1. Introduction

Comparing the recent evolution of spectrum policy in Europe with parallel developments in the United States raises a number of interesting commonalities and differences. In many instances the perceived differences are more semantic than real, but there are some significant divergences in approach and outcome. Both the EU and the US have established ambitious targets for the deployment of ultra-fast broadband to their citizens. The realization of these targets will depend on the availability of wireless solutions and, therefore, the freeing up and repurposing of spectrum suitable for the provision of wireless broadband services. Both face similar issues regarding spectrum use, including how best to allocate spectrum, how to assign spectrum to users, what rights to give spectrum users, whether to impose conditions on usage rights, and how and under what circumstances to reclaim spectrum for other purposes. Spectrum licences and users, wherever situated, also face common concerns, including how to obtain spectrum, how to use it and what rights and obligations apply to the spectrum they have been licenced or authorised to use.

The US, however, has been quicker to embrace market-driven solutions, such as secondary trading, with only limited government intervention in secondary markets. By contrast, in Europe, the move from a command-and-control approach has been slower to take hold, and the EU is only now beginning to embrace spectrum trading, though with some important qualifications.

An in-depth review of the EU and US approaches to spectrum management is not possible in this context, but we offer below an overview of recent developments on both sides of the Atlantic with a focus on market-based measures, particularly the secondary trading of spectrum.

2. Spectrum Policy Trends in Europe

EU Spectrum Policy and the Digital Agenda

In May 2010, the European Commission (Commission) published “A Digital Agenda for Europe”. The Digital Agenda outlines a series of policies and actions intended to achieve a flourishing digital economy in the EU by 2020. Amongst other things, the Digital Agenda establishes three key performance targets for broadband deployment across Europe. The first milestone is 2013, by which time 100% of EU citizens should have basic broadband coverage. By 2020, 100% of EU citizens should have fast broadband coverage (30 Mbps or higher) and 50% of European households should have subscriptions to ultra-fast broadband (above 100 Mbps) [see Endnote 1].

Theses ambitious targets cannot be achieved without availing of wireless broadband solutions. As the Commission has acknowledged, “wireless (terrestrial and satellite) broadband can play a key role to ensure coverage of all areas including remote and rural regions,” and “[t]he central problem to develop wireless broadband networks today is access to radio spectrum” [see Endnote 2].

In keeping with both the Digital Agenda and the 2009 revisions to the EU Framework Directive for Electronic Communications [see Endnote 3], the Commission has presented a legislative proposal to the European Parliament and Council to establish a five-year Radio Spectrum Policy Programme (RSPP). The Explanatory Memorandum accompanying the proposed RSPP confirms the importance of spectrum for “the digital society, fast wireless services, economic recovery, growth, high-quality jobs and long-term EU competitiveness” and contains a number of measures designed to promote spectrum availability for that purpose. The final text of the RSPP is expected to be approved by the end of 2011 and will be binding on EU Member States [see Endnote 4].

The RSPP sets out policy objectives for spectrum planning and the harmonisation of spectrum use across the Union. It identifies a number of spectrum bands that are to be made available by Member States for wireless broadband use according to an accelerated timetable. These include frequencies designated by the Commission in the following bands: 800 MHz; 900 MHz; 1800 MHz; 2.5-2.69 GHz; and 3.4-3.8 GHz. More efficient use of the 1.5 GHz and 2.3 GHz bands is also prescribed. The proposed RSPP further requires the Commission to monitor the capacity requirements for wireless broadband and assess, no later than January 2015, the need to harmonise spectrum in additional spectrum bands, including the 700 MHz band. This is a contentious issue for television broadcasters which have historically had rights to the 700 MHz band. They argue that they continue to require this spectrum and, further, assert that it would be very costly and disruptive to clear the spectrum for mobile broadband use.

