



# ***EMED-B2B.BIZ SUSTAINABILITY ANALYSIS***

*“Confidential draft to the attention of the Emed-tds.com Consortium’s  
Legal Representatives Conference”*

Rome, 8<sup>th</sup> June 2005



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## ***Foreword***

*Emed-B2B.biz is a network Demand and Offer software platform. The first application is in the agrifood sector. Its development was financed by the European Commission, and 15 Business Organisations partners bordering the Mediterranean Sea, and was coordinated by Euro-Med TDS.*

*This innovative product will significantly improve the competitiveness and the business opportunities of our companies through the creation of strategic partnership and opportunities.*

*On the other hand, Emed-b2b.biz will contribute to the diffusion of an e-Market culture and business practice in the Mediterranean region and reduce the region's Informational and Technological gap in using e-trade and e-commerce vis-à-vis the neighbouring countries.*

*We have now to ensure the sustainability of the product.*

*The National Conferences, we organised in May and June in each partner country to launch the product, proved to be essential.*

*They provided us with a faithful portrait of the region technological environment, and confirmed the high market potential of the product as far as its sustainability is concerned.*

*At this point, our main task is to fulfil the market expectations and to take our responsibilities. In so doing our countries will definitely have the possibility to improve the digital marketplace we are launching and benefit as first comers, of the advantages that it offers.*

***Sergio Billè, President of Euro-Med TDS***

*Rome, 8th of June 2005*

# *Introduction*

Emed-tds.com is an EUMEDIS pilot project, which, started on October 2002 and is now completed. It created a network through the interconnection of 16 partner organisations using the platform technology developed by the project. The project was coordinated by Euro-Med TDS.

The partners were:

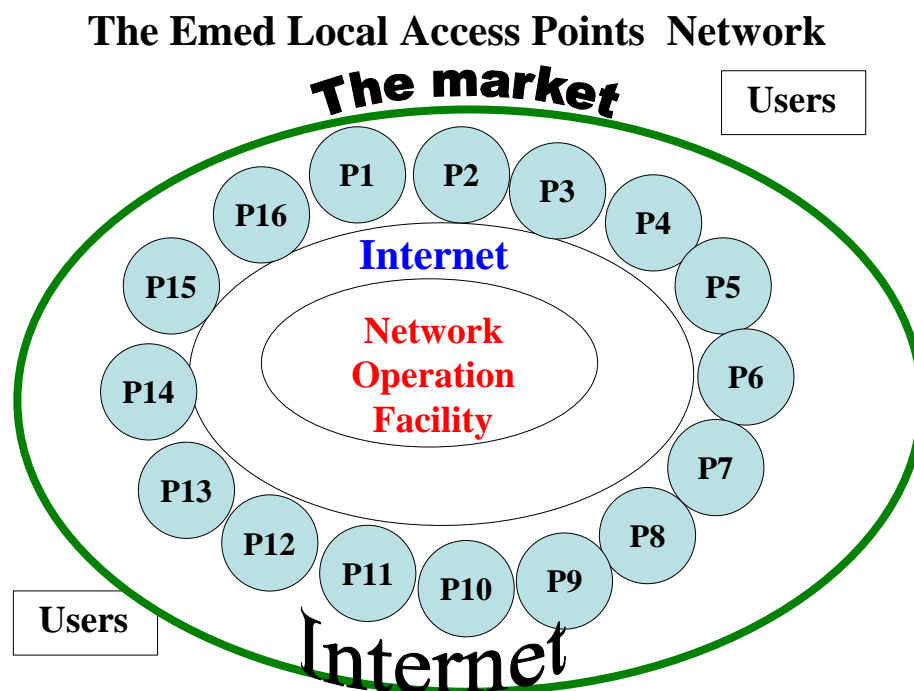
- Euro-Med TDS (co-ordinator)
- Algerian Chamber of Commerce and Industry
- Euro-Palestinian Chamber of Commerce
- Federation of Egyptian Chambers of Commerce
- Paris Chamber of Commerce and Industry
- Jordan Chamber of Commerce
- National Confederation of Hellenic Commerce
- Federation of Israeli Chambers of Commerce
- Confcommercio, Italy
- Malta Chamber of Commerce
- Federation of Moroccan Chambers of Commerce, Industry and Services
- Association of Oporto Businessmen
- Federation of Syrian Chambers of Commerce
- Catalonia Commerce Confederation
- Tunisian Union of Industry, Commerce and Handcrafts
- Istanbul Chamber of Commerce.

## *The Emed-B2B.biz network*

At this stage Emed-B2B.biz (Fig.1.1) network is composed of the partners of the project, as protagonists of an international system and owners of internal structures in their national territories. These structures are developed on a regional and sectorial basis, as horizontal and vertical structures. The management of the network and of the B2B transactions is administered through a Network Operation Facility (NOF).

Emed-B2B.biz has a management, where each partner is represented.

Figure 1.1



Source: emed-tds.com project

## *The Product*

The result of the project *emed-tds.com* is a general purpose Platform, able to sustain B2B Demand and Offer networks in any industrial, commercial and service sector.

The Platform trade name is emed-B2B.biz and its first application is in the Agrifood sector.

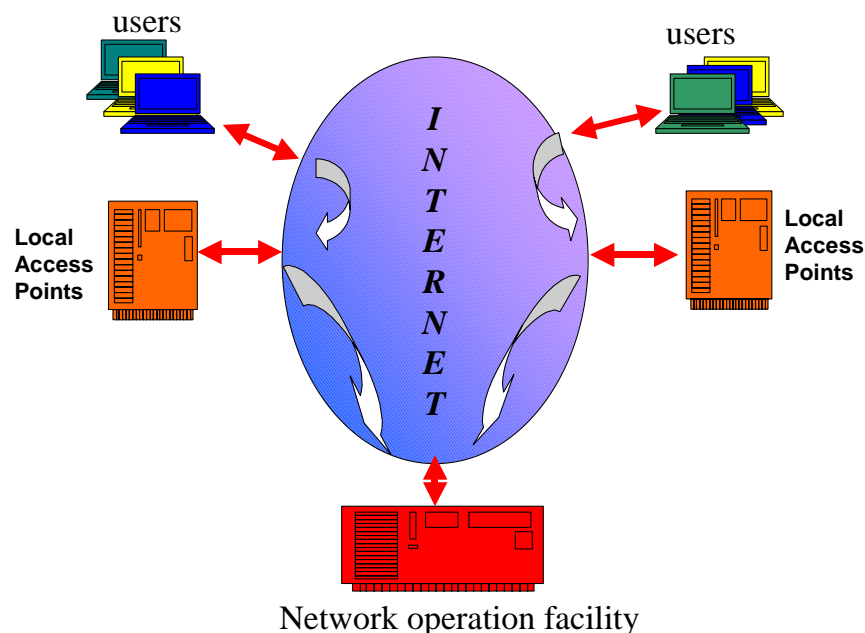
Emed-B2B.biz creates an e-market. Networking the partners, which were associated to the project emed-tds.com, in order to offer business-to-business services based on demand/offer principle.

The services offered by the Platform are available to any company, and has been designed with particular care towards the needs of small and medium enterprises, in order to facilitate their access to international markets.

The product uses user friendly advanced website technologies, in order to assist smaller operators working in less technologically developed zones.

The software platform is made up of two interlocked applications, a Local Access Point (LAP) and a Network Operations Facility (NOF). (Fig.1.2)

**Figure 1.2**



Source: emed-tds.com project

The system works through the following components:

➤ ***Network Operation Facility***

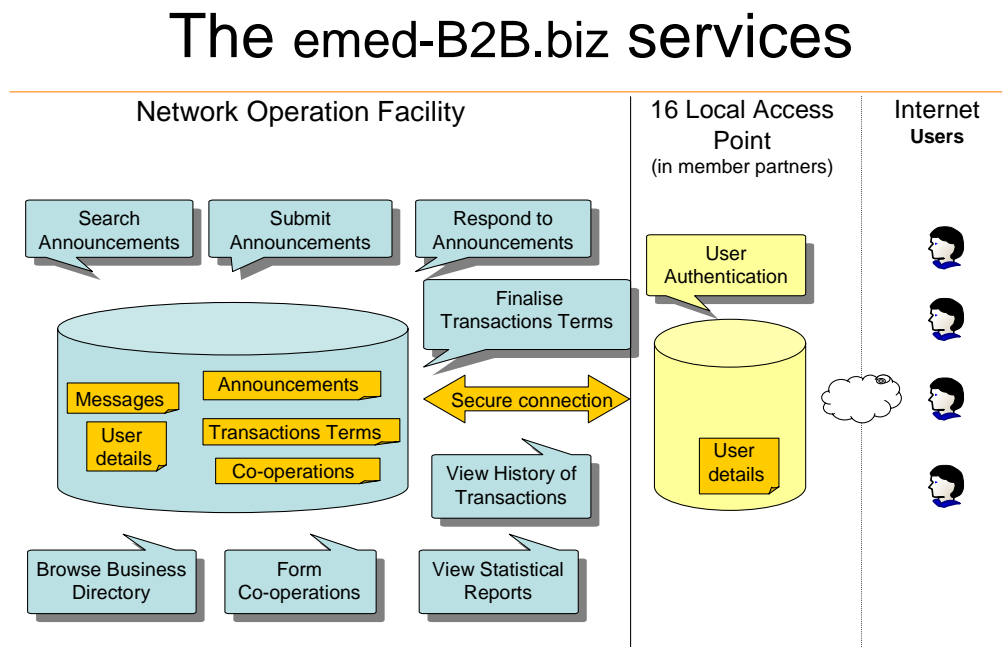
The NOF is located in the Euro-Med TDS Secretariat, consisting of servers and communications equipment.

The Network Operation Facility enables:

- The communication between users for the execution of commercial transactions terms
- The management of the demand and offer database
- The search facility
- The Business directory database
- The administrative functions of the Emed network
- The production of statistical analysis

The functional blocks of the NOF are shown in (Fig 1.3)

Figure 1.3



Source: emed-tds.com project

### ➤ *Local Access Points*

Emed-tds.com project has installed at each partner premises the necessary server, communication and administrative computer equipment to enable the partners to run the Local Access Point and interface to Internet.

A Linux operating system has been installed, together with the LAP application software to manage local functions such as password delivery, access control, local invoicing and accounting, Internet access and the user's interface to place and manage the Demands and Offers announcements.

Each partner's LAP is part of the network managed by the NOF

The result is a structured and controlled business model that enables:

- the LAP administrator to sign the user access agreements and control the quality and content of the Demand and Offer announcements
- the creation and management of a general Business Directory
- A user to place and manage announcements, initiate collaboration with other users, insert alerts, negotiate transaction terms, all through its own individual home page.

### ➤ *The Network Operation Facility*

The Network Operation Facility application runs on a large server whose main function is to:

- issue the unique identification codes to the Local Access Points
- enable the interconnection of the Local Access Points,
- enable and store all transaction dialogs,
- store all the submissions for Demand and Offers,
- perform simple and advanced searches,
- store ,manage and search the Business Directory and the Knowledge Base,
- perform statistical analysis.

## *Product Advantages*

The product provides the following advantages

- A B2B network with one or several Local Access Points in each country
- The user access registration is monitored and authorised by each Local Access Point by means of an Access Agreement. At present there is an LAP in each partner country.
- For non-partner countries, these registrations are at present managed, through the International Access Point IAP located at the Euro-Med Secretariat,
- The users are mostly the members of the partners associations and therefore are a known entity.

Each LAP is responsible for the quality and professional performance of its users.

Consequently the emed-b2b.biz product provides a higher level of user control and therefore a higher quality and reliability of the B2B Demand and Offer content

## *The Market*

Emed-B2B.biz opens up two distinct markets:

1. The Demand and Offer B2B user market in the Agrifood sector extensible to other sectors.
2. The Emed-B2B.biz LAP applicant software to potential LAP operators.

There are two categories of users having access to the emed-b2b.biz service:

- **THE ANONYMOUS USERS**
- **THE REGISTERED USERS**

The **ANONYMOUS USERS** can:

- Verify the availability of the searched information, and/access all the functionalities and services offered by the platform.
- Search for Demands and Offers.
- Request to be listed in the Business Directory
- View the access modalities and prices.

The **REGISTERED USERS** are those that have signed an **Access Agreement** and have received access passwords. They are allowed, after logging in, to perform, in addition to the above, the following operations:

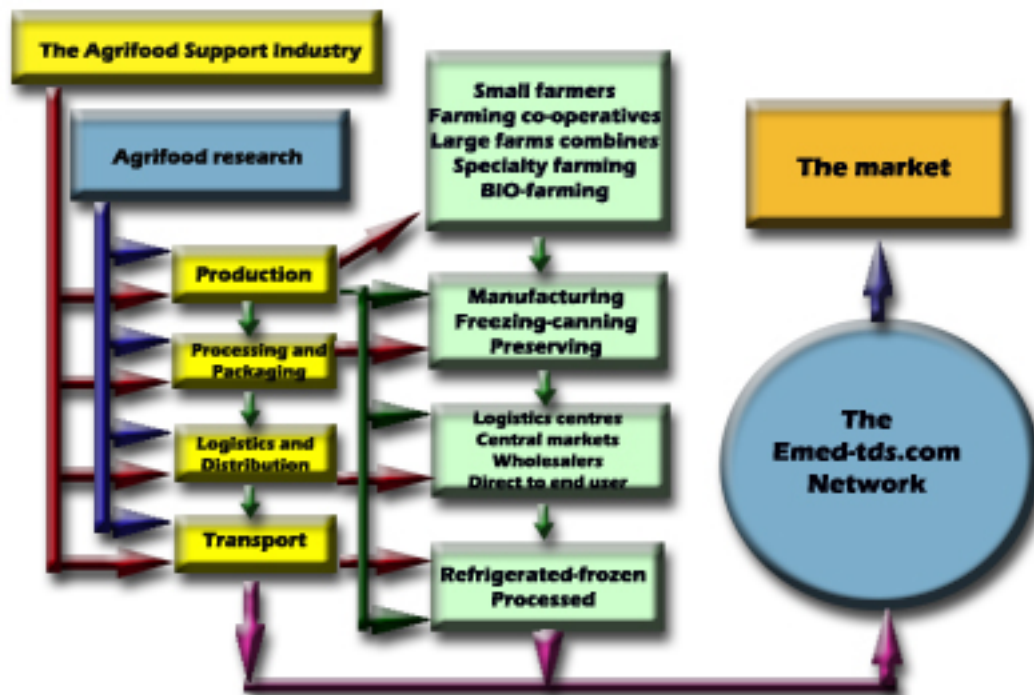
- **Submit** Demands and Offers,
- **Initiate** and conclude transaction terms,
- **Form** ad-hoc co-operations with other users,
- **Manage** their account.

## *The E-Agrifood Market*

The Agrifood Market has been the first sector identified by the European Commission for the implementation of the product. The project defined the Agrifood sector, means in our case a number of industrial areas (see figure 1.4):

- Research
- Support industry
- Production
- Manufacturing and processing
- Logistics and distribution
- Production
- Transport

Figure 1.4



Source: emed-tds.com project

A company that operates in any of the area, covered by emed-B2B.biz, finds in this product the opportunity to reach wider markets and improve its competitiveness.

It useful to point out that despite the project partners belong to the Mediterranean area, the Platform is oriented to the global market. As a matter of fact, emed-B2B.biz supplies a Demand and Offer service which is easily accessible and usable on a worldwide scale.

However, the SMEs within the countries of the partners keep the advantage to exploit all the benefits that stem from the status of *first comers*.

They will first enjoy the advantage, given by the opening of a sixteenth LAPs, physically located at Euro-Med TDS secretariat, which allows the access to the platform services to the users external to the fifteen countries, founders of Emed-B2B.biz.

*ICT's and E-business  
Opportunities and  
Challenges*

## *Worldwide spread of Internet use*

At the end of 2003, nearly 676 million people (or 11.8 per cent of the total population of the world) had access to the Internet, according to estimates by the International Telecommunication Union (ITU). This represents an increase of 49.5 million people or 7.8 per cent compared with the figures at the end of 2002. Furthermore, the existence of a large potential demand in developing countries will ensure the addition of large numbers of new users to the global Internet in the short and medium terms. Table 2.1 shows the growth in the number of Internet users in the world for the period 2000–2003.

