

Innovation policy, information society, telecommunications

Nation-wide Broadband Services

Policies by the German government / the Ministry of
Economics and Technology

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Telecoms Sector

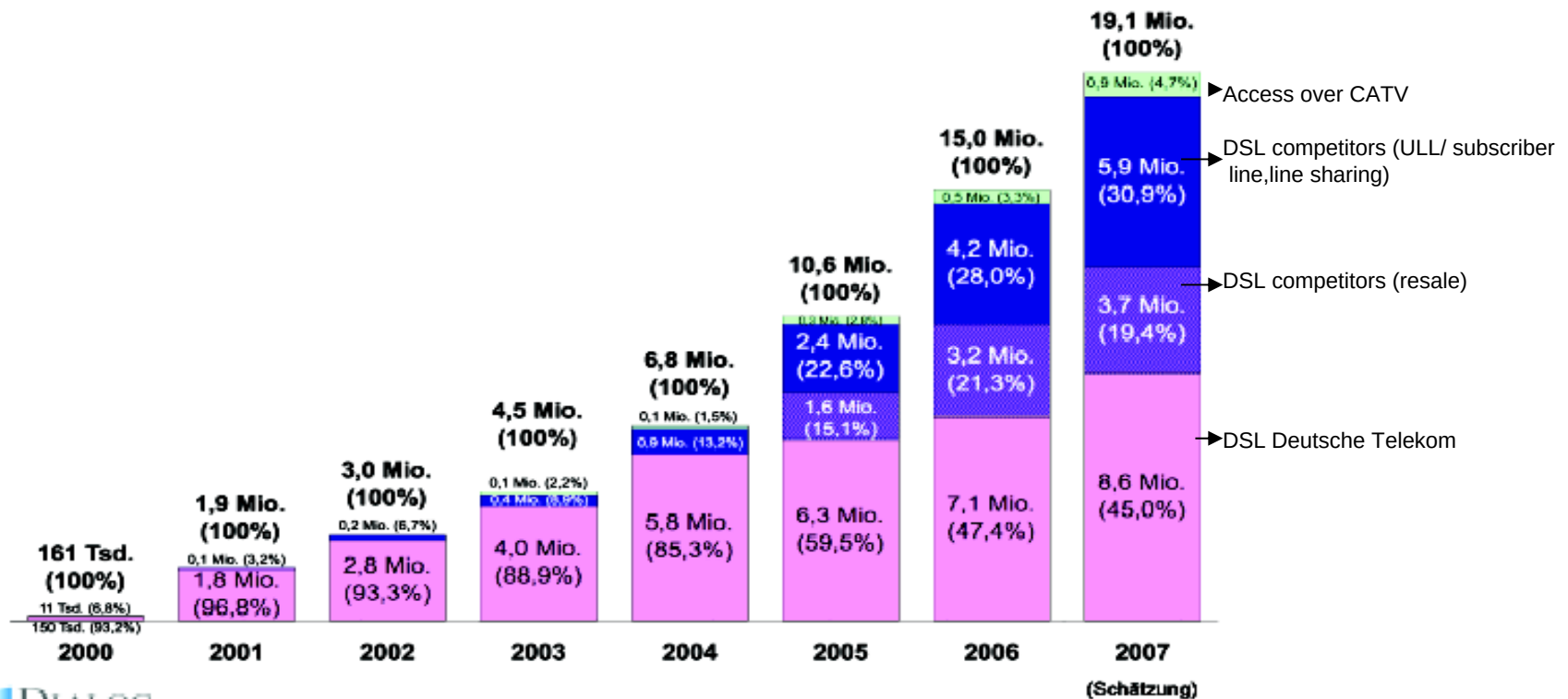
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Broadband Development in Germany

- ▶ Intense competition, low prices, continuous improvements in quality
- ▶ Above-average market growth; about 5 million new broadband hook-ups in Germany in 2007 alone
- ▶ More than 50 % of German households have a broadband connection.
- ▶ DSL penetration > UK, F, I, Sp
- ▶ Overall penetration 23.8% (hook-ups/100 inhabitants), GER ranks 8th in EU; < UK, > F, I, Sp and US

