

### **1) Central principle in the rollout of optical fiber: Consistent use of the open access model instead of a new monopoly**

Traditional copper cables have been replaced successively around the world by modern fiber optic infrastructure. All of the actors in the market are in agreement that a restructuring of this dimension cannot be supported by a single company by itself. Nationwide expansion of the fiber optic network in Germany can instead be achieved, in the opinion of all the experts, only by involving a large number of companies and business models. One model for success here can be the joint local expansion propagated by an increasing number of market participants; using investment resources carefully through a transparent open access system, it ensures access to future infrastructures for all companies in exchange for appropriate fees. At the same time, an open access model enables rapid expansion while simultaneously optimizing network utilization. Especially important from the perspective of customers is the fact that existing contractual relationships continue intact even after restructuring of the connection technology, and that a mandatory change of providers can be prevented for both private and business customers. Even beyond this important aspect, there are many reasons why decentralized planning of the individual infrastructure projects with a variety of investors involved can be accomplished much more quickly and efficiently than would be possible with centralized planning – for example by an infrastructure consortium. The history of the ongoing expansion of DSL technology offers impressive proof of the power of small and medium-sized companies to innovate and invest. This concentrated investment power should also be used to expand the optical fiber network.

The competing companies in the German telecommunications market have invested more than 40 billion euro since the liberalization of the market, and since 2002 have accounted for significantly more than 50% of total annual investments in the market. Against this background, it is also essential that these companies, which have invested successfully in the past in increasingly faster broadband infrastructure such as DSL, TV cable and satellite transmission, not be excluded from future projects. To do so would not only permanently destroy the trust of these companies in Germany as a site for business and investment, but would also frighten off future investors from long-term infrastructure projects. In concrete terms, the framework conditions must be defined so that neither individual companies nor business models are favored to the detriment of others. Instead, the objective should be to

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mobilize the investment potential of the entire sector for the impending nationwide expansion of the German optical fiber network.

### **2) Supporting long-term infrastructure investments and combating negative consequences of the credit crisis**

The financial crisis is not yet showing any significant direct effects on the telecommunications industry. Credit terms have become much worse for long-term infrastructure investments as well, however, and stand in the way of forced expansion of the infrastructure as desired by the Federal Government. Smaller companies may not be the only ones for which structural financing aid will be increasingly important, to enable them to make additional investments in spite of the difficult economical situation. Thought should also be given to instruments such as state guarantees for securing credit and expanding the 2009 Special Program of the *KfW* (Reconstruction Credit Institute) for investments in telecommunications infrastructure. But care must be taken to ensure that the employment of these instruments is technology-neutral. The desire to press forward with investments in landline infrastructure in the near term must not result in unequal treatment and thus distortion of competition with regard to alternative connection technologies (such as wireless technologies). Subsidization of unprofitable infrastructures must not be allowed to prevent future investments that make sense for the economy as a whole.

The Ministry of Economics has invited the VATM and other representatives of the industry to a meeting of experts to discuss the broadband strategy of the Federal Government. In addition, the VATM is organizing the largest meeting of investors in the country on the topic of broadband expansion. On February 12, 2009 representatives of banks, infrastructure investors, well-known consulting firms and telecommunication companies will meet in Berlin to develop proposals for the Federal Government for how to enable and support massive broadband investments in spite of the difficult economic situation.

### **3) Preventing burdening companies' investment options by artificially high prices for subscriber connection lines**

The current price of 10.50 euro for a subscriber connection line is more than 2 euro higher than the best comparable prices for industrialized countries in Europe. It is urgent that they be lowered in Germany too.

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The central legislative principle in regulating prices is: All prices subject to regulation must be measured against the market and the costs of efficient service provision (CESP). At the same time, attention must be paid to maintaining the proper distance between the individual advance products and an adequate spread.

A current economic and juristic report shows that calculations of the CESP can no longer be based unilaterally on replacement costs, but must also incorporate historic costs in greater measure. In consequence, the Federal Network Agency must keep in mind, when setting prices, that in most cases of future network modernization and expansion measures expensive copper lines will no longer be run.

The current practice of including costs of reducing inefficiencies (for example, reducing costs of overstaffing, and severance payments) results in imposing these costs on the competing companies, and is contrary to the underlying concept of CESP. Furthermore, at the end of 2008 the DTAG had demanded a significant increase in the lease prices for the subscriber connection line for a rural DSL expansion to 2 Mbit/s. We vehemently oppose such offloading of expansion costs onto the competing companies. In the first place, this would result in subsidizing by the competitors of technology which the DTAG itself has so far been unable to realize economically. In the second place, increasing the prices for subscriber connection lines would result in significant competitive disadvantages and would destroy the investment potential of the competing companies.

