Radio Spectrum – A Policy for Europe

InterComms talks to Mike Byrne, Commissioner, Commission for Communications Regulation (ComReg) – Ireland about the development of radio spectrum policy in the EU.

Mike Byrne is a Commissioner with ComReg, the statutory body responsible for the regulation of the electronic communications and the postal sectors in Ireland.

As independent sectoral regulator of Ireland’s €4.5 billion communications sector, Mike’s role is to promote competition, support innovation and to protect and inform consumers and end-users of electronic communications and postal services in Ireland.

Appointed as member of the Commission in 2004, Mike held the Chair of ComReg from 2006 to 2007. In 2010 he was elected Chair of the European Commission’s principle policy advisory body on the use of radio spectrum – the Radio Spectrum Policy Group (RPSG), having previously chaired its working group on the benefits for Europe of the so called ‘Digital Dividend’. Prior to joining ComReg, Mike was a Director of Vision Consulting, the international ICT and systems integration consulting firm.

Mike holds a Master of Science Degree (Management Practice) from Trinity College, Dublin, and a Bachelor of Science Degree from the National University of Ireland, Galway. He has also completed post-graduate executive education programmes at University College, Cork and Stanford University, USA. Mike is also a Chartered Director and graduate of the UK’s Institute of Directors (IoD) Chartered Director programme.

Q: What exactly is the Radio Spectrum Policy Group that you currently chair?

A: The Radio Spectrum Policy Group (RPSG) is a high-level advisory group that assists and advises the European Commission and other institutions, including the European Parliament and the Council, at a strategic level on radio spectrum policy with regard to the availability and efficient use of radio spectrum necessary for the efficient functioning of the internal market.

The group comprises senior representatives from each Member State and an official representative of the European Commission. Delegations include representatives from both the regulatory authorities and the ministries having responsibility for radio spectrum related matters in each Member State. A number of observers take part in the meetings also, such as representatives from the European Conference of Postal and Telecommunications Administrations (CEPT), the European Economic Area (EEA) and candidate countries as well as representatives from the European Telecommunications Standards Institute (ETSI).

The scope of the work produced by the RSPG covers a broad range of areas; technological, market and regulatory developments as well as taking a forward looking view of spectrum usage. The RSPG consults extensively in preparing
deliverables and always aims to take account of the views of interested parties from across all possible sectors when forming an opinion.

Among the strategic issues that RSPG has previously addressed and advised on in the form of written Opinions include: secondary trading of spectrum (2004); coordinating the switchover from analogue to digital terrestrial television (2004); Wireless Application Policy for Electronic Communication Services (WAPECs) (2005); progressing the availability of the so called ‘digital dividend’ (2007, 2009, 2010); collective use of spectrum (2008) and issues concerning the coordination of frequencies at the outer EU borders (2008).

Q: As chair of RSPG what are your priorities for the coming year?

A: There are currently a number of key areas of focus for the RSPG. Primary among these is advising the Commission on the Review of Spectrum Use element of the proposed Radio Spectrum Policy Programme (RSPP), a multiannual strategic policy for development of the radio spectrum on a Europe-wide basis. The Review of Spectrum Use is a key element in the RSPP as the intention will be to identify demand (technology, applications) and supply side (amount, location of spectrum) issues impacting on spectrum use and availability. The RSPG intends to adopt a draft advisory Opinion on the spectrum review process in November 2011 for public consultation.

A second work topic is the very topical issue of the Collective Use of Spectrum and how such a model could facilitate faster access to spectrum, thereby promoting innovation and furthering competition. The RSPG has already undertaken some work in this area and we intend to produce a report later this year that will identify possible bands that could be used, taking account of potential interference issues, and will also explore what impact the use of ‘white spaces’ could have on current policies. These reports will in essence describe EU Member State policy/strategy in these areas.

Our third work area examines how the Member States and the European Commission could improve broadband coverage. We intend to publish an advisory Opinion on the role of wireless networks in supporting the Digital Agenda targets, in particular examining the spectrum implications of meeting the ubiquitous high-speed broadband access target. The work will include analysis of the impact of coverage obligations on competition in the wireless broadband market and under-utilisation of current bands in some Member States.

The RSPG has an ongoing collaboration with the Body of European Regulators for Electronic Communications (BEREC), the group through which Member States’ National Regulatory Authorities (NRAs) exchange expertise and best practice and give opinions on the functioning of the electronic communications markets in the EU. As part of this collaboration a joint working group is studying the economic and social value of spectrum and the impact that liberalisation of spectrum has on competition in the EU.

Managing and coordinating use of the radio spectrum at borders between countries is a challenging task and the use of radio spectrum in one country can have significant impact on the availability of key spectrum bands within its neighbouring countries. Therefore, the final RSPG work item addresses the issues around the international coordination of spectrum and will result in the publication of a report on a strategy to strengthen the European position in the context of international negotiations. It will address how political support from the EU can be employed alongside technical coordination to facilitate resolution of frequency coordination issues.

In addition to the above work items, RSPG will also support the formation of a common European position on the various agenda items for the forthcoming World Radiocommunication Conference 2012.

