

DIALOG CONSULT / VATM

## 2<sup>nd</sup> Analysis of the Competitive Landscape in the German Fixed-Line Market

#Wettbewerbverbindet

## Agenda

- I. Market Overview
- II. Competition Trends
- III. Conclusions
- IV. Executive Summary

## This study analyzes the competitive landscape in the German fixed-line telecommunications market as of mid-2024

- The evaluation is based on the following key sources:
  - Company publications, financial reports and press releases.
  - Publicly accessible studies (e.g., annual report of the Federal Network Agency).
  - Survey responses from VATM member companies.
- **Functioning competition** is a necessary condition for a **supplier and product diversity**
- I.e., only effective competition ensures that end customers have a **real choice**
- In this respect, the **welfare of the end customers** depends directly on the competitive landscape
- Competition is crucial not only in retail markets but also in **wholesale markets**. Competitors lacking a comprehensive access network must be able to purchase wholesale products<sup>a</sup>—typically from the former monopoly holder, Deutsche Telekom [= incumbent] — under competitive conditions to ensure fair market dynamics.
- Only if competitors can purchase wholesale products on fair terms will they be able to offer competitive services (in terms of performance and **price**), especially **in the competition with Telekom**
- The "rules of the game" for competitors using Deutsche Telekom's networks are defined by regulatory oversight. The rules focusing on **wholesale products** and the regulation of their **pricing** are established within the regulatory framework set by the Federal Network Agency [= BNetzA].

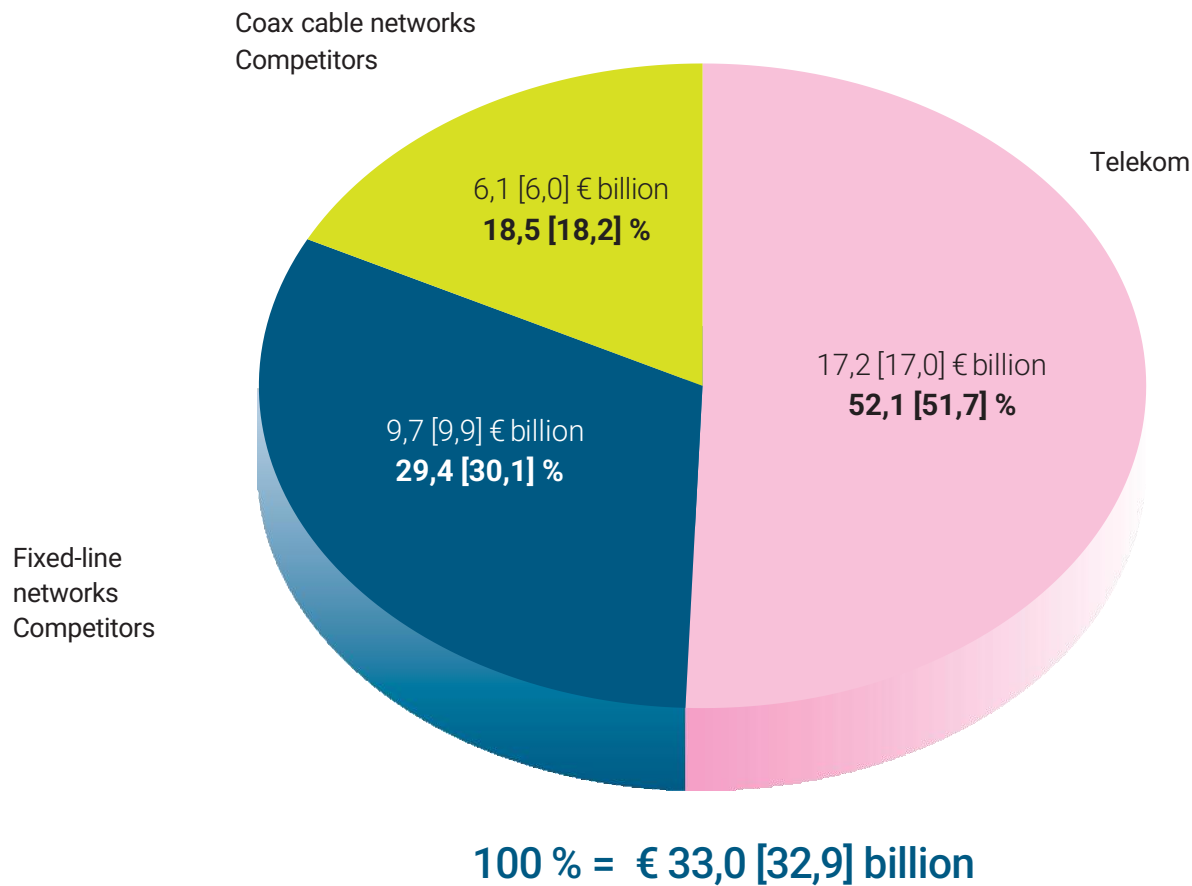
a) Wholesale products are inputs required by a telecommunications operator to deliver telecommunications services, which the operator cannot provide using its own network resources. These bottleneck factors can only be supplied by a company with the necessary (typically historically developed) economies of scale—usually the incumbent—and must be made available under economically reasonable conditions.

*Chapter I.*

# Market overview

# The telecommunications fixed-line market will grow slightly in 2024, with Telekom further expanding its dominant position

