


April 2012



**Copyright and Innovation
- A consultation paper**

Ericsson submission



Copyright Review Committee

Room 517,
Department of Enterprise, Jobs and Innovation,
Kildare Street,
Dublin 2
Ireland

Electronic submission via: copyrightreview@djei.ie

Re: **Copyright and Innovation A Consultation Paper**

Ericsson welcomes the opportunity to contribute to the Irish consultation on the review of the Copyright and Innovation and is pleased to be able to participate in the national discussion regarding the future Copyright framework in the context of innovation, the digital economy, competitiveness and growth.

Some key Ericsson facts:

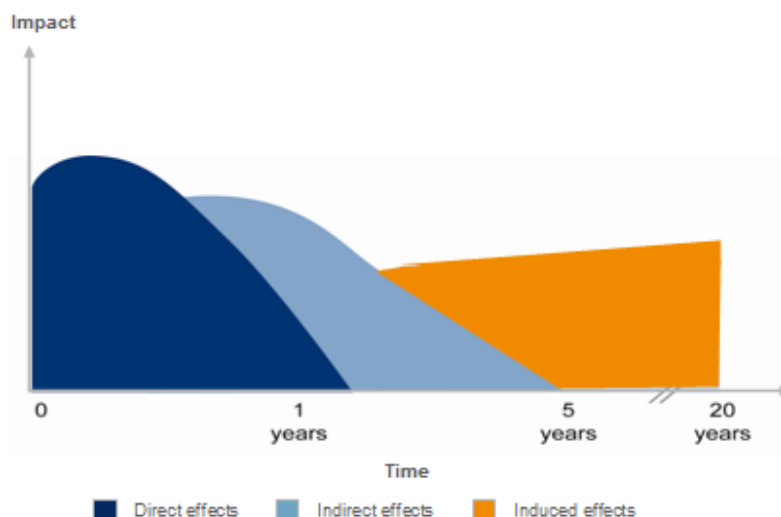
- Ericsson is the world's largest telecom infrastructure and services company with net sales revenue in 2011 of SEK 226.9 billion (USD 34 billion). Today, more than 40 percent of the world's mobile traffic passes through networks provided by Ericsson. Ericsson's global market share in mobile network equipment (GSM/GPRS/EDGE, WCDMA/HSPA and LTE) is 38%, twice the size of the second largest competitor.
- Ericsson is the world's number one mobile network, real-time charging and billing, and telecom services provider. More than 1.4 billion consumers are charged and billed through Ericsson's solutions.
- Ericsson is the fifth largest Information Technology Company by software revenues, following Microsoft, IBM, Oracle and SAP.
- Ericsson employs over 100,000 staff worldwide and over 20% or 22,000 of those are dedicated to R&D. Ericsson invested SEK 32.6 billion (USD 4.9 billion) in R&D in 2011.
- Ericsson holds over 30,000 patents, with 16 new patents sought each day and is the number one holder of GSM/GPRS/EDGE, WCDMA/HSPA and LTE essential patents.
- Ericsson makes its technology available to others, and is a champion of industry practice on FRAND (Fair, Reasonable and Non-Discriminatory) licensing.
- As the world's leading technology provider, Ericsson plays a key role in the development of standards in fixed and mobile voice, data (IP) and TV/video technologies, and hence is a key actor in the digital economy by enabling and empowering innovation with technological means and solutions.

Innovation & Broadband – a socio-economic accelerator

ICT and broadband in particular enhances productivity and is a key source of economic growth, job creation, and new business creation (see also appendix A). Understanding economic impact of ICT and in particular indirect and induced effects on the overall economy that go beyond the direct stimulus caused by ICT investment is crucial. Some important economic effects of ICT that have been identified are¹:

- Improvements in human capital: ICT creates demand for higher skilled labor and eliminates simple and tedious tasks.
- Multifactor productivity growth, which includes the impact of intangible investments such as organizational changes, new distribution and production processes, and new methods of doing business related to the use of ICT technology.
- For every 10 percentage point increase in broadband penetration the isolated economic effect on GDP growth is around 1% of GDP, with estimates varying between 0.5% - 2%.
- For every 1,000 additional broadband users, around 80 jobs are created, with estimates varying between 20 and 130.
- Doubling the average attained broadband speed for an economy increases GDP by 0.3% points.

