

Promoting Accessible Social Dialogue and Innovative

Training Practices:

Towards an Information Society for All

SDV-NETJOB

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PROJECT FINAL REPORT

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WP3

ANNEX 3.1

IT-Skills Survey (English Summary)

This report is also available online at
http://www.socialdialogue.net/en/en_results.htm

Abstract:

This report presents a summary, in English, of the results of a national survey of Greek employers and employees, focusing on Information Technology skills. The survey was carried out in 2003 and examines the structure of the employers' demands for workers with IT-skills, as well as the available IT skills in the labour force. The research was carried out within the period February 2003 to December 2003. The questionnaire was answered by 371 companies from different fields of economic activity, while the questionnaire which was addressed to individual workers with IT skills was answered by 564 people.

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1 Objectives

The purpose of the IT Skills Survey was:

- To perform an extensive on-line survey that will result in an identification of skills profiles for the Greek job market, focusing on the Greek IT sector and other industrial and commercial sectors using ICT
- To prepare and administer specialised questionnaires for both employer and employee sides.
- Apply a matching algorithm, to lead to identification of vocational training programmes that may be applied to promote continuous competence development.

1.1 Approach

Within the framework of the WP3 of the SDV project an extensive survey of IT skills in the Greek labour market was conducted via the Internet in 2003. Questionnaires were developed so as to extract conclusions concerning two critical questions:

- The first question was about the variety and level of skills that the Greek labour force possesses, even if they are unemployed, in the field of IT and telecommunications in the private and public sectors .
- The second part of the research concerns an inquiry into the IT skills demands of companies in Greece.

The main goal of this effort was to detect the existing needs from the companies' side and the deficiency in knowledge and skills in the labour force, so as to establish a basis for defining the most appropriate training programmes, which should be followed by the workforce of the country. By clarifying the exact nature of the "IT Skills Gap", training programmes can be tailored to the needs of the market. Workers who upgrade their skills would thereby be more employable and employers would be better able to recruit employees to do the tasks in hand.

The research was carried out within the period of February 2003 and December 2003. The questionnaire was answered by 371 companies from different economic activity fields and the questionnaire which was addressed to individuals was answered by 564 people.

The survey was carried out under the leadership of INTERFACE Business and Information Training S.A. Distribution of the questionnaires has been effected by EWORX S.A. – via the Social Dialogue Vortal.

1.2 Results – in Summary

The following results can be highlighted:

The analysis of the survey answers that we collected via the two questionnaires, one for companies and one for employees, gave us a clear picture of what companies want and on the other hand what employees (or unemployed) can provide.

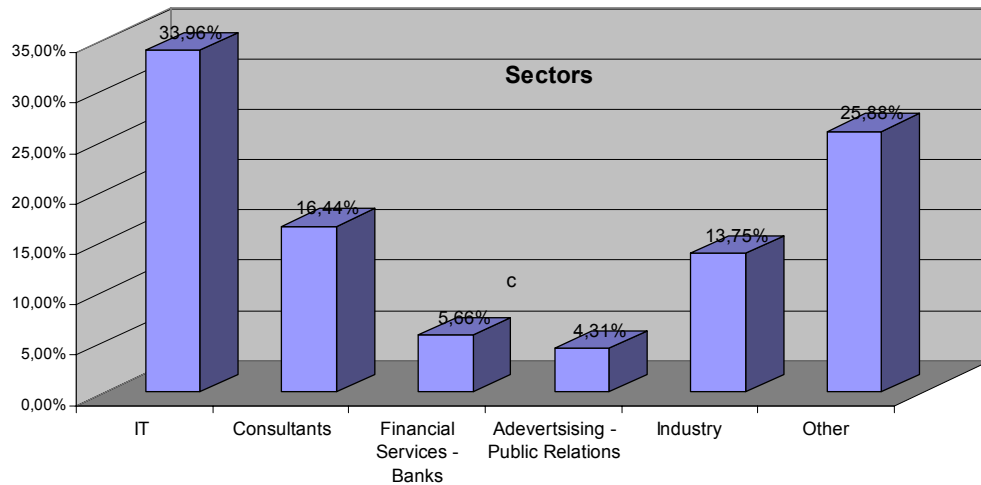
1.2.1 Companies' Demands for IT Skills

From companies questionnaire we collected information about more than 30 IT skills. This information concerns:

- The requested level of knowledge for each skill
- The importance of each skill for the proper operation of the company
- The lack level of the skills
- And the way of covering any lack of skills.