Introduction of Spectrum Trading

Although spectrum auctions have been a regular feature of EU spectrum management for many years, procedures to facilitate spectrum trading in its various forms - including full or partial transfers, leasing, frequency sharing and pooling arrangements - have not been prevalent in most EU Member States. In 2007, the Commission observed that:

“In the current situation, spectrum is for the most part rigidly allocated to specific technologies and/or for specific usages, and its..."
use is generally based on exclusive individual rights subject to stringent conditions with no possibility to sell or lease such rights to other potential users. Some users hold large amounts of valuable spectrum that they do not use to its full capacity, while for new entrants it can be very difficult to acquire suitable spectrum. ... The reality in Europe is that there is still a system of cumbersome and top-heavy procedures, where decisions on use of spectrum are mainly taken by public administrations. [See Endnote 5.]

The revised Framework Directive contains various measures designed to make the spectrum assignment process more efficient by encouraging spectrum liberalisation and trading. Article 9b of the revised Framework Directive requires Member States to ensure that undertakings may transfer or lease individual rights of use of radio frequencies to other undertakings in accordance with applicable conditions and national procedures in bands specified by the Commission. (There is an exception where the individual right of use was initially obtained free of charge, and the provision does not apply to spectrum allocated for broadcasting.) Member States may also permit the transfer of other frequencies outside the bands specified by the Commission.

The revised EU directives were to be transposed into national law by Member States no later than May 2011, and even though several Member States have missed the deadline, there appears to be some progress towards a more hospitable spectrum trading environment across the EU. A May 2011 report issued by the European Conference of Postal and Telecommunications Administrations (CEPT), based on a survey of administrations across Europe, indicated that of the 22 countries that responded, only four declared that spectrum trading is not allowed [see Endnote 6]. However, the leasing of spectrum usage rights was permitted in only nine of the countries surveyed [see Endnote 7].

The proposed RSPP specifies various frequency bands needed for wireless broadband communications as candidates for spectrum trading. Under Article 6.1, EU Member States, in cooperation with the Commission, will be required to take “all steps necessary to ensure that sufficient harmonised spectrum for coverage and capacity purposes” is allocated within the Union. Article 6.5 also enables the Commission to adopt, as a priority, appropriate measures to ensure that EU Member States allow the trading of spectrum usage rights within the Union in the following bands: 800 MHz; 900 MHz; 1800 MHz; 2.1 GHz; 2.6 GHz; and 3.4-3.8 GHz.

**Public Interest and Competition Concerns**

This significant change in the EU regulatory framework was adopted on the basis that spectrum trading “can be an effective means of increasing efficient use of spectrum, as long as there are sufficient safeguards in place to protect the public interest, in particular the need to ensure transparency and regulatory supervision of such transfers” [see Endnote 8]. Thus, the EU’s move to embrace secondary spectrum trading has not been unqualified. The concerns that have been articulated by the Commission and other observers appear to fall into two categories based on the potential for: (1) social objectives and other public interest priorities being excluded from consideration; and (2) market failures arising from the accumulation of too much spectrum, spectrum hoarding and blocking.

A 2008 report prepared by London Economics described the potential social issues as follows:

If the market is unrestricted, issues of social concern might not be priced into trades. For instance, public sector broadcasters may be outbid in the market although they have greater social value than other users. Similarly,... rollout obligations [in licences] may be lost with the development of trading. Once it is accepted that unrestricted trading is inappropriate for the entire spectrum – to protect public services such as defence, a further problem is to correctly assign spectrum to such purposes. [See Endnote 9.]

Additional public policy concerns may be triggered by the practice of secondary trading itself. In these fiscally challenging times, some Member States may consider the advent of secondary markets as a threat insofar as the practice may be viewed as depriving governments of lucrative revenues from centrally run spectrum auctions. The UK was one of the first EU countries to establish spectrum trading as a feature of spectrum management in the mid-2000s. Yet a parliamentary committee has recently expressed concern that Everything Everywhere stood to make a substantial profit “by selling off a piece of spectrum that it had been given for free” and that the British taxpayer would see no benefit from it [see Endnote 10].

