

A Reality Check on Telecoms Consolidation in Europe:

Can it Boost the Bloc's Digital Competitiveness?





Introduction

Europe is on the precipice of a new wave of consolidation in the telecoms sector. In his landmark competitiveness [report](#), Mario Draghi sounded a clarion call for telecoms consolidation across the European Union, warning that without it, the industry risks becoming a simulacrum of its potential — fragmented and inefficient, lacking the scale necessary to drive innovation and compete globally.

Draghi's sobering conclusions mark the crescendo of a seismic shift in policy attitude towards consolidation that has been building at the heart of the European Commission in recent years, drawing inspiration from earlier reports published by Commissioners Thierry Breton and Enrico Letta. While the bloc's competition policy historically 'favoured a multiplicity of smaller players in each market,' the focus is now on fostering the conditions that move Europe closer to a Digital Single Market for telecoms, including 'favouring cross-border mergers' to create pan-European operators.

The bloc's largest telecoms groups, which have underperformed their global peers in recent years, are rallying behind Draghi's proposals. They contend that the Commission's historical emphasis on

price-based competition has led to a race to the bottom, discouraging network investment. They argue that focusing on competition oversight after issues arise (ex post), rather than setting regulations beforehand (ex ante), will help Europe better compete with North America and Asia in network quality.

This white paper explores whether empirical evidence supports these arguments for consolidation, whether through an increase in in-market mergers or cross-border tie-ups. It examines how market structure (e.g., three vs. four operators) and market concentration (measured by the Herfindahl-Hirschman Index) impact network quality and consumer prices in the EU and a sample of other high-income countries.

¹The Herfindahl-Hirschman Index (HHI) is a common measure of market concentration in telecoms, calculated by summing the squares of each operator's market share, with values ranging from 0 to 10,000. Higher HHI values indicate a more concentrated market, which can signal less competition.

Key Takeaways

- **Three-player mobile markets in the EU and other high-income countries exhibit better network performance and consumer sentiment outcomes².**

This trend is consistent across 4G and 5G and at similar levels of market concentration. Among the top ten European countries ranked by median download speed in Q2-Q3 2024, seven are three-player markets. The other three — Denmark, Sweden, and France — are four-player markets where operators engage in network sharing, whether in spectrum, site infrastructure or multi-operator core networks. This suggests that the level of network sharing in these countries is more extensive than in most other four-player markets. Overall, three-player markets in the EU delivered median download speeds that were 56% higher than those in four-player markets during Q2-Q3.

- **Market concentration is not a robust predictor of 5G coverage outcomes.**

Socio-economic factors such as population distribution and economic development impart a greater impact on metrics relating to overall network reach, with wealthier, more urbanised countries enjoying investment conditions that are more conducive to the attainment of very high levels of service coverage and network Availability. In four-player markets, however, disparities in overall 4G Availability between the best- and worst-performing operators tend to be more pronounced than their three-player counterparts.

- **Intense price-based competition leads to markedly lower mobile data pricing outcomes in four-player markets over time.**

The median consumer cost per gigabyte in highly concentrated markets — often seen in countries with the three-player structure — is nearly five times higher than in low-concentration markets. In four-player, lower-concentration markets, depressed Average Revenue Per User (ARPU) and higher median capital intensity may result more from limited absolute revenues constraining reinvestment than from increased competition spurring greater investment. Conversely, in some highly concentrated non-EU high-income countries, greater market concentration is associated with lower capital intensity per operator, as larger players may face reduced incentives to invest.

- **There is no one-size-fits-all concentration profile that uniformly optimises network quality and consumer pricing outcomes in every country.**

Exceptional outcomes in countries such as Denmark — a four-player market with low concentration but very high median download speed — and the Netherlands — a three-player market with high concentration and also high median download speed — suggest a targeted policy toolkit, rather than the blunt instrument of consolidation, is needed to achieve balanced outcomes across a bloc with highly diverse market contexts.



²References to Europe and the EU exclude data for Cyprus. Italy is classified as a four-player market in this analysis, as the fifth operator, Fastweb, holds a smaller market share and was still building out its infrastructure during the period in which the data was collected.

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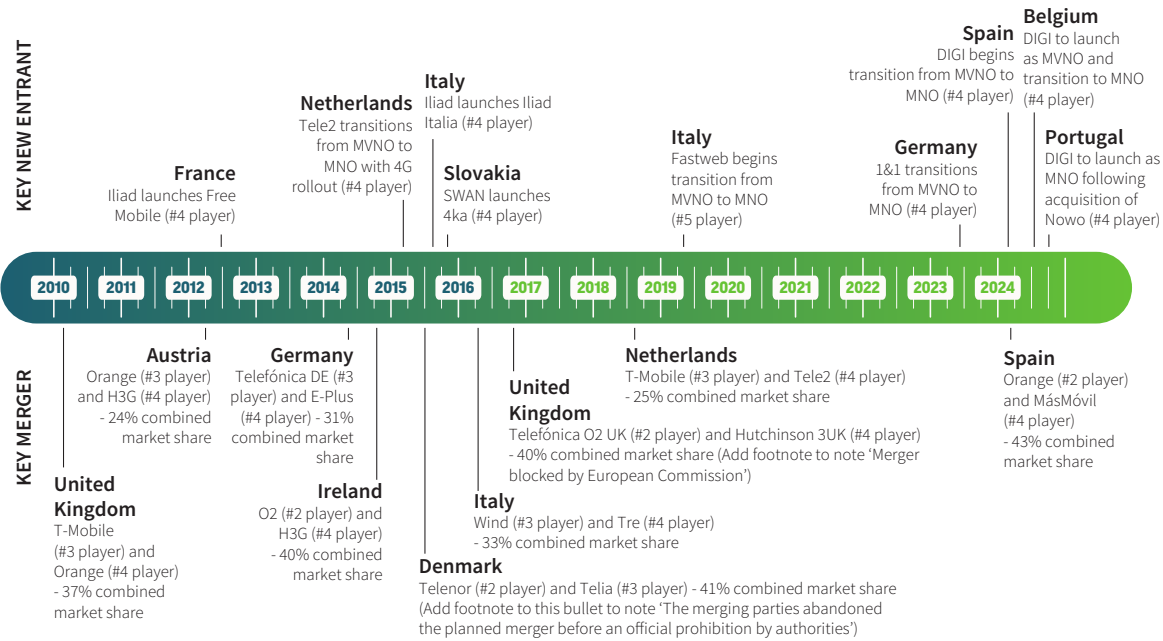
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A decade of regulatory shifts in European telecoms: Towards a softer touch, again?

