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Draft BEREC Progress Report on Managing Copper Network Switch-off (BOR (24) 181)

As follows: **Position Paper** of the Verband der Anbieter von Telekommunikations- und Mehrwertdiensten e.V. (VATM e.V) (Association of the German Alternative Providers of Telecommunications and Value-added Services)).

VATM welcomes the opportunity to comment on the draft *BEREC Progress Report on managing copper network switch-off*, BoR (24) 181 (in the following, “draft BEREC Report”). We thank BEREC and its members for their effort preparing this draft BEREC Report. VATM acknowledges that BEREC aims to give an overview on the state of decommissioning of legacy infrastructure and the transition into Very-High-Capacity-Networks (in the following, VHCN) amongst the EU Member States.

Overall, the draft BEREC Report aligns with the observations made in other benchmark studies[1,2] showing that while some countries, such as Portugal, Sweden and Spain, are nearing the completion of their copper switch-off, others have yet to establish a framework for phasing out their legacy networks. However, the report lacks key details necessary for a deeper understanding of regional differences. **It does not provide country-specific lessons learned or concrete best practices tailored to national or regional characteristics - factors that influence why certain measures or issues stand out and how they are addressed by National Regulatory Authorities** (in the following, the NRA).

[1] EUROPEAN COMMISSION (2023): *Report on Broadband Coverage in Europe 2022: Mapping progress towards the coverage objectives of the Digital Decade*, P. 34, Figure: Overall FTTP and DOCSIS 3.1 Cover age by Country, 2022. (https://ec.europa.eu/newsroom/dae/redirection/document/98574, last accessed 7.02.2025).

[2] FTTH COUNCIL EUROPE (2024): Copper Switch-Off Tracker: Decommissioning copper in the European Union and the United Kingdom, Main Figures. (Copper Switch-Off Tracker - Decommissioning copper in the European Union and the United Kingdom, last accessed 7.02.2025).

In the context of Germany, VATM would like to point out that the country is an example of an early stage of the migration process, remaining in a stark contrast to the well-advanced states mentioned above.

Currently, neither the German NRA – Bundesnetzagentur (in the following, BNetzA) nor the incumbent Deutsche Telekom have established any rules for copper switch-off. Consequently, the complete closure of the copper network remains a distant prospect. In our view, this aligns with Deutsche Telekom's strategy to maximize profits from its legacy network while deploying infrastructure on a Homes Passed basis to hinder competitor fiber expansion. By doing so, the company reinforces its market dominance during the transition to fiber. Given that much of the currently available fiber infrastructure belongs to competitors, Deutsche Telekom has little incentive to switch off its copper network, as it remains a profitable asset that helps retain its customer base.

Under these circumstances, **there is a general lack of predictability and planning certainty regarding when and how the copper switch-off will take place in Germany. This uncertainty is further reinforced by the absence of reported progress in the draft BEREC Report**. Combined with Telekom's strategic approach, as outlined above, this situation could lead to delays in the entire process, jeopardizing the digital goals set by the European Commission[3] (in the following, the Commission) and the German government[4]. Moreover, it could ultimately neglect the needs of German end-customers, further widening the digital divide - both between urban and rural populations and across different regions of the country.

However, not only a timely copper switch-off is important, but the right implementation of rules facilitating the process is vital. To achieve this goal, the European Electronic Communications Code (in the following, EECC) and the Gigabit Recommendation provide a general framework that, complemented by additional safeguards, should be sufficient to allow policy makers shaping copper to VHCN migration in a positive manner. According to the EECC, incumbents need to notify to the NRA their plans to decommission legacy infrastructure in advance and in a timely manner. The NRA must ensure that the decommissioning includes a transparent timetable and conditions, and an alternative access product (of at least comparable quality) needs to be made available in the new network. The NRA also needs to ensure that the decommissioning process does not lead to discriminatory behaviour (e.g. differences in switch-off timelines by the incumbent need to be justified on objective criteria).

