

Microsoft EMEA White Paper

September 2003



Sharing growth and innovation in EMEA

Microsoft®

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Abstract

*This paper entitled **Sharing Growth and Innovation in Europe, the Middle East and Africa (EMEA)** is aimed at providing a background and insight into Microsoft's business philosophy of **Open Partnership and Local Investment**, and how this philosophy is put into action in the EMEA Region.*

It places into context the historic and projected growth of the worldwide IT industry and the impact this not only has on EMEA based IT companies, but also the overall EMEA economy.

*When observing the past growth and success of the IT Industry, it is easy to forget the premise and foundation that has created such a diverse and fast moving economy. However, if we are to continue to fuel this growth and diversity, we need to recognize the complex interdependencies of the industry that exist between **Software Developers, Governments, Education, Customers and Solution Providers**.*

*This paper provides an insight into how Microsoft has contributed to success and growth from following policies of **Open Partnerships and Local Investment** and provides details of Microsoft's continued commitment to this policy.*

It is also aimed at addressing some frequent misconceptions that the IT Industry operates in isolation with the sole beneficiary of growth and expansion being the commercial software world.

*Finally it provides a vision as to what the future may hold for **IT Innovation in EMEA** and its effect on economic growth and new development opportunities for the region.*

*Explaining how Microsoft's investment in initiatives with local **Governments, Universities, Software Developers and Customers** are aimed at fueling such innovation in order to benefit emerging countries, new and expanding technology providers, the **EMEA IT Industry** and the EMEA economy as a whole.*

Introduction

Thanks to the rapid growth and diversity of the software industry today, software is everywhere and comes from every part of the world. It creates the films that we watch, it drives the games that our children play, it enables us to communicate through our mobile phones, email and the Internet, it is in the cars that we drive, it empowers business from the smallest company to the largest global enterprise, and it provides tracking and guidance to our emergency services and security forces.

Software has not only become an every day part of our modern society, through its growth and diversity, it has become a significant part of both the national and global economy.

In fact, the whole IT sector has become a major factor in economic growth: the OECD estimate that between 1995 and 2001, the IT Industry has had a 0.3% to 0.8% per capita impact on Gross Domestic Production (GDP). During the same period employment within the IT Industry has grown by no less than 50%.ⁱ Later in section four we shall drill down further on these figures showing the effect and contribution of the IT industry to the different parts of the EMEA region and its economy.

Over the past 20 years, Microsoft has played an active role within the dynamics of IT Industry growth within the EMEA region, creating 53 EMEA based subsidiaries and hiring locally over 12,000 people.

But software is uniquely different from a commodity business with a single threaded supply and demand chain, such as oil and minerals. Growth in demand, however large, in these commodities, is finite, and the only concern is to gain a balance between economies of scale and protecting against a monopolistic situation. The IT industry and in particular software has a far more complex multi-threaded and interdependent environment, in effect its own eco-system.

Microsoft's long-standing 'open partnership' model and investment in local R&D has always been aimed at contributing to expand this eco-system and to fuel innovation and growth of the IT industry as a whole. Through sharing knowledge, technology and investment with the wider community of Governments, Universities, Developers, Customers and Business Partners, innovation and IT's contribution to the regional economy is dramatically accelerated.

These results can be seen across the entire software industry and demonstrated by the fact that the top 10 global software companies only account for 30% of the total software market, as compared to the hardware sector where the top ten companies account for 68% of the market.ⁱⁱ The software industry is neither dependent nor beholden to dominant players. For example, in Europe between 1999 and 2001 six of the top ten European based software companies experienced growth greater than 15%. According to IDC in this period Logica (77%), Business Objects (66%), SAP (49%), Dassault Systemes (38%) and Software AG (35%) all experienced higher growth than Microsoft,ⁱⁱⁱ demonstrating the strength and importance of the European software industry.

The fuel of the IT eco-system is innovation. Microsoft has always recognized the importance of innovation and as such continues to invest over \$5 billion annually in R&D activity; an amount that it is interesting to note is greater than the total funding in IT research of the US Government.^{iv}

Moreover, at Microsoft, we strongly believe in open partnership and local investment. We believe this approach has benefited not only our direct local partners in EMEA, but the rest of the region's IT industry as well. It is this collaborative partnership between Governments, Education, Software Developers, Customers, Systems Integrators and Service Providers that will enable the EMEA IT eco-system to continue to grow and develop through innovation.

The benefits of this model are demonstrated by the new technologies produced by our co-operative R&D centers at Aachen (Germany), Cambridge (UK), Vedbaek (Denmark) and Sophia Antipolis (France), and by the fact that within EMEA, in addition to the 12,000 direct employees of Microsoft, 1.5 million people in the region's IT Industry generate revenue for their businesses and local economies through deploying Microsoft solutions or using Microsoft technology to create new and complementary solutions.