Furthermore, we collected information about the present and future companies' training policies concerning the IT skills.

The companies that participated in the survey belong to different economic sectors:



By combining the answers under A.1 and A.2 we calculate the utility index of each skill for the companies' operations.¹ The ranking of the 32 more important skills starting from the one with the highest utility index are shown in the following table:

¹ The reference numbers refer to the original question numbers used in the respective Employers' (A) and Employees' (B) Questionnaires.

| Skill | Ranking |
|---------------------|---------|
| Use of Internet | 1 |
| MS Word | 2 |
| Windows 98/ME | 3 |
| MS Excel | 4 |
| MS Outlook | 5 |
| Windows NT/2000 | 6 |
| MS Access | 7 |
| MS FrontPage | 8 |
| MS SQL Server | 9 |
| Photoshop | 10 |
| Oracle | 11 |
| HTML/XML | 12 |
| Visual Basic | 13 |
| Javascript/VBscript | 14 |
| MS Power Point | 15 |
| LAN/WAN | 16 |
| CorelDraw | 17 |
| Linux | 18 |
| DreamWeaver | 19 |
| Shock Wave/Flash | 20 |
| C/C++ | 21 |
| Java | 22 |
| Autocad | 23 |
| QuarkExpress | 24 |
| MS Exchange | 25 |
| Director | 26 |
| TCP/IP | 27 |
| IPX/SPX | 28 |
| Premier | 29 |
| WAP | 30 |
| ADOBE ACROBAT | 31 |
| SAP-R3 | 32 |

“Use of Internet” is the skill with the highest utility and eight Microsoft products skills are coming next. This result was expected if we considered that Microsoft’s market penetration in Greece concerning office applications reaches a share of almost 95%. On the other hand most of the companies (78%) that filled in the on-questionnaire were located in Crete (because of the promotional activities of the Chamber of Commerce of Chania’s), so even the companies that belong in the IT sector deal a lot with office applications and less with other IT applications which can be considered more “hardcore” like databases or network protocols. This is probably the reason for the absence of differences among different sectors.

1.2.2 Availability of IT Skills among Workers and Unemployed People

The second questionnaire (the one addressed to employees) was promoted mostly by INE/GSEE (the Institute of Labour – Communication, Confederation of Greek Workers) and OME-OTE (Trade Union of Greek Telecommunication Workers), and answers were gathered from all over Greece. Here we found significant differences between the employees that work in IT sector and those from other sectors.

From the human resources (employees and unemployed) questionnaire we collected information about the same IT skills. This information concerns:

B.1) The actual level of their knowledge for each skill

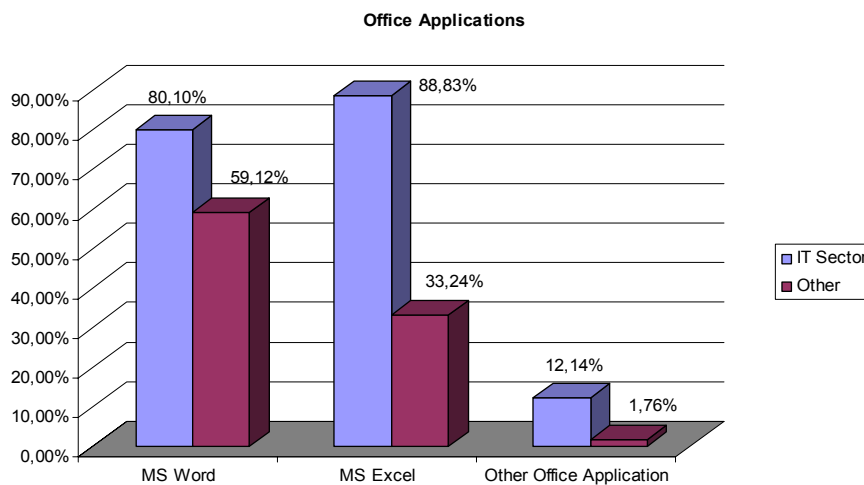
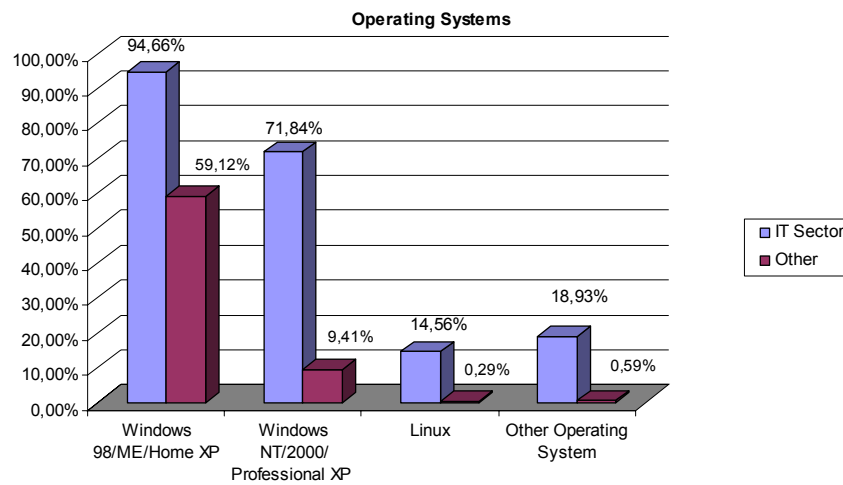
Furthermore, we collected information about their knowledge sources and about their plans for taking training courses.

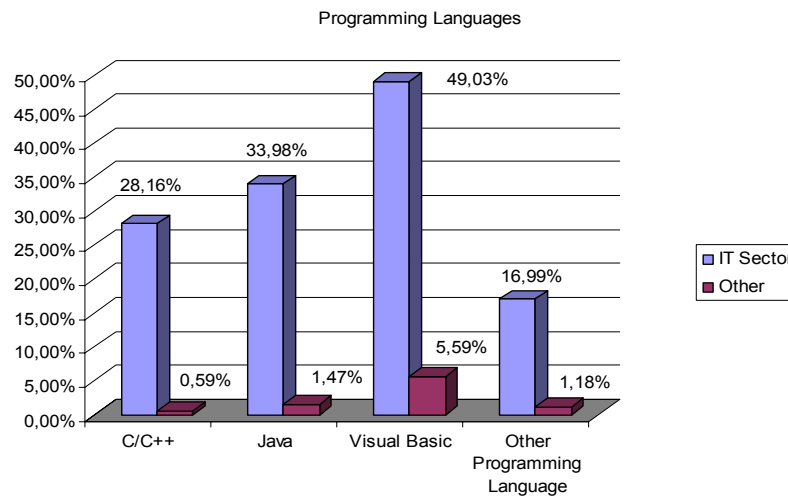
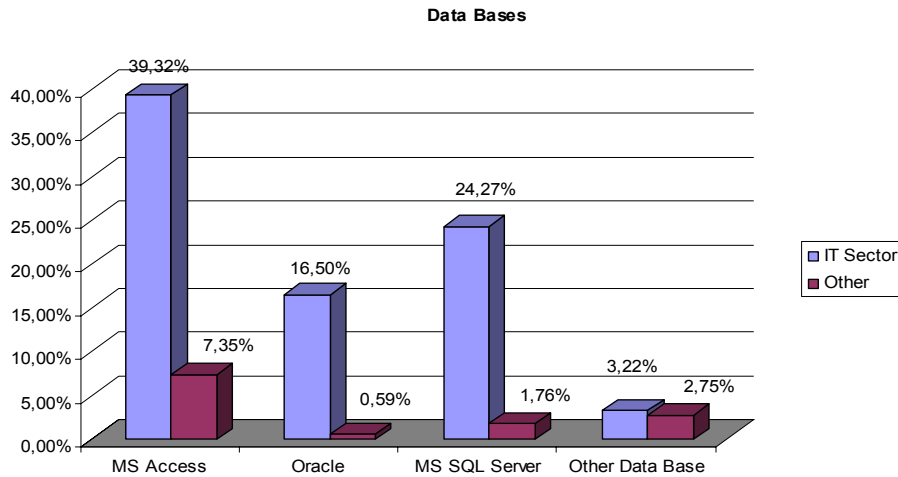
The analysis of B.1 answers shows the available knowledge level of human resources. The ranking of the skills starting from the one with the highest level of knowledge are showed in the following table:

| Skill | Ranking |
|----------------------------------|----------------|
| Use of Internet | 1 |
| Windows 98/ME/Home XP | 2 |
| MS Word | 3 |
| MS Excel | 4 |
| MS Outlook | 5 |
| MS Power Point | 6 |
| Windows NT/2000/ Professional XP | 7 |
| MS Access | 8 |
| Adobe Acrobat | 9 |
| MS FrontPage | 10 |
| Photoshop | 11 |
| HTML/XML | 12 |
| MS SQL Server | 13 |
| CorelDraw | 14 |
| Visual Basic | 15 |
| DreamWeaver | 16 |
| Oracle | 17 |
| Javascript/Vbscript | 18 |
| Linux | 19 |
| Java | 20 |
| C/C++ | 21 |
| MS Exchange | 22 |
| Autocad | 23 |
| Shock Wave/Flash | 24 |
| QuarkExpress | 25 |
| SAP-R3 | 26 |
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| Skill | Ranking |
|---------|---------|
| IPX/SPX | 30 |
| Premier | 31 |
| WAP | 32 |

As we mentioned before, by comparing the skills of the employees in the IT sector with the rest we discovered important differences that are broader for more difficult skills (e. g. Programming Languages and Data Bases). For example, in the following charts you may see the differences for Operating Systems, Office Applications, Data Bases and Programming Languages. The charts show the percentage of the employees that declared to have knowledge on the relevant skills.





1.3 Educational Needs

One of the main purposes of the survey was the diagnosis of the educational needs in the Greek job market concerning the IT skills. We tried to gain some knowledge in two dimensions of educational needs.

The first dimension covers the perception that companies have about any possible lack of skills that they experience. The relevant questionnaire has a specific structure in order to provide the necessary information in two different ways. In the first part of the questionnaire there were questions, asking the companies to declare the level of lack of each skill (questions A.3) and at the same time the measures that they intend to undertake in order to cover any lack. By making a synthesis of the answers of A.1, A.2 and A.3 we could combine the utility index of the skills and the corresponding possible lack. So, if a specific skill had a high utility index for companies and at the same time its lack was obvious, then the educational need concerning this skill should be high. This synthesis produces the following ranking where you may see the 15 skills with the highest educational needs.

| Educational Need | Ranking |
|-------------------------|----------------|
| MS Word | 1 |
| Use of Internet | 2 |
| Windows 98/ME | 3 |
| MS Excel | 4 |
| MS Outlook | 5 |
| Windows NT/2000 | 6 |
| MS SQL Server | 7 |
| Oracle | 8 |
| MS FrontPage | 9 |
| Javascript/Vbscript | 10 |
| LAN/WAN | 11 |
| Photoshop | 12 |
| Shock Wave/Flash | 13 |
| HTML/XML | 14 |
| DreamWeaver | 15 |

The second set of questions that might give us the opportunity to spot the educational needs were those asking for the open or/and in-house seminars that companies implemented recently as well as for their plans for implementing seminars in the near future. These questions showed the skills that companies spent money on - or are willing to invest in to improve the skill-levels of their employees. The analysis of the answers showed that the majority of the seminars were in the field of Office Applications (MS Access is included) and Microsoft Operational Systems.