The competition concerns associated with spectrum trading were initially considered by the Radio Spectrum Policy Group (RSPG) and the European Regulators Group, in connection with the adoption of the revised framework in a 2009 “Report on Radio Spectrum Competition Issues”. Noting that “to date there is limited practical experience with competition issues resulting from the accumulation of or holding on to unused spectrum”, the report examined the potential for anticompetitive outcomes, such as hoarding and blocking [see Endnote 11]. The report also considered the benefits and drawbacks of potential ex ante regulatory remedies to address potential competition concerns. These included the application of spectrum caps, “use it or lose it” conditions, coverage or roll-out obligations and administrative incentive pricing (an annual spectrum usage fee based on the estimated value of the opportunity cost). The efficacy of the EU competition rules was also considered.

A more recent report issued by the RSPG/BEREC [see Endnote 12] exerts the potential pro-competitive effects of spectrum trading, while also pointing to possible competition concerns:

*Spectrum trading, especially when combined with liberalisation, may help to lower barriers to entry by providing access to spectrum through market mechanisms. At the same time, spectrum trading provides potential scope for spectrum users to acquire more spectrum which could potentially lead to competition concerns. Such assessment of competition issues may be included in the overall process of the transfer of spectrum usage rights. Based on the EU regulatory framework and Competition Law, national measures are also in place to deal with and/or prevent anti-competitive spectrum hoarding.* [See Endnote 13.]

In another report published in June 2011, BEREC/RSPG have offered a further assessment of the efficiencies and potential competition issues associated with spectrum sharing, including frequency re-use through voluntary agreements between licence holders. Amongst other criteria identified by the report for assessing possible distortions or restrictions of competition are whether:

- the sharing arrangements would affect important competition parameters such as coverage, prices and network quality;
- the exchange of information amongst the sharing operators is strictly limited to that which is necessary for the technical sharing arrangements;
- the operators retain the ability to differentiate themselves in terms of prices, quality and variety of services; or
- the independence of the participating operators and potential for collusive behaviour. [See Endnote 14.]

Competition concerns are also squarely addressed in the RSPP proposal. Article 5 obligates Member States to maintain and
promote effective competition and avoid distortions of competition and, in particular, “to ensure that competition is not distorted by any assignment, accumulation, transfer or modification of rights of use for radio frequencies” [see Endnote 15]. The RSPP also specifies a number of measures that Member States may take in order to promote effective competition in mobile markets and “prevent any potential anti-competitive outcomes” [see Endnote 16]. These include:

- the power to limit the amount of spectrum granted for rights of use to any operator or attach conditions to those rights, including the provision of wholesale access, national or regional roaming;
- the capacity to reserve certain parts of a spectrum band or group of bands for new entrants;
- the right to refuse new rights of use or to allow new usages in certain bands;
- the prohibition or imposition of conditions on the transfer of spectrum rights of use which are not subject to national or EU merger control; and
- the ability to amend existing rights in accordance with Article 14 of the Authorisation Directive.

Article 9b(2) of the revised Framework Directive requires Member States to ensure that the intent to transfer spectrum usage rights, as well as the effective transfer of those rights, is notified to the competent national authority. Likewise, the RSPP provides that Member States should “carefully examine”, prior to a planned spectrum assignment, whether it is likely to distort or reduce competition in the mobile markets concerned, taking into account existing spectrum rights held by the relevant market operators. It would thus appear that for spectrum trading in the bands specified by the RSPP, there will continue to be considerable involvement by national spectrum authorities, which will retain the power to veto proposed transfers.

