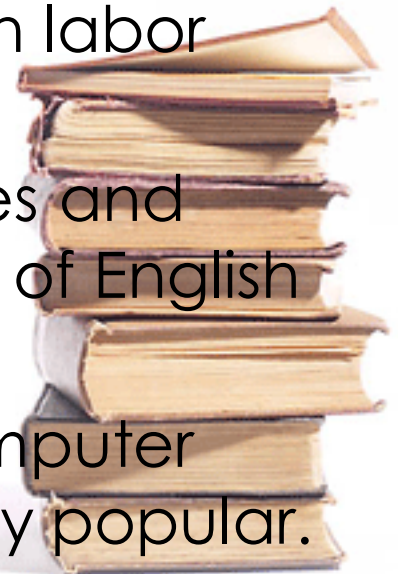
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SOFTWARE DEVELOPMENT EXPORT MARKET



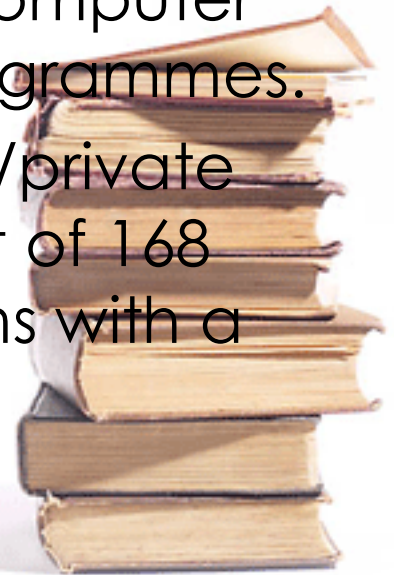
HUMAN CAPITAL AND SOFTWARE ENGINEERING EDUCATION IN TURKEY

- Turkey: 75 million inhabitants.
- About 65% are younger than 34 years.
- Nearly 1 million new students register at a University,
- 400,000 graduates enter the Turkish labor market annually.
- an increasing number of graduates and students have a good knowledge of English and
- that technical education and computer science are becoming increasingly popular.



HUMAN CAPITAL AND SOFTWARE ENGINEERING EDUCATION IN TURKEY

- Universities in Turkey have initiated Software Engineering (SE) undergraduate programs only in the last decade.
- Before this, the software industry relied heavily on the graduates of the Computer Engineering and other related programmes.
- So far, in Turkey, 12 (10 foundation/private and 2 government) universities out of 168 offer SE undergraduate programmes with a total number of 900 intakes/year



CONCLUSIONS

- The potential socioeconomic benefits of software in an emergent economy country like Turkey are enormous.
- E-government, e-business, e-health and military software are major areas of SW
- Establishment of Techno parks around major universities, number of government incentives along with improved Internet services has facilitated in this process.
- The collaboration between the software industry and higher education departments can lead to synergies



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