The last decade in European telecoms has been characterised by a flurry of consolidation attempts. Market maturity has led to stagnant growth, while an overriding regulatory emphasis on price-based competition has eroded industry profitability. Coupled with high spectrum fees and the industry’s failure to replace traditional revenue streams with new growth areas, the challenging operating conditions have stimulated major structural shifts across the bloc’s telecoms markets.

These structural shifts have manifested themselves in the form of a large number of 4-to-3 MNO merger moves. There has been more than seven tie-ups between in-market operators on the continent since 2010 and several significant new operator entries in the same period.

European Telecoms Consolidation Timeline: Key Mergers & New Entrants



The period between 2010 and 2014, which coincided with the initial capital-intensive investment phase of the 4G cycle, saw the Commission adopt a relatively light-touch approach to merger approval with the use of novel remedy instruments. Waving through mergers in Austria, Ireland and Germany, the Commission was

satisfied that a suite of remedies founded on spectrum divestment and behavioural commitments to provide wholesale network access to new and existing MVNOS was sufficient to mitigate concerns about the long-term adverse impacts on market competition.

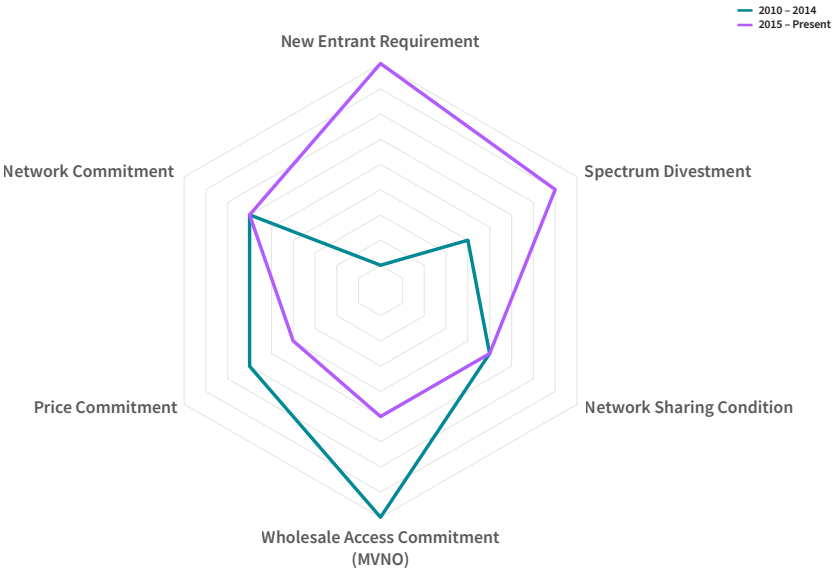


Evidence of a pro-consolidation approach in Brussels to telecoms affairs, exemplified in the aforementioned cases, started to dissipate, however, from 2015 onwards. For the first time, the Commission imposed the introduction of a new entrant — Iliad — as a precondition to approving a merger between Three

and Wind in Italy in 2016. It then blocked the proposed merger between the same two parent-owned operators in the UK — CK Hutchinson’s Three and Telefónica’s O2 — that it had approved just two years earlier in Ireland.

Analysis of Telecoms Competition Policy Evolution in the EU

2010 – 2014, 2015 – Present



This shift in the balance of competition policy from favouring softer behavioural remedies to more muscular structural ones — which the Commission began to flirt with due to the higher degree of control and certainty it afforded Brussels to directly influence market outcomes — signalled to operators that further consolidation attempts in other European countries would encounter challenges during future merger reviews. For example, a proposed merger between Telenor and Telia in Denmark in 2015 was withdrawn

