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In the area of I&T (Informatics and Telematics)
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EURIM Briefing on Standards Strategy Issues

Following the Bangemann Report to the Corfu meeting on the Council of Ministers, the EU Commission is reviewing the whole question of standards making and of the interoperability of existing software applications.

This briefing summarises current European standards issues and offers views on the way forward, based on responses received from EURIM Members and advisors. The brief is relevant at date of publishing – August 1994 – but since the world is in a state of continuous technological change may well require regular updates.

The purpose of the brief is:

- to show parliamentarians why I & T standards are significant to UK/EU competitiveness
- to highlight the need for a UK/EU standards strategy which better supports worldwide trade
- to publicise proposals which EURIM considers will improve the standards making process

Why do we need standards?

The problems caused by incompatible standards are by now well known. The UK public has experienced video cassette incompatibility between VHS and Betamax. These were two products, each with its own "proprietary" standards. Eventually VHS gained sufficient market share to become the "de facto" winner.

For any technology to gain a significant market share, it must use standards which allow it to gain access to a sufficient customer base. A product which breaks new ground may have to start with its own proprietary standards or it may use existing standards if such exist and are themselves not proprietary. Some vendors will be happy to see their standards go into the public domain, thus widening their customer base: others will use their standards as a competitive weapon to maintain exclusivity.

As a generality, it can be stated that new technology is constantly changing the boundary line where competition stops and shared services begin. Evolution dictates that standards either progress steadily towards being another shared service or, lacking sufficient support, die.

Standards can be split three ways – proprietary, de facto and de jure. A proprietary standard becomes de facto when a majority of people use it. It becomes de jure when it is blessed by the official standards making bodies. Such organisations exist nationally in the UK and all other countries: they exist within the EU to support trade amongst member states and within the UN to support international trade.

Their aims are worthy: those involved are mostly volunteers, seconded by their companies for the good of their industries: their task is painstaking and because they have no option but to achieve high standards through consensus, their results are slow. The pace of change of technology is unprecedented and accelerating, with product cycles measured in months and new services emerging daily. Yet formal standards making now averages two to four years nationally, six years to achieve agreement in the EU and eight years to become international.

The European Position

It is widely agreed that the EU is currently uncompetitive when compared with the USA and Japan. It is suggested that a growth of 2.5% per annum in GDP is required just to stand still. All EU States, including the UK, agree that creating new jobs is a prime European requirement. The Commission has identified the growth of technology across Europe as a prime method of achieving both jobs and growth. The Bangemann Report states that, given the right conditions, the creation of new jobs from technology can be left to the marketplace. Three of the conditions specified by Bangemann are to be found in the following statement from the Report:

Interconnection of networks and interoperability of services and applications should be primary Union objectives. The European standardisation process should be reviewed in order to increase its speed and responsiveness to markets.

In a subsequent briefing, Peter Bonfield of ICL, one of the authors of the Report, explained that the comment on "interoperability" referred to the need to ensure that everyone within the EU could, for example, exchange word processed documents via Electronic Mail. Currently the various Word Processing packages in use are often incompatible, leaving the receiver of the document with only a partly readable set of words. The effort to speed up standards making, stated Bonfield, followed recognition that standards for mobile telephones (GSM) had evolved far faster than the norm.

EURIM Findings

EURIM began its review of standards and standards strategy before Bangemann had reported. It found that:

- The current structure of standards making bodies at world level is ITU-T for Telecommunications; UN/ECE for Electronic Trading and ISO/IEC for all other IT standards.

- Similarly the current European structure is ETSI for Telecommunications, WE/EB for Electronic Trading and CEM/CENELEC for all other IT standards.

- Within the UK, the DTI leads on Telecommunications, SITPRO on Electronic Trading and BSI/DISC on all other standards.

- For trading nations such as the UK, national standards have limited value in their own and the UK's interest is to support EU standards making, but only as a step to international standards.

- Formal standards are arrived at by consensus: take time to agree and are only workable through consensus. The alternative – attempts to direct a faster passage in the making of standards usually end up losing consensus and risk the emergence of rival and non-compatible standards. As a generality, EURIM doubts whether this is in the UK's interest.

- European standards making can be split between communications standards and all other IT standards. The former is heavily regulated, dominated by monopoly or near monopoly operators who have long-standing and largely effective means of working internationally to establish standards. In the UK, the DTI plays a leading role in telecoms standards making and has strong support from commercial vendors and users.

- IT, however, is fast moving and IT standards are much more fragmented and market driven. Proprietary and de facto standards play an important role and provide many business opportunities.

- IT and communications have been converging for some time and there is increasing pressure on European Telecoms to deregulate, reduce long distance tariffs and compete internationally. EURIM supports this pressure but draws attention to the paradox that it will eventually lead to some fragmentation of communications standards.

- EURIM also believes that there is a standards paradox in the position of the UK Government, in as much as the strong support it gives to Telecoms standards making does not seem to be reflected in its support for IT standards making. In the latter there is increasing evidence of the withdrawal of Government funds.

Some Wider Issues

TENS – In January 1994, the Commission called for Trans-European Networks to be built in transport, energy and communications. Bangemann endorsed ten specific applications, each requiring an electronic network. EURIM supports all prototype electronic networks that allow easy communication between member States, believing that this encourages the emergence of "champions" and speeds up the consensus necessary to achieve full liberalisation of European Telecoms.