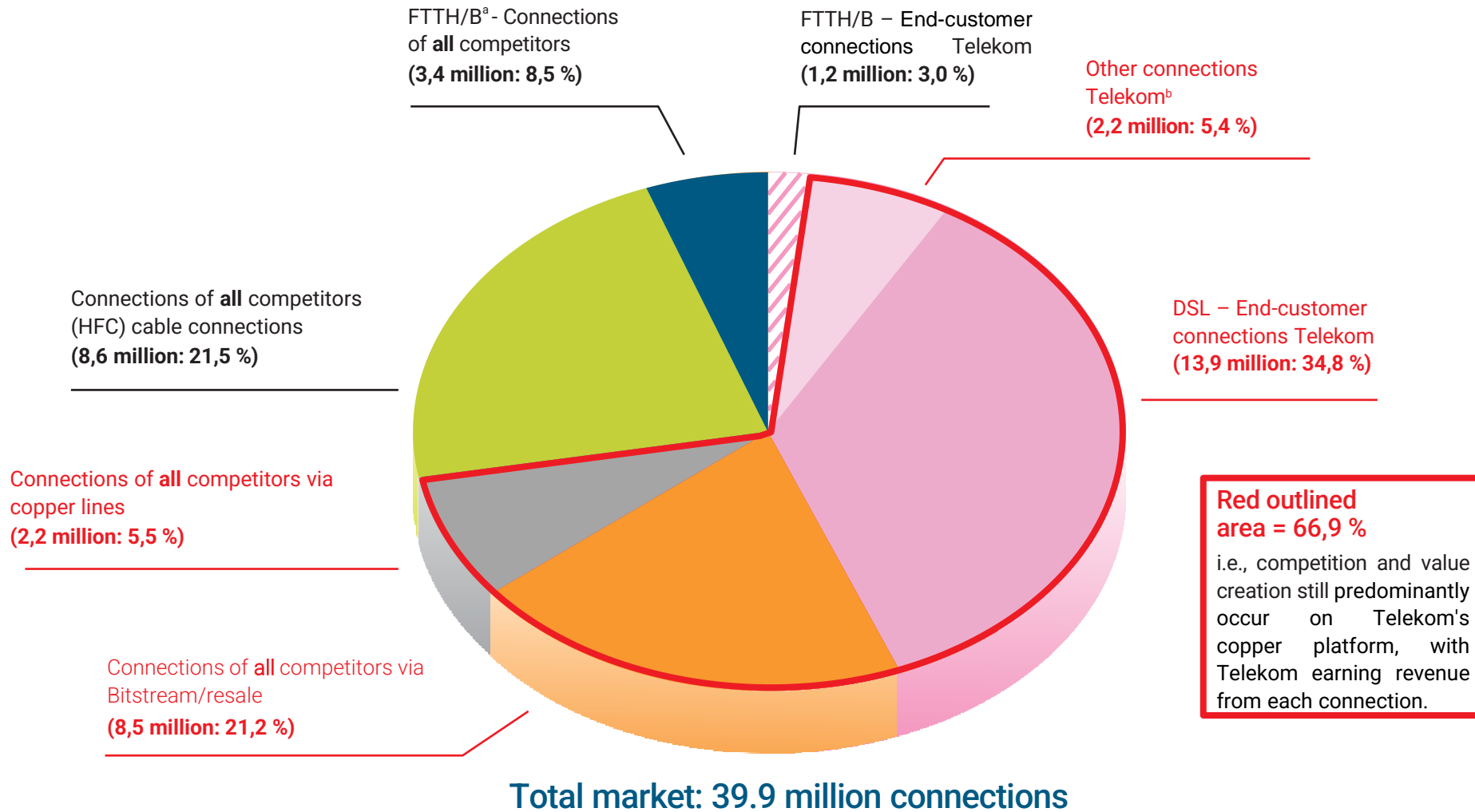
Fig. 1: Fixed-line market for telecommunications services<sup>a</sup>  
(external sales, estimate for 2024)



a) Including voice and internet services, data services, interconnection, leased lines, content, end-user devices and TV content distribution sold by network operators and their sales partners. Figures in square brackets indicate the corresponding previous year's values.

## In mid-2024, 'copper' connections, based entirely on Telekom infrastructure, are still by far the most important type of connection line, accounting for around two thirds of all active lines

Fig. 2: Structure of end-customer fixed-network lines (end of H1 2024)



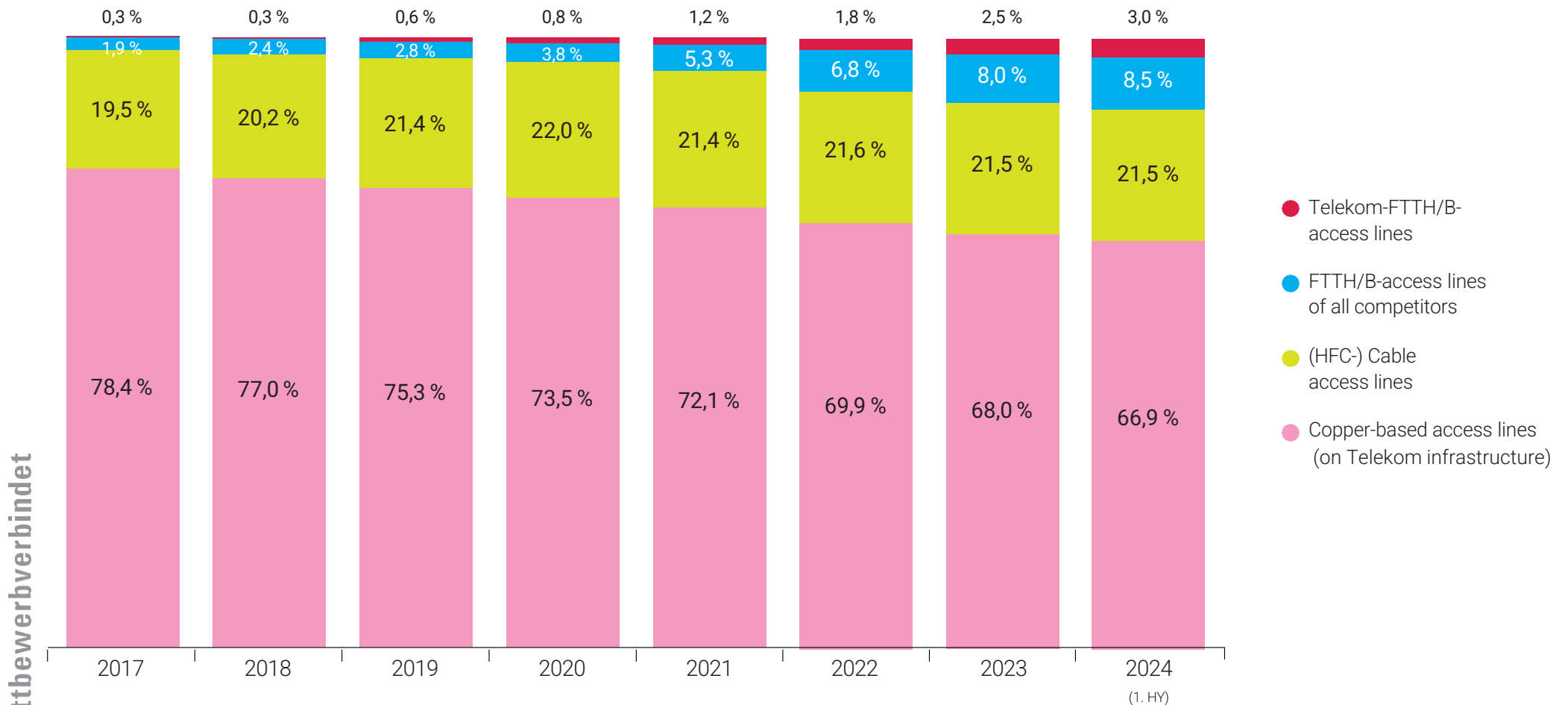
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<sup>a</sup> FTTH/B-Connections = Fiber to the Home/Building-Connections = Optical Fiber connections.