In practical terms, copper migration must ensure fair competition at both the retail and network levels, especially if investment in VHCN by competitors is to be encouraged. Therefore, regulatory checks and balances must be maintained throughout the process. **We, therefore, suggest that BEREC provides clear guidance on copper switch-off and establish an oversight strategy**

[3] Decision (EU) 2022/2481 of the EUROPEAN PARLIAMENT and of the COUNCIL of 14 December 2022 establishing the *Digital Decade Policy Programme 2030*, Art. 1, Subject Matter. (Decision - 2022/2481 - EN - EUR-Lex, last accessed 7.02.2025).
[4] FEDERAL MINISTRY FOR DIGITAL AND TRANSPORT, BMDV (2022): *Gigabitstrategie der Bundesregierung*. (Gigabitstrategie der Bundesregierung, last accessed 7.02.2025)

to inform NRAs of best practices. This would help ensure a transparent transition and shape the regulatory measures imposed by NRAs, such as BNetzA. Additionally, it would send a strong signal to BNetzA that proactive regulatory measures are essential for a smooth transition while safeguarding market competition and favourable investment climate.

In this context, VATM refers to ***VATM-Position on the copper-fiber-migration***[5], in the following:

How do we facilitate the right conditions for the copper-fiber-migration

Fiber optics is undeniably the digital fixed network infrastructure of the future. Therefore, the German Government's Gigabit Strategy sets the goal of a nationwide fiber deployment by 2030. This initiative is not only about ensuring economic and social participation but also about securing Germany as a business location. However, the benefits of fiber deployment do not come simply from the construction of fiber optic connections alone but from their actual use. The copper-glass migration (KGM) represents a unique opportunity to foster sustainable competition, ensuring both **competitive network deployment and a diverse range of services and providers**. It is essential for both fiber deployment companies and access seekers that the framework conditions for a successful migration are regulated promptly and in a binding manner. All parties – fiber deployment companies, access seekers and end-customers – need planning certainty during this sensitive market phase. Replacing the old copper networks with a modern fibre-optic infrastructure is an important lever for the overall development of the telecommunications market, competition and the digitalization of Germany.

The Federal Government's Gigabit Strategy formulates a **goal that is** as important as it is **clear**: **"*We want to make the transition from copper to fiber networks swift, competitive, consumer-friendly and environmentally sustainable*."**

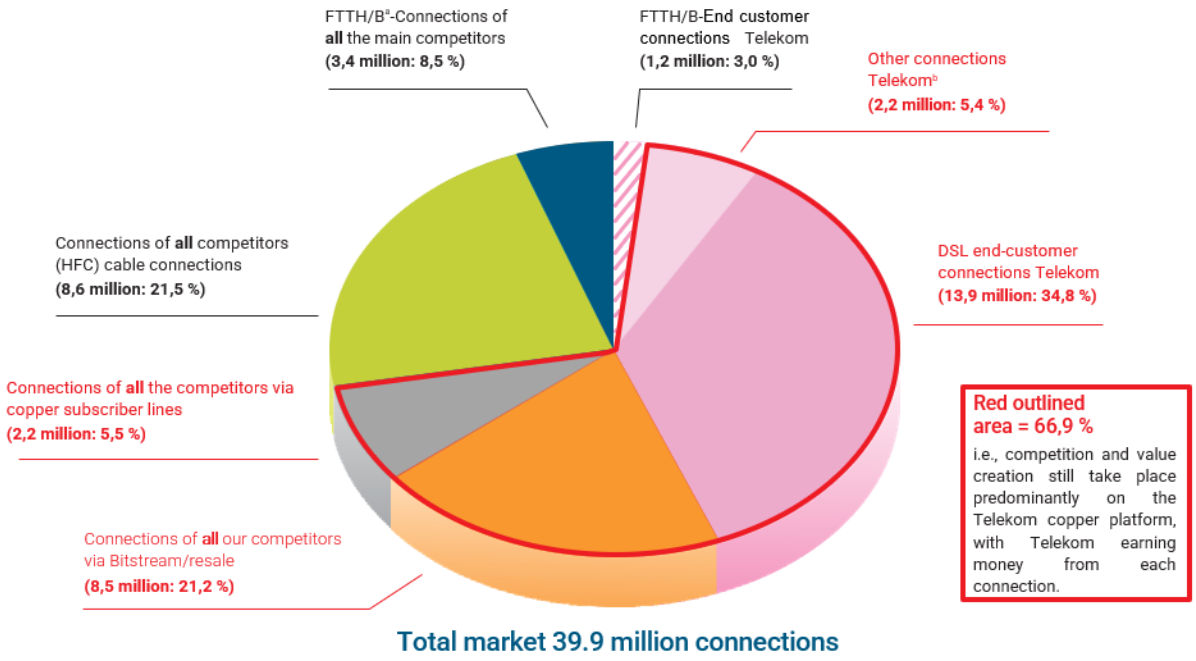
To achieve this goal, the Federal Ministry for Digital and Transport (in the following, BMDV), BNetzA and all political decision-makers must act quickly. This is critical not only to meet the fiber

