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Introduction from the Chairperson

"COMREG SEEKS TO BALANCE THE NEEDS OF THE CONSUMER WITH THE LONG TERM AIM OF ENSURING, AS FAR AS POSSIBLE, THAT THERE IS A SUSTAINABLE INDUSTRY CAPABLE OF DELIVERING INNOVATIVE SERVICES, ALTERNATIVE TECHNOLOGIES AND ULTIMATELY EFFECTIVE CHOICE TO END USERS."

ComReg is pleased to publish its Strategy Statement for the communications sector for the period 2012- 2014, as required under the Communications Regulation Act 2002. This strategy document is published alongside ComReg Document Number ComReg 12/68, which responds in detail to the responses received to our consultation on the Draft Strategy Statement. As a consequence of the submissions received, a number of enhancements have been made to the Strategy Statement. I want to thank all respondents for offering their considered views, which helped us consolidate our strategy in that way.

The formulation of a Strategy Statement is invaluable to an organisation such as ComReg in that it facilitates stocktaking and forward-planning and helps ComReg prepare for near-term change, enhancing our regulatory agility and flexibility. In the current period of dynamic change, both in Ireland and globally, it is vital that regulation is predictable, consistent and transparent, thus promoting competition and encouraging investment. In that respect, ComReg seeks to balance the needs of the consumer with the

long term aim of ensuring, as far as possible, that there is a sustainable industry capable of delivering innovative services, alternative technologies and ultimately effective choice to end users.

This fifth Strategy Statement, which is a forward-looking document that serves as a framework for action by the organisation over the next two years, is aimed at the successful delivery of identified key priorities. It is supplemented by our Annual Action Plans, which set out the detailed steps to be undertaken, along with their timeframes. The Communications Regulation Act 2002¹ requires ComReg to publish a Strategy Statement every two years. The existing Strategy Statement expires on 30 June 2012 and it is therefore now timely for ComReg to put forward its regulatory strategy for the period 2012-2014, to provide regulatory certainty for our stakeholders. ComReg has already published its Spectrum Management Strategy for the period 2011-2013 (ComReg 11/89) and will shortly publish its Postal Strategy for the period to 30 June 2014.



This Strategy Statement comes at a time of significant change in the Irish communications market. Despite difficult economic times 2011 turned out to be a year of progress in the electronic communications sector, with strong competitive forces and consumer emphasis on value putting downward pressure on prices for voice and data services and particularly for 'bundles' of telephony and broadband services. Furthermore, the growing availability of attractive broadband speeds, with 100 Mbps available on cable networks in the major urban areas and in excess of 10 Mbps offered over copper or fibre for fixed residential services, has revolutionised Internet access for very many users. Yet, against this positive background, it must be recognised that financial stress is evident among some industry players including Eircom. Overall revenues, profitability and investment levels have fallen, albeit not so heavily in Ireland as in some other countries. This is a source of concern, because a healthy market environment is needed to justify the substantial levels of investment that will be required over the next few years to roll-out the next generation of fixed and wireless services and networks. These services are important for consumer lifestyles but also for business productivity and competitiveness, and thus for Ireland's economic recovery and growth. In regulating the market we will therefore be concerned with providing a stable, competitive and proportionate framework within which telecoms businesses can invest and thrive

In addition to this, the ever-increasing demands for ubiquitous higher speed mobile services mean that operators require additional spectrum to allow them to continue to meet consumer consumption. Our project to liberalise the GSM spectrum bands and re-farm spectrum from the Digital Dividend for mobile broadband services is an ongoing priority so that we can ensure that valuable spectrum is available to those who need it. This is central to our Spectrum Management Strategy².

We aim at all times to ensure that all consumers are protected and informed users of communications services and products. In support of this we are in the process of re-designating the Universal Service Provider of electronic communications services and we will ensure that all end users can avail of a fixed line telephone service at an affordable price. We will also continue to uphold the consumer protections provided by European and National

Achieving the appropriate level of regulation that ensures sustainable competition, while providing consumers with choice and quality and also driving innovation will be a challenging task. Doing so during the current period of national economic stress and with the necessarily limited resources available to us will not be without its challenges. In such an environment the need for good communications with stakeholders is paramount and I am confident that this Strategy Statement, when taken alongside our Annual Action Plans, will play its part in helping our stakeholders to develop their own strategies and action plans with confidence.

Alex Chisholm, Chairperson

1 Strategy at a Glance

Our Mandate

- National & European Legislation
- National & International Co-operation & Co-ordination activities

Our Mission

Through effective and relevant regulation, our mission is to facilitate the development of a competitive communications sector in Ireland that attracts investment, encourages innovation and empowers consumers to choose and use communications services with confidence

Our Values

- Integrity
- Impartiality
- Effectiveness
- Excellence
- Transparency

Safeguarding the Consumer Interest

To safeguard the interests of the consumers of communication services by protecting and empowering them

Promoting Competition

To apply effective and proportionate regulation to facilitate dynamic and sustainable competition

Facilitating Innovation & Investment

To provide regulatory certainty that facilitates innovation and supports investment in communications infrastructure and services

Striving for Organisational Excellence

To be a highly effective and innovative organisation which is a centre of excellence that supports and enables its people to achieve the organisation's objectives

Safeguarding the Consumer Interest - Priorities	Action (reference)	
Protect consumers by implementing policy and undertaking regulatory intervention where necessary	4.1.1 Implement Policies-USO 4.1.2 Implement Users' Rights 4.1.3 Consult with Stakeholders	4.1.4 Identify Detriment 4.1.5 Shape Consumer Policy
Protect consumers by ensuring Service Providers respect and uphold their obligations	4.2.1 Monitor Compliance – Consumer Obligations	4.2.2 Spectrum Compliance
Empower consumers by ensuring the availability of appropriate and transparent information	4.3.1 Inform Consumers Through Outreach Activities	4.3.2 Address Information Gaps
Empower consumers through an effective complaints-handling process that ensures consumer redress and the timely resolution of complaints	4.4.1 Complaints' Handling – Operators	4.4.2 Complaints' Handling – ComReg

Promoting Competition - Priorities	Action (reference)	
Facilitate and promote the roll out of competitive access networks	5.1.1 Framework for NGA 5.1.2 Collaboration on Resource Sharing 5.1.3 Appropriate Remedies	5.1.4 Facilitate Development of Wholesale Services 5.1.5 Support Unbundling 5.1.6 Influence EU Policy
Ensure economic regulation remains focused and responsive to the needs of a changing environment	5.2.1 Review Quarterly Key Data	5.2.2 Review Relevant Markets
Promote innovation in the electronic communications sector through infrastructure-based and service-based competition	5.3.1 Pricing & Incentives 5.3.2 Spectrum for Broadband	5.3.3 Competitive Spectrum Release Mechanisms
Contribute to the development of a competitive single European market for electronic communications services	5.4.1 Regulatory Consistency 5.4.2 Digital Agenda	5.4.3 Implement Best Practice
Ensure that providers of electronic communications networks and services comply with their regulatory obligations through enforcement actions	5.5.1 Publish Compliance Report 5.5.2 Enforcement Action	5.5.3 Spectrum Compliance 5.5.4 Spectrum Enforcement
Ensure the efficient management and use of the radio frequency spectrum in the State	5.6.1 800/900/1800 MHz Lib 5.6.2 DTT & ASO 5.6.3 Fixed Links	5.6.4 FWALA 5.6.5 2.6 GHz Band 5.6.6 2.3 GHz Band
Ensure the efficient management and use of numbers from the National Numbering Scheme	5.7.1 Numbering Policy 5.7.2 Numbering Allocations	5.7.3 Machine-To-Machine Communications
Facilitating Innovation & Investment - Priorities	Action (reference)	
Promote Ireland as a centre of excellence for research and innovation in spectrum that facilitates the development of new radio-communications techniques, spectrum based services and applications	6.1.1 Test & Trial Promotion 6.1.2 Test & Trial Engagement	6.1.3 Spectrum Awareness Initiatives

Facilitating Innovation & Investment - Priorities	Action (reference)	
Promote Ireland as a centre of excellence for research and innovation in spectrum that facilitates the development of new radio-communications techniques, spectrum based services and applications	6.1.1 Test & Trial Promotion 6.1.2 Test & Trial Engagement	6.1.3 Spectrum Awareness Initiatives
Contribute to Ireland's Digital Dividend by facilitating the earliest availability of this valuable radio spectrum band following Digital Switch Over	6.2.1 800MHz 6.2.2 Engage with Broadcasters	6.2.3 DTT & ASO 6.2.4 UHF Bands
Facilitate innovation and knowledge transfer by sharing relevant national and international regulatory best practice	6.3.1 Influence Spectrum Policy 6.3.2 Forward Looking Program	6.3.3 Inform Policy Development
Enable product innovation and sustainable competition by facilitating and responding to sectoral convergence	6.4.1 Regulation Of Bundles 6.4.2 Net Neutrality	6.4.3 Facilitate Product Development
Provide regulatory certainty to market players regarding investment decisions by contributing to the development of a single European market for ECS	6.5.1 EU Policy - BEREC 6.5.2 Digital Agenda	6.5.4 Facilitate Investment

Striving for Organisational Excellence - Priorities	Action (reference)	
Be an effective, independent and innovative organisation with the appropriate systems, structures and skills	7.1.1 Employee Engagement 7.1.2 Corporate Governance	7.1.3 Process Improvement 7.1.4 E-Services
Continue to be a centre of excellence providing effective and relevant regulation	7.2.1 RIA & Consultation 7.2.2 Stakeholder Engagement 7.2.3 Consultation Procedures	7.2.4 Research & Data 7.2.5 Maximise Resources 7.2.6 Developing our People
Engage with other regulatory agencies and key stakeholders, both nationally and internationally, to enable ComReg to achieve its goals	7.3.1 Stakeholder Relationships 7.3.2 International Fora 7.3.3 Annual Output Statement	7.3.4 Annual Work Plan 7.3.5 EU Representation
Ensure that ComReg's regulatory decisions are based on reliable market data and its performance is benchmarked against international standards	7.4.1 Benchmarking 7.4.2 Robust Decision Making	7.4.3 Economic Research

2. Our Mandate

2.1 AN OVERVIEW OF OUR AREAS OF RESPONSIBILITY

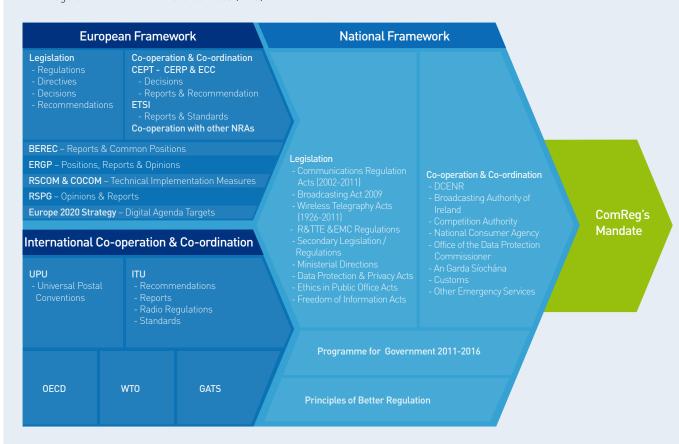
The Commission for Communications Regulation ('ComReg') was established as an independent regulator for the electronic communications and postal sectors by the Communications Regulation Act 2002. ComReg's statutory functions and objectives are set out in the Act. As well as being the economic regulator for these sectors, we also have statutory responsibilities for the management of Ireland's radio frequency spectrum and telephone numbering resources. In recent years our mandate has been broadened with additional statutory responsibilities including:

- Designation as a competition authority with cocompetition powers for electronic communications.
- Call handling fee setting and quality of service monitoring of the Emergency Call Answering Service (ECAS).
- Regulation of the .ie country code Top Level Domain (ccTLD).
- Regulation of Premium Rate Services (PRS).

This Strategy Statement now sets out ComReg's high level goals and priorities and the actions it plans to take to meet its statutory obligations. These specific actions are detailed in chapters 4, 5, 6 and 7.

ComReg is required to publish separate Strategy Statements for radio spectrum management and the regulation of postal services. The current radio Spectrum Management Strategy Statement (ComReg 11/89) is in place for the period 2011-2013 and we will shortly publish a Postal Strategy Statement for the period until 30 June 2014.

ComReg's activities take place within a framework that encompasses National and European legislation and international co-operation and co-ordination. Our overall mandate and the scope of our responsibilities can be illustrated as follows:



³ EU Regulatory Framework - http://www.europa.eu

⁴ National Regulatory Framework - http://www.dcenr.gov.ie/Communications/Legislation/2011.htm

On Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to exante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

2.2 ELECTRONIC COMMUNICATIONS REGULATION

Our mandate in electronic communications stems from the European Regulatory Framework³, which aims to promote free and fair competition and a vibrant communications sector in Europe with consumers as the ultimate beneficiaries. The main policy theme has been the move towards a single market for electronic communications services that progressively removes barriers to pan-European operation and supply. This policy has seen an evolving interaction between four elements: liberalisation, harmonisation, competition and public service. The framework covers all forms of fixed and wireless electronic communications networks and services, data transmission and broadcasting.

