



GSMA Public Policy Position

Spectrum Licensing

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Summary

Context

The environment for spectrum licensing is increasingly complex, as governments look to release new allocations of spectrum in existing mobile bands, to manage the renewal of licences coming to the end of their initial term and to release new spectrum in new bands for mobile broadband services. Effective and efficient management of this complex environment is critical to ensure continued investment and development of existing and future services.

Position statements

1. Spectrum should be managed to ensure that a country obtains maximum economic benefit from the use of its spectrum resources.
2. Spectrum rights should be assigned to the services and operators that can generate the greatest economic benefit to society from the use of that spectrum.
3. Licensing authorities should ensure that the overall licensing framework offers stability and transparency, to reduce regulatory risk and promote investment.
4. Restrictive licensing conditions limit the ability of operators to fully utilise spectrum resources and risk delaying investment in new services. Spectrum policy should remove service and technology restrictions in existing rights and allow for technology and service neutrality.
5. To the maximum practical extent, spectrum should be identified, allocated and licensed in alignment with internationally harmonised mobile spectrum bands to enable international economies of scale, reduce cross-border interference and facilitate international services.
6. For licensees of new spectrum allocations, market-based approaches to licensing (i.e., auctions) are likely to be the most economically efficient means for spectrum to be allocated to the bidders that value the spectrum the most.
7. At the end of a licence term, renewal of the licence and an administrative procedure should be presumed, except in special circumstances.
8. Licensing authorities should publish a 'road map' of the planned release of additional spectrum bands to maximise overall benefits from the use of spectrum. The road map should take a 5- to 10-year view and include a comprehensive and reasonably detailed inventory of current use.
9. Licence fees should be used to help recover the administrative costs of the licensing process and of managing spectrum and should not be used to maximise government revenue.

Background

Countries that get their spectrum policy right will achieve widespread access to affordable and innovative mobile broadband services. Strong communications infrastructure, in turn, brings significant, wider economic benefits including in boosting productivity and living standards. With the introduction of mobile broadband services and the subsequent exponential growth in data traffic, there is an even greater imperative for governments to establish a clear and stable spectrum policy.

Mobile delivers significant economic and social benefits. The sector has a proven track record of investing in technology innovation and developing new business and consumer services. It also has a proven, sustainable business model providing direct employment and enhances the productivity of many other sectors in the economy. New harmonised licensed spectrum is needed to support on-going growth of both traditional voice and new broadband mobile services.

Given the rapid pace of technological and market developments, restrictive licensing requirements will limit operators' ability to make the best use of their networks to supply services and risk delaying the investment required to introduce new broadband services. Detailed spectrum licences that are specific to one operator, type of service, network or technology also risk distorting competition if operators supplying competing services face different licence conditions.

The amount of spectrum made available and the terms on which it is made available fundamentally drive the cost, range and availability of mobile services. Mobile is a capital-intensive industry requiring significant investment in infrastructure. Government licensing policy — supported by a stable, predictable and transparent regulatory regime — has a fundamental impact on the attractiveness of markets for investment.

Principles to Guide Spectrum Management

Spectrum licensing is fundamentally about ensuring that a country obtains maximum benefit from the use of its radio frequency spectrum resources. This requires:

- Policies to ensure that spectrum rights are assigned to the services and the operators that can generate the greatest benefits to society from the use of that spectrum (i.e., to achieve the efficient use of spectrum). Market-based approaches represent a key means to ensure that spectrum is used to supply the services most in demand and that operators are able to use the best available technology to deliver those services.
- Mechanisms or reviews to identify where valuable spectrum is being underutilised so that it can be traded or reassigned. Mobile operators in many markets suffer from limited spectrum assignments while spectrum may be lying idle or assigned to uses of little value.
- Clear rights governing the use of particular bands so as to avoid intolerable interference or preventing spectrum being used efficiently. These rights should be backed by a robust compliance and enforcement regime. Users should have legitimate expectations that their rights to use will not be changed without good cause.

