

Microsoft®

A Response to Developing the Future





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Meeting the Challenges to Develop The Future

Defining a New UK Knowledge Economy

The paper, *Developing the Future*, addresses six aspects of the UK software development industry and identifies five key challenges. With a call to action that asks the Government, Academia and Industry to consider how they can work together to ensure that the UK software economy remains at the forefront of innovation.

In this response to the challenges identified, Microsoft demonstrates that it is committed to a shared vision for software innovation that is having a dramatic impact on the workplace and society. Microsoft plays an important role in advancing technology in novel and innovative ways. Our business is founded on a visionary approach to solving real-world problems. From investment in research and development through to creating a strong partner community, we are driving success that has a quantifiable benefit to the UK economy.

I invite you to read how Microsoft is rising to the five challenges identified in *Developing the Future* and to examine in detail how our vision will help develop the future of the new knowledge economy in the UK.

THE UK SOFTWARE DEVELOPMENT INDUSTRY

MICROSOFT MEETING THE CHALLENGES

CONTENTS

Innovation and Leadership - Vital to Global Success	4
<i>Responding to: How can the UK meet the opportunities and challenges for globalisation?</i>	
We Need Tomorrow's Professionals - Today	5
<i>Reponding to: How can the Industry attract new skills and talent for the future?</i>	
Creating a New Image - an Industry Makeover	7
<i>Responding to: What can be achieved to create a modern image for sustainable competitive advantage?</i>	
A Sharp Focus Leads to Success	8
<i>Responding to: What strategic initiatives, policies and data are required to develop a leading-edge industry?</i>	
Investing in a Shared Vision for the Future	9
<i>Responding to: How can we ensure that the UK is at the centre for European software development and innovation?</i>	



Developing the Future



THE UK SOFTWARE DEVELOPMENT INDUSTRY

MICROSOFT MEETING THE CHALLENGES

In the report, *Developing the Future*, there are five significant challenges identified for the UK software development industry. Microsoft is rising to these challenges and in this document you will read how our vision will help develop the future.

Innovation and Leadership - Vital to Global Success

Responding to: How can the UK meet the opportunities and challenges for globalisation?

We need Tomorrow's Professionals - Today

Responding to: How can the Industry attract new skills and talent for the future?

Creating a New Image - an Industry Makeover

Responding to: What can be achieved to create a modern image for sustainable competitive advantage?

A Sharp Focus Leads to Success

Responding to: What strategic initiatives, policies and data are required to develop a leading-edge industry?

Investing in a Shared Vision for the Future

Responding to: How can we ensure that the UK is at the centre for European software development and innovation?

This document provides insight into the strategies and activities already being developed by Microsoft to drive the UK software development industry forward. It explains how we are already working to help develop the future for the UK.

Microsoft cares deeply about the future prosperity and job opportunities for software developers in the

UK. We will continue to invest heavily in developing their future success and helping them reach their personal potential.

INNOVATION & LEADERSHIP - VITAL TO GLOBAL SUCCESS

A natural and positive indicator of the progression of our maturing industry is the growing number of countries competing in IT. With an estimated 1 million 'own account' software producers in the UK (Office National Statistics), we should not look too dimly on our current position. We do however want to continue to deliver as a leader in the world of software and IT.

Through a mix of skills enablement and business opportunity Microsoft is focused on helping the UK software development industry continue to differentiate itself as an innovator and highly skilled leader in software development and high-end project management, whilst taking full advantage of the benefits of a global software economy and workforce.

Working as a Virtual Team

Microsoft Visual Studio Team System 2005 enables software development teams to work on projects across countries without people having to be co-located. Our on-going technical evangelism and readiness work helps keep UK developers at the cutting edge of information technology in terms of skills development and technical understanding. Furthermore, we provide a range of formal certifications in Microsoft products which are officially recognised within the IT industry and by Academia.

To pro-actively nurture the business software development industry in the UK, Microsoft invests



in managing a portfolio of UK ISVs. In 2005/6, Microsoft's top 80 ISVs produced £2.5 billion revenue for the UK economy.