FIGURE 1: THE ECONOMIC IMPACT OF BROADBAND



SOURCE: ARTHUR D. LITTLE & CHALMERS INSTITUTE OF TECHNOLOGY 2011

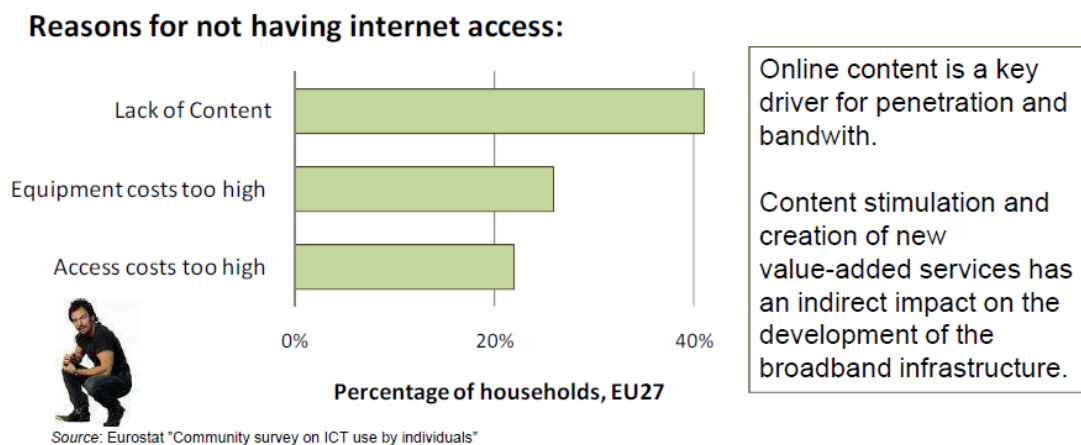
¹ The literature is enormous for some prominent examples see; Wired For Innovation – How IT is Reshaping the Economy, Brynjolfsson and Saunders; MIT 2010. The Economics of the Digital Society, Soete and Wheel, 2005. The Rise of the Network Society, Second Edition, Castells 2010. Boston Consulting Group, Socio-economic impact of allocating 700 MHz band to mobile in Asia Pacific, 2010, EPC/Copenhagen Economics – The Economic Impact of a European Digital Single Market, 2010. ADL, Socioeconomic impact of broadband network investments, 2010. See also <http://www.ericsson.com/news/1550083> Ericsson Press Release: “New study quantifies the impact of broadband speed on GDP”.

A vital link exists between the economic impact of broadband described above and the availability of digital content (figure 2 and 3 below) i.e. that being the mass adoption, not just mere rollout² – of ubiquitous high-speed broadband services. Supply side policies that promote high-speed broadband roll-out are not enough – since indirect and induced economic effects of broadband are depend on the adoption and innovative use of broadband. Consequently, sound demand-side broadband drivers need to be in place, these include;

- increasing economies of scope; i.e. expanding digitization of trade in goods and services including digital creative work,
- increasing the scale of economies; i.e. the geographic size of the borderless digital market,
- lowering transaction costs,
- increasing personalization of services according to individual preferences and purchasing power,
- establishing trusted relationships between creators, innovators, service providers and end users.

FIGURE 2: DIGITAL CONTENT A KEY DRIVER OF BROADBAND

Digital content is a key driver for penetration and bandwidth



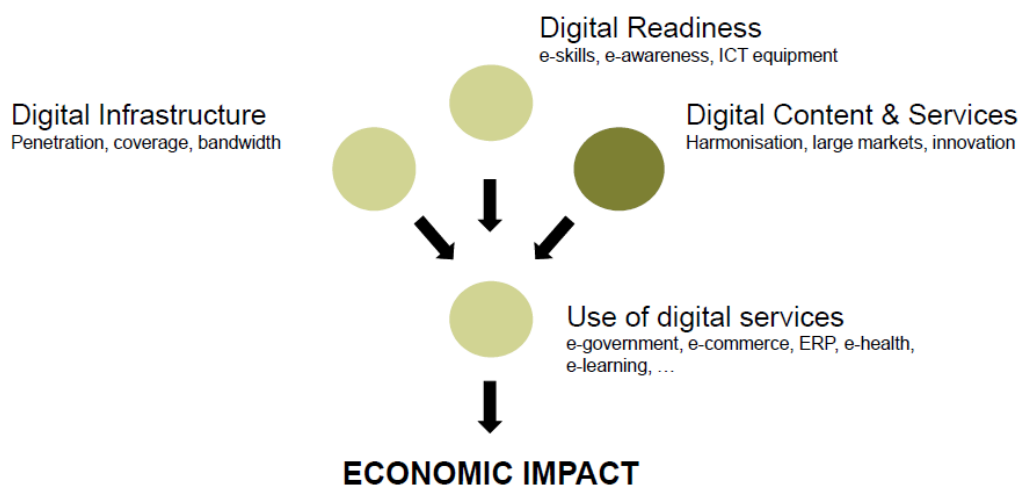
SOURCE: COPENHAGEN ECONOMICS STOCKHOLM JANUARY 2012

² In addition see New Zealand's Commerce Commission Demand Study: <http://www.comcom.govt.nz/media-releases/detail/2012/commerce-commission-releases-final-issue-paper-on-high-speed-broadband-demand-side-study/> (see also footnotes 3 and 4)