<sup>b</sup> All connections, that are not DSL or FTTH//B connections

# It will take many years before FTTH/B access lines 'overtake' the copper/DSL connections based on the telecom platform

Fig. 3: Development of market share in the fixed-line end-customer market



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## Telekom is able to 'reserve' more and more areas for itself through its expansive expansion strategy, thereby laying the foundation for its future market dominance

### Situation in the fiber-optic access market (FTTH/B market)

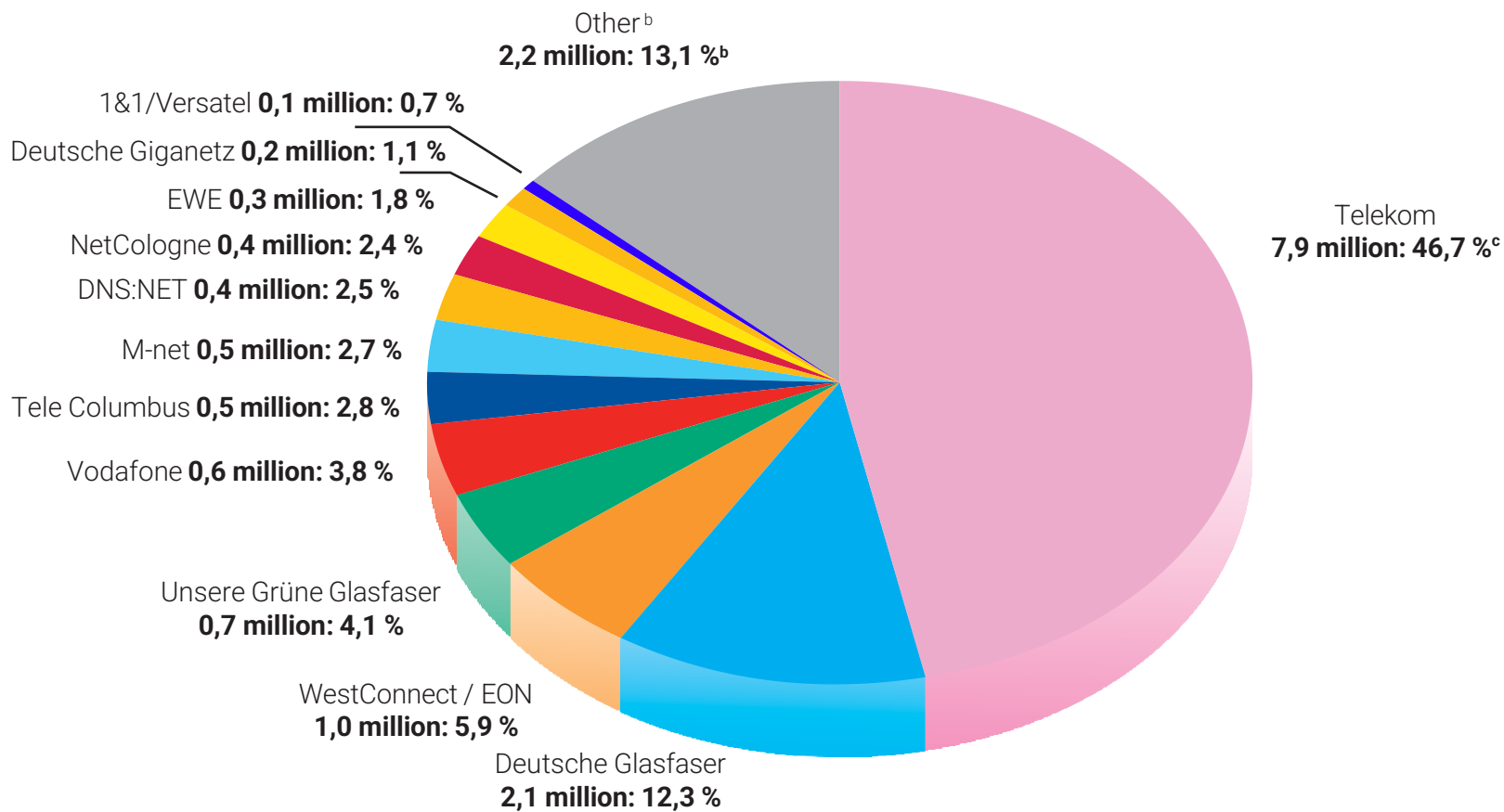
- Telekom is rapidly catching up with its competitors in the expansion of fiber-optic connections (especially in the 'homes passed' segment):<sup>a</sup> 46.7% market share (compared to: 41.5% [end of 2022]; 37.1% [end of 2021],... 18.7% [end of 2015])
- By pushing ahead with the 'homes passed' expansion, Deutsche Telekom is securing control over more and more areas, effectively reserving them for strengthening its competitive position in the market
- This expansion has been made especially possible by the substantial financial resources that Telekom has received in recent years from the very high prices (significantly above actual costs) for wholesale products based on its copper network
- In doing so, Telekom is effectively pursuing a **strategy of elimination and deterrence (strategic overbuilding of competitor networks and strategic 'over-distribution')**
- In addition, Telekom has now concluded more than 20 alternative and exclusive fiber-optic cooperations and usage agreements, further strengthening its market position
- Overall, with the above-mentioned intensive expansion of "homes passed", Telekom is laying the foundation for its **future market dominance in the fiber optic market**
- Telekom's market shares in both "homes connected" (30.3%) and "homes activated" (23.8%) segments show that Telekom is **not yet** focusing on marketing within its "reserved" areas, which is **detrimental to end customers** generally, as competitors are also barely able to close this gap - mainly due to the lack of availability of corresponding wholesale services (at competitive prices)