The advancement in technology over recent years born out of research and development has had a dramatic effect on the productivity and effectiveness of the public and private sectors alike. Whereas much of this R&D was initially public-funded, the sheer scale and pace of technology innovation combined with a fall in public funding means that the industry is dependent on commercial as well as continued public investment.

i OECD Projections

ii Based on IDC Data

iii Source, IDC

iv Commercial Software, Microsoft, March 2003

Realizing Potential through partnerships

At Microsoft, we believe that one of the most effective methods of fueling the level of technology innovation needed to achieve growth in the EMEA economy, and in particular the IT market, is through the continued promotion and commitment to open partnerships.

In our experience, one of the best methods for driving high-level growth and innovation is through combining public and commercial investment in a collaborative and open partnership approach. It is this approach that leverages the interaction from all components that make up the eco-system – Governments, Customers, Business Partnerships, Solution Integrators and Developers, while generating the level of innovation needed to fuel the desired growth in the economy.

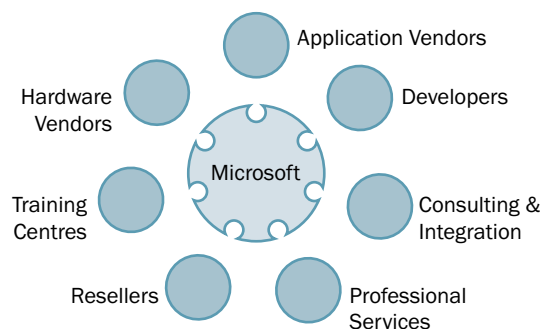
The Open Partnership Model

As stated previously, the IT Industry is in effect a complex, multi-threaded, eco-system. Software is dependent on the hardware on which it operates, while at the same time hardware is driven by the demands of software innovation. Government investment in developing technology infrastructure and electronic commerce is key to the commercial software industry, while the success of the software industry plays a major factor in the economic growth of many countries.

Microsoft's business model and growth are based on partnership and a core belief that software companies cannot operate in isolation or act unilaterally in R&D initiatives. Innovation and growth opportunities come from combining and building on technology developments where the combined value of advancement is greater than the individual sum of the components.

Governments, Academia, Software Developers, Consulting & Integration Firms, Professional Services Organizations, Resellers, Training Centers, Application Vendors and Hardware Vendors are all interdependent on driving technology innovation, stimulating the growth of the IT Industry and contributing to both local and worldwide economic growth.

Microsoft Open Partnership model



The Value of Open Partnership

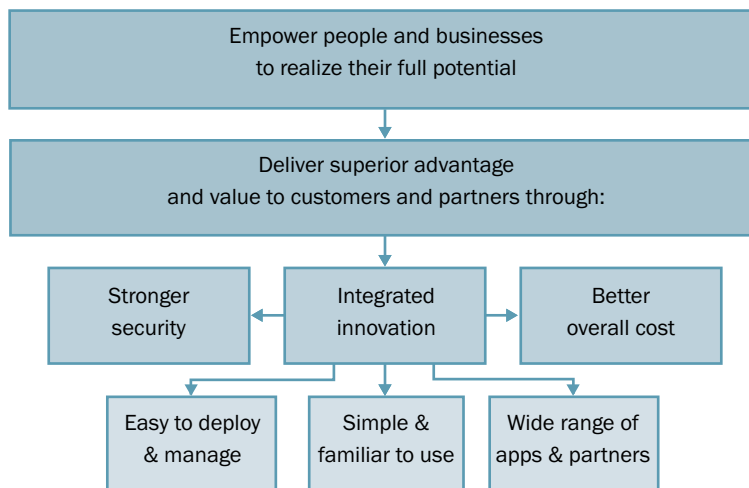
The Open Partnership Model within the commercial software industry has made it possible for people to build businesses around their ideas and innovations. For 30 years, the vitality of this model has proven itself to be an engine of innovation and opportunity. In Europe, there are no better examples than Logica, Business Objects and SAP, which experienced success and have contributed significantly to the European Economy.

The Open Partnership Model both generated, and leveraged, the transformation in the IT Industry. This transformation has seen a move away from the traditional vertical model, where a single vendor provided a solution including hardware, software and services, to the horizontal 'layered' approach whereby hardware, software and services are distinct and independent elements that through Open Partnerships between the various providers are able to seamlessly interoperate. This model not only provides the freedom of choice to the customer, but moreover, enables vendors to specialize in particular elements of the overall solution, sparking innovation and creating distinct value.

It is this element of the commercial software model that promotes technical transparency and collaboration while rewarding firms for creating innovative products.

The Commercial Software industry has transformed the business world by bringing products to market that can make almost every part of business operate faster, smarter, and with better results. The driving force behind this is the open market principle, where the success of the software provider is dependent on the market recognizing and paying for the value that it associates with the software that has been developed.

Commercial Software Advantage



It is this level of commercial R&D investment that has sustained the levels of technology advancement that we have seen over recent years, and while public-sector R&D funding has declined over the past 20 years, it is the rapid acceleration of private-sector IT R&D that will essentially play an even more important role in creating tomorrow's IT innovation.