3. Spectrum Policy Priorities in the US

**National Broadband Plan**

As directed by the US Congress, the United States Federal Communications Commission (FCC) has developed and published a National Broadband Plan (NBP) [see Endnote 17]. The NBP noted that “[s]pectrum policy is the most important lever government has to help ensure wireless and mobile broadband thrive” [see Endnote 18]. Due to the expanding use and expected future growth of wireless broadband, the NBP recommended reallocating spectrum for mobile broadband. The NBP calls for making 500 MHz of spectrum newly available for broadband by 2020, of which 300 MHz between 225 MHz and 3.7 GHz should be made newly available for mobile use by 2015 [see Endnote 19]. The NBP recommended that the FCC “ensure greater transparency in spectrum allocation and utilisation, reserve spectrum for unlicensed use, and make more spectrum available for opportunistic and secondary uses” [see Endnote 20].

The NBP further recommended that the FCC and the National Telecommunications and Information Administration (NTIA) of the US Department of Commerce develop a joint roadmap to identify additional federal government and non-federal spectrum that could be made accessible for wireless broadband use on an exclusive, shared, licensed, and/or unlicensed basis. In June 2010, President Obama issued a Presidential Memorandum that instructed the NTIA to collaborate with the FCC to make available by 2020 a total of 500 MHz of federal and non-federal spectrum, suitable for both mobile and fixed wireless broadband use [see Endnote 21].

In October 2010, the NTIA, in collaboration with the FCC, released a Ten-Year Plan and Timetable (Ten-Year Plan) to make 500 MHz of federal and non-federal spectrum available for wireless broadband use [see Endnote 22]. The Ten-Year Plan identified an initial list of candidate spectrum bands, outlined steps to determine additional candidate bands, and set out a process to evaluate their feasibility and identify the actions necessary to make that spectrum available within a decade. The Ten-Year Plan identified more than 2,200 MHz of federal and non-federal spectrum that might provide opportunities for wireless broadband use.

**Spectrum Legislation**

Given the accelerating demand for mobile broadband services in the US and the need for broadband spectrum identified by the NBP, the US Congress has been debating options to free up additional radio spectrum for mobile broadband and public safety services [see Endnote 23]. The primary focus has been on spectrum licensed to television broadcasters. The FCC recently concluded an auction of part of the 700 MHz band, which was occupied by television broadcast stations and was made available for commercial and public safety services as a result of the digital television transition. A large part of the 700 MHz band, the so-called D-Block, that is intended to form the basis of a Public Safety broadband network, has yet to be auctioned.

The NBP focused on reallocating 120 MHz of spectrum from broadcast television services for wireless broadband use, proposing incentive auctions designed to encourage TV broadcasters in major markets to voluntarily give up spectrum rights in exchange for a portion of the proceeds from the auction. This form of auction requires that legislation be enacted by the Congress. The FCC has estimated proceeds to the US Treasury from such an auction at US$33 billion.

As in Europe, the broadcast industry and the wireless industry do not see eye-to-eye on the viability of the plan to free-up broadcast spectrum. For example, the National Association of Broadcasters wants to delay any auction until an inventory can be made of wireless operators’ spectrum holdings to determine how much is unused. The wireless industry, for its part, maintains that these concerns are exaggerated because participation in the auction is voluntary and “repacking costs” will be reimbursed [see Endnote 24].

**Spectrum Rebanding**

Spectrum congestion, the resulting harmful interference and the need for additional spectrum for new uses has prompted the FCC to mandate on several occasions the relocation of incumbent spectrum users to different frequencies or bands. Relocation, also referred to as spectrum rebanding, refarming, repurposing or reconfiguration, occurs when a need for specific spectrum, which is already allocated to another use, is identified, or because interference between different uses compromises the underlying uses of the spectrum. Among the relocations the FCC has mandated are for the upper 200 MHz band, the 800 MHz band, the 2 GHz band, and the AWS band (1710-1755 MHz /2110-2155 MHz). Relocation is perhaps the most difficult option available for spectrum policymakers as it impacts existing operators and users. The relocation of incumbent users is a complex and challenging process. Initially, it requires the identification of alternative frequencies for the incumbents that are comparable to those currently in use. Reconfiguration of spectrum may also involve the creation of a sharing environment, where both incumbents and new
users can co-exist in the same band. In addition, the “new” spectrum has to have similar technical characteristics as the “old” spectrum in order to be comparable and appropriate for the incumbents’ use.

