

Response to the ERG Consultation
on
Broadband Market Competition Report [ERG (05) 23_rev1]
by
the German Cable Association (Deutscher Kabelverband)

The German Cable Association represents the interests of those broadband cable network operators, which formerly belonged to Deutsche Telekom. These operators provide more than 17 million households with analogue and digital TV services and in many areas broadband internet access and telephony as well.

German cable operators - and the markets they operate in - are going through major changes. Over the last 4 years large parts of their networks have been upgraded and until the end of 2008 more than 23 million homes will be able to access the internet via cable networks. Therefore, the competitive landscape has already taken and will continue to take a total new direction. Cable operators are today successfully offering telephony services and broadband internet in addition to their TV services. Vice versa telecom operators like Deutsche Telekom are entering the TV market, which increases the competitive pressure and will eventually lead to a further increase of infrastructure competition.

The current Review of the European Framework for Electronic Communications and the first proposals recently published by the Commission for a revised framework are by and large embraced by the German cable industry. We are convinced that in general already the current framework provided a favourable environment for the development of innovative products and services and for competition. This is indeed important for the incentives to invest in advanced communications infrastructures like cable networks.

This said, we welcome the Broadband Market Competition Report by the European Regulators Group (ERG) which takes a close look at the competition in the wholesale broadband access market and its relationship to broadband penetration based upon 15 country studies provided by the NRAs. However, we are particularly uneasy about the view offered in the country report on Germany according to which wholesale products based on hybrid fibre cable are "unimportant" and therefore those networks "are at the moment not able to create a competitive impact at the fixed network". In our opinion, this view of the German Federal Network Agency is purely based on numbers. While the figures presented are correct, the context in which they are placed does not take into account the most recent development in the German cable market. The figures used by the German NRA stem from its Market 12 analysis which was based on data from 2004 eoy.

We believe it to be appropriate to amend the country report on Germany with a short annotation, which explains why until today the market share of cable broadband is low in comparison to other EU markets and take into account most recent developments.

Our comments for this public consultation will concentrate on the following issues:

- **Cable Broadband Market in Germany: Brief History in a nutshell**
 - Long sales process of the former Deutsche Telekom cable networks
 - Economic difficulties of the regional companies first sold
- **Massive Investment into upgrade of Broadband Cable Network for Triple Play**
- **Infrastructure Competition is driving broadband penetration**
- **Impact of cable broadband Internet access adoption on overall broadband adoption**

Germany is the largest cable television market in Europe – more than 55 of every 100 Germans get their video by way of cable. Under these circumstances, it is remarkable that there exist only 0.3 subscriptions for cable broadband for every 100 Germans (compared to 12.6 DSL subscriptions).¹ The pace of wired broadband deployment and adoption in Germany is markedly lower than might otherwise have been expected, and this is particularly the case for broadband Internet access over cable television infrastructure. There are a number of contributing factors, based in the historic development of the cable market in Germany. The fragmentation of the German cable industry in different network levels plays a large role. The issues attached to this network separation are addressed in great detail in a yet unpublished study commissioned by the German Cable Association on Cable Broadband Internet in Germany. Some parts of this study have been used for this response.

Cable Broadband Market in Germany: Brief History in a nutshell

Long sales process of the former Deutsche Telekom cable networks

The majority of the television cable networks, in particular the entire network Level 3 belonged to Deutsche Telekom AG (DT) until the end of the 1990s. DT had few incentives for rigging the CATV networks for broadband telecommunication services as it was done, for example, by the independent cable network operators in Austria or the Netherlands starting as early as approximately 1998. Instead DT focussed on the development and the introduction on the market of DSL connections over its telephone network.

The European Commission recognized this negative incentive problem and steered against it. In March 1998 it published a Proposal for a Directive, which foresaw that cable television and telecommunications networks were to be separated at least on an organizational level. In July 1999 Directive 90/388/EEC entered into force. As a consequence of this Directive DT as of 1 January 1999 moved all its cable television activities into the subsidiary Kabel Deutschland GmbH, which was divided again into nine regional companies. The goal of this separation was to sell the regional companies to different investors. About at the same time DT began testing and marketing DSL broadband connections and investments in the extension and upgrade of the cable networks were stopped.