**Table 2.1: Internet Users by Region, 2000-2003 (Thousands)**

	2003	%Growth	2002	%Growth	2001	% Growth	2000
<b>Africa</b>	12 123	21.38	9 988	63	6 119	34	4 559
<b>Asia</b>	243 406	15.25	211 202	40	150 535	38	109 257
<b>Europe</b>	188 997	7.24	176 232	23	143 584	30	110 824
<b>Latin America and Caribbean</b>	44 217	4.19	42 439	45	29 224	65	17 673
<b>North America (2002)</b>	175 110	0.00	175 110	12	156 823	14	136 971
<b>Oceania</b>	11 825	1.88	11 607	21	9 601	16	8 248
<b>Developed countries</b>	396 754	2.06	388 746	15	339 427	19	285 480
<b>Developing countries</b>	246 290	17.53	209 556	50	139 317	48	94 352
<b>Others</b>	32 634	15.41	28 277	65	17 142	123	7 700
<b>Total</b>	675 678	7.84	626 579	26.36	495 886	27.96	387 532

**Source: E-Commerce and Development Report 2004, Unctad**

From the point of view of the relative positions of developed and *developing countries*, figures contained in Table 2.1 showed that much (74.8 per cent) of the recorded growth in the number of Internet users in the world occurred in the developing world, and that the rate of growth of its Internet population (17.5 per cent) is eight and a half times higher than that of developed countries.

Despite the growing role of developing countries on the Internet, the presence of the less developed countries (LDCs) in Internet remains largely concentrated in a relatively small number of nations.

Five countries (China, Republic of Korea, India, Brazil and Mexico) account for 61.52 per cent of all Internet users in the developing world. At the end of 2003, almost  $\frac{3}{4}$  of Internet users in LDCs were from Asia.

More detailed information is provided for a number of individual countries in table 2.2.

Table 2.2 Internet User in selected economies (thousands)

	2003	2002	2001	2000	Change 2003-2002	Change 2003-2000	% change 2003-2002	% change 2003-2000
<b>Africa</b>	12 123	9 988	6 119	4 559	2 134	7 564	21.37	165.92
Algeria*	500	500	200	150	..	350	..	233.33
Egypt	2 700	1 900	600	450	800	2 250	42.11	500.00
Kenya*	400	400	200	200	..	200	..	100.00
Morocco	800	700	400	200	100	600	14.29	300.00
Nigeria	750	420	115	80	330	670	78.57	837.50
South Africa*	3 100	3 100	2 890	2 400	..	700	..	29.17
Togo	210	200	150	100	10	110	5.00	110.00
Tunisia	630	506	410	250	125	380	24.63	152.00
Zimbabwe*	500	500	100	50	..	450	..	900.00
Others**	2 533	1 763	1 054	679	770	1 854	43.70	273.21
<b>Latin America &amp; Caribbean</b>	44 217	42 439	29 224	17 673	1 778	26 544	4.19	150.20
Argentina*	4 100	4 100	3 650	2 600	..	1 500	..	57.69
Brazil*	14 300	14 300	8 000	5 000	..	9 300	..	186.00
Chile*	3 576	3 576	3 102	2 537	..	1 038	..	40.92
Colombia	2 732	2 000	1 154	878	732	1 854	36.61	211.18
Mexico*	10 033	10 033	7 410	2 712	..	7 321	..	269.89
Peru	2 850	2 400	2 000	800	450	2 050	18.75	256.25
Venezuela*	1 274	1 274	1 153	820	..	454	..	55.41
Others***	5 352	4 756	2 756	2 325	596	3 027	12.53	130.17
<b>North America*</b>	175 110	175 110	156 823	136 971	..	38 139	..	27.84
United States*	159 000	159 000	142 823	124 000	..	35 000	..	28.23
Canada*	16 110	16 110	14 000	12 971	..	3 139	..	24.20
<b>Asia</b>	243 406	211 202	150 535	109 257	32 204	134 149	15.25	122.78
China	79 500	59 100	33 700	22 500	20 400	57 000	34.52	253.33
Hong Kong (China)	3 213	2 919	2 601	1 855	294	1 358	10.07	73.18
India	18 481	16 580	7 000	5 500	1 901	12 981	11.47	236.02
Indonesia*	8 000	8 000	4 000	2 000	..	6 000	..	300.00
Israel*	2 000	2 000	1 800	1 270	..	730	..	57.48
Japan*	57 200	57 200	48 900	38 000	..	19 200	..	50.53
Korea, Rep. of	29 220	26 270	24 380	19 040	2 950	10 180	11.23	53.47
Malaysia	8 692	7 841	6 347	4 000	852	4 692	10.86	117.30
Philippines*	3 500	3 500	2 000	1 540	..	1 960	..	127.27
Singapore*	2 100	2 100	1 700	1 300	..	800	..	61.54
Taiwan P. of China	8 830	8 590	7 820	6 260	240	2 570	2.79	41.05
Thailand	6 031	4 800	3 536	2 300	1 231	3 731	25.65	162.23
Others**	16 639	12 302	6 751	3 692	4 337	12 947	35.25	350.71

**Table 2. 2 (continued)**

	2003	2002	2001	2000	Change 2003-2002	Change 2003-2000	% change 2003-2002	% change 2003-2000
Europe	188 997	176 232	143 584	110 824	12 764	78 172	7.24	70.54
France	21 900	18 716	15 653	8 460	3 184	13 440	17.01	158.87
Germany	39 000	36 000	31 000	24 800	3 000	14 200	8.33	57.26
Italy	18 500	19 900	15 600	13 200	-1 400	5 300	-7.04	40.15
Netherlands	8 500	8 200	7 900	7 000	300	1 500	3.66	21.43
Poland	8 970	8 880	3 800	2 800	90	6 170	1.01	220.36
Russian Federation*	6 000	6 000	4 300	2 900	..	3 100	..	106.90
Spain	9 789	7 856	7 388	5 486	1 933	4 303	24.61	78.44
Sweden*	5 125	5 125	4 600	4 048	..	1 077	..	26.61
Turkey	5 500	4 900	4 000	2 000	600	3 500	12.24	175.00
United Kingdom*	25 000	25 000	19 800	15 800	..	9 200	..	58.23
Others**	40 713	35 655	29 543	24 330	5 057	16 382	14.18	67.33
					0	0		
Oceania	11 825	11 607	9 601	8 248	218	3 577	1.87	43.37
Australia*	9 472	9 472	7 700	6 600	..	2 872	..	43.52
New Zealand	2 110	1 908	1 762	1 515	202	595	10.59	39.27
Others**	243	227	139	133	16	110	6.86	83.12

**Source : Uncatad 2004, E-commerce and Development Report 2004**

These data indicate that the presence on Internet of the developing countries as a whole starts to be large enough to play a significant role in the development of global, ICT-based social and economic exchanges.

The picture looks less impressive, however, when figures of Internet penetration (the number of users as a share of total population) are considered. They indicate that the depth of penetration of ICTs in each country community remains far more limited than in industrialized nations. In spite of high growth rates of Internet use, the penetration ratios of developing countries are ten times lower than the average of the developed world.

Table 2.3 provides information for a number of selected countries, including countries not mentioned in Table 2.2 because of their small size.

Analyzing the figures contained in this table, it should be noted that, as regards Middle East and African partner countries, the level of penetration of Internet in their community is lower than the other developing countries of emed-tds.com project.

Apart from Israel, whose digital development has reached a score at industrialized countries levels, in the other countries, on average only 500 people out 10.000 people have access on Internet.

In addition to this demographic approach, another way to look at the worldwide spread of Internet is to consider the evolution of the number of hosts that are connected to it. According to a survey sponsored by the Internet Systems Consortium and produced by Network Wizards, the number of

Table 2.3: Internet User per 10.000 people in selected economies, 2001-2003

	2003	2002	2001
Africa**	148	124	78
Algeria*	160	160	65
Botswana*	349	349	297
Cape Verde	444	355	271
Egypt	393	282	93
Gabon	262	192	135
Gambia*	188	188	139
Kenya*	127	160	64
Lybian Arab Jamahiriya	289	225	36
Mauritius	1 229	1 033	883
Morocco	266	236	137
Namibia	338	267	246
Nigeria	61	35	10
Sao Tome & Principe	987	728	600
Senegal	217	104	102
Seychelles*	1 452	1 452	1 099
South Africa*	682	682	649
Swaziland	259	194	137
Togo	420	410	316
Tunisia	637	517	424
Zimbabwe*	430	430	87
Latin America & Caribbean***	832	808	563
Antigua & Barbuda*	1 282	1 282	904
Argentina*	1 120	1 120	1 008
Bahamas	2 649	1 923	551
Barbados	3 708	115.24	559.08
Belize*	1 089	1088.53	699.55
Brazil*	822	822	466
Chile*	2 375	2 375	2 014
Colombia	624	462	270
Costa Rica*	1 931	1 931	934
Guyana*	1 422	1 422	1 149
Jamaica*	2 285	2 285	383
Mexico*	985	985	738
Peru	1 039	897	766
Saint Kitts & Nevis*	2 128	2 128	781
Trinidad & Tobago*	1 060	1 060	923
Uruguay [2001]	1 190	1 190	1 190
Venezuela*	506	506	466
North America*	5 476	5 476	4 964
Canada*	5 129	5 129	4 500
United States*	5 514	5 514	5 015
Asia**	674	584	417
Bahrain	2 819	2 456	2 034
Brunei Darussalam (2001)	1 023	1 023	1 023
China	632	460	257
Hong Kong (China)	4 692	4 301	3 868
India	175	159	68

Table 2.3 (continued)

	2003	2002	2001
Indonesia*	377	377	191
Israel*	3 014	3 014	2 766
Japan*	4 489	4 489	3 842
Jordan	834	577	452
Korea, Rep. of	6 034	5 519	5 211
Kuwait	2 308	1 058	879
Lebanon*	1 171	1 171	776
Macao (China)	2 687	2 604	2 313
Malaysia	3 453	3 197	2 656
Oman*	709	709	484
Philippines*	440	440	256
Qatar	1 974	1 134	670
Singapore*	5 044	5 044	4 115
Taiwan Prov. of China	3 900	3 814	3 490
Thailand	965	776	577
United Arab Emirates	2 748	2 709	2 571
Europe**	2 373	2 212	1 798
Austria	4 620	4 147	3 922
Belgium*	3 283	3 283	3 104
Cyprus*	2 937	2 937	2 175
Czech Republic	2 683	2 563	1 467
Denmark*	5 128	5 128	4 295
Estonia*	3 277	3 277	3 005
Finland*	5 089	5 089	4 303
France	3 656	3 138	2 638
Germany	4 727	4 362	3 760
Iceland	6 747	6 479	5 993
Ireland	3 130	2 803	2 331
Italy	3 367	3 524	2 689
Latvia	4 057	1 331	723
Luxembourg*	3 700	3 700	3 640
Malta*	3 030	3 030	2 526
Netherlands	5 219	5 063	4 905
Norway*	5 026	5 026	4 642
Poland*	2 325	2 300	984
Russian Federation*	409	409	293
Slovakia	2 559	1 604	1 253
Slovenia*	3 758	3 758	3 008
Spain	2 391	1 931	1 827
Sweden	5 731	5 731	5 163
Switzerland*	3 510	3 510	3 070
Turkey	805	728	604
United Kingdom*	4 231	4 231	3 296
Oceania**	3 764	3 705	3 124
Australia*	4 817	4 817	3 972
New Zealand	5 262	4 840	4 612

Source: Uncatad 2004, E-commerce and Development Report 2004

Internet hosts worldwide grew by 35.8 per cent between January 2003 and January 2004, reaching a total of over 233 million<sup>1</sup>.

It is difficult to assess the position and the performance of countries in terms of number of hosts, because the majority of the existing hosts belong to the top level domains (TLDs) such as .net and .com. However, it is possible to identify some trends in terms of the growth in the use of particular country code TLDs that could be indicative of the attractiveness of a particular TLD. Such attractiveness may, at least in part, be indicative of the prevailing conditions for the spread of the Internet in the territory in question. (see table 2.4)

Most of the top positions in the table are occupied by generic TLDs, under which the majority of hosts based in the United States and, increasingly, in other countries.

Focusing the attention on Middle East and African partner's countries, in January 2003, only the ccTLDs of Israel appears among the top 40, while in 2004 also the Turkey ones joined them<sup>2</sup>.

Finally, a more certain way to look at the growth of Internet is to consider how people use Internet for business purposes. Exchanging e-mail, accessing the World Wide Web (www) for information or transactions and creation of one's company website are the most common practices in doing business by Internet Tabel 1.7.

The increase in the number of websites in the world and the use of secure socket layer protocol, for the security of transactions are useful indicators of the growth of e-business.

The paragraph above shows different angles from which one can evaluate the possibility of accessing and using ICTs, and particularly Internet, in the various parts of the world. Attempts have been made to aggregate this information in e-readiness indicators. Among these attempts, it is useful to mention the recent study "*The 2005 e-readiness rankings*" elaborated by the Economist Intelligence Unit in collaboration with IBM Institute for business value.

In this research they assess a country e-readiness, that is essentially a measure of its e-business environment, a collection of factors - citizens' ability to utilize technology skillfully, the transparency of its business and legal systems, and the extent to which governments encourage the use of digital technologies- that indicates how open to a market to Internet based opportunities.

The authors concluded that after a period of stagnation, since the technology bubble exploded in 2000, digital business is again at the heart of business. Spending on information and communications technology (ICT) shows renewed buoyancy in developed markets, while in emerging markets growth of connectivity— individuals' and organisations' access to voice and data communications—continues on a rapid ascent. This upturn is essential, as digital transactions to be widely adopted and efficient they have to prosper in a supportive technological environment.

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<sup>1</sup>E-commerce and development report 2004

Table 2.4: Number of hosts advertised in the Domain Name System

		2004	2003	% change
Networks	net	100 751 276	61 945 611	62.64
Commercial	com	48 688 919	40 555 072	20.06
Japan	jp	12 962 065	9 260 117	39.98
Educational	edu	7 576 992	7 459 219	1.58
Mistakes	arpa	6 146 841	6 387 463	-3.77
Italy	it	5 469 578	3 864 315	41.54
United Kingdom	uk	3 715 752	2 583 753	43.81
Germany	de	3 421 455	2 891 407	18.33
Netherlands	nl	3 419 182	2 415 286	41.56
Canada	ca	3 210 081	2 993 962	7.22
Brazil	br	3 163 349	2 237 527	41.38
Australia	au	2 847 763	2 564 339	11.05
Taiwan Province of China	tw	2 777 085	2 170 233	27.96
France	fr	2 770 836	2 157 628	28.42
United States	us	1 757 664	1 735 734	1.26
Sweden	se	1 539 917	1 209 266	27.34
Denmark	dk	1 467 415	1 154 053	27.15
Belgium	be	1 454 350	1 052 706	38.15
United States Military	mil	1 410 944	1 880 903	-24.99
Mexico	mx	1 333 406	1 107 795	20.37
Organizations	org	1 332 978	1 116 311	19.41
Poland	pl	1 296 766	843 475	53.74
Finland	fi	1 224 155	1 140 838	7.30
Spain	es	1 127 366	1 694 601	-33.47
Switzerland	ch	1 018 445	723 243	40.82
Norway	no	1 013 273	589 621	71.85
Austria	at	982 246	838 026	17.21
Argentina	ar	742 358	495 920	49.69
United States Government	gov	676 595	607 514	11.37
Israel	il	634 001	230 167	175.45
Russian Federation	ru	617 730	477 380	29.40
Hong Kong, China	hk	591 993	398 151	48.69
Singapore	sg	484 825	338 349	43.29
New Zealand	nz	474 395	432 957	9.57
Turkey	tr	344 859	199 823	72.58
Czech Republic	cz	315 974	239 885	31.72
Hungary	hu	313 576	254 462	23.23
Portugal	pt	299 923	291 355	2.94
South Africa	za	288 633	198 853	45.15
Republic of Korea	kr	253 242	407 318	-37.83
Unknown	..	250 416	236 291	5.98
Greece	gr	245 650	202 525	21.29
Chile	cl	202 429	135 155	49.78
China	cn	160 421	156 531	2.49
Romania	ro	141 202	91 670	54.03
Colombia	co	115 158	55 626	107.02
Estonia	ee	113 154	109 643	3.20

<sup>2</sup> This assertion is merely indicative because it considers only the host advertised in the Domain Name System.