Further, relocations are costly. In most cases, the new entrant is required to pay for the relocation of the incumbents to the new frequencies. The transition of incumbent users from the “old” spectrum to the “new” spectrum involves elaborate methods to ensure continued operation during transition and operations in the new frequencies.

The largest rebanding effort in the US, which is currently underway, involves the 800 MHz band. The purpose was to address interference to public safety licensees by high density commercial systems (principally Sprint Nextel). The FCC-derived framework sought to ensure that there was minimal disruption of the 800 MHz incumbent licensees during the transition, that the associated costs were funded and that the public safety community obtained additional spectrum [see Endnote 25].

In contrast with previous rebanding programmes where incumbents and new entrants negotiated the relocation on their own, in the 800 MHz rebanding the FCC established an independent party to oversee the administrative and financial aspects of the band reconfiguration process. The 800 MHz Transition Administrator (TA) established reconfiguration guidelines, specified the replacement channels for the licensees, monitored the payment of reconfiguration costs and administered an alternative dispute resolution mechanism to ensure that the reconfiguration of the band was successful [see Endnote 26]. The costs associated with the 800 MHz relocation are paid by Sprint Nextel, as well as the costs for administering the programme [see Endnote 27].

Other relocations mandated by the FCC have proceeded as private transactions between the incumbents and the new entrants pursuant to guidelines set forth by the FCC.

The competing interests and concerns surrounding spectrum relocations are also evident in the discussions about incentive auctions of broadcast spectrum and the relocation/repacking of broadcast stations. However, relocation of licensees and repurposing of spectrum is necessary to achieve efficient spectrum management that will free spectrum for wireless broadband solutions as set forth in the NBP.

Spectrum Auctions and Secondary Markets

The US Congress first authorised the FCC to award spectrum rights through auctions in 1993. Since the first auction in 1994 for narrowband Personal Communications Service (PCS) licenses through the most recent auction in July 2011 for licenses in the 700 MHz band, the FCC has conducted over 80 spectrum licence auctions. Through 2010, FCC-sponsored auctions have resulted in over US$52 billion in revenues deposited in the US Treasury [see Endnote 28]. Given their success in monetary terms, the US Congress sees spectrum auctions as important new sources of revenue. Currently, proposed bills in both the Senate and House of Representatives seek to expand the FCC’s auction authority to encompass new frequency bands and new wireless services, including, for the first time, unlicensed services, such as for wireless broadband (Wi-Fi and the like).

In addition to obtaining spectrum licences directly from the government, either through auction or application, wireless operators in the US can also obtain spectrum licences in the secondary market—that is, from an existing licensee. In general, licences can be obtained via: (1) direct transfer where the licence is assigned from one party to another; (2) indirect transfer where ownership of the entity holding the licensee, generally a corporation, limited liability company or limited partnership, is transferred from one party to another; or (3) the lease of the spectrum. In addition, licences can generally also be transferred or leased in whole, or in part, by geographically partitioning and/or spectrum disaggregation.

One of the FCC’s earliest actions to promote efficient use of spectrum was its 1996 Commercial Mobile Radio Service (CMRS) Partitioning and Disaggregation Order for the Broadband PCS, in which it first permitted partitioning and disaggregation of commercial wireless spectrum. In geographic partitioning, a licensee assigns a portion of its licensed area to another party, which then becomes the licensee for the partitioned area. In spectrum disaggregation, a licensee assigns discrete portions or “blocks” of its licensed spectrum in a licensed area to another party, which then becomes the licensee for the disaggregated spectrum.