The electronic communications sector has seen rapid change in recent years with major developments in voice-over-internet (VoIP) telephony, uptake of broadband services and an increasing demand for feature-rich content services delivered over existing and next generation communications networks. The Framework's five Directives, in force since 2002, were revised in November 2009 and transposed into national legislation⁴ in Ireland through secondary legislation in July 2011. The new regulations aim to strengthen consumer rights and promote consumer choice by enforcing competition between service providers. They also aim to promote investment in new, more reliable and secure networks and services.

The amended Framework, along with the 2007 revised Recommendation on Relevant Markets⁵, recognises the competitive progress made across European communications markets since 2002. Subject to national circumstances, the removal of some electronic communications markets from the ambit of ex ante regulation is to be desired, which will result in a greater reliance on ex post competition regulation in those markets. In practice this means the removal of certain preventative obligations that were imposed on companies in order to protect consumers and promote competition, thereby allowing those firms to operate freely subject to their observation of relevant competition rules. In that regard ComReg has a co-operation agreement in place with the Competition Authority, which facilitates the exercise by both authorities of their concurrent competition powers in the relevant area. ComReg also liaises with the

Office of the Data Protection Commissioner (ODPC) and the National Consumer Agency (NCA), where necessary, to resolve issues and to protect the interests of all users of electronic communications services.

The amended Framework also reflects increased coordination at an EU level through the Body of European Regulators for Electronic Communications (BEREC). ComReg contributes to and influences future policy direction in the electronic communications sector through its participation in BEREC.

The European Commission (EC) reports on the performance of electronic communications markets in the Member States through its annual Implementation Reports⁶. These reports, along with reports issued by the OECD and the European Competitive Telecommunications Association (ECTA), provide a useful benchmark of international best practice and performance, which we use to evaluate our own progress and performance as well as guide our policy direction, particularly in relation to the Europe 2020 Strategy and the Digital Agenda for Europe.

2.3 POSTAL SERVICES REGULATION

The EU Regulatory Framework for the Postal sector is primarily concerned with ensuring the provision of a universal postal service in a market without barriers to competitive entry. The universal postal service plays a key role in meeting the social, business and legal needs of the nation. Once a letter is posted, there is a presumption in law that the letter will be delivered to the addressee in the ordinary course of post. This means that, amongst other things, quality of service standards must be consistently high and there must be easy access to postal services and daily deliveries in accordance with Section 16 of the Communications Regulation (Postal Services) Act 2011 ('the 2011 Act'). Our mandate in regulating the postal sector is set out in the 2011 Act which transposes the 1997 Postal Directive⁷ (most recently amended by the Third EU Postal Directive of 20088).

At an international level, ComReg plays a key role in postal matters through its participation in the European Regulators Group for Postal Services (ERGP), the European Commission's Postal Directive Committee and the European Committee for Postal Regulation (CERP).

See, for example, "16th Progress Report on the Single European Electronic Communications Market – 2011" available at: http://ec.europa.eu/information_society/digital-

agenda/scoreboard/index_en.html
7 Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service
8 Directive 2008/6/EC of the European Parliament and of the Council of 20 February 2008 amending Directive 97/67/EC with regard to the full accomplishment of the internal

Our Mandate

2.4 MANAGING RADIO FREQUENCY SPECTRUM

The Communications Regulation Acts 2002-2011, the Framework and Authorisation Regulations 2011, the Wireless Telegraphy Acts 1926 (as amended) and the Broadcasting Act 2009 set out, amongst other things, ComReg's mandate in relation to the management of radio spectrum9. Access to radio frequencies is an essential requirement for telecommunications, particularly for aviation, shipping, defence services, public safety, broadcasting, broadband and mobile communications.

Our spectrum management activities embrace four main areas, namely deciding at a strategic level, in consultation with interested parties, how the spectrum should be used, developing and implementing the regulatory framework for such use, making the relevant frequencies available and maintaining an interference-free environment. It is essential that all radio equipment is operated in accordance with current legislation and our Spectrum Compliance Unit takes swift and decisive action where breaches are uncovered, offering protection to the radio services of licensed operators by tracing and eliminating unwanted interference. Our activities in this area also include enforcement of the Radio and Telecommunications Terminal Equipment (R&TTE) and the Electromagnetic Compatibility (EMC) regulations. We co-ordinate our activities with An Garda Síochána and other Emergency Services when and where necessary.

As radio frequencies naturally extend beyond national borders, spectrum management requires an in-depth knowledge of, and involvement in, European and global spectrum management developments. ComReg plays an active role, along with DCENR, in various international fora to ensure that, as far as possible, international spectrum policy accommodates Ireland's specific requirements.

Global regulation of radio spectrum is primarily within the remit of the International Telecommunication Union (ITU), while regional regulatory functions lie with the EU and the Electronic Communications Committee (ECC) of the Conference of European Postal and Telecommunications Administrations (CEPT). The Radio Spectrum Policy Group (RSPG) provides high-level strategic advice on spectrum policies to the European Commission and the Radio Spectrum Committee (RSCOM) assists the European Commission in developing technical implementation measures.

The EU framework for the allocation and use of radio frequencies also reflects the commitments in the General Agreement on Trade in Services (GATS) which is applicable to the EU and its Member States. The GATS allows some freedom to allocate and assign frequencies domestically, provided that such provisions do not have the purpose or effect of blocking, or unreasonably limiting market access for operators from other World Trade Organisation (WTO) Member countries.

2.5 MANAGEMENT OF THE NATIONAL TELEPHONE NUMBERING SCHEME

The Communications Regulation Act 2002 sets out the functions and objectives of ComReg for the effective management of the National Numbering Scheme and the Authorisation Regulations 2011 allow us to grant rights of use for numbers. Numbering is a key enabler of communications services and national and international co-ordination is necessary to ensure ongoing global connectivity and protection of users across borders. ComReg participates in various international fora to ensure that international standards, recommendations and harmonisation measures set by the ITU, the European Telecommunications Standards Institute (ETSI), CEPT and the European Commission (EC) are implemented and that best practice is adopted in numbering administration and policy development.

2.6 PREMIUM RATE SERVICES REGULATION

Premium Rate Services (PRS) (also known as "phonepaid services") are typically goods or services that can be bought or accessed by charging the cost to the buyer's fixed or mobile phone bill. Services include information and entertainment content such as traffic and travel information, weather forecasts, registering a vote or comment and entering competitions. Since 12 July 2010, following the enactment of the Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010¹⁰, ComReg has taken over from RegTel as the statutory independent regulator of PRS in Ireland. The focus of PRS regulation is specifically on consumer protection to ensure that the consumer is confident and safe when using PRS.

2.7 MONITORING THE EMERGENCY CALL ANSWERING **SERVICE**

Under the Communications Regulation (Amendment) Act of 2007¹¹, statutory responsibility was placed on ComReg for monitoring the quality of service provided by the Emergency Call Answering Service provider (ECAS provider), currently BT Ireland. ComReg is also required to review relevant elements in relation to the provision of the ECAS by the provider on an annual basis, with a view to setting the applicable call handling fee. The Universal Services Regulations 2011¹² require that a call to the emergency service numbers 112 and 999 is always free of charge to the caller, with the cost being borne by the caller's electronic communications provider. Given the overall importance of the provision of, and access to, an effective emergency call answering service, due regard should be given to ensuring that the access provided by the electronic communications provider is uninterrupted for the caller at all times in accordance with the Universal Service Regulations 2011.

2.8 REGULATION OF .IE

The Communications Regulation (Amendment) Act 2007 amended the Electronic Commerce Act 2000, transferring to ComReg powers to make regulations affecting the management and administration of the .ie ccTLD.

In 2008 and 2009 ComReg carried out a detailed review of IE Domain Registry Ltd (IEDR), the current registry operator, and the operator has implemented various changes and improvements as a result. ComReg may appoint IEDR as the registration authority once key elements of the proposed regulatory framework¹³ have been put in place, including the implementation of adequate safeguards that ensure protection of the long term interests of all .ie stakeholders. This may require the enactment of further primary legislation.

2.9 REGULATORY ACCOUNTABILITY

We are keenly aware of the importance of accountability for an independent regulatory body, and ComReg works with all of its stakeholders to ensure it operates within the spirit of the Principles of Better Regulation¹⁴.

ComReg's accountability framework ensures independent, transparent and evidence-based regulation, this being the litmus test for international credibility as a best-inclass regulator. Our use, where appropriate, of public consultation procedures, Regulatory Impact Assessments (RIAs), industry fora and our advisory panels ensures that the views of all stakeholders are considered in our decision making process. It also ensures that the impact of our decisions is proportionate, effective and in the broad interests of all stakeholders.

ComReg is audited by the Comptroller and Auditor General (C&AG). The Government Statement on Economic Regulation¹⁵ emphasises the need for effectiveness and efficiency in the business of regulation. This is a responsibility that we take very seriously. It is vitally important, given our growing mandate and the public sector reform agenda, that we apply continuous and rigorous scrutiny of costs in all of our activities.

ComReg is accountable to the Minister for Communications, Energy and Natural Resources and the Minister may issue policy directions to ComReg in accordance with the provisions of the Communications Regulation Act 2002. ComReg is subject to parliamentary scrutiny by relevant Oireachtas Committees and we are required to prepare and present a Strategy Statement every two years and an Annual Report, Action Plan, accounts and financial forecast on a yearly basis. ComReg is also accountable for its decisions and conduct through judicial oversight, Ethics in Public Office legislation and Freedom of Information legislation.

http://www.irishstatutebook.ie/pdf/2007/en.act.2007.0022.pdf

[&]quot;http://www.irishstatutebook.ie/pdf/2007/en.act.2007.0022.pdf
"European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations 2011.

13 ComReg Document 09/01 - Regulation of .ie Response to Consultation

14 Regulating Better: A Government White Paper setting out six principles of Better Regulation, January 2004.

15 Available at: http://www.taoiseach.gov.ie/eng/Publications/Publications_2011/Government_Statement_on_Economic_Regulation.pdf

3. Strategic Context and Environment

3.1 CONSUMER TRENDS AND CHALLENGES

Communications services and products are essential to consumers

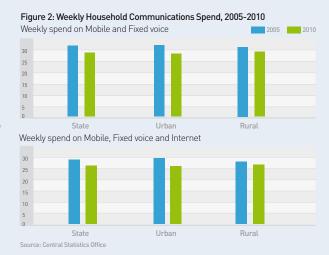
Irish consumers and businesses undoubtedly face severe constraints on their purchasing power following the economic downturn. The demand for communications products and services has been remarkably resilient and this demonstrates the essential nature of these services to consumers and businesses.

In relation to specific consumption of electronic communications products and services, investment bank Nomura suggests that in Europe, "Communication spend remains fairly resilient [since 2009], but certainly falls behind food and energy costs, and will likely be affected in those markets where the austerity squeeze is toughest".

When asked whether the recession has impacted on their usage of information and communications technologies, 19% of respondents to a recent ComReg survey¹⁶ stated they had shopped around for cheaper packages or deals, while 17% of respondents said they had reduced their usage of telecommunications services in general. Only 1% actually cancelled their broadband connections, 2% had cancelled their landline and 3% had cancelled their Pay TV service

Data from the CSO's Household Budget Survey for 2009-2010 shows some decreases across both rural and urban households in weekly spend on fixed line services, mobile phone services and internet access. However when compared with data on broadband and internet penetration, and in particular on usage of mobile technologies and take-up of bundled services, this data on spend suggests that consumers are seeking out and obtaining better value for the money they spend on telecommunications services.

This in turn has increased competition in communications pricing and operators are looking to develop new pricing models, such as a single broadband data package linked to multiple devices, and/or usage-based pricing rather than a flat-rate tariff.



Communications pricing is stable

Relative to the overall Consumer Price Index, communications inflation has been relatively flat since the start of the recession in 2008. In the 12 months to February 2012, the average communications basket rose by 1.4%, compared with 2.1% for the prices of all consumer goods and services. Figure 3 below shows communications price inflation relative to total price inflation for all consumer goods and services.

Figure 3: Consumer Price Index and Communications Sub-component



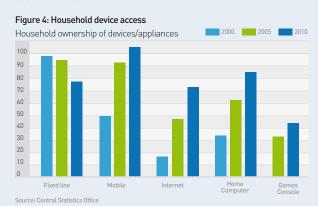
Source: Central Statistics Office

The average consumer spends around 3.5% of their monthly income on communications products and services, compared with 18% on housing, 16% on food and 14% on transport.