- a) As well as 30.3% (for homes connected) and 23.8% (for homes activated), as at the end of 2023. A distinction is made between three expansion/usage stages of the respective connection for fiber-optic connections: Homes passed = The building is "basically supplied", although the actual connection (longitudinal road to the building) has not yet been realized. However, this can be done with limited effort. Homes connected = The building is connected via fiber optics, i.e., the end customer could conclude a contract or use the fiber optics at any time, but this is not yet the case. Homes activated = The end customer has concluded a contract or is actively using the fiber-optic connection.
- b) In other words, Deutsche Telekom generates considerable excess profits by selling wholesale products based on its copper network, which has been built up over many decades (in some cases still in monopoly times) and is largely depreciated, at prices based on current replacement costs. For details, see also: Winzer, P. (2021): Anforderungen an eine wettbewerbsorientierte Regulierung der Glasfaseranschlüsse der Deutschen Telekom vor dem Hintergrund der über die Vorleistungs-entgelte gezahlte Investitionsbeiträge (Kurz-Gutachten im Auftrag des VATM).



## The other companies expanding in the fiber-optic access market are many (generally smaller/regional) companies that are opposed to Telekom as a major player with market power

Fig. 4: Distribution of access lines in the FTTH/B market (homes passed)<sup>a</sup>



- a) Status at the end of 2023. (Double counting cannot be ruled out in individual cases). Homes passed is the best indicator of the providers' "footprint" and thus of future competition. Figures rounded to the first decimal place.
- b) Other = Several hundred small/regional companies (mainly smaller energy suppliers or associated companies).
- c) 2022: 41,5 %; 2021: 37,1 % ... 2015: 18,7 %.

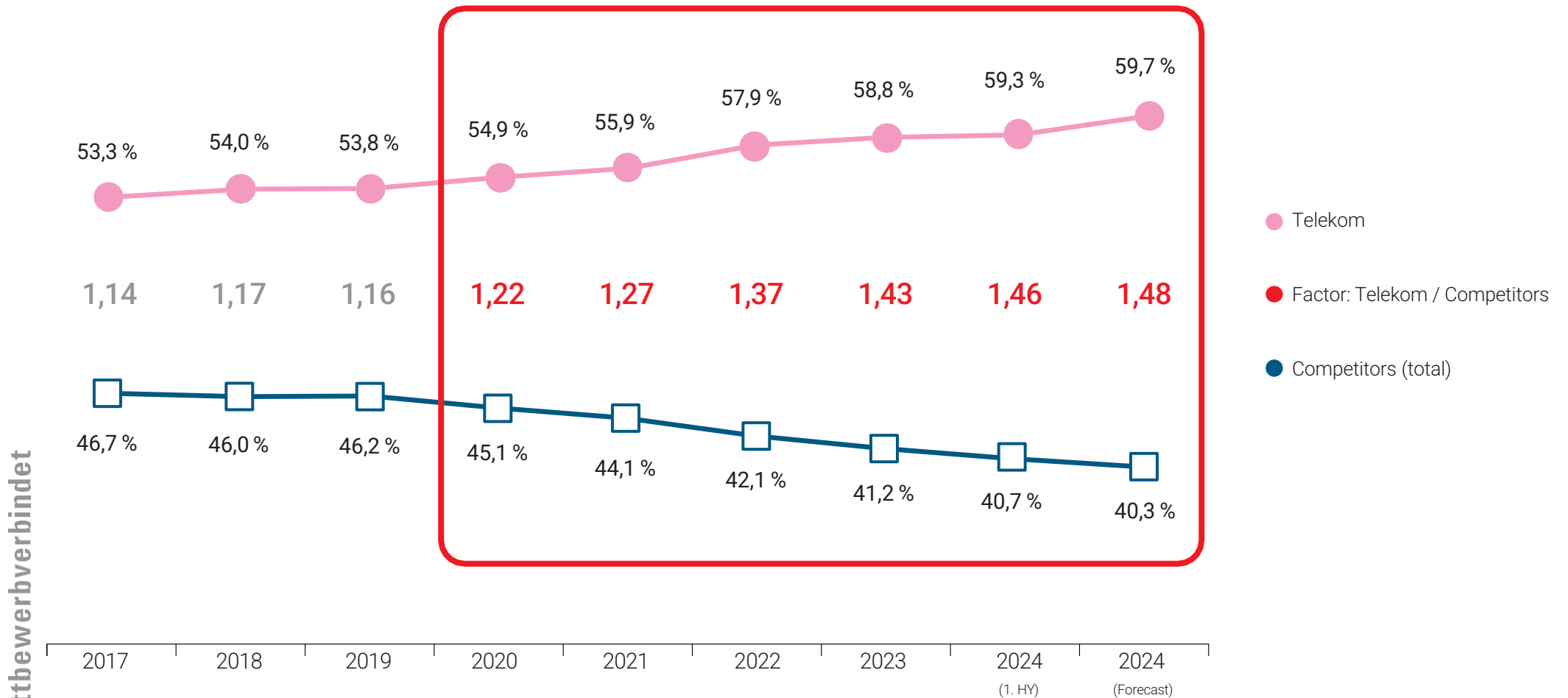
Overall = 16,9 million access lines

*Chapter II.*

# Competition Trends

Since 2020, the key market segment for end customer connections via Telekom's copper and FTTH platforms has seen the company increasingly grow apart from its competitors, with this trend continuing

