



Dialog Consult / VATM

# 12<sup>th</sup> Joint Analysis of the telecommunications market 2010

Results of a survey of member companies of the „Association of the Providers of Telecommunications and Value-Added Services“ (VATM) in the third quarter of 2010

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*Chapter I.*

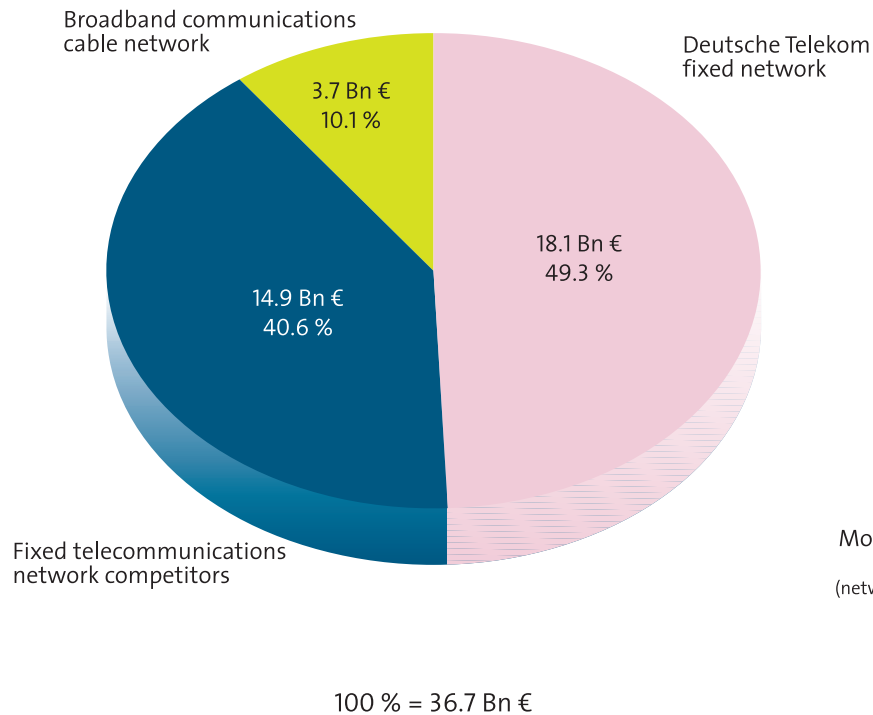
# Total market for telecommunications services in Germany

## Deutsche Telekom will achieve almost the same revenues in its fixed network market in 2010 as all competitors combined

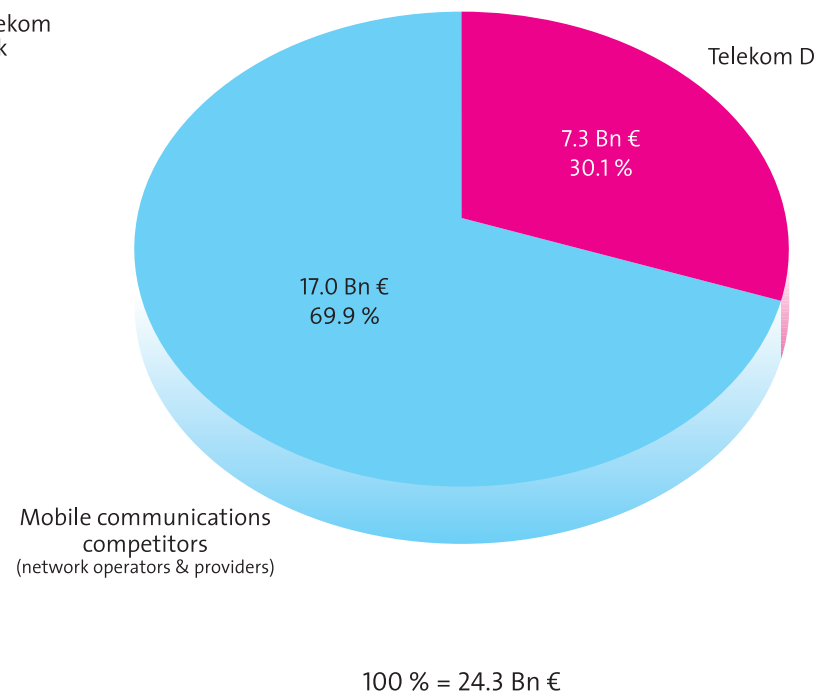
Fig. 1: Total market for telecommunications services in Germany<sup>a</sup>  
(estimate for 2010, external sales incl. TV signal transport)



### Telecommunications and broadband communications fixed network market



### Mobile market

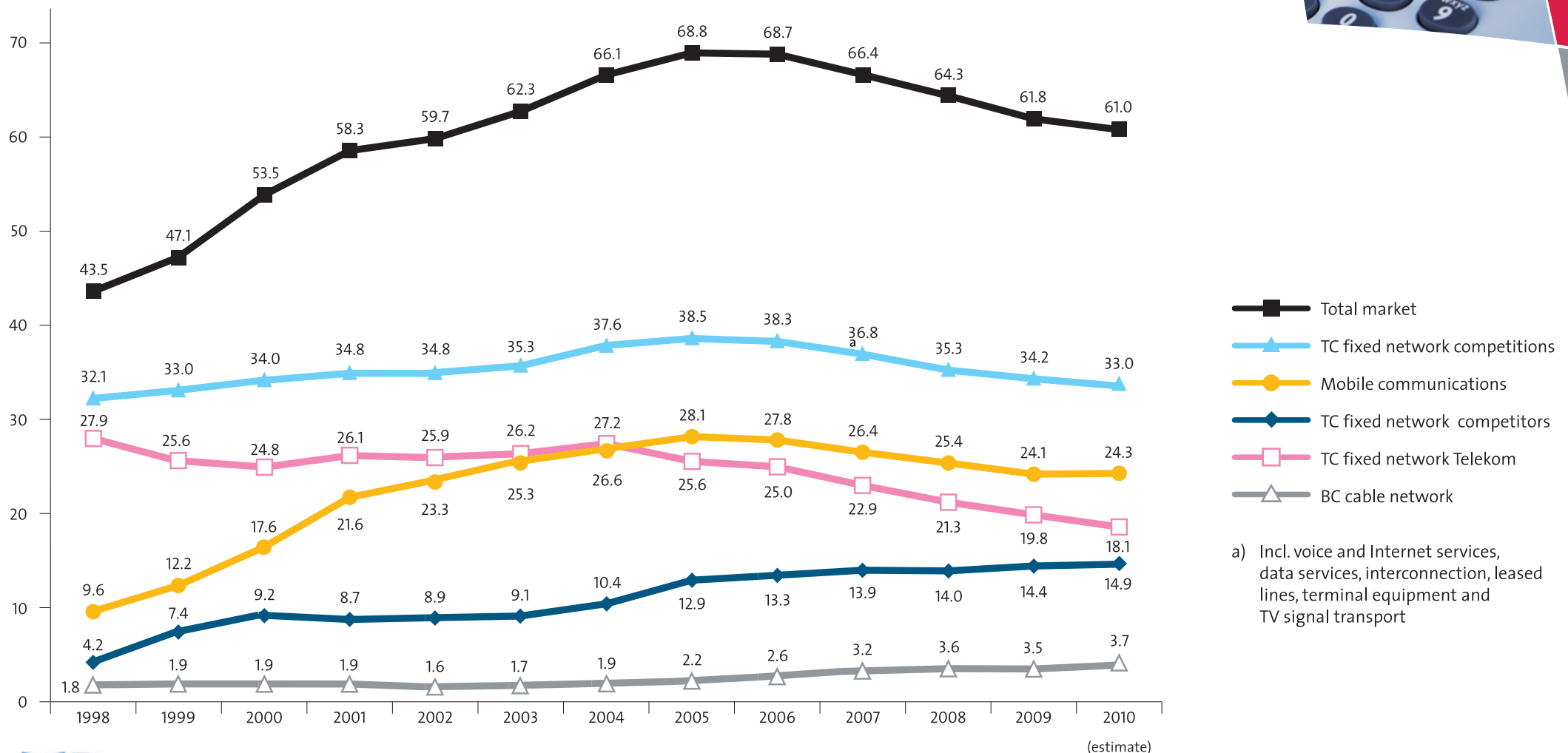


**Total market € 61.0 Billion**

a) Incl. voice and Internet services, data services, interconnection, leased lines, end devices and distribution of TV content

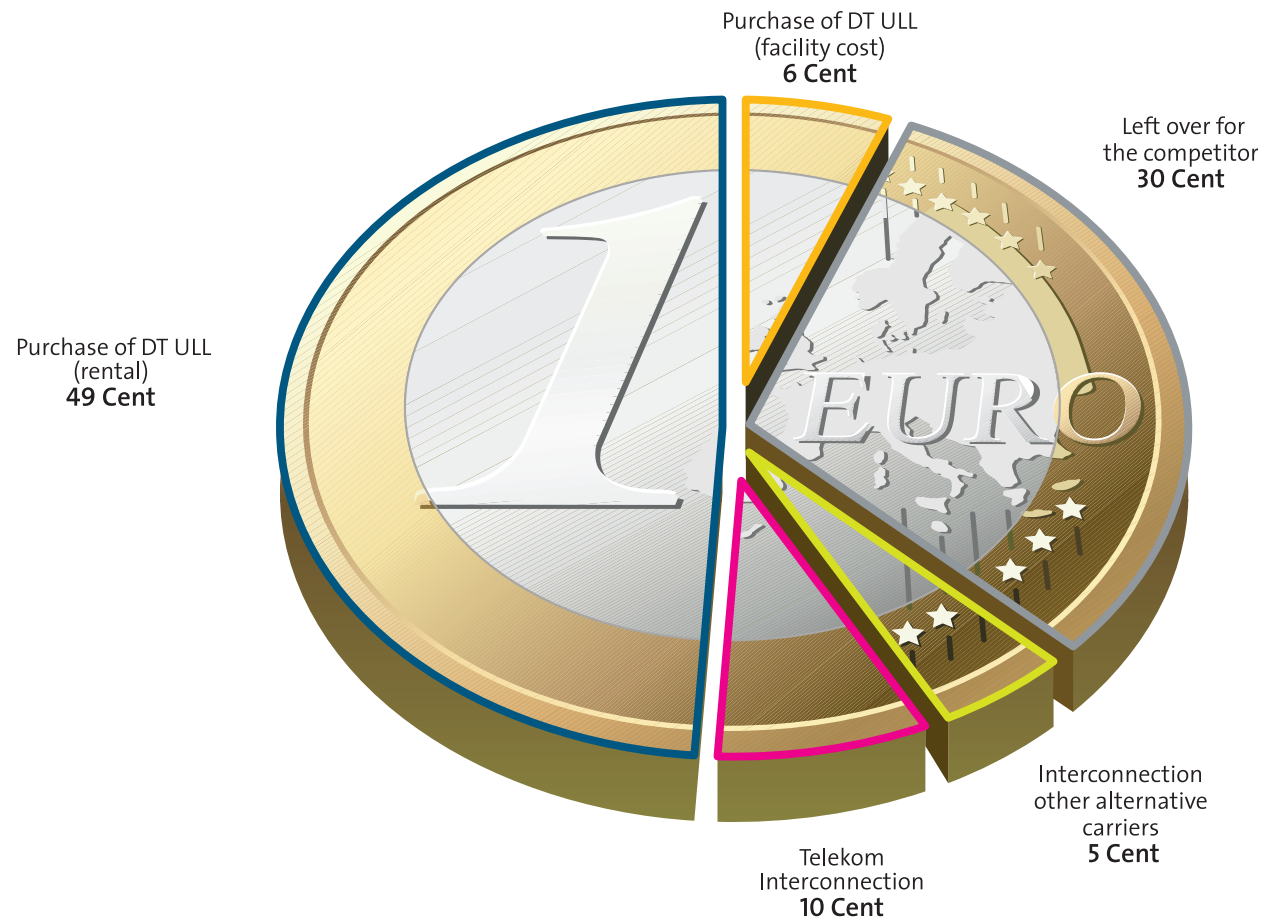
**In 2010 mobile communications revenues have increased for the first time since 2005. However, this growth does not compensate for the decrease of fixed network revenues so that the revenues in the overall market have decreased – albeit slightly (-1.3%)**

Fig. 2: Total market for telecommunications services in Germany<sup>a</sup> (external sales incl. TV signal transport) in billions EUR