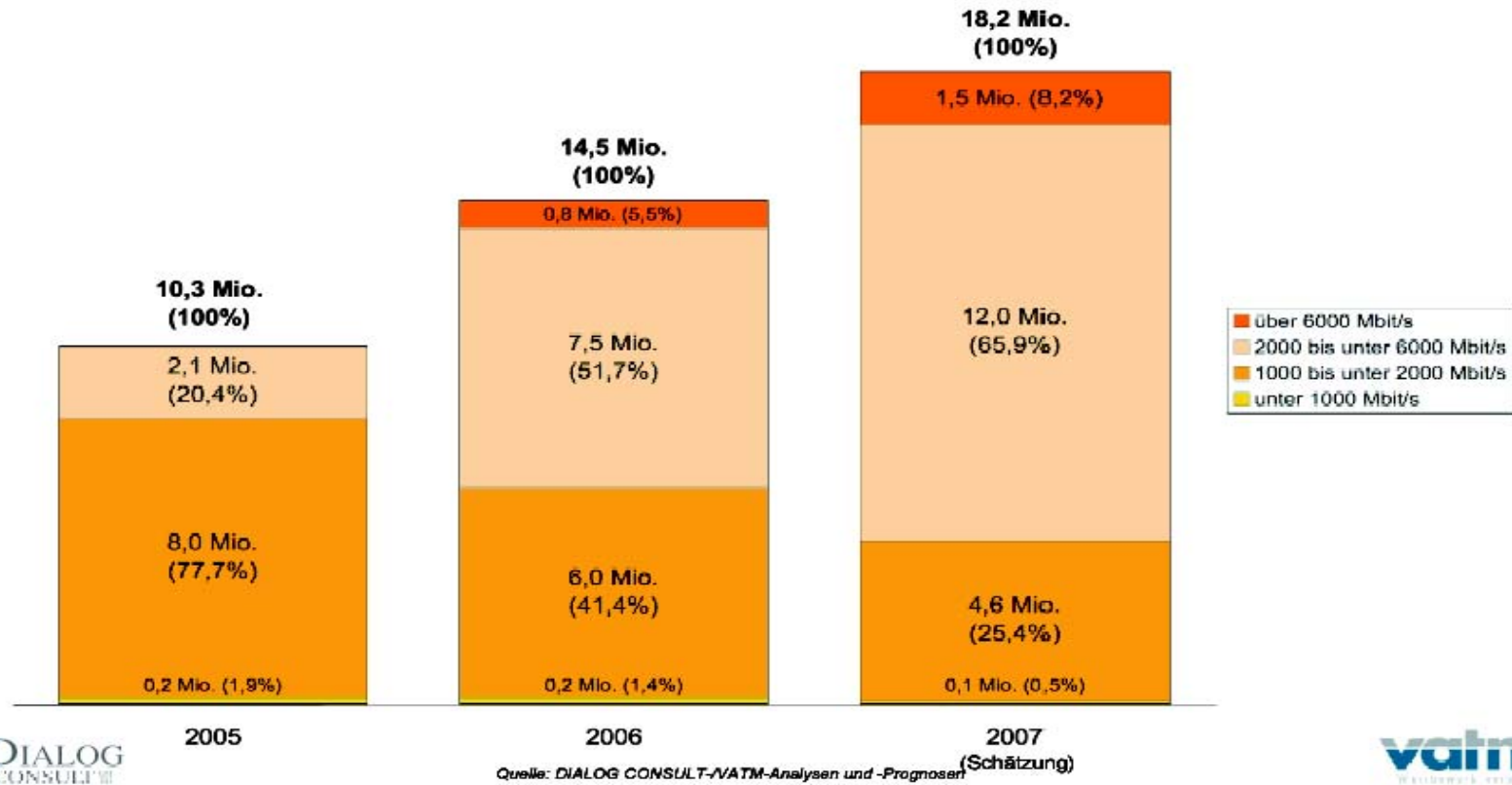
German Broadband Market / DSL Dominance

 Direkt geschaltete Breitband-Anschlüsse in Deutschland

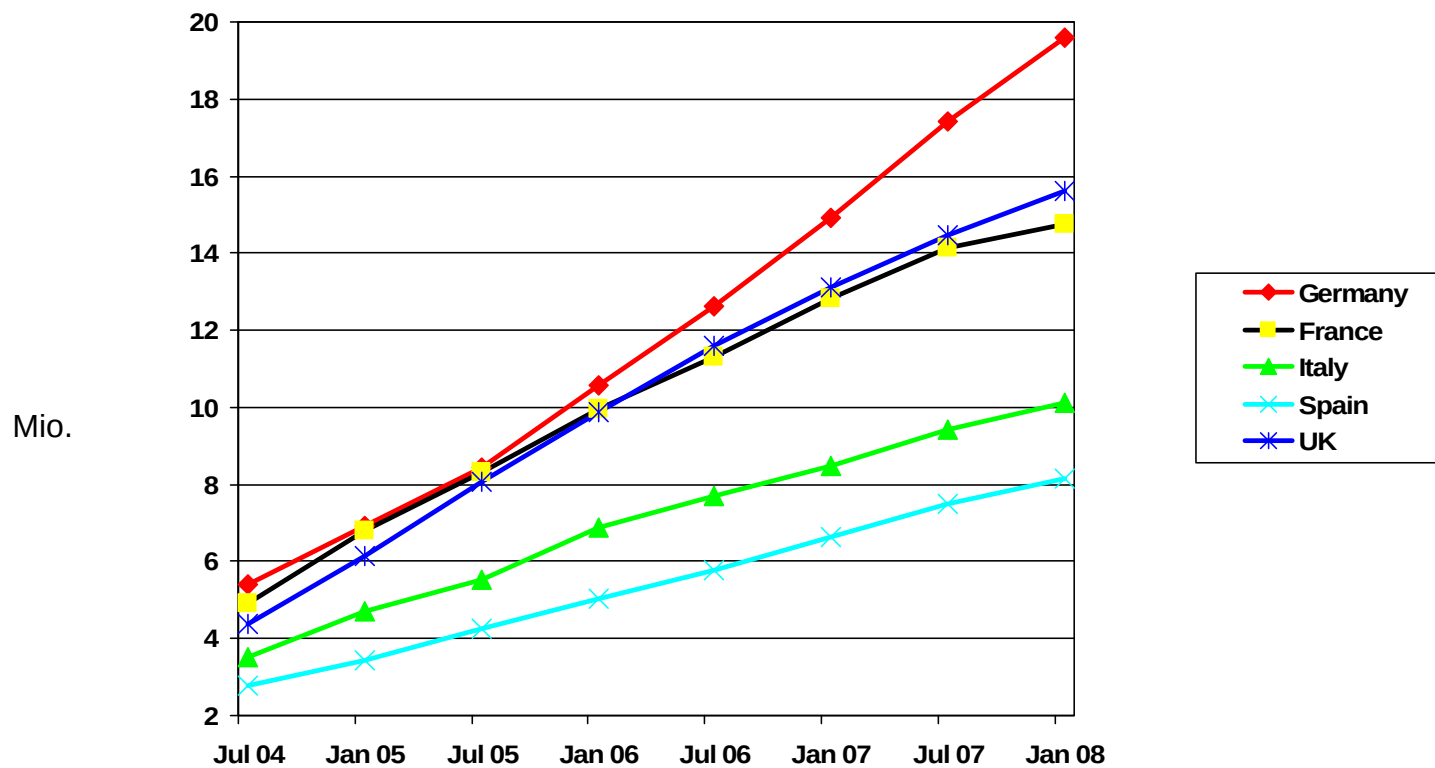


Quality of Broadband Services (DSL)