¹⁶ http://www.comreg.ie/_fileupload/publications/ComReg1196b.pdf

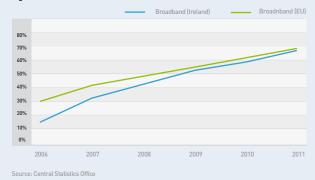
The composition of this spend is changing too – see Figure 4 below. A recent Household Budget Survey¹⁷ from the CSO found that 70% of households had a fixed telephone line in 2010, compared with 86% in 2005, while mobile phone adoption increased by 12% and internet penetration increased by more than 20% in the same period.

Growing and more sophisticated consumer usage of electronic communications



Broadband adoption has continued to grow in the past two years as indeed have average broadband speeds, driven in part by strong user preference for video consumption and for other content services such as news and social networks. Around 65% of Irish households now have some form of broadband, which broadly matches the EU-27 average - see Figure 5 below. The changing consumer preferences in respect of mobile technology, broadband access and bundled services may have implications for areas such as universal service provision in the future.

Figure 5: Household Broadband Penetration 2006-2011



Due to the nature of communications services there is a need to ensure that consumers are adequately protected and informed. Having a clear and consistent approach to compliance is essential to ensure that operators fully uphold their obligations to consumers. While ComReg generally finds that operators are responsive to meeting their regulatory obligations, the need for firmer steps can be necessary in certain cases.

As a complementary approach to compliance, ComReg continues to seek to ensure that consumers are fully informed regarding their contracts and the range of services and products on offer, and this in itself can be expected to pre-empt the development of systematic issues. In response to these trends, ComReg will continue to focus on ensuring that consumers understand product offerings in the market, such as bundles, the terms and conditions attached to service subscriptions, and the process for switching between providers and/or service packages. Finally ComReg will need to review and monitor the universal service framework in the electronic communications sector on a regular basis, to ensure it reflects market conditions and expected developments.

Chapter 4 provides further details on ComReg's proposed priorities and actions to protect and inform consumers.

Safeguarding the Consumer Interest

High Level Goal #1

To safeguard the interests of consumers of communication services by protecting and empowering them

3.2 COMPETITIVE OUTLOOK

Challenging economic conditions still evident

Since ComReg published its last Strategy Statement in 2010, economic conditions have remained challenging, both domestically and globally. Data from the Central Statistics Office¹⁸ (CSO) suggests that while GDP in the Irish economy expanded by about 0.7% in 2011, GNP contracted by about 2.5%, indicating that domestic demand and industry output remain weak. Looking ahead, the Economic and Social Research Institute (ESRI), in its

Strategic Context and Environment

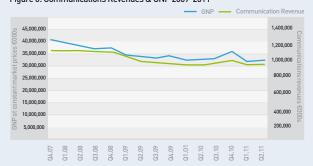
Quarterly Economic Commentary¹⁹ (Winter 2011), forecasts that the economy will grow marginally by 0.9% in 2012 (in terms of GDP), while the Central Bank's recent quarterly bulletin²⁰ estimates growth of 0.5% in the same period.

Market players with high debt levels have found conditions particularly challenging. In a trading update²¹ issued in February 2012, Eircom indicated that lower customer confidence and competition have had a negative impact on average revenues from their fixed and mobile customers. Mobile operators have similarly highlighted the impact of a weak economy on their Irish operations. 02's revenues for its Irish operation fell by 7% between Q3 and Q4 2011 and it stated²² that "the trading environment remained very difficult in the fourth quarter of 2011, with our customers continuing to optimise their monthly spend". Regulation of roaming and termination rates will also impact negatively on industry revenues, although this may be offset by the positive impact that such tariff reductions will have in stimulating increased usage by consumers.

As revenue growth has slowed or declined telecoms providers have had to adapt to these recessionary trends. Overall, the electronic communications sector in Ireland generated €3.83 billion in revenue in the year to the end of December 2011, down 4% on December 2010. Figure 6 below demonstrates the strong links between economic growth and consumption of electronic communications

This decline demonstrates that pressure continues to be exerted on industry margins despite cost-cutting, focus on new revenue streams, pricing models, and consolidation. Analysys Mason suggests that mobile retail revenue in Western Europe will fall from €117 billion in 2010, to €112.8 billion in 2013, and then increase slightly to reach €114.7 billion by 2016²⁴. The challenge for operators is to find ways to increase overall revenues that ensure they can continue to invest in new products and services.

Figure 6: Communications Revenues & GNP 2007-2011



The next two to three years will bring added pressure on providers to invest in broadband capacity and spectrum, thus ensuring they can provide the necessary bandwidth and advanced services to meet customer demand. Infrastructure choices will inevitably be crucial and novel approaches like cost-sharing between operators (e.g. through co-investment in networks) or passive network sharing, may become increasingly attractive to operators. Such collaborative efforts are not necessarily anticompetitive but they do demand close monitoring by the regulator.

It is at this point that ComReg's role and the clarity of its approaches become most important. On the one hand any anti-competitive behaviour that could emerge from close inter-operator collaboration would be inappropriate, while on the other hand regulatory certainty - possibly including carefully calibrated forbearance and/or investment incentives - will be needed to provide confidence for investment. ComReg's examination of a collaboration proposal will, of course, occur within the context of its statutory functions, objectives and duties and, given this, interested parties should be in a position to identify for themselves the types of potential issues and concerns that could arise. ComReg's position on collaboration between wireless operators is set out in Section 4.4 of the Spectrum Management Strategy Statement 2011-2013 (ComReg 11/89). ComReg has also discussed collaboration in the context of NGA investment in Section 11 of its recent Consultation on NGA (ComReg 12/27).

Ensuring appropriate wholesale prices is one important incentive for investment. Balanced and effective incentives might be introduced, if necessary, through the medium of regulatory remedies. In particular, access pricing is an area of ever-growing importance, whether for LLU or NGA, and this is a key area of focus for ComReg.

¹⁹ http://esri.ie/UserFiles/publications/QEC2011Win.pdf
²⁰ http://www.centralbank.ie/publications/Documents/Quarterly%20Bulletin%20Q2.pdf

²³Although a lag sometimes occurs betwe

To address the impacts of operator non-compliance, ComReg operates a process that seeks effective resolution of cases of non-compliance, including legal action where necessary. This process is ongoing and we will continue to publish bi-annual compliance reports that identify steps

ComReg will undertake other important competitionoriented steps during the timeframe of this Statement as listed and described in Chapter 5.

High Level Goal #2 Promoting Competition

3.3 TRENDS IN COMMUNICATIONS INNOVATION AND **INVESTMENT**

Growth in adoption of mobile devices and usage of mobile

The last Strategy Statement identified a trend towards wireless and mobile access everywhere, along with an increasing preference for video content, whether delivered from a service provider or user-generated. This continues to be the key driver for next generation mobile broadband. In addition, growth in machine-to-machine communications (e.g. in-car systems for safety, navigation and traffic information, utility smart metering etc.), will also power the next wave of growth in ubiquitous mobile communications. Indeed there are already an estimated 6.6 billion mobile connections worldwide, with 50 billion

Figure 7: OECD Wireless Broadband Subscriptions per 100 Inhabitants By technology June 2011

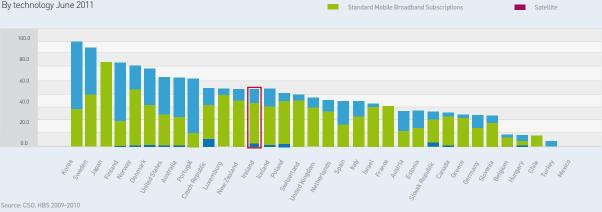
mobile devices likely to be connected by 2020, according to Ericsson²⁵. These are exciting trends that will impact strongly on the demand for spectrum, the design and development of core and wireless access networks and on the content available over all network types.

Other research by Cisco²⁶ confirms this explosive growth, with global mobile data traffic growing by around 133% in 2011, of which an estimated 52% was mobile video. Cisco's research shows that average Smartphone traffic in 2011 had risen to 150 MB per month, with mobile laptop data traffic adding no less than 2.1 GB per month. Also supporting this trend, the GSM Association reported²⁷ that "mobile data, driven by huge growth in mobile broadband and Smartphones, is forecast to grow at over 90% for the next 5 years".

Although Smartphones represent only 12 % of handsets in use today globally, according to Cisco they account for over 82% of all handset traffic. This has real implications for future demand in Ireland, with around 750,000 Smartphone users already on operators' books by June 2011²⁸ and with rapid adoption of ever more sophisticated Smartphones taking place here. This trend is driven by consumer demand for always-on connectivity, advanced devices such as smartphones and tablets, a multitude of available applications (or Apps), and operator promotions. Figure 7 below identifies a very healthy adoption rate in Ireland of dedicated wireless broadband subscriptions (using various mechanisms and delivery channels) when compared with adoption in other OECD countries.

Convergence of the communications and the IT sectors is now well advanced and this will inevitably drive additional investment and new innovations, which may result in

Dedicated Mobile Data Subscriptions



Terrestrial Fixed Wireles

3. Strategic Context and Environment (continued)

transformed business models. A dynamic online world, which has already provided enhanced consumer choice in terms of attractive and useful content and applications, will provide opportunities for the communications industry to derive new revenues from innovative services and applications.

The industry will undoubtedly find itself challenged to cope with the heavier demand and massively increased data loads resulting from these innovative services and terminal devices. ComReg's support for industry's own innovations and investments in response to these demands, including prudent allocation of Ireland's spectrum resources, will therefore be crucial to supporting this future growth. So-called 'Over the Top' (OTT) services also play a part by acting as drivers in this massive demand, whether the services and apps are incoming or generated in Ireland. Irish operators have hitherto been supportive of these and recognise their value in encouraging growth, so net neutrality issues that have arisen elsewhere have not been as evident in Ireland. To promote the interests of users and also to encourage innovative services and applications, ComReg will remain vigilant and alert to the emergence of such issues in Ireland.

Rollout of next generation access is underway

Demand for enhanced fixed broadband speeds is also developing, with several companies rolling out higherspeed products often at no or very low incremental cost to the consumer. Some 20% of residential broadband subscribers in Ireland now avail of speeds in excess of 10 M/bits. Businesses needing high capacity links are adopting new and faster Ethernet services from a number of providers. Moreover, recent evidence from researchers such as Analysys Mason suggests that some consumers who previously relied on mobile broadband or who had cancelled their fixed line are now switching back to fixed services to avail of the higher broadband speeds that are now available.

The Government's Next Generation Broadband Taskforce and the Programme for Government are also of importance to NGA rollout. ComReg is mindful of the challenges in delivering universal higher-speed broadband throughout Ireland and will work with Government and industry to promote solutions that overcome these difficulties.

Digital broadcasting switch-over due in October 2012

24 October 2012 will see the cessation of the analogue free-to-air TV signal. The switchover to Digital Terrestrial Television (DTT) will provide consumers with free-to-air programming with superior picture and sound quality. Apart from this consumer benefit, digital switchover will also free up spectrum resources, providing ComReg with an opportunity to offer more spectrum for mobile broadband via the 800MHz band.

Coordination challenges in ensuring that analogue switch off is successfully delivered by October 2012 have now been addressed by ComReg, in cooperation with other stakeholders. Any cross border interference issues arising following digital switch over will be dealt with by ComReg in cooperation with the UK regulatory agencies.

Test & Trial Ireland

Test & Trial Ireland has been a notable success to date with over 175 licences issued and ComReg will continue the momentum, promoting this innovative facility via workshops and seminars to potential spectrum users, researchers, technical innovators, entrepreneurs and State Agencies.

Regulatory Clarity

Providing regulatory clarity will be at the core of ComReg's approach to the work that it undertakes in support of innovation and investment particularly concerning decisions that may be taken on a flexible NGA framework and future spectrum allocations. Further details on ComReg's proposed actions in this area are provided in Chapter 6.

Facilitating Innovation & Investment

High Level Goal #3

To provide regulatory certainty that facilitates innovation and supports investment in communications infrastructure and services

3.4 ORGANISATIONAL BACKGROUND AND CHALLENGES

Increased scrutiny of the Irish public sector

Since ComReg issued its last Strategy Statement in 2010, the economic recession has deepened, both in Ireland

and globally. In late 2010, Ireland accepted a 3-year EU-IMF programme of assistance and its economic performance is now subject to very close national and international scrutiny. So too are the budgetary decisions of the Government and those of its ancillary agencies (including ComReg). The Programme for Government, the Public Service Agreement 2010-2014 and the Employment Control Framework will therefore all influence and shape ComReg's ability to deliver on its regulatory mandate during the timeframe of this Strategy Statement. A strategic review of the Broadcasting Authority of Ireland (BAI) and of ComReq will also be carried out by the Government (expected by June 2012) and the implications of this for ComReg are unknown at this point.

