

31 Jan 2002

Q1 Economic Benefit

We agree that new services will bring net benefits, and note that the Mason report estimates the consumer surplus from RLAN alone to be around £ 500 M p.a. Producer surplus will add to this, both for manufacturers and providers.

Q2 Interference to existing users

Insofar as interference already exists in these bands, it is true that increased use will increase that interference. However the number of substantiated cases of interference [caused by compliant SRD equipment] of which we are aware is low. If equipment of much higher power is permitted there will be problems in specific locations eg car parks (433MHz).

It is in the nature of un-coordinated bands that frequencies are shared, and the equipment is designed with that in mind, in order to maximise the utility of the device.

Q3 Congestion

We are mainly interested in the 2.4 (where equipment and services are already widely available) and 5GHz bands. If the take-up of services is very successful congestion in hot spots is possible which would ultimately limit throughput of data. However the services would only be used if there was a demand: not to allow the services would reduce 'total utility.'

Q4 Access techniques

In order to provide for the widest diversity of services and products, there ought to be range of approaches applied to different bands.

For example the ISM band at 2.4 GHz, which is already used by a variety of devices should not be regulated other than by strict adherence to the existing power limits. Higher powers should only be permitted with duty cycle/timing limits or perhaps a minimum height above floor/ground in order to limit interference.

At 5GHz where higher powers may be permitted, some additional regulation (eg power control and channel selection) could be applied.

Q5 Services

Although some services could compete with PTOs this would be in very localised areas. In general many of the services would be of the type that PTOs would not carry widely because of spectrum limitations. For this reason PTOs may themselves wish to offer services in the unlicensed spectrum, the services being more complementary than competing.

Q6 QoS

In paragraph 6.9 we disagree that Spectrum Pricing has helped in generating the 43 Million mobile subscribers. The operators would seek to maximise the economic potential of the spectrum whatever the licence fee, which in this sense is like a sunk cost. It should be noted that Finland, Sweden and Austria have higher mobile penetration, but amongst the lowest prices.

Like the internet, users will quickly learn what the quality of different services is like. The take up will be 'market-driven.'

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Q7 Microwave ovens are screened units and the leakage is unlikely to be any more of a problem than licenced radio services in some other bands. There may be a few industrial locations where public services would have problems, but this is a case for avoiding the location rather than the frequency.

Q8 Competition issues

As we stated in Q5 we agree with RA that the services are more complementary than competing. Even where there is competition this is not 'unfair'. The reason licensed operators chose to pay for spectrum was because they wanted exclusive spectrum. The licence-exempt spectrum will always be shared.

The GSM licence fees are to some degree related to opportunity cost. If in time the licence-exempt spectrum were shown to be so useful that demand for GSM spectrum fell, then there may be a case to reduce (or at least increase less) the fees for GSM spectrum.

In the case of the 3G auction, the bidders would have been aware that competing services in other bands was a future possibility. Furthermore the Licencing Directive would not allow licences to be refused on the grounds that they would compete with existing licencees (Article 10.1).

Q9 Timing

If it is accepted that co-existence with existing services is possible we see no reason to delay the changes further than necessary. Equipment at 2.4 GHz is readily available and services are being provided abroad, if not in the UK.

5GHz equipment is also available now from a few manufacturers.

Other issues

We have also studied the Mason/Dotecon report. Section 6 was especially interesting with the regard to the importance attributed to the consumer surplus, in total economic value. However we believe that the comment (page 82) that the combination of charging for unlicensed spectrum and opening the band to public service provision would unambiguously increase welfare needs to be treated with the greatest of care. While we do not doubt that public service provision will increase welfare we believe that the 'opportunity cost' will tend to zero if the spectrum is shared. Therefore no charge would be payable under the case envisaged, and to imply that charging for the spectrum is in any way linked to the increase in welfare is therefore misleading. It is in any case important that some bands are open for all to use regardless of whether economic value is maximised.

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