**Table 2.4 (continued)**

		2004	2003	% change
Ireland	ie	111 467	97 544	14.27
Malaysia	my	107 971	86 285	25.13
Iceland	is	106 296	68 282	55.67
Thailand	th	103 700	100 132	3.56
Slovakia	sk	98 788	80 660	22.47
United Arab Emirates	ae	97 200	56 679	71.49
Ukraine	ua	96 214	62 714	53.42
Uruguay	uy	87 630	78 660	11.40
India	in	86 871	78 595	10.53
Peru	pe	65 868	19 447	238.71
Dominican Republic	do	64 197	45 508	41.07
Indonesia	id	62 036	61 279	1.24
Cocos (Keeling) Is.	cc	58 296	35 684	63.37
Croatia	hr	53 333	40 933	30.29
Bulgaria	bg	51 424	29 257	75.77
Lithuania	lt	44 664	37 840	18.03
Philippines	ph	27 996	38 440	-27.17
Subtotal		232 470 584	171 150 038	35.83
World		233 101 481	171 638 297	35.81

Source: Unctad 2004, E-commerce and Development Report 2004 and Internet System Consortium 2004

**Table 2.5. Internet host by region**

	2003	% change	2002	% change	2001
Africa	348 699	43.40	243 171	-11.20	273 836
Asia	18 211 053	36.00	13 390 474	23.88	10 809 244
Europe	22 338 832	21.68	18 358 407	19.87	15 315 888
Latin American and Caribbean	5 897 866	38.79	4 249 420	24.92	3 401 580
North America	4 967 745	-95.80	118 305 940	8.45	109 083 612
Oceania	3 360 659	10.75	3 034 390	11.10	2 731 107
Developed countries	41 022 171	-72.08	146 943 541	10.79	132 631 004
Developing countries	11 457 617	32.19	8 667 836	17.71	7 363 438
Others	2 645 066	34.24	1 970 425	21.57	1 620 825
World	55 124 854	-65.02	157 581 802	11.27	141 615 267

Source: Unctad 2004, and ITU 2004

In particular the analysis on this year's ranking at regional level finds that North America is the area with more efficient and update technological environment, with a e readiness score of 8.38 up to 10, followed by Western Europe (7.87) and Asian Pacific region (5,60). Middle East and Africa is at the bottom, registering (4.42). See table 2.6

**Table 2.6: Economist Intelligence Unit e-readiness rankings, 2005**

**World regions**

2005 rank Region e-readiness score (of 10)\*

1 North America	8.38
2 Western Europe	7.87
3 Asia-Pacific	5.60
4 Central and eastern Europe	4.85
5 Latin America	4.74
6 Middle East & Africa	4.42

\* Each region's score is based on the e-readiness scores for each of that region's countries covered in our rankings

**Source: Economist Intelligence Unit, 2005**

As far as the 15 Euro Mediterranean countries partner of the project and first beneficiaries of the e marketplace resulting from it<sup>3</sup>, it is possible to divide them in two groups according to the e-readiness score recorded:

1. France, Spain, Italy, Portugal and Greece and Israel showed a complementarily in the ICT diffusion and knowledge and consequently e- business practices, since they are positioned very close in the overall ranking.
2. Turkey, Egypt and Algeria are near to the bottom in the overall ranking based on 65 world countries, at the 43, 53, and 63 position of the list respectively.

This figures demonstrates that despite rapid growth in the region, connectivity rates, and consequently, the use of e business in Middle East and African partner countries still lag behind those of other regions, and also behind some emerging countries such as China.

In conclusion, despite the potential benefits that can be offered by ICTs, it is evident that developing countries face significant obstacles to ICT connectivity and access. The underlying causes of low levels of ICT penetration in developing countries include a lack of awareness of what these technologies can offer; insufficient telecommunications infrastructure an Internet connectivity; expensive ICT access; absence of adequate legal and regulatory frameworks; shortage of requisite human capacity; failure to develop local language content; and a lack of entrepreneurship and business culture open to change, transparency, and social equity.

Political limitations and government's policy are also part of this frame.

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<sup>3</sup> Spain, France, Portugal, Italy, Greece, Israel, Turkey. This survey does not take into consideration Malta

## ***E-business in the global economy***

In the world of business, once there was a distinction between the different fields of management, production, sales and marketing. Today all these areas have merged, basically because of the process of integration and dissemination of information, which is spread mainly via the computer systems. Consequently, business tends to turn into e-business.

If you are considering doing business using the Internet, you will come across terms like *e-business*, *e-commerce* and *e-marketplaces*. There are no widely accepted definitions for these words, since they are interrelated.

### ***E-business***

In general, e-business is used in the broadest sense. It includes buying and selling on-line, but also other aspects of on-line business activity, such as purchasing, tracking inventory, managing production and handling logistics, customer support services, supply chain management and collaborative engineering.

### ***E-commerce***

Electronic Commerce, or e-commerce, is buying and selling on-line. It is part of the broader term e-business and involves transactions.

### ***E-marketplaces***

E-marketplaces can be described as virtual online markets where buyers, suppliers, distributors and sellers find and exchange information, conduct trade, and collaborate with each other via an aggregation of information portals, trading exchanges and collaboration tools.

E-marketplaces could be e-commerce only (when they offer only transaction facilities), but can also be e-business tools when solutions for integration with other internal processes are provided.

The introduction of these concepts has been considered useful to better understand the analysis contained in this chapter, thus avoiding possible misunderstandings.

We focus on the role played by e-business activity not only in the major industrialised economies, but also in developing and less developed countries, to show its relevance on the international business environment.

Our research is based on statistics and analysis from a number of publicly available international statistical sources.

In 1999-2000, the hype surrounding e-market was immense and it was predicted that software and services for handling transaction via web would transform the way companies do business. On an average one e-marketplace was being opened in every eight hours interval in year 2000.

Worldwide B2B Internet commerce surpassed US \$ 433.3 billion in 2000 and in 2001, it was estimated to reach US \$ 919 billion. By 2005 it was assumed worldwide e-markets would generate more than US \$ 8.5 trillion.

E-business is more on a consolidation stage now rather than booming, with e-markets showing strong growth but definitely not as predicted during the 1999-2000. E-markets generated around US \$ 1.41 trillion in year 2003 (US accounting half of the total) and are expected to generate US \$ 2.37 trillion in year 2004.

**Table 3.1: Some global B2B estimates and forecasts (Billions of dollars)**

	2000	2001	2002	2003	2004	2005	2006
Forrester	-	-	2160	3 875	5 904	8 823	12 275
IDC	282	516	917	1 573	2 665	4 329	-
eMarketer	278	474	823	1 409	2 367	-	-
Gardner Group	433	919	1 929	3 632	5 960	8 530	-

**Source: E-market Services 2005, Report on E-market development  
[www.emarketservices.com](http://www.emarketservices.com)**

As far as United States is concerned, the Official statistical data (US Census Bureau 2005) confirm the dominance of B2B transactions in that country's e-commerce. In 2003, B2B online sales in the United States amounted to \$ 8,296 billion, or 94 per cent of all e-commerce in the country.

The leading adopters are manufacturing industry, where e-commerce accounted in 2004 for 21, 1 per cent of the total value of shipments, and merchant wholesalers, with 12 per cent of total sales.

In the last bulletin from May 2005, the Census Bureau of the US Department of Commerce summarises the situation and main trends of e-commerce in the USA in 2003 and draws the following conclusions from its surveys:

- E-commerce, on a percent change basis, outperformed total economic activity in all four major economic sectors.
- Business-to-Business activity, which depends critically on Electronic Data Interchange (EDI), dominated e-commerce.

- All industry groups in each sector participate in e-commerce

As regards **European Union**, Independent estimates of the value of the e-business put it at between nearly \$185 billion and \$200 billion at the end of 2002. Forrester Research forecasts approximately \$520 billion (the original forecast in euros is €465 billion) for 2003, predicting that the amount would more than double to €945 in 2004 and would reach €2,219 billion in 2006.

According to this study, by 2004 B2B e-commerce would represent nearly 10 per cent of all trade between enterprises, a dramatic rate of growth considering that online trade was less than 1 per cent of all B2B trade in Europe in 2001. At the end of the period covered by the forecast, the industries with the highest percentage of B2B e-sales would be electrical equipment (40 per cent), logistics and storage (30 per cent) chemical, rubber and plastics (30 per cent), energy and utilities (28 per cent), mining and metals (27 per cent) and vehicle manufacturing (27 per cent). The largest volumes would concentrate in France, Germany and the United Kingdom, all of which, according to this study, would see at least 26 per cent of their business trade occurring online. In terms of intensity of use, the Nordic countries are expected to be ahead, with 17 per cent of their total B2B trade moving online by 2004, while Italy, Spain and to an even greater extent the other Southern European economies are expected to lag behind. These patterns respond to differences in average annual per-capita IT investment

While Sweden and Denmark spend on IT more than 150 per cent of the EU average of €588 per capita, Italy and Spain invest 57 per cent and 46 per cent of that amount respectively.

**In Central and Eastern Europe** (where 90 per cent of e-commerce takes place in just three countries, the Czech Republic, Hungary and Poland), B2B e-commerce amount to around \$4 billion in 2003. This could grow to \$17.6 billion by 2006. Although Internet access and use are now fairly common among enterprises in the three countries, particularly among the smaller enterprises, use of the Internet clearly remains at a pre transactional phase.

In the more dynamic economies of the **Asia-Pacific region**, adoption of e-commerce is more and more perceived by enterprises as the natural future of business. Governments in the region tend to prioritise the improvement of infrastructure and upgrading of skills that are necessary to participate effectively in the digital economy. As a consequence, B2B e-commerce has grown rapidly, from \$120 billion in 2002 to around \$200 billion in 2003 and it was forecasted it will reach \$300 billion by 2004 (Unctad,2003). In Japan 8.1 per cent of all enterprises used e-commerce in their business with other enterprises, twice as many as are using e-commerce in their interaction with consumers (National Statistics Bureau of Japan 2004). 4.6 per cent use e-commerce to take orders, 4.2 per cent to place orders, 1.8 per cent for after-sales services and 1.5 per cent for shipping or distribution.

Manufacturing, finance and insurance, wholesale and retail trade, general services, and transport and communications are the business sectors making above average use of B2B e-commerce (National Statistics Bureau of Japan 2002).

In China, a survey of a representative sample of enterprises in manufacturing, distribution and finance in several provinces found that 69.5 per cent had a Web site, 28.7 per cent had an extranet accessible by business partners, 21.9 per cent had an extranet which customers could access, and 25 per cent were using electronic data exchange (Unctad, 2003) After sales support, advertising and marketing, and exchanges of operational data with customers and suppliers are the most commonly cited uses of the Internet. Of the enterprises surveyed, 23 per cent were selling and 31.3 were buying online. For those who were doing B2B sales online, these sales represented an average of 2.1 per cent of their total sales. B2B e-commerce in **India** continues to be concentrated in exports of IT and other business services such as software development and support, call centres, medical record transcription and data mining. India's exports of software and IT services in 2002– 2003 reached \$9.5 billion, 26.3 per cent more than in 2001–2002. The Indian IT services industry is a clear success story that has been made possible largely by the adoption of e-business practices.

In **Latin America**, the volume of B2B e-commerce is driven essentially by developments in Brazil, Argentina and Mexico. In the Brazilian market, according to a measurement index that was launched in the first quarter of 2003, the value of all B2B online transactions in the first quarter of 2003 was R\$34 billion (approximately \$11.6 billion) (UNCTAD, 2003). This represents a significant departure from previous estimates from the same source that calculated the total value of Latin American B2B e-commerce at \$6.5 billion in 2002 and predicted it would reach \$12.5 billion in 2003. In the later estimates, online transactions between businesses and government entities in Brazil were said to amount to \$1.2 billion in 2002 and forecast to rise to \$2.6 billion in 2003. The 30 largest Brazilian companies account for 90 per cent of all Brazilian B2B e-commerce, and therefore for a significant part of all Latin American B2B e-commerce ( E-Consulting 2003).

As for the smaller markets in the region, Chile's B2B e-commerce amounted to \$2.47 billion dollars, or 1.6 per cent of all trade between businesses in the country. B2B e-commerce in that country has grown by 75 per cent compared to 2001 and is almost eight times greater than it was in 2000 (UNCTAD, 2003). E-Commerce and Development Report 2002, **African B2B e-commerce** in 2002 was forecast to amount to \$0.5 billion in 2002 and \$0.9 billion in 2003. South Africa was expected to account for 80 to 85 per cent of these amounts (Forrester Research 2001).

In conclusion we can affirm that, despite national specificities, on the whole, the state-of-play in e-business and e-commerce appears to be very similar in North Europe, the USA, and Japan. Statistics from all these countries show comparable adoption levels and confirm that differences are mainly a function of firm-size and business.

On the contrary, if we compare the figures of the developing countries mentioned, it is evident that Middle East and Africa lag behind both industrialised and less industrialised countries, thus confirming the digital divide deeply analysed in the *Unctad E-commerce and Development Report 2004* and *The digital divide: ICT development indices 2004*.

Nowadays, a major challenge for policy-makers at the national and international level, therefore, lies in addressing the issue of the digital divide: between rich and poor countries, rural and urban areas, men and women, skilled and unskilled citizens, and large and small enterprises.

Emed-B2B.biz offer partners' institutions a high technological device, but also user-friendly, that has all the essential requirements a great to reduce this digital divide.

### ***Advantages of E-business***

Companies are different and not all industries are (yet) suited to e-marketplaces. However, using e-marketplaces for international trade as a buyer or seller can have the following advantages:

- Trading on e-marketplaces can provide market transparency, since the availability, prices, stocks, delivery times and payment terms of products will be shown on the e-marketplace. Companies are able to make business decisions based on more information, provided however that sufficient buyers and suppliers really use it for their trade.
- The use of e-marketplaces may simplify international business, as e-marketplaces make it easier to effectively buy and sell products in their local country and abroad. It is easier for companies to reach their target groups and they do not have to spend lots of money on marketing.
- Internet can easily be used as a marketing channel in order to disseminate product and company information to a large number of potential buyers.
- E-marketplaces can remove time and space limitations, as trade is possible 24 hours a day and 7 days a week. None of the trading partners have to travel, as they have the possibility to negotiate from their own office, which means considerable time saving.
- Benefits gained from e-marketplaces differ between industries and companies.

A distinction can also be made between the benefits for sellers and buyers.

#### **Benefits as a seller:**

- Market where introduce new products
- Access to a tool where you can update product information in one place, which is accessible to all customers using the e-marketplace

- Get requests for quote on your products from new and current customers
- Be able to take orders over the internet without creating or implementing an e-commerce solution on your own website
- You may obtain a first-mover advantage when you approach other large companies in a purchase-oriented e-marketplace, until most of your competitors are there
- Reduce excess capacity and stock and get the best market price
- Learn about new markets
- Reduce administrative overheads
- Monitor competitors
- Monitor how the development of e-marketplaces changes the value chain in an industry

**Benefits as a buyer:**

- Efficient way to search, compare and purchase products
- Each transaction can save you time and money.
- Automated business processes mean fewer man-hours are spent on paperwork
- Reduced price - updated information on availability and prices makes it possible to select the best offer

In some cases, e-marketplaces totally change the way you do business. It is very important for companies operating internationally to learn how the e-marketplaces in their industry function. Large industry players, who commit to trade substantial volumes, back many e-marketplaces. Mostly competing companies are members of the same e-marketplaces. E-marketplaces are useful tools for both large and small companies.

Considering the positive impact of e-business in the economic performance of a country, it is possible to state that our product Emed-B2B.biz is the innovative device that can give new impetus to the national economies of the Mediterranean area, since it can guarantee the a global visibility in worldwide markets. However, despite the understanding of the excellent performance of electronic platforms we are deeply convinced of the excellent performance of our electronic platform in the e-business environment, there are some constraints in our countries that hinder the successful implementation of the product.