A structured programme of resources is in place to support the needs of these ISVs and the broad ISV partner base in the UK, in terms of technical and business advancement. These programmes provide account management, technical advice and consultancy, training in business skills, co-marketing and investment to promote ISV-developed solutions. Access to the Microsoft Innovation Centre (MIC) is also available for ISVs. The MIC is based at Microsoft UK premises and represents an investment of £1.2 million in terms of equipment and resources providing ISVs with the ability to drive quality assurance through prototyping and validating their solutions and accelerate these to market-ready status.

Microsoft Research

Microsoft Research Cambridge (MRC) was Microsoft Corporation's first research laboratory to be established outside the United States. The lab was set up in July 1997 with three researchers. Today over 80 researchers, mostly from Europe, are engaged in computer research at the lab.

When Microsoft established the Cambridge laboratory, it also invested £10 million in small technology firms in the Cambridge area, demonstrating its commitment to developing and fostering new technologies; of which £5 million was invested in Amadeus I, a venture capital fund that supports early-stage technology companies with global potential.

Microsoft Innovation Centres

Microsoft also plays an active role in providing networking opportunities and brokering relationships between ISVs and potential Industry Partners.

Recent successful projects include Capita Software Services, a multi-platform solution designed for local government.

A wide range of organisations have taken advantage of MIC resources, including students participating in the Imagine Cup, start-up businesses and high potential software development companies. For example, Vivista, who were the subject of a £107 million trade sale to Sunguard.

WE NEED TOMORROW'S PROFESSIONALS - TODAY

This is one of the most critical issues impacting the on-going health of software development in the UK and one of the biggest opportunities.

Microsoft has significant investments in the UK and we take our role in nurturing the growth of IT skills here seriously. To this end we invest in a number of initiatives designed to support IT skills development by students, professionals and the wider population.

Microsoft IT Academy for Schools and Tertiary Education

Microsoft has a range of formal programmes to support the teaching and learning of software development. These include providing products to support the education infrastructure and enhance teaching and learning.

Developing the Future



We also encourage partnerships between IT businesses and Academia to enrich curriculum activities, and sponsor student awards for innovation in software development.

Software Designed to Encourage Learning

We invest a significant amount each year in activities for Faculties and Students. With Faculties, the investments are designed to “help the business of education”. This means providing software designed to enhance the process of teaching and learning. For example, Microsoft Class Server is a web-based product which enables teachers to publish and share information with parents, guardians and students about curriculum content, teaching timetables, coursework, projects and progress feedback.

Another form of investment is through the software we make available to academic organisations through special Microsoft Academic Licensing programmes. Many academic institutions use MSDN Academic Alliance to provide the software and development environment for teaching and research. In addition, at a number of universities, such as Nottingham Trent, Microsoft further invests funds for support and deployment to jointly develop best practice in MSDN Academic Alliance usage.

We also support specific projects. For example, in the UK we are proud to work with the University of Bradford and the company, Black Marble, to support the creation of “GridWorld.” This is a software solution that enables Computer Science students to build Artificial Intelligence scenarios that can be of benefit to a wide range of disciplines.

New Ways of Helping Teachers Use Technology

To encourage the use of IT in Schools, we co-sponsor a number of initiatives including the “Innovative Teachers Network.” The ITN recognises and rewards teachers for excellence in innovative teaching practices through the use of software.

We recognise the need and are committed to our responsibility supporting excellence in learning and usage of Microsoft products and technologies. We have created a series of industry-recognised qualifications, for example Microsoft Certified Professional (MCP), Microsoft Certified System Engineer (MCSE), Microsoft Certified System Architect (MCSA).

Working with individual educational establishments (including Kingston University, The University of Essex, Sheffield Hallam University, University of Central England, Paisley University), UFI, Foundation Degree Forward and the UK’s Awarding bodies (City & Guilds, OCR, SQA & Edexcel) has enabled Microsoft to map learning outcomes and exams to the frameworks of their foundation and higher degrees, giving two way credibility:

- 1 Students working towards their degree can achieve a globally recognised vendor certifications (MCP, MCSA, MCSE etc.)
- 2 Students wishing to achieve vendor certifications can do so as part of a broader education programme.