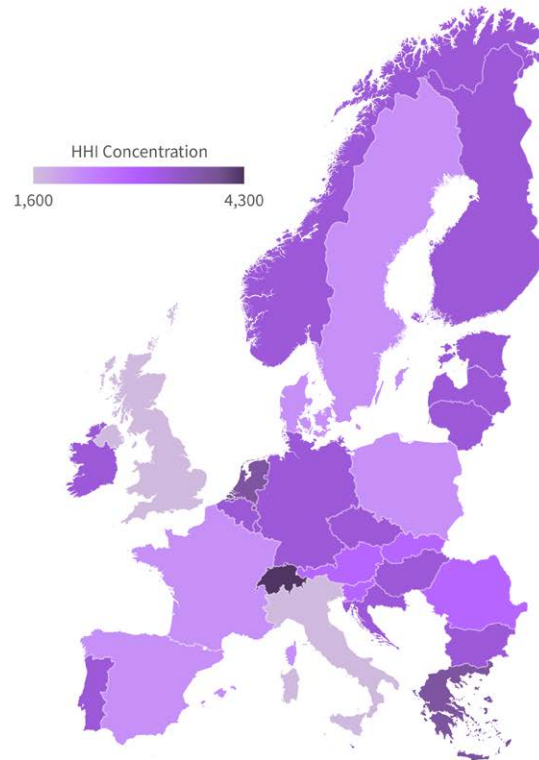
in anticipation that it would not be approved without significant remedies.

While the only significant European merger approved between 2015 and 2023 took place in the Netherlands in 2019 when T-Mobile acquired Tele2, the pro-consolidation sentiments espoused in the recent Draghi report are the clearest indication yet that Brussels is once again seeking to recalibrate its policy tools and shift to a softer, ex post oversight of telecoms competition.

Market concentration and structure drive competitive dynamics

European Mobile Market Concentration Comparison

GSMA Intelligence | Q2 2024



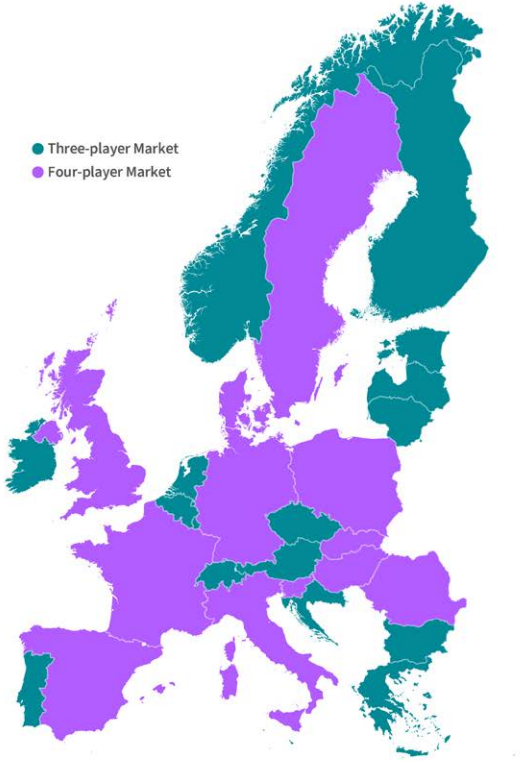
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The fragmented European telecoms market has produced significant diversity in concentration outcomes across the bloc. Despite the variations, there has been one common theme to the series of mergers approved by the European Commission in the last decade. These mergers usually involve the smallest ‘maverick’ competitor and often require considerable time to assess the effectiveness of the remedies imposed by regulators.

Studies have long sought to examine the impact of the type of market structure (three or four-player), and the level of market concentration (indicated by measures such as the HHI or concentration ratio (e.g., CR2), on market outcomes. Regulators in Europe and beyond are in perennial pursuit of the optimal market structure and concentration level that balances price competition with service-based differentiation in mobile markets.

European Mobile Market Structure Comparison

GSMA Intelligence | Q2 2024



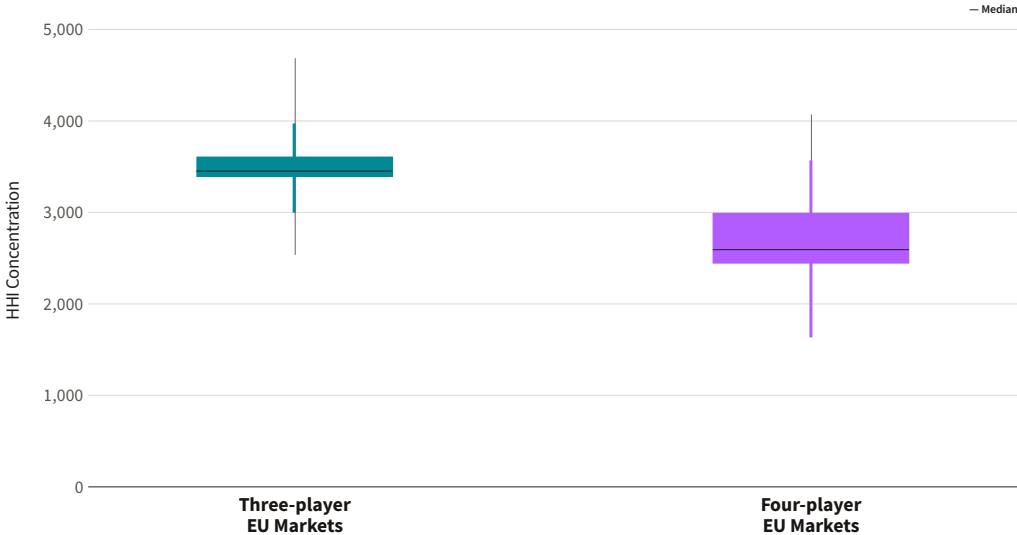
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Analysis of country-level data for the EU and a sample of other high-income countries demonstrates there is a statistically significant relationship between market structure and concentration level. As expected, four-player markets naturally exhibit lower levels of concentration, with a median HHI value of 2,600 observed in the EU27 in Q2 2024, compared to 3,450 in three-player markets. Notably, eight of the top ten most concentrated markets in the EU27 conform to the three-player structure.