Abbildung 14: Verteilung der DSL-Anschlüsse nach Downstream-Bandbreite

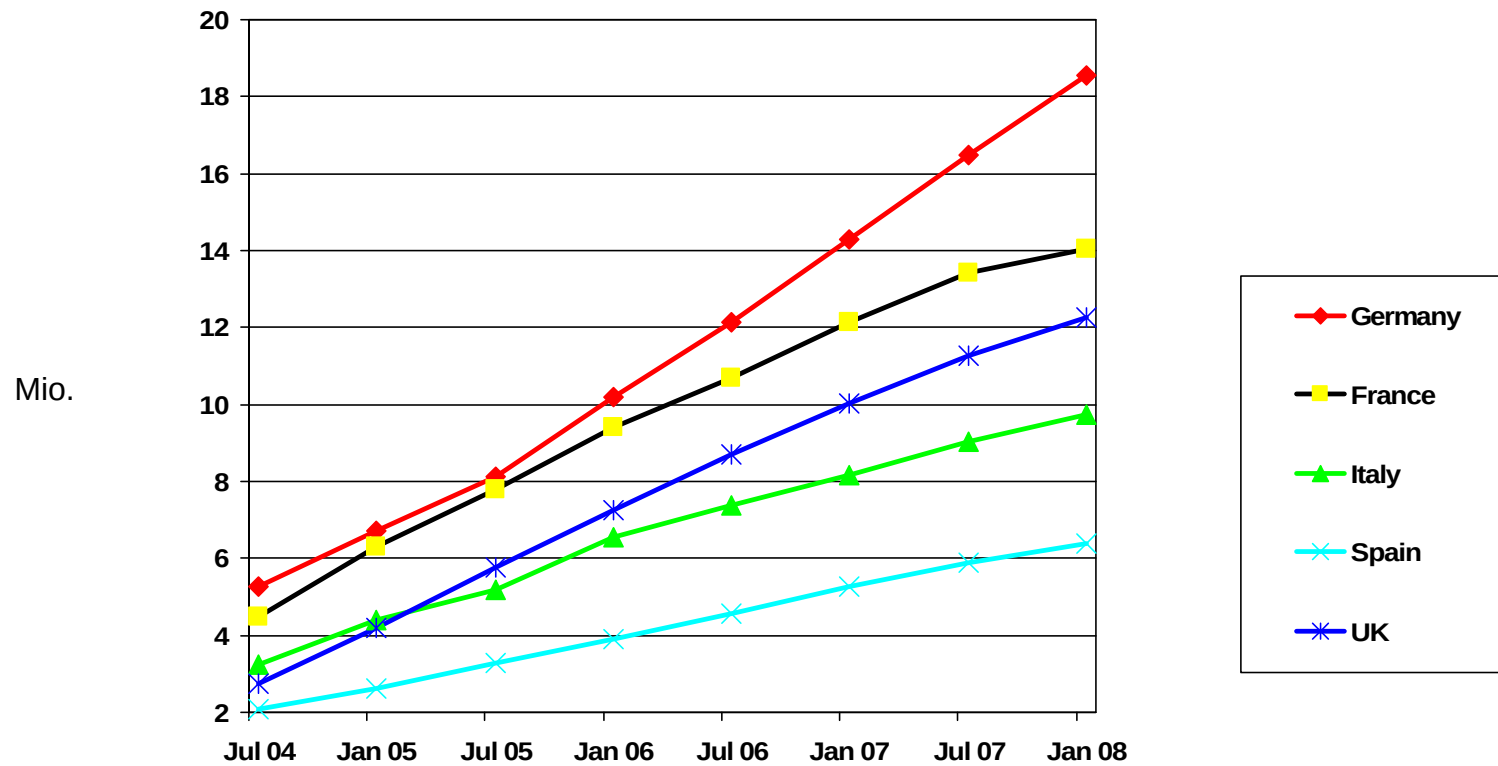


Broadband Development of EU TOP 5 *