ComReg has acquired an expanded regulatory mandate

These organisational challenges have arisen at the same time as we have acquired a broader regulatory mandate (described in Chapter 2). That mandate now includes the EU's new regulatory framework for electronic communications which was transposed in Ireland by Regulations effective July 2011, the European Commission's Digital Agenda, increased responsibilities for PRS and domain name regulation, regulation of the Emergency Call Answering Service, designation as a competition authority with co-competition powers and full liberalisation of the postal services market. Against that expanded operational background, and within the constraints of existing budget cuts and staffing caps, ComReg must ensure over the next two years that it continues to operate efficiently and fully meet all of its obligations to stakeholders, in Ireland and abroad. To do this, we shall actively seek out ways in which we can work more efficiently and effectively, with enhanced use of information technology being a primary focus for driving forward productivity. Harnessing IT in innovative ways, whether for internal or external use can enable us to deliver useful and innovative e-services to our stakeholders. We will strive to ensure that the manner in which we regulate a dynamic and exciting communications industry continues to be both proportionate and relevant.

High Level Goal #4

Striving for Organisational

3.5 POSTAL SERVICES ACT 2011 AND ITS IMPLICATIONS FOR COMREG'S WORK PROGRAMME

The Communications Regulation (Postal Services) Act 2011 (the "Act") came into force on 2 August 2011. Section 9 of the Act amends ComReg's functions in respect of postal services, as originally set out in section 10 of the Communications Regulation Act, 2002. From now on, ComReg's statutory functions include:

- to ensure the provision of a universal postal service that meets the reasonable needs of postal service users
- (ii) to monitor and ensure compliance by postal service providers with the obligations imposed on them by or under the Communications Regulation Acts 2002 to 2011 in relation to the provision of postal services

The objectives of ComReg in exercising its functions in relation to the provision of postal services are also amended (by Section 10 of the Act). In future they will be:

- (i) to promote the development of the postal sector and, in particular, the availability of a universal postal service within, to and from the State at an affordable price for the benefit of all postal service users
- to promote the interests of postal service users within the Community, and
- (iiii) subject to subparagraph (i), to facilitate the development of competition and innovation in the market for postal service provision

ComReg will shortly prepare and publish a draft of its Postal Strategy Statement for public consultation for the period to 30 June 2014. The draft statement will set out ComReg's proposed priorities and the actions it will take in order to carry out the tasks assigned to it under the new Act, how ComReg will ensure compliance with the obligations imposed on postal service providers by the Act, and how ComReg will achieve the statutory objectives set out in the Act

Safeguarding the Consumer Interest

Safeguarding the Consumer Interest

High Level Goal #1

To safeguard the interests of consumers of communication services by protecting and empowering them

Protection of the interests of consumers is a regulatory constant of particular importance in these challenging times. Whether ComReg is implementing policies or monitoring service providers' compliance with their obligations, protecting the consumer interest is often the driving force behind regulatory intervention.

Ensuring availability of clear and transparent information can empower consumers to respond directly to situations they consider to be less than satisfactory and in many cases this is the preferred regulatory approach. Nevertheless, in other cases, the regulator must be ready to step in with early and firm action focused on rectifying any unfair or unreasonable treatment of consumers. ComReg offers consumers a facility to contact its consumer line for assistance in dealing with service providers.

4.1 PRIORITY: PROTECT CONSUMERS BY IMPLEMENTING POLICY AND UNDERTAKING REGULATORY INTERVENTION, WHERE NECESSARY

Consumer Interests

Consumers must be central to all regulatory decisions affecting their interests. These interests cover issues like access to the emergency services, being notified of contract changes, having legitimate billing preferences recognised, and being enabled to use their phones throughout the EU, confident that they will be notified when their usage limit has been reached and that prices will be correct. In addressing these concerns, ComReg must at all times consider market developments and trends, consult with key stakeholders and remain cognisant of its mandate.

ComReg has been responsible since July 2010 for the regulation of companies offering PRS services that users can buy by charging the cost to their phones. ComReg's overall goal in that area is to ensure that consumers

can feel as confident and safe in using PRS as in using other communications services. ComReg recognises that consumer confidence will also benefit industry as industry invests in new and innovative services and makes these available to the public. However consumers also bear responsibility for their own actions and ComReg's focus will be to ensure they are adequately informed so as to protect themselves.

Today the web is an integral part of life for consumers, and internet domain names enable routing and access to websites. To ensure efficient provision of Irish registry services that best protects the national interest, ComReg has been made responsible for regulating the management and administration of the .ie country code.

ComReg understands behavioural economics has a part to play in determining consumer needs and behaviour and to this extent ComReg will undertake further research in this area to assist with its associated policy setting.

Universal Service (for electronic communications services)

Universal Service Scope and Designation: The universal service obligation ensures that basic telephone services, including access at fixed location, are available to all consumers at an affordable price. Eircom was designated as the universal service provider on 1 July 2010 for a period of two years, expiring on 30 June 2012. ComReg is this month issuing a consultation about the designating of the future service provider(s), effective from 1 July 2012. The consultation also deals with the scope of the services covered by the universal service obligation.

Universal Service Fund: The establishment of a Universal Service Fund has been subject to ongoing consideration by ComReg. This issue was addressed in a public consultation in 2011²⁹, along with the principles and methodologies to be used for calculating the net costing of the universal service obligation.

Quality of the Universal Service: Communications products and services are considered essential by most consumers. ComReg endeavours to protect consumers by ensuring that the universal service provider achieves minimum quality of service levels. ComReg sets comprehensive performance targets for quality of service

²⁹ Consultation on sharing mechanism for any USO Fund: Principles and Methodologies – ComReg 11/77

for access at a fixed location to achieve this. ComReg publishes information notices on a regular basis regarding the performance of the universal service provider. Since the current quality of service regime was established significant improvements have been made in relation to fault occurrence and repairs³⁰. ComReg will continue to monitor performance against these targets closely.

Billing and Cost Control: Consumers must be protected from 'bill shock' and unexpected charges. ComReg will continue to address this issue along with other billing related issues such as online billing and other measures to assist consumers to verify charges on their bill.

Transparency: Ensuring transparency is a key objective for ComReg and it should continue to meet the needs of consumers. ComReg will continue to manage and maintain www.callcosts.ie to ensure it is accurate and transparent and that the information on prices and tariffs to consumers in respect of electronic communications services aligns with the market and consumer information needs. ComReg will also seek to address any information gaps for consumers in respect of their individual usage patterns. Consumers need this type of information when choosing the most appropriate operator/plan.

ComReg has commenced a project with the objective of developing and piloting a methodology and a tool for measuring and publishing broadband speeds experienced by consumers using different platforms.

Equivalent Access and Choice: Any obligations established by ComReg to achieve equivalent access to electronic communication services by consumers with disabilities will require analysis of the needs of people with disabilities when compared to the services available to all consumers. ComReg will continue to monitor access and choice to electronic communications services for consumers with disabilities vis-à-vis all consumers and will propose measures deemed necessary to ensure equal access and choice. ComReg's work in this area will continue to be informed by its Forum on Electronic Communications Services for People with Disabilities.

Premium Rate Services: ComReg recently implemented a revised industry Code of Practice in accordance with the legislation. ComReg will aim to ensure that the PRS levy order reflects regulatory requirements together

with market trends by facilitating both existing and new services, such as mobile payments. ComReg will continue to develop its associated e-licensing system for authorisation of PRS providers.

Actions arising from priority 4.1

ACTIONS

- Implement appropriate policies in relation to Universal Service, including scope, designation, quality of service and fund aspects
- Implement appropriate polices in relation to users rights that are within ComReg's mandate including access to Emergency Services, Data Privacy, Internet Domain Names, equivalent access and choice for consumers with disabilities, roaming and a PRS code of practice
- 4.1.3 panels, consumer interest groups) on consumer policy issues to inform the decision making
- Identify consumer detriment through proactive monitoring of market developments, consumer issues and trends and research and implement measures necessary to protect consumers
- 4.1.5 Continue to influence and adopt national and European legal and regulatory developments in relation to consumer policy

4.2 PRIORITY: PROTECT CONSUMERS BY ENSURING SERVICE PROVIDERS RESPECT AND UPHOLD THEIR **OBLIGATIONS**

The analysis in Chapter 3 indicates that stronger competitive forces and consumer emphasis on value have put downward pressure on prices for voice and data services. Service providers have responded to this emphasis on value by providing bundled offerings of telephony and broadband services and consumers have benefited from savings as a result. However, the terms, conditions and retail pricing of bundled offerings

Safeguarding the Consumer Interest

can be complex and sometimes confusing. Operators must address this issue through the provision of clear and transparent information at point of sale and by providing accurate billing. The key to consumers' ability to comprehend complex bundled offerings and new retail price models is transparency regarding the terms of the offer and accurate bills that charge only for the services provided.

Proactive monitoring of obligations and the undertaking of investigations are essential components of our consumer protection brief. The challenge for ComReg is to promote consumer protection while supporting innovation and product development in communications markets. To inform the work programme, ComReg analyses trends in relation to the issues reported to ComReg by consumers and it undertakes surveys to help identify areas of concern and trends in the market.

ComReg monitors Service Providers' performance in relation to their obligations to consumers. Our monitoring activities include:

Access to Emergency Services: ComReg monitors and reports to the Minister for Communications, Energy and Natural Resources, on the quality of service of the ECAS provider and sets the call handling fee that the ECAS provider may charge. ComReg also monitors Service Providers' compliance with the Universal Services Regulations which requires undertakings to take all necessary measures to ensure uninterrupted access to emergency services.

Contracts: ComReg will continue to ensure that the contracts offered by service providers meet the requirements set out in law. It is essential that consumers understand their contractual commitments and the nature of the products and services for which they are paying. In particular, ComReg will pay close attention to the duration of the contract, the minimum term, conditions for terminating a contract, changes to contract terms and the authorisation of a new or renewed contract by the customer.

Data Privacy: New legislation introduced in July 2011 will require close monitoring of service providers operations regarding data privacy, including unsolicited communications.

Network Neutrality: ComReg's overall approach to Network Neutrality, which is an issue concerned with the protection of consumers and the avoidance of discrimination, will be informed by ongoing BEREC work, the EU consultation results and the revised 2009 Framework.

Premium Rate Services: Consumers who wish to use PRS should do so in the full knowledge that the market is regulated and monitored and that PRS providers abide by the industry Code of Practice. In this respect ComReg will continue to monitor and take necessary action to ensure ongoing compliance.

Price Transparency: Transparency is a key objective for ComReg and continued monitoring is required to ensure pricing information is accessible and presented by operators in a transparent manner and in accordance with applicable tariff transparency obligations. ComReg will continue to manage and maintain www.callcosts.ie to provide accurate information on pricing and tariffs.

Radio Spectrum: Spectrum must be continuously monitored and compliance measures must be taken where necessary to protect consumers and service providers from interference. This is a particular challenge in recent times as the number of compliance cases has doubled since the economic downturn.

Roaming: The roaming regulations set wholesale and retail price caps and retail transparency measures that apply when travelling in other EU countries. Further changes are foreseen in the coming period including retail price caps for data and reduced rates for SMS and voice calls. To ensure all consumers benefit from the protection that these afford, their implementation by operators will be subject to continuous monitoring.

Switching: ComReg will ensure that consumers can switch their telecoms provider in accordance with the requirements and, in the event of exceptions (provided for by the regulations), receive compensation.

Universal Service: ComReg will continue to review and monitor all aspects of the framework for universal service in the electronic communications sector, in addition to those specifically mentioned above, to ensure the universal service reflects market conditions and anticipated developments.

Voice over Internet Protocol (VoIP): ComReg will continue to monitor evolving technical standards and international policy for all VoIP services, in particular those that seek to improve the user experience, the safety of users and the security and integrity of services.

Actions arising from priority 4.2

ACTIONS

- 4.2.1 Monitor service providers' compliance with their consumer related obligations through monitoring programmes, review of consumer issues and complaints, research and other methods and take necessary action
- 4.2.2 Investigate and take compliance action where necessary to address interference and unlicensed use of spectrum and provide technical support and surveys to ensure terminal equipment and devices meet standards and requirements set out in national and EU legislation

4.3 PRIORITY: EMPOWER CONSUMERS BY ENSURING THE AVAILABILITY OF CLEAR AND TRANSPARENT INFORMATION

We recognise that consumers must be adequately informed and empowered as they choose products and services that suit their needs and budget. ComReg engages with industry to ensure that accurate and transparent information is always available to consumers. This is in addition to actions we may take when we identify information gaps that impact consumers.

There is a clear consumer trend towards increased demand for higher broadband speeds. Consequently, there is a need for clear and comprehensive information on the actual broadband speeds experienced by consumers. ComReg is currently developing and piloting a methodology and associated tool for measuring and publishing broadband speeds across a range of platforms from different service providers.

ComReg uses its consumer websites, consumer line, consumer guides and outreach programmes to provide relevant and timely information to consumers.