In comparison, the Open-Source model relies on a different philosophy whereby source code is made freely accessible to all, enabling integrators, customers and software developers to continually add-to and enhance the open-source. The recent past has shown, however that although this may be a valid development model, it is not easily

translated into a viable business model. Businesses based solely on the distribution of open-source software, generally, have not generated the kind of revenue necessary to fund future R&D or contribute significantly to local economies. This is demonstrated by the fact that many commercial IT providers offering 'open-source' software are driving significant revenues through proprietary enhancements and extensions they build on open source operating systems and associated specialist services – an approach that is more suited to the vertical development model where solutions are based on hardware, software and services from a single vendor.

Microsoft Shared Source Initiative

We believe there is a way to combine the lessons learned from the open source development model with the benefits of the open partnership and commercial business model. Under our Shared Source Initiative, for example, source code is made available to partners and customers without forfeiture of intellectual property protections that have served as the linchpin of software innovation for decades.

The Shared Source Initiative encompasses the spectrum of programs and licenses offered by Microsoft to various communities of Customers, Partners, Governments, Educational Establishments and Developers, aimed at fueling technical innovation, addressing security concerns and increasing the value brought to businesses through software.

As part of this initiative, Microsoft has made available access to source code for Windows 2000, Windows XP, Windows Server 2003, Windows CE, Windows CE.NET, C#, Jscript/CLI Implementations, ASP.NET Samples, .NET Passport Manager and Visual Studio .NET Academic tools.

In doing so, Microsoft's aim is to advance several important objectives:

- Bolster the freedom of customers, partners, researchers and developers by affording them expanded access to source code.
- Enable Windows users to ensure the integrity and security of their computing environments.
- Enrich the development community by providing the tools to produce outstanding software.
- Improve feedback processes that play a critical role in developing better Microsoft products for business and individual consumers of software.
- Enhance educational opportunities and cultivate a vigorous software industry of the future by placing technology in the hands of the universities throughout the world.
- Preserve the intellectual property that historically has fostered unparalleled innovation and growth in the global software industry.

Working With Governments

An important part of Microsoft's Open Partnership philosophy is its partnerships with local Governments. Governments play a key role in shaping the technology infrastructure within their countries, but also in influencing, investing and driving technological innovation. By working in partnership with Governments, Microsoft is able to better understand the specific needs and issues of each Government, while at the same time contributing to the regional development of technology infrastructure and exciting new innovations.

For example, we recently completed work with the Austrian Federal Ministry to introduce a Web-based import licensing system, and with the Italian Government and Ministry of Justice to develop a central information gateway to track incoming documents and guarantee delivery.

Microsoft recognizes the importance for Governments, companies and individual consumers to be able to work, trade and exchange information electronically. In the E.U. it is generally believed that 50% of citizens are now online and almost 70% have become regular mobile telephone users. The Internet has become a primary source for all content, email has become a basic business tool and tele-working is no longer exotic. Governments have been instrumental in driving e-Business and e-Commerce with initiatives including the e-Europe 2005 program and the Lisbon 2010 agenda.

And with the increased use and reliance on technology, online security has become a primary concern of governments and businesses alike. Some €9.4 billion is being spent on IT security and this is likely to double over the next 3-4 years'. It is in that context that Microsoft developed the Government Security Program (GSP), an initiative specifically designed to provide national Governments and international organizations with the ability to address the unique security concerns they face in the digital age. The GSP provides participants with the information and source code access needed to evaluate the security of the Microsoft platform.

To date over 20 Governments and organizations have signed agreements to participate in the Government Security Program, including Russia, NATO, and the United Kingdom.

In addition to the GSP and similar programs, Microsoft has partnered closely with a number of governments on their respective e-government initiatives. Examples of those partnerships include:

- Working with the Austrian Federal Ministry to introduce a Web-based import licensing system that enables unprecedented co-operation between public agencies to keep foreign trade flowing under tighter control and security.
- Collaborating with the United Nations Economic Commission for Europe (UNECE) on the development of Electronic Trade Documents (UNeDocs), based on XML as well as Web services. As a result, Microsoft Office and Microsoft Office InfoPath will be among the first commercially available and affordable applications to support the implementation of UneDocs, thereby providing a platform to access services for efficient trade.
- Helping to develop a central gateway to track incoming documents to guarantee delivery in Italy, where the Italian Government has decided to improve the electronic exchange of legal documents between lawyers and the Ministry of Justice.

- Working with HP and Ernst & Young in Latvia, to develop the e-Riga project, a project to modernize and join up Riga City Council's systems and structures.
- Providing the technology on which the Bulgarian Ministry of Regional Development and Public Works (GRAO Directorate) has developed a Web service for Bulgaria's eight million citizens to check where they are registered to vote, saving citizen's time and increasing their propensity to vote.

Such programs go beyond providing access to expertise and the sharing of source code, Microsoft is also committed to working with local Governments to invest in regional infrastructures that will help fuel innovation and economic growth.

For example, Microsoft recently collaborated with the City of Frankfurt on municipal IT developments. Under this agreement with the Deutsche Städte- und Gemeindebund, Microsoft granted the local municipalities favorable and flexible terms for purchasing and using Microsoft products. Microsoft has also recently signed new basic license agreements with the Federal Government of the Interior (BMI) which allows public administrations to purchase Microsoft products on new terms at federal, provincial and municipal levels.