Another vital link exists between copyright and the availability of digital lawful content or the degree of digital transformation of creative sectors. Alternatively, to what degree copyright exhibits the capacity to stimulate the availability of consumer-friendly and attractive legal (licensed and exempt) **digital**³ content services. This particular capacity of copyright is imperative because digital creative services incentivize a vast share of the consumer market to adopt higher broadband speed services⁴ on which other essential commercial and public digital productivity (e-work, e- education/e-health and e-government) services can be delivered at low or no marginal distribution cost to all citizens. No other networked or non-networked (off-line/physical) distribution platforms can provide this strategic benefit to a society and an economy. In other words, this is the fundamental basis of the public interest that copyright needs to consider.

This interdependency (see figure 3) between broadband, digital content services, the increased use of digital services and the ultimate economic impact (direct, indirect and induced) on the overall Irish (digital) economy, innovation, competitiveness, job/new business creation is really what the current and very important consultation is ultimately all about.

FIGURE 3: FACTORS INFLUENCING THE ECONOMIC IMPACT OF THE DIGITAL ECONOMY



SOURCE: COPENHAGEN ECONOMICS STOCKHOLM JANUARY 2012

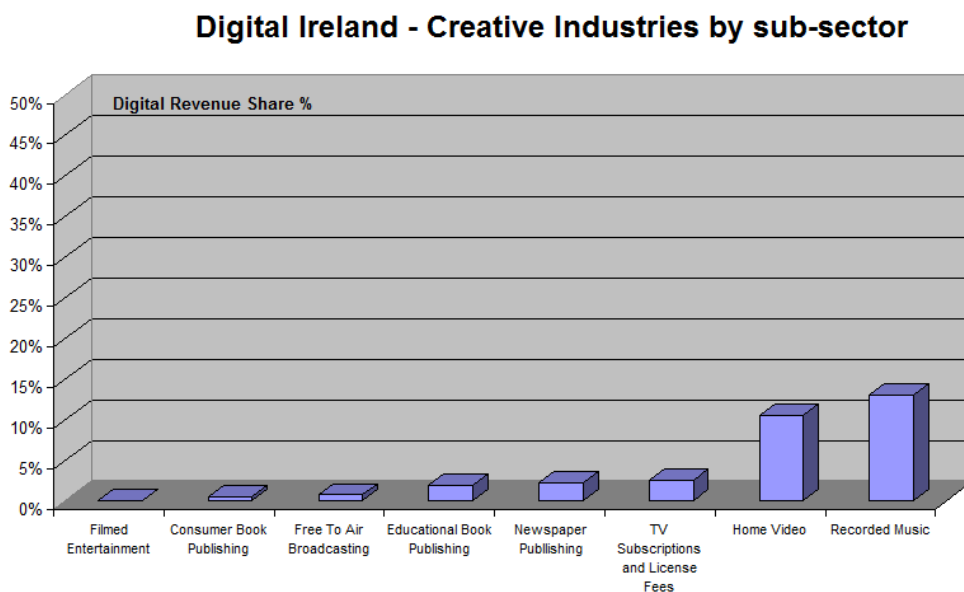
Given the significant role of digital content to drive uptake of broadband services and consequently the desired associated socio-economic effects of broadband described above, the degree of digital transition of Irish creative industries i.e. level of digital maturity becomes an imperative factor to consider in the current copyright and innovation consultation.

³ In this context digital refers to a number of attributes such; on-demand, personalization, device/time/place shifting etc.

⁴ See the New Zealand study mentioned or <http://www.epc.eu/dsm/>

An evidence-based approach to measure the degree of digital transition in creative industries is to relate the share of digital revenues to total (digital and non-digital) revenues, hereby avoiding the pitfalls of blunt measures such as a mere count⁵ of digital services. Regrettably as shown in figure 4, one can only conclude that digital creative transition in Ireland is quite undeveloped and this disturbing situation should be one of the key considerations to take into account in the current copyright consultation. In other words a reasonable question to ask is whether current copyright regime is a contributing factor or not?