Full details of the RSPP’s annual work programme can be seen on the RSPG website, see http://rspg.ec.europa.eu/.

Q: What are the current challenges for EU Member States?

A: There are many challenges associated with finding a common ground between so many different countries where their strategies for development of radio spectrum policies have largely been developed independently of one another. This is something that we, the members of RSPG, are always conscious of in developing our Opinions and providing our advice to the Commission and we see it as critical to the success of any policies that consideration be given to the implications for Member States in implementing directives from the Commission.

The harmonisation of spectrum allocations – not just within the EU but with other regions also – can provide for excellent benefits for all citizens whether it be through the support of sustainable economic growth across the EU, minimising social exclusion, job creation, increased economies of scale and the support of increased innovative developments in the sector.

Implementation of the RSPP, once it has been agreed between the Commission, European Parliament and Council, is likely to present some of the most significant challenges (and indeed opportunities) for Member States and the Commission in the next 5 years. Developing, for the first time, a pan-European strategic policy for use of the radio spectrum will require vision, compromise and leadership and the RSPG is conscious of the key role it plays in supporting the development of this vision to the benefit of Europe.

Despite the sometimes not inconsequential challenge of developing common ground, all members of RSPG recognise that the benefits of doing so far outweigh the difficulties and
there is a willingness to work together to reap the rewards of a coordinated approach to the use of Radio Spectrum in Europe. Indeed, through my Chairmanship of RSPG for 2011, I find it inspiring to see how a relatively small National Regulatory Authority such as ComReg can play a significant role in supporting the interests of all EU citizens though its work in RSPG.

Q: What are the main challenges for Ireland in the next few years?
A: In the immediate future I expect to see significant developments affecting the increased use of radio spectrum in Ireland. Following the launch of Digital Terrestrial Television (DTT) services in Spring of this year, we are now looking forward to the cessation of analogue television transmissions in Ireland towards the end of 2012. This will facilitate the release of the 800 MHz band as part of the so called ‘Digital Dividend’. We are working towards releasing this digital dividend together with the GSM900 and GSM1800 bands – a total of about 280 MHz of spectrum – all three as result of EU harmonisation actions designed to facilitate the launch of next generation wireless services in these bands from the beginning of 2013. I expect that these developments will lead to a transformation in the nature of consumer services such as television broadcast programming and mobile broadband over the coming years.

There are a number of spectrum bands suitable for supporting broadband applications that we may in some cases refarm and in other cases release once there is sufficient EU harmonisation in place. ComReg has already commenced its work in this regard in the 2.6 GHz band.

Of course there are a number of work streams that don’t have the same high visibility as the multi-band spectrum releases but are nonetheless important. We continue to release more bands for fixed-links that provide connectivity between base stations and back-haul for instance to switching centres – the ‘glue’ for mobile networks. In this regard it is interesting to note that ComReg processes approximately 100 fixed link applications every week – and in so doing provides all the necessary technical analysis and licensing administration that needs to be undertaken to support their efficient operation.

There are many other services people may not be aware of that we licence – for instance the radar services for air transport and the telemetry systems for the operation, control and monitoring of the electricity and gas networks to name but two are all licensed through ComReg. In total ComReg issues or renews approximately 28,000 individual licences every year.

Q: So the radio spectrum really is a valuable asset?
A: There is no doubt about it – radio spectrum is a very valuable natural and national resource. In developing its strategy for managing the use of Radio Spectrum in Ireland, ComReg conducts research to determine the extent to which its use contributes to the Irish economy and national competitiveness. This work, based purely on publicly available annual reports¹, has concluded that the total contribution to Irish GDP arising from the use of radio spectrum in 2009 was nearly €3.6 billion, or approximately 2.2 % of that year’s total GDP.

Spectrum is also an important generator of employment. A conservative estimate of the number of employees in Ireland whose jobs are dependent on the use of radio spectrum was over 26 000 in 2009. These figures highlight the importance of radio spectrum to the Irish economy.

The social benefits arising from use of the radio spectrum are also considerable. For example, the efficient functioning of our police, fire and ambulance services depends on reliable mobile communications, while radio plays a major role in enabling the Defence Forces to carry out their duties both at home and overseas. Radio is fundamental to the safe operation of air, sea and land transport. Additionally Ireland plays a particularly important role in managing international radio traffic in the aeronautical sector, dealing with most flights between Europe and North America. Thus, it is clear that the contribution of these different sectors to society and the economy is heavily dependent on access to radio spectrum.

The use of spectrum, through its ability to facilitate the encouragement of new technologies and innovation, is also likely to have contributed strongly to general increases in productivity. While this is not measured directly, many commentators acknowledge the link between increased use of Information & Communications Technology (ICT) and greater productivity. Thus, it is highly probable that the indirect effect of spectrum usage, in terms of boosting general productivity across the economy, is significant. In this regard, and to further support innovation in the use of wireless services, ComReg has developed what we believe is a world-class Test and Trial licensing scheme for the use of Radio Spectrum – see www.testandtrial.ie. The scheme allows access to all frequency bands where available, for the purposes of trial and development of services in order to encourage innovation and research and development to the greatest possible extent.

For more information visit: www.comreg.ie

¹ See ComReg document no. 11/28