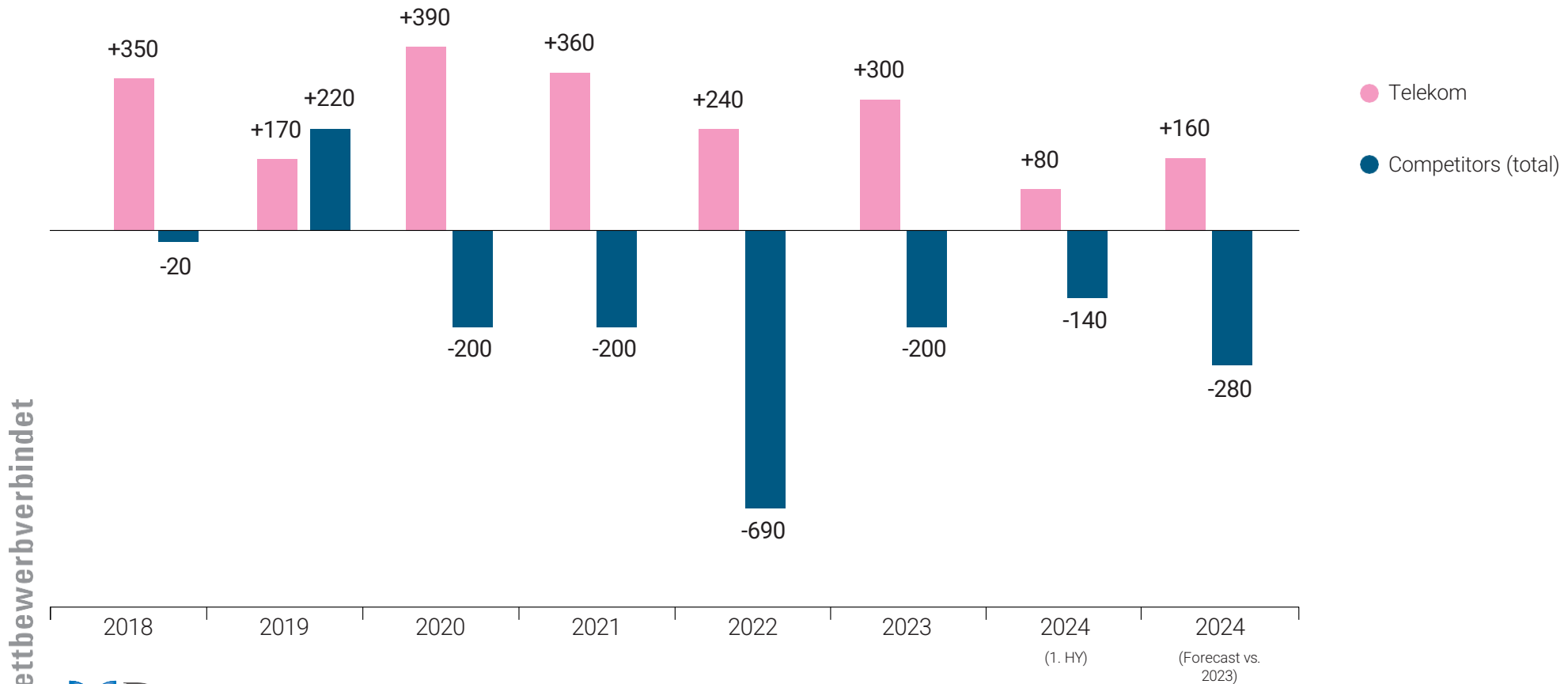
Fig. 5: Development of broadband market shares on telecoms copper and FTTH platforms



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## In the segment of connections provided via Telekom's copper and FTTH platforms, Telekom continues to gain customers every year, further widening the gap at the expense of its competitors

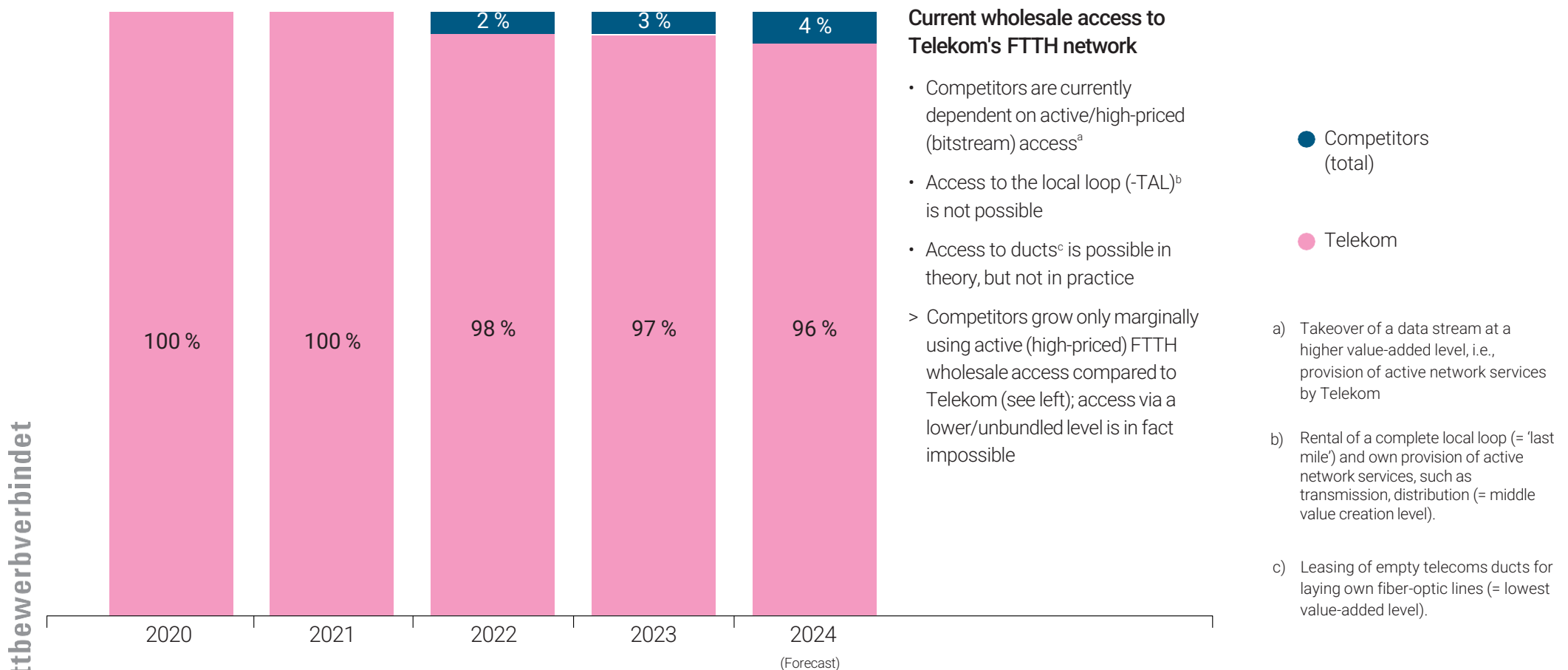
Fig. 6: Changes in broadband access lines on Telekom's copper and FTTH platforms vs. previous period (in thousands)