## The wholesale charges that alternative carriers must pay to Telekom per revenue in euros will remain high in 2010 at 65 cents

Fig. 3: Share of the wholesale charges of a complete connection per alternative carrier per revenue in euros<sup>a</sup> (2010 estimate)



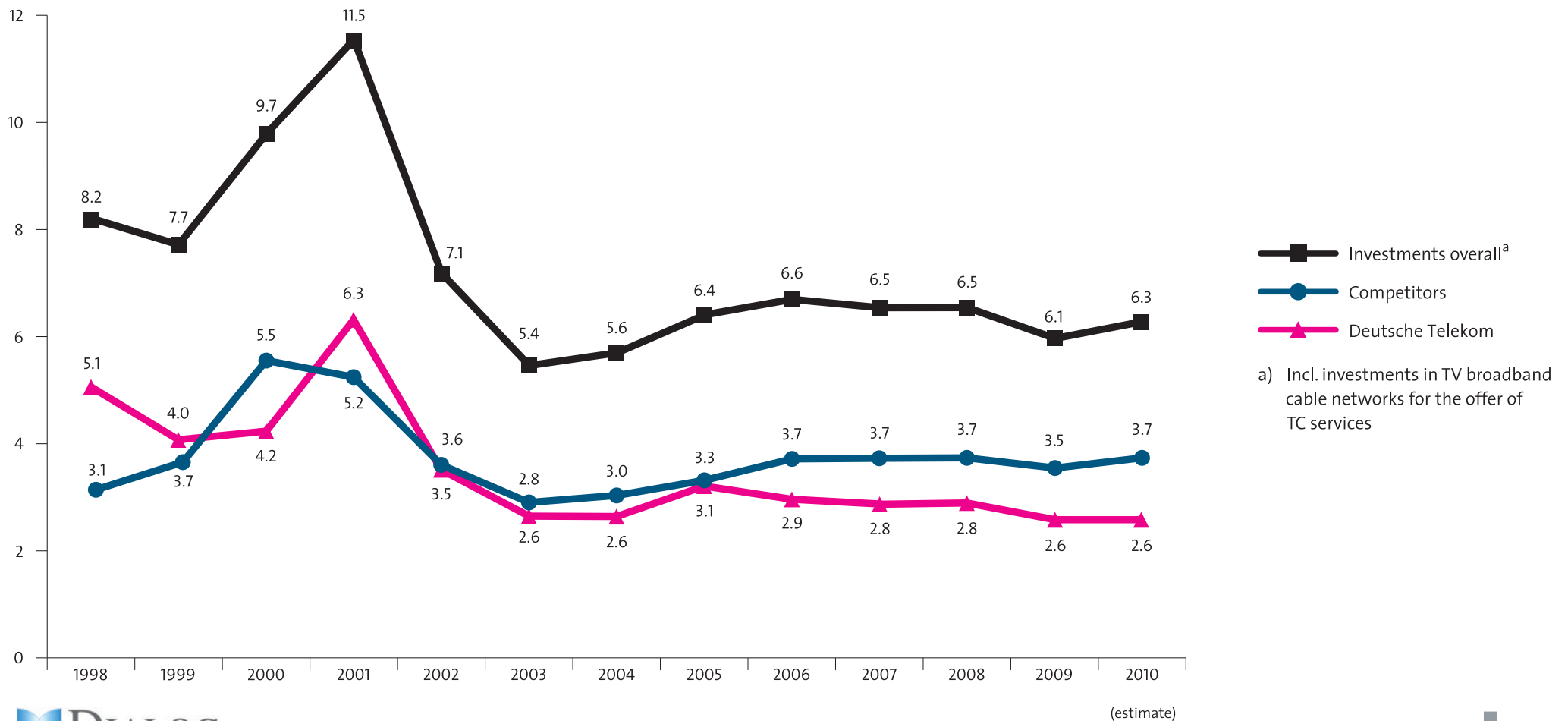
### For financing ...

- Further wholesale services and advanced products
- of the access network (access)
- of the wide area telecommunication network (backbone)
- of the IP network infrastructure
- of the operating costs

a) Assumption: Complete connection with fixed network flat rate and DSL connection with max. 6 Mbit/s for the price of EUR 24.95 incl. VAT; 600 connection minutes in German fixed networks, interconnection fees of on average EUR 0.5 per min.; Connections to mobile comm., emergency and international networks are not depicted.

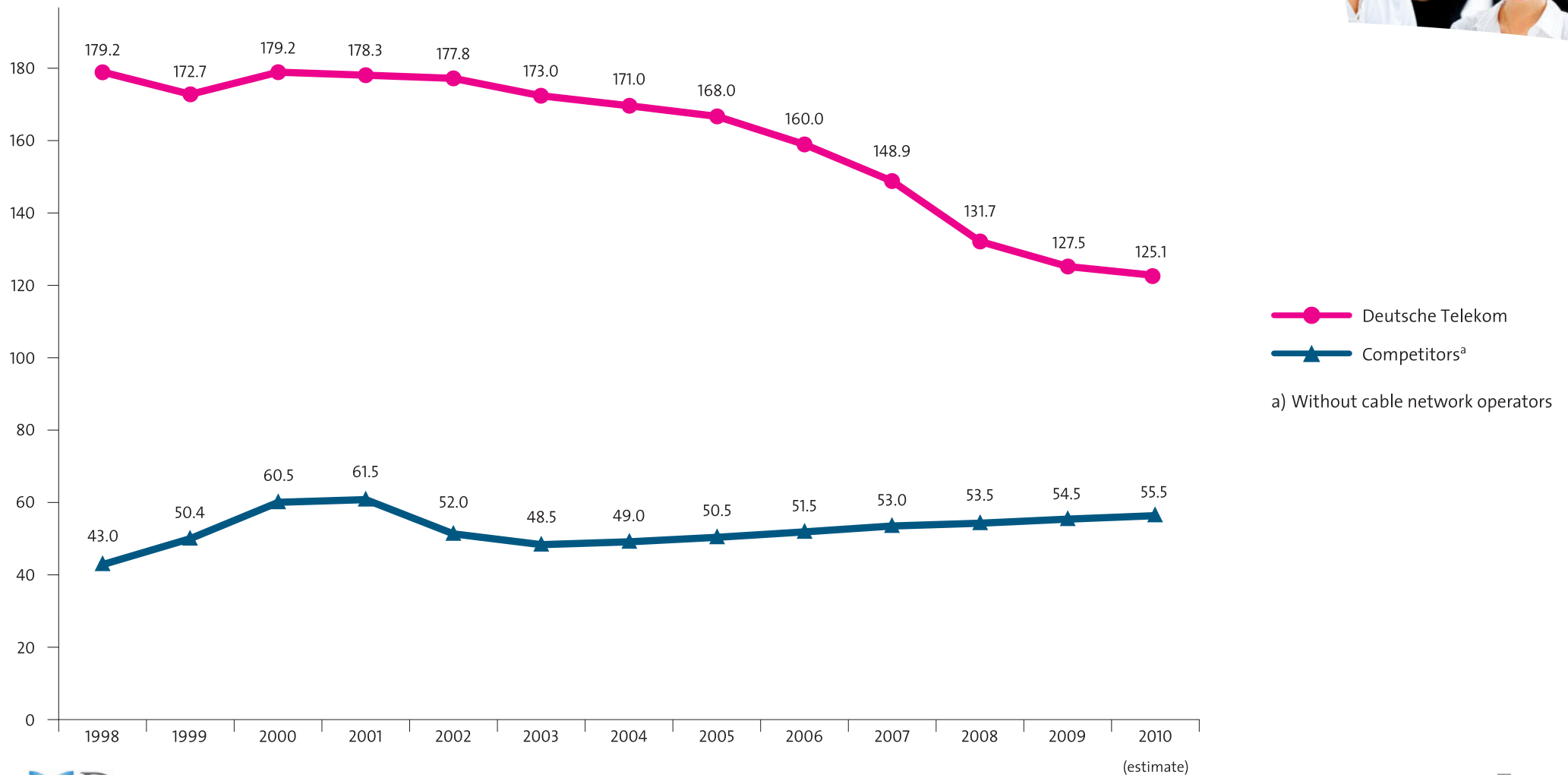
## The share of alternative carrier in TC fixed asset investment will increase to almost 60% in Germany in 2010

Fig. 4: Investment in telecommunications fixed assets in billions EUR



## The number of employees working for alternative carriers and service providers will increase for the seventh time in a row in 2010. Reduction in personnel continues at Telekom – albeit at a slow rate

Fig. 5: Number of employees of Deutsche Telekom and of alternative carriers in thousands Full-time equivalent

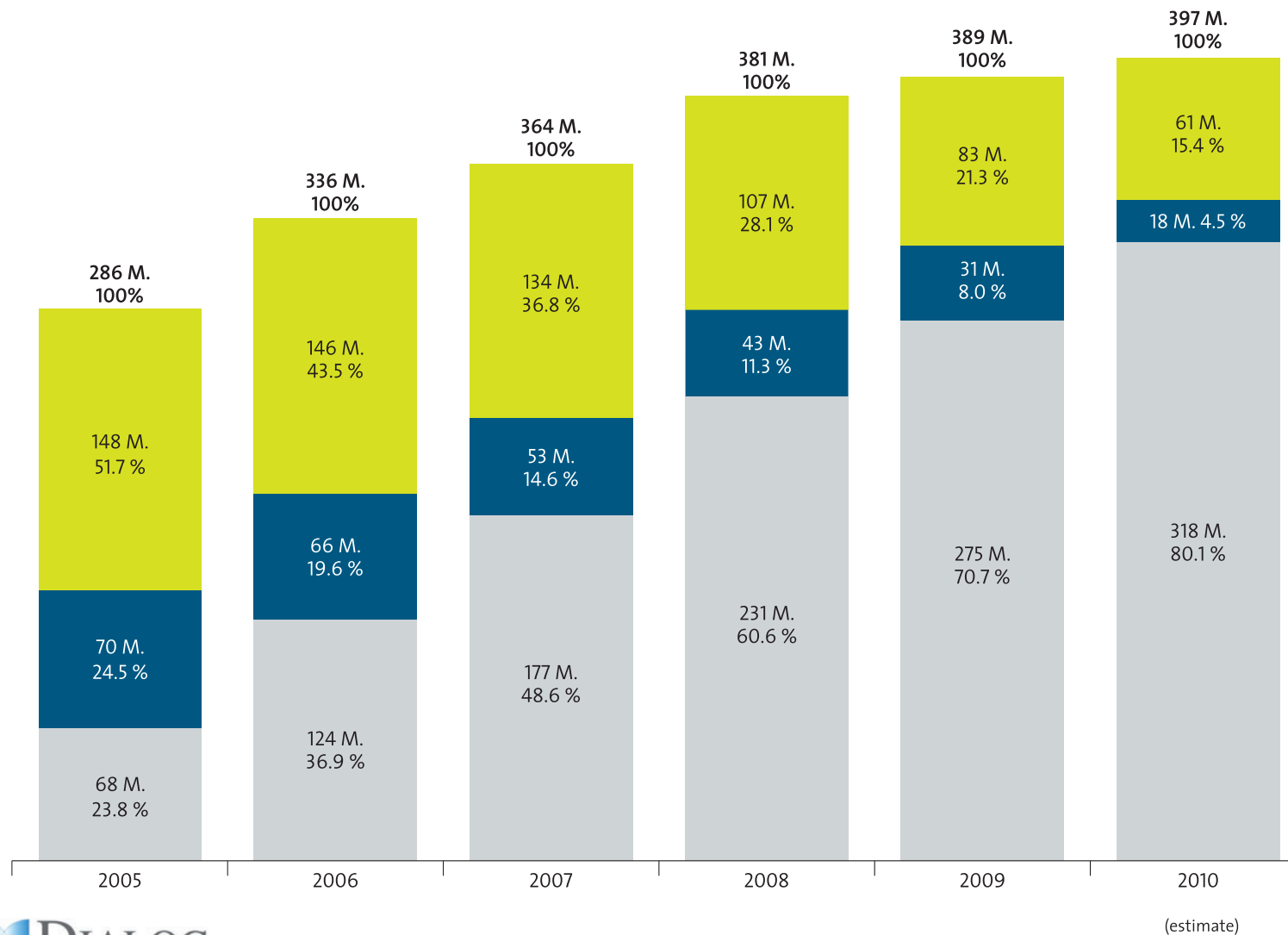


*Chapter II.*

# Fixed Market

## In 2010 more than 80% of voice minutes generated by competitors' customers from fixed networks will originate from complete connections

