

## Regulating VDSL?

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Martin Peitz

## Introduction – Statement 1

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German Government (2006): "Das Entstehen dauerhafter monopolistischer Strukturen bzw. ein Wettbewerbsausschluss durch ein oder mehrere "führende" Unternehmen muss verhindert werden. Der Marktzutritt von Wettbewerbern, insbesondere von solchen Unternehmen, die ebenfalls in neue Märkte investieren, muss grundsätzlich möglich sein bzw. regulatorisch geöffnet werden ("level-playing-field")."

"It has to be avoided that permanent monopolistic structures arise or that one or several "leading" companies exclude competitors. Market entry of competitors, in particular companies which also invest in new markets, has in general to be possible or has to be opened by regulation (level-playing-field)."

#### Introduction - Statement 2

Scott Marcus (2006): "... most countries would be well advised to ensure that they maintain robust competition for broadband Internet services. Competition must be the first, and most critical, line of defense. It is worth noting that the competition need not be facilities-based – service-based competition could be perfectly adequate, as long as the underlying facilities provider cannot constrain the competitive provider's connectivity."

# Deutsche Telekom and VDSL

Deutsche Telekom

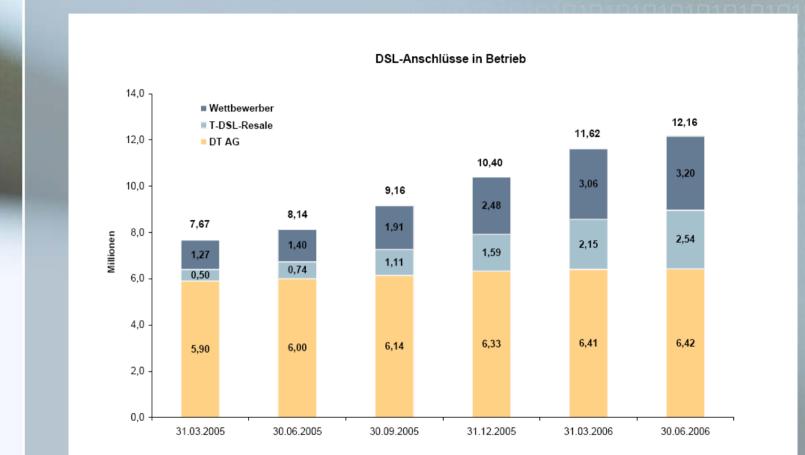
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- considers investing more than 3 billion Euro in VDSL (to cover 50 cities)
- says to make most of this investment conditional on being granted a regulatory holiday.
- Today (November 30, 2006) the German parliament passes a new telecommunications law
- Paragraph 9a: New markets
  - Possible exemption from regulation
  - Emphasis on supporting innovations
  - Bundesnetzagentur in charge
- The European Commission has threatened to sue Germany if the law is interpreted as giving Deutsche Telekom a regulatory holiday

## The German Broadband Market

- DSL currently dominant form of broadband access.
  - 12.16 million out of 12.56 million broadband connections are DSL.
- Cable has potential, but at the moment does not play an important role.
- This also holds for other access technologies.
- Several DSL players have invested heavily in DSL infrastructure and have a market share of around 25% [next slide].
- Regulated access to the last mile (competitors' access points at the Main Distribution Frame (MDF)) unbundling.

#### The German DSL market



Bundesnetzagentur, Juli 2006

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# Players in the German Broadband Market

- Deutsche Telekom the incumbent
  - Q3/2006: 10.6 million broadband connections [according to company]
- Arcor (with Vodaphone as majority shareholder)
  - Q3/2006: 1.55 million broadband connection (excluding resale) [according to company]
- Hansenet [product: Alice] (owned by Telecom Italia)
- Versatel (owned by Versatel from the Netherlands)

# DSL technology

#### DSL-speed

- In 2003 a DSL-speed between 0.5 and 1 Mbit/s was common, now basic option mostly 2M Mbit/s.
- Most broadband providers in Germany use ADSL2+ technology and offer download speeds up to 16 Mbit/s
- This holds e.g. for Deutsche Telekom, Arcor, Versatel, and Hansenet
- Hence, we are seeing a 32-fold increase of broadband speed
- ADSL2+ technology can manage up to 24 MBit/s
- VDSL-technology
  - moves fiber closer to the home (to the remote concentrator or street cabinet)
  - manages up to 52 Mbit/s
  - much more consumers will reach high download speed

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## Questions

- Key question for providers: Which products really require VDSL (online games?, certain types of television?)
  - This partly determines the value added of VDSL
  - No clear answer at the moment
  - Up to the companies to decide whether to invest and which products to develop and promote
  - Key question for public policy: For which part of the network do we want to have duplication?

### Access network duplication

- For the part that should not be duplicated the incumbent has an essential facility regulation justified
- For the part that should be duplicated regulation does not seem to be needed (rely on ex post competition policy)
- Fiber to the street cabinet:
  - Duplication appears to be reasonable if empty conduits (currently owned by Deutsche Telekom) are offered to competitors.
  - Otherwise, there is a large cost asymmetry, which constitutes an entry barrier, (and, in case of duplication, a large amount of wasted resources) that, from a welfare perspective, probably does not justify duplication of fiber cables to the street cabinet.

## What to do?

- Deutsche Telekom should (be animated to/forced to) offer empty conduits to competitors
- In return, the regulator should *not* force
  Deutsche Telekom to offer access to its
  hybrid access network at a regulated price.
- Only access to the remaining copper cables has to be regulated.