However, when comparing these concentration values against the HHI for equal or symmetric market shares — 2,500 for four-player markets and 3,333 for three-player markets — the deviation is modest, at +4% for four-player markets and +3.5% for three-player markets. This suggests that the number of players alone may not strongly influence concentration levels in the EU.

Three-player Markets in the EU Demonstrate Greater Concentration Levels

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Four-player markets in countries like Denmark and France feature lower concentration levels due to close market share symmetry among operators, with four similarly sized players present in each. In contrast, markets like Hungary and Germany exhibit greater asymmetry between the smallest and largest players, resulting in higher concentration levels. Structural factors, such as the timing of new entrants, can contribute to these differences. For instance, Iliad’s more mature position in Italy, compared to 1&1 in Germany, helps reduce market asymmetries in the Italian context.

Countries with a three-player market structure do not have the same level of variation in concentration levels, likely a natural result of having fewer players. The absence of aggressive challenger brands or disruptive forces with less network maturity, combined with common competition policies applied after previous 4-to-3 mergers, may contribute to the more uniform concentration levels observed in these markets.

The overall prevailing trend of increasing market share symmetry has driven the progressive divergence of European countries from the rest of the world in

terms of the profile of market concentration. While concentration levels in Europe have long been well below the rest of the world, with average HHI values of 3,250 compared to 4,800 observed globally by GSMA Intelligence in 2021, the gap between Europe and other high-income countries has widened since 2015 to more than 500 points.

This widening reflects the impact of increasing market share symmetry on concentration levels in Europe and highlights the limitations of using concentration indicators like the HHI alone to gauge competition. HHI values have declined across Europe over the past decade, likely due to market maturity and increased market share symmetry, given the limited number of consolidation attempts involving the largest in-market players.

Combining data on market structure and concentration levels with key metrics on network quality and pricing therefore has the potential to provide a more robust framework for assessing the impact of market consolidation on consumers. This holistic approach captures not only the competitive dynamics but also the practical outcomes in terms of service quality, affordability and consumer choice.

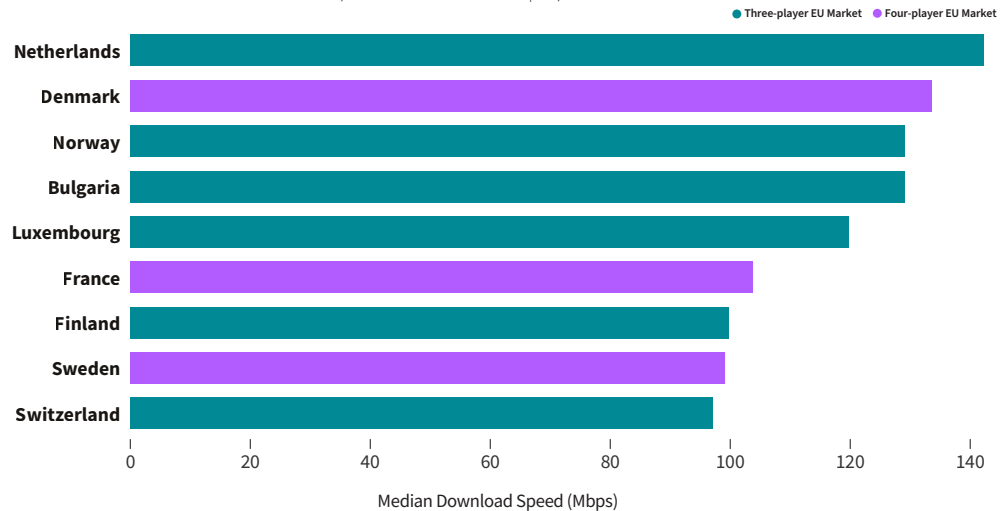
Three-player markets demonstrate superior network performance outcomes

The diverse competitive conditions among markets in the EU and other high-income countries influences the incentives for operators to differentiate based on network quality. With fewer players, and in more mature

markets with similarly-sized players, competition often shifts from aggressive pricing to enhancing network quality and customer experience, as operators prioritise customer retention over price wars.

Seven of the Top European Countries Ranked by Median Download Speed Are Three-player Markets

Speedtest Global Index™ | September 2024



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Three-player mobile markets in the EU exhibited median download speeds that were 56% higher than their four-player counterparts in Q2-Q3 2024, based on analysis of Speedtest Intelligence® data. There is a moderate positive correlation between market concentration and median download speed across all of the countries studied inside and outside of the EU in aggregate terms, but there are notable nuances. The relationship is much stronger among the sample of high-income countries outside the EU, while four-player markets inside the EU are exceptional in that their median download speed performance tends to decline as market concentration increases.

Considering all of the studied markets across the EU and other high-income countries, four-player markets accounted for four of the five bottom-performing countries in terms of median download speed in Q2-Q3. The remaining three-player market, Ireland, which is itself a former four-player market, is somewhat unique due to its lack of infrastructure or network sharing agreements among the three operators there post-merger.