Working With Education

It is the students of today who will be the leaders of tomorrow, shaping the future of the digital age, driving innovation and directly influencing the shape of the economy. At Microsoft, we strongly believe that it is not only our responsibility but also our duty to invest in this future.

That is why we are working with dozens of EMEA Universities and Colleges in a number of different areas that range from investing in collaborative R&D centers, sharing source code for computer science study purposes, offering low-cost access to software and providing student and teacher training.

As part of our work with higher education institutions, we invest in local R&D initiatives that are closely aligned with regional Universities, including the Microsoft Research Center (MSR) in Cambridge aligned to Cambridge University and the European Microsoft Innovation Center (EMIC) in Aachen, which is aligned to the Rhine-Westphalian Technical University (RWTH).

In addition to investment in research and development facilities, we have also developed programs such as the Microsoft Research Source Licensing Program, which authorizes researchers, staff and students in the licensed institution to use, reproduce, and modify source code and related confidential information provided by Microsoft for educational purposes and sponsored government and commercial research.

And under the Windows CE Shared Source Academic Curriculum Licensing Program professors, researchers, and graduate students are able to create curriculum, including textbooks and other teaching materials that include Windows CE .NET source code.

Working With The IT Eco-System

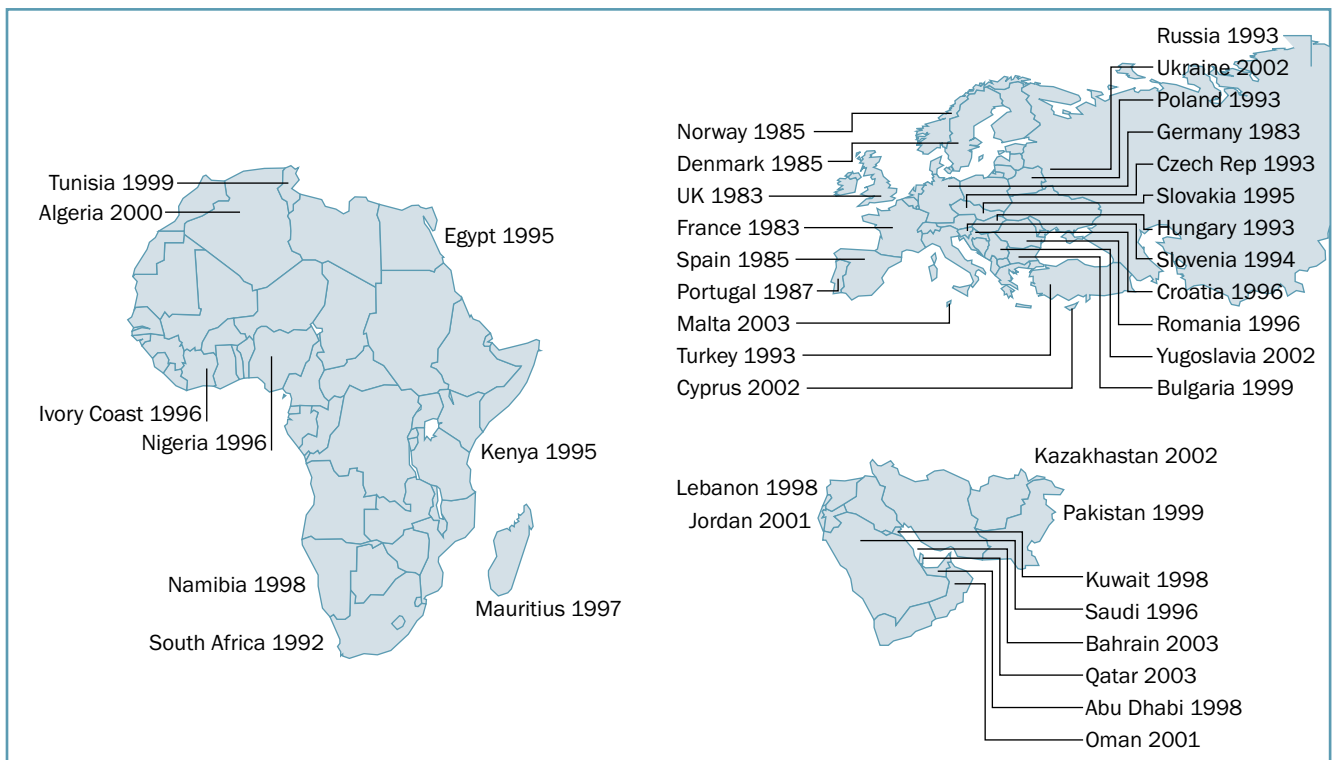
In addition to Governments, Education establishments and Customers, another key group of partners are Developers, Consulting & Integration Firms, Professional Services Organizations, Resellers, Training Centers, Hardware Vendors and Application Vendors that make up what is known as the “IT eco-system”.

In many ways, they are the core partners on which our business model is based. We have learned that sharing information, promoting technology innovation and supporting our partners is key to our success. The extent and impact of this eco-system is discussed in the following sections.