Fig. 6: Total market for competitors' voice services from fixed networks in Germany in connection minutes (overall market including local, long-distance, international and mobile connections; in million minutes per day)



● Call-by-Call

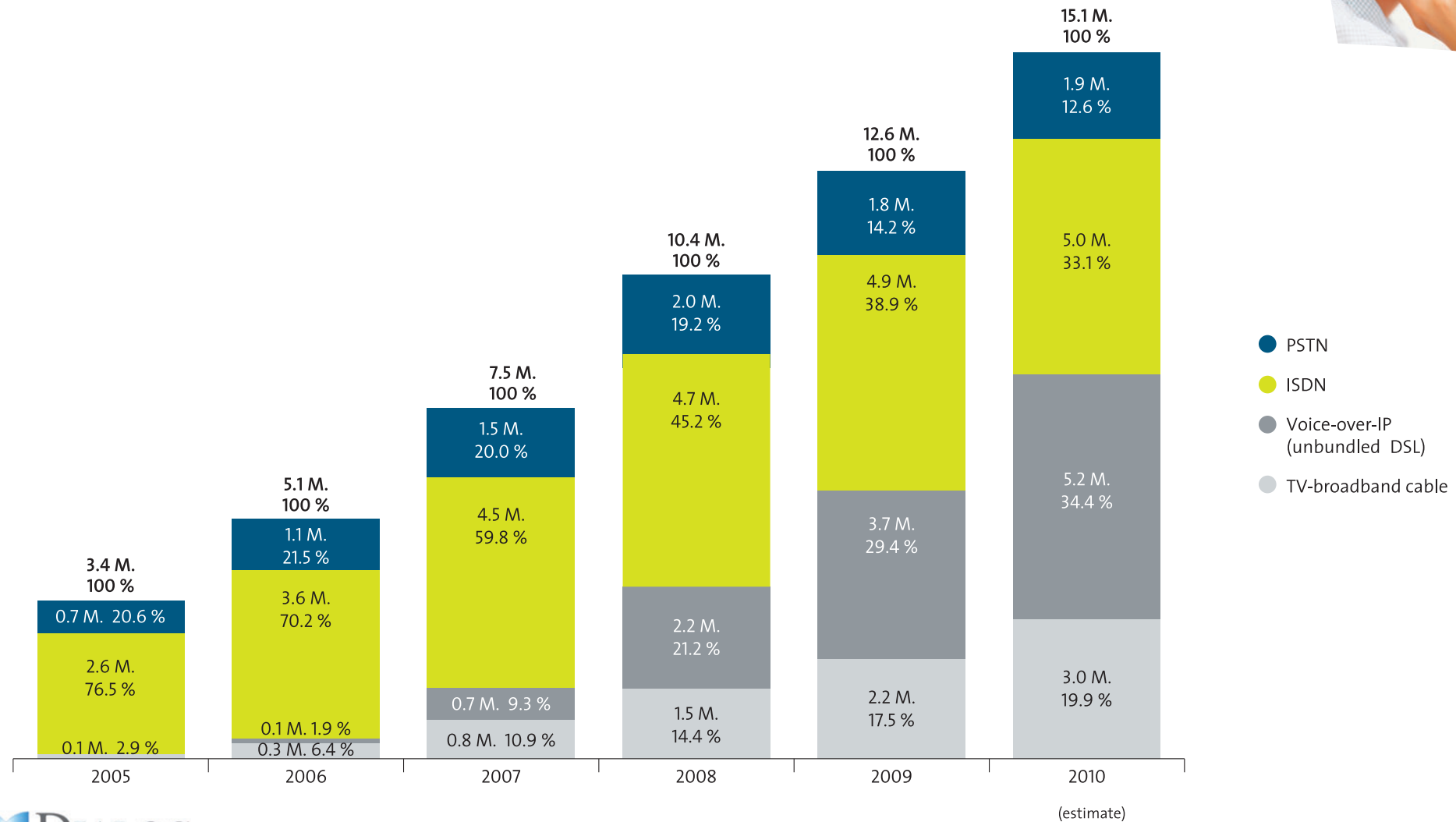
● Preselection

● Complete connection<sup>a</sup>

a) Including connection minutes of Voice-over-IP and TV broadband cable connections

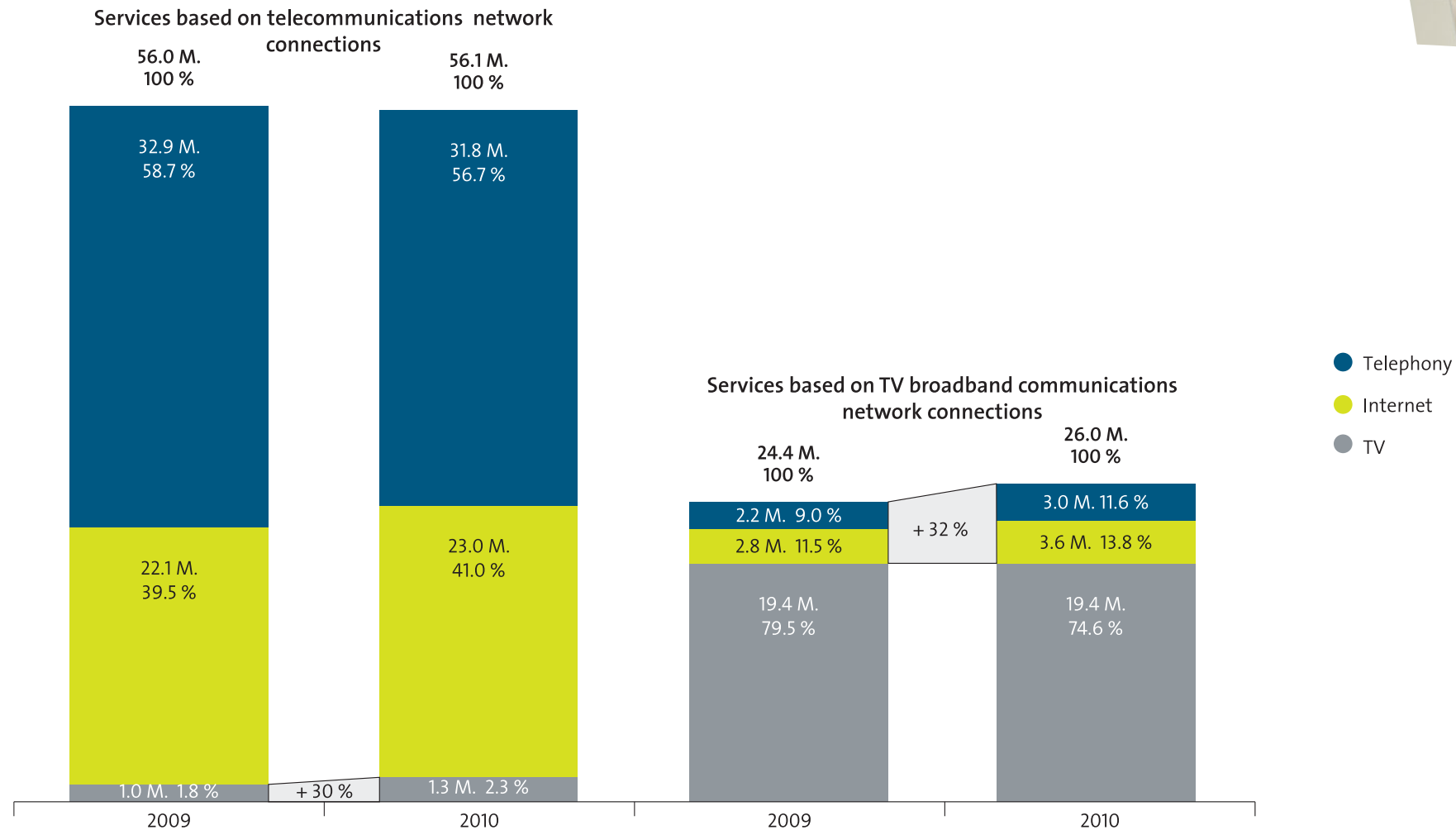
## Competitors will increase their number of Voice-over-IP fixed network connections in 2010 by more than 40% to 5.2 million

Fig. 7: Fixed network telephone complete connections of competitors



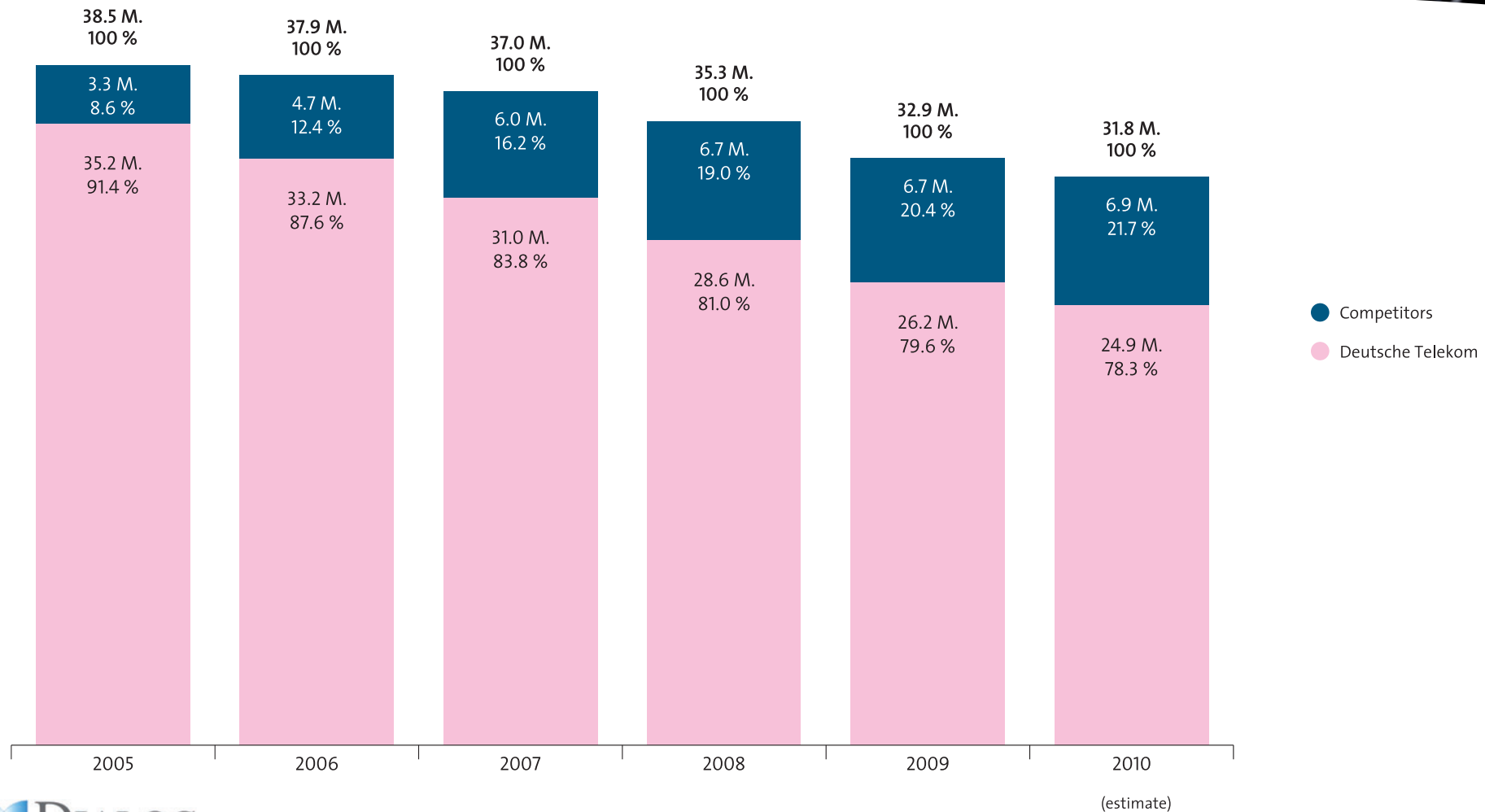
**Cable network operators show more growth with their telephone and internet connections (in absolute numbers) more than telecommunications network operators with TV services (IPTV subscriptions). However, the increase is almost the same from a percentage perspective**

**Fig. 8: Use of services at telecommunications and TV broadband cable network operators**  
(estimate of user numbers for the end of 2010)