ComReg will continue to operate and enhance its consumer websites including:

- www.callcosts.ie enables consumers to compare the packages on offer from individual service providers and to assess which package offers best value (in terms of price, features, services, etc) for their specific usage. The site currently provides details of over 400 bundled communications offerings from over 30 operators.
- www.phonesmart.ie enables consumers to identify the source of a premium rate service, to find out details about the industry Code of Practice and any non-compliance issues and to find the contact details for the service provider.
- www.askcomreg.ie maintains an up to date consumer website that provides clarity in relation to common communications issues experienced by consumers.

Actions arising from priority 4.3

ACTIONS

- to consumers in relation to electronic communications services using our consumer line contact centre, consumer guides, outreach programs, websites and other electronic media so that they are more informed in their dealings with service providers and more confident in making decisions about communications services
- 4.3.2 Identify information gaps and put appropriate

4 Safeguarding the Consumer Interest

4.4 PRIORITY: EMPOWER CONSUMERS THROUGH AN EFFECTIVE Complaints handling PROCESS THAT ENSURES CONSUMER REDRESS AND THE TIMELY RESOLUTION OF COMPLAINTS

All service providers are obliged to offer a complaints handling service to their customers. ComReg ensures that service providers have a complaints handling code of practice that outlines procedures for resolving customer complaints. The code of practice also includes a timeframe for referring the customer to ComReg that is no more than ten working days. ComReg introduced a voluntary complaints handling standard to provide a framework for a consistent approach to dealing with customer complaints by all service providers. This standard provides consistency and certainty about the customer services being offered and it enables a consumer to factor this into a decision when selecting a service provider. ComReg will continue to drive improvements in consumer complaint handling by operators so that issues can be resolved in a timely manner without the consumer having to seek further redress with ComReg.

All consumers are entitled to have their complaints dealt with fairly and effectively. ComReg continues to provide a quality complaints handling service that offers multiple channels for consumers to contact our consumer care team, including by web chat, text, email and telephone. Our team will inform consumers as to what a service provider is obliged to offer and, in the event that a complaint by a consumer is not resolved, we will review the issue, on a case by case basis, escalating where appropriate. Actions arising from priority 4.4

ACTIONS

- 4.4.1 Drive improvements in service providers' handling of customer complaints
- 4.4.2 Continue to develop and improve our complaints handling mechanism to offer consumers an effective facility to put right consumer issues for which service providers' complaints handling fails

Promoting Competition

Promoting Competition

High Level Goal #2

A competitive market is key to providing users with the best available services at the best prices, and at the same time it places all market players on a level playing field. In order to achieve this objective, ComReg needs to continually reassess its regulatory approaches to evaluate the impact they are having on market players and their incentives for investment, as well as the benefit to consumers. Competition can contribute to a strong and innovative European marketplace, as well as the emergence of high speed Next Generation Access networks and a wide choice of new and converged services and applications. In addition to well-considered market analyses and remedies, ComReg's approach to effective management of Ireland's radio spectrum and numbering resources will remain central to achieving these results.

5.1 PRIORITY: FACILITATE AND PROMOTE THE ROLL OUT OF COMPETITIVE ACCESS NETWORKS

ComReg will facilitate and promote the rollout of next generation access ("NGA") networks while also supporting those market players that continue to unbundle exchanges for current generation services, including for example, local loop unbundling services ("LLU").

An important aim of regulatory authorities is to facilitate efficient investment, which requires striking a balance between encouraging operators to build new networks, preventing where possible the emergence of new competition bottlenecks, and avoiding inefficient duplication of networks. ComReg has always in the first instance pursued a system of incentive-based regulation, where we have attempted to give the regulated entity an incentive to improve its services, cut costs and serve its wholesale customers better. This is a complex task, which is made more challenging when technology, services and the dynamics of wholesale and retail demand are changing rapidly.

A number of operators across Europe, including Eircom³¹ and UPC, are currently rolling out NGA networks that will support a range of new and innovative high speed

broadband products and services, with potential benefits for consumers and businesses alike. Where access regulation is justified, its success depends on a fully functioning set of obligations. Ongoing monitoring of wholesale products will be necessary to respond to market and product developments, as well as to ensure compliance. Our strategy is to facilitate the development of an appropriate and reliable set of wholesale products and price offerings, ensuring a level playing field for all, which ultimately means that consumers benefit from a well functioning market.

To the extent that competitive network investments take place, opportunities could potentially arise for regulation to be progressively moderated and/or possibly removed in certain markets, should the development of self sustaining effective competition evolve.

The European Commission published its "NGA Recommendation³²" in September 2010. This aims to promote efficient investment and innovation in new and enhanced infrastructure, taking due account of the risks incurred by all investment players and the need to maintain the effective competition that is an important driver of investment over time. The NGA Recommendation also highlights the importance of regulatory clarity. The relevant markets in the context of NGA are the wholesale physical network infrastructure access network ("WPNIA") market and the wholesale broadband access ("WBA") market.

On 4 April 2012, ComReg published a consultation on NGA³³ . The consultation sets out a proposed framework which should provide regulatory certainty to market players, while also incentivising investment in NGA networks over the next few years. It has the further objective of ensuring that the correct incentives are available to stimulate the evolution of demand and migration from legacy wholesale access to next generation access, as appropriate. The process for this migration from legacy to next generation access needs to be carefully managed, given the risk that current investments may not receive sufficient remuneration over the asset lifetime.

The NGA rollout is likely to occur predominantly in densely populated areas, at least initially, while demand for higher speed broadband outside the main areas will continue to be served by legacy copper broadband services (including LLU), and by higher capacity wireless networks in the

al Eircom announced its plans on NGA to industry in September 2011, to upgrade its existing copper access network with an NGA program that will pass 900,000 homes and 100,000 businesses in a multi-year rollout.

2 Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) (Text with EEA relevance) (2010/572/EU).

3 ComReg 12/27 - Next Generation Access (NGA): Proposed Remedies in NGA Markets

Promoting Competition (continued)

Even in areas where NGA is being rolled out, LLU is expected to continue to provide an important channel for wholesale access, at least during the transition stages to NGA. Outside of the NGA areas³⁴, LLU may remain an important form of access well beyond the transition to NGA, the aim of which is to encourage real competition for the benefit of consumers and businesses.

For now, ComReg is proposing that copper and fibre-based services be priced consistently in the manner set out in ComReg Document (12/27). However, we recognise that in the medium to long term it could be inefficient to maintain both current generation (copper) and next generation (fibre) access networks in parallel. A further consideration is the Digital Agenda for Europe, which sets specific targets for the deployment and take-up of broadband services by 2020. These considerations suggest that it may be appropriate at some point in the future to more actively encourage users to migrate to next generation based services. One obvious way to achieve this is through pricing incentives. Over the next few years we will continue to monitor progress in the transition to NGA and may intervene if necessary.

Actions arising from priority 5.1

ACTIONS

- 5.1.1 Continue to develop and implement an effective regulatory framework for NGA
- 5.1.2 Review collaborative/risk sharing arrangements, where they arise
- 5.1.3 Provide balanced and effective investment incentives for market players by means of the adoption and/or maintenance of appropriate regulatory remedies, where appropriate
- 5.1.4 Facilitate the development of wholesale services which have characteristics, capabilities and functionality which provide a platform for the delivery of high quality and innovative retail services
- 5.1.5 Continue to support unbundling, including LLU where appropriate
- 5.1.6 Support and contribute to BEREC and European Commission work streams in relation to competition matters

5.2 PRIORITY: ENSURE ECONOMIC REGULATION REMAINS FOCUSED AND RESPONSIVE TO THE NEEDS OF A CHANGING ENVIRONMENT

Under the 2007 revised Recommendation on Relevant Markets, ComReg like all other national regulatory authorities ("NRAs") across Europe must review at least the defined set of markets. It must decide, based on facts and evidence, whether or not they are, or are likely to become, effectively competitive. If not, remedies must be imposed. This requires ComReg to review the levels of competition in those markets and to determine, in the case of dominance, whether mandated access is justified, and if so, at what price. Moreover, through the process of market reviews, it must regularly review those judgements (typically every three years as prescribed by the EU Framework). If it concludes that regulation is no longer justified, it must adapt or remove that retail or wholesale regulation in line with the competitive circumstances it has identified in those markets.

ComReg will continue to review and monitor relevant retail and wholesale markets, the aim being to ensure that previous Market Review Decisions made by it remain relevant and that remedies reflect any changes in the markets since the previous review. These reviews will include an assessment of any signs of emerging changes to competition across certain regions of Ireland and/or across certain product or service offerings. Our published Annual Action Plan will set out a list of the relevant markets to be reviewed³⁵ over the course of this (and future) Strategy Statements.

In the short term to medium term, the roll out of next generation investment in the access network is likely to be concentrated on more densely populated areas. To the extent that competing infrastructures emerge in certain geographic areas, ComReg will assess whether this structural change might lead to future changes in the dynamics of competition in particular geographic areas. The NGA Recommendation³⁶ advises that NRAs should examine the emerging conditions of competition resulting from the deployment of NGA. The dynamics of network investment will be monitored closely by ComReg, particularly with regard to their impact on the competitive dynamics within retail and wholesale markets. ComReg will be mindful of the ability of consumers to reap the benefits of any enhanced competitive dynamics, where they emerge. ComReg will aim to take the approach to

³⁴ NGA Area means an area where fibre is likely to be deployed in the access network

The current Annual Action plan expires on 30 June 2012. An updated Action Plan will be published shortly to come into effect on 01 July 2012

³⁶ Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) (2010/572/EU).

competition policy that strikes the right balance between timely action and the need to apply regulation only when effective and proportionate.

Robust market data will be an important factor in ComReg's ongoing assessment of retail and underlying wholesale markets, particularly in identifying whether finely-tuned distinctions in the future scope of regulation may be appropriate. It is therefore clearly important that data gathered from Industry in support of ComReg quarterly reports, and/or in the context of specific requests regarding market analyses, must be relevant, reliable and robust. This data should assist ComReg to analyse any key competition bottlenecks that may exist.

Actions arising from priority 5.2

ACTIONS

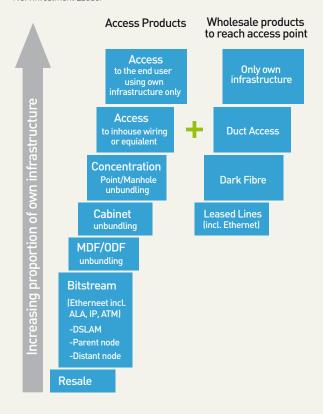
- report data and other relevant data gathering
- Continue to monitor market developments and ensure the review of relevant markets continues to reflect the competitive realities of those

5.3 PRIORITY: PROMOTE INNOVATION IN THE **ELECTRONIC COMMUNICATIONS SECTOR** THROUGH INFRASTRUCTURE AND SERVICE-BASED COMPETITION

ComReg is committed to promoting independent infrastructure platform-based competition, particularly that which supports investment in NGA.

The ladder of investment plays a vital role in promoting competition and stimulating investment within markets, as endorsed by the European Commission NGA Recommendation.

Figure 8: The Ladder of Investment NGA Investment Ladder



Source: ERG "Report on Next Generation Access - Economic Analysis and Regulatory Principles", June 2009

Whenever an alternative operator ascends the ladder of investment, it moves into a position to progressively invest more in its own infrastructure, leading to deeper, more effective and more sustainable competition.

Where access is mandated, ComReg will favour forms of access that promote efficient investment by Other Authorised Operators (OAOs), e.g. LLU and fibre loop unbundling, where appropriate. Investment from other platforms, including copper, mobile, cable etc. has led to greater competition in the broadband market over the past number of years. Regulatory Decisions made by ComReg to date have facilitated many of these investments; for example the LLU pricing decision³⁷ in 2010 has helped stimulate a notable increase in alternative network investment over the past two years.

⁷ComReg Document No 10/10 (ComReg Decision D01/10); Setting maximum local loop unbundling ("LLU") and sub loop unbundling ("SLU") monthly rental charges; 9

5. Promoting Competition (continued)

To the extent that competing network infrastructures are rolled out, these may give rise in due course to the scaling back of regulation or possible deregulation in certain urban areas. This depends on it being demonstrated that competition is sufficiently strong to protect consumers in those areas, based on structural and behavioural evidence. ComReg will keep this option under review.

Regulation of NGA services at the wholesale level must ensure a sufficient level of wholesale access to next generation networks to ensure sustainable competition, which should in turn lead to the availability of high quality services at competitive prices.

In the short to medium term, WBA products and services are likely to provide the predominant mode of entry in an NGA context. ComReg is proposing to mandate a virtual unbundled access product – VUA - to facilitate this form of market access at the deepest layer of the network that is economically viable. In the Wholesale Physical Network Infrastructure Access (WPNIA) market, neither SLU nor civil engineering access – both of which have been mandated for some time - have ever been used to any great extent and to date no operator has considered these to be economically viable on a large scale.

