# Highlighting Best Practices

## Spectrum Licensing to Support the Mobile Broadband Revolution

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The following approaches to spectrum licensing have been shown to be 'best practice' for managing spectrum in emerging markets, as revealed in GSMA-commissioned research[1]. Countries that get their spectrum policy right will achieve widespread access to affordable and innovative mobile services spanning mobile health, personal finance, eGovernment and much more. Strong communications infrastructure brings significant economic benefits that boost productivity and living standards.

## Free up spectrum to meet the growing demand for mobile living

Licensing authorities can take a number of steps to reallocate poorly utilised spectrum to meet the growing demand for mobile broadband and accommodate new services.

**Reallocate underused bands**

**Why?** Spectrum bands that are currently idle or underutilised (including by public sector agencies or other users) should be considered for reallocation to services that can generate greater benefit for society.

**Publish a roadmap of planned spectrum release**

**Why?** By setting a clear plan for future spectrum release and making it public, regulators will give industry players the confidence to invest in future growth, fuelling innovation, jobs and economic dynamism in the sector.

**Harmonise spectrum according to international agreements**

**Why?** Harmonisation of radio spectrum in accordance with international agreements and band plans leads to lower prices for consumers, facilitates roaming and limits cross-border interference.

## Create a licensing framework that supports growth and investment

In the past, many governments imposed highly prescriptive operating and spectrum licences that required operators to supply narrowly-defined services or use a specific technology. Licensing policies need to support sustainable business models, and because mobile technologies evolve rapidly, a flexible approach to licensing leads to greater innovation and investment.

**Create transparency in spectrum licensing**

**Why?** Clearly defined spectrum rights, backed up by robust enforcement, creates market stability and predictability.

**Remove licensing restrictions**

**Why?** Spectrum usage restrictions effectively create an artificial scarcity of spectrum. Licensing authorities should lift current restrictions to allow businesses to adjust their use of spectrum as the market shifts, supporting the evolution of technology and addressing market demand. Technology and service neutrality, as well as the possibility for operators to refarm frequency bands used for 2G services, will generate substantial economic benefits.

**Determine a licensing approach that ensures the most valuable use of spectrum**

**Why?** Spectrum rights should be assigned to the services and operators that can generate the greatest benefit to society from the use of that spectrum. Where available spectrum is scarce and in high demand, market-based award procedures ensure that spectrum bands are not left idle but allocated to services that are valued the most, and to operators best-equipped to deliver them.

**Limit licence fees to a level that recovers administrative costs**

**Why?** If set too high, licence fees, including up-front and annual charges, can restrict the number of players in the market, limit operators' ability to invest in network rollout, and increase the price of mobile services. Conservative reserve prices for spectrum auctions result in fees, based on market value, that do not unduly drive up the cost of services. While international benchmarking can provide a useful comparison, reserve prices should be set according to local market conditions including, among other things, market competition, population, spectrum availability and GDP.



1 Competition Economists Group, "Licensing to Support the Mobile Broadband Revolution," May 2012

## Promote competition to ensure consumer value

The approach to spectrum licensing can significantly impact competition. Although regulators should beware of too few operators controlling national spectrum resources, too much competition can lead to spectrum fragmentation and a lack of sufficient scale to keep the cost of services low for consumers.

**Ensure adequate competition for mobile services**

**Why?** Licensing authorities should aim to ensure effective competition for mobile services. Many sector regulators and competition authorities accept that, on average, three to four national operators are sufficient to achieve effective competition.

**Intervene to increase competition only if there is a market failure**

**Why?** Direct measures to promote competition should be imposed only in cases of market failure and ineffective competition. Licensing approaches such as spectrum caps, spectrum set-asides, bidding credits, competition law enforcement and open access requirements carry advantages and disadvantages that should be assessed according to the local market context.

**Enable voluntary spectrum trading among operators**

**Why?** Voluntary trading — through well-defined spectrum rights and long licence terms — helps to ensure that spectrum remains efficiently assigned over time and minimizes administrative costs.

## Set fair licence terms and conditions

Efficiency can be promoted by licences that reflect fundamental market conditions, rather than going beyond the terms and conditions necessary for the intrinsic purpose of the licence.

**Set license terms that allow for commercial payback**

**Why?** Licensing authorities should introduce licence terms for mobile operators that are at least in line with the expected payback period for the investments.

**Consider alternative policy approaches to achieve universal access**

**Why?** Instead of using licence obligations to achieve policy outcomes, governments should consider whether alternative regulation can be employed to shift the conditions for businesses to enter the market or to extend access to services, for example.

**Avoid rigid coverage and service obligations**

**Why?** Imposing stringent coverage or service requirements on operators can prove costly, particularly for new entrants, and force operators to deploy networks before they are commercially viable. Instead, removing entry barriers and releasing spectrum in lower frequency bands may be sufficient to achieve coverage in rural areas.

## Manage licence renewals to maximise benefits

An upcoming issue for many licensing authorities is what should happen to spectrum rights as licences approach the end of their initial term. Uncertainty about their future spectrum rights can lead operators to postpone investment in their network or deployment of new services.

**Set out a spectrum renewal approach**

**Why?** To avoid network investment being delayed, authorities should publish the criteria they will use to assess renewal, as well as the terms and conditions that will apply to the renewed licence. A clear approach to license renewal should be set up two to three years in advance of the license expiry date.

**Establish a presumption of license renewal**

**Why?** A presumption in favour of licence renewal encourages long-term investment and minimises the risk of service disruption to customers. Reasons for not renewing licences should be limited to spectrum replanning, where there is little risk of stranding substantial investments, or where there has been a serious breach of licence conditions.

**More information**

The full report, Licensing to Support the Mobile Broadband Revolution, provides detailed analysis, case studies from Bangladesh, India, South Africa and Sweden, and regional overviews of spectrum licensing around the world. The report is available online at www.gsma.com/spectrum/CEGLicensingReport2012





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