The sales process lasted until 2003. During this period the cable networks were upgraded only punctually for broadband Internet. On 1 July 2000 the regional companies in North-Rhine-Westphalia and Hesse were sold to the cable company Callahan and the financial investor Klesch. In September 2001, Callahan also acquired the majority of the regional cable company Baden-Wuerttemberg. The remaining six regional companies were to be sold to the US company Liberty Media, which in February 1992 was forbidden by the Federal Cartel Office, because it feared that the markets for wholesale cable television as well as the markets for cable signal feed-in and for signal delivery were to suffer. This decision influenced the readiness for investment into the German cable market negatively and it took nearly one year until financial investors were found, who took over the the remaining DT networks for a smaller price. Only at the end of February 2003 and thus over four years after start of sales process the remaining six regional networks were sold to the financial investors Goldman Sachs Capital, Apax Partners and Providence Equity after the EU competition authority had given its consent.

Economic difficulties of the regional companies first sold

Despite of investments into the network upgrade of several billions in the early sold regional cable companies in North-Rhine/Westphalia, Hesse and Baden-Wuerttemberg there was no considerable marketing of cable Internet services. Instead the there investors came into economic difficulties, which led to to the insolvency of the holding company Callahan North-Rhine/Westphalia. The thereupon necessary restructuring process, from which at the end the companies ish in North-Rhine-Westphalia and iesy in Hessen (in 2005 merged under Unity Media) as well as Kabel Baden-Wuerttemberg followed, contributed to a further delay in upgrading the whole cable networks and in the introduction of Cable Broadband Internet offers.

After having undergone a lengthy organisational and financial restructuring, the cable companies Kabel Deutschland, Kabel BW, ish and iesy (Unity Media) could finally start in 2003/2004 to introduce cable broadband internet and telephony services and offer it to their customers. Due to the situation on the financial markets after the the end of the Internet stock exchange boom new concepts for the upgrade of the cable infrastructure first had to prove in practice that they actually ensure the necessary service quality with a clearly smaller capital requirement, in order to convince the capital market of the new perspective of the cable industry. Here also technological progress had positive effects. Thus, for example, technical problems of the application of Voice over IP were solved in 2003, so that telephony services could be made available at far smaller costs than before.

Therefore, the cable industry in Germany started the rollout of cable broadband internet with a delay of more than five years in comparison with countries like Netherlands or Austria.

¹ OECD data as of December, 2005. See http://www.oecd.org/document/39/0,2340,en_2649_34225_36459431_1_1_1_1,00.html#Data2005.