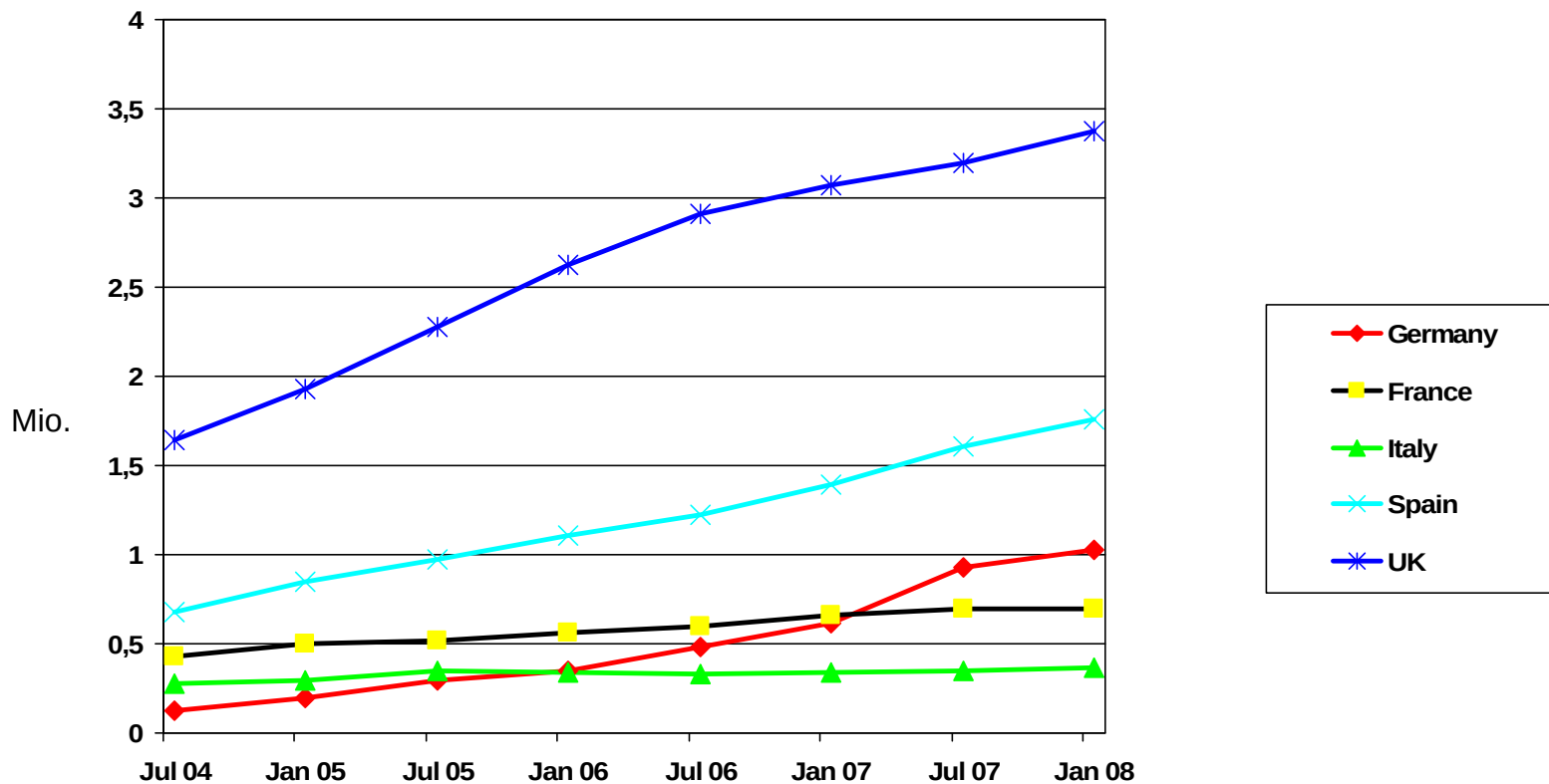


* five most populated countries

Broadband Development (Five Most Populated EU Countries / DSL)