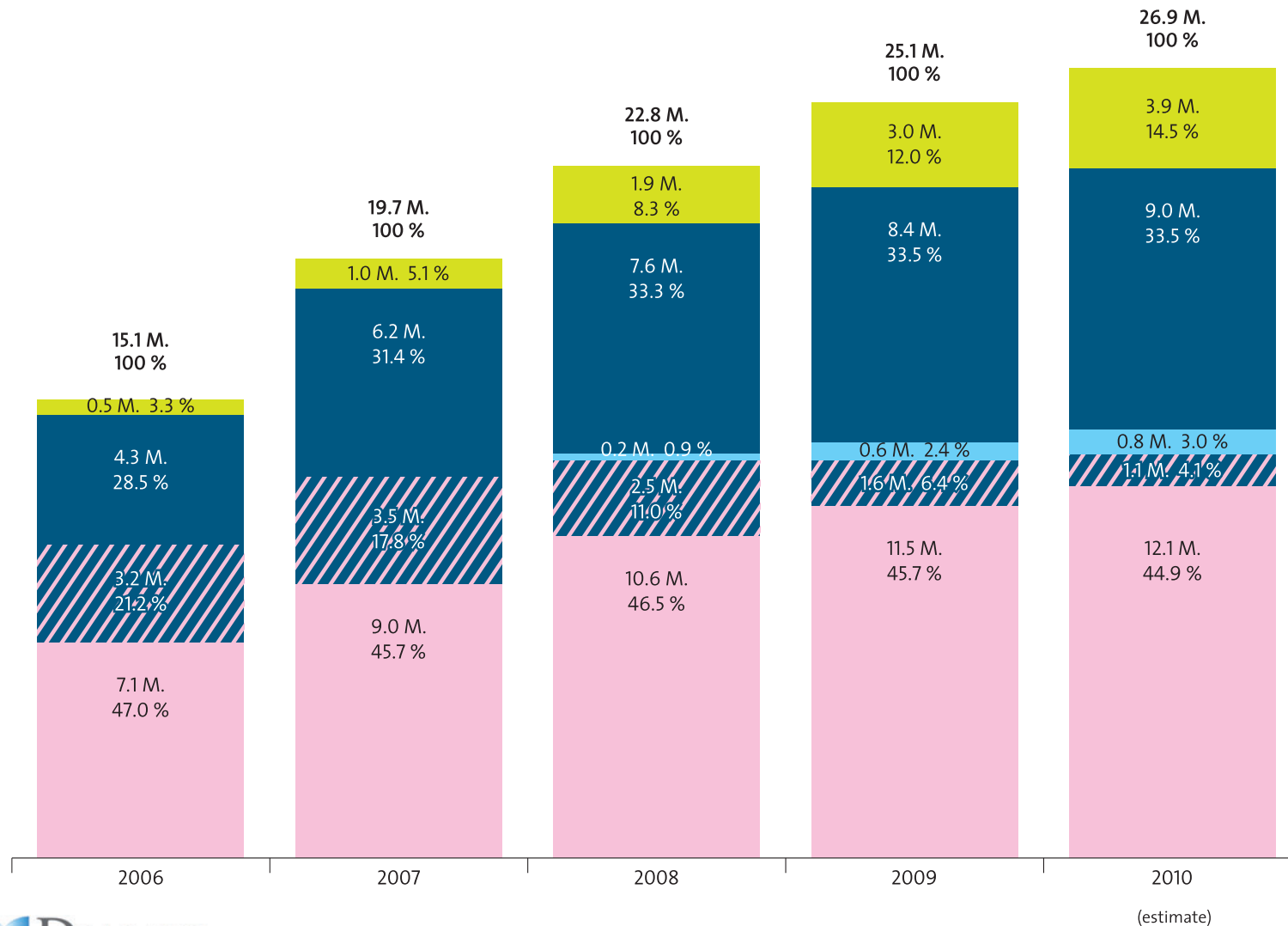
## The total number of Deutsche Telekom complete connections decreases by 1.3 million in 2010. Deutsche Telekom is still dominating the market of fixed network connections after almost 13 years of market deregulation

Fig. 9: Trend in the number of complete connections in fixed telecommunications networks (without VoIP and cable modem connections)



In 2010 the number of fixed network broadband connections will increase by about 1.7 million to almost 27 million. However, about one-third of households in Germany have not fixed broadband access to the Internet

Fig. 10: Directly switched broadband connections in Germany



- Other connection types<sup>a</sup>
- DSL from alternative network operator<sup>b</sup>
- DSL DT bitstream
- DSL DT resale<sup>c</sup>
- DSL DT direct

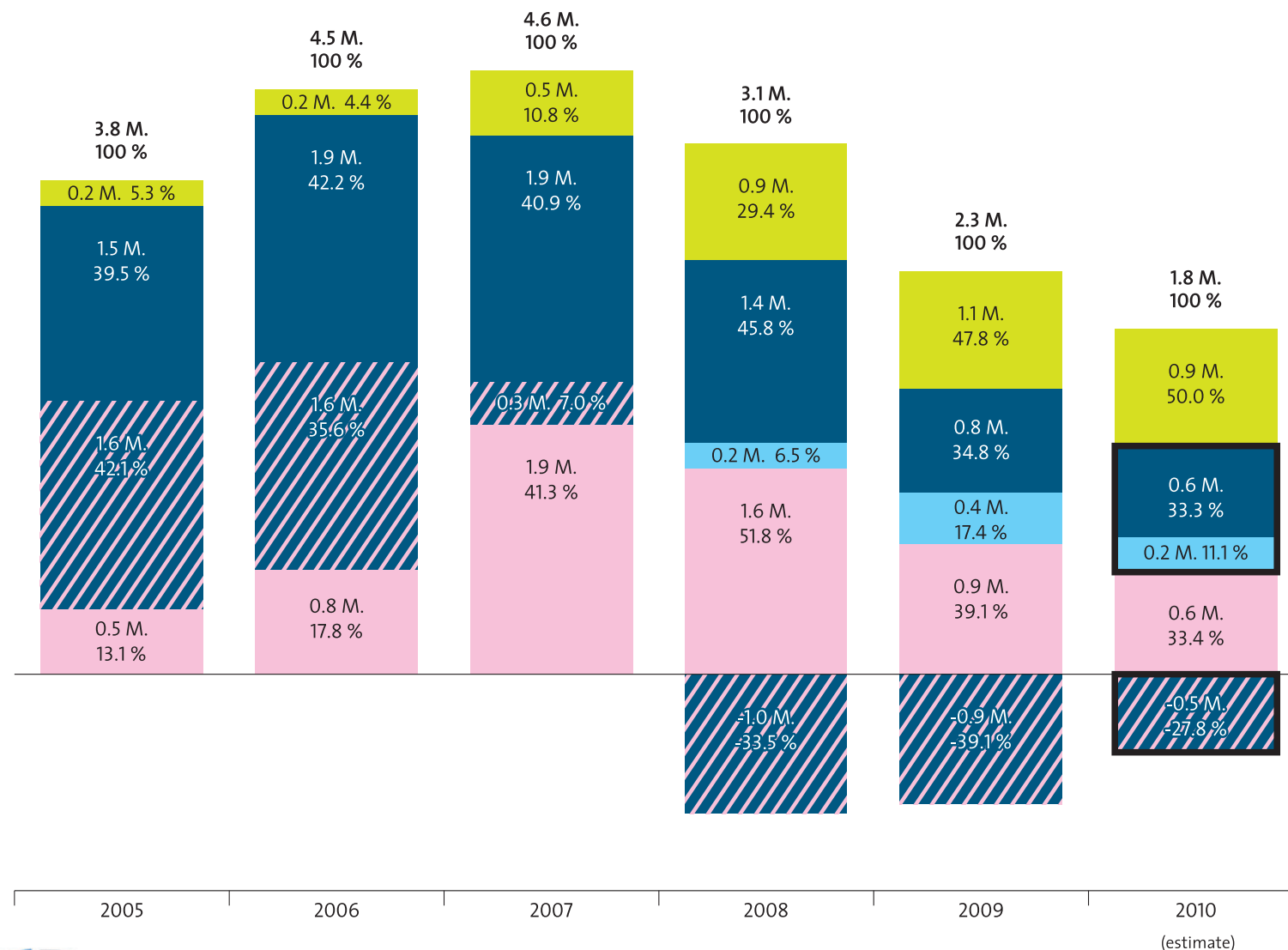
a) This covers mainly broadband cable modem connections as well as fiber optics, powerline, radio and satellite connections - the latter are not offered by competitors but rather in part also by Telekom Deutschland.

b) Alternative connection network operators (ANB) who operate their own access networks (usually based on Telecom subscriber lines)

c) DSL connections operated by Telekom Deutschland which are marketed and supported by alternative providers

## The absolute growth in broadband connections has decreased since 2008 – albeit slowly in 2010

Fig. 11: Net growth of directly switched broadband connections in Germany



Total black boxes:  
Net increase in new customers  
of TC rival companies

- Other connection types<sup>a</sup>
- DSL from alternative network operator<sup>b</sup>
- DSL DT bitstream
- DSL DT resale<sup>c</sup>
- DSL DT direct

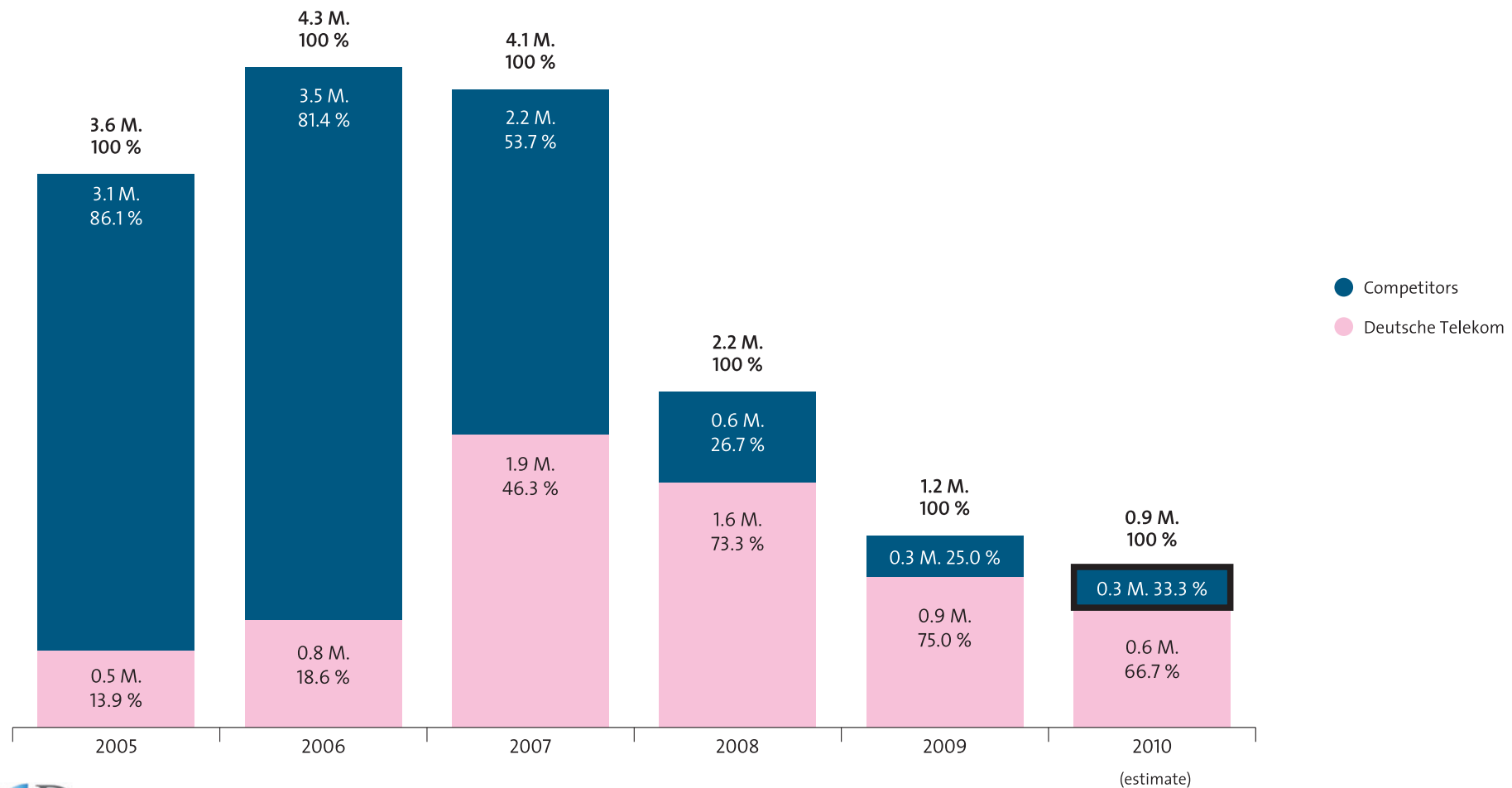
a) This covers mainly broadband cable modem connections as well as fiber optics, powerline, radio and satellite connections - the latter are not offered by competitors but rather in part also by Telekom Deutschland.