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# The current wholesale access options to Telekom's FTTH network have failed to enable any meaningful growth in competitors' market share

Fig. 7: Development of retail fixed line market shares on the Telekom FTTH platform



### Current wholesale access to Telekom's FTTH network

- Competitors are currently dependent on active/high-priced (bitstream) access<sup>a</sup>
  - Access to the local loop (-TAL)<sup>b</sup> is not possible
  - Access to ducts<sup>c</sup> is possible in theory, but not in practice
- > Competitors grow only marginally using active (high-priced) FTTH wholesale access compared to Telekom (see left); access via a lower/unbundled level is in fact impossible

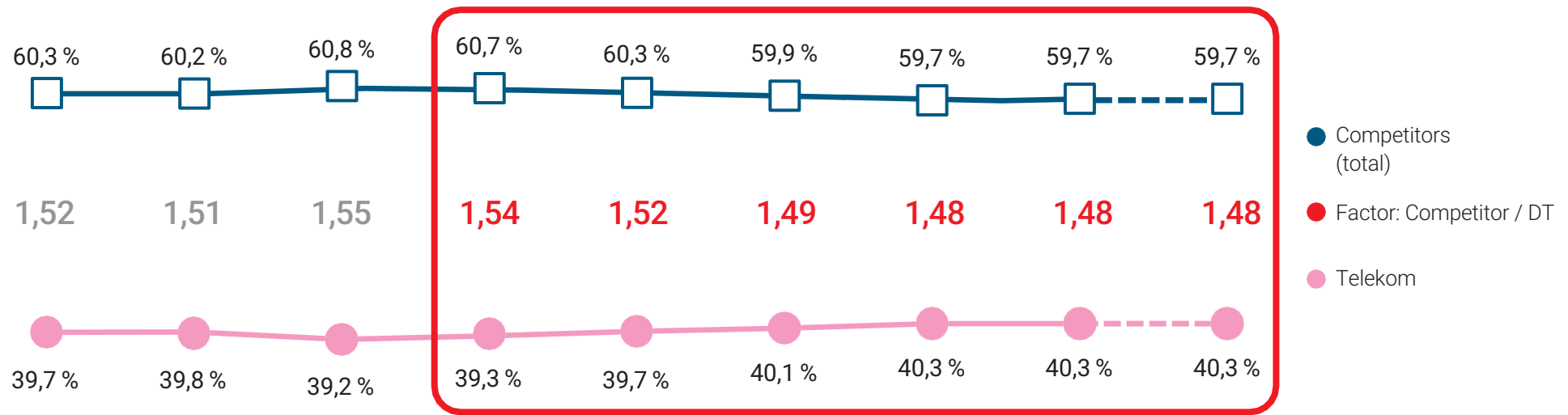
- Competitors (total)
- Telekom

- a) Takeover of a data stream at a higher value-added level, i.e., provision of active network services by Telekom
- b) Rental of a complete local loop (= 'last mile') and own provision of active network services, such as transmission, distribution (= middle value creation level).
- c) Leasing of empty telecoms ducts for laying own fiber-optic lines (= lowest value-added level).

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In the broader broadband access market (including DSL, cable, and fiber), where competitors had managed to grow until around 2020, Telekom has since reversed this trend, regaining market share in some areas and consolidating its position, further undermining opportunities for its competitors to expand

Fig. 8: Development of market shares in the overall broadband market (all DSL/HFC cable/FTTH/B connections)



Prior to 2020, competitors steadily gained long-term market share to the detriment of the incumbent—a typical pattern seen in most (EU) telecommunications markets with effective competition

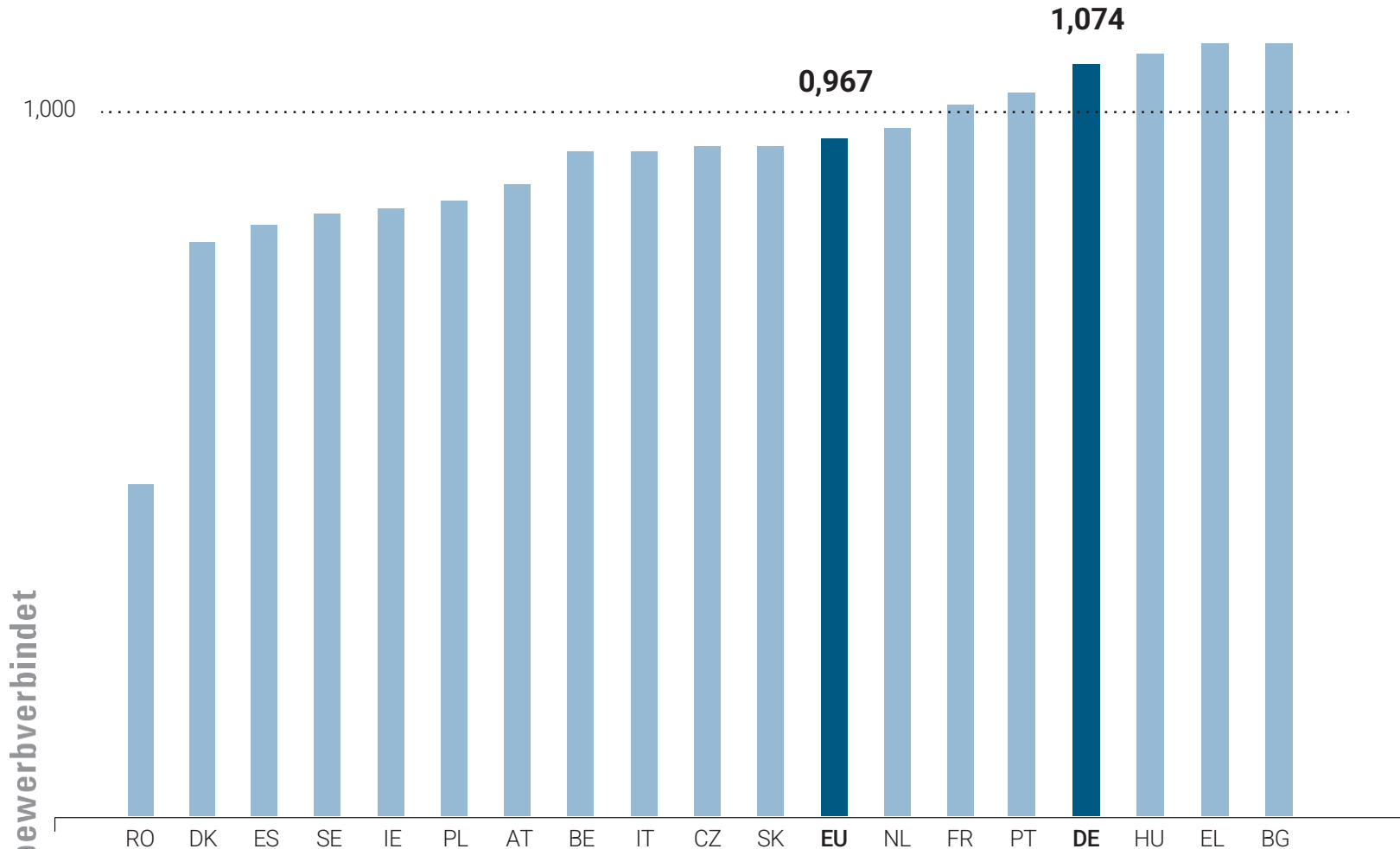
Since 2020, the incumbent Telekom has managed to reclaim or entrench its market share at over 40%—an aberration rarely observed in telecommunications markets with effective competition (see in particular Fig. 9 and 10 below)