We believe it is important to encourage passionate advocates of IT among the student population. Two examples of how we currently do this are the Microsoft Student Partner Programme (MSPP) and



the Imagine Cup. The MSPP is designed to show Microsoft “up close” by providing students with in-depth knowledge of our software and technology vision and also to give them an insight into the IT industry and how it works. Microsoft also runs successful graduate recruitment and internship programmes.

The Imagine Cup is a competition designed to encourage creativity and innovation. The competition requires students to identify a problem and write a software solution to it. The solutions are then presented to a panel of judges from Microsoft, academia and other leading players in the IT industry such as BT and Cap Gemini. For the Universities, participation in the Imagine Cup (which is not part of any curriculum) offers a point of differentiation to their student offering.

In 2005, UK Imagine Cup finalists were invited to develop their solutions further with BT and Cap Gemini. To quote a student from Aberyswyth University, who went on to secure a job with BT “the last 6 weeks have changed my life...” The Imagine Cup continues to grow and thrive in 2006.

Inclusion for all

We don't just focus on the “net generation” Microsoft is concerned to make the benefits of IT accessible to everyone; so we are proactive in a range of initiatives to promote good corporate citizenship and IT inclusivity.

For example, in the UK, Microsoft Ltd. was proud to recently accept an award from Her Majesty The Queen on behalf of the Help The Aged Living Legends awards. The award recognises our work in helping to tackle the

issue of digital exclusion among older people. Since 1999, Microsoft UK has worked with a number of partners including Age Concern and Citizen's Online on a series of initiatives for older people to help improve their access to IT, promote IT skills and the benefits of being online.

These initiatives include working with Age Concern to develop an annual Silver Surfers Week, which in 2005 resulted in 7,000 older people getting access for the first time to the Internet. Also, this year we started a ‘GranCam’ programme, to help grandparents stay in touch with friends and family through web-cam access.

Working As Partners in New Learning Initiatives

Recognising the importance of Academia in nurturing the next generation of computer scientists and information workers, Microsoft helps foster links between Academia and the IT industry.

We engage with Academia on curriculum development and the study of IT in all its forms. We also encourage, support and reward excellence in teaching and learning through a range of programmes and sponsorships.

CREATING A NEW IMAGE - AN INDUSTRY MAKEOVER

At Microsoft we recognise that we can play a key role in promoting a positive image for software development and the IT industry as a whole. As a major vendor in the industry, Microsoft helped to create and drive the “Digital Lifestyle” we live today, and will do so for the future. Our products, including Microsoft Windows and the Microsoft Office System, make businesses more agile and individuals productive, connected and empowered.

Developing the Future



We accelerated the growth of Gaming technology with the Xbox and we are working to deliver an exciting gaming and entertainment environment with the Microsoft Windows XP Media Centre.

The Need to be Heard - One Industry Voice

Microsoft is keen to champion the voice of software development in the UK and we work with IT and software development professionals and organisations to achieve this. We know that without a voice, important changes such as IR35 tax regulations and new legislation on software patents can be created almost in isolation from the people that they affect.

We play an active role contributing to existing Information Technology (IT) industry associations; e.g. we currently chair the Department of Trade & Industry (DTi) IAP i2010 Software Economy Working Group, and chair the Intellect Software Economy sub group of the Software Working Group. Microsoft employees are involved in a number of professional organisations, including the British Computer Society and the Institution of Engineering and Technology.

It has become apparent in recent years that software architects are a segment of the IT community that aren't well represented: Microsoft UK set up and chairs the Independent Architect Software Association (IASA), a council dedicated to the needs of software architects.

Microsoft also supports the concept of industry clusters, both geographic and technology-based. The Radio Frequency Identification (RFID) Centre is one such cluster in which we are actively involved, along with Cable and Wireless, Cisco, SAP, Dell, Unisys and others including the DTi.

A SHARP FOCUS LEADS TO SUCCESS

Microsoft and its partner community have a major impact on the UK economy. One million people work in the UK software development industry, 480K are engaged primarily with Microsoft toolsets, generating \$15bn for the UK economy.