FIGURE 4: IRISH DIGITAL CREATIVE TRANSITION 2011



SOURCE: PWC GLOBAL ENTERTAINMENT OUTLOOK 2011-2015, % DIGITAL REVENUE SHARE OF TOTAL SECTOR REVENUES.

Recognizing the undeveloped digital state of Irish creative sectors, Ericsson has identified some key barriers hindering the digital transition, i.e. the key root causes of the market supply failure of lawful digital content in Ireland.

⁵ Mere count of digital services does not recognize important factors to assess the level of success of a digital services such as; timely availability, the range and depth of titles available, business models (subscription, download to own, advertising), ability to time/format/device shift content, payment methods (credit card, pre-paid), easy of use and affordable price points.

The multiple causes for the market supply failure of digital lawful content:

1. The deliberate limited availability of attractive lawful digital content offerings due to (windowing⁶, malign exclusive licensing⁷, territoriality);
2. The technology specificity of copyright licensing such as schemes published by collecting societies that cater for specific business models only, technology specificity of exclusive rights (and hence direct licensing) and the first sale-principle⁸, all limiting or delaying innovative digital services⁹ until adequate licensing is available.
3. The unreasonable transaction costs¹⁰ that make digital content offerings to consumers unnecessarily expensive¹¹.

These three types of fundamental barriers are the key determinants of the evolution of digital creative markets. Consequently, the consultation paper should consider these barriers or digital disincentives in current Irish copyright regime. By mitigating or removing these barriers, the review committee can stimulate the Irish digital creative transition and hereby stimulate the direct, indirect and induced economic effects of broadband and digital services. This should be the defining basis for the balancing act that the future Irish copyright must struck.

Finally, regarding the many “evidence-asks” in the consultation paper, Ericsson believes that the burden of proof is simply untenable within the given time frame or extremely costly even for firms of Ericsson’s size. The pragmatic approach described in this section is practical and reasonable to address some of the key copyright and innovation related issues and at the same time attempting to meet the demands from the committee for economic evidence. However, Ericsson would also like end this section with raising some excellent points from the Towse¹² paper:

⁶ See for example the UK experience: <http://www.guardian.co.uk/film/2010/feb/17/european-cinemas-boycott-alice-in-wonderland> and US experience <http://blogs.wsi.com/speakeasy/2011/04/19/directv-officially-launches-premium-video-on-demand-service-home-premiere/>

⁷ Ericsson is not advocating that a creator should not be able to freely exercise its right to or not exhaust its right nor advocating that there must be a condition for the creator to create competition in its own exclusive right. However, once a creator has made the free choice to exhaust its right, competition concerns may arise when a licensing arrangement harms competition among entities that would have been actual or likely potential competitors in a relevant market in the absence of the license. A restraint in a licensing arrangement may harm competition, for example, if it facilitates market division or price-fixing. In addition, license restrictions with respect to one market may harm competition in another market by anticompetitive foreclosing access to the digital/online vs. physical (Cinema) market.

⁸ “The first sale principle of the original of a work or copies thereof by the right-holder or with his consent in the Community, exhausts the right to control the release in the Community of a work incorporated in a tangible tool”. This wording limits the principle of exhaustion to tangible goods only, excluding on-line services and intangible goods that incorporate digital content. **It is paradoxical; however, that in a legislative measure devoted to the online context, the only purpose of market integration was confined to the offline context.** EU Study, Legal Analysis of a Single Market for the Information Society, page 137. Draft Report October 2009.

⁹ <http://filmthinktank.org/papers/>

¹⁰ See for example; Economic Impact of Copyright for Cable Operators in Europe, identifying high transaction costs resulting from the necessary negotiation of copyrights for various content formats (e.g. analogue, digital, pay, on-demand) with numerous parties. <http://www.cableeurope.eu/uploads/2006%2005%2009%20Solon%20Study%20Final.pdf>

¹¹ The Guardian: “Downloaded movie prices are about 30% to 50% higher than buying an actual DVD. That’s if you can find the film online” <http://www.guardian.co.uk/technology/2011/nov/22/movie-fans-piracy-online>

¹² Ruth Towse, “what we know, what we don’t know and what policy makers would like us to know about the economics of copyright” Review of Economic Research on Copyright Issues, 2011, vol. 8(2), pp.101-120.