SMEs – The Commission tells us that 29 percent of all EU jobs are in companies of less than ten employees. Bangemann states: *Public awareness should be promoted. Particular attention should be paid to the small and medium-sized enterprises (SMEs).* EURIM believes that getting SMEs to focus on the benefits of modern technology will prove extremely difficult, given their lack of resource.

It has identified three possible ways of moving SMEs into technology faster. First, top down through intensive canvassing of their business leaders: second, bottom up through more user friendly tools such as facsimile, mobile phones and Internet: third, the horizontal approach which states that if you want my business you need to use my electronic network. The last way, however, suffers the danger that two equally important clients of one SME may have incompatible networking requirements. (See Peter Bonfield's comment above).

Regulation – Standards are influenced by regulatory regimes and regulation is becoming increasingly complex and onerous as bureaucracy tries to cope with convergent, transnational technologies. EURIM suggests that within the UK, pruning and simplification are urgently required. Already calls are being made publicly for convergence to be recognised by combining the powers of OFTEL and the IBC into one authority. This is headline material and whilst important, takes no account of the mass of lower level regulatory convergence that will also be needed.

In an ideal Europe, there should be one EU Regulator of Informatics and Telematics activities: agreed subsidiarity to one regulator in each State and harmonisation between all such State Regulators. Since there is little evidence of harmonisation within the EU on important areas such as law and tax, EURIM has reservations about whether its proposed regulatory Utopia is obtainable and anxieties about the alternative: exponential growth in regulation from both EU and State regulators and less than fair trade within the EU as unlevel, fragmented State regulatory playing fields emerge.

Implementing EU Directives – Agreeing EU Directives is only half the battle if they are then unevenly implemented throughout the member States. An existing example of uneven liberalisation is to be found in the Open Network Provision (ONP) of leased lines, which threatens to make competition more difficult by raising the entry costs for new players. EURIM supports HMG's efforts to improve implementation of existing directives across all States and believes that it should initiate a study of the impact of ONP on the supply industry.

PTO Accounts Separation – There are dangers in allowing the present wide-area public Telecoms network operators to provide value-added services and local loop connection without separate accounting for each of these three areas. This issue was earlier addressed by EURIM's Telecoms Working Party. The Trade and Industry Select Committee recommendation that *the government should make explicit that its aim is "to enable any company to provide any service to any customer"* will only be workable where network operators may not cross-subsidise charges from one to another of the three sectors identified above.

EURIM Recommendations

1. Standards have a Value

The UK should approach standards as commodities that have increasing value as they move towards full international status. HMG should actively encourage any standards that seem likely to add value, particularly to the products of SMEs, no matter what the status or standing of those standards in the formal standards making machinery.

2. Achieving Faster Standards

EURIM did not investigate how European "GSM" standards emerged so much quicker than the norm but suggests the probability that new technologies requiring new standards may be easier to agree in 1994 than the evolving needs of older technologies. Undoubtedly, Vendors are more sophisticated today concerning the advantages of sharing information versus holding it for competitive reasons.

Even as this brief goes to print, we learn that twenty four leading vendors in the US, Europe and Japan have agreed to adopt a single standard for the next generation magneto-optical discs which will be used to record text, sound and video pictures and hold several hundred times more information than the present floppy discs used in today's computers. The agreement has been passed to the ISO for approval. Where vendors can agree on a common standard prior to investment in product manufacture, standards making will obviously be faster and simpler.

Unfortunately most standards making is about achieving worldwide compatibility on products where high levels of existing investment are at risk if wrong standards decisions are made. The only recommendation that EURIM has evolved for speeding existing process is for the EU to require that standards be considered more rigorously as either "base", "generic" or "application".

Leaving existing standards bodies to concentrate on the base standards, from which more sophisticated standards evolve, might speed up this area. A more devolved approach to separate industry bodies for generic standards such as EDIFACT and to trading associations for application standards for eg. banks or oil companies, might further spread the load and speed up the process.

3. The Role of HMG in Standards

Bangemann sees the "Information Society" as the creation of the private sector but with government support in infrastructure and refocused public spending as well as appropriate use of "seed corn" money to move the private sector onward. EURIM supports this concept and also notes how skilfully USA Governmental endorsement has helped US industry and commerce to capitalise on new products needing new standards. All too often these have emerged quickly as international de facto standards, to the competitive disadvantage of other nations.

EURIM does not recommend HMG to become involved itself in flagship projects. Not only would special funds be required to be found but also such projects, due to their size as well as to the pace of change, usually end up supporting obsolescent standards. Instead EURIM recommends all EU States to encourage innovation and to lay down broad guidelines for standards, harmonising these as much as possible between States.

EURIM suggests that government support for SMEs needs more focus: that mechanisms should be put in place to help promote healthy I & T User groups to promote their own standards: that the UK's Foresight programme consider the standards aspects of scintillations in science and technology.

EURIM notes the increasing need for user driven seamless global services across all transmission media and suggests that the international standards needed for this are far from achieved. It is alarmed by suggestions in some quarters of the DTI (not from those in Telecoms) that its responsibilities for facilitating standards consultation and development can now be reduced.

EURIM encourages HMG to press all member States to achieve timely implementation of the I & T recommendations in the Bangemann Report.