High-income countries in the Middle East, including the UAE, Qatar and Saudi Arabia, demonstrate both the highest levels of market concentration and the highest median download speed performance among the markets studied. Caution should be exercised when interpreting these examples, however, as unique factors such as state involvement and the presence of the two-player market structure may distort competitive dynamics there.

The spread of median download speed outcomes across three-player markets in the EU was 41% greater than that observed in four-player markets in Q2-Q3. Similarly, the in-market performance disparity between the top- and bottom-performing operators in the three-player structure was also larger. These observations are in keeping with the primacy of service-based differentiation in three-player markets, which can by extension contribute to disproportionately asymmetric network quality outcomes among consumers across different operators.

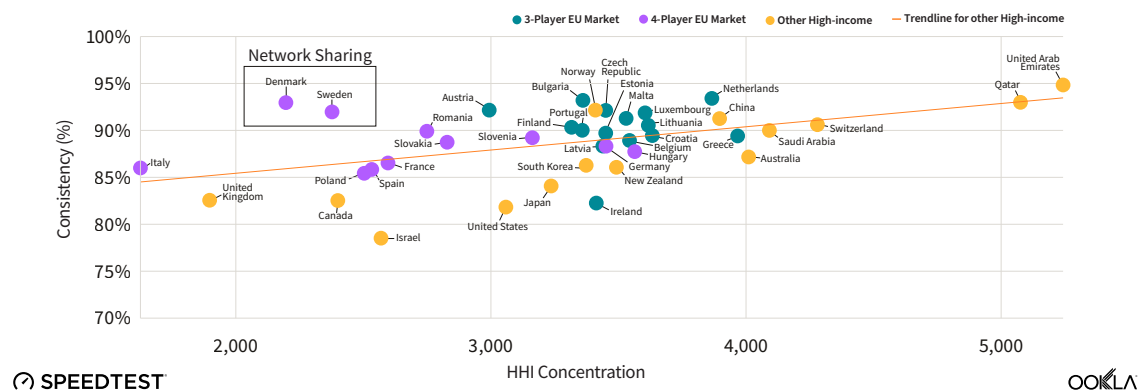
The positive relationship between market structure and network performance outcomes is reflected in Consistency metrics. During Q2-Q3, three-player markets in the EU achieved nearly 4% higher overall Consistency compared to four-player markets, with a larger proportion of samples meeting the minimum download and upload speed thresholds (25 Mbps download, 3 Mbps upload). This difference, while modest, points to a trend where higher concentration levels are linked to more reliable performance,

particularly in the lower percentiles where samples are closer to the minimum speed requirements for a 'consistent' network experience.

Outside the EU, there is even stronger positive correlation between concentration levels and overall Consistency outcomes, with Switzerland and China leading the pack beyond the Middle East and featuring high levels of concentration.

Three-player Markets Demonstrate Better Consistency Outcomes

Speedtest Intelligence®, GSMA Intelligence | Q2 2024



Historical research has pointed to the role played by several factors in pulling down performance at lower levels of concentration, including the propensity for spectrum to be more thinly spread across a larger number of players in four-player markets — the GSMA found that operators in three-player markets had, for instance, an average of more than 103 MHz of spectrum that could be used for 4G compared with 91 MHz in four-player markets at the end of the last decade³. This greater allocation of spectrum per operator, especially in the form of wider contiguous blocks, lends itself to better download and upload speed performance in the three-player structure.

While the general trend is that more concentrated market structures tend to present superior performance outcomes, notable exceptions demonstrate that globally competitive network

outcomes can still be achieved in less concentrated markets. Denmark has been in the top five countries in the world for median download speed in the Speedtest Global Index for most of this year, despite also having the second lowest level of market concentration of any EU country in Q2.

Like other globally competitive European performers with relatively low levels of market concentration, which includes France, Italy and Sweden, some level of network sharing — beyond what is typical in other four-player markets — exists in Denmark, particularly in terms of spectrum, sites or multi-operator core networks. For other countries, these examples suggest that improving network performance may be achievable through policies that stimulate enhanced network sharing measures in Europe, rather than relying solely on market consolidation.

³Mobile Market Structure and Performance in Europe (GSMA Intelligence)

https://www.gsma.com/solutions-and-impact/connectivity-for-good/public-policy/wp-content/uploads/2020/01/GSMA-Mobile-Market-Structure-and-Performance-in-Europe_February20.pdf

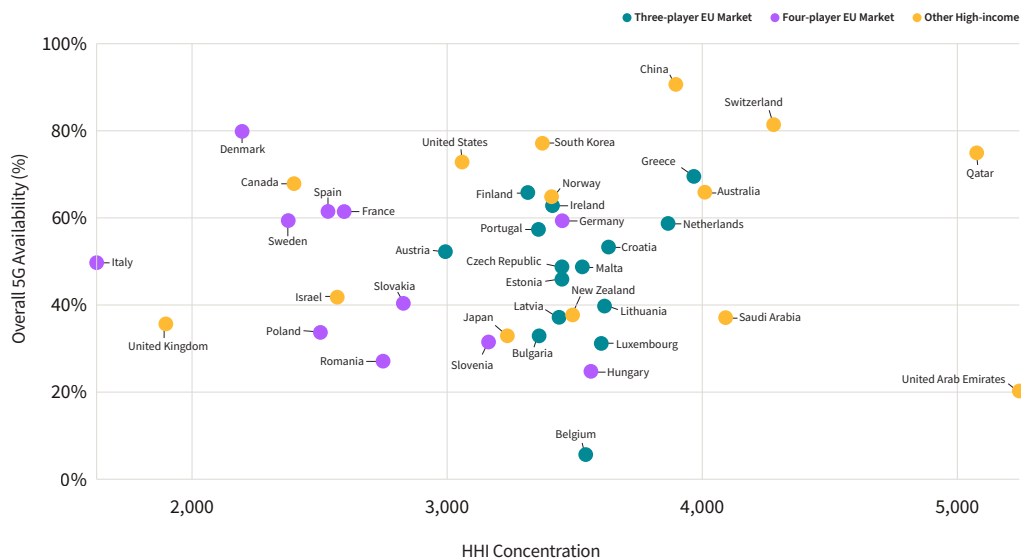
Network coverage is shaped by a mix of socio-economic conditions and geographic factors, not market structure or concentration level