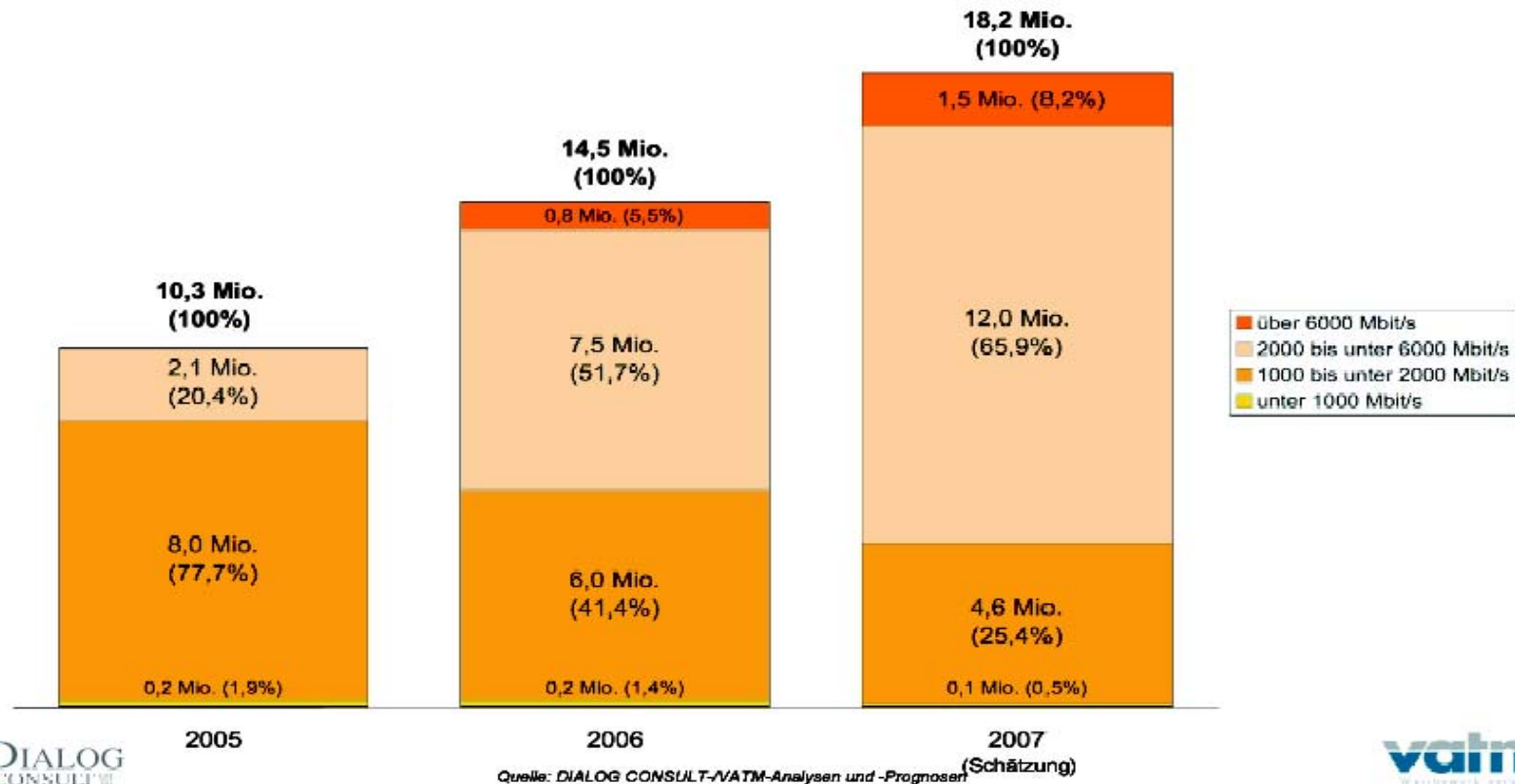


Broadband Development (5 Most Populated MS/ Without DSL)



Quality of Broadband Services (DSL)

Abbildung 14: Verteilung der DSL-Anschlüsse nach Downstream-Bandbreite



Potential for Improvement in the Broadband Market

- ▶ Over-dominance of DSL (just under 95% of all broadband connections)
- ▶ Unsatisfactory use of TV cable networks for broadband access (BUT: strong growth)
- ▶ Insufficient awareness and acceptance of satellite services
- ▶ Around 10% of households have no or only insufficient broadband access

Rural Broadband as a Dynamic Problem

- ▶ Given the importance of broadband connections for overall and regional economic development, the broadband supply shortage can no longer be tolerated.