Massive Investment into upgrade of the Broadband Cable Network for Triple Play

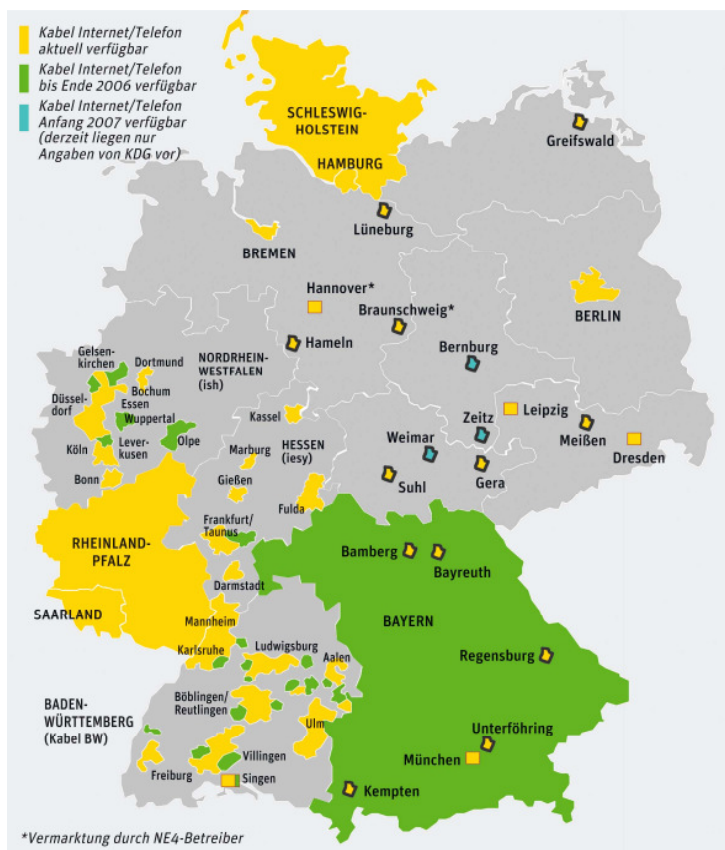
After having proven the practicability and financial soundness of their broadband and telephony business case, investments decisions for a large scale upgrade of the cable infrastructure were taken. KDG, Kabel BW and Unity Media plan to invest approx. 1 billion Euros between 2006 and 2008 in the upgrade of their cable networks and introduction of Triple Play Services. That sums up to an investment of over 15 % of the yearly total turnover. Upgraded cable networks will be the second largest interactive broadband infrastructure and the largest competitor for xDSL networks.

Network Upgrade Plan:

6,2 million HH have been modernised since 12/2005

13,5 million HH will be modernised until the end of 2006

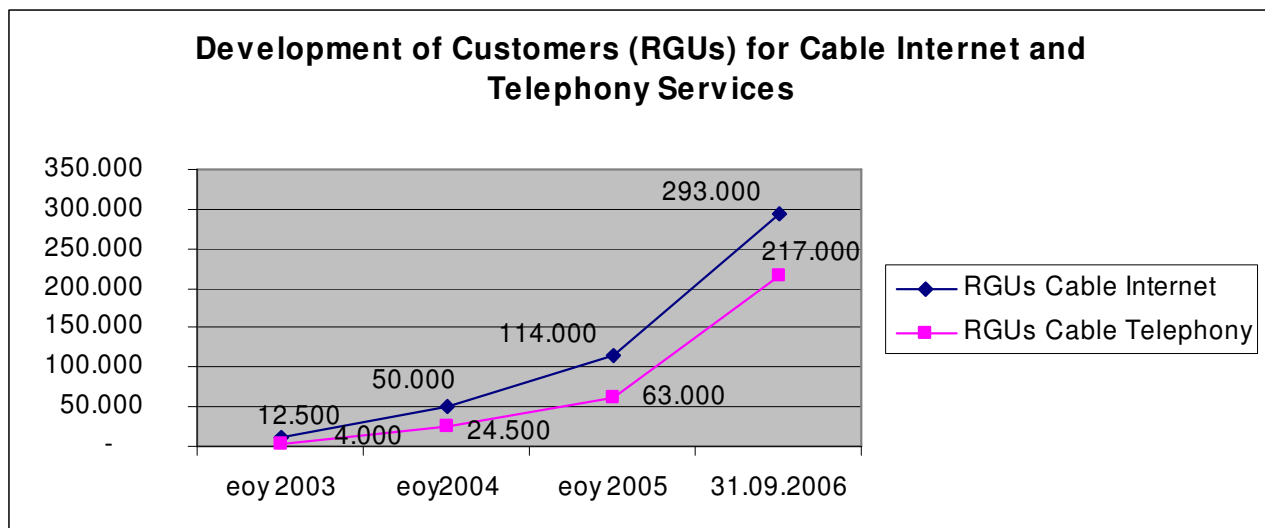
23,5 million HH to be modernised until end of 2008 (90 % of connectable HH)



Cable Internet/Phone available
Cable Internet/Phone available at the end of 2006
Cable Internet/Phone available as of beginning of 2007 (only KDG data)

This map reflects the cable networks upgraded or to be upgraded. It does not show where the cable network is actually available or not.