In adopting the Partitioning and Disaggregation Order, which was subsequently extended on a service-by-service basis to most commercial wireless services, the FCC determined that partitioning and disaggregation would promote the efficient use of spectrum by providing licensees with the flexibility to make offerings directly responsive to market demands for particular types of service. Specifically, the FCC recognised that the service offerings and business plans for all wireless providers may not necessarily coincide with predetermined spectrum blocks and geographic areas of the original licences in a specific service. By allowing partitioning and disaggregation, the FCC sought to provide licensees with the flexibility to determine the amount of spectrum they use and the geographic area they would serve. The FCC also stated that partitioning and disaggregation would increase competition by enabling market entry by additional service providers by providing smaller, less capital-intensive areas and spectrum blocks that are more accessible by small business entities.

While seeking to afford licensees with significant flexibility, the FCC also sought to retain the construction requirements imposed on the initial licence to ensure that the spectrum was put into use in a timely manner. Because the partitioning and disaggregation rules were enacted on a service-by-service basis, the text of the rules varies considerably across services, and often without a detailed explanation for the variations. Some services allow the parties to satisfy their construction requirements independently, to assign obligations among themselves, or to satisfy the requirement collectively. On the other hand, other services look just to the original licensee to satisfy the requirements. As a result, to avoid the manipulation of the requirements that have resulted in spectrum in some services lying fallow for lengthy periods, in 2010, the FCC initiated a proceeding to standardise the rules regarding geographic partitioning and spectrum disaggregation arrangements. The FCC’s proposal would require each licensee after partitioning or disaggregation to meet its own construction requirements for its spectrum and geographic area, and would carry over the construction deadlines from the original licence. The FCC has received comments on its proposal but to date has not yet issued its final rules.

A second major action taken by the FCC to promote efficient use of spectrum was its 2003 Secondary Markets Order, in which it provided for two types of spectrum leasing arrangements. In establishing these secondary market policies, the FCC sought “to promote more efficient, innovative, and dynamic use of the spectrum, expand the scope of available wireless services and devices, enhance economic opportunities for accessing spectrum, promote competition among terrestrial wireless service providers, and eliminate regulatory uncertainty surrounding terrestrial spectrum leasing arrangements” [see Endnote 29]. The secondary
markets spectrum leasing framework provides for the lease of some or all of a licensee’s spectrum usage rights to another party, which can then provide wireless services consistent with the underlying wireless licence. Licensees are permitted to lease all or a portion of their spectrum usage rights for any length of time within the license term, and over any geographic area encompassed by the licence. The leasing framework provides for two forms of spectrum leasing arrangements: “spectrum manager” leasing and “de facto” leasing. Under a spectrum manager leasing arrangement, the licensee retains control of the spectrum at all times, remaining primarily responsible for ensuring compliance with the underlying licence requirements. In addition, the licensee is also responsible for the spectrum lessee’s compliance with those requirements. This responsibility includes maintaining reasonable operational oversight over the leased spectrum so as to ensure that each lessee complies with all applicable technical and service rules, including any frequency coordination requirements and resolution of interference-related matters. The licence holder is not required to obtain prior FCC approval to enter into this form of leasing agreement, so long as it retains both legal (de jure) and de facto control over the leased spectrum.

In de facto leasing arrangements the primary responsibility for compliance with licensee requirements is transferred to the spectrum lessee. The licence holder must obtain prior FCC approval before entering into this form of leasing agreement, although in most circumstances the approval process is streamlined and may be quickly accomplished.

In 2004, the FCC clarified that spectrum leasing agreements may include “dynamic” leasing arrangements, where the licensee and spectrum lessee can share use of the same spectrum through the use of cognitive radio technologies. For example, a licensee and spectrum lessee may enter into a spectrum manager or de facto lease arrangement in which use of the same spectrum is shared by employing opportunistic devices. Clarifying the permitted use of “dynamic” leasing arrangements, the FCC recognised that existing spectrum leasing options may not meet all types of spectrum access needs. However, the FCC also stated that it had great confidence in the ability of the market to find innovative means of enhancing spectrum access and lowering costs. As a result, the FCC’s secondary leasing framework is intended to encourage licensees and spectrum lessees to use spectrum in ways not currently anticipated— to promote the development of advanced technologies and the efficient use of the spectrum without unnecessary regulatory intervention.