- Almost all economists are agreed that the copyright term is now inefficiently long with the result that costs of compliance most likely exceed any financial benefits from extensions.
- One point on which all economists agree is that there can be no possible justification for retrospective extension to the term of copyright for existing works since it defies the economic logic of the copyright incentive, something that nevertheless has been enacted on several occasions.
- Copyright law only stipulates the copyright standard and the rights that protect authors, but authors almost always have to contract with an intermediary or distributor in order to market their work and it is the terms of the contract between them that determine the eventual financial reward to the author.
- Research on artists' total earnings including royalties shows that only a small minority earn an amount comparable to national earnings in other occupations and only 'superstars' make huge amounts. Copyright produces limited economic rewards to the 'ordinary' professional creator.
- So-called 'copyright levy'; that has been almost universally opposed by economists on the grounds that its remuneration to creators bears no resemblance to the market value of the works and therefore could not act as a valid incentive to creators.
- Economists have long had concerns that copyright has a moral hazard effect on incumbent firms, including those in the creative industries, by encouraging them to rely on enforcement of the law rather than adopt new technologies and business models to deal with new technologies.
 - So this leads to the conclusion that what we can tell policy-makers is to look to economics for valuation of specific policies rather than the 'blockbuster' valuations of the whole copyright system that have been on the agenda.
 - The fact remains that copyright law would not work without collective administration. What is important to understand is that collecting societies are natural monopolies as well as legal ones, which is why competition is unlikely to reduce administrative costs, rather the opposite, and it is likely to lead to 'cherry-picking' and marginalizing small time rights holders. As with other natural monopolies, proper regulation is needed instead of breaking up the monopoly.
 - Copyright should become more similar to a patent by having an initial term of protection of a work, say of 20 years, renewable for further terms. The advantage of this is twofold: it enables a 'use it or lose it' regime to function and, more relevant to the economics of copyright, it enables the market to function better in valuing a works.

Rights holders

Above and beyond what is mentioned in the innovation section of this paper, Ericsson would like to discuss;

- TPM
- Remedies
- Levies
- Technological neutrality

TPM

In the case of TPM and DRM as well, the future policy principal should stipulate that, any statutory protective provisions against circumvention technologies that have been introduced or will be introduced into copyright legislation or other statutes in Ireland must be based on technology neutral and interoperable or open standards principles. Hereby, this principle ensures that end-users can access and move lawfully their lawfully acquired content between devices; cloud services and media service providers. Hence, legal provisions protecting the use of DRM or prohibit the use of circumvention technologies must only protect technologies that are:

- Built on an interoperable set of proprietary standards or consist of TPM/DRM technologies that are based on open industry-wide standards.
- Must not limit where applicable individuals' statutory right to make private copies of works for private use.

Remedies

Proportionality is a must

Proportionality is a key factor to consider, both regarding, the probability of committing an incidental infringement, the severity of the infringement (e.g. non-commercial vs. large scale commercial) as well as the economic consequence of the infringement in question.

Probability of incidental infringements has increased

The historical development of copyright law has predominantly been to strengthen the rights of economic rights holders by expanding the time-span and scope of the exclusive rights, increasing penalties for infringement and reducing their private costs of enforcement. This growth has resulted in greater complexity and hence uncertainty among the general public; all resulting in increased probability of users committing incidental infringements.

Economic impact – deeply contested

Empirical data on the impact of copyright infringement over the last two decades is deeply contested and in some case to such a level that it is being [ridiculed](#). This is highly undesirable development for the perception of copyright by the general public. While infringement is certainly widespread, there is a lack of clear evidence detailing the extent of the impact that file sharing has on revenue and on the incentives that copyright provides for creators and publishers.¹³

In addition, future policy should also be proportional and flexible recognizing that the decline in physical sales may also be a reflection of market conditions. That being various forms of access barriers, failed strategy and increased competition from lawful digital distribution services displacing physical sales, increased competition from other platforms (such as music in TV and gaming) and increased competition from live performances displacing physical sales.

Levies

Ericsson is strongly opposed to a levy system. A levy-system suffers from the following moral hazard failings; it would also target those who don't download unlawfully, it justifies unlawful behavior of those who download illegally, destroys any chance of creating lawful digital business models of offering lawful digital content, and is very unlikely to accurately compensate artists in the right way.¹⁴ Just to repeat from the Towse report above; "so-called 'copyright levy'; that has been almost universally opposed by economists on the grounds that its remuneration to creators bears no resemblance to the market value of the works and therefore could not act as a valid incentive to creators."