[5] VATM (2024): *VATM-Position zum Wechsel von Kupfer auf Glasfaser – wie wir den Wechsel von Kupfer auf Glasfaser richtig gestalten*. (https://www.vatm.de/wp-content/uploads/2024/10/2024-09-30_VATM_Position_Kupfer-Glas-Migration_final.pdf, last accessed 7.02.2024).

rollout targets but also to maintain and further expand provider diversity. Only with functioning competition can Germany catch up internationally instead of falling further behind.

Currently, 24 million copper-based lines are still in active use in Germany. Our goal is to make the transition to the future-proof fiber infrastructure as appealing as possible by offering new, attractive services for private and business customers. Today, 67% of all households in Germany access the internet via Telekom's copper DSL network - either directly through Telekom (14 million Telekom DSL customers) or via other nationwide access seekers such as Vodafone, Telefónica, or 1&1 (almost 10 million DSL customers served by Telekom's competitors).

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



Annual DIALOG CONSULT / VATM – Study: Competition Situation on the German Fixed Market 2024[6]

In addition, there is the provision for business customers, companies and their employees in branch offices and home offices, where customized solutions – often still DSL-based - are required, such as those with special security or quality requirements. Ensuring the best possible migration conditions in Germany politically, particularly for these use cases, is a key political task. Fair access to networks and **competition-compliant rules** will play a decisive role in the

[6] DIALOG CONSULT / VATM (2024): *Analyse der Wettbewerbs situation auf dem deutschen Festnetzmarkt*, P.6. (VATM-Wettbewerbsstudie-2024-V3.indd, last accessed 7.02.2025)

migration from copper to fiber, not only for private customers but also for business service providers, ensuring that the German economy has reliable telecommunications services essential for its digital transformation.
Therefore, it is imperative that Deutsche Telekom does not exploit the copper-fiber migration to its advantage as a means to solidify or even expand its still dominant market position in Germany.

In its White Paper "How can the demand for digital infrastructure in Europe be met?"[7], the Commission has already set extremely ambitious targets with regard to the shutdown of copper networks. These targets are based on the significant progress made in the fiber rollout across other EU Member States. However, in Germany, we still have a long way to go to achieve full fiber coverage and have only just begun to discuss the regulatory framework conditions for the transition from copper to fiber networks in a structured manner.

Migration as a joint responsibility for all stakeholders

The EU, German policymakers, and the BNetzA risk losing sight of equally important goals – the **efficient infrastructure competition** and **overall competition based on access to the network** of Telekom, which still holds significant market power – by focusing solely on achieving connectivity and fiber deployment targets. Companies rolling out fibre network, access seekers, and politicians must work together with the NRA to ensure that the opportunities associated with migration can be maximised, rather than allowing a major risk to competition to materialize instead. Telekom must also play its part for the benefit of our country, abandoning its strategic overbuild practices and systematic suppression of competition - or be compelled to do so. Additionally, Telekom's largely strategic refusal to use third party fiber networks via bitstream ("wholebuy refusal") must come to an end if the migration is to succeed.

We must understand the fiber rollout and the migration from copper to fiber as a joint responsibility for all market players.

[7] EUROPEAN COMMISSION (2024): *White Paper: How to master Europe's infrastructure needs?* (https://ec.europa.eu/newsroom/dae/redirection/document/102533, last accessed 7.02.2025).

The VATM member companies are committed to ensuring that provider choice, access and service diversity, as well as competitive pricing structures in Germany, remain intact, turning the **transition into a positive experience for customers throughout the entire migration phase**. **When** the old copper networks **are ultimately shut down,** we will **continue to provide customers with** higher performance or maintaining the same performance without sudden cost increases. In this context, it must also be ensured that Telekom, given its economic advantages from switching-off the copper network, bears the costs of the migration. Other telecommunications companies and end-customers must not be burdened with these costs.