#### **4) Regionalization must not jeopardize the consistency of market prices and place rural areas at a disadvantage**

Preliminary product prices that build consistently on each other – in particular with regard to the most important preliminary components subscriber connection line and bitstream – are essential for security of planning and for further investments in the expansion of optical fiber infrastructure. This basic rule of consistency must of course also be followed in conjunction with the debate about regionalizing regulation. In this respect, an exclusion of densely populated areas from regulation only for bitstream is absolutely unacceptable without a guarantee of consistency with other preliminary product prices – in particular such as those for subscriber connection lines. Any other approach would have the same negative effects as an artificially elevated price for subscriber connection lines and would result in massive distur-

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tions in the market, would impede competition, and would be accompanied by significant worsening of investment possibilities.

Furthermore, the discussion about regionalizing regulation is closely tied to the question of the future of “rate uniformity in space,” which must be decided politically. The principle of “rate uniformity in space,” although not legally defined, has so far guaranteed minimal differentiation between urban and rural prices for end customers. Regionalizing the prices of preliminary prices, and the expected lowering that would result, including lowering of prices for end customers in densely populated areas, would enlarge the digital divide instead of reducing it.

### **5) Utilizing efficient technologies and the Digital dividend in the phase of migration to nationwide fiber optic delivery in Germany**

Even though the expansion of the fiber optic network is already beginning today in urban as well as rural regions, realistically a transition and build-up phase of around ten years must be expected, even under optimal investment conditions. The primary objective must be to first ensure service in the regions that have been practically without broadband service in the past, to eliminate the still-existing site disadvantages as quickly as possible. Expandable technologies must be utilized here, which are adequate to meet the requirements of rising future transmission rates.

The necessary technological development possibilities are offered by mobile radiotelephony, satellite technology, WiMax/Pre-WiMax and directional radio technologies, as well as power line solutions. Even a step-by-step expansion of the fiber optic network from the main distribution frame to the cable distribution head and thus closer to the customer increases the transmission rate considerably. The latter expansion involves substantially higher costs however, especially in rural areas.

It is particularly important to utilize the Digital Dividend, which enables relatively high broadband delivery at relatively low cost. Quick agreement is necessary between the national government and the states on releasing the digital dividend, to enable the Federal Network Agency (BNetzA) to begin assigning frequencies still this year if possible.

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### 6) Lowering broadband expansion costs through consistent legislation for future above- and below-ground construction

In addition to improving investment possibilities and utilizing efficient technologies in the migration phase, it will also be of critical importance to lower construction costs as part of a reasonable fiber optics expansion strategy.

The Association already pointed out frequently in the past that a legal obligation to install empty conduits during all road and canal construction projects is an important prerequisite for achieving significant cost reductions in the future. In addition, steps should be introduced to achieve compatibility in the empty conduit systems, which still differ today. Since the costs of broadband expansion are determined predominantly by the underground construction involved, and only to an insignificant degree by the costs of the fiber optic cable itself, enormous savings potential can be realized here, which would benefit every company – and hence ultimately every citizen – in the future.

In addition to these improvements in underground construction projects, consideration should also be given to optimized in-house cabling in new public and private buildings. The feeds to the house will not be the only critical factor in the future for significantly improved transmission rates, but also consistent installation of empty conduits, or of fiber optic cables directly. The conductor systems that exist today are hardly capable of distributing broadband house connections in the building appropriately and without loss of performance. Both for public buildings and for commercial buildings and private houses, mandatory guidelines should be created on the one hand and support options on the other hand, in order to make broadband connections into the dwellings and to the future equipment in the building possible. These problems must be taken seriously; a technical task force has already been assigned, which is working on possible interfaces of glass fiber and equipment or in-house wiring. Construction guidelines and rapid creation of standards would be a significant foundation for improving the utility of broadband connections into the house in the future.

Furthermore, as quickly as possible the Federal Government should assemble records of all existing and planned infrastructures that are involved in providing broadband service to the populace (empty conduits and cable runs of telecommunication providers, TV broadband cable network operators, energy supply companies, rail companies, and the national and state governments), supported by maps and databases.

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### **7) Consistently supporting broadband applications and modernizing the public service sector**

As requested already many pages above, the public sector in particular should make greater use internally of electronic communication, and make broadband services usable by the public. This touches on the duties of the public administration, with a need for particular attention to providing equipment for schools and students and to the possibilities of interactive learning. Consistent modernization of the entire public sector represents an important instrument for promoting broadband applications, and thus promoting Germany as a business location.

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