ComReg will however continue to ensure that the necessary incentives are in place for more infrastructure intensive entry over time via WPNIA services such as LLU and access to civil engineering infrastructure, where appropriate, to encourage efficient investment and infrastructure competition.

In addition to the above, Fixed Wireless Access Local Area ("FWALA") allows operators to provide broadband services using spectrum in the 3.5 GHz band. Applications for use of the 3.5 GHz bands are licensed on a technology neutral basis, i.e., there are no restrictions on the type of technology that can be deployed in the bands, other than compliance with certain parameters aimed at limiting interference. The FWALA scheme has been very successful in delivering broadband services to users at the corporate, Small and Medium Enterprises (SMEs) and residential levels. FWALA will continue to be an important form of access in terms of promoting efficient investment by operators over the next few years. ComReg will review the FWALA scheme over the course of this Strategy Statement.

In addition to the above, the growth of a ubiquitous mobile network is a growing reality for network operators who are being driven by consumer demand for access from any device at any location. This trend is in turn driven by the proliferation of smartphones, tablets and wireless-enabled consumer devices (cameras, game consoles etc.) all of which contribute to the increasing demand that is being placed on operators' core and access networks.

This growing demand is a challenge for operators who are forced to increase overall network capacity and provide for significant increases in backhaul capacity, to ensure continued high quality service to their customers.

Coupled with this increased demand for data capacity, the trend towards fixed-mobile convergence and substitution is evident with a steady growth in mobile voice minutes. This resultant increase in demand for services at all levels may well push operators to seek additional spectrum in all key frequency bands, to support wide area coverage and backhaul. ComReg will take appropriate steps to address any such demand.

In the context of facilitating this access by the granting of spectrum rights for electronic communications networks and services (ECN/ECS) (usually in the form of a licence granted under the Wireless Telegraphy Act), ComReg is obliged to, amongst other things:

- Use selection criteria which are objective, transparent, non-discriminatory and proportionate and which give due weight to the achievement of the objectives set out in section 12 of the 2002 Act; and
- Establish open, transparent and nondiscriminatory procedures for the grant of licences, ensuring such procedures are made publicly available.

These obligations do not, of themselves, suggest a preference for any particular assignment mechanism (e.g. administrative assignment, comparative selection procedure, auction or other form) rather this means that ComReg must choose the assignment mechanism that in its opinion would best achieve its statutory objectives, having due regard to the specific circumstances of each award.

A "market-based" approach to spectrum management, where appropriate, should lead to more efficient spectrum usage, particularly when combined with the introduction of initiatives at policy level such as spectrum sharing and infrastructure/network sharing on a case by case basis. ComReg's position on spectrum sharing is set out in Section 4.4 of the Spectrum Management Strategy Statement (ComReg 11/89). ComReg will shortly consult on quidelines on spectrum trading having already noted in its recent Response to Consultation on Multi-band Spectrum Release (ComReg 12/25) that trading in the 800MHz, 900 MHz and 1800 MHz bands will be permitted.

Actions arising from priority 5.3

ACTIONS Ensure wholesale prices set the right incentives so as to promote efficient infrastructure technologies where viable, including wholesale services as detailed in the Spectrum Management Strategy Statement (document

5.4 PRIORITY: CONTRIBUTE TO THE DEVELOPMENT OF A COMPETITIVE SINGLE EUROPEAN MARKET FOR **ELECTRONIC COMMUNICATIONS SERVICES**

Development of the internal market is important to Ireland and taking radio frequencies as just one example, the most sought-after spectrum bands (in particular the 800, 900, 1800, 2600, and 3600 MHz bands) are now subject to European Commission harmonisation decisions.

From time to time, the European Commission issues Recommendations, of which all NRAs must "take utmost account". These Recommendations provide guidance to NRAs aimed at averting any inappropriate divergence of regulatory approaches, without preventing NRAs from

taking proper account of national circumstances when designing national regulatory remedies. If divergences occur due to our own national circumstances, ComReg will justify these with appropriate reasoning. ComReg will also, where appropriate, give due consideration to comments provided by the European Commission to other NRAs as part of the consultation mechanism for electronic communications, as their experiences can help to inform our analyses.

Furthermore, the 2011 Framework Regulations³⁸ requires ComReg to contribute to the development of the internal market by working with national regulatory authorities in other Member States, BEREC and the European Commission. This includes actively contributing to the formulation of BEREC opinions and common positions and opinions on regulatory issues highlighted by the EC as part of the Community consultation mechanism for electronic communications

Actions arising from priority 5.4

ACTIONS Promote regulatory consistency across review Take account of European directives, decisions,

5.5 PRIORITY: ENSURE THAT PROVIDERS OF ECNs/ ECSs COMPLY WITH THEIR REGULATORY OBLIGATIONS THROUGH ENFORCEMENT ACTIONS

ComReg provides an overview of compliance issues and the status of these at specific points in time on the ComReg website, through the publication of its bi-annual compliance reports. We also monitor operators' compliance with their regulatory obligations, either in response to complaints, or following investigations on our own initiative. We then take appropriate enforcement action where necessary to correct

5. Promoting Competition (continued)

non-compliance. These steps, which are not taken lightly, will continue in the period ahead.

ComReg's Spectrum Compliance Unit is responsible for ensuring that users of the radio spectrum adhere to relevant international agreements, applicable EU standards and conditions that are imposed via licences issued to users. To achieve this, the Spectrum Compliance Unit actively monitors the radio spectrum. There are many technical conditions associated with the different classes of licences and exemptions. These would typically include areas such as technical characteristics of transmitted signals, adherence to International Commission on Nonlonising Radiation Protection (ICNIRP) limits, coverage requirements, Equivalent Isotropic Radiated Power (EIRP) and transmitted power levels.

Where breaches of conditions of use are discovered, ComReg has a number of corrective options available. The general strategy for dealing with such cases is one of escalation. A warning and direction is issued and in cases where the responsible party does not comply with such directions they are deemed to be operating in contravention of the Wireless Telegraphy Acts, 1926-2012 and legal action, including seizure of the offending equipment and summary prosecution, then arise. In cases where it is deemed necessary, and for serious and/or repeated breaches, ComReg may proceed directly to legal action.

Actions arising from priority 5.5

ACTIONS

- 5.5.1 Publish bi-annual compliance report
- 5.5.2 Investigate, either in response to complaints or on our own initiative, operators' compliance with their regulatory obligations, and take appropriate and timely enforcement action.
- 5.5.3 Ensure compliance with international agreements on frequency usage and technical standards
- 5.5.4 Take appropriate enforcement action as required to maintain the integrity of the radio spectrum, prevent unauthorised use of spectrum and ensure compliance with licence conditions

5.6 PRIORITY: ENSURE EFFICIENT MANAGEMENT AND USE OF THE RADIO FREQUENCY SPECTRUM IN THE STATE

ComReg is the statutory body responsible for management of the radio spectrum resource under the Communications Regulation Act, 2002³⁹. This includes licensing apparatus for wireless telegraphy (and making regulations in relation to licences) or exempting apparatus from licensing under the 1926 Act, ComReg is required to carry this out effectively, and in a manner that ensures the allocation and assignment of radio frequencies is based on objective, transparent, non-discriminatory and proportionate criteria, in accordance with any relevant ministerial policy directions under section 13 of the 2002 Act.

Radio spectrum is a valuable national resource, underpinning important economic, social and communications activities. This ranges from the use of mobile phones and mobile broadband by business and consumers, through broadcasting (audio and audio-visual services), emergency and defence communications, road, aeronautical and maritime transport and meteorological and scientific uses such as weather forecasting and monitoring the Earth's environment.

All of these are reliant on appropriate and reliable access to the radio spectrum and it is therefore essential that this resource is managed effectively and efficiently.

As already set out in ComReg's Spectrum Management Strategy Statement (ComReg 11/89) and during the period covered by this Strategy Statement we expect to see significant developments affecting the use of the radio spectrum. These include the switch over from analogue to digital terrestrial television, which will require ComReg to complete coordination of channels below 790 MHz. These will then be used for terrestrial television transmission in an all-digital environment, from the date of digital switch over on 24 October 2012. Clearance of television transmission from the 800 MHz band will release the spectrum in that band as a digital dividend for next generation services, as part of a proposed multi-band auction, a process which will also lead to the full liberalisation of the 900 MHz GSM and 1800 MHz GSM bands.

A review of the future use of the 2.6 GHz band will take place. This review will take into account an EC Decision⁴⁰ on the harmonisation of the band as well as the rights of the current licensee who is using the band to provide a

³⁹ The Communications Regulation Act 2002-2010 (as amended) (the "2002 Act"), the Framework and Authorisation Regulations (S.I. No. 333 of 2011 and S.I. No. 335 of 2011 respectively), and the Wireless Telegraphy Acts, 1926 (as amended) (the "1926 Act") set out, amongst other things, functions and objectives of ComReg in relation to radio spectrum.

spectrum.

4"Commission Decision of 13 June 2008 on the harmonisation of the 2500 - 2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community No. 2008/477/EC

Multipoint Microwave Distribution System (MMDS) service for TV reception. The review will also consider other potential uses of the band and the views of other potential users. The successful Fixed Wireless Access Local Area (FWALA) licensing scheme in the 3.6 GHz, 10.5 GHz and 26 GHz frequency bands will be reviewed, as well as consultation on a future release of the 2.3 GHz band. 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.

Actions arising from priority 5.6

(Note: The following actions are already adopted in Document 11/89 and are repeated here for reference only)

ACTIONS

- Facilitate the rollout of Digital Terrestrial Television (DTT) in Ultra-High-Frequency (UHF) bands IV and V below 790 MHz and the switch-off of analogue television transmissions in 2012
- Consider the release of new frequency bands for fixed links to meet market demand
- 3.6GHz, 10.5 GHz and 26 GHz frequency bands

5.7 PRIORITY: ENSURE THE EFFICIENT MANAGEMENT AND USE OF NUMBERS FROM THE NATIONAL NUMBERING SCHEME

ComReg is responsible for the efficient management of Ireland's telephone numbering plan. Numbers are key enablers of communications services, whose preservation as a finite national resource must be balanced against the need for new and existing customers and service providers to have access to an adequate supply of numbers.

Numbering Plan Management

ComReg's ongoing strategy for management of the numbering plan will involve:

- Allocating telephone numbers and short codes to undertakings for new and existing services and ensuring that these numbers are promptly provisioned on all national and international networks.
- Monitoring number utilisation and taking steps to prevent exhaustion of number ranges.
- Ensuring that numbers are used in accordance with the Authorisation regulations which allow us to attach conditions to rights of use. Conditions include those specified in the National Numbering Conventions (currently ComReg Document No. 11/17).
- Developing numbering policies that foster competition and support innovation, while also ensuring that consumers remain informed and protected against number misuse
- Providing new number ranges when justified by need and/or because that would most effectively drive significant and worthwhile innovations.

5Promoting Competition (continued)

As the national regulator, ComReg has an ongoing obligation to support and (in conjunction with other authorities) promote at national level the operations of the European-wide harmonised numbering ranges 112 (emergency services access) and 116 (services of social value). These services, which are free of charge, are of great importance to consumer welfare.

Actions arising from priority 5.7

ACTIONS

- 5.7.1 Review and set numbering policy, as necessary, including conditions for rights to use national numbering resources that serve to enable market entry while providing an appropriate level of transparency and associated consumer protection. This will involve a revision of the National Numbering Conventions during the
- 5.7.2 Carefully manage allocations from the National Numbering Plan and monitor operator utilisation to ensure efficient use of numbers, so as to avoid unnecessary number changes
- 5.7.3 Following research and consultation, decide whether dedicated numbering resources are required for Machine-to-Machine applications. I so, draw conclusions on which ranges, number lengths and applicable conditions of use are

Facilitating Innovation & Investment

Facilitating Innovation & Investment

High Level Goal #3

To provide regulatory certainty that

Under the EU regulatory framework, ComReg has an obligation to promote efficient investment and innovation in new and enhanced infrastructures. This includes ensuring that access obligations take appropriate account of the risk incurred by investing undertakings. It also means supporting cooperative risk diversification measures between investors and parties seeking access, so long as market competition is preserved and no discrimination thereby arises.

One key way in which ComReg can achieve this is by facilitating the efficient use of the radio spectrum. As a result of investment in this area, new and innovative technologies, applications and services are developed. Careful management of this resource and the ongoing development of the "Test & Trial" scheme support this aim.

6.1 PRIORITY: PROMOTE IRELAND AS A CENTRE OF EXCELLENCE FOR RESEARCH AND INNOVATION IN SPECTRUM THAT FACILITATES THE DEVELOPMENT OF NEW RADIO-COMMUNICATIONS TECHNIQUES. SPECTRUM-BASED SERVICES AND APPLICATIONS

The demand for communication services continues to grow and each year the number of communications subscribers, the range of communications devices and the type of communications services also continue to grow. Radiocommunications services play a key role in this market and worldwide.