Until copper is switched off locally - with a few exceptions for technical or economic reasons - a real transition option to fiber or another gigabit-capable technology, such as hybrid fiber coax (HFC) must be guaranteed for **all the remaining DSL customers**. A realistic scenario acknowledges that gigabit-capable HFC networks must be considered part of the solution if we aim to switch off the non-gigabit-capable old DSL copper networks as soon as possible.

If, in exceptional cases, the customer does not wish to switch to fiber optics, high-performance mobile or satellite technology can also be an alternative. However, from the perspective of both customers and providers, a sufficient transition period must be ensured to allow for the necessary densification ("Homes Connected") and to provide a real possibility of seamlessly migrating to a fiber or gigabit connection due to largely nationwide coverage. To create **planning certainty** for all market participants, the BNetzA must promptly define fundamental rules based on a migration concept, even though the fiber rollout and migration will take many years.

The copper-fiber migration must be recognised as a **historic opportunity to foster greater competition** in the telecommunications market.

From VATM's perspective, we must focus on the following goals:

1. **Maximum transparency is** required in Telekom's plans for the copper switch-off to ensure **the greatest possible planning certainty** for all stakeholders.

2. Significant **qualitative advantages for both private and business customers** and a smooth transition when switching off the copper networks.

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3. **Fair, non-discriminatory conditions for wholesale customers**, enabling all relevant services for private and business customers to be provided at the highest quality level and in an economically viable manner.

4. A **non-discriminatory copper switch-off** must also be ensured where alternative fiber networks have already been deployed.

The final **switch-off of Telekom's parallel legacy copper networks is of particular importance to the alternative fiber deploying companies in Germany**. Not only will this enhance network utilization and thus economic viability, but it is also the key to achieving the political sustainability goals for digital infrastructure where new fiber networks render outdated copper networks obsolete.

The aim is to create a **secure "runway" for all market participants, including private and business customers, citizens, and companies,** allowing ample lead time for effective planning. To ensure sustainable competition and provider diversity, it is essential to offer services and pricing on the wholesale level, along with an independent enforcement authority, such as the BNetzA.

Competition on the merits is indispensable

To ensure the right political framework and provide the highest level of planning certainty for market participants, the **competitive market model** must be strengthened. This model remains essential not only for network deployment, particularly to promoet efficient infrastructure competition, but also and for fostering service competition through market-driven access products.

To prevent setbacks **in the competitive landscape on the existing copper network** and, in the future, on the new FTTH networks (Fiber-to-the-Home, in the following FTTH), strict regulation of the operator holding significant market power – across both retail and business markets - remains **crucial for the success of the migration**, especially during this transition phase. Due to its copper monopoly, Telekom is heavily influenced by corporate strategic considerations throughout the migration process, seeking to leverage **the transition from copper to fiber as an opportunity** to consolidate its market dominance over alternative fiber deploying companies and access seekers. The migration presents Telekom with significant opportunities for discriminatory

practices, particularly in areas such as network rollout and customer acquisition. To address this, effective measures must be implemented from the outset in the design of the migration rules to prevent such outcomes.

To ensure a comprehensive perspective on the upcoming copper-to-fiber transition, including the final switch-off of copper in favour of all fiber networks and access seekers, and to finally provide the necessary **planning certainty for investments and competition**, it is crucial to establish the appropriate framework conditions for all three of the following scenarios:

Scenario 1: Voluntary migration of current copper customers to the new fiber networks of Telekom and its competitors

In many cases, **contractual agreements** already exist **between companies or are being established with the assistance of platform operators.** As this encompasses the majority of the customers, the further standardization and clarification of the technical and economic framework conditions of the migration at this stage is one of the clear priorities of the Gigabit Forum[8]. **Attractive market-driven offers from the fiber deploying companies,** particularly for wholesale access seekers currently relying on Telekom's existing copper platform, are just as important as the **proper price setting**.

Additionally, Telekom's current volume discount system (known as the commitment model) must **be designed** by the BNetzA in such a way that access seekers migrating their customers to third-party fiber networks are not disadvantaged. Moreover, **Telekom must abandon its refusal to engage in wholebuy agreements** and begin purchasing wholesale services from other providers. This would considerably facilitate and accelerate voluntary customer migration.