Microsoft UK will generate around \$2.5bn of revenue in the UK in FY06, this equates to \$6 of MS partner revenue for every \$1 of MS revenue in the UK. The top 80 Microsoft ISVs alone deliver \$4.6bn into the UK economy.

A Developing Industry Needs a Special Focus

When concentrating on more defined geographic and technology software development clusters within the UK, even greater returns can be achieved. An example of this, that also supports the UK Government's belief in focussing on "digital lifestyles", is the Microsoft UK Games Industry Ecosystem.

It is estimated that 10K people are employed generating over \$0.5bn for the UK economy and in summary:

- The UK Software development industry employs 1M people, generating \$24bn for the UK economy; or \$24K/head/annum.
- More specifically, the Microsoft software development ecosystem in the UK employs 480K people, generating \$15bn for the UK economy; or \$31K/head/annum.
- In the Microsoft UK Games Industry Ecosystem alone, it is estimated that there are 10K people employed generating over \$0.5bn for the UK economy; or \$50K/head/annum.

Despite the very positive and clear top level statistics described above, much of the key data required to



form a set of baselines with which to monitor the progress of the UK software development industry are not adequately tracked by any of the recognised government or industry bodies. As a consequence, a detailed analysis of all elements that combine to give an overall current and comprehensive picture is difficult to achieve.

The confusion and lack of data exists because of the historical emphasis on how the IT services sector was viewed. There has been a lack of focus on the individual contribution of software development to the economy.

It is not easy to extract data about software development from the software and services sector statistics, and certainly not possible to analyse finer granularity. As an example, the crucial difference between creating software and selling someone else's software, or building value-added services around hardware and software is not tracked.

Working with the UK Government - Strategy & Policy

Microsoft is working with the Office of National Statistics (ONS) - the UK Treasury organisation that defines Gross Domestic Product - to help to define the criteria for how the UK software development industry (UKSWDI) should be measured.

We believe that getting to an accurate measure requires identifying and separating out data on software development from data relating to the Information Technology industry as a whole.

This is important because it baselines the current state of the industry and gives a clear indication of where to invest for the future.

Microsoft measures its own success using similar criteria to the ONS to understand the economic impact of its business to the UK economy.

INVESTING IN A SHARED VISION FOR THE FUTURE

Microsoft recognises that the UK is a great place to do business and has invested substantially in new technology companies, the UK Gaming industry, mobile computing development and as already mentioned, the first Microsoft Research laboratory outside of the USA.

We recognise that the UK is one of the leading financial centres of the world, and it is renowned for being a deregulated, open market making it a country in which it is easy to do business.

Most global companies have a base here and the UK has a rich services industry (the NHS is estimated to be the third largest employer in the world), all requiring IT infrastructures to run their operations successfully.

Encouraging an Entrepreneurial Culture

As well as the opportunities provided by established business, the UK software development industry also benefits from the culture of entrepreneurialism. A healthy venture capital ecosystem exists here with a good track record of providing investment and support to new enterprises. The UK recognises IP (Intellectual Property) which means technical innovations can be developed, patented and commercialised here, on-shore.

Recognising that the IP marketplace is key to the future growth of the software development industry in the UK, Microsoft is enthusiastically supporting the Government's investigation into the potential benefits of tax credits for UK ISV patents.

Developing the Future



Fluid business models are emerging in the UK software development industry, which take advantage of the on-shore and offshore opportunities, for example businesses headquartering in London, with development taking place in Eastern Europe and servicing customers worldwide.

In addition to business software, a significant proportion of the software games industry is housed in the UK; including Microsoft's own Rare and Lionhead. This demonstrates Microsoft's commitment to providing the most innovative interactive experiences available with top talent and entrepreneurs.

An Exciting Games Industry

<http://www.gamesindustry.biz> claims to be an international games industry site and provides a job sourcing service. This service lists 1,815 jobs available globally with 1,363 vacancies in the UK, that's 75% of the opportunities listed for the UK. This points to a growing strength in the UK.

Microsoft actively invests in and supports new companies working with new and emerging technologies. In addition to games Microsoft has made recent UK investments in Mobile development software. Microsoft and Vodafone have recently established a joint development centre in the UK.



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