

The Digital Dividend in Africa

Mobile technology is revolutionising the lives of millions of people in Africa and will continue to be the primary means for the great majority to access voice, data and internet-based services. Mobile broadband has the potential to improve access to health care and education, create new business opportunities and access to markets, and ultimately to help eradicate extreme poverty.

When developing a regulatory framework for mobile broadband, policy makers can learn from the experience of rolling out voice and SMS in Africa. Success has been greatest where regulators:

- Allocate sufficient spectrum in appropriate frequency bands to competing mobile operators to support demand.
- Are non-interventionist, relying on competitive ecosystems.

The digital dividend offers a real opportunity for governments in Africa to allocate the right spectrum for mobile broadband on a regionally harmonised basis and in a timely way.

Status

2009 saw digital switchover programmes start to take shape throughout Africa. In some countries, such as South Africa and Kenya, these are scheduled for completion by 2012. The whole Southern African region is due to switch off analogue signals by 2014 and other parts of Africa will also be in a position to allocate digital dividend spectrum well before the ITU deadline for analogue switch-off.

Regional groups such as CRASA are beginning to study optimal harmonisation plans and as this momentum spreads throughout Africa, the continent will increasingly be able to maximise the social and economic benefits of the digital dividend.





GSMA position and advice

The GSMA believes that policy makers in Africa should adopt an ambitious target of making available a substantial quantity of spectrum below 1GHz, in non-fragmented allocations. These spectrum allocations should be aligned regionally and internationally where possible, in order to benefit from economies of scale (so reducing the cost of terminals for consumers) and from frequency co-ordination to limit cross-border interference.

There are currently several internationally recognised band plans for UHF spectrum (either agreed or in development). To reap the full social and economic benefits of the digital dividend, African nations need to ensure they allocate digital dividend spectrum in accordance with one of these band plans. However, they need to carefully weigh up the options that are available. Since Africa is in ITU Region 1, following the CEPT agreed band plan (790-862MHz) would seem to be an obvious choice. This choice would also reduce cross-border interference issues with other ITU Region 1 countries, such as European countries facing the Mediterranean Sea.

However, there may be circumstances where adoption of one of the other internationally recognised band plans - 696-806MHz or 698-806MHz - may be better suited to national market conditions (for example, where there is widespread use of part of the CEPT band for existing CDMA services at 850MHz). Similarly, if there is currently limited national use of the bands below 790MHz for broadcasting, it may be worth considering the 696-806MHz or 698-806MHz option in order to release more spectrum overall for mobile broadband. A pragmatic approach would be to ensure that digital TV spectrum is initially awarded from the lower part of the band (470MHz), and the final decision, to award spectrum above 698MHz, should be delayed pending a detailed cost benefit analysis.

Band plans in Africa that maximise the amount of available spectrum, could offer a significant extra benefit by ensuring the widest geographical coverage of broadband via mobile. However, such band plans must be harmonised to ensure economies of scale in the manufacture of mobile network infrastructure and devices which will reduce the overall cost of ownership to consumers.

Another factor to consider is the plans of immediate neighbouring countries. If a "cluster" of immediate neighbours is to adopt one plan, then it may make sense to follow that option (if all other things are equal). Such "clustering" could help with managing cross-border interference, and with roaming between those countries.

Where to go for more information

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