It is crucial to convince as many customers as possible of the advantages of the fiber network and to encourage voluntary migration. Incentives could be introduced well in advance, e.g., **through demand-side subsidies in the form of vouchers designed to be competition-**

[8] Gigabitforum: „Die Bundesnetzagentur hat mit der Einrichtung des Gigabitforums im März 2021 einen Prozess gestartet, um mit dem Markt und den zuständigen Ministerien über investitions- und wettbewerbs fördernde Rahmenbedingungen für den beschleunigten Übergang von Kupfer auf Glas zu diskutieren." GIGABITFORUM.DE (2024). (Bundesnetzagentur - Gigabitforum - Gigabitforum, last accessed 7.02.2025)

neutral, ensuring that both existing copper connections and potential fiber connections (Homes Passed) turn into real fiber customers (Homes Connected/Activated).

<u>Scenario 2:</u> Migration of the last remaining copper network customers to the Telekom's fiber optic network in accordance with § 34 German Telecommunication Act (Telekommukationsgesetz, in the following TKG) **upon copper switch off**

The existing legal framework regulates the process and conditions for lifting Telekom's regulatory obligations associated with its copper network as an operator holding significant market power, once it decides to initiate the copper-fiber migration. In this context, the key challenge is to clarify the issues which remain unaddressed in the regulatory framework and to streamline the process in order to examine its impact on other areas as early as possible. The aim is, at early stage - as has already been done in other countries - to achieve an **outcome** that is fair to all market players, **encompassing the entire migration process until the final switch-off, and taking into account third-party networks as well as the existing access regulation**.

Deutsche Telekom is subject to regulatory requirements for the provision of appropriate wholesale fiber products. These must be implemented and designed in such a way that there are no competitive disadvantages for consumers (see Section 34 TKG and para. 77 of the Gigabit Recommendation[9]).

To ensure a successful migration for both end-customers and access seekers, numerous prerequisites must already be met and demonstrated to the BNetzA before Telekom can notify the copper switch-off. These include the actual serviceability of customers, fair access rules, rules for cost allocation based on causation, and non-discriminatory migration, including to third-party networks.

Some aspects in detail:

[9] EUROPEAN COMMISSION (2024): C*ommission Recommendation (EU) 2024/539 of 6 February 2024 on the regulatory promotion of gigabit connectivity* (notified under document C(2024) 523). (EUR-Lex - 32024H0539 - EN - EUR-Lex, last accessed 7.02.2025).

- A **high level of fiber availability** (e.g., UK 75%) must already have been achieved when the notification is submitted in accordance with § 34 TKG, so that the densification and the remaining fiber deployment can be completed until the final switch-off.
- A clear **strategy for densification and transition from** Homes Passed (**HP)** (easily connectable but not yet directly connected buildings) **to** Homes Connected **(HC)** (connected buildings, ideally already equipped with in-building installations) must be established. This should cover the migration conditions in terms of timing, technical feasibility, and economic viability.

  The **appropriate spatial reference unit** for a "switch-off area" must be defined. It should not be too large to hinder densification and remaining deployment, but not too small to complicate migration marketing.
- **[Fiber-] Wholesale products** must be available throughout the entire value chain, both at active and passive level, under competitive conditions, allowing access seekers to independently market their services. In this regard, VATM has compiled a catalogue of requirements vis-à-vis the BNetzA, detailing the wholesale products needed to ensure competition with Telekom. Regulatory measures must be put in place for both the commercial and technical framework conditions, including crucial wholesale offers for private and business customers.
- The **costs** of the copper switch-off and the transition from HP to HC must be borne by Telekom (including termination, provisioning, and switching fees; infrastructure fees, customer service expenses, hardware costs); Telekom benefits from the migration, on one hand, through better utilization of its new network infrastructure and, on the other, through considerable cost savings by eliminating the dual operation of the old copper network.

<u>Scenario 3:</u> Migration of the last copper network customers to competitors' fiber optic networks when the Telekom copper network is switched off

Currently, the TKG does not impose an explicit obligation on Telekom to switch off the copper network in areas where a competitor has rolled out FTTH. However, the BNetzA must apply § 34 TKG in a manner that ensures non-discrimination. **This complex issue should not be addressed on a case-by-case basis under § 34 TKG**, a process that can only be initiated by Telekom and would not provide enough time to adequately address the concerns at hand.

Instead, given the numerous regulatory challenges, **a comprehensive regulatory framework, developed in coordination with the industry,** must be established well in advance of the relatively short time horizon foreseen in § 34 TKG.