b) Alternative Network operators (ANO) that operate their own access networks (usually on the basis of a DT Unbundled Local Loop))

c) DSL connections operated by Deutsche Telekom which are marketed and managed by alternative carriers

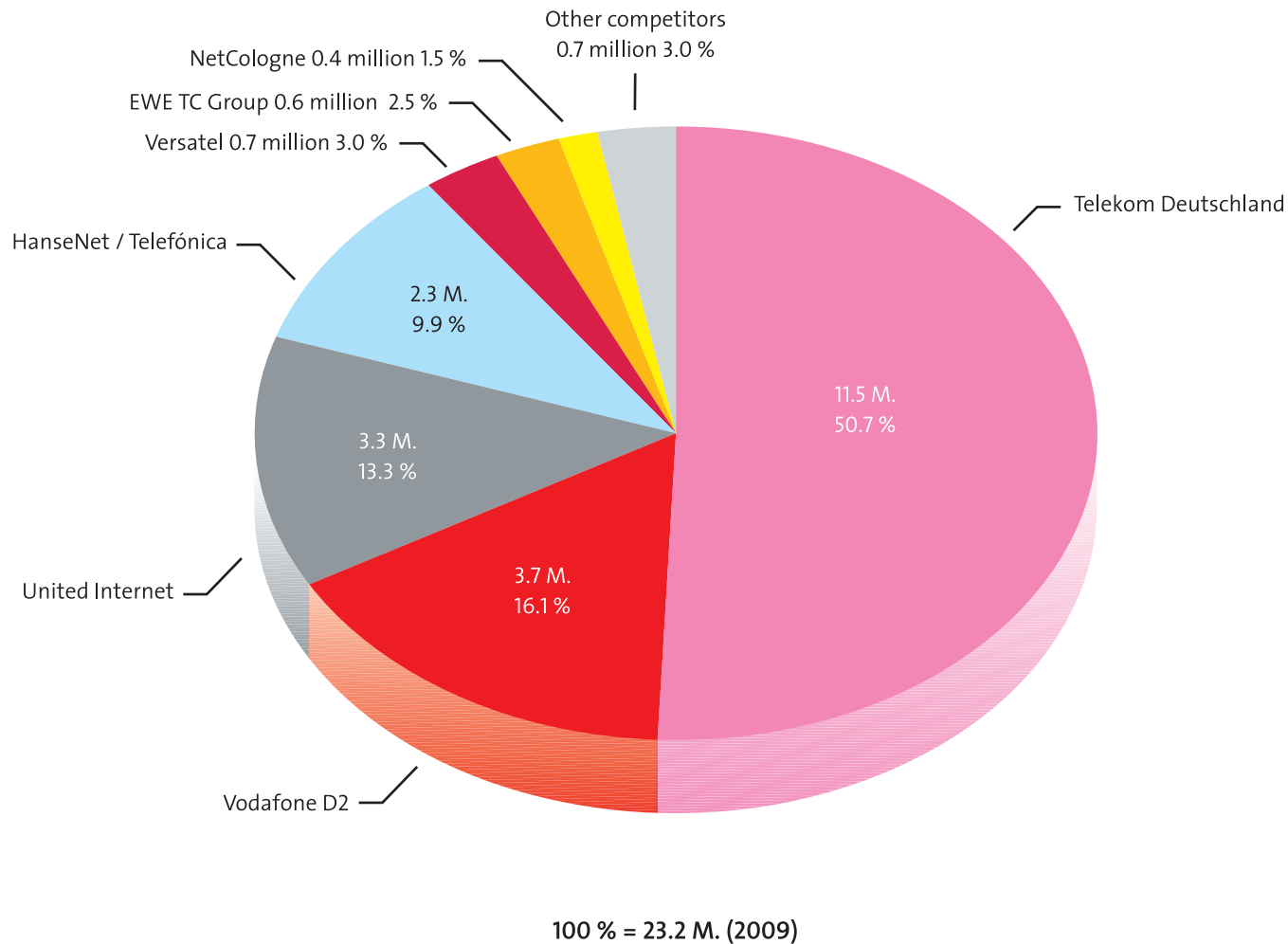
## Two-thirds of the net increase of DSL connections can be attributed to Deutsche Telekom in 2010

Fig. 12: Net growth in DSL connections according to end customer relationship



## The customer base of the largest competitor in the DSL market amounted one-third of Deutsche Telekom's base. Three larger and numerous smaller carriers face Deutsche Telekom

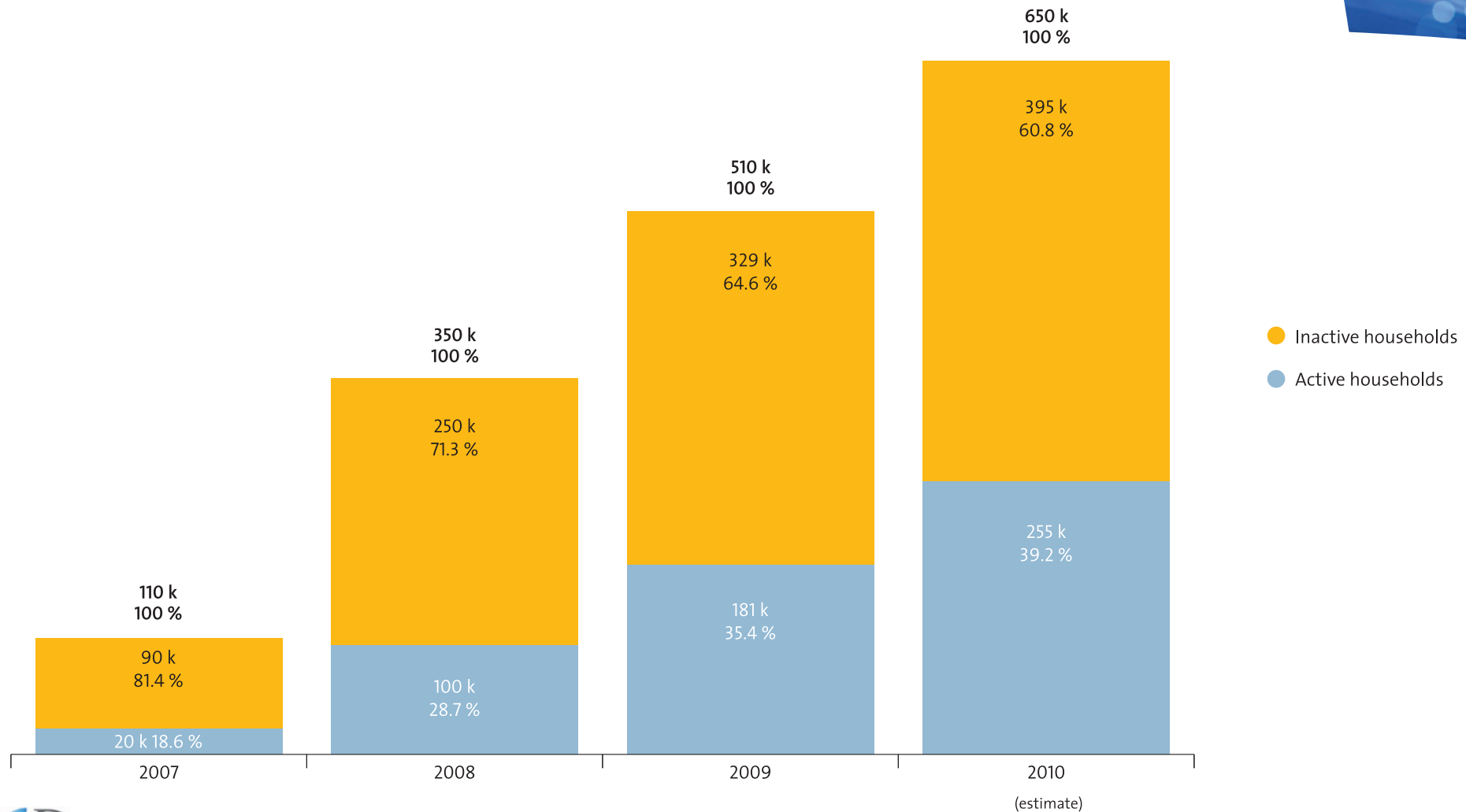
Fig. 13: DSL customers per company at the end of 2009<sup>a</sup>  
(as of December 31, 2009)



a) Die The number of DSL customers are larger in total than the numbers of DSL connections (see fig. 10-12), as some customers obtain their DSL connections and their DSL connectivity from different operators.

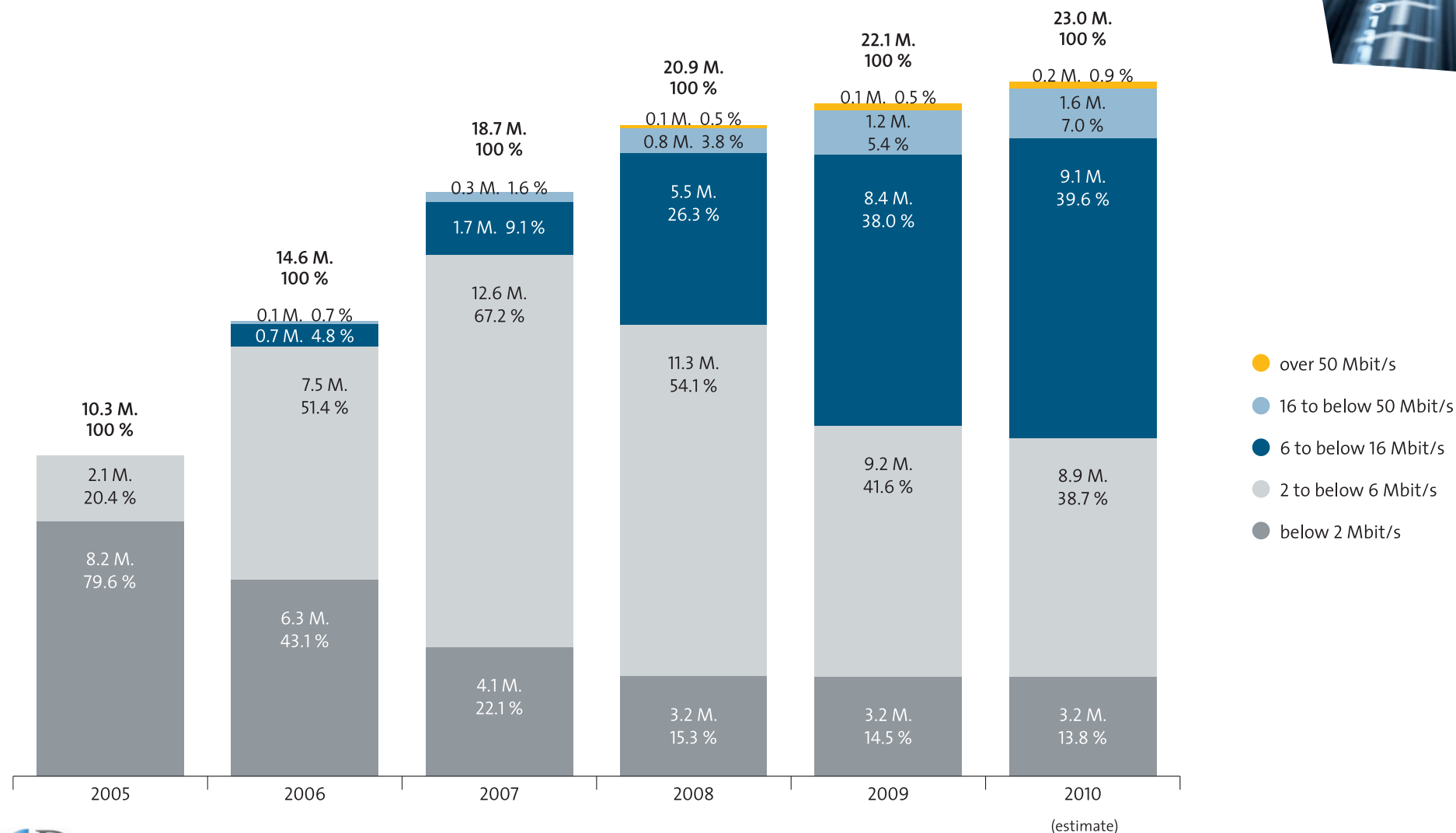
About 650.000 households in Germany will be connected to fiber networks by the end of 2010. About 40% of these households could be transferred by full fibre unbundling from carriers as paying customers