Technological neutrality

"As heterogeneous categories of works, media and platforms converge into homogenous multimedia environment, existing regulatory distinctions (works, media, and technologies) will be increasingly difficult to maintain."¹⁵

The main obstacle in the digital creative transition and for the cross-border distribution of audiovisual is fragmentation. Fragmentation occurs on many different levels:

1. **Fragmentation of rights:** Audiovisual works are composed of multiple protected works, and involved several economic rights (reproduction right, making available right, distribution right, etc.). Furthermore, specific copyrighted materials included

¹³ GOA United States Government Accountability Office, Report to Congressional Committees, Intellectual Property, April 2010. See also: Harvard Business Review File-Sharing and Copyright, Felix Oberholzer-Gee and Koleman Strumpf, May 2009.

¹⁴ Source: Professor Martin Kretschmer, ESRC Fellowship at the UK Intellectual Property Office, Independent Report, "Private Copying and Fair Compensation: An empirical study of copyright levies in Europe <http://www.cippm.org.uk/publications/comparative-study-of-copyright-levies-in-europe.html> and Younison.eu artists receive less than less than 0,001 cent in levies.

¹⁵ The Recasting of Copyright & Related Rights for the Knowledge Economy, IVIR 2006.

in audiovisual works may be subject to overlapping rights: copyrights, neighboring rights, rights of publicity, etc.

2. **Fragmentation of right owners:** Copyrights and related rights are rarely owned by one single entity. In practice, rights are divided along vertical and horizontal lines, for different modes of exploitation and different territories. Moreover, some rights will be exercised by agents or collective licensing societies.
3. **Fragmentation of licensing practices:** Individuals and businesses wishing to distribute audiovisual works online are confronted with a bewildering variety of licensing schemes. Each “family of rights” has its own licensing tradition (which may also differ from Member State to Member State), with no commonly accepted method for licensing or pricing related rights in a consistent manner.

The Irish as well as European copyright system separately requires that a multiplicity of rights be cleared before most audiovisual works are distributed on-line. Some of these rights are under the exclusive control of one owner, while others can be regulated by or are under the control of an independent second owner. Moreover, different institutions perform different administrative roles. This fragmentation of copyright yields duplicative regulation and negotiation with a corresponding increase in the costs of administration.

The consequences of fragmentation are disturbing in the digital age, as digital technology produces a breakdown and conflation of legal categories that were meaningful in the analog era. The transmission of audiovisual content on the Internet now involves making reproductions and public performances of both the recording and its underlying content. Consequently, the same act can be viewed as a reproduction and distribution of copies on the one hand, and a public performance or display of the work on the other. Since these rights are controlled by different parties and agents, the complexity of the system leads to a gridlock of control that may hinder development by causing delays and increased transaction costs.

Ericsson believes that it is necessary to adopt a technology neutral copyright regime in the digital environment hereby making it more up to date and adequate for the digital economy. In particular;

1. Ensuring the principle of technology-neutral licensing by mandating an “anywhere, anytime and any device” exploitation right which is not specific to distribution, technology or device. This digital right should be combined with a remuneration principle based on actual and identifiable private-sphere consumption, rather than potential consumption and reach.
2. Ensuring the principle of technology-neutral exhaustion, or the first-sale principle for creative works extending to digital/electronic formats, hereby prohibiting and abolishing any technology specific windowing practice and consequently abolishing discrimination against premium VOD services released in competition with cinema-release windows.
3. Ensuring technology-neutral fair-use/exception regime that can enable the proliferation of private “cloud” content services such as TV, film, music, e-books, thereby ensuring that contract law and technical standards cannot be allowed to

override statutory exceptions, such as fair-use regimes or private copy exemptions, in ways that would limit the ability of lawfully acquired content to shift format, place or device within the private sphere.