Issues:

- ▶ 1) How can the current supply shortage be remedied as quickly as possible (acceptable price/performance ratio)?
- ▶ 2) How can this issue be resolved for the long term in view of the dynamism of the market and constant technology changes?

Broadband Policy Objectives / Principles

- ▶ The objective is to achieve the fullest broadband coverage possible, i.e. coverage of more than 99 % of households (without satellite).
- ▶ The German government seeks to promote the provision of nation-wide broadband services by appropriate measures that are in line with market needs.
- ▶ Subsidies should be granted only in cases where market solutions are not possible.

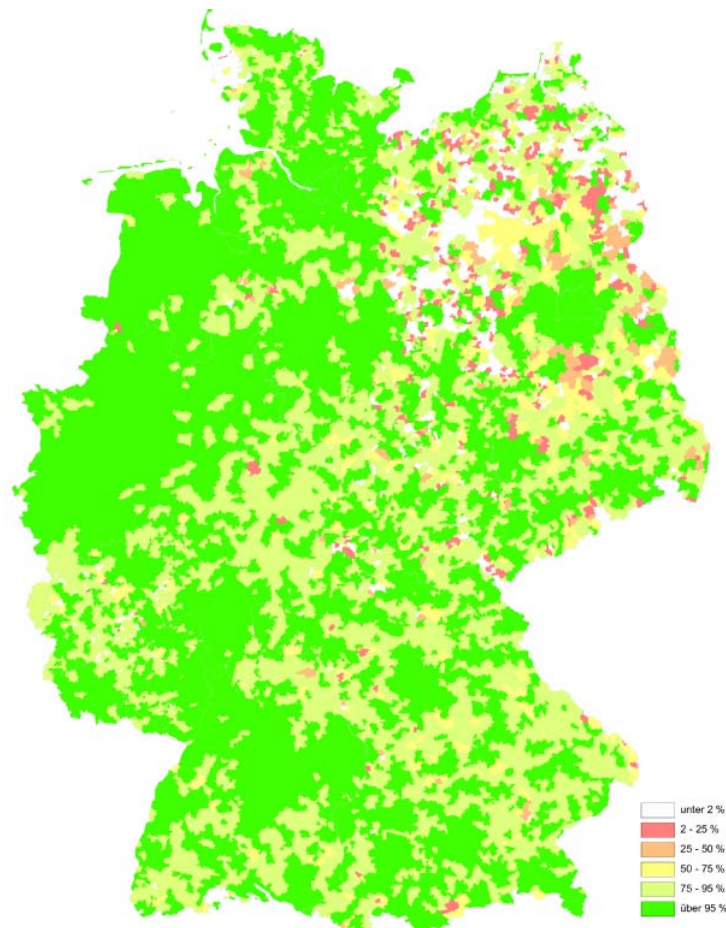
Broadband Atlas as Diagnostic Device

- ▶ The Economics Ministry's Broadband Atlas (since 2005) helps to
 - ▶ identify blank spots,
 - ▶ inform potential customers about broadband possibilities in their region and to
 - ▶ give suppliers information on the regions where engagement could be worthwhile.
 - ▶ Data are collected twice a year.
- ▶ Accurate up-to-date information is not available as data are provided voluntarily and small companies often do not report their activities.
- ▶ Nonetheless, this tool is useful as it identifies market opportunities for enterprises and areas where government action is needed.

Current Analysis: What is Broadband? (Broadband Definition)

- ▶ According to the Broadband Atlas, current availability is 97.7%
- ▶ Broadband definition: more than twice the ISDN speed (> 128 Kbits/sec); factual limit, however, is six times the ISDN speed (> 384 Kbits/sec ~ DSL light)
- ▶ Current broadband definition must be corrected upwards in future publications.
- ▶ At present, 1 Megabit/sec is considered the necessary speed.
- ▶ Using this broadband definition, the penetration rate (without satellite) would be slightly over 90 %.

Broadband Availability in Germany (June 2007)



Broadband Atlas

Breitbandportal des BMWi - Breitbandsuche - Mozilla Firefox

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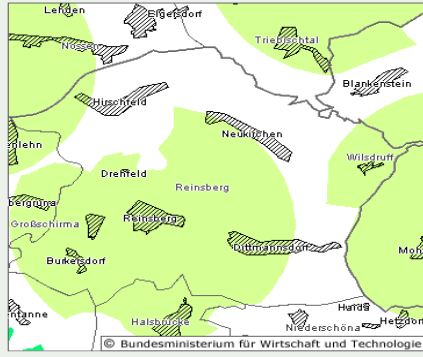
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Breitbandsuche

PLZ oder Ort:
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Nutzungsart:
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Breitbandversorgung in Reinsberg - Verfügbarkeit DSL



LEGENDE VERFÜGBARKEIT

Green	über 95 %
Light Green	75 - 95 %
Yellow	50 - 75 %
Orange	25 - 50 %
Red	2 - 25 %
White	unter 2 %
Shaded Area	Siedlungsfläche

Weitere Techniken in Reinsberg

Satellit
WLAN Hotspots
alle Techniken zeigen

Nutzungshinweis
Alle Daten stammen von den befragten Unternehmen. Die Auskünfte dienen einer Erstinformation. Sie wurden mit großer Sorgfalt zusammengestellt. Für die Richtigkeit und Vollständigkeit der Daten wird dennoch keine Haftung übernommen. Auch bei der Darstellung einer vollständigen

Maßstab: 1:83.381

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Market Solutions are Possible Almost Everywhere!