ComReg sees the radio spectrum as an asset that can be used to create the right incentives for investment, and in particular ComReg believes that the radio spectrum in Ireland could be leveraged to further the innovation of new radio-communications techniques, spectrum based services and applications.

Compared to many other countries, Ireland has a natural spectrum advantage for carrying out tests and trials on equipment and services, as a wide range of clean radio

spectrum is available for this purpose. This natural advantage stems from a number of factors, including Ireland's light use of spectrum for defence purposes, our relatively low population density and our geographic location as an island, which shields Ireland from radio spectrum interference generated in other countries.

Given this advantage, ComReg has developed a best-inclass wireless "Test & Trial" licensing programme⁴¹ that allows innovators direct access to the radio spectrum in Ireland for test or trial purposes. Since the Test & Trial Ireland launched, over 175 licences have been issued to a wide range of organisations and for a wide variety of purposes. These include mobile phone companies, broadcasting organisations, Universities, Medical Companies and Broadband Companies, among others⁴².

ComReg believes it is important to actively promote the benefits of Test & Trial Ireland in order to further investment and innovation in the development of new radio-communications techniques, spectrum-based services and applications in Ireland, and it will take the following actions to promote the programme's use and raise awareness.

ComReg, through its outreach programme, sponsors a special award at the BT Young Scientist & Technology Exhibition, is an associate member of WirelessLAB, the networking facility for Irish-based entrepreneurs, companies and academics working in the wireless space, and sponsors a lesson resource pack for secondary schools through the Science & Technology in Action Programme.

Actions arising from priority 6.1

ACTIONS

- Promote Test & Trial Ireland to existing and potential spectrum users, technology innovators, entrepreneurs and researchers
- Promote Test & Trial Ireland by engaging with relevant national and international development
- Raise awareness of innovative uses of spectrum

Facilitating Innovation & Investment

6.2 PRIORITY: CONTRIBUTE TO IRELAND'S DIGITAL DIVIDEND BY FACILITATING THE EARLIEST AVAILABILITY OF THIS VALUABLE RADIO SPECTRUM BAND FOLLOWING DIGITAL SWITCH OVER

It is clear that a direct link exists between potential future innovation and the use of radio spectrum in Europe's growing digital economy. The switch over from analogue terrestrial television to DTT means that programming which is currently transmitted using analogue technology in the UHF band, can in future be broadcast in digital format using much less radio frequency spectrum. This switch over, which is planned to be complete on 24 October 2012, will result in the release of spectrum in the sub-band 790 MHz to 862 MHz as a digital dividend for non-broadcasting uses. This digital dividend is seen as a very valuable resource for enabling next generation mobile broadband and indeed its importance is recognised not only for the Irish economy, but also to aid European economic recovery.

RTÉ launched its DTT service 'SAORVIEW' in May 2011. Programming is currently being simulcast in both analogue and digital formats but the 'SAORVIEW' DTT platform provides more television services terrestrially and it includes new features, such as high definition television. The Minister for Communications, Energy and Natural Resources has stated that Analogue Switch Off (ASO) will occur on the 24 October 2012, on the same day as Digital Switch-Over (DSO) in Northern Ireland.

ComReg has recently completed the co-ordination spectrum plan for DTT to facilitate broadcasting below 790 MHz and non-broadcasting services in the 800 MHz band, so as to achieve the best digital dividend for Ireland post ASO. ComReg is currently advancing the release of the 800 MHz digital dividend band for next generation services as part of a proposed multi-band auction, a process which will also lead to the full liberalisation of the 900 MHz and 1800 MHz GSM bands.

One outcome of the recent World Radio Conference (WRC-12) resulted in a proposal to extend the co-primary status of International Mobile Telecommunications (IMT) with the Broadcasting Service from 790 MHz to at least 694 MHz. This will be considered by the WRC in 2015, following sharing studies which will be carried out by ITU-R. As a consequence of this development, ComReg will engage

nationally and internationally to assess the potential for and consequences of releasing the band for non-broadcasting purposes in due course and will participate in fora to inform and influence Ireland's policy in relation to any second digital dividend.

Actions arising from priority 6.2

ACTIONS

- 6.2.1 Release of 800 MHz band in line with EC requirements
- 6.2.2 Engage with broadcasters as to their spectrum requirements and facilitate migration to Digital Terrestrial Television (DTT) and Analogue Switch-Off (ASO) by 24 October 2012
- 6.2.3 Engage with DCENR and contribute to
 Intergovernmental groups on DTT/ASO and other
 relevant fora to facilitate ASO by 24 October 2012
- 6.2.4 Explore the long-term future use of the UHF spectrum in light of the WRC 12 Decision in co-operation with relevant stakeholders

6.3 PRIORITY: FACILITATE INNOVATION AND KNOWLEDGE TRANSFER BY SHARING RELEVANT NATIONAL AND INTERNATIONAL REGULATORY BEST PRACTICE

ComReg aims to support innovation through careful management of national resources such as the radio spectrum and telephone numbers. It also promotes innovation through the development of appropriate regulatory policies for the industry and by ensuring that a healthy level of competition is maintained in the market. For these activities to be carried out effectively, it is important that all work carried out by ComReg is properly informed and this means benefiting from knowledge sharing and knowledge transfer. This is primarily achieved through participation in national and international fora that discuss regulatory policies and their impact on the sector and/or best practice approaches to promotion of competition, protection of consumers and the ongoing development of the sector.

ComReg also convenes a number of working groups to facilitate discussion between operators regarding products and services on offer, and how these might be improved, in addition to discussion of future products and their characteristics

ComReg also benefits from engagement with other NRAs. This allows ComReg to benchmark itself and its approach to regulation against comparable organisations and it helps in the development of harmonised approaches to regulation, in particular across Europe, thereby minimising overall investment costs and supporting innovation within the industry.

Research into likely future developments is also carried out under the Forward Looking Programme, a programme which aims to support key work streams within the organisation by using research to build an understanding of how the industry is likely to evolve. This work is important as it is necessary to ensure that decisions taken by ComReg are fully informed.

Actions arising from priority 6.3

ACTIONS

- Actively participate in fora to inform and influence the development and implementation policies that could have an impact on the electronic communications sector
- Research emerging sector trends, as part of ComReg's Forward Looking Programme, and develop insights as to how the electronic communications sector may evolve, to inform effective regulatory policy-making
- 6.3.3 Inform ComReg policy development and procedural efficiency through research and liaison with industry and peer NRAs

6.4 PRIORITY: ENABLE PRODUCT INNOVATION AND SUSTAINABLE COMPETITION BY FACILITATING AND RESPONDING TO SECTORAL CONVERGENCE

Consumer demand, mainly driven by smartphones, is driving mobility and a need for increased bandwidth to support new content services. IPTV⁴³, video streaming and other video services are also very bandwidth intensive. The communications industry has responded to these changing consumer needs by offering converged fixed/mobile services, which offer flexibility and the potential for cost efficiencies. Industry forums (which may include ComReg participation) provide a basis for frequent discussions and co-operation within this complex environment, generally based around product and process related issues and concerning specific markets.

Bundles may become increasingly important in this context but from ComReg's perspective these must always be considered within the context of fair competition. Ease of switching must also be supported, backed by transparency and the availability of competing wholesale regulated products. ComReg will therefore monitor the provision of bundled services that include key regulated access products, ensuring that consumers continue to enjoy efficient and innovative offerings and that the transition to NGA networks does not lead to competitive harm or restrictions on innovation.

Net Neutrality is a concept related to the objective of an open internet which can be broadly defined as: "promoting the ability of end-users to access and distribute information or run applications and services of their choice", as described by BEREC in its recent report⁴⁴. Within a two-sided market, the end-users ability to access innovative services and applications may be affected by barriers imposed at any point between the content provider and the end-user. The BEREC report describes a framework for Quality of Service in relation to net neutrality, elaborating on quality related concepts and quality evaluation methods that pursue the objectives of the universal service directive⁴⁵. Furthermore, a general procedure is presented for NRAs to carry out their functions in relation to this provision and this will provide a useful tool for ComReg to address net neutrality issues, should they arise here. A further detailed study, which will expand on these issues in the form of guidelines, is expected to be developed by BEREC during 2012. We will contribute to this work stream where appropriate.

6. Facilitating Innovation & Investment

Actions arising from priority 6.4

ACTIONS

- 6.4.1 Provide clear and appropriate conditions for the regulation of bundles provided by Fircom
- 6.4.2 Support and contribute to BEREC work on "Net Neutrality"
- 6.4.3 Facilitate industry product and service developments through initiatives such as industry fora and briefings

6.5 PRIORITY: PROVIDE REGULATORY CERTAINTY
TO MARKET PLAYERS REGARDING INVESTMENT
DECISIONS BY CONTRIBUTING TO THE DEVELOPMENT
OF A SINGLE EUROPEAN MARKET FOR ECS

European considerations play an increasing role in national regulation and common approaches can help reduce uncertainty and regulatory costs for investors. ComReg therefore recognises that a coordinated EU approach to regulation is beneficial in providing regulatory certainty and incentivising investment. As recognised in the EU Directives and in various EU guidance instruments consistency of regulation by NRAs can help to avoid barriers to an internal market for ECS and provide legal certainty for all investing undertakings. Member States contribute to the development of such EC decisions via various bodies including CEPT for technical issues, the RSPG and RSCOM for spectrum policy issues, and BEREC and CoCom which assist the EC in developing its general policy and technical decisions. The revised EU framework for ECS places significant emphasis on such cross-border cooperation and the scope of international regulatory activity has accordingly become even broader. It is essential for Ireland to continue its active involvement so as to influence the development of future regulatory policy including participating in and actively contributing to the next review of the EU regulatory framework. The recognition by potential investors that Ireland is taking utmost account of EU approaches (whether BEREC reports and guidelines or EC measures and recommendations),

increases their confidence that Irish regulation will not diverge inappropriately from the measures implemented elsewhere.

Actions arising from priority 6.5

ACTIONS

- 6.5.1 Support and contribute to BEREC and European Commission work streams in support of innovation objectives and regulatory consistency
- 6.5.2 Take account of European Commission directives, decisions, recommendations and comments as well as specified EU targets such as the European Digital Agenda 2020
- 6.5.3 Contribute, as appropriate, to the ongoing formulation of EU regulatory initiatives and guidance instruments, such as the periodic review of the overall EU framework for regulating ECS
- 6.5.4 Continue to develop a consistent regulatory framework that is conducive to investment by operators thereby encouraging increased roll out of access networks

Striving for Organisational Excellence

High Level Goal #4

Striving for Organisational

As an independent statutory body operating in a challenging economic environment, ComReg must continue to add public value and discharge its functions and objectives effectively with an expanded mandate, while working within resource constraints. At the same time we must maintain a working environment that continues to foster a culture and practice of excellence and high performance.

Against this background, over the next two-year period and beyond, ComReg intends to maintain and enhance its reputation as a recognised centre of excellence and a leading source of expertise in the rapidly evolving communications sector, both nationally and internationally.

To continue to build our expertise and value, ComReg will focus on a number of areas as set out below.

7.1 BE AN EFFECTIVE, INDEPENDENT AND INNOVATIVE ORGANISATION WITH THE APPROPRIATE SYSTEMS. STRUCTURES AND SKILLS

Our overall performance is measured by the difference we make in creating a dynamic and competitive communications sector in Ireland. Operational efficiency and effectiveness alone are not enough to achieve our mission. We will continue to increase our capacity to be alert, agile, independent and fully compliant with appropriate governance standards. We will pursue continuous process improvement so that we are responsive to changes in our environment in line with international best practice.

Our people are professional knowledge-workers and experienced subject matter specialists, working in multidisciplinary teams. In order to ensure that we deliver public value, ComReg will continue to build a high performing work environment that facilitates a culture of teamwork, flexibility and innovation, supported by ongoing investment in training and continuous learning. In relation to the professional development of our people, we regularly seek external validation of our HR policies and systems against best practice elsewhere. In this regard, ComReg has been recognised externally by Continuing Professional

Development (CPD) awards from a number of bodies, including the Association of Chartered Certified Accountants, Certified Public Accountants Ireland, Engineers Ireland, the Irish Institute of Training & Development, the Chartered Institute of Personnel & Development and through accreditation in the Excellence through People Gold Standard

ComReg requires a professional, efficient and userfriendly medium through which it can engage with all of its stakeholders. Existing and planned e-services will help us to further reduce the regulatory burden and to be a more accessible and efficient organisation.

Our focus on enhancing individual and organisational performance will continue, along with the identification of ways to work smarter and minimise the cost of regulation, both internally and in our dealings with industry and other stakeholders.

Actions arising from priority 7.1

ACTIONS

- we develop skills appropriately and deploy them
- Governance of State Bodies
- valuable business enabler and communications
- example, e-services and simplify doing business

7.2 CONTINUE TO BE A CENTRE OF EXCELLENCE PROVIDING EFFECTIVE & RELEVANT REGULATION

ComReg is committed to being innovative, efficient and effective. We create a work environment that fosters a culture and practice of excellence and high performance. Our people receive continuous professional development and are recognised for their contribution to organisational and industry development.