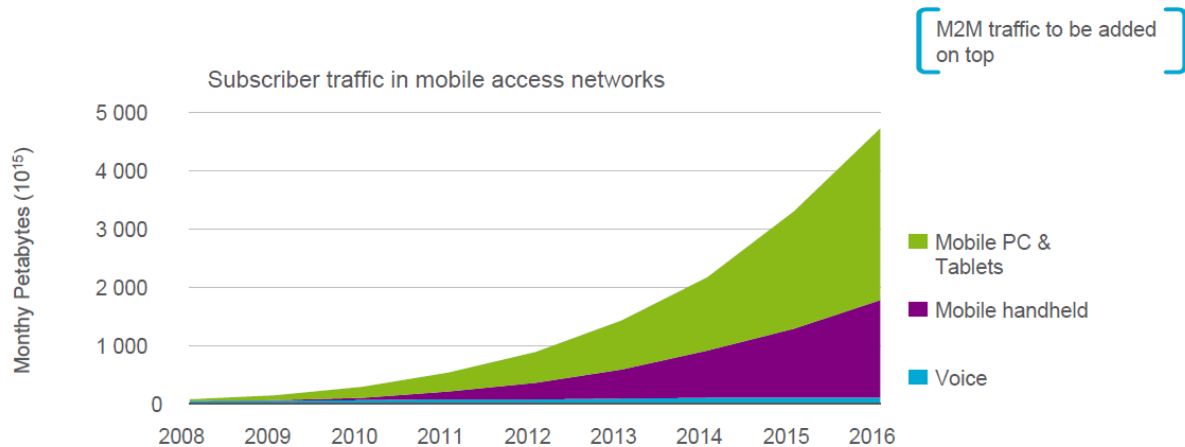
There is no doubt about the importance of copyright regime and the incentives it creates for certain market behavior and hence licensing conduct. And in the case of Ireland it is pretty much all about non-digital incentives as confirmed by data presented in figure 4. One can also add to the observation in the Towse paper; that it is not just enforcement but also the established exploitations models (exclusive rights & licensing) that a copyright regime maintains in a market that create moral hazard effect on incumbent firms to rely on the law rather than adopt new technologies and business models to deal with new technologies.

Given the socio-economic effects described above, Ericsson argues that it is in the policy makers' interest to: promote open and competitive markets in licensed and exempt **digital content**, with the aim to **increase availability** of more legitimate digital content, at prices which appeal to consumers and to decrease technology specificity of copyright, e.g. licensing, exemptions/fair use, safe harbors and hereby **promote innovation and growth of the digital creative market**.

Intermediaries

FIGURE 5: GLOBAL MOBILE TRAFFIC FORECAST

MOBILE TRAFFIC, VOICE AND DATA



Source: Internal Ericsson
Definitions: see note pages.
DVB-H, Mobile WiMax, M2M and WiFi traffic not included
This slide contains forward looking statements

SOURCE: ERICSSON 2011

The traffic in mobile networks is expected to explode over the next five years. This growth is driven by the popularity and adoption of smart-phones, tables and laptops. To cope with this growth, a number of new innovations are being designed and developed such as distributed clouds and active/proxy-caching to more efficiently deal with the explosion of data traffic flows. Ultimately, the purpose of these innovations is to drive down the cost of data and hence increase affordability of the data service. It is absolutely essential, in the context of caching that the meaning of “*temporality*” is broad and flexible to such a degree that it can accommodate innovations and deployment of efficiency enhancing technologies. Consequently, the wording; “*is an integral and essential part of a technological process, and has as its sole purpose the enabling of a transmission in a network*” should be the dominant key consideration.

Regarding hosting please see section below: “Users and format shifting”.

Users

106B. *Format-shifting for private use.*

(1) It is not an infringement of the rights conferred by this Part if—

(a) the owner or lawful user of a work makes or causes to be made a reproduction of that work in a different format,

(b) he or she owns or is a lawful user of the medium or device on which the reproduction is reproduced,

(c) the reproduction is made for his or her private and domestic use, and

(d) the reproduction is made for purposes that are neither directly nor indirectly commercial.

It is absolutely essential that format-shifting for private use is assured in a technology neutral way. This means that the provision must be;

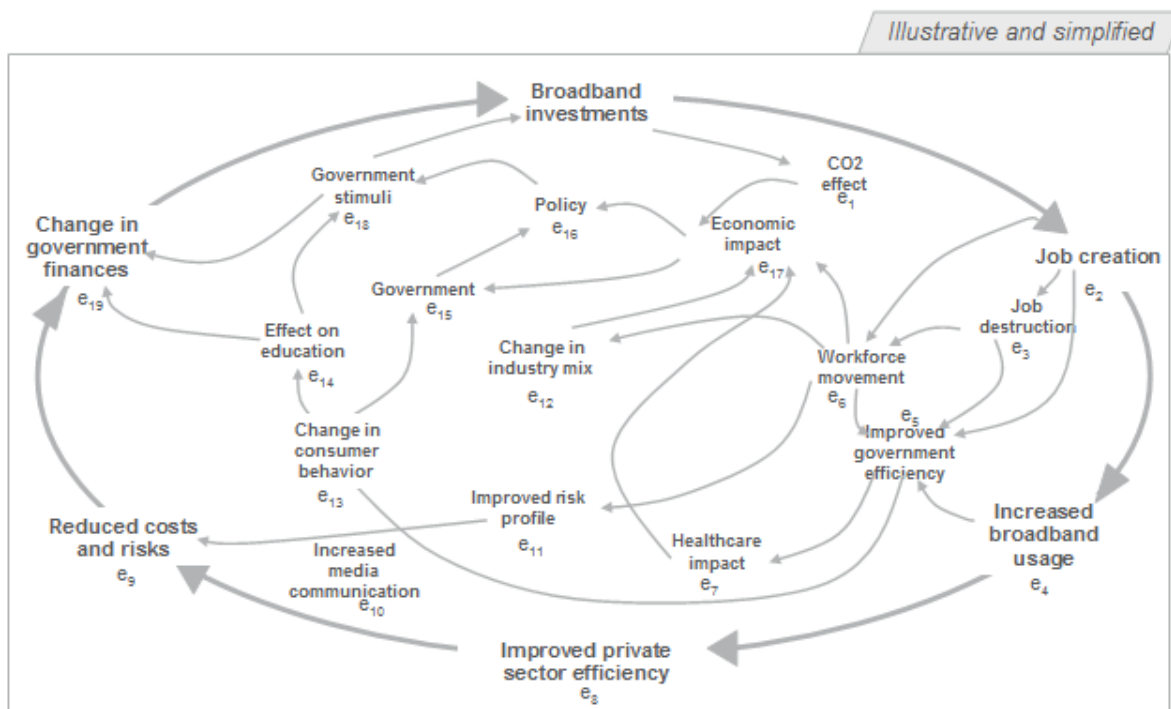
- › technology neutral in current context this means; independently of any physical storage, architecture and media format and
- › any storage solution architecture e.g. if the storage function is embedded in a local consumer device or in a network should be able to compete freely.

In a recent study: *“The Impact of Copyright Policy Changes on Venture Capital Investment in Cloud Computing Companies”* by Josh Lerner (2012), the researcher could establish and validate the desirability of technology neutral approach to copyright. In 2008 in the US, the court clarified that Cablevision was not directly infringing copyright by providing a **remote** Digital Video Recorder service, which allowed consumers to record and store authorized TV content on a device located in Cablevision’s facilities, outside of the consumer’s home. This ruling in U.S. had broad consequences for cloud services generally. The study found that, in contrast with Europe where exceptions, immunities/safe harbors are relatively narrow and less flexible e.g. more technology specific than in the U.S., the same growth did not occur in the EU, and in some places, such services have even been blocked from coming to market. In particular the researcher found:” ... *consistently find that the U.S. decision led to additional incremental investment in U.S. cloud computing companies compared to the EU experience. The report; “estimates of increased VC investment in U.S. cloud computing from \$728 million to approximately \$1.3 billion, with an average of \$936 million. When paired with the findings of the enhanced effects of VC investment relative to corporate investment, this may be the equivalent of \$2 to \$5 billion in traditional R&D investment”.*

Appendix

Appendix – A

The socio-economic impact of broadband infrastructure investments - a complicated web of interdependent variables



SOURCE: ARTHUR D: LITTLE 2010 SOCIO-ECONOMIC IMPACT OF BROADBAND



Contact Ericsson

Gillian McNamara, Legal Counsel, LM Ericsson Limited

LM Ericsson Limited
Beech Hill Clonskeagh
Dublin 4,
Ireland
Phone +353-1-207-2285
Email gillian.mcnamara@ericsson.com

William Johnson, Head of Legal, UK and Ireland Group Legal Counsel

Ericsson UK Limited
Midleton Gate
Unit 4, Guildford Business Park
Guildford, GU2 8SG
United Kingdom
Ph +44 (0) 1483 305 197
Email william.johnson@ericsson.com

Rene Summer, Director Government and Industry Relations, Ericsson Group

LM Ericsson, Group Function Sales & Marketing
Thorshamnsgatan 21 – 23
Stockholm 164 83
Sweden
Mobile + 46 702 453 668
Email rene.summer@ericsson.com

Ericsson is the world's leading provider of communications technology and services. We are enabling the Networked Society with efficient real-time solutions that allow us all to study, work and live our lives more freely, in sustainable societies around the world.

Our offering comprises services, software and infrastructure within Information and Communications Technology for telecom operators and other industries. Today more than 40 percent of the world's mobile traffic goes through Ericsson networks and we support customers' networks servicing more than 2 billion subscribers.

We operate in 180 countries and employ more than 100,000 people. Founded in 1876, Ericsson is headquartered in Stockholm, Sweden. In 2011 the company had revenues of SEK 226,9 billion (USD 35.0 billion). Ericsson is listed on NASDAQ OMX, Stockholm and NASDAQ, New York stock exchanges.