As explained above, level 3 cable operators had – in comparison to other European markets - a very late start due to disintegration from Deutsche Telekom AG. Nowadays, Level 3 cable companies experience strong growth numbers, which came only into effect during the last 18 month and will increase over the next years.



The figures illustrate that Internet and telephony over cable broadband are fast growing markets. Nevertheless, this market is still in its early stages. We are convinced that we contribute to a more competitive market for the benefit of the customer through a facility-based competition. Cable network operators in Germany were the first to offer Triple Play Services as the ERG report recognizes fairly. This spurred the market competitors to introduce similar products. It shows that a facility-based competition leads to innovative new services.

Infrastructure Competition is driving broadband penetration

We feel that the industries massive investments into the upgrade of the cable networks will drive up the broadband penetration rate in Germany in general. In recent years increasing competition to the benefit of European consumers has emerged due to true convergent services from formerly distinct platforms and infrastructures. The arrival of triple- and even multi-play services over cable and former telco infrastructures, but also over other platforms like satellite and mobile has created fierce competition and a broader competitive scope than ever before. A fast growing number of consumers have much more choice for their TV, internet, telephony and other services. Moreover they can choose between different platforms and providers of such services. Therefore, we would like to point two basic requirements should always be kept in mind:

First of all – only true infrastructure competition will ensure sustainable competition on a long term basis. Thus, all proposed measures and constraints must be checked if compatible with further incentives to invest in infrastructure and should not only safeguard a mere service provider play.

Secondly – if competition has already emerged and takes place in a wider scope than before in the old days of service specific platforms, regulation only applied to particular platforms should be removed. Careful regulation must be focused to real bottleneck facilities and abuse of market power. Otherwise there is a risk

of asymmetric regulation subject to the used technology or infrastructure. This will certainly harm and distort competition in our new competitive environment characterised by very dynamic and convergent markets.

Impact of cable broadband Internet access adoption on overall broadband adoption

The lack of cable broadband adoption impacts Germany's overall broadband roll-out not only directly, but also indirectly. The absence of a potential facilities-based competitor means that DSL providers do not have the competitive spur that would otherwise be present. Thus, the lack of cable broadband adoption slows the DSL roll-out as well. The European Commission made this point particularly clearly in their recent document on proposed changes associated with the 2006 review of the European regulatory framework for electronic communications:

"With the growth in broadband in the EU over recent years, the correlation between broadband roll-out and competition in infrastructure has become very clear. Those countries where there is strong competition between telecommunications operators and cable operators are among those that have the highest broadband penetration."²

One might easily imagine that it would be otherwise – one might think that a consumer acquires cable broadband as a *substitute* for DSL-based broadband, and that the purchase of a cable broadband subscription typically is in lieu of the purchase of a DSL subscription. In effect, such a view assumes that cable broadband takes a "slice of the same pie" as DSL. The preponderance of opinion among those who have studied the issue is otherwise.³ The presence of a real alternative to DSL is felt to enhance both choice and price/performance, thus making both kinds of broadband offerings more attractive to consumers.