Striving for Organisational Excellence (continued)

Our approach to our work is guided by the 'Better Regulation' principles of necessity, effectiveness, proportionality, transparency, accountability and consistency, underpinned by strong governance systems. We believe in evidence-based regulation and a consultative approach with our stakeholders. By ensuring that interested parties can express their views about a particular proposal, the decision-making process becomes better informed, more rigorous and more accountable.

ComReg is aware that there may be a wide range of stakeholders on any particular issue, not just those with a direct financial or other interest. Prior to a formal public consultation, preliminary discussions with affected parties or representative groups or associations may take place in an open and transparent manner. Such discussions are not a substitute for public consultation but they may be used by us to inform the formal consultation process or to explain complex issues or proposals to our stakeholders. Where there are a wide range of complex issues and proposals, we may also supplement a public consultation with open workshops.

Normally, the period of time allowed for interested parties to respond to a consultation will be 4-6 weeks. This may vary in certain cases due to statutory timing requirements, the urgency and complexity of the issues addressed, the stakeholders who might be most likely to respond, other documents or research that may need to be considered and the likely resource mobilisation required.

ComReg is also aware of the regulatory burden associated with engaging in a consultation process, particularly for smaller industry players who do not have the resources or capacity to engage fully. We would encourage stakeholders to contact us if further clarity or time is required and we will endeavour to accommodate any such requests where possible. This issue has been raised by stakeholders in the past. In relation to comments received we have sought to improve the process by publishing the dates of forthcoming consultations in advance on our website to allow stakeholders to plan accordingly. ComReg's public consultation procedures are available on our website (ComReg 11/34).

Regulatory Impact Assessment (RIA) is another important part of ComReg's decision-making process. The purpose of RIA is to establish whether regulation is actually necessary and to consider any alternatives. RIA is intended to determine

the impact of any new regulatory measure or process, or any proposed changes to (including the withdrawal of) an existing measure or process, on all stakeholders, including consumers. It makes the regulatory process more transparent. By consulting with industry and consumers it ensures that the interests of all stakeholders are considered and the most effective approach to regulation is adopted. Where regulation is necessary, the most effective and least burdensome regulatory option will be chosen. We will also ensure that regulation is proportionate and relevant, by conducting Regulatory Impact Assessments where appropriate and necessary to ensure that the most effective and least burdensome regulatory option will be chosen.

ComReg has previously issued Guidelines⁴⁶ setting out the approach which we will adopt when conducting RIA. We will consider if there is a need to carry out a review of these Guidelines during the timeframe of this Strategy Statement to ensure that they remain appropriate.

Our processes and systems are adapted on an on-going basis to ensure that we continue to deliver on our objectives and provide an effective service. The e-licensing system, which is a secure service provided to enable online licence applications, and the innovative online tool www.callcosts.ie, which enables consumers to make informed telecommunications purchasing decisions, are examples of some of the e-enabled services that we currently provide. We will undertake a number of initiatives over the next 12 months that focus on the e-enablement of business processes and the utilisation of online solutions to simplify interaction with ComReg and offer improved service to stakeholders.

Financial Governance

It is ComReg's objective to ensure compliance with best practice in corporate governance. Accordingly, we adhere (as appropriate) to the Code of Practice for the Governance of State Bodies. ComReg has implemented Government policy in relation to prompt payments and procurement and we will continue to supplement our corporate governance and accountability framework.

Carrying out market research

ComReg recognises the importance of primary research that focuses on the long-term evolution of the communications sector which informs ComReg and our stakeholders. A better understanding of the drivers in relation to broadband, for example, will assist policymakers in framing policy, industry in developing business plans, and ComReg in ensuring that

 $^{^{46}\,}http://www.comreg.ie/_file upload/publications/ComReg0756a.pdf$

the competitive process can speedily deliver the benefits that are claimed for super fast broadband networks. Where appropriate, ComReg will seek to provide support for such initiatives.

Actions arising from priority 7.2

ACTIONS

- Ensure effective, evidence-based and transparent regulation by conducting Regulatory Impact Assessments (RIAs) as appropriate, engaging with stakeholders on an equal and non-discriminatory
- Consider further use of complementary stakeholder engagement methods (e.g. workshops, briefings etc) where appropriate
- the time allocated to interested parties to respond to ComReg consultations on a case-by-case basis (e.g. longer periods for complex issues) in accordance with our Consultation Procedures
- Gather reliable and relevant data from Industry and conduct research that focuses on the longterm evolution of the sector and that also informs ComReg and our stakeholders
- efficiencies while continuing to deliver high quality
- Provide continuous professional development to enable our people to fulfil their goals

7.3 PRIORITY: ENGAGE WITH OTHER REGULATORY AGENCIES AND KEY STAKEHOLDERS, NATIONALLY AND INTERNATIONALLY, TO ENABLE COMREG TO ACHIEVE ITS GOALS

Appropriate engagement with our stakeholders is central to effective regulation and to supporting the economy. We will engage with other regulatory agencies, particularly with Ofcom with whom we have a number of Memoranda of Understanding in relation to the maximisation of radio spectrum use in border areas, and key stakeholders,

nationally and internationally, to promote the continued development of the communications sector. In particular, we will continue to participate in fora to inform and influence the development and implementation of national and international regulatory policies (e.g. through BEREC, the RSPG, the International Audiotext Regulators Network (IARN), and the Economic Regulators Network, among others).

ComReg has always operated within a framework of transparency and accountability, and hence, already meets much of what is envisaged in the Government Statement on Economic Regulation. Since 2010, we have published our Annual Output Statement. This allows for a more structured dialogue between regulators and policymakers on plans and outcomes, while at the same time ensuring that the independence of regulators in their decision-making and operational management continues to be fully respected. Additionally, the ComReg action plan will be published promptly following the publication of our two-year Strategy Statement.

Actions arising from priority 7.3

ACTIONS

- the benefit of consumers, for example through
- Actively participate in fora to inform and influence
- derived from the Strategy Statement

Striving for Organisational Excellence (continued)

7.4 PRIORITY: ENSURE THAT COMREG'S REGULATORY DECISIONS ARE BASED ON RELIABLE MARKET DATA AND ITS PERFORMANCE IS BENCHMARKED AGAINST INTERNATIONAL STANDARDS

Ensuring that the decisions we make are effective, impartial and transparent is central to our core values. We therefore continually benchmark the Irish communications market and our work as a national regulatory authority against national and international standards to evaluate our performance and to ensure that we follow best practice. We use benchmarking data in many ways: to measure our effectiveness and impact as a regulator, to identify areas on which we must place additional focus, to recognise potential obstacles to the healthy development of the market and to ensure evidence based thinking and decision making.

Understanding the performance of the Irish communications market in an international context is vital, which means that benchmark data and evidence is a prerequisite support to our decision-making process. In particular it helps identify market weakness and focuses regulatory priorities. Ultimately, the performance of the communications industry is largely influenced by evolving standards, and international benchmarking is an important means of gauging where we stand.

We will continue to both collect and publish international benchmark data, to provide a reliable report on the performance of the Irish communications market. We will also continue to support international efforts by the bodies mentioned in Priority 7.3 above to provide a fair, objective and robust means of internationally benchmarking our market and our regulatory performance.

Unfettered and timely access to accurate and reliable information and data is critical to ensure that ComReg can justify and defend its decisions. To this end, we collect a wide range of data from industry players, using our statutory powers for this purpose whenever appropriate, and supplement this with targeted consumer research such as surveys. We depend upon the close cooperation of industry in response to our data directions and requests for information. As an economic regulator we also draw on economic research, be it research commissioned by ComReg or a third party.

We will continue to ensure that our regulatory deliberations and decisions are based on robust and accurate evidence derived through the analysis of a wide range of data and research, as well as consultation with key stakeholders.

Communications is a dynamic sector. To remain innovative and proportionate in our regulatory approaches it is necessary to stay informed by progressive thinking with regard to economic regulation. ComReg partners with the Economic and Social Research Institute (ESRI) and DCENR to deliver and publish high quality and evidence-based research specific to the communications sector in Ireland. This research will provide independent, conceptual and empirical research analysis that will inform ComReg's regulatory approach and decisions. We will investigate ways in which we can harness and learn from new and evolving research models/tools such as the use of consumer experiments and tests in the emerging field of behavioural economics. We will share this research with our stakeholders, either by publishing it on our website or by providing links through our documents.

Actions arising from priority 7.4

ACTIONS

- 7.4.1 Benchmark ComReg against international standards to measure performance, identify gaps and pursue best practice
- 7.4.2 Ensure our data collection and analysis and our internal decision-making processes result in effective, robust and transparent decisions
- 7.4.3 Ensure that our decisions are robust and informed by progressive thinking by commissioning relevant

Conclusion

In this Strategy Statement ComReg has set out its strategic priorities for the period 2012-2014. It has been developed with input from the industry, consumer and Government stakeholder sectors, and supported by significant internal consultation. This process, taking place over many months, has assisted us in refining our goals and honing our strategic and operational plans. As for the last period (2010-2012), the fostering of competition and the promotion of world-class high-speed broadband are deemed to be of utmost importance to consumers and industry alike. Therefore, in view of the need for continued and rapid investment to support this, providing a high degree of transparent decision-making and regulatory certainty continues to be of primary focus for ComReg. Consumer awareness and protection is also increasingly important in a converged world, where among others, the issues of network and technology neutrality are seen through a new and sharper lens.

ComReg remains acutely aware that the digital age has yet to fully encompass all consumers and therefore the maintenance of a basic communication service continues to be a priority concern. This will need to be ensured alongside the urgent need to encourage continued and accelerated transition to emerging higher speed platforms.

ComReg looks forward to working with its stakeholders to implement this strategy and to progress the further development of this exciting, dynamic and evolving market.

Annex: 1 Acronyms & Abbreviations

1.	AS0	– Analogue Switch Off
2.	BAI	– Broadcasting Authority of Ireland
3.	BEREC	– Body of European Regulators for Electronic Communications
4.	C&AG	– Comptroller and Auditor General
5.	ccTLD	– Country Code Top Level Domain
6.	CERP	– European Committee for Postal Regulation
7.	CEPT	– Conference of European Postal and Telecommunications Administrations
8.	CoCom	– European Commission's Communications Committee
9.	CS0	- Central Statistics Office
10.	DCENR DDC/ODBC	- Department of Communications, Energy and Natural Resources
11.	DPC/ODPC	- (Office of the) Data Protection Commissioner
12.	DTT	– Digital terrestrial television
13. 14.	EC ECB	– European Control Bank
15.	ECC	European Central BankElectronic Communications Committee
16.	ECEP	- ComReg Electronic Communications Expert Panel
17.	ECN/ECS	Electronic communications network / Electronic communications service
18.	ECAS	- Emergency Call Answering Service
19.	ECTA	- European Competitive Telecommunications Association
20.	EIRP	- Equivalent Isotropically Radiated Power
21.	EMC	– Electro-magnetic compatibility
22.	ESRI	– Economic and Social Research Institute
23.	ERG	– European Regulators Group
24.	ETSI	– European Telecommunications Standards Institute
25.	EU	– European Union
26.	FWALA	– Fixed Wireless Access Local Area
27.	GATS	– General Agreement on Trade in Services
28.	GDP/GNP	 Gross Domestic Product/ Gross National Product
29.	GSM	– Global System for Mobile communications
30.	IARN	- International Audiotext Regulators Network
31.	ICNIRP	- International Commission on Non-Ionising Radiation Protection
32.	IT/ICT	- Information (and Communications) Technologies
33.	IEDR	- IE Domain Registry Ltd.
34. 35.	IMF IMT	 International Monetary Fund International Mobile Telecommunications
36.	IPTV	- Internet Protocol Television
37.	ITU	- International telecommunications Union
38.	LLU	- Local Loop Unbundling
39.	NCA	– National Consumer Agency
40.	NGA	- Next Generation Access
41.	NRA	– National Regulatory Authority
42.	0A0	– Other Authorised Operators
43.	OECD	– Organisation for Economic Co-operation and Development
44.	PRS	– Premium Rate Services
45.	RegTel	– The former Regulator of PRS
46.	RIA	– Regulatory Impact Assessment
47.	R&TTE	- Radio & Telecommunication Terminal Equipment
48.	RSCOM	- Radio Spectrum Committee
49.	RSPG	- Radio Spectrum Policy Group
50.	SLU	- Sub-loop unbundling
51.	UHF	- Ultra high frequency
52. 53.	VoIP VUA	– Voice over Internet Protocol – Virtual Unbundled Access
53. 54.	WPNIA	 Virtual Onbundled Access Wholesale Physical Network Infrastructure Access
55.	WTO	
55.	WIU	– World Trade Organisation

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