The statistically significant relationship between market concentration and download speed and Consistency does not extend to measures related to service coverage and network Availability. The absence of any correlation between these variables holds true across all levels of market concentration, and saw three and four-player markets in the EU exhibiting similar levels of overall 4G Availability of 93.59% and 93.65% respectively in Q2-Q3, according to Speedtest Intelligence data.

Some highly concentrated Middle Eastern markets, such as Qatar and Saudi Arabia, which led in median download speed during the same period trail other markets with much lower levels of concentration and a four-player structure in the EU in terms of 4G Availability. This discrepancy challenges the general positive correlation between download speed and network coverage. Outside the Middle East, among EU countries and the high-income sample, there is an association between higher median download speeds and greater 4G Availability, and vice versa.

Market Concentration Is Not a Robust Predictor of Network Coverage Outcomes

Speedtest Intelligence®, GSMA Intelligence | Q2 2024



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For measures relating to network coverage, there is strong evidence that other factors are more important than market structure in driving better outcomes. Studies have found, perhaps unsurprisingly, that the marginal cost of deploying the radio equipment

needed to attain greater network reach increases exponentially at high levels of service coverage, especially in countries with low population density and challenging topography, irrespective of the underlying market structure⁴.

⁴Future Mobile Connectivity in Ireland (Oxera on behalf of ComReg)

<https://www.oxera.com/wp-content/uploads/2018/12/ComReg-Future-mobile-connectivity-in-Ireland.pdf>

Countries like the Netherlands, Denmark and Luxembourg are among the top performing markets in the EU in terms of overall 4G Availability, for instance, and boast high levels of population density and the kind of topography that is conducive to significant landmass coverage. By contrast, those with more rural populations, like Ireland, Slovakia and Croatia, are characterised by relatively lower levels of 4G Availability within the EU, principally due to the low return on investment of network expansion in sparsely populated rural areas.

Despite their vast landmasses, high-income countries outside the EU, such as the U.S., Canada and Australia, boast some of the highest levels of 4G Availability globally. A key factor that these countries share is a high urbanisation rate (the majority of the population living in urban areas), which enables each mobile site to serve a proportionally larger number of users. In addition, their highly advanced economies, as reflected by high Gross National Income (GNI) per capita, lend operators greater financial resources to invest in infrastructure.

Beyond socio-economic and geographical conditions, there are other factors that complicate comparisons between markets in the context of network coverage, all of which are squarely outside the influence of market concentration.

The role of network design and spectrum usage, particularly in the lower bands used for broad coverage, is likely significant in producing differential outcomes. T-Mobile in the U.S. has established itself as a global leader in 5G Availability through its aggressive deployment of the 600 MHz band — highly valuable spectrum that is not available to operators in many other markets. Meanwhile, operators elsewhere in the EU have made use of Dynamic Spectrum Sharing (DSS) to varying extents, enhancing 5G coverage while reducing deployment costs.

Some markets feature other complications that can significantly impact network design and coverage outcomes. Operators in Switzerland, for example, are bound by some of the strictest radio frequency exposure limits in the developed world. This requires a denser network of mobile sites to achieve the same level of coverage as in other countries, adding to the deployment cost burden faced by operators there.

5G Availability Is Lower In European Countries with Larger Rural Populations, Regardless of Market Structure

Speedtest Intelligence®, World Bank Population Data | Q4 2023



Balance is key to optimising investment in telecoms

The capital-intensive nature of telecoms means the ability of operators to invest in spectrum, network equipment and solution development is highly dependent on market returns and underlying profitability. The Draghi report used this point as the basis for the Commission's proposed policies aimed at fostering scale and driving pan-European consolidation in the telecoms sector. In particular, the report highlighted that 'both revenue per subscriber and capital expenditure per capita in the EU are less than half the U.S.' and Japan's levels'.