Regional Commitment through local Investment

Microsoft was one of the first software companies to open subsidiaries in Central Europe back in 1992. Now Microsoft has some 53 offices and subsidiaries in EMEA employing over 12,000 people and delivering products and services to 139 countries across the EMEA region.

53 Locally staffed subsidiaries



This investment is not restricted to countries with a developed IT infrastructure; Microsoft's support of emerging countries where there may not be short-term payback has resulted in investment in countries ranging from Kenya to Kazakhstan. This business model is designed to add value in both national and local contexts, investing in local partnership and developing the best local talent.

Fostering Local Innovation In EMEA

Through its 53 local subsidiaries, Microsoft encompasses a multi-cultural background that is key to fostering innovation. For example in its Dublin center, Microsoft develops products and supports its customers in 26 different languages.

The first of these centers was the Microsoft European Product Development Center (EPDC), which was established in Dublin back in 1988. Initially created to localize just two products (MS-DOS and PC Word) into two languages, this center now works on over 100 products and 26 different languages.

On June 17, 1997, Microsoft Research, Microsoft's six-year-old research arm, announced a €74 million investment to establish a research lab in Cambridge, England. The lab, known as Microsoft Research Ltd., collaborates closely with Cambridge University to conduct research in computer science on a variety of topics including security, information retrieval, operating

systems and networking. Over 65 researchers are now based at the center, including a winner of the Turing Award for Mathematics. "Our goal with this Cambridge-based research lab is to create a home for world-class researchers based in Europe who want to develop innovative, new technologies and have an impact on the lives of millions of people around the world," said Nathan Myhrvold, Microsoft's chief technology officer at the launch.

The European e-Business Acceleration Center (eBAC) was launched on October 25, 2000, with partners Cisco and Compaq. The Center, located in Sophia Antipolis, in Southern France, helps provide competitive advantage to technology partners in the new electronic economy. Service providers, enterprise.coms, systems integrators, middleware application developers and independent software developers provide European enterprise customers with top level Microsoft expertise and practical help. The center provides internet communities with access to experts and state-of-the-art services, platforms and linkages, designed to support the rapid envisioning, start, validation, development and launch of e-services built around industry standard technologies.

The latest example of this local investment by Microsoft is that of €5 million in the European Microsoft Innovation Center (EMIC) in Aachen. This research center, which will be working closely with the Rhine-Westphalian Technical University (RWTH) in Aachen, will begin with 10 high-tech workplaces with further expansion scheduled. Within the framework of research links Europe-wide, the EMIC will be engaged in the application-oriented research and development of technology for the Information Society. Research will focus on various subjects, including security, data protection, mobility, wireless applications and web services in accordance with the priorities of European policy on technology. Continued emphasis will be placed on developing solutions for e-learning, e-government and e-health.

Through this investment, and other initiatives with local universities and Governments, Microsoft is placing EMEA in a central role of its R&D initiatives, ensuring that the needs of EMEA form a foundation of product development, and that Microsoft is a collaborative and active member of the EMEA IT industry.

Investing In Local Innovation & Underserved Communities

Microsoft's commitment to local initiatives goes beyond local Governments and Universities and extends into many commercially led and often 'high risk' innovation projects. Microsoft is committed to supporting its customers' and partners' innovative ideas and in particular, to help emerging countries "bridge the divide".

Microsoft has supported many 'proof of concept' projects around banking and GSM operators, creating mobile office solutions. For example in Russia with GazProm and SberBank, and in Poland with BRE Brank and Polkomtel.

Microsoft is also helping many emerging countries make quantum jumps in terms of their technology, working with telecommunication providers such as Eurotel, Mobitel, Westel, Pannon and T-Mobile to drive the use of cellular phones (171 million phones in EMEA in one year^{vi}) and to develop electronic banking infrastructures.

Out of these initiatives come new and diverse applications of technology across the entire region, for example Hospital Doctors in Israel now utilize Tablet PC's during their ward rounds, the Czech army utilizes pocket PC's, so too does the police force in Romania, and in Croatia the G2G portal with touch-screen PCs enables cabinet meetings to be almost paperless.