*Implementing  
Emed-b2b.biz*

## *The use of ICT in the Euro Mediterranean Countries*

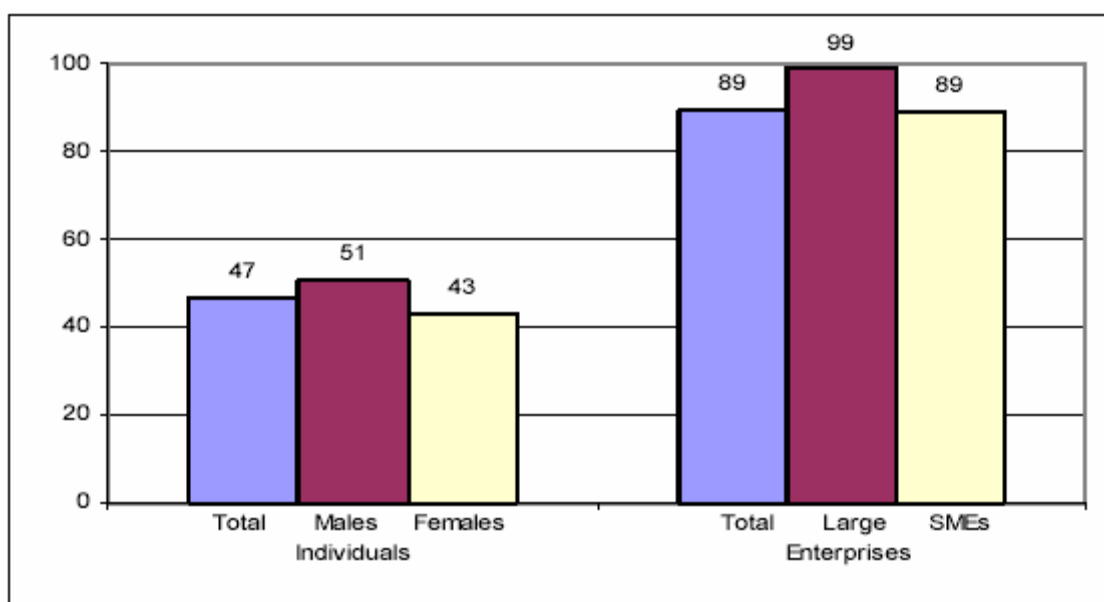
### *Internet usage in EU household and enterprises*

The ICT household and enterprise survey run by Eurostat, measures the rate of take up of this technology and the use made of ICTs<sup>4</sup>.

Main points raised in the 2004 Eurostat survey are:

- SMEs are lagging behind large enterprises in Internet use
- There is a gender gap in Internet use overall, but this narrows in the 16-24 age group.
- Enterprises interact via Internet more than individuals
- Almost half of the enterprises with more than 250 employees purchase via the Internet

*Figure 4.1 - Use of the Internet by Individuals and Enterprises– EU 25\*, 2004*



**Source: Internet usage by individuals and enterprises 2004, Statistics in focus 2005**

\* Excluding: Individuals: BE, CZ, FR, IE, MT, NL, SK; Enterprises: FR, LV, LU, MT, SK

<sup>4</sup> Source: Eurostat, Community survey on ICT usage in households and enterprises

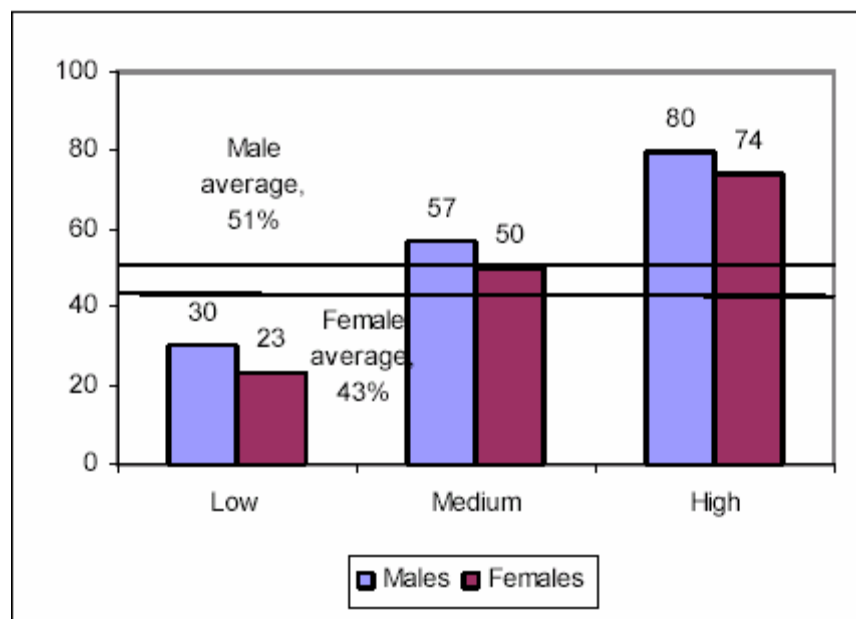
## *Household Internet Usage*

Internet use is influenced by three main factors:

- employment level
- educational level
- gender.

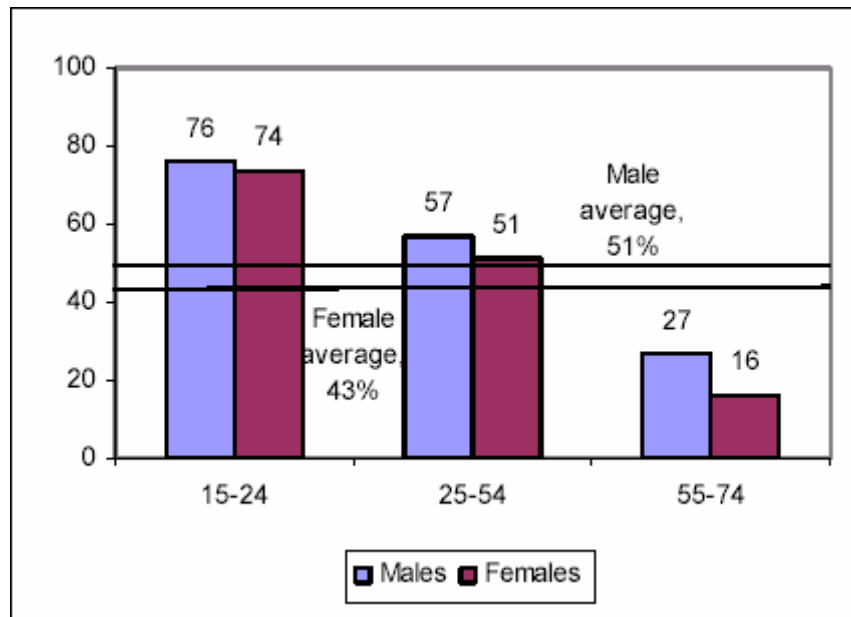
Despite, the average level of Internet usage in EU25 amounted to 47% in 2004, it has been observed a difference in usage of around 7 percentage points between males and females and throughout all education levels. The gap between the sexes is much less marked, only 2 percentage points, for the age group 16-24 years, although this widens in the higher age categories.

**Figure 4.2: Use of Internet by sex and educational level, 2004. EU 25\*, 2004 (%)**



Source: Eurostat, Statistics in focus 2005; Internet usage by individuals and enterprises 2004

Figure 4.3: Use of Internet by sex and age, 2004. EU 25\*, 2004 (%)



Source: Eurostat, Statistics in focus 2005; Internet usage by individuals and enterprises 2004

### *Enterprises Internet Usage*

Table 4.1 shows that in most countries Internet penetration in large enterprises has reached the saturation point. When comparing Internet use between the different size classes, it can be seen that Belgium, Denmark, Finland and Sweden show the smallest gap between SMEs and large enterprises, while in southern countries- Italy, Spain, Portugal, Greece- this gap is still significant.

In particular, figures reported in the Eurostat Report 2004<sup>5</sup>, show that, in 2001, approximately one-third (30%) of enterprises with an Internet connection used it, at least once, to make e-purchases. The importance of this channel for purchasing appears to depend greatly on the sector concerned and on the country. For example in Spain and Italy only the 8% and 10 % of Internet connected firms made e-purchasing, while in Germany (45%), the United Kingdom (47%), Denmark (49%), Finland (54%) and Sweden (62%), half or more of the firms connected to the Web purchased via the Internet.

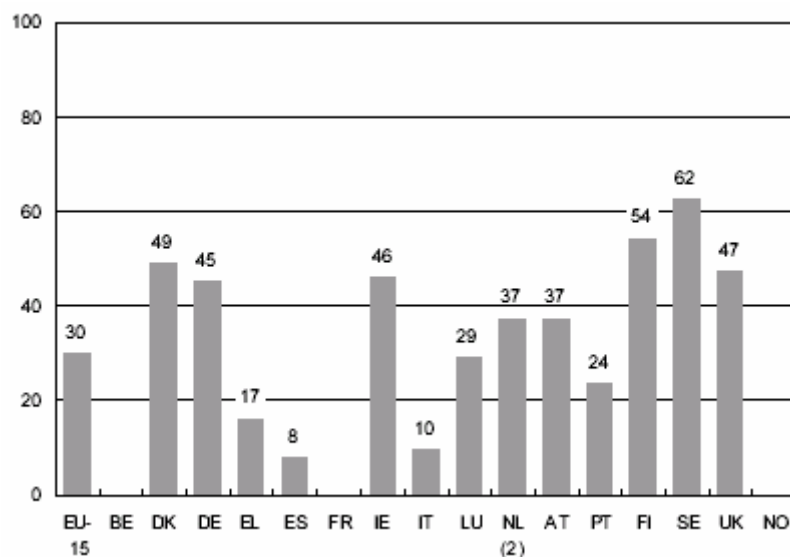
<sup>5</sup> E-commerce and the Internet in European business (2002): Report on the result of the “ ICT usage of enterprises 2002” survey. Eurostat, February 2004

Table 4.1 Europe: Proportion of enterprises using the Internet, beginning 2004 (%)

	Total	SME	Large	D	F	G	H	I	K	O
	Size			NACE						
EU25	89	89	99	89	88	88	81	89	94	96
EU15	90	90	99	90	89	89	81	90	94	96
BE	96	96	99	96	98	95	96	94	99	100
CZ	90	90	99	91	88	89	94	88	92	95
DK	97	97	100	99	97	97	97	93	99	:
DE	94	94	100	92	96	92	94	91	97	99
EE	90	90	98	89	90	90	89	89	94	100
EL	87	87	100	84	92	89	83	93	90	100
ES	87	87	99	85	83	92	93	89	91	95
FR	:	:	:	:	:	:	:	:	:	:
IE	92	91	100	95	95	88	86	88	95	:
IT	87	87	98	87	87	86	95	86	90	95
CY	82	82	100	77	72	87	91	72	97	100
LV	:	:	:	:	:	:	:	:	:	:
LT	81	80	99	75	81	83	78	81	88	100
LU	:	:	:	:	:	:	:	:	:	:
HU	78	77	97	76	77	75	94	79	83	84
MT	:	:	:	:	:	:	:	:	:	:
NL	88	88	97	91	83	89	95	82	91	91
AT	94	93	100	94	92	94	96	89	96	95
PL	85	85	100	84	82	85	83	89	92	96
PT	77	77	100	77	62	79	95	89	94	100
SI	93	93	100	94	82	95	100	95	98	100
SK	:	:	:	:	:	:	:	:	:	:
FI	97	97	99	98	95	99	100	91	98	100
SE	96	96	100	97	96	96	98	87	98	100
UK	87	86	99	94	90	81	63	93	93	85
IS	:	:	:	:	:	:	:	:	:	:
NO	86	85	96	89	90	77	98	88	92	100
BG	62	61	94	56	69	60	73	69	74	92
RO	52	50	90	50	48	52	69	58	62	79
TR	:	:	:	:	:	:	:	:	:	:

Source: Eurostat 2005, Statistic in focus

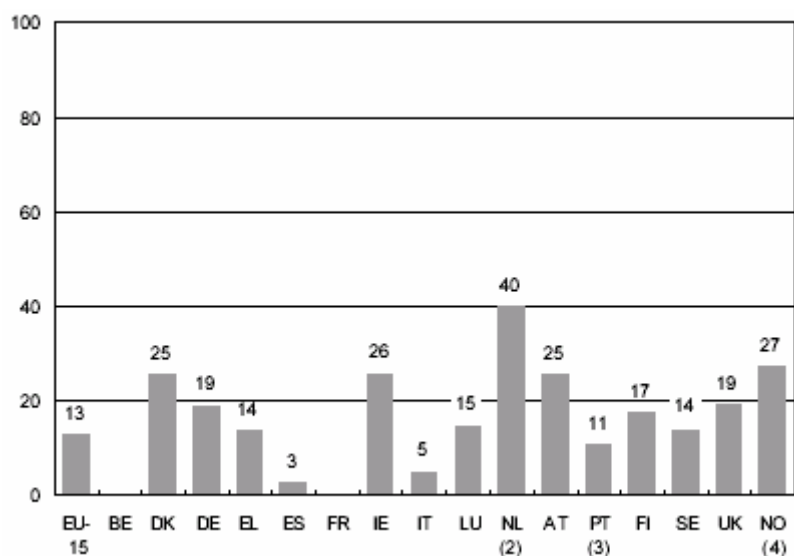
**Figure 4.4 EUROPE Enterprises using Internet: proportion having purchased via Internet, 2001 (%)**



Source: E-commerce and the Internet in European business (2002): Report on the result of the “ ICT usage of enterprises 2002” survey. Eurostat, February 2004

As far as e-sales are concerned, the proportion of Internet connected enterprises having made e-sales in 2001 was considerably lower than that had made e-purchases. In most countries the proportion of Internet connected enterprises that had sold via Internet was between 14% and 26%, with Spain (3%), Italy (5%) and Portugal (11%) below this range. The survey also allows the analysis of Internet sales in terms of type of customers. The majority of Internet sales were to business consumers in every member’s states, a part from Germany, where sales to business and consumer clients were almost equal.

**Figure 4.5: Europe, Enterprises using Internet, proportion having sold via Internet, 2001 (%)**



Source: E-commerce and the Internet in European business (2002): Report on the result of the “ ICT usage of enterprises 2002” survey. Eurostat, February 2004

Finally, the survey pointed out one notable development in e-commerce: the emergence of specialised B2B market places, aiming at facilitating transactions between enterprises.

Approximately, only one out of four enterprises, buying via Internet in 2001 had made purchases from such a marketplace. In most countries, the proportion of Internet sellers, specialised in B2B market places, is even lower amounting at more than one out of ten firms.

In conclusion, figures above show that, whilst the Internet connection was widely spread either among individuals or large and small enterprises, there is an evident lack of understanding of the potential resources and benefits of doing business via Internet.

It may depend on the lack of knowledge and education of using electronic means to conduct affairs, or it may be attributed to culture and confidence in using innovative digital divided.

In order to address all these potential barriers to e-business, European Commission set up the eEurope 2005 Action Plan, aiming, among others, at giving everyone the possibility to participate in the global information society.

It is widely recognised that technological developments will provide citizens with more convenient access to information and communication tools as well as increased choice of goods and services. In addition, businesses can equally benefit through the take-up of ICTs to make efficiency gains as well as reach a wider customer base and boost competitiveness.

We will introduce some case studies on Euro Mediterranean countries, which thanks to the technological development succeeded in exploiting the benefits coming from e-business.

### *Some Success Stories*

This paragraph examines five ‘success stories’ in ICT development and Internet take-up in some key Euro-Mediterranean Countries: Egypt, Tunisia and Malta.

#### **Egypt**

From 1999 to 2004 the ICT diffusion in Egypt rose strongly up. Monthly Indicators 2004 show that in few months, from May 2004 to December 2004 the Internet Users has grown rapidly, shifting from 3.3 million to 3.9 million.

One of the main contributors of this technological upgrading is the Egyptian Ministry of Communication and Information Technology (MCIT), which has already taken considerable action and made real progress in expanding ICTs access in Egypt.

Since MCIT creation in October 1999, ICT infrastructure in Egypt is being expanded and upgraded under Masterplans I (2000-2004) and II (2004-2007), which aim to provide nation wide connectivity in an integrated telecom network and backbone. Under Masterplan I, fixed mainlines increased to 11.5m

subscribers in 2004. Under Masterplan II, wireless and wire-line technologies are supposed to be combined and access services liberalized to attract private investment. Most significantly, the Ministry abolished Internet subscription charges in January 2002, so Internet prices now cost the same as a local call, making Internet prices in Egypt among the lowest in the world at Egyptian Pounds 1.25 or US18 cents per hour<sup>6</sup>.

As a consequence of the introduction of the Subscription Free Internet Initiative the 68% of Internet users have started to connect to the Web more frequently.

Furthermore, the Ministry has launched several programmes for skills development to meet the needs of the IT sector. A Professional Training Programme was launched in 2000 in collaboration with Cisco systems to train 25,000 IT professionals and 5,000 engineers. Training academies have been established for skilled IT professionals.

On the other hand, as regards the use of Internet in enterprises, a recent study, carried out by the Egyptian Ministry of Communications and Information Technology (MCIT) in collaboration with InfoDev program of the World Bank, found that almost 100 per cent of the Egyptian enterprises are connected to the Internet and use e-mail. SMEs use Internet basically for external communication with suppliers and customers via e-mail, and to a slighter extent for research and marketing. E-commerce was found to be of less importance for the development of their sales and marketing. Companies declared that the lack of qualified personnel was the main barrier to further development of ICTs, but in the meantime they were reluctant to invest in staff training since they might not be able to retain these investments. Other reasons included the perception that there was no need to use ICTs to carry out many of the smaller operations.

These findings confirm that, despite both the public and the private sectors engagement, further efforts are needed, in particular as far as the community cultural education and training is concerned.