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## Telekom is one of the few European incumbents experiencing growth in market share

**Fig. 9: Change factor of incumbent broadband retail market shares in the EU<sup>a</sup>**  
(06/2017 to 06/2022)



### Description

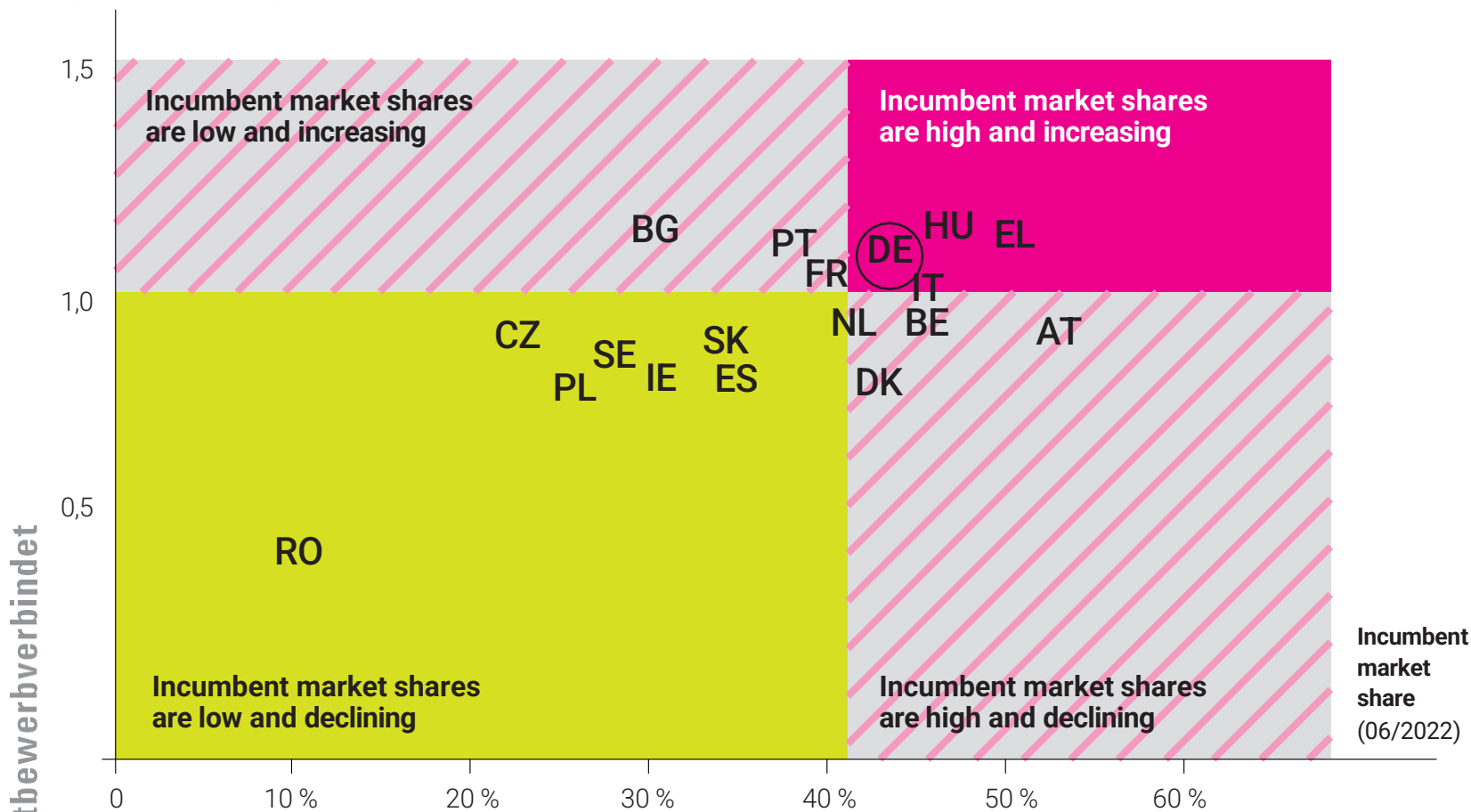
- AT Austria
- BE Belgium
- BG Bulgaria
- CZ Czech Republic
- DE Germany
- DK Denmark
- EL Greece
- ES Spain
- FR France
- HU Hungary
- IE Ireland
- IT Italy
- NL Netherlands
- PL Poland
- PT Portugal
- RO Romania
- SE Sweden
- SK Slovakia
- EU EU

a) Countries with less than 5 million residents are not included due to their limited comparability with Germany

## Germany is one of three EU countries where the incumbent's broadband market share remains relatively high and has increased over the past five years<sup>b</sup>

Fig. 10: Current incumbent market share vs. change factor of incumbent market shares

Change factor incumbent market shares  
(06/2017-> 06/2022)



### Description

- AT Austria
- BE Belgium
- BG Bulgaria
- CZ Czech Republic
- DE Germany
- DK Denmark
- EL Greece
- ES Spain
- FR France
- HU Hungary
- IE Ireland
- IT Italy
- NL Netherlands
- PL Poland
- PT Portugal
- RO Romania
- SE Sweden
- SK Slovakia
- EU EU

- a) Countries with less than 5 million inhabitants are not included due to limited comparability with Germany
- b) The incumbents in these three states all belong to Telekom or are closely associated with it.