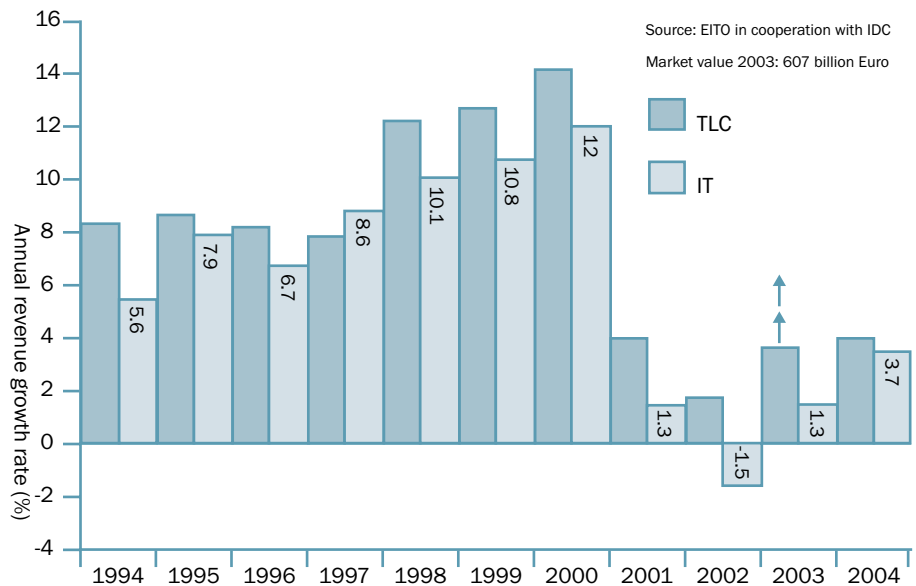
Contributing to Economic Growth

The IT Industry has had a major influence on economic growth in EMEA and in particular in Western Europe. OECD estimates that between 1995 and 2001, the global IT industry has had a 0.3% to 0.8% per capita impact on Gross Domestic Production (GDP)ⁱ and it is estimated that we are about to enter a renewed period of growth.

The IT Sector

IDC estimates the world-wide IT market for CY2003 at \$871 billion, an average growth of 2.3% world-wide on CY2002. The EMEA region is a major part of this, equating to approximately one-third of the global market, and with EU integration dynamics and the diversity generated by emerging countries, it is estimated to grow by an average 2.9% in CY2003 to \$287 billion.^{vi}

IT in Western Europe



The figures in this chart track the annual revenue growth of both the IT market, which covers hardware, software and services, and the Telecommunications (TLC) market which covers carrier services and telecommunication equipment.

Whereas we saw a dramatic slump in growth during 2001-2002, IDC are projecting a renewed upturn over CY 2003 and 2004.^{viii}

This growth, IDC projects, will take the Western European IT market from \$247.8 billion in 2002 to around \$320 billion in 2007; this would represent a Compound Annual Growth Rate (CAGR) of 6.1%.^{ix}

The economic outlook for Central and Eastern Europe is also bright and is partly fueled by the prospect of joining the EU. Technology investment in these areas continues to reflect efforts to establish the IT infrastructure necessary to sustain economic growth. Across the

region, countries are restructuring their regulatory environments to foster IT investment in key sectors such as government, finance, manufacturing, utilities and telecommunications. Meanwhile infrastructure programs are underway to modernize industry and government bureaucracies.

The IT market in these regions is still largely hardware centric, however, the region is quickly maturing into a second, solution-focused phase of IT development driven by the need for companies to improve productivity in preparation for accession to the EU. As a consequence, there has been an increasing trend towards greater investment in packaged software and IT Services.

IDC forecasts that Central and Eastern Europe will continue to achieve superior rates of IT spending growth in 2003, underpinned by corporate restructuring, foreign investment and economic expansion. From a region-wide perspective, the impact of domestic economic restructuring will outweigh that of external geopolitical factors.

However, the Middle East and Africa is clouded by geopolitical uncertainty. IT Investment is expected to accelerate in 2003, but much will depend on the geopolitical developments and their impact on the economies of the region. In the short-term, the hostilities will continue to depress investment and tourism flows into the region, stunting economic growth and IT investment.

Beyond the short-term, there is scope for optimism that the region could experience a rebound in IT spending in the second half of the year. Improved confidence and a rebound in the global economy could foster a healthy recovery in economic activity and IT spending through the region especially in Egypt, Turkey and Israel.

Contributing To IT Industry Momentum

As stated previously the IT Industry is in effect its own eco-system whereby innovation and growth fuels development and growth across the whole industry. The very nature of the software industry fosters entrepreneurs and its own innovation, given that there are few barriers to entry. For example, unlike most industries, the top 10 software companies world-wide account for only 31% of the total market. This lack of dominance itself fuels expansion of the industry; from 1995 to 2002, the number of IT firms in the 57 leading economies grew by 37% and up to 60% in developing countries^x. This had a major positive effect on employment with these firms employing on average 39% more people during this period equating to roughly 6.2 million people. In the developing counties this effect was even more dramatic with the number of IT jobs doubling and the number of new IT firms growing by 60%^{xi}.

The Open Partnership approach has been key to fueling the high levels of innovation in EMEA. As for Microsoft, whereas it plays an active role within the industry, this role is one of contributor rather than dominance. By being an active participant in this Open Partnership model, Microsoft has not only benefited from growth, but has also shared and contributed to the growth of other IT companies and the many new and diverse innovations across EMEA.