- Facilitating international harmonization, so that equipment and devices use the same frequency bands — supporting international roaming and enabling scale economies in manufacturing.
- Avoiding unnecessary administrative restrictions on what services can be supplied or on the way in which they are supplied. With rapid advancements in technology and demand for services, such restrictions can prevent customers from being able to access innovative new services.
- Regulatory obligations to achieve specific policy goals or address problems of inadequate competition are best determined as part of regular market reviews, with regulation being targeted in scope and duration.
- Stability and transparency in the licensing framework and with an overall spectrum plan to facilitate the large investments required in rolling out networks and introducing updated technologies and new services.

Spectrum Availability

Spectrum rights should be assigned to the services that can generate the greatest benefits to society from the use of that spectrum. Market-based approaches to licensing spectrum are a key means to ensure that spectrum is used to supply the services most in demand.

Internationally harmonised mobile spectrum bands deliver the economies of scale required for operators to provide affordable devices and services to their customers. Timely licensing of sufficient, internationally harmonised spectrum is critical for the development of new and innovative mobile services. Licensing authorities should facilitate harmonisation of spectrum through the allocation of radio frequency bands in accordance with international agreements.

Licensing and Licence Renewal

There is no single solution for governments for licensing new spectrum or for relicensing spectrum allocations. The circumstances of each market need to be considered, with industry stakeholders involved in all stages of the decision-making process. This is achieved through an open and transparent consultation process, to ensure the chosen approach will achieve an economically efficient allocation of spectrum, delivering the desired government objectives while meeting the needs of industry, investors and citizens.

For licences of new mobile spectrum, well-designed and implemented auctions are likely to be the most economically efficient means of distributing spectrum to those that value spectrum the most. Auctions are not, however, appropriate in all circumstances, and governments should consult with industry and other relevant stakeholders to determine the best approach to allocating spectrum in their specific circumstances.

For licence renewal, uncertainty about future rights to spectrum can lead operators to reduce or delay investment in upgrading their networks and deploying new services. The loss of rights to spectrum currently being used for the supply of services also carries risks to customers in relation to the loss of service. There should be a presumption of licence renewal with only exceptional and well specified circumstances under which licences will not be renewed. 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, which should be evident in advance of the renewal time.

Licensing authorities should clearly set out their approach to licence renewal in advance (a range between 2 to 4 years as a minimum should be adequate) of the expiry of the licence so as to avoid network investment being postponed. The authorities should publish the criteria that they will use to assess renewal as well as the terms and conditions that will apply to the renewed licence.

When considering licence renewal, transparent administrative licensing procedures are preferred. Market based approaches for renewal should only be used when there is evidence of a serious breach of licensing terms, there is a reasonable prospect of a reallocation of resources between operators and / or where an existing licensee decides to reject a renewal offer. In most cases, the existing operators would be expected to re-acquire the licence with the consequence that market based approaches only create unnecessary uncertainty and costs.

Stability and Transparency of the Licensing Framework

Regulatory certainty is essential to provide the stability required for investment mobile networks. Licensing authorities should ensure that the overall licensing framework offers the stability and transparency to reduce regulatory risk and promote investment.

Key elements of the framework should include:

- Establishing and adequately resourcing an independent regulator with responsibility for operator and spectrum licensing among other matters;
- Announcing a long term plan for reform of the spectrum and operating licensing framework;
- Facilitating international harmonisation, so equipment and devices use the same frequency bands, which supports international roaming and enables scale economies in manufacturing;
- Publicly setting out the criteria and processes to be followed in licensing decisions and including public written consultation in advance of key decisions, with consultation responses and the assessments thereof being published;
- Clearly defined spectrum rights that are backed up by a robust compliance and enforcement regime;
- A process for consultation prior to a licence decision, to ensure the perspectives of different industry players and customers are taken into account and different options considered;
- A holistic approach to licensing that ensures that the overall package enables the ongoing development of the mobile industry (including a process for the renewal of licences); and
- Acknowledgement of investors' legitimate expectations and compensation mechanisms where decisions are made in conflict with those expectations.

A stable regulatory framework can encourage new entry while giving sufficient confidence to the existing operators to invest in their networks and deploy new services.

A stable regulatory framework should be underpinned by a long-term spectrum roadmap. Licensing authorities should publish a road map of the planned release of additional spectrum bands to maximise overall benefits from the use of spectrum. The roadmap should include an inventory of current use.