- ▶ One finding of our analysis is that market solutions are also possible in relatively sparsely populated areas.
- ▶ 20 to 30 local customers are often enough to realise economically viable solutions (wire-less)
- ▶ However, some markets evolve slowly! Major supplier often do not focus on rural areas; opens up opportunities for SMEs
- ▶ Different local conditions require different approaches.

Bottomline:

“We need to support the market - not supplant it”

Measures by the German Government

- ▶ Our focus is a target-oriented information policy which is geared towards the decision-makers in the municipalities, citizens' groups and companies on the ground.
- ▶ This policy is intended as a self-help tool aimed at spurring market processes.
- ▶ Full broadband coverage can only be achieved through a technology and policy mix, and by joining our efforts in a “concerted action” of industry, government, the Länder and municipalities.

Broadband Website (www.zukunft-breitband.de)

Breitbandportal des BMWi - Startseite - Mozilla Firefox

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Zurück Vor Neu laden Stopp Startseite http://www.zukunft-breitband.de/ Go

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 Bundesministerium
für Wirtschaft
und Technologie

ZUKUNFT BREITBAND
für eine flächendeckende Breitbandversorgung

Suchbegriff eingeben **FINDEN** →

MELDUNGEN

7.3.2008
Schauerte: "Bundesregierung begrüßt Vorschläge des Bundestages zur Breitbandpolitik" mehr

5.3.2008
Bundesministerium für Wirtschaft und Technologie treibt flächendeckende Breitbandversorgung voran! mehr

Gemeinschaftsaufgabe

Die Förderung internetbasierter Informations- und Kommunikationstechnologien zählt zu einem der Förderbereiche der GA.

Rubrik "Gemeinschaftsaufgabe 'Verbesserung der regionalen Wirtschaftsstruktur' (GA)" beim BMWi →

Veranstaltung

Pressekonferenz und gemeinsame Podiumsdiskussion des BMWi und der Deutschen Breitbandinitiative

Best-Practice-Beispiele

In der Übersichtsliste der Best-Practice-Beispiele finden Sie zahlreiche Orte, die jeweils über die Grunddaten, Rahmenbedingungen und Lösungsansätze des Ortes informieren. Zusätzliche Informationen bieten anschauliche Fotoreihen der Orte sowie Länderkarten, die unter anderem Auskunft über die DSL-Verfügbarkeit der Region geben. zur Übersichtsliste

Förderung

Für die Gemeinden, die aufgrund ihrer besonders ungünstigen örtlichen Bedingungen auch auf längere Sicht nicht mit geeigneten Breitband-Lösungen über den Markt rechnen können, ist der folgende Überblick über staatlichen Finanzierungsmöglichkeiten gedacht. mehr

Breitbandatlas

Nutzen Sie den Breitbandatlas und sehen Sie auf einen Blick, welche Breitbandtechniken in Ihrer Region verfügbar sind.

PLZ oder Ort eingeben

Technik wählen ...

FINDEN →

Best-Practice: Nordhorn
zum Best-Practice-Beispiel zur Übersichtsliste

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“Practical Solutions” Pilot Project

- ▶ **Pilot project called “Practical Solutions To Close Broadband Supply Gaps”**
- ▶ Six “problem municipalities ” (in Brandenburg, Saxony, Lower Saxony (2), Rhineland-Palatinate and Bavaria) will be used to exemplify promising ways in which municipalities or citizens’ groups can tackle the issue on the ground.
- ▶ Various consultant teams were commissioned to develop solutions.
- ▶ Project results will be published in early 2008.

Broadband Working Group of the German Economics Ministry

- ▶ **A working group on nation-wide broadband supply** was established under the direction of the Federal Economics Ministry.
- ▶ Participants are representatives of the Länder, central municipal associations, regional centres of excellence, ITC companies and associations, the Federal Network Agency and the Federal Ministry of Agriculture.
- ▶ The working group will examine all possible concepts and draw up recommendations for action.

Broadband Working Group of the German Economics Ministry



Länderarbeitskreis
Telekommunikation



Clearingstelle
Neue Medien im Ländlichen Raum



Database “Municipalities Lacking Service”

- ▶ It is planned to establish a database in the coming weeks to collate key data of the municipalities lacking (adequate) service (survey of all municipalities in Germany)
- ▶ Establish links to the respective geodata
- ▶ Complementing the Broadband Atlas, this database is intended to facilitate telecom companies' market access in municipalities lacking service.