## Due to the relatively weak regulation ('regulation light'), the market dominant Telekom can leverage its size and synergy advantages to capture additional market share

### The main reasons for the developments outlined above are:

- The partially inadequate regulation of wholesale Telekom products and the inability to utilize unbundled Telekom infrastructure components, in particular:
    - No regulation of prices for FTTH wholesale services<sup>a</sup>
    - no "active" regulation<sup>b</sup> of VDSL wholesale services prices (with only a requirement to notify these prices to BNetzA retrospectively ["ex-post" notification obligation])
    - Ineffective monitoring of price-cost differentials<sup>c</sup> and insufficient consideration of the Telekom's numerous bundled products and discounts (e.g., special rates)
    - Lack of unbundled wholesale/access products at lower network/value creation levels (e.g., no access to ducts or fiber-optic local loop lines)
  - Telekom can therefore freely exploit its market power and economies of scale (bolstered by its extensive customer base, which in some cases dates back to the monopoly era)
  - **As a result, Telekom is able to pursue an aggressive pricing strategy, i.e., making it difficult for competitors to match its end-customer rates (while still covering their costs)**
- a) In other words, the prices for wholesale products that competitors must obtain from Telekom (and rely on to provide and market their own FTTH connections) are not regulated by the Federal Network Agency. Instead, Telekom is free to set these prices, granting it substantial control over whether, and under what conditions, its direct competitors can operate in the retail market.
  - b) Under 'active' (= 'ex-ante') regulation, prices or price applications (for wholesale services) must be submitted to the Federal Network Agency well in advance. These are then thoroughly reviewed, and ultimately, the Federal Network Agency determines the (appropriate) prices.
  - c) Margin squeeze tests assess whether wholesale prices align with retail market prices. A margin squeeze occurs when an alternative provider cannot cover its costs while offering services at the incumbent's retail price based on the given wholesale price, rendering it unable to compete effectively in the retail market.
  - d) Unbundled access to Telekom's access network infrastructure would enable competitors to lease individual network components (such as ducts or fiber optic local loop lines) and use their own active network technology to develop independent end-customer products (see further details on p. 4). This would provide competitors with much broader flexibility in both product design and pricing.

*Chapter III.*

# Conclusions

## Conclusions

- **Copper-based connections** still account for the majority share (approx. **2/3**), i.e., competition and value creation still predominantly take place on Telekom's copper platform. This copper dominance is diminishing only gradually and is expected to persist for many years.
  - Even though competitors market these copper-based connections to end customers, **Telekom profits from every connection** via the associated wholesale products<sup>a</sup>
  - **Competitor connections currently represent only around 4% of Telekom's FTTB platform.** Ensuring fair access to this platform is critical for fostering effective competition.
  - **Telekom** has regained market share in the (partial) market for connections provided through its **copper and FTTH platforms**. This is largely driven by its **aggressive pricing strategy**, enabled by **inadequate regulation** of Telekom's wholesale products and the **lack of access** to unbundled infrastructure components.
  - Across **all broadband connections**, Telekom has managed to slightly increase or stabilize its market share. **This consolidation of a dominant position**—exceeding 40%— **is an outlier in the EU**, with similar trends observed in only 15% of larger EU countries surveyed.
  - Telekom's rapid expansion in the **FTTH/B market** (measured in Homes Passed — "laying down roots" in the FTTH/B market) is helping it further solidify **its dominant position**. Over time, its market dominance in this segment is expected to surpass its current dominance in the copper market.
- A **resurgence of Telekom** in the broadband market highlights the **critical need** for robust **competition-ensuring regulation** (as opposed to "light regulation") to maintain a functioning competitive environment.

- a) The important issue in this context, that Deutsche Telekom achieves significant excess returns by selling wholesale products based on its copper network, which was built over many decades (partly during the monopoly period) and has been largely depreciated, at prices based on current replacement costs (and not at the significantly lower actual costs), has already been discussed in detail in previous studies, see, for example: Winzer, P. (2021): Anforderungen an eine wettbewerbsorientierte Regulierung der Glasfaseranschlüsse der Deutschen Telekom vor dem Hintergrund der über die Vorleistungsentgelte gezahlten Investitionsbeiträge (Kurz-Gutachten im Auftrag des VATM).

*Chapter IV.*

# Executive Summary

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1. A diverse **range of providers and offerings** is essential for maximizing **end-customer welfare**, which in turn requires effective competition, particularly in wholesale markets. This can only be achieved through **fair** and sufficiently robust regulation of the telecommunications industry (moving beyond the "light regulation" that has been prevalent in many cases to date).
2. Currently, 2/3 of all active fixed network connections are based on Telekom's copper platform, with changes occurring slowly. As a result, **fiber-optic connections remain a "future prospect"** in many areas [→ Fig. 2].
3. Telekom's rapid expansion in the fiber-optic market (measured in Homes Passed — "laying down roots" in the FTTH/B market) will help solidify its **dominant position** in this segment. In the medium term, Telekom's dominance in the fiber market is expected to be **much stronger** than its current dominance in the copper market [→ Fig. 4].
4. At present, only around **4%** of connections on Telekom's FTTH platform are from **competitors**. Ensuring fair access to this platform **is critical for fostering functioning competition** [→ Fig. 7].
5. Telekom is positioned to (a) **regain** market share in the (sub)market for connections switched via the Telekom copper and FTTH platform(s) **to the disadvantage of its competitors**, and (b) stabilize its market share at (a high level) in the broader broadband market — an **aberration, rarely observed in EU telecommunications markets** with effective competition, and a phenomenon found in countries/markets where the incumbent also belongs to Telekom [→ Fig. 10]