For example, the following chart shows the success of European based software and services companies such as Logica, Business Objects, SAP, Dassault Systemes and

vii IDC, 2003

viii IDC, 2003

ix IDC, 2003

x OECD

xi OECD

Software AG, all of whom have experienced significant growth over the period 1999 to 2001 fueled by the level of innovation and rapid growth experienced in the European IT Market.^{xiii}

Top European Software Companies

Western europe	1999	2001	Growth
Logica	87	154	+77%
Business Objects	113	188	+66%
SAP	1,446	2,162	+49%
Dassault Systemes	250	345	+38%
Software AG	146	197	+35%
Microsoft bench			
SAGE Group	189	222	+17%
Misys	265	286	+8%
Infogrames	125	116	-7%
Invensys	249	180	-28%
Siemens AG	532	326	-39%
TOTAL	3401	4176	+23%

Source: IDC – Revenue expressed in million US dollar

Fueling Employment in EMEA

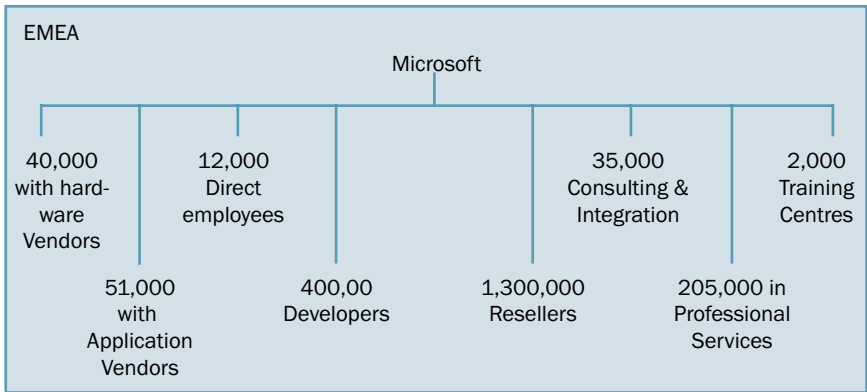
The previously mentioned transformation in the IT Solution model from a vertical ‘single vendor’ solution, to a horizontal ‘multi-vendor’ approach has a positive effect on growing employment within the IT industry. Whereas within the vertical model, success resulted in new employment opportunities for the single vendor, success within the horizontal model produces employment growth across a wide range of vendors that contribute to the hardware, software and service component parts.

For example, Microsoft directly employs over 12,000 people across the entire EMEA region. This equates to 25% of all direct Microsoft employees world-wide and demonstrates Microsoft’s commitment to local investment and regional presence.

However, recently conducted research shows that Microsoft’s contribution to employment across the EMEA region goes far beyond the 12,000 people that it employs direct.

Through its open partnership approach, Microsoft is only a small part of the industry that develops, implements, trains and provides services related to, or powered by, Microsoft-innovated technology.

Fueling 1.5 million jobs in EMEA



It is estimated that over 40,000 employees within the IT Hardware industry are focused on providing solutions to their clients that are utilizing Microsoft technology.

ISV jobs related to Microsoft technologies have doubled between 1997 and 2001 to 51,000 in EMEA and this is projected to increase to over 80,000 by 2006^{xii}. In terms of those employed in software development over 400,000 developers are registered on the Microsoft Developers Network. These are EMEA based developers, working within the EMEA IT industry and directly contributing to the growth of both the industry and EMEA economy.

It is estimated that 205,000 consultants and systems integrators again within the EMEA region are doing business on Microsoft platforms and technology. This figure is set to grow with estimates for 2006 exceeding 350,000 people and representing one third of the IT specialists working for IT services companies in EMEA^{xiv}.

In terms of technology resellers, it is estimated that over 1,300,000 people are engaged in reselling solutions that incorporate Microsoft technology, which equates to two thirds of the total 1,800,000 people in all reseller channels^{xv}.

When all of this is combined, it is estimated that over 90% of the people involved in the revenue generated from IT activities related to or utilizing Microsoft products in EMEA are external to Microsoft.

xii IDC

xiii PAC

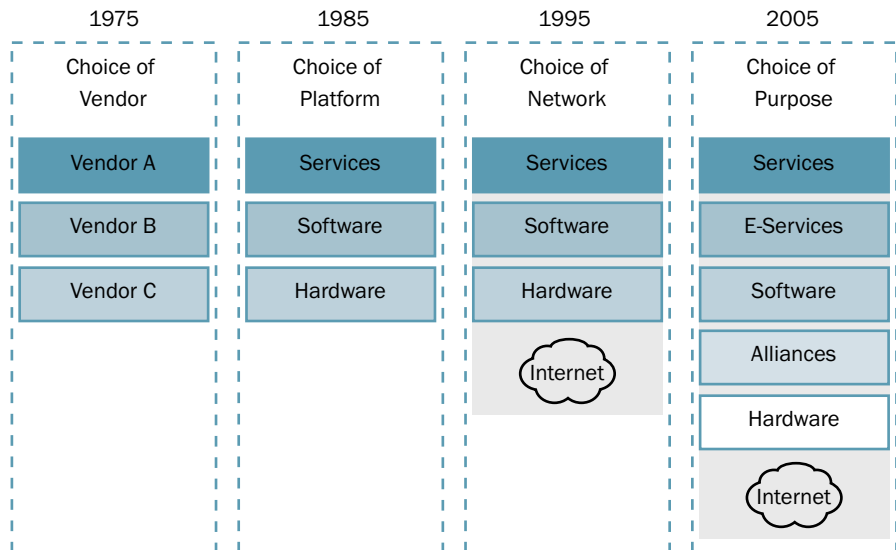
xiv PAC

xv Compabase

Conclusion – Opening New Choices

We have seen a continuous and unabated evolution of Technology over the past 30 years with some significant step changes that have opened up new developments and expanded the accessibility and diversification of technology deployment.