Identify Existing / Alternate Infrastructure

- ▶ In many cases, infrastructure is already in place which can be used for broadband.
- ▶ To some extent, this infrastructure has empty conduit capacities or fiberglass lines which can also be used to connect municipalities lacking service.
- ▶ The Federal Economics Ministry is engaged in talks with various infrastructure operators.
- ▶ municipalities must ensure that construction projects at least provide empty conduit capacity.
- ▶ Draw up a fiberglass/ infrastructure atlas, if necessary

Regulatory and Frequency Policy

- ▶ **Regulation boosts broadband competition** – leading to an increase in penetration rates and falling prices (in agglomeration areas) => Raises relative appeal of rural areas
- ▶ **Auctioning of frequencies** (at the end of 2006) for broadband wireless access
- ▶ Use of so-called “radio frequencies” to supply rural areas (pilot projects) could significantly ease the issue of area-wide broadband availability;
- ▶ Requirements for area-wide broadband coverage in the context of frequency allocations

Funding Information at www.zukunft-breitband.de

Breitbandportal des BMWi - Förderung - Mozilla Firefox

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ZUKUNFT BREITBAND
für eine flächendeckende Breitbandversorgung

Suchbegriff eingabe

Förderung von Breitbandzugängen im ländlichen Raum

Nationale und europäische Förderinstrumente zur flächendeckenden Versorgung mit Breitbandzugängen in Deutschland



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- > Hintergrund
- > Mittel aus der Gemeinschaftsaufgabe "Verbesserung der regionalen Wirtschaftsstruktur" (GA)
- > Mittel aus der Gemeinschaftsaufgabe "Verbesserung der Agrarstruktur und des Küstenschutzes" (GAK)
- > Förderung aus dem Europäischen Fonds für Regionale Entwicklung (EFRE)
- > Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums (ELER)

> Flächendeckende Breitbandförderung durch das Land Schleswig-Holstein

> Mittel der Kommunen

Hintergrund

Schon heute verfügen rund 97% der deutschen Haushalte über die Möglichkeit eines preiswerten Breitbandanschlusses. Jedoch ist der ländliche Raum noch unterversorgt. Ca. 900.000 Haushalten können bisher nur über Satellitenlösungen breitbandig ins Internet.

Es ist aber abzusehen, dass ein großer Teil der bisher unzureichend versorgten Gemeinden kurzfristig eine in Leistung und Preis mit DSL vergleichbare Funklösung finden wird. Für die Gemeinden, die aufgrund ihrer besonders ungünstigen örtlichen Bedingungen auch auf längere Sicht nicht mit geeigneten Lösungen über den Markt rechnen können, ist der folgende Überblick zu staatlichen Finanzierungsmöglichkeiten gedacht.

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Technik wählen ...

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Possibilities of Funding:

- ▶ **Government aid for broadband infrastructure, at the initiative of the German Ministry of Agriculture**, as part of the German Joint Task for the Improvement of Agrarian Structures and Coast Protection (GAK). According to GAK rules, which require co-financing by the Länder, fifty million euro worth of aid will be provided until 2010 (up to 60% of the municipalities' expenses for infrastructure, planning and information)
- ▶ Joint Task for the Improvement of Regional Economic Structures (GA) (up to 90% of broadband connection costs for industrial zones and individual companies)
- ▶ European Regional Development Fund (ERDF) (up to 75% of municipalities' expenses for infrastructure)
- ▶ European Agricultural Fund for Rural Development (EAFRD) (up to 75% of rural municipalities' expenses for infrastructure)
- ▶ Promotion of area-wide broadband provision by the Land Schleswig–Holstein (up to 50% of municipalities' expenses for infrastructure; maximum of 75,000 Euro)
- ▶ The municipalities themselves (in compliance with European competition law)

Universal Service (US) Is Not an Appropriate Tool

- ▶ Broadband connections are not yet part of US
- ▶ Possible widening of scope at European level will not be relevant for at least two years
- ▶ Europe-wide US broadband requirement only possible at low level – not sufficient for Germany
- ▶ Excessive requirements would undermine positive market trends and, in particular, market opportunities for SMEs
- ▶ Existing aid measures are sufficient.

Conclusion

- ▶ On the whole, broadband development is going well.
- ▶ Existing broadband supply gaps must quickly be closed.
- ▶ Issue of area coverage can, for the most part, be solved by the market.
- ▶ Requires state support (information policy, coordination, promotion of market processes)
- ▶ Requires “concerted action”, technology and policy mix
- ▶ Financial assistance is useful as additional tool but should be limited to the amount actually needed.
- ▶ Universal Service is not an adequate tool, at least not for the medium term.