Companies in different economic sectors have similar educational needs probably for the same reasons that we stated before.

The second dimension of educational needs refers to the comparison between companies needs concerning IT skills and the perception that employees and unemployed have about the level of their knowledge on specific skills. Workers and unemployed respondents express their perceptions under questions B.1. By synthesizing the answers of A.1, A.2 and B.1 we calculated the educational needs in the wider job market environment.

In the following table you may see the 15 IT skills with the highest educational need, as perceived by the workers.

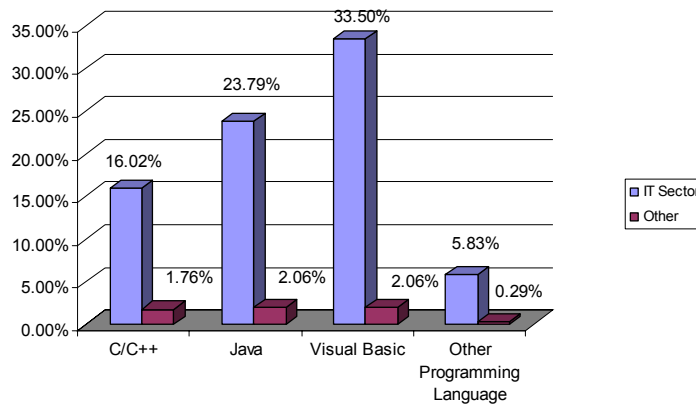
| Educational Need | Ranking |
|----------------------------------|----------------|
| MS Word | 1 |
| Windows 98/ME/Home XP | 2 |
| MS Excel | 3 |
| MS Access | 4 |
| Autocad | 5 |
| C/C++ | 6 |
| Javascript/Vbscript | 7 |
| Java | 8 |
| Visual Basic | 9 |
| DreamWeaver | 10 |
| Windows NT/2000/ Professional XP | 11 |

| Educational Need | Ranking |
|------------------|---------|
| MS FrontPage | 12 |
| MS SQL Server | 13 |
| HTML/XML | 14 |
| Use of Internet | 15 |

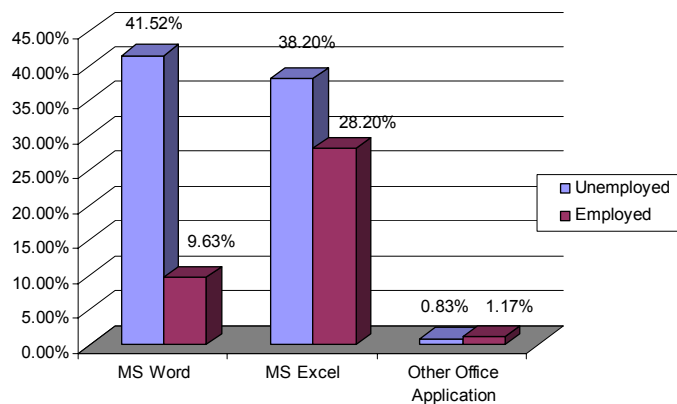
By comparing the two rankings we may see that Office Applications exist in both tables but at the same time the "Use of Internet" is considered of high educational priority from companies but not from workers, who consider that they have enough knowledge in this field. According to the worker-respondents, some more difficult skills (e.g. Programming languages) are considered to be a high educational priority, while the employers do not rate these skills highly.

From a more detailed analysis we may see that these "high-tech" IT skills are more popular among the employees in the IT Sector. On the other hand "low-tech" IT skills are more popular as a target for education among the unemployed. In the following charts the intentions of workers/unemployed for attending seminars are presented.

Programming Languages



Office Applications



WP 3: IT Skills Survey

WP 3.1: IT Skills Survey – English Summary

One general conclusion that arises from the survey is the clear focus of the Greek job market on the “soft” or low-level IT skills (such as office applications) in all sectors, even in companies that belong to IT sector. This result may give a general picture of the current articulation of the Greek economy.