Constantly Opening New Choices



Gone are the days of the late 1970's where technology was purchased as a turnkey solution from a single vendor.

The emergence of Open Platforms in the late 1980's gave consumers choice and has driven unrivalled innovation by allowing software only organizations to enter the IT market while also encouraging individual focus on either hardware, software or services.

With the 1990's has come the Internet and the choice of networking technology to fuel the interchange of information and the speed of both commercial and non-commercial transactions.

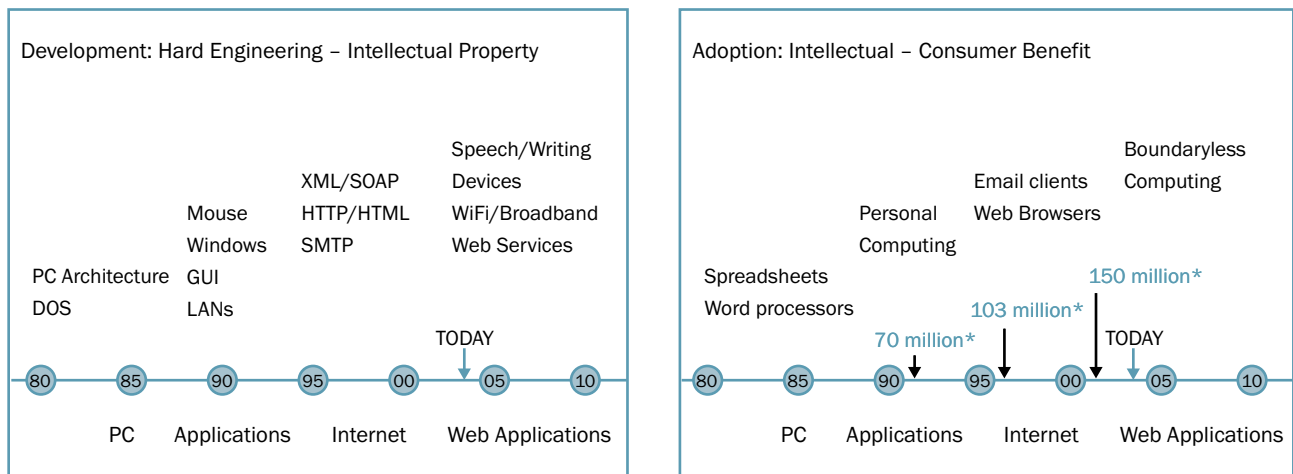
We are now entering a new IT generation where Internet-centric architectures like .NET and open standards like XML pave the way to multiple offers of online/offline services. Here we see the alliances developing between content providers and the software applications to access and utilize this content; we see a new generation of e-Service applications coming to market and the consumer choice is now related to their informational needs and choice of purpose.

Microsoft has spent the last 20 years in EMEA partnering with Governments, Universities and Businesses to prepare for 'The Digital Decade'. A decade that will see the growing use of new access devices such as PDA's, mobile phones, in car devices and open wireless connectivity in public places. A decade that will see a whole new wave of technology usage ranging from the growth of Internet communities to the unification of information into a personal daily life organization tool. And also a decade that will see the advancement and accessibility of new interface technology leveraging handwriting recognition and voice/speech command interfaces.

Not only have the Governments of EMEA an important role to play in fueling this technology innovation, but they also have a great deal to gain from the economic growth of the IT industry and its positive impact on the overall economic growth of the region.

Vital to this growth is the continued support by governments of Open Standards and of a level and open software market place, free of hard procurement preferences for one software development model over another. We believe that such an open environment is key to driving the innovation, accessibility and value of technology in today's economy. We have seen that the solutions that have been brought to market by such commercial software vendors as Logica, Business Objects, SAP and Microsoft have helped fuel local economies and enable every aspect of business to operate faster, smarter and with better results. It is through the continued investment of these organizations in R&D and their open partnership approach that Europe and other regions of EMEA will be able to attain their goals of leading the world's knowledge economy.

Waving in New Technology



*Users in Western Europe

As stated previously, the technology market is unique in the fact that it is a self-fueling eco-system where the investment and participation of Governments, Developers, Universities and Customers help to drive growth and the achievement of new capabilities and benefits. And it is these innovations that fuel both economic growth and consequential demand for technology.

At Microsoft, we are proud to have played a role in 'waving-in' this new technology. Through open partnerships, we are committed to sharing knowledge and experience, helping to drive joint innovation and developing standard and new interfaces between technology components.

Through working closely with national and regional Governments, together we are able to address their specific needs and motivations in developing e-Commerce and e-Government initiatives in their countries, helping to shape the future of the technology. Through investment in local subsidiaries, regional R&D centers, local Universities and emerging countries, we are not only able to leverage existing local talent, but we also hope to help develop the talent of the future and play a positive role within local IT Markets.

Software seems to be everywhere in today's society. And, the only boundary to the scope of technology is our imagination and our capacity to continually fuel new and exciting innovation.



Sharing growth and innovation in EMEA

Microsoft EMEA – White Paper