Fig. 14: Active households reachable per fiber (fiber-to-the-building, FTTB)



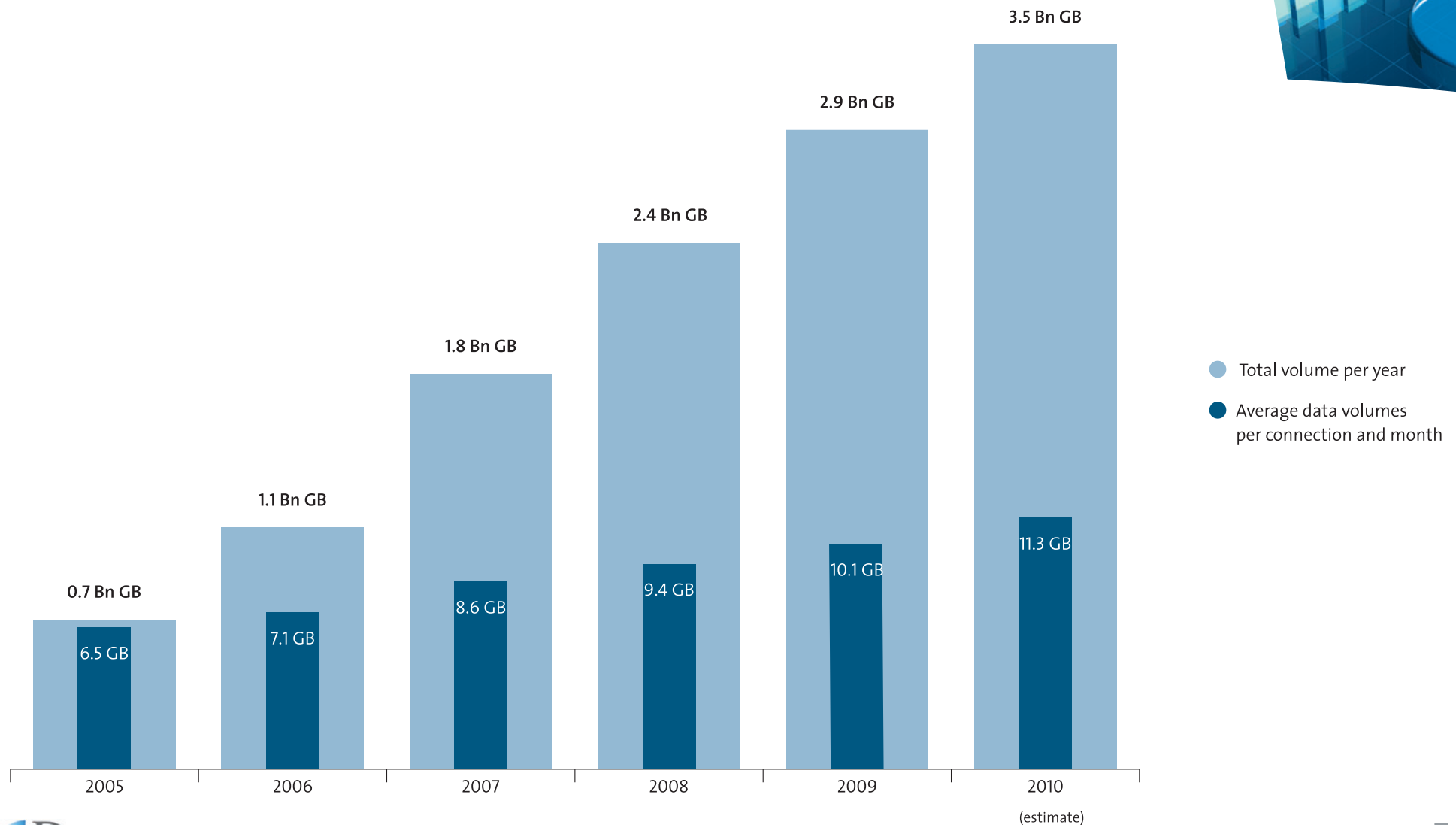
**For 52% of DSL connections the transmission rate from the network will be maximally 6 Mbit/s at the end of 2010. The percentage with Access to internet with at least 50 Mbit/s is less than 1%**

Fig. 15: Distribution of DSL connections according to downstream bandwidth



## The data volume used per broadband connection increases by more than 10% in 2010, which is more than in the preceding year

Fig. 16: Development of Volume in broadband Internet traffic in Germany

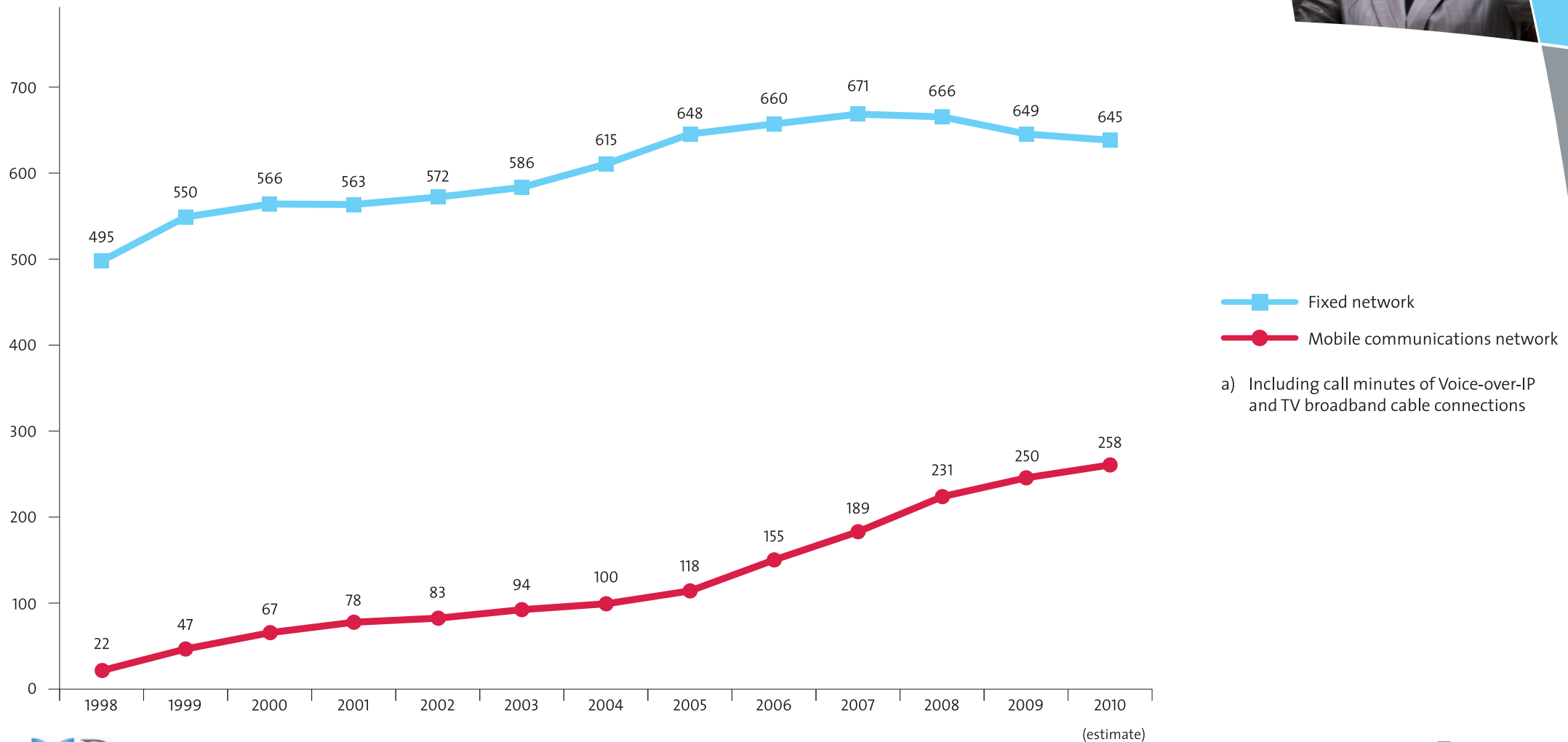


*Chapter III.*

# Mobile Market

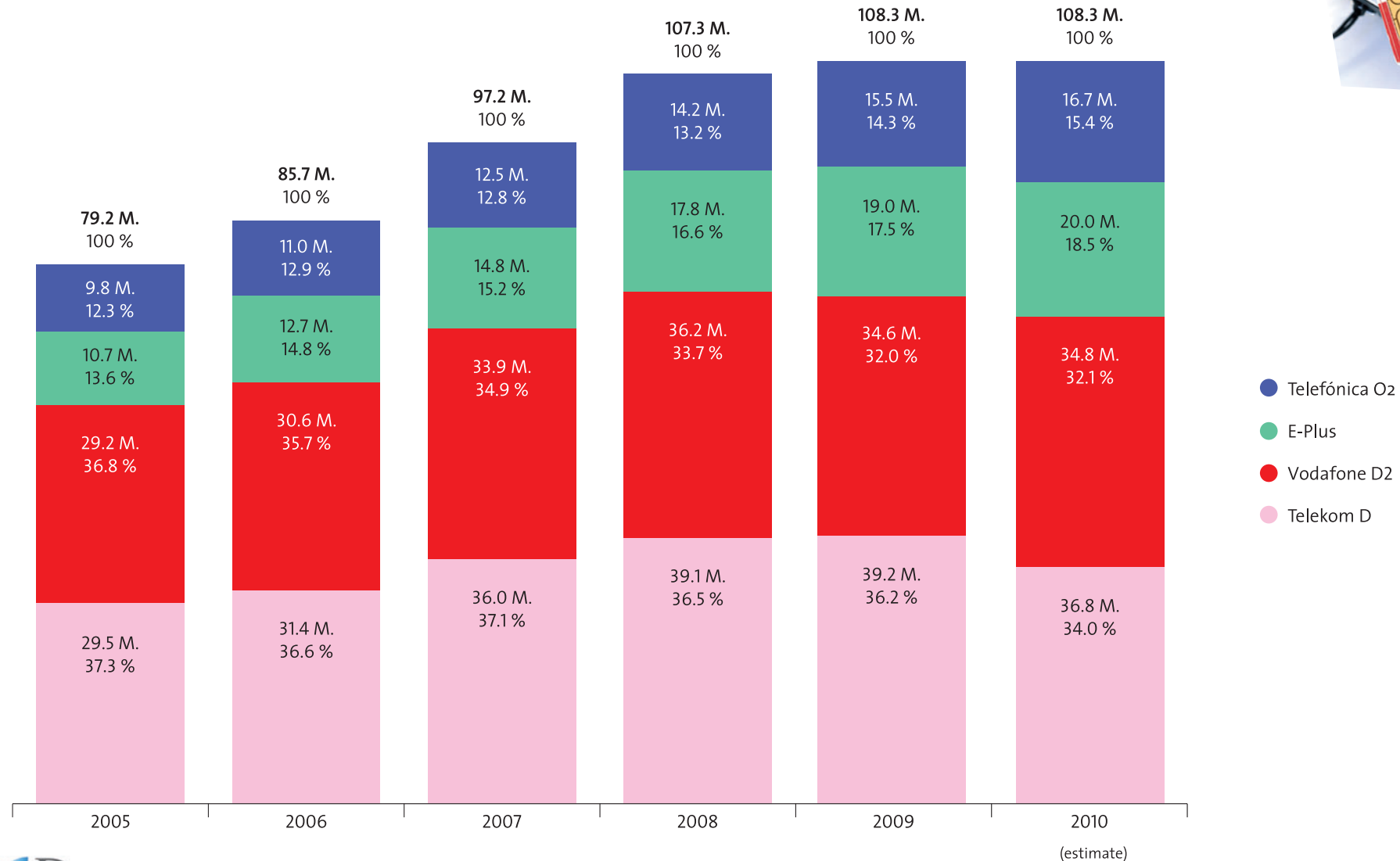
## Voice traffic from mobile network connections compensate the decrease in fixed network voice minutes in 2010