## **Tunisia**

According to recently published economic indices, Tunisia occupies a leading position among developing countries with respect to its development of ICTs and competitiveness. This in part reflects the efforts made by the Tunisian Government to implement ICT policies on infrastructure, institutions, legislation and education, and to create a supportive environment for the adoption of ICTs. The Government looks more and more determined to develop Tunisia into a knowledge-based society.

Tunisia e-strategy for the national ICT development is embedded in the Government's five-year plans for national economic and social development, which give high priority to ICTs .

From 1997 to 2001 the Tunisian Government invested US\$ 1 billion in ICT infrastructures, including telephone networks, Internet, and other digital communication network. It is important to note that significant progress has been achieved in national telephony. During this period the combined number

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<sup>6</sup> United Nations 2005: *The digital divide: ICT development indices 2004*

of fixed line and mobile phone subscribers per 100 inhabitants increased from 6.5 in 1997 to 15 in 2001. Furthermore, thanks to the progressive liberalization of the market for mobile communication, the costs for mobile phone calls are significantly lower than in most other Arab countries.

As far as Internet access is concerned, there are currently 12 Internet service providers (ISPs) in Tunisia. The Government established a number of public ISPs to exclusively connect certain public institutions and to make the Internet accessible to sectors of particular importance for the economy, even if the average access for the rest of the country remains very low. Private Internet access has improved constantly over the past years and several large private ISPs have entered the market.

As a result, the number of Internet users out increased from 110 in 1997 to 631,000 in 2003. However, with 0.35 (2002), the number of Internet hosts per 10,000 inhabitants is still low by international comparison<sup>7</sup>.

In conclusion, despite the Government's engagement and the consistent investments, the country still ranks internationally below average regarding the availability and quality of telecommunication and Internet access.

## **Malta**

The latest survey run by the National Statistics Office (NSO) reveals that Maltese enterprises make widespread use of information and communication technologies (ICT), which has given a great contribution to their productivity and turnover. The study found that 97 per cent of small enterprises make use of ICT, while all companies, employing more than 250 people, use ICT.

The use of internet as part of the job is, however, low at 30 per cent, with the smaller companies in the top position with 30.3 per cent as opposed to the 19.4 per cent of the large enterprises.

The majority of the enterprises considered in the survey, the 55, 8 per cent, have installed ICT systems for orders and purchases, and 21.6 per cent do online purchasing.

A relevant result comes out the survey, online sales and purchases have a significant impact on the Maltese companies' turnover.

As far as e-sales are concerned they represent on average 13.4 per cent of total turnover. What is interesting to note, is that the smaller companies (10-49 employees) lead the way with 16.6 per cent of e-sales on their whole revenues, followed by 9 per cent for the companies with 50-249 employees and a mere 2.8 per cent for companies with more than 250 employees.

As regards e-purchases, they amount, on average, to 17.9 per cent of total companies' purchases. Smaller enterprises' e-purchases are 21.4 per cent of the total purchases, followed by 7.7 per cent and 3.8 per cent for medium-sized and the large companies respectively.

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<sup>7</sup> E-Commerce and Development Report 2004. Assessing competitiveness in the ICT Sector: the case of Tunisia. Unctad Pag.188

The survey reveals that, on average 73 per cent of these enterprises, have a website, which is used mainly for marketing purposes and for providing catalogues and price lists. Only 6.3 per cent of this firms resulted to use it to deliver digital products.

Comparing some of these results to the data from other European Union countries, the survey points out that Malta's 97 per cent use of ICT in enterprises is near Finland's 99 per cent. Malta's e-sales represent 20 per of turnover, second to Denmark's 25 per cent and far ahead of Italy's languishing 5 per cent. However, Malta has a lot to catch up in electronic purchasing. Malta's 22 per cent is far below Finland's 54 per cent and Denmark's 45 per cent, though our neighbour Italy scores a mere 10 per cent.

Internet use by Maltese enterprises is different to that in other countries. While Maltese companies have, on average, comparable use for marketing purposes, they lag behind in the use of Internet for financial services and for the reception of digital products.

Notwithstanding this high level data, there are areas where Maltese business shows lack of appreciation of the potential resources and benefits. For instance, only one out three enterprises offer online supports to its customer or use the Web for after sales services or training the staff. In addition, there is small perception of the significant saving of doing purchasing.

## Spain

Following a survey carried out, this year, by the Instituto Nacional de Estadística (INE) **the use of ICTs in household** is continuing to expand.

The survey found that in the second quarter of 2004, 48,1% of Spanish households had a computer, in comparison with 43,3% in 2003. Among them, 30,8% (4.544.751 households) have access to Internet from home, compared with just 25,2 per cent in 2003.

Today, 6 out of 10 houses that have a computer use Internet regularly. This proportion should grow since there are 2,6 million Spanish households that have a computer but are not connected to Internet.

As regards the type of connection, even if the majority of Spanish households (52,9%) connect to Internet through fixed-line telephones, in 2004 34,3% of households opted for an Internet connection via ADSL, compared with 24,2% in 2003.

Overall, in 2004, 16.427.421 of Spanish people used the computer and 13.534.664 of these are connected Internet.

Furthermore, it was estimated that, in the same period, Internet users connected to Internet with a very high frequency. On average, 45,2 per cent of households connect to Internet at least once per day, a third (32,5%) used the net at least once a week and only 22,2 per cent used it occasionally.

E-mail is the most widely used application (75,5%), followed by the Web being used to search for specific information (73,2%) and obtaining information from public authority websites, or visiting news sites.

Despite the increase in Internet users, e-commerce has not taken off in Spain. Only 5 percent of Spanish Internet users bought goods or services online in 2004. Among the adults who bought on Internet, the most common purchases resulted to be travel, accommodation or holidays (43,2%), tickets for events (30,9%), videos or DVDs, music or CDs (24,7%).

Even if 70 per cent of the Spanish user paid by credit card, they are still worried about how safe it is to use their credit cards in online transactions, and as many as 32,4 % seek alternative types of payments (e.g. pay on delivery).

As far as the **use of ICT in Spanish enterprises**, another INE survey calculated that 87,4% of enterprises with 10 or more employees have access to Internet in 2003 compared with 81.6% in 2002, according to the survey of the Information and Communication Technologies (TIC) and electronic trade. As an innovation, this year the survey has studied financial institutions separately (sections J of the CNAE 93). In addition, it includes modules about security problems related with the use of TIC.

As consumers of Internet services the majority of the enterprises use Internet to have access to financial services (91%) and information on market trends.

Considering the variety of TIC, it is important to emphasize that computer use is increasing in almost all Spanish enterprises with 10 or more employees (exactly 96.5%). 57.8% of these enterprises have a local area net (LAN). Therefore we can appreciate a growth of more than twice the percentage of enterprises that have a local area net without cables.

As regards the type of Internet connection, 81.2% of the Spanish enterprises opted for an internet high speed connection (19% more than in 2002). The most used technology to connect to internet is XDSL (78.3%). On the contrary, other technologies such as modem (36%) and RDSI (29.5%) have suffered little change in comparison with the previous year.

45.5% of Spanish enterprises with Internet connection had a web page in 2003, 4,9% more than the previous year. The web pages are mainly used to sell their own products (87.3%) and also to facilitate access to catalogues and prices lists (53.9%).

In 2003, 3% of enterprises sold their products using electronic trade, for an amount equal to 33.307 million euro, that is 33% more than in 2002. The enterprises that experienced higher e-sales volumes are: hotel and camping sites, (16.3%), audiovisual services (14.7%), editing, graphic arts (7.5%).

The sectors that recorded higher percentage of sales through electronic trade are: food, beverage and tobacco; textile industry, tailoring, shoes, leather, timber and cork; paper (7.4%); machinery and mechanical equipment, electronic, electric and optical material; transport material; manufacturing industries (6.8%); petrol refining; chemistry; rubber and plastic materials (4.9%)

It is important to note that, most of the e-sales were carried out among enterprises (business to business). B2B represented 84.4% of the sales, while e-sales to the consumer (business to consumer) amounted at 15.6%.

As regards the geographical destination, it is found that 87.4% of the sales had Spain as a destination. While sales to other EU countries represented 10.7% of the total.

According to the survey, there are diverse reasons why the enterprises sell their products by Internet:

- to improve the image of the company, (55.2%),
- to access new clients(52.5%),
- to be competitive (49.1%),
- geographical expansion of the market (48.3%).

However, enterprises interviewed, confirmed that doing business by internet has its obstacles:

27.2% of the companies using Internet as an alternative mean to sell their products stated that, the safety of the payments is the main problem they have to solve.

In the case of enterprises that do not sell through internet 47.7% say that their products are not suitable to be sold via internet.

## *Conclusions*

On a whole, we can affirm that most of SMEs in the Euro Mediterranean region are connected to the Internet. Access to Internet is not a major problem for these firms – even if connections in some cases are mostly slow. Much more difficult is to fully integrate the companies' business using ICTs.

A number of common needs may be identified among Euro-Mediterranean countries, which if met could help SMEs to increase their use of ICTs and the Internet. The most important need, with regard to the use of ICTs, is the importance of training employees. It follows, in order of importance, the improvement of connectivity speed and security, the supply of better hardware and software and other technical requirements.

On the other hand, the divide between Northern European and the Euro-Mediterranean countries is not only due to technological reasons but also to cultural ones. The facts that, in our region businessmen prefer to conduct their affairs by a physical presence is more due to cultural habits than to the capability to use electronic means. Therefore, the low level of doing business by Internet must be attributed both to the skills and knowledge and to culture and confidence.

In this frame, the public and private sectors contribution is fundamental.

Firstly, they should engage in activities focus on equipping out business community with tools, processes and services that form the productive foundation of a knowledge based economy. No single action plan can be generalised to fit all possible modes of business in an entire economy. Multiple plans are to be developed in order to better address the needs of key business sectors.

A device maybe the establishment of dynamic electronic market places helping find and establishing new strategic partners and conduct business more efficiently within a secure and cost-effective environment.

A further problem to be address is the missing of confidence and trust in the innovation technology. Institutions, therefore, should stimulate this confidence across all business environments, and in particular, among clients and customers whose wariness may be the cause of seller scepticism.

The second stream of activities is concerned with raising awareness with seller and buyers alike of the availability of doing business electronically. Here the importance of e promotion

A chance of getting more familiarity with e-marketplaces is offered by the organisation of National Conferences, workshops in industrial districts to meet companies from different enterprises, trainings to small and medium to help them integrate ICT's in their value chain and the promotion of focused public education campaigns.

An e-promotion when is managed by a public sector subject gives more guarantees to the participants referring to the choice of the e-marketplace, to the marketing and visibility of the actions, and to the financial investment. In addition, when we manage an e-promotion, we not only make companies join an e-marketplace, but we also assist them and give advices about how to act. This is very important to those companies that don't have an inside human resource able to manage new tools.

Finally, when during workshops we offer witnesses from companies or e-marketplaces manager or consultant, companies have the chance to learn more about business chance and, at the same time, can highlight their problems and ask for help.

Finally, another important effort should be to support the business sector in overcoming the exiting barrier to growth. In this framework, in particular attention should be given to the development of E-government programmes focused on business matters, that make easier, simpler and quicker do business with the Government.

### ***E-Market Saturation***

Another constraint to take in to account for the successful implementation of our electronic platform is the level of saturation of the market in which Emed-B2B.bis has to be launched.

Nowadays, there are about 1 000 e-marketplaces for businesses spread throughout the world, but only a handful have the participation of the world's biggest companies and handle large trading volumes. Suppliers interested in exporting should be aware that these e-marketplaces are potential sources of new customers, and access routes to global supply chains.

In order to assess the E-market saturation in the agrifood sector, thanks to the information provided by the website [www.emarketservices.com](http://www.emarketservices.com), it is possible to make a survey on the number and placement of food and beverage e-market platforms.

Sorted according to the industry category, Table 3.1 shows that, today, there exist 54 e-marketplaces out of 890, distributed all over the world, where it is possible to exchange agrifood product. It is a high proportion if we consider the number of all the industries involved. After, Multiple Industry E-market that are 196<sup>8</sup>, the food and beverage sector is characterised by the highest number of operating e-marketplaces. These are vertical e-marketplaces that is B2B web site dedicated exclusively to the exchange of food and beverage products, such as [www.agrelma.com](http://www.agrelma.com), [www.foodservice.com](http://www.foodservice.com), [www.foodtrade.com](http://www.foodtrade.com), and [www.horeca.net.com](http://www.horeca.net.com).

On the other hand, sorting them according to their geographical distribution, enable us to evaluate more precisely the possible competitors that our product may find at regional level.

In Africa, there are 5 e-market platforms for the food and beverage industry with a global focus. In Middle East the research give negative results. As far as Europe is concerned, food and beverage E-Markets amounts to 35, almost the  $\frac{3}{4}$  of the overall e-market platforms of the sector.

Finally, it is interesting to know that the eMarket Services report on more significant markets, have enlisted two E-market on food and beverage industry among the 26 platform, well known globally in their industries and/or with significant global traffic.

According to these findings, it is possible to affirm that among other sectors the food and beverage e-markets have recorded the most successful experiences. At the same time, the continuous proliferation of electronic platforms specialised in the agrifood sector raise concern about the competitive environment with which EmedB2b.biz have to tackle once launched and the potentiality of success that it has. What makes us self-confident of the great potential of success of our product is the fact that in few are the e-marketplaces operating in the Euro-Mediterranean region, located basically on South European countries and with a very limited focus. On the other hand, it is important to state that our region has a comparative advantage in the agricultural production, unfortunately under exploited because of diverse inefficiencies.

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<sup>8</sup> These are horizontal e-marketplaces, such as *agribus.com*, *globalfoodexchange.com*, *foodtrader.com*, where it possible to exchange multiple product typologies.

**Table 4.2 E-market worldwide distribution sorted by industry**

<b>All E-markets (890)</b>	
<u>Advertising &amp; Media (5)</u>	<u>Industrial Machinery &amp; Equipment (48)</u>
<u>Agriculture (40)</u>	<u>IT Products &amp; Services (57)</u>
<u>Arts &amp; Entertainment (7)</u>	<u>Maritime products and services (16)</u>
<u>Automotive (24)</u>	<u>Metal &amp; Mining (27)</u>
<u>Aviation (20)</u>	<u>MRO (Maintenance Repair Operation) (54)</u>
<u>Biotechnology (13)</u>	<u>Multiple Industry E-marketplaces (196)</u>
<u>Building &amp; Construction (58)</u>	<u>Office Equipment (25)</u>
<u>Chemicals (35)</u>	<u>Other Industries (10)</u>
<u>Defence (10)</u>	<u>Packaging (12)</u>
<u>Education &amp; Training (8)</u>	<u>Paper &amp; Pulp (11)</u>
<u>Electronics &amp; Electrical products (49)</u>	<u>Plastics &amp; Rubber (18)</u>
<u>Energy &amp; Fuels (37)</u>	<u>Pre-owned / Second-hand goods (31)</u>
<u>Environment (12)</u>	<u>Printing (8)</u>
<u>Excess Inventory &amp; Barter (24)</u>	<u>Real Estate (13)</u>
<u>Finance &amp; Insurance (28)</u>	<u>Retail &amp; Consumer Goods (35)</u>
<b><u>Food &amp; Beverage (54)</u></b>	<u>Science &amp; Engineering (9)</u>
<u>Forestry &amp; Wood (17)</u>	<u>Services (27)</u>
<u>Geographical Focus (2)</u>	<u>Telecommunication &amp; Bandwidth (21)</u>
<u>Government and Public Sector (58)</u>	<u>Textiles &amp; Leather (45)</u>
<u>Healthcare &amp; Pharmaceutical (42)</u>	<u>Transportation &amp; Logistics (50)</u>
<u>Hospitality &amp; Leisure (14)</u>	

**Source: E-market services 2005, E-Market Directory [www.emarketservices.com](http://www.emarketservices.com)**



*Emed-b2b.biz*  
*Opportunities and*  
*Challenges*

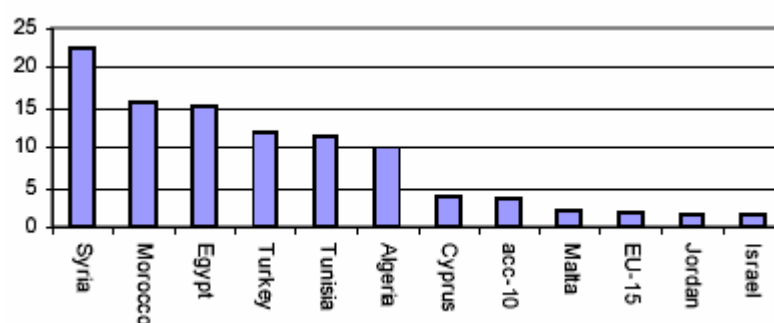
## *The importance of the agrifood sector in the partner countries*

Agriculture in the Mediterranean region has an economic and social role that goes well beyond its primary function as a supplier of food products. In some Mediterranean countries agriculture still accounts for a high proportion of GNP and employment and helps to reduce poverty, restrict emigration and protect the environment.