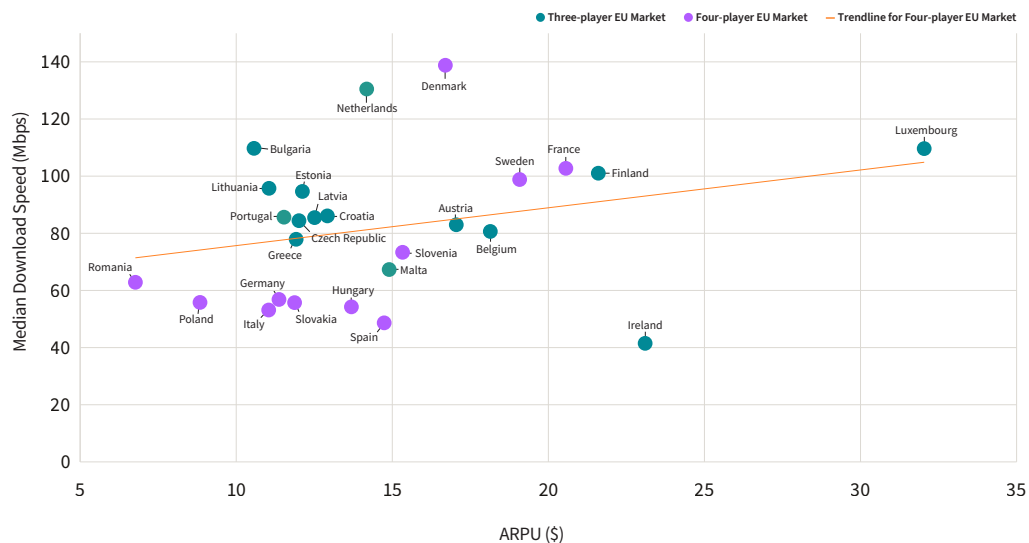
Mobile markets in the EU have long had lower ARPU, but the divergence from global ARPU trends widened in the 4G cycle, driven by increased market share

symmetry and lower concentration. In general, markets with higher concentration tend to see higher ARPU due to greater market power and less price-based competition. This trend was clear in Q2, as four of the top five markets by ARPU in the EU and other high-income countries featured a more concentrated three-player structure.

While higher ARPU may be a feature of more concentrated markets, it does not automatically translate into superior network performance or customer satisfaction outcomes. In fact, the data shows that the relationship between ARPU and outcomes like median download speed and in-market net promoter score (NPS) is only moderate at best.

Download Speed Outcomes Improve as ARPU Increases in Four-player Markets Across the EU

Speedtest Intelligence®, GSMA Intelligence | Q2 2024



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“EU companies lack the scale required to provide citizens with ubiquitous access to fiber and 5G broadband and to equip businesses with advanced platforms for innovation. The EU has a total of 34 mobile network operators (MNOs) and 351 non-investment-based virtual operators (MVNOs), compared with three MNOs in the US (plus 70 MVNOs) and four MNOs in China (plus 16 MVNOs)”.

— ***The Future of European Competitiveness, European Commission (September 2024)***

There is a moderate positive correlation between ARPU and median download speed among four-player markets in the EU during Q2-Q3 2024, but this relationship does not extend to three-player markets. Similarly, there is no evidence that higher ARPU alone creates the conditions for better consumer sentiment outcomes, as measured by in-market NPS. This implies that ARPU may not be a primary driver of these outcomes.

In addition to highlighting the depressed ARPU profile in the EU relative to other parts of the world, the Draghi report noted that ‘investment as a percentage of revenues is at the same level as — or even higher than — other blocs’. While presented as a problematic outcome in the context of the report, this suggests that the propensity of European operators to invest is proportionally higher than their counterparts elsewhere. This aligns with extensive historical research, which finds that the relationship between competition and investment follows an ‘inverted U’ shaped curve in mobile markets⁵.

This theory posits that capital investments increase with market concentration until reaching an optimal point where investment is maximised. Outside this region, where concentration levels are very low or very high, investment levels tend to be lower. For example, the markets with the highest levels of capital intensity in Q2 — Norway, Bulgaria and Slovenia — feature moderate concentration with a mean HHI value of 3,310. Despite being based on a mix of three and four-player structures, these markets appear to be in the optimal concentration range for investment level.

While capital intensity can serve as an indicator of the health of the investment environment across markets, it is not a definitive measure. Differences in capital intensity between markets such as Bulgaria and Slovenia and others may be influenced more by lower absolute revenues, which limit the total amount available for reinvestment, than by heightened competition driving operators to increase their investments.

⁵*Is there a level of competition intensity that maximises investment in the mobile telecommunications industry?*

(Georges Vivien Houngbonon, Francois Jeanjean)

<https://www.econstor.eu/bitstream/10419/101384/1/795228635.pdf>

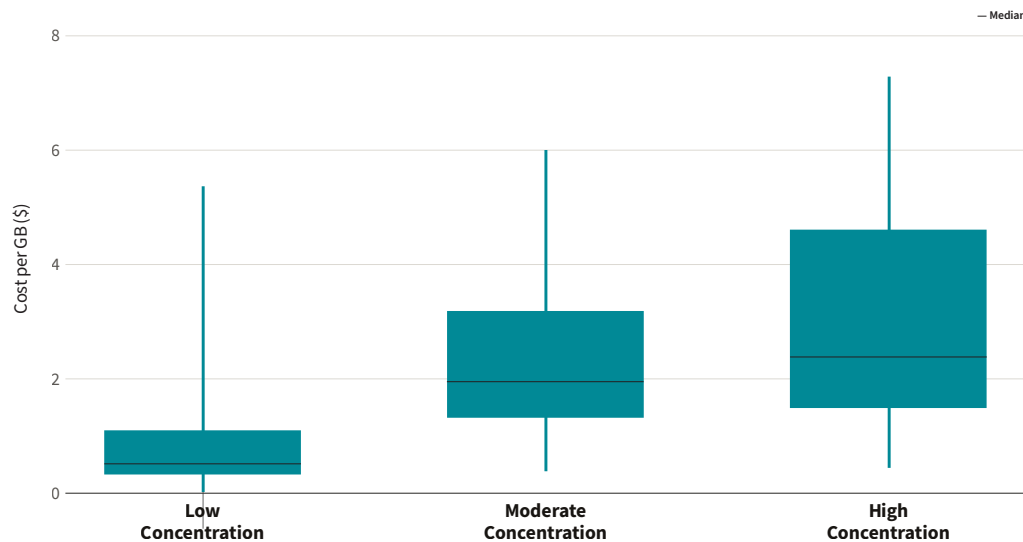
Consumers in four-player markets enjoy markedly lower mobile data prices