Spectrum Licensing and Competition

The approach to spectrum licensing can significantly impact competition in mobile services markets. The spectrum licensing and policy framework needs to consider the competitive structure of the downstream market. In particular:

- Specific measures to promote competition should only be imposed in markets where there is market failure and competition would otherwise be ineffective, and where those measures are assessed as being likely to result in greater benefits than costs.
- While it may be appropriate to limit spectrum access to ensure downstream competition, any restriction needs to be deployed cautiously to avoid unintended consequences and ultimately poor outcomes for consumers.
- Using spectrum licensing policies to force a reallocation of spectrum with the specific purpose of facilitating market entry for new entrants can lead to spectrum fragmentation and inefficiencies which, ultimately, will have an impact on consumers and businesses using the services.
- Operators need to be able to access sufficient, contiguous spectrum to deliver efficient, high-quality mobile services, including mobile broadband.
- Spectrum policy and licensing authorities should ensure that operators are able to expand their access to spectrum if they are delivering value and attracting customers.

Operators offering similar services should be subject to the same terms and conditions. Licensing policies should also ensure licence conditions do not create unfair market distortions between services, and that spectrum and service conditions are fair and equitable between services to prevent market distortion.

Technology-Neutral and Service-Neutral Licensing

Licensing of new and existing spectrum should be on a technology- and service-neutral basis, allowing operators to determine the most appropriate technology to deploy to meet the needs of their customers. A technology-neutral approach gives spectrum users the opportunity to maximise the efficiency of the spectrum used and to adapt quickly to changes in technology, subject to the use of technologies that can technically co-exist without causing interference with existing services.

Licensing authorities should dismantle service and technology restrictions in existing mobile spectrum usage rights. This enables operators to choose when to deploy mobile technologies that can technically co-exist, increasing spectral capacity, reducing cost of provision, extending coverage to rural areas or improving indoor coverage. Operators themselves are likely to be best placed to determine the speed of migration, particularly recognising that 2G services are likely to remain important for the next 5 to 10 years.

Licence Fees and Non-Price Terms and Conditions

The level of licence fees (including up-front and annual charges) can significantly impact market outcomes, including the number of players that enter the market and, particularly where annual charges are levied, prices for mobile services. There is a strong economic case to avoid the level of licence fees being determined on the basis of revenue-maximising objectives. Rather, licence fees can be used to help recover the administrative costs of licensing and managing spectrum and, in some circumstances, encourage efficient spectrum use. The relative merits of upfront licence fees versus annual charges should be considered with regard to the particular market circumstances.

Efficiency can be promoted by licences that support operator investments that reflect fundamental market conditions rather than the requirements imposed by regulators. Many governments have included terms and conditions in licences that go beyond the intrinsic purpose of the licence — authorising market access and managing use of the spectrum. However, licence conditions tend to be relatively inflexible and can create the risk of market distortions as competition develops in telecommunications markets. Alternative, targeted regulation is more likely to achieve particular goals such as controlling market power and promoting universal access.

Following are our key recommendations for licensing authorities in relation to non-price terms and conditions:

- Introduce licence terms for mobile operators that are at least in line with the expected payback period for the investments, and consider the introduction of indefinite licence terms (with a specified minimum term, e.g., 15 years).
- Provide for national licences where customer demand and/or scale economies are likely to support national provision as being most efficient. Where regional licences are under consideration, the auction process itself could be used to determine whether regional or national licences are valued more.
- As an alternative to licence obligations, pursue universal access and competition objectives through policies that help to change the underlying economics of extending access or entering the market or through alternative targeted regulation.
- Enable voluntary spectrum trading between operators and facilitate trading through well-specified spectrum rights, long licence terms and minimising administrative costs. Competition concerns should be assessed, taking into account the specific circumstances of each trade.

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GSMA Government and Regulatory Affairs

A country's citizens benefit most when the private and public sectors work together in a spirit of openness and trust. To this end, the GSM Association is committed to supporting governments and regulators in their efforts to introduce pro-investment telecommunications policies.

The GSMA's government and regulatory affairs team represents the mobile industry around the world, advocating for a regulatory environment that encourages investment, maximises innovation and creates opportunity for mobile operators, the wider mobile ecosystem and mobile users. Through direct engagement with governments, we help to shape the global regulatory agenda.

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