As matter of fact, the primary sector contributes a large slice of most Mediterranean partner countries (MPCs)<sup>9</sup> GDP.

In 2001, for example, it accounted for 10-15% of total GDP for the Maghreb countries, Egypt and Turkey, compared with 2% of EU-15. (figure 3.1)

**Figure 5.1. Share of agriculture value added as % of GDP, 2001**



**Source. Eurostat 2004, Statistics in focus: Euro-Mediterranean trade in agricultural products.**

In addition, in the same period, Agriculture provides with a high proportion of jobs in most MPCs: over 20% in Algeria, Syria and Tunisia, 35% in Turkey and 45%.

The figure for EU-15 is approximately 4,5% and for the new members countries 13.3%

Alternating years of drought and good harvests often result in highly irregular growth in agricultural value added in the MPCs. Given the sector's importance in employment terms, this vulnerability of the MPCs to climate conditions undermine their economy.

## ***MPCs World Trade***

During the period from 1999 to 2004, Mediterranean countries continued to suffer from trade dependence from foreign countries.

<sup>9</sup> The Mediterranean countries are *Algeria (DZ), Cyprus (CY), Egypt (EG), Jordan (JO), Israel (IL), Lebanon (LB), Malta (MT), Morocco (MA), Syria (SY), the Gaza Strip and the West Bank (PS), Tunisia (TN) and Turkey (TR).*

As a matter of fact, throughout the period considered, MPCs imports were always higher than their exports, and trade balances, fluctuated from a maximum of – 55.728 million of euro in 2000 to a minimum of -28.429 million of euro in 2003.

**Table 5.1: Mediterranean countries Trade with the World**

**Mediterranean Countries, Trade with the World**

Year	Imports	Yearly % change	Exports	Yearly % change	Balance	Imports + Exports
1999	123.862		83.654		-40.209	207.516
2000	171.012	<i>38,1</i>	115.284	<i>37,8</i>	-55.728	286.296
2001	150.651	<i>-11,9</i>	117.942	<i>2,3</i>	-32.709	268.594
2002	163.546	<i>8,6</i>	122.693	<i>4,0</i>	-40.853	286.239
2003	164.172	<i>0,4</i>	123.178	<i>0,4</i>	-40.994	287.350
9m 2003	120.431		92.002		-28.429	212.433
9m 2004	141.952	<i>17,9</i>	101.056	<i>9,8</i>	-40.896	243.008
Average annual growth		<i>7,3</i>		<i>10,2</i>		<i>8,5</i>

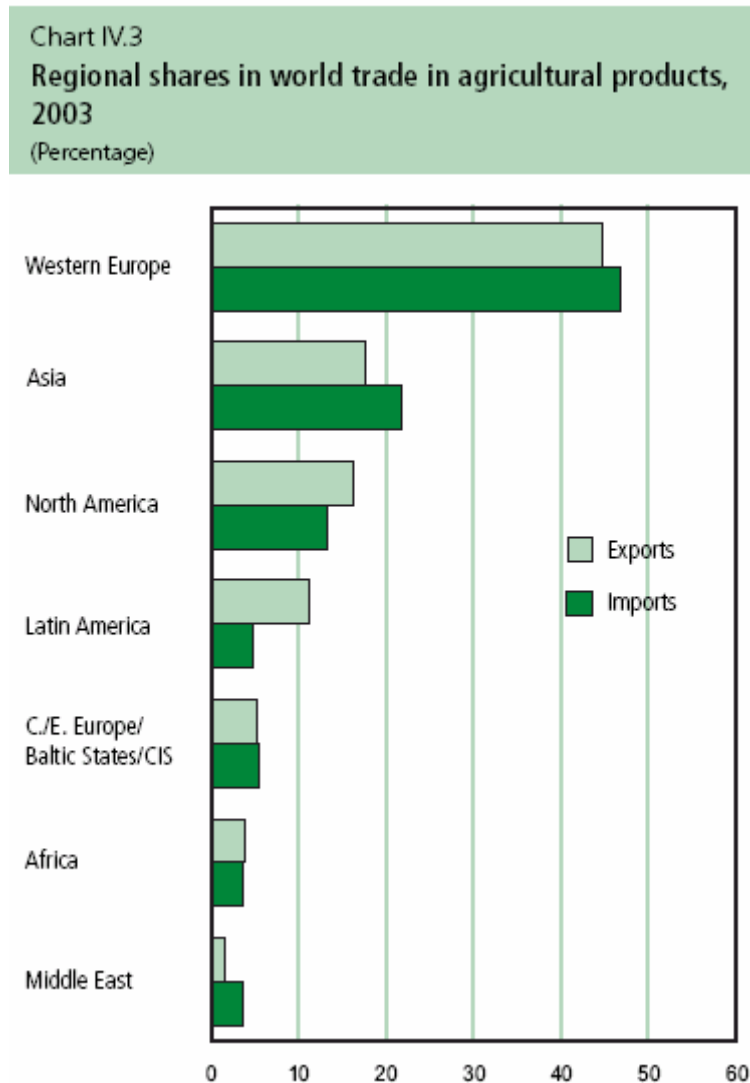
**Source: EU 2004 , Meda Trade Statistics**

**<http://europa.eu.int/comm/trade/issues/bilateral/data.htm>**

Furthermore, even though agriculture is the most important economic sector for the majority of Mediterranean countries, on the whole, their share in world trade of agricultural products in 2003 was still very marginal comparing with other countries.

Table shows that both Africa and Middle East in 2003 accounted only for 4% and 2% of agricultural products world exports, and 3,5% and 3% of agricultural products world imports.

Figure 5.2



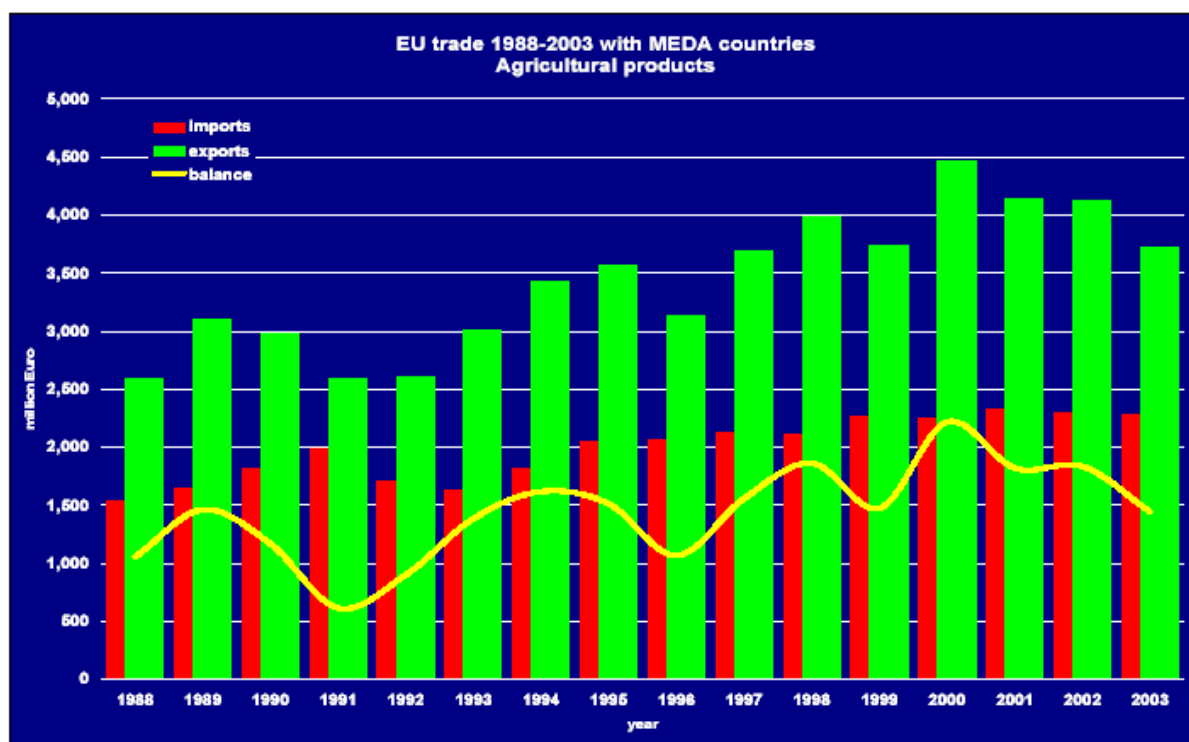
Source:WTO 2004, World Trade Statistic 2004, available on [www.wto.org](http://www.wto.org)

### *EU Trade with MEDA*

Agriculture accounts for approximately 10% of the overall EU trade with MPCs. The importance of agriculture in the overall trade balance between the EU and MPCs has declined slightly since 1995. In 2003, in fact, agricultural imports accounted for 6% of all EU15 imports from MPCs., down from 10% in 1995, while EU exports to the region accounted for 8%, down from 11% in 1995.

Despite this declining trend, the MPCs. continue to be important agricultural partners for the EU. Agricultural exports to the Mediterranean basin account for approximately 5% of agricultural exports of the EU. The percentage for imports is roughly the same.

Figure 5.3



Source: EU 2004, Meda Trade, [www.eu.int/comm/externaltrade](http://www.eu.int/comm/externaltrade).

On the whole, the agricultural trade balance has traditionally been in favour of the EU. Over the last 15 years (1988 – 2003), EU imports from these countries have ranged rather stably between € 1,5 million and € 2,5 million, while exports have been characterised by a more irregular trend, fluctuating between € 2,5 million and € 4,5 million.

According to these findings, the expansion of agricultural trade in MPCs has remained limited, both at European and International level.

However, an efficient management of the agricultural sector may offer to these countries profitable business opportunities.

Apart from the vulnerability of the Mediterranean agricultural sector to climate conditions, there are other challenges it has to tackle with as: the diversification of production, the quality of products, the setting up of sustainable and multifunctional agriculture, rural development, the enlargement of the European Union and trade liberalisation. To cope with these barriers Mediterranean countries should look for agricultural complementarities, new export markets, the harmonisation of standards and technical and financial assistance.

Liberal economic theories affirm that opening the economy to international trade increases the national prosperity. Not only, international trade will raise national income, but it also stimulate the diversification of production, the specialisation in sectors in which countries have a comparative advantage, which has as immediate consequence the reduction of production cost and the offer of

higher quality products. Finally, from a socio-economic perspective the accumulation of wealth encourages public and private institution in engaging in structural reforms and embarked in new profitable economic activities.

Emed-b2b.biz, is an innovative technological device, if well managed, that may help Euro-Mediterranean countries to open up new markets, allowing them to exploit all the benefits springing from liberalisation but above all from e-business.

### ***Why invest in Emed-b2b.biz***

Diverse are the reasons that should encourage the projects participants to invest in Emed-b2b.biz.

First, we have to take into account the value that electronic commerce can generate.

E- business value creation may spring from two types of factors: those which produce value through *cost reduction* and those which generate value through *increasing revenues*.

Traditionally the focus of electronic commerce has been on value creation through cost reduction. E-business overcomes factors that contribute to add costs in the agrifood industry such as managing orders, communicating inventory and logistic information.

Doing business by Internet can eliminate, what the economists call deadweight loss, which occur when the price of a product does not reflect its intrinsic value. E-commerce provides buyers with the opportunity to pay products specific and inherent value, and on the other hand, allows sellers to be paid based upon the intrinsic value of their products.

The potential of Internet is that it can offer, not only cost-saving, but it can increase revenue by creating new ways to serve clients and customers. From this point of view, electronic commerce applications to the agrifood sector may have significant impacts on the business revenue. For example, value may be created for E-markets customers through information and price transparencies that enable producers and others to access markets that they could not easily enter.

Increase in revenues may come from the fact that electronic commerce potentially enables our industry to shift emphasis from vertical integration to virtual integration. In the past, companies in agriculture have driven greater efficiency through vertical ownership. Nowadays, the decision to use new technological devices to conclude commercial dealings would allow companies to have a better control over the supply and sales chains and to realize the benefits of vertical integration without owning physical assets in the future.

Finally, e-commerce that makes a difference to consumers will have a significant impact in the agricultural marketplace. Rewards will go to companies, brands, producers and supply chains that are able to create new value in consumer products through electronic commerce.

Creating value through deployment of electronic applications is no trivial matter. Widespread adoption of electronic commerce applications, in the agrifood sector, can also be difficult to achieve. However, if

implemented effectively, there is great potential that Emed-b2b.biz can create value for businesses in many different parts of the agricultural industry.

In addition, a more specific rationale should persuade project partners to rely on the great market potential of our product.

They can benefit of the advantages deriving from their status of being the first to act. Guaranteeing a future to our product ensures the partners an almost exclusive use an innovative technology, not yet available in the majority of Mediterranean countries<sup>10</sup> to trade at national and international.

Another important point that partners have to consider in deciding to embark in this ambitious initiative is that they already have potential clients that will be ready to exploit the services provided by our platform: their own members.

The challenge will be to train, educate and finally convince them that the ICT is the most efficient mean now available to ensure a company business expansion and to fill the gap between developed, developing and less developed companies.

In a international environment, where world trade are increasingly affected by electronic means, refusing technological development for lack of confidence, cultural ignorance, or worst, for the absence of infrastructures, means an increasing loss of market opportunities.

### ***Emed-b2b.biz costs and revenues forecast***

From the very beginning, the project requested the partners to produce inputs related to:

- The RIP: Results Implementation Plan
- The Marketing Plan
- The Pricing Plan, that indicates how much their users should pay to use emed-b2b.biz

During the MTB meetings, the three questions were deeply analysed and partners were continuously asked to elaborate the above-mentioned inputs.

The reason why they have been requested to engage in this exercise comes from three concerns:

1. Partners' Contractual Obligations
2. Partners' readiness to exploit the project results
3. Opportunity for harmonising the text to be finalised, during the MTB meetings as (held on average every tree months)

In particular, the following MTB meetings dealt with the 3 questions above mentioned, as it infers from the meetings of MTB held in:

- **Alesandria**, 26<sup>th</sup> -28<sup>th</sup> September 2004
- **Rome**, 31<sup>st</sup> of January and 1<sup>st</sup> of February 2005
- **Rabat**, 10<sup>th</sup> –12<sup>th</sup> of April 2005

In the last month, many reminders have been sent to the partners, remarking the needs of having their figures in order to hand out, in occasion of the emed-tds.com Consortium's Legal Representatives Conference, a proper market sustainability analysis of emed-b2b.biz.

However, not all the partners have been providing the needed information. In appendix A, the tables provided are enlisted. On the basis of the information provided, conclusions on emed-b2b.biz costs and revenues have been drawn<sup>11</sup>.

Additionally, in order to complete the cost and revenue analysis, a contribution from the project Manager has been requested.

All these information allow starting estimation of the potential profitability of the product.

### *Costs analysis*

The cost information supplied by the partners has a bearing on the effective implementation of the platform, and allow us to make individual considerations, comparison, and finally draw conclusions on the whole cost.

Making an overall evaluation of the costs estimates proposed by each partner<sup>12</sup>, on the basis of a standard form that it was supplied to them, one aspect is immediately evident and obvious: costs have proportional relation with a country wealth, the higher/lower is a country wealth the higher /lower are the costs. It does not mean that for the more industrialised countries implementing emed-b2b.biz will be more expensive than for less industrialised. Many parameters are taken into account, in order to develop an ad hoc economic model. It also means that wealthier countries costs are higher than that of less developed countries in absolute terms.

Taking into account the LAP operating costs tables given by the partners, and considering the level of costs in absolute terms, it is possible to divide the partner countries into three categories:

1. Three countries whose yearly LAP operating costs rank from about **2.900,00** to about **16.400,00** Euro
2. Five countries whose yearly LAP operating costs rank from about **41.000,00** to about **72.000,00**

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<sup>10</sup> See the survey made above on e-market saturation.

<sup>11</sup> Costs estimates from Greece, Algeria, and Israel are not available. As to the revenues we have forecasts from Palestine, Morocco, Jordan and Portugal

Euro

3. Four countries with yearly LAP operating costs ranking from about **82.550,00** to about **150.000,00** Euro.

Countries belonging to the first group are Egypt, Palestine and Syria.