Abb. 17: Outbound Voice connection minutes from fixed and mobile connections in million minutes per day<sup>a</sup> Fixed network



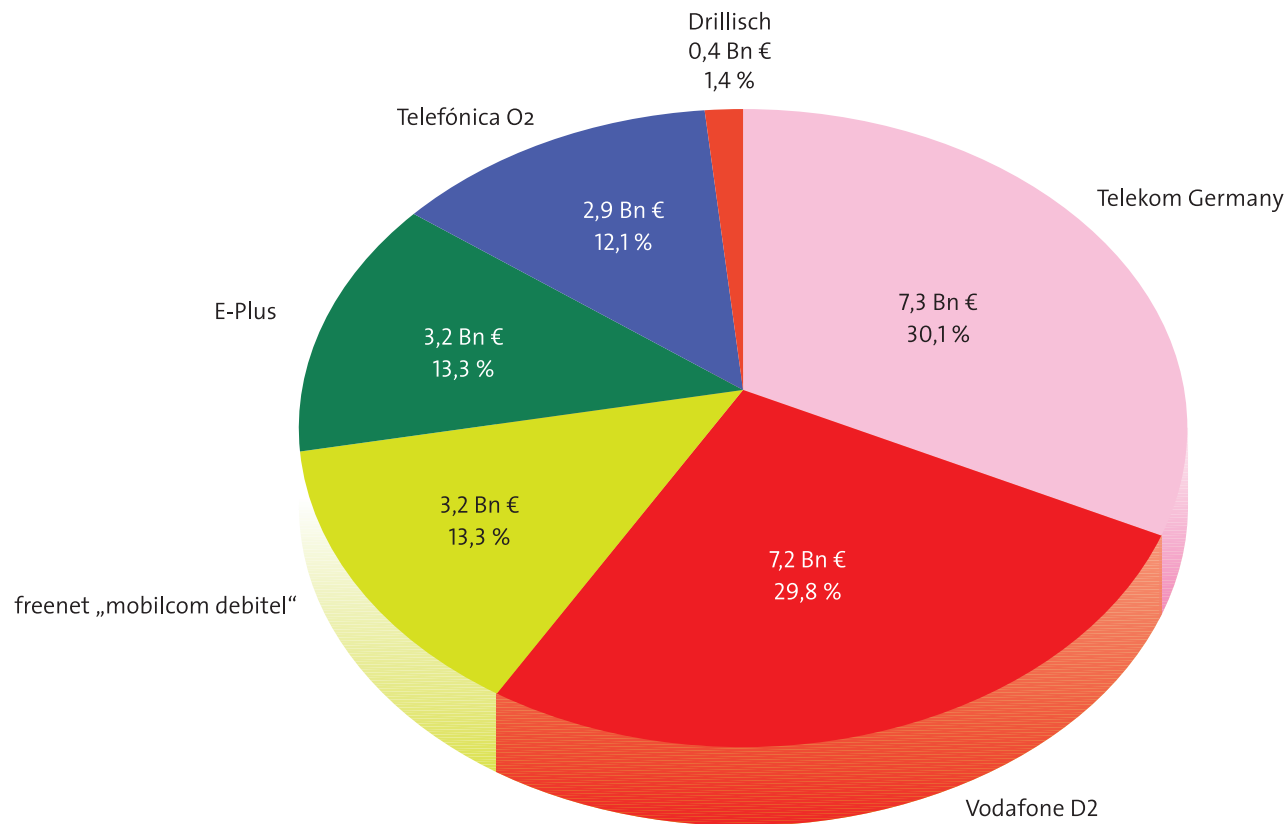
## Due to the deregistration of inactive prepaid customers, the total number of active SIM cards in the mobile communications network is stagnating in 2010

Fig. 18: Number of SIM cards at the end of the year per mobile network operator



## In 2010 almost 60% of end customer revenues in the German mobile communications market can be attributed to Telekom and Vodafone

Fig. 19: Mobile revenues per network operator and service provider (estimate for 2010)

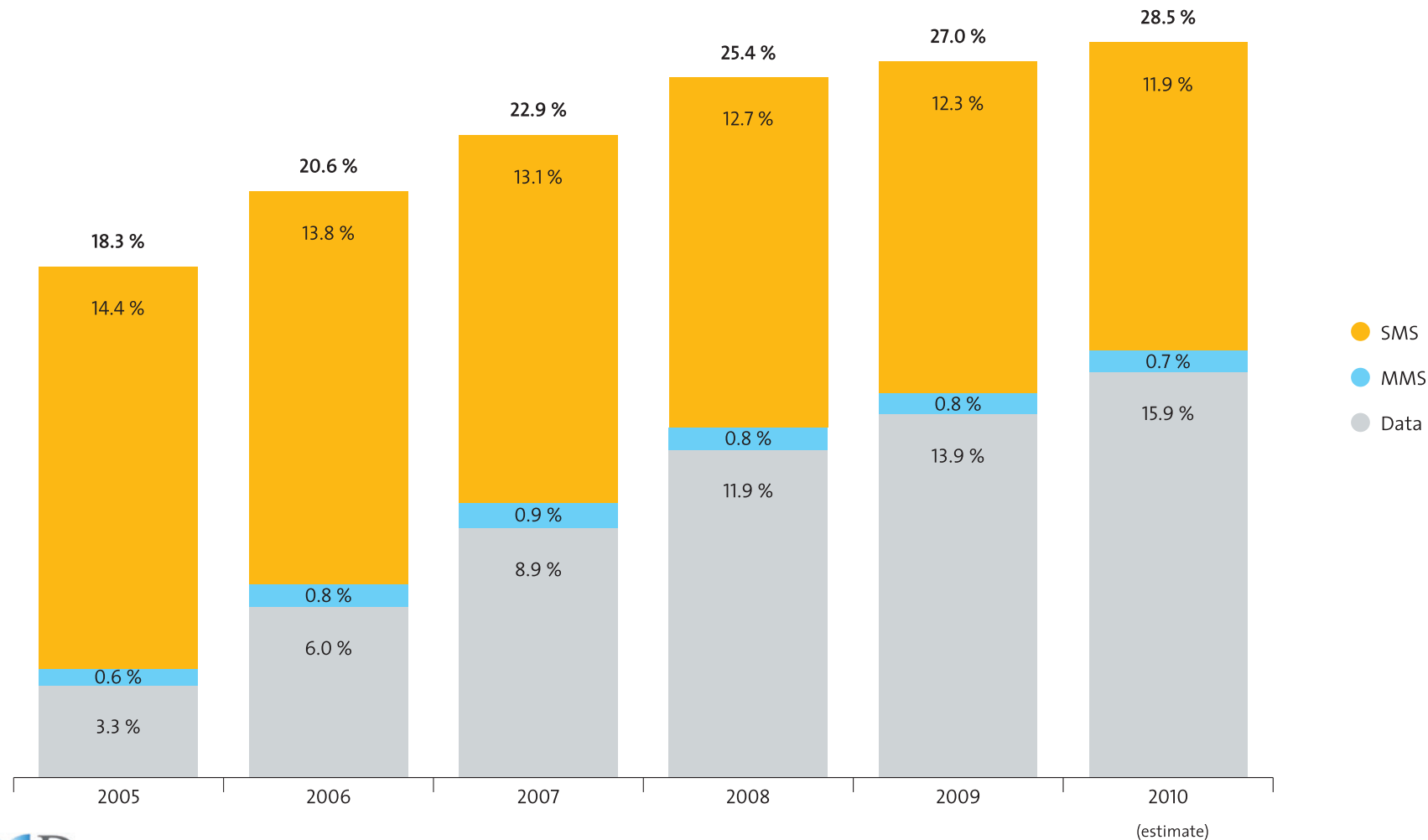


100 % = 24,3 Bn €<sup>a</sup>

a) Deviation from total of pie segments due to the effects of rounding up

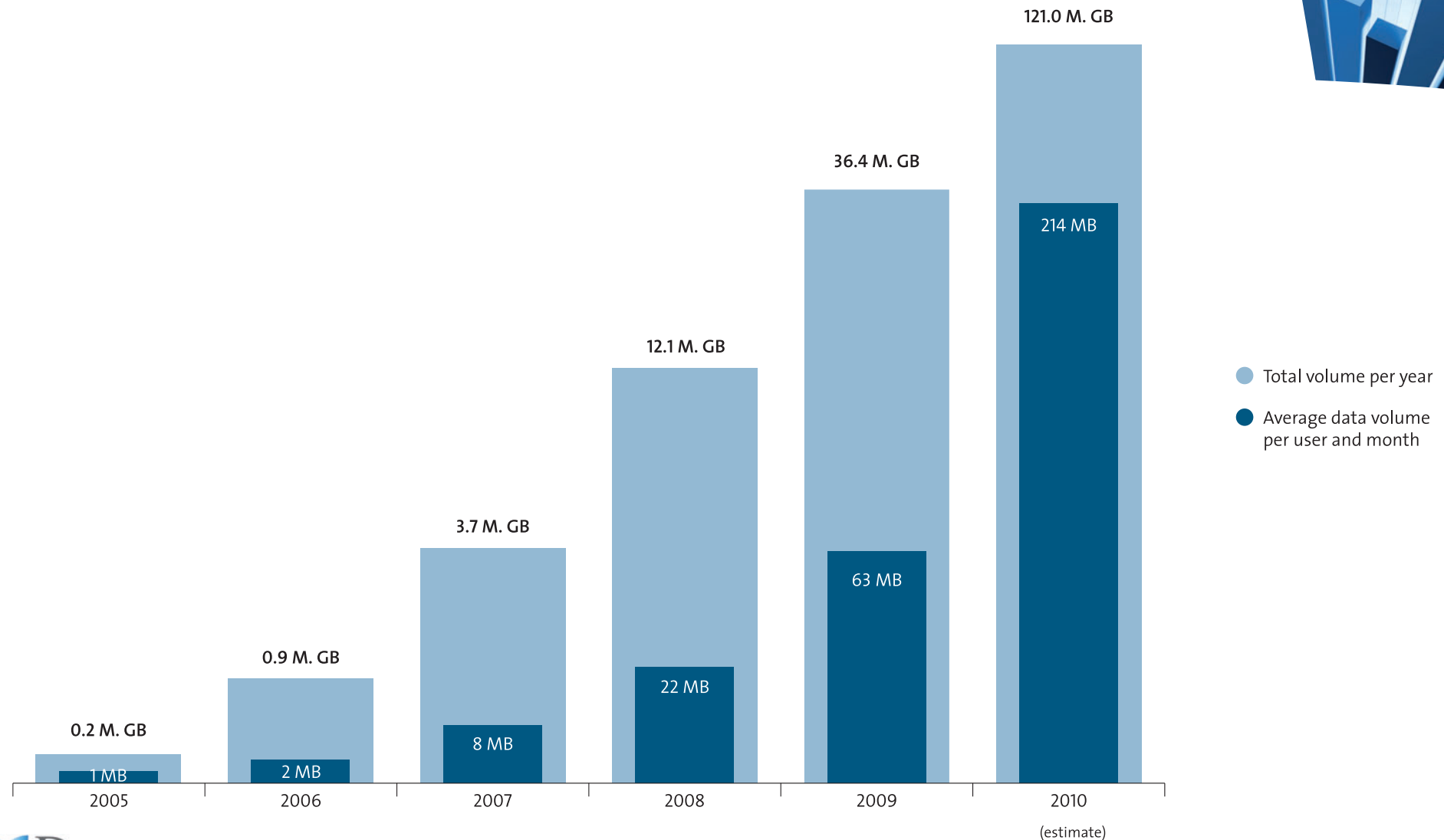
The increasing proliferation of mobile Internet accesses is reflected in an increase of data service revenues in mobile communications. More than half of the non-voice revenues (56%) are attributed to data traffic

Fig. 20: Share of non-voice revenues as compared to mobile services revenues in Germany