While the data supports the case that more concentrated, three-player markets typically deliver superior network performance, analysis of pricing dynamics across the different market structures is necessary to understand the broader impacts of concentration levels on the consumer. Economic

theory posits that increased market concentration and reduced competition lend themselves to greater market power and less price-based competition, which can erode the overall consumer surplus due to higher prices, disproportionately affecting lower income deciles⁶.

Greater Concentration Dampens Price-based Competition in Advanced Mobile Markets

Cable.co.uk | 2023



Low Concentration (<3000), Moderate Concentration (3000<HHI<4000), High Concentration (>4000)

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The effects of this theory in practice are evident across both the EU and the sample of other high-income countries. Comparing consumer mobile pricing outcomes in 2023 with measures relating to market concentration reveals that the median cost per GB of mobile data is substantially higher in markets with greater concentration⁷. Countries with low levels of market concentration (reflecting HHI values of less than 3,000), for example, feature a median monthly cost per GB of \$0.53 during the study period, compared to \$2.40 in highly concentrated markets (reflecting HHI values larger than 4,000).

Four-player markets are disproportionately represented among the countries with the lowest consumer cost per GB, including Italy (\$0.09), France (\$0.20), Poland (\$0.37) and Spain (\$0.48). Within the EU, three-player markets feature median mobile data costs (\$1.66 per GB) that are more than two-thirds higher than their four-player counterparts (\$0.69 per GB) in the same period. This suggests that, in terms of value alone, consumers in four-player markets tend to enjoy much better outcomes.

⁶Evaluating Market Consolidation in Mobile Communications (Centre on Regulation in Europe).

https://cerre.eu/wp-content/uploads/2020/07/150915_CERRE_Mobile_Consolidation_Report_Final.pdf

⁷Analysis of pricing data published by Cable.co.uk. Based on the period June to September 2023.

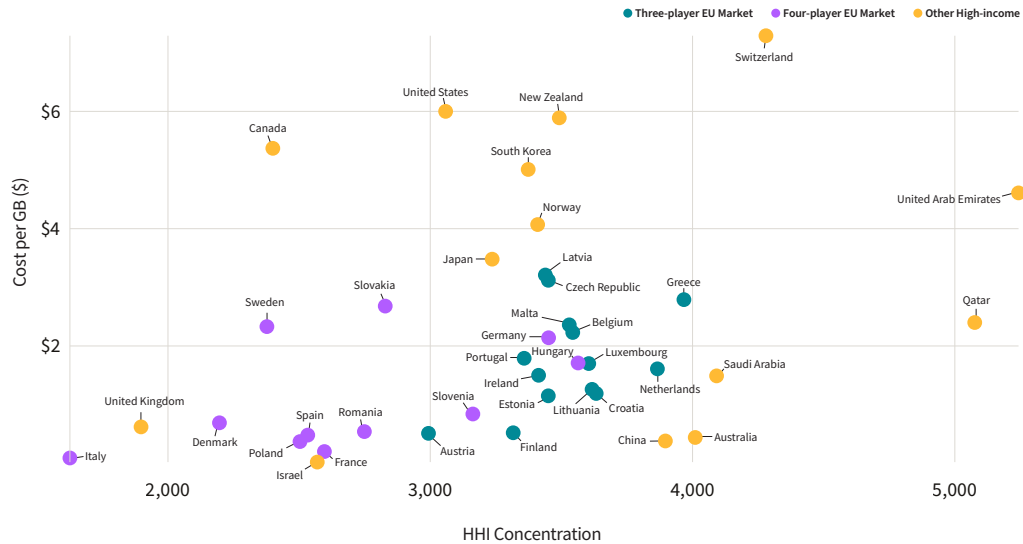
<https://www.cable.co.uk/mobiles/worldwide-data-pricing/>

The markets with relatively higher prices, such as those in the Middle East and North America, typically consist of either a small number of operators focused on service-based differentiation (as is the case in the UAE

and Qatar) or close market share symmetry where there are no major ‘challenger’ brands (as is the case in the U.S. post-merger and Canada, which pulls down the HHI concentration score).

Four-player Markets Demonstrate Better Price Outcomes for Consumers, with EU Countries Leading on Value in the Developed World

GSMA Intelligence Q2 2024 and Cable.co.uk 2023



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Notwithstanding the impact of varying external factors such as purchasing power and Gross Domestic Product (GDP) on mobile data costs across countries, there is substantial historical evidence that suggests consolidation in the form of four-to-three mergers

leads to higher consumer prices. Some of the most recent merger examples in the EU, including those in Austria, Germany, and Ireland, were found to stimulate some level of price increases, even in the short to medium term⁸.

⁸