As regards to the second category the following partners countries are included: Jordan, Malta, Morocco Tunisia and Turkey.

France, Italy, Portugal and Spain are belonging to the third category.

Palestine Egypt and Syria estimated lower investments for emed-b2b.biz implementation. It appears that this cost advantage is mainly given by the following two factors:

- High level of liberalisation of ICT
- Cheap labour force cost availability

As a matter of facts the higher is the level of ICT liberalisation, the more competitive are companies pricing policies. On the other hand, the cost of the labour force is proportionally related to the stage of a country development. These countries are going to experience lower costs than European countries principally because of the comparative advantage they benefit from the low cost labour force.

In the second group, Morocco is expected to face higher costs, followed by Jordan, Turkey, Tunisia and Malta. Also for these countries, the two factors above mentioned can be considered the principal source of costs divergences.

Looking at Morocco LAP Operating Costs we can affirm that the investment that it has to bear is basically due both to the presence of a monopolistic control on the ICT sector and to the onerous labour force.

On the contrary, Malta where ICT are developing in a competitive environment, the communication expenses are limited. According to the data available, it seems that also labour force and professional services are less expensive than the other countries of the group.

Finally, in the third group of countries, the country that will spend more for the implementation of the product is supposed to be Spain, followed by Portugal, Italy and France. According to the information supplied, France resulted to have the lowest expenses of the category. This advantage is basically given by a higher liberalisation both in ICT and Power supply<sup>13</sup>.

As regard the labour force cost, it has been found a similarity between France and Italy (more expensive labour force) and between Portugal and Spain (cheaper labour force).

Therefore, what makes Spanish and Portugal investment more onerous?

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<sup>13</sup> France has lower level of communication and power costs

Considering the data sent Portugal and Spain resulted to have higher Training, Marketing, Promotional Legal and Financial Assistance costs. This difference may be given by more expensive costs of professional services or by a decision to invest more on training, education and promotion.

In conclusion, this cost analysis highlights that, for a complete implementation of the emed-b2b.biz agrifood platform, each partner country has to face a significant investment.

However, following the ever increasing worldwide diffusion ICTs, and in particular, the process of liberalisation in some partners countries ICT sector, it is possible to forecast that ICTs costs will reduce thus cutting, in a near future our investments.

Finally, as mentioned in paragraph above (why to invest in eme-b2b.biz), if we succeed in managing efficiently our resources, it is likely that we will benefit of a significant amount of profits.

Below are some indications on potential revenues coming from the efficient management of the resources invested.

### ***Revenues forecasts***

In an era in which e-business has reached more a consolidation stage rather than booming, a commercial strategy on the Web, to be effectively operating, needs to have a secure source of profits.

In order to estimate the potential profits that could spring from emed-b2b.biz network, the project's partners agreed on a range of potential sources of revenues:

- Annual Subscription fees
- Individual or blocks of announcements
- Annual licence fee for Trading Station Application. Partners can conclude an Access Agreement by which they hand over the LAP use to other national operators/ organisations
- Introducing Advertisements on the LAP on in the product web, whose price is proportional to the size of the advertisements.
- Market sponsorship.
- Public and Institutional contributions

The revenues may change according to the pricing policy, and the commercial strategies adopted by each partner. For example some partners may decide for internal reason to grant access for free, or to include the cost of the services in their membership fee. Others may choose to allow users to access the Lap services without paying, during the period in which the product will be launched in the market. Certainly, these strategies are very attractive, but before opting for one of them we must demand if they will be profitable. There are start up costs that must be covered.

The partners were requested to send information on their forecast revenues, but only four countries provided figures.

After analysing the sales forecasts the partners proposed to the conference attention, it is clear that their estimates are not optimistic.

Palestine is the country that projects to earn higher revenues from emed-b2b.biz complete implementation. On average its three years revenues will amount at 13,000.00 Euro and will derive from two main sources: the Annual Subscription Fees and the Entry Charges. If we compare with the three years average costs 15.820,00 Euro, it is evident that it will suffer losses.

Morocco estimates that in three years the product will generate on average incomes amounting at 7.000,00 Euro, which are expected to come from entry charges.

In three years Jordan foresees to get on average 6.300,00 Euro of revenues. In this case the main income sources are the Annual licence fee for Lap Application and the Annual Subscription fee, while little relevance is give to advertisements insertions and Public and Institutional contributions.

Finally, Portugal three years' sales are expected to be equal to 3.370,00 Euro, with almost  $\frac{3}{4}$  of the bulk deriving from the Annual Subscription fees. It is not clear weather the Portuguese sales analysis deals with Portugal in broad sense or only with Oporto situation.

It can also be observed that, taking into account the objective background social economic statistics in the four mentioned countries, and confronting it with the cost revenues analysis provided by each of the four, the results authorize some doubts about the methodology used by them (or some of them).

At this stage, it is noteworthy to underline that in the four cases analysed, the comparison between the sales forecasts figures and those of the costs, it sorts out that the four countries investment in Emed-b2b.biz would not be profitable. At this respect, it should be conveyed to the four the question on whether or not they have appropriately considered the support of an efficient e-business and advertising strategies in order to support the presence of the product in the market.

Another question is whether or not it has been appropriately evaluated the role of promotion and advertisement.

Success stories of doing business through Internet teach, for example that on-line advertisements can guarantee good revenues. On-line promotion may be carried out in several ways: by banner, sponsorship programmes, pop up windows, and finally by merchandising. An Italian e-business magazine has recently stated (Web Designer, May 2005) that, after the subscription fees, advertisement is likely to be the most important income source.

In addition, a factor that influences one's competitiveness on the e-market, and consequently ones profits, is that the eventual business should be supported and managed through a solid technological structure: that means to have a high speed Internet connection.

Marketing and Promotion are essential strategies to make emed-b2b.biz activity known, attract new users and increase profits. As any new activity, the investment in marketing and promotion is relevant especially in the start-up phase.

However, there are some strategies that will allow to cut these costs such as:

- insert the URL on e-mails
- print the website name on visiting card and in official documents
- realising some gadget
- sponsoring you URL in public and Institutional manifestation

These actions have the great advantage to be direct means of promotion at very low costs.

In conclusion, many are the strategies that could enable to make emed-b2b.biz effectively operating and becoming more competitive, even if sometimes they result to be expensive.

First, there exists a dynamic market for the product. Not only, it is demonstrated by the e-business survey that has been introduced in the first two chapters, but above all, by the manifest interest expressed by potential users, during the many national conferences organised in partner countries.

However, one thing is sure and it is important to be aware of that.

Emed-b2b.biz, is different from the usual activities, such as services provision to the members, lobbying and dealing with stakeholders, political representation, representation of legitimate interests etc. in which our organisations are daily engaged. This product implies a commercial activity aiming at increasing profits. It is a peculiar activity, that, in general, the Conference participant Chambers and Confederations are not accustomed to fulfil, and consequently not probably comfortable in eventually running.

This constrain could probably advise the Conference participants to think in terms of establishing an ad hoc entity, tailored for running the product to the market. This perspective has nothing to do with the “political” control of the product which should certainly remain in the hands of Euro-Med Tds and partners. It comes from the day by day life of our economies, that the market of a product grows up in accordance with the highest level of specialisation it is able to reach.

The entity we are referring to (Consortium, anonymous company, etc.) should have guaranteed complete autonomy as far as management is concerned. This implies that on one hand it will bear costs, but on the other, it will guarantee profits.

### ***Operating Cost and Revenue Analysis by the project manager***

It has been received the LAP costs forecasts from 13 partners out of 16<sup>th</sup> and the LAP Sales Forecast from 5 partners out of 16.

The Project manager produced its own evaluation on the possible evolution of emed-b2b.biz network costs and revenues in order to check its profitability.

The Emed-b2b.biz network comprises the 15 existing partners LAPs, the International Access Point (IAP), and the NOF.

The following costs and revenues analysis are provided under the assumption that the 15 LAPs, one IAP, and NOF work together as a single account, a single profit and loss cost centre, and a common shared management.

The relevant operating cost<sup>14</sup> and revenue analysis are shown in Appendix B.

Costs Tables divide the partner countries in two categories: EU and NON EU countries<sup>15</sup>.

As far as these countries are concerned, most of them have provided us with a cost forecast. For those that have not, an assumption was made by the applicant.

The Network Operation Facility costs are estimated as the minimum necessary to manage and maintain the facility.

The cost of running the International Access Point was forecasted separately.

The calculation of the costs related to the running of the Local Access Points (as for the cash flow and profit and loss) was averaged from the costs given by the partners, respectively for EU and NON EU countries. The individual costs are shown separately in table 2.

As for the revenue<sup>16</sup> levels are based on the partners input during the project, and based on an analysis of the estimated potential market in each country.

The revenues are calculated on an average cost of the price options agreed, and on the minimum that can be achieved given the resources planned and the market potential

If a partner decides to offer the service as part of the membership fees and at no extra charge then the revenue for that partner can be zero or limited to some price options, like the licence for new Local Access Points and advertising.

For the purpose of Profit and Loss forecast NO income was assumed for advertising and special announcements.

Sales of annual subscriptions and product annual licence fees are carried forward as income in the next years. NO percentage fallout was included. Each partner will have to make this calculation.

The cash flow was done only for the first year, no delay was assumed between sale and cash in hand, as the user pays before the access to the service is granted.

The profit and loss account is done on the global costs and revenues.

In the Proforma Balance sheet for the 3 years the called up share capital is assumed at 800.000 or 50.000 on average per partner.

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<sup>14</sup> The costs have been done both for each partner and as global cost

<sup>15</sup> Malta at the start of the project was NON EU. For the sake of the tables and budget calculations, it will be considered in its previous state.

<sup>16</sup> The revenues are calculated for each country, against each price option agreed by the partners.

# *Legal Aspects*

As anticipated, in order to manage efficiently the commercial activity for the launch, management and success of Emed-b2b.biz in the market, it should be considered the adoption of an *ad hoc* legal new entity.

The new entity, here referred to for convenience as the *Consortium*, should be resulting from a political agreement accepted and signed by all the partners.

The *Consortium* will be composed of:

- The President
- The CEO
- An Executive Board

As far as the Executive Board is concerned, it will be composed of one delegate representing each partner country in the Consortium.

As already mentioned, the Consortium will bear the NOF Costs plus additional personnel and administrative expenditures needed to support the political and administrative guidance/control of the new legal subject.

*A proposal*

The sustainability analysis has not been able to suggest prompt behaviours or decision to the participants at the emed-tds.com Consortium's Legal Representative Conference.

This was not even the ambition of the paper, whose aim was to contribute useful information to the distinguished delegates in order to allow them to start discussing at the top level which use should be done of the product emed-b2b.biz.

At the same time the sustainability study raised a lot of questions and matters which probably need to be further digested and elaborated.

It will probably be worthwhile to set up a *Three Wise Men Committee, assisted by the Secretary General* of Euro-Med TDS who also served as Co-ordinator of the project, requesting the Committee to produce in as short as possible delay sound and complete proposal for the next Legal representatives meeting. The proposal shall be comprehensive of legal and financial aspects related to the running of the project. Every partner is kindly requested to co-operate as much as possible with the Committee.

It can be presumed that next Conference can take place in ..... on ..... July.

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# Acronyms

B2B: Business to Business

ICT: Information Communication Technology

LAP: Local Access Point

LDCs: Less developed Countries

IAP: International Access Point

ITU: International Telecommunication Unit

MCIT: Ministry of Communication and Information Technology

NOF: National Operation Facility

NSO: National Statistic Office

SMEs: Small Medium Enterprises

TLD: Top level domain

WWW : World Wide Web

# Appendix A: Partners cost and revenue tables

## *Costs tables*

International Access Point Cost Centre 3 years Operating Costs forecast 1 July 2005 - 30 June 2008			
Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	8.500,00	8.500,00	8.500,00
Power	3.200,00	3.200,00	3.200,00
Offices rental	-	-	-
Offices miscellaneous costs	4.000,00	4.000,00	4.000,00
Offices Insurance	-	-	-
Hardware and software	9.750,00	9.750,00	9.750,00
<b>Total Direct Costs</b>	<b>25.450,00</b>	<b>25.450,00</b>	<b>25.450,00</b>

Personnel and other costs			
General Manager: 0,30 man year	12.000,00	12.000,00	12.000,00
1 Human Resource for the General Administration: 1,00 man year	18.000,00	18.000,00	18.000,00
Missions: 2 International and 20 National	12.000,00	12.000,00	12.000,00
Outsourcing: Contract for Manteinance of the Servers	6.000,00	6.000,00	6.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	9.200,00	9.200,00	9.200,00
Fund for hardware replacement	5.000,00	5.000,00	5.000,00
<b>Total Personnel and other Costs</b>	<b>62.200,00</b>	<b>62.200,00</b>	<b>62.200,00</b>
<b>Total Costs</b>	<b>€87.650,00</b>	<b>€87.650,00</b>	<b>€ 87.650,00</b>

**Malta Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	900,00	950,00	1.000,00
Power	100,00	150,00	200,00
Offices rental	100,00	100,00	100,00
Offices miscellaneous costs	100,00	100,00	100,00
Offices Insurance	100,00	100,00	100,00
Hardware and software	250,00	350,00	500,00
<b>Total Direct Costs</b>	<b>€ 3.593,00</b>	<b>€ 4.057,00</b>	<b>€ 4.636,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	4.600,00	5.000,00	5.500,00
1 Human Resource for the General Administration: 1,00 man year	5.500,00	6.000,00	6.500,00
Missions: 2 International and 20 National	2.000,00	2.500,00	2.800,00
Outsourcing: Contract for Maintenance of the Servers	700,00	800,00	1.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	2.000,00	2.000,00	2.000,00
Fund for hardware replacement	1.500,00	1.500,00	1.500,00
<b>Total Personnel and other Costs</b>	<b>€ 37.788,00</b>	<b>€ 41.265,00</b>	<b>€ 44.743,00</b>
<b>Total Costs</b>	<b>€ 41.381,00</b>	<b>€ 45.322,00</b>	<b>€ 49.379,00</b>

**Portugal Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	3.850,00	4.720,00	5.900,00
Power	1.100,00	1.350,00	1.900,00
Offices rental	4.900,00	5.140,00	5.500,00
Offices miscellaneous costs	1.500,00	1.900,00	2.100,00
Offices Insurance (*)	4.000,00	1.500,00	1.500,00
Hardware and software	11.000,00	13.000,00	17.000,00
<b>Total Direct Costs</b>	<b>26.350,00</b>	<b>27.610,00</b>	<b>33.900,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	12.650,00	16.000,00	18.100,00
1 Human Resource for the General Administration: 1,00 man year	13.000,00	16.000,00	17.500,00
Missions: 2 International and 20 National (**)	11.500,00	11.500,00	11.500,00
Outsourcing: Contract for Maintenance of the Servers	16.200,00	18.700,00	20.950,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance (***)	29.000,00	32.000,00	35.500,00
Fund for hardware replacement	3.100,00	6.200,00	9.500,00
<b>Total Personnel and other Costs</b>	<b>85.450,00</b>	<b>100.400,00</b>	<b>113.050,00</b>
<b>Total Costs</b>	<b>€ 111.800,00</b>	<b>€ 128.010,00</b>	<b>€ 146.950,00</b>

(\*) Data protection Project (1st year)

(\*\*) Shared in 3 years

(\*\*\*) 2.00 men /year

**Syria Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	10.000,00	17.250,00	53.000,00
Power	-	-	-
Offices rental	-	-	-
Offices miscellaneous costs	3.000,00	4.150,00	5.100,00
Offices Insurance	-	-	-
Hardware and software	-	-	-
<b>Total Direct Costs</b>	<b>€ 204,00</b>	<b>€ 336,00</b>	<b>€ 911,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	-	-	-
1 Human Resource for the General Administration: 1,00 man year	25.000,00	30.000,00	45.000,00
Missions: 2 International and 20 National	-	-	-
Outsourcing: Contract for Maintenance of the Servers	-	-	65.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	-	7.500,00	15.000,00
Fund for hardware replacement			
<b>Total Personnel and other Costs</b>	<b>€ 392,00</b>	<b>€ 588,00</b>	<b>€ 1.962,00</b>
<b>Total Costs</b>	<b>€ 596,00</b>	<b>€ 924,00</b>	<b>€ 2.873,00</b>