As foreseen in the European Electronic Communications Code (in the following EECC)[10], the NRA must, in carrying out their regulatory tasks, "*ensure that all measures which are necessary and proportionate for achieving the objectives*" of the EECC have been taken.[11] This includes, in particular, the promotion of "*connectivity and access to, and take-up of, of very high capacity networks (…) by all citizens and businesses*", "*competition in the provision of electronic communications networks (…) and in the provision of electronic communications services*", "*the interests of the citizens*" and "*development of the internal market (…) throughout the Union"*.

Furthermore, the Commission's **White Paper** stipulates that NRAs must prevent strategic behaviour by the operator holding significant market power during the migration. They must specifically ensure competition safeguards at both the wholesale and retail levels and prevent lock-in effects to the detriment of alternative FTTH roll-out companies.[12] In addition, the Commission's **Gigabit Recommendation**[13] requires NRAs to ensure that the copper decommissioning process does not lead to discriminatory behaviour by the operator holding significant market power.[14]

While Telekom can secure its dominant market position in the fiber world due to almost 100% vectoring coverage, the alternative fiber deploying companies must achieve long-term economic viability and network utilization, along with the access seekers, long before the complete switch-off of the copper networks.

A migration concept and regulatory framework that incorporate these factors and include a clear switch-off perspective increase economic viability of the network deployment from the start while

[10] EECC (2018) *Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code* (Recast). (Directive - 2018/1972 - EN - eecc - EUR-Lex, last accessed 7.02.2024).
[11] Ibid., Art. 3, General Objectives.
[12] EUROPEAN COMMISSION (2024): *White Paper: How to master Europe's infrastructure needs?*, P. 31, 32. (https://ec.europa.eu/newsroom/dae/redirection/document/102533, last accessed 7.02.2025).
[13] Gigabit Recommendation
[14] EUROPEAN COMMISSION (2024): C*ommission Recommendation (EU) 2024/539 of 6 February 2024 on the regulatory promotion of gigabit connectivity* (notified under document C(2024) 523). (EUR-Lex - 32024H0539 - EN - EUR-Lex, last accessed 7.02.2025).

reducing the need for state aid. Even though there is no explicit legal requirement for Telekom to switch off its copper network, the BNetzA is already obliged under the current legal and regulatory framework and, therefore, mandated by law (TKG) to ensure a non-discriminatory copper switch-off, including for third-party fiber networks.

The most critical requirements must be established in advance by binding regulations from the BNetzA. This includes ensuring an agreement with access seekers that enable them to continue offering competitive retail products for both private and business customers. It is essential to guarantee that access seekers migrating from Telekom's network to alternative fiber networks do not face any additional costs or other disadvantages compared to migrating to Telekom's own fiber network. Since Telekom holds significant market power, an independent assessment of the Telekom's wholesale services and cost allocation is necessary to prevent market dominance that could push out competitors and potentially hinder the fiber roll-out.

Many details still need to be clarified, e.g. the continuity of DSL customers of Telekom's wholesale partners (e.g. 1&1, Telefónica, Vodafone), using so-called "**piggyback solution"** which would allow the access seekers to continue serving their customers through their existing wholesale contract with Telekom, cancelling the need of additional agreements with third-party providers.
In order to minimize the transaction effort and the associated costs, all the relevant measures must be established well in advance, including the establishment of a **piggyback solution,** or the involvement of neutral **platform operators**, as well as the clarification of fair and appropriate rules regarding the remaining costs in line with the interests of the industry should be clarified and stipulated in advance in order to ensure planning certainty for all market participants.

To align all these aspects in a meaningful way, **a holistic migration concept** is required – one that applies uniformly and non-discriminatorily to the entire copper switch-off, ensures **fair cost allocation,** and, essentially, is developed in close collaboration with the market players **under the leadership of the BMDV and the BNetzA.**

The concept must also acknowledge **Telekom's unique position as an operator holding significant market power,** to prevent the squeezing out of competitors. While Germany faces

distinct technical and economic conditions for the upcoming migration, it is crucial to catch up with the more advanced migration efforts already underway in other EU countries.

The BNetzA and the Gigabit Forum must take immediate action to develop a viable nation-wide migration concept – as they are already required to do as part of the ongoing pilot projects - and not just to focus on the migration and switch-off notified by Telekom. Instead, this should also be clearly set as a priority by the political and regulatory authorities.

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