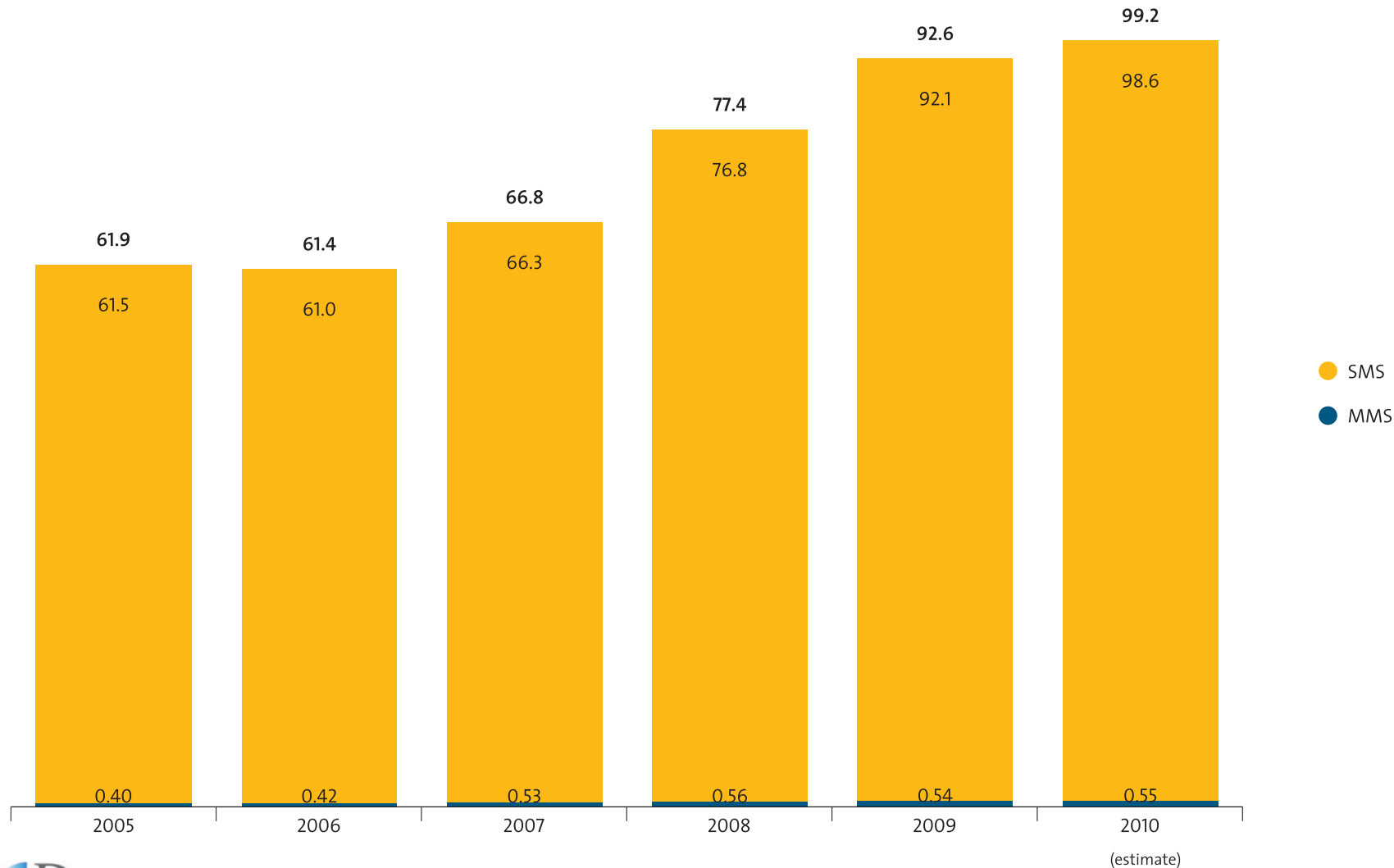
The data transmission volume generated in mobile communications networks increased greatly between 2005 and 2010. Despite this, the per user transmitted quantity is less than 2% of the comparable value in the fixed Internet area

Fig. 21: Development of volume data from mobile networks in Germany



**In 2010 almost 100 million SMS messages are sent from mobile communications networks in Germany per day. In contrast, the market relevance of MMS is stagnating at a very low level**

Fig. 22: Use of SMS and MMS usage in German mobile networks in million messages per day

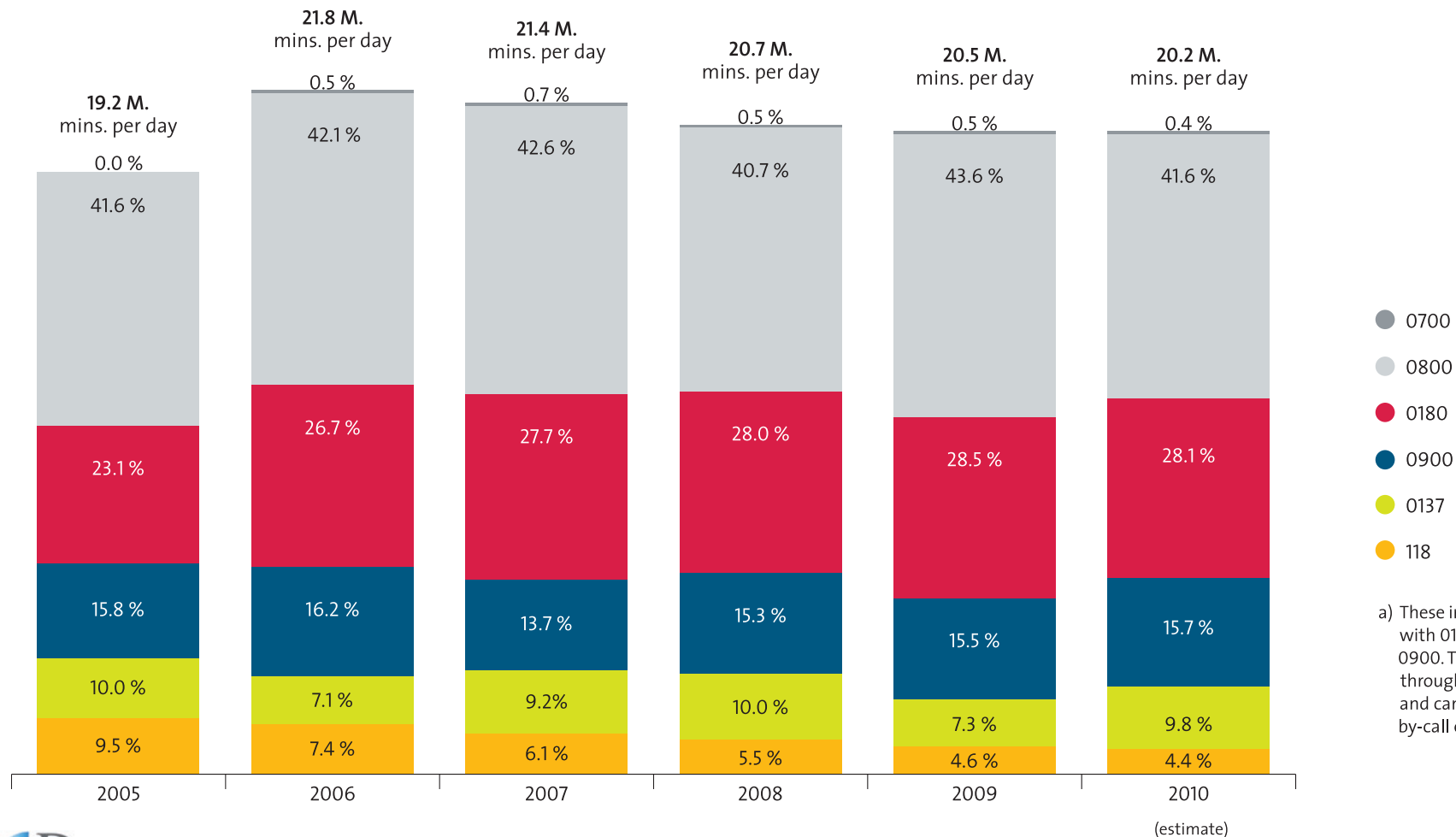


*Chapter IV.*

# Market for value-added services

## The demand for value-added services offered by Telekom competitors is at a similar level in 2010 as compared to the previous year. Only the 0137 televoting traffic volume is increasing significantly

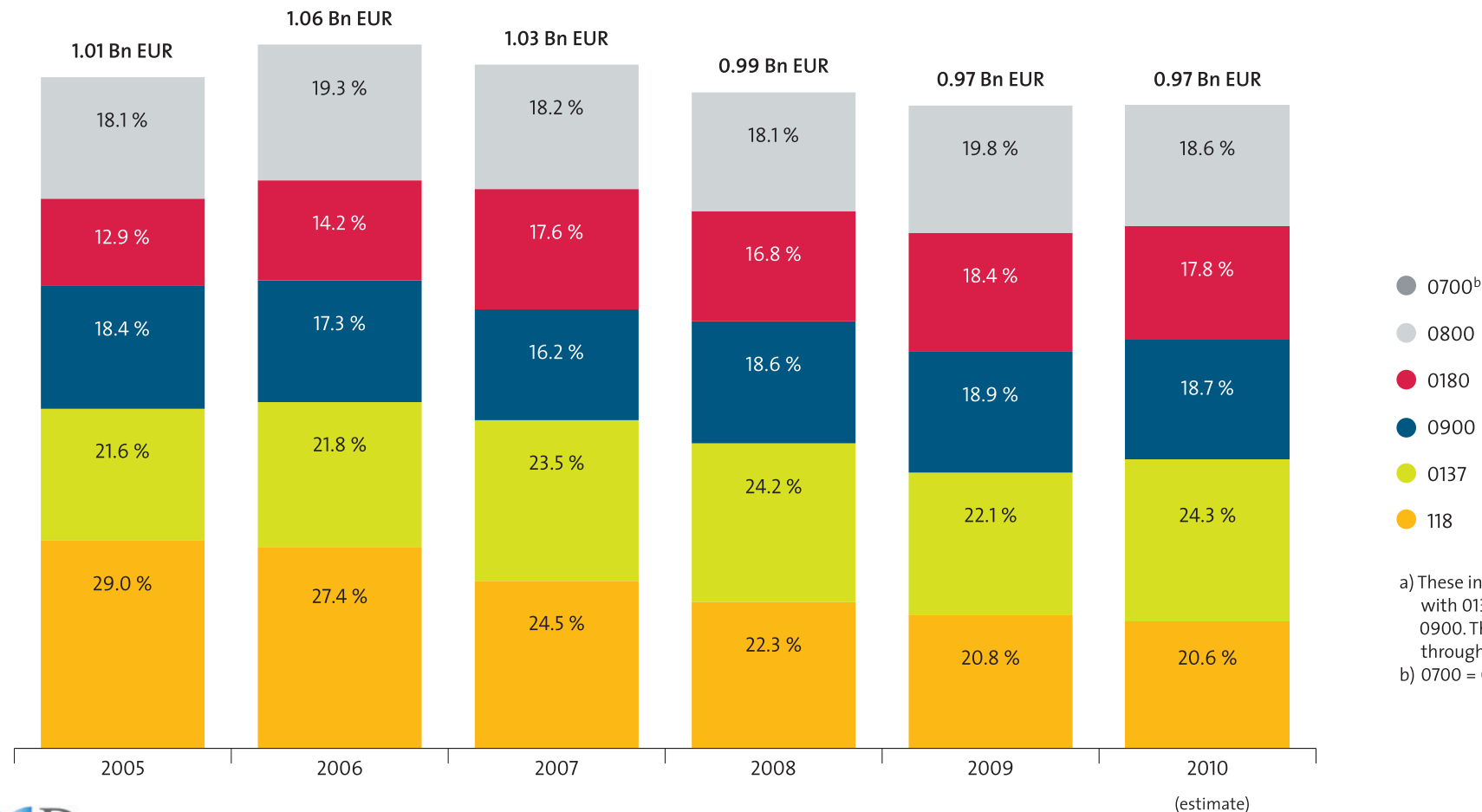
Fig. 23: Competitors' minutes with IN<sup>a</sup> and directory information numbers according to number type (connections to these numbers)



a) These include calls to numbers beginning with 0137, 0180, 0190, 0700, 0800 and 0900. These numbers are always charged through the connection network operator and cannot be reached by means of call-by-call or preselection.

Overall, competitors' revenues for IN<sup>a</sup> and information services are at the same level in 2010 as last year. In view of the stagnant traffic volume for these services, the end customer prices are remaining stable on average

Fig. 24: Competitors' revenue with IN<sup>a</sup> and directory information numbers according to number type



a) These include calls to numbers beginning with 0137, 0180, 0190, 0700, 0800 and 0900. These numbers are always charged through the connection network operator  
 b) 0700 = 0 percent