**France Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (in euros)** 1  
 July 2005 - 30 June 2008

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	2.000,00	2.000,00	2.000,00
Power	300,00	300,00	300,00
Offices rental <sup>1</sup>	11.190,00	11.190,00	11.190,00
Offices miscellaneous costs	-	-	-
Offices Insurance	-	-	-
Hardware and software	-	300,00	300,00
<b>Total Direct Costs</b>	<b>13.490,00</b>	<b>13.790,00</b>	<b>13.790,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year <sup>2</sup>	26.200,00	26.200,00	26.200,00
1 Human Resource for the General Administration: 1,00 man year <sup>3</sup>	18.560,00	18.560,00	18.560,00
Missions: 2 International and 20 National	8.000,00	8.000,00	8.000,00
Outsourcing: Contract for Maintenance of the Servers <sup>4</sup>	10.000,00	10.000,00	10.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	5.000,00	5.000,00	5.000,00
Fund for hardware replacement	3.000,00	3.000,00	3.000,00
<b>Total Personnel and other Costs</b>	<b>67.760,00</b>	<b>67.760,00</b>	<b>67.760,00</b>
<b>Total Costs</b>	<b>81.250,00</b>	<b>81.550,00</b>	<b>81.550,00</b>

## Comments

1 all office charges included

2: 1/5 person per year

3: 1/2 person per year

4: 5000 local + 5000 central processing system

**Italy Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	4.500,00	4.500,00	4.500,00
Power	3.200,00	3.200,00	3.200,00
Offices rental	18.500,00	18.500,00	18.500,00
Offices miscellaneous costs	2.300,00	2.300,00	2.300,00
Offices Insurance	900,00	900,00	900,00
Hardware and software	9.750,00	9.750,00	9.750,00
<b>Total Direct Costs</b>	<b>39.150,00</b>	<b>39.150,00</b>	<b>39.150,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	30.000,00	30.000,00	30.000,00
1 Human Resource for the General Administration: 1,00 man year	26.000,00	26.000,00	26.000,00
Missions: 2 International and 20 National	8.700,00	8.700,00	8.700,00
Outsourcing: Contract for Maintenance of the Servers	1.800,00	1.800,00	1.800,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	9.200,00	9.200,00	9.200,00
Fund for hardware replacement	2.300,00	2.300,00	2.300,00
<b>Total Personnel and other Costs</b>	<b>78.000,00</b>	<b>78.000,00</b>	<b>78.000,00</b>
<b>Total Costs</b>	<b>€ 117.150,00</b>	<b>€ 117.150,00</b>	<b>€ 117.150,00</b>

**Morocco Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	24.000,00	25.000,00	28.000,00
Power	1.200,00	1.200,00	1.200,00
Offices rental	72.000,00	72.000,00	72.000,00
Offices miscellaneous costs	36.000,00	36.000,00	36.000,00
Offices Insurance	8.000,00	8.000,00	8.000,00
Hardware and software	150.000,00	150.000,00	150.000,00
<b>Total Direct Costs</b>	<b>€ 26.493,00</b>	<b>€ 26.584,00</b>	<b>€ 26.857,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	240.000,00	240.000,00	240.000,00
1 Human Resource for the General Administration: 1,00 man year	84.000,00	84.000,00	84.000,00
Missions: 2 International and 20 National	120.000,00	120.000,00	120.000,00
Outsourcing: Contract for Maintenance of the Servers	5.000,00	5.000,00	5.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	35.000,00	35.000,00	35.000,00
Fund for hardware replacement	10.000,00	10.000,00	10.000,00
<b>Total Personnel and other Costs</b>	<b>€ 44.944,00</b>	<b>€ 44.944,00</b>	<b>€ 44.944,00</b>
<b>Total Costs</b>	<b>€ 71.437,00</b>	<b>€ 71.528,00</b>	<b>€ 71.801,00</b>

**Tunisia Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	4.800,00	5.280,00	5.808,00
Power	800,00	880,00	968,00
Offices rental	6.000,00	6.600,00	7.260,00
Offices miscellaneous costs	-	-	-
Offices Insurance	600,00	660,00	726,00
Hardware and software	2.000,00	2.200,00	2.420,00
<b>Total Direct Costs</b>	<b>€ 8.915,00</b>	<b>€ 9.806,00</b>	<b>€ 10.787,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	10.500,00	11.550,00	12.705,00
1 Human Resource for the General Administration: 1,00 man year	9.360,00	10.296,00	11.325,60
Missions: 2 International and 20 National	10.000,00	11.000,00	12.100,00
Outsourcing: Contract for Maintenance of the Servers	1.000,00	1.100,00	1.210,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	5.000,00	5.500,00	6.050,00
Fund for hardware replacement	4.000,00	4.400,00	4.840,00
<b>Total Personnel and other Costs</b>	<b>€ 25.025,00</b>	<b>€ 27.527,00</b>	<b>€ 30.280,00</b>
<b>Total Costs</b>	<b>€ 33.940,00</b>	<b>€ 37.333,00</b>	<b>€ 41.067,00</b>

**Palestine Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	6.000,00	7.800,00	9.600,00
Power	3.000,00	3.600,00	4.200,00
Offices rental	18.000,00	18.000,00	18.000,00
Offices miscellaneous costs	5.400,00	6.000,00	6.600,00
Offices Insurance	1.800,00	1.800,00	1.800,00
Hardware and software	-	-	-
<b>Total Direct Costs</b>	<b>€ 6.334,00</b>	<b>€ 6.890,00</b>	<b>€ 7.446,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	9.000,00	9.000,00	9.000,00
1 Human Resource for the General Administration: 1,00 man year	18.000,00	18.000,00	18.000,00
Missions: 2 International and 20 National	8.000,00	8.000,00	8.000,00
Outsourcing: Contract for Maintenance of the Servers	4.200,00	4.200,00	4.200,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	6.000,00	6.000,00	6.000,00
Fund for hardware replacement	3.000,00	3.000,00	3.000,00
<b>Total Personnel and other Costs</b>	<b>€ 8.928,00</b>	<b>€ 8.928,00</b>	<b>€ 8.928,00</b>
<b>Total Costs</b>	<b>€ 15.262,00</b>	<b>€ 15.818,00</b>	<b>€ 16.374,00</b>

**Jordan Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	1.000,00	1.200,00	1.300,00
Power	1.300,00	1.300,00	1.300,00
Offices rental	9.000,00	9.000,00	9.000,00
Offices miscellaneous costs	1.000,00	1.000,00	1.000,00
Offices Insurance	-	-	-
Hardware and software	2.000,00	2.000,00	2.000,00
<b>Total Direct Costs</b>	<b>€ 16.560,00</b>	<b>€ 16.791,00</b>	<b>€ 16.907,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	5.000,00	6.000,00	7.000,00
1 Human Resource for the General Administration: 1,00 man year	10.000,00	11.000,00	12.000,00
Missions: 2 International and 20 National	7.000,00	8.000,00	9.000,00
Outsourcing: Contract for Maintenance of the Servers	1.500,00	2.000,00	2.500,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	5.000,00	6.000,00	7.000,00
Fund for hardware replacement	3.000,00	4.500,00	6.000,00
<b>Total Personnel and other Costs</b>	<b>€ 36.477,00</b>	<b>€ 43.425,00</b>	<b>€ 50.373,00</b>
<b>Total Costs</b>	<b>€ 53.037,00</b>	<b>€ 60.216,00</b>	<b>€ 67.280,00</b>

**Egypt Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (Euro) 1 July**  
**2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	34,00	36,00	40,00
Power	16,00	16,00	16,00
Offices rental	60,00	60,00	60,00
Offices miscellaneous costs	15,00	15,00	15,00
Offices Insurance	-	-	60,00
Hardware and software	60,00	60,00	-
<b>Total Direct Costs</b>	<b>€ 185,00</b>	<b>€ 187,00</b>	<b>€ 191,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	600,00	600,00	600,00
1 Human Resource for the General Administration: 1,00 man year	500,00	500,00	500,00
Missions: 2 International and 20 National	400,00	400,00	400,00
Outsourcing: Contract for Maintenance of the Servers	30,00	200,00	200,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	-	200,00	100,00
Fund for hardware replacement		100,00	100,00
<b>Total Personnel and other Costs</b>	<b>€ 2.000,00</b>	<b>€ 2.000,00</b>	<b>€ 1.900,00</b>
<b>Total Costs</b>	<b>€ 2.185,00</b>	<b>€ 2.187,00</b>	<b>€ 2.091,00</b>

## TURKEY Trading Station Cost Centre

3 years Trading Station Operating Costs forecast (local currency- TL)

1 July 2005 - 30 June 2008

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	15.000,00	16.500,00	18.000,00
Power	6.000,00	7.000,00	8.000,00
Offices rental	4.000,00	5.000,00	6.000,00
Offices miscellaneous costs	800,00	900,00	1.000,00
Offices Insurance	300,00	400,00	500,00
Hardware and software	5.000,00	7.000,00	7.500,00
<b>Total Direct Costs</b>	<b>€ 18.907,00</b>	<b>€ 22.373,00</b>	<b>€ 24.926,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	1.700,00	2.000,00	2.500,00
1 Human Resource for the General Administration: 1,00 man year	2.000,00	3.000,00	4.000,00
Missions: 2 International and 20 National	20.000,00	25.000,00	30.000,00
Outsourcing: Contract for Maintenance of the Servers	3.000,00	3.500,00	4.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance	10.000,00	15.000,00	20.000,00
Fund for hardware replacement	1.000,00	1.200,00	1.500,00
<b>Total Personnel and other Costs</b>	<b>€ 22.920,00</b>	<b>€ 30.215,00</b>	<b>€ 37.693,00</b>
<b>Total Costs</b>	<b>€ 41.827,00</b>	<b>€ 52.588,00</b>	<b>€ 62.619,00</b>

**Spain Trading Station Cost Centre**  
**3 years Trading Station Operating Costs forecast (local currency)**  
**1 July 2005 - 30 June 2008**

Direct Costs	Costs 1st Year	Costs 2nd Year	Costs 3rd Year
Communication Costs FAX + TEL + ADSL* Internet	3.600,00	4.600,00	5.600,00
Power	1.000,00	1.500,00	2.000,00
Offices rental	4.800,00	5.040,00	5.292,00
Offices miscellaneous costs	1.800,00	2.000,00	2.200,00
Offices Insurance (*)	4.000,00	1.500,00	1.500,00
Hardware and software	10.000,00	12.000,00	18.000,00
<b>Total Direct Costs</b>	<b>25.200,00</b>	<b>26.640,00</b>	<b>34.592,00</b>
<b>Personnel and other costs</b>			
General Manager: 0,30 man year	12.600,00	15.000,00	18.000,00
1 Human Resource for the General Administration: 1,00 man year	14.000,00	16.500,00	18.000,00
Missions: 2 International and 20 National (**)	12.000,00	12.000,00	12.000,00
Outsourcing: Contract for Manteinance of the Servers	16.000,00	18.500,00	21.000,00
Outsourcing: Training 20 days, Marketing, Promotion, Legal, Financial and accounting assistance (***)	30.000,00	33.000,00	36.000,00
Fund for hardware replacement	3.000,00	6.000,00	9.000,00
<b>Total Personnel and other Costs</b>	<b>87.600,00</b>	<b>101.000,00</b>	<b>114.000,00</b>
<b>Total Costs</b>	<b>€ 112.800,00</b>	<b>€ 127.640,00</b>	<b>€ 148.592,00</b>

## Network Operation Facility Operating costs (Euro)

All figures X1000

Item	Personnel	Estimated costs						Total Investment 3 years
		Total cost for Year 1	Estimated No of person years	Total cost for Year 2	Estimated No of person years	Total cost for Year 3	Estimated No of person years	
1	Management	6,00	0,20	6,00	0,20	6,00	0,20	18,00
2	Trading Station support	10,00	0,50	10,00	1,00	10,00	1,00	30,00
3	Marketing/promotion	6,00	0,20	6,00	0,20	6,00	0,20	18,00
4	Installation and maintenance	5,00	OS	5,00	OS	5,00	OS	15,00
5	General Administration	10,00	0,50	20,00	1,00	20,00	1,00	50,00
	<b>Total personnel</b>	<b>37,00</b>	<b>1,40</b>	<b>47,00</b>	<b>2,40</b>	<b>47,00</b>	<b>2,40</b>	<b>131,00</b>
	<b>Other costs</b>							
6	Advertising/promotion	10,00		10,00		10,00		30,00
7	Administration general cost	15,00		15,00		15,00		45,00
8	Legal and accounting	10,00		10,00		10,00		
9	Communications costs	5,00		5,00		5,00		15,00
10	Travel and subsistence cost	22,00		18,00		15,00		55,00
11	Product upgrade	35,00		30,00		20,00		85,00
12	Hardware and software	3,00		3,00		3,00		9,00
	<b>Total Other cost</b>	<b>100,00</b>	<b>0,00</b>	<b>91,00</b>	<b>0,00</b>	<b>78,00</b>	<b>0,00</b>	<b>239,00</b>
	<b>Total cost</b>	<b>137,00</b>	<b>1,40</b>	<b>138,00</b>	<b>2,40</b>	<b>125,00</b>	<b>2,40</b>	<b>370,00</b>
13	Equipment replacemetn fund	25,00		25,00		25,00		
	<b>Total</b>	<b>162</b>		<b>163</b>		<b>150</b>		<b>370</b>

## Revenue tables

International Access Point sales forecasts							
International Access Point							
Sales for Year 1 EURO 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Local Access Point Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
Year 1	33.000,00	22.000,00	45.000,00	0,00	15.000,00	0,00	115.000,00
Year 2	40.000,00	28.000,00	30.000,00	0,00	15.000,00	0,00	113.000,00
year 3	40.000,00	28.000,00	30.000,00	0,00	15.000,00	0,00	113.000,00

Trading Stations sales forecasts							
JORDAN							
Sales for Year 1 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON - EU Partner							
P6 Jordan	1.500,00	1.000,00	2.500,00	500,00	NA	NA	5.500,00

Trading Stations sales forecasts							
JORDAN							
Sales for Year 2 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON - EU Partner							
P6 Jordan	2.000,00	1.200,00	3.000,00	750,00	NA	NA	6.950,00

### Trading Stations sales forecasts

#### JORDAN

**Sales for Year 3** Local currency 1st July 2005 - 30th June 2008

Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON - EU Partner							
P6 Jordan	2.500,00	1.500,00	3.500,00	1.000,00	NA	NA	6.500,00
<b>Total Sales</b>							

### Trading Stations sales forecasts

#### PORTUGAL

**Sales for Year 1** Local currency 1st July 2005 - 30th June 2008

Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
EU Partner							
P5 Portugal	1.800,00	150,00	600,00	500,00	0,00	0,00	3.050,00

### Trading Stations sales forecasts

#### PORTUGAL

**Sales for Year 2** Local currency 1st July 2005 - 30th June 2008

Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
EU Partner							
P5 Portugal	1.980,00	165,00	660,00	550,00	0,00	0,00	3.355,00

Trading Stations sales forecasts							
PORTUGAL							
Sales for Year 3 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
EU Partner							
P5 Portugal	2.178,00	181,50	726,00	605,00	0,00	0,00	3.690,50
<b>Total Sales</b>							

Three years total **10.095,50**

Trading Stations sales forecasts							
MOROCCO							
Sales for Year 1 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON EU Partner							
P10 Morocco		5.000,00		0,00	0,00	0,00	5.000,00

Trading Stations sales forecasts							
MOROCCO							
Sales for Year 2 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON EU Partner							
P10 Morocco		6.500,00		1.200,00	0,00	0,00	

Trading Stations sales forecasts							
MOROCCO							
Sales for Year 3 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON EU Partner							
P10 Morocco		7.500,00		1.000,00	0,00	0,00	
<b>Total Sales</b>							

Trading Stations sales forecasts							
PALESTINE							
Sales for Year 1 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON EU PARTNER							
P11 PALESTINE	2.500,00	5.000,00	1.000,00	1.000,00	1.000,00	0,00	10.500,00

Trading Stations sales forecasts							
PALESTINE							
Sales for Year 2 Local currency 1st July 2005 - 30th June 2008							
Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON EU PARTNER							
P11 PALESTINE	3.000,00	6.000,00	1.200,00	1.200,00	1.200,00	0,00	12.600,00

## Trading Stations sales forecasts

### PALESTINE

Sales for Year 3 Local currency 1st July 2005 - 30th June 2008

Country / Price option	Annual Subscription fees	Entry Charges	Annual licence fee for Trading Station Application	Advertising	Public and Institutional contributions	Other Incomes	Total sales
NON EU PARTNER							
P11 PALESTINE	3.600,00	7.200,00	1.440,00	1.440,00	1.440,00	0,00	15.120,00
<b>Total Sales</b>							