**Competition Concerns**

As in the EU, spectrum policy is often impacted by concerns regarding market structure and concentration. The FCC initially employed a “spectrum cap” to limit the amount of spectrum that any party could aggregate on a market-by market basis. However, upon finding that the US Commercial Mobile Radio Services market was sufficiently competitive, in 2003 the FCC eliminated its spectrum cap. Pursuant to Title III of the Communications Act, the FCC must review every proposed sale or transfer of CMRS licenses and determine that such sale or transfer serves the public interest [see Endnote 30]. Pursuant to this review, the FCC considers, among other issues, the impact upon competition as measured in part by market concentration and may withhold its approval before entering into this form of leasing agreement, so long as it retains both legal (de jure) and de facto control over the leased spectrum.

The FCC is required by Congress to issue a report yearly regarding the state of competition in the US CMRS markets [see Endnote 31].

The FCC recently issued its Fifteenth Annual Report, which contains much detail regarding the concentration of providers and services in the US market. In its most recent Report, the FCC stated that it could not reach an overall conclusion regarding whether or not the CMRS marketplace was effectively competitive [see Endnote 32]. This was the same conclusion reached in 2010. However, during the preceding eight years, the FCC did find the US CMRS markets to be effectively competitive.

Finally, the FCC’s review of the potential competitive impact of a transaction involving CMRS carriers is not exclusive. For transactions that exceed certain thresholds, the parties must obtain approval from either the Antitrust Division of the US Department of Justice (DOJ) or the US Federal Trade Commission (FTC), pursuant to the Hart-Scott-Rodino Antitrust Improvements Act [see Endnote 33]. Typically, transactions involving telecommunications markets are reviewed by the DOJ. HSR runs concurrently with the FCC review and is focused on assessing whether the transaction may substantially lessen competition. Like the FCC, the DOJ or the FTC may approve the transaction without conditions, may condition its approval and require, among other things, divestiture of certain holdings to alleviate competitive impact or may seek injunctive relief from Federal District Court to block completion of the transaction.

### 4. Conclusion

The scope and urgency of the spectrum challenges facing spectrum administrators in the EU and the US are the same owing to the demands of the Digital Age and economic imperatives, which have made the rapid deployment of ultra-fast broadband to all citizens a political priority. Differences in the way spectrum issues are being addressed reflect, in part, the fact that spectrum management is reserved to the federal government in the US, whereas in the EU the 27 Member States have pursued their own spectrum policies within the ITU framework. Little by little, the European Institutions are acquiring greater powers to harmonise spectrum policies and procedures across Europe. Other differences in approach reflect the willingness of US Administrations to embrace market solutions with as little government intervention as possible. In Europe, history and tradition have instilled a greater degree of skepticism on the part of some policy makers about the potential side effects of market solutions, like secondary trading, that do not involve prior review and approval. In fact, in both the US and the EU, the trading of individual licences or rights of use in the bands required for wireless broadband requires prior notification and approval by the relevant spectrum administrations. In practice, intervention has been limited in the United States. Whether this will be the case in Europe as spectrum trading is rolled out under the RSPP is an open question.

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**Endnotes**


Id., at page 9.

The NBP also suggested making more spectrum available in several frequency bands, including 20 MHz available for mobile broadband use in the 2.3 GHz band; 60 MHz available by auctioning Advanced Wireless Services bands, including, if possible, 20 MHz from federal government allocations; 90 MHz from Mobile Satellite Services; and 120 MHz from the broadcast television bands.

NBP at 10.


Sprint Nextel was required to secure the costs of rebanding with a letter of credit in the amount of US$2.8 billion. This framework of creating an administrator has gained momentum in the U.S. Draft legislation for the 700 MHz band Public Safety Broadband Network proposes oversight by an FCC-appointed administrator to ensure the construction of a nationwide public safety network.


47 U.S.C. Section 309.


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