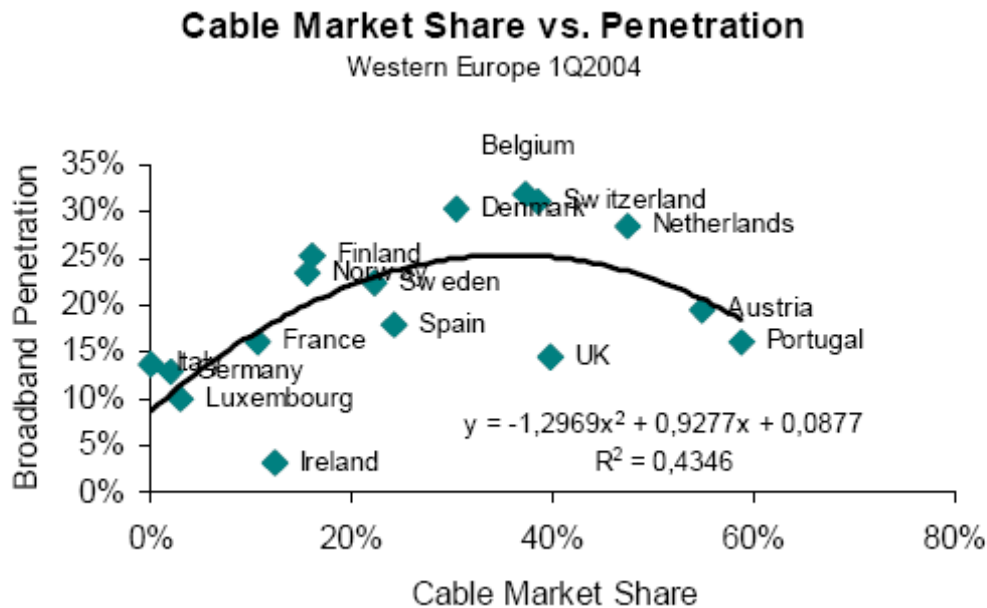
Several empirical studies⁴ have found that markets with robust facilities-based competition between cable broadband and DSL experience higher *total* broadband adoption – in effect, the entire pie has been expanded. The analysis by Felix Höffler of the Max Planck Institute (Bonn) is particularly instructive in this regard. Dr. Höffler models broadband adoption under assumptions of oligopoly competition. Using a technique known as quadratic regression⁵, he finds a good empirical fit to an equation representing an upside down letter "U" (see Figure below). The closer a country is to a 50-50 split of market share between cable and DSL, the greater the overall penetration of broadband is likely to be. Based on Dr. Höffler's analysis, overall broadband penetration in Western Europe would (other things being equal) have been about 20% lower in the absence of competition from cable operators.

² Commission Staff Working Document "On the Review of the EU Regulatory Framework for electronic communications networks and services: Proposed Changes", COM(2006) 334 final, SEC(2006) 816, June 288, 2006.

³ In fairness, we should note that this issue has been subject to debate and will no doubt continue to be debated.

⁴ See, for instance, Distaso, Lupi, and Manenti, "Platform Competition and Broadband Adoption in Europe: Theory and Empirical Evidence from the European Union", March 2004; and Felix Höffler, "Cost and Benefits from Infrastructure Competition: Estimating Welfare Effects from Broadband Access Competition", January 2005, available at http://www.coll.mpg.de/pdf_dat/2005_1online.pdf.

⁵ Quadratic regression is a technique very similar to the linear regression described in the previous section. Instead of fitting a linear equation ($ax + b$) to a series of points, quadratic regression fits a quadratic equation ($ax^2 + bx + c$).



Share of the broadband market held by cable versus broadband penetration.

Had Germany achieved the cable broadband penetration predicted in the study we commissioned (about three million users in 2004), it might have had a roughly 70-30 market share split between DSL and cable – nearly ideal, according to Dr. Höffler's model, and greatly superior to the actual 99-1 split. Germany would have been close to the center of the inverted "U", rather than on the left hand margin, and would thus have had substantially higher expected total penetration. This analysis tends to support the notion that increased cable broadband would have driven significantly increased overall broadband adoption – it would not simply have substituted the choice of one kind of broadband for another

Conclusion

The cable industry in Germany has left behind the historical factors of the late sales and restructuring process. It continuously invests into the upgrade of the existing cable networks in order to be able to offer its services to a broad range of customers. The importance of an alternative infrastructure like cable has been recently recognised by Commissioner Reding:

"If we look at the situation in the different Member States, the first conclusion we can draw is that the most significant factor enabling broadband growth is the existence of alternative infrastructures, in particular cable. In all six Member States which have exceeded 20 % broadband penetration, cable has an important market share and this regardless of the effectiveness of regulation."⁶

Berlin, 27 November 2006

⁶ Commissioner Reding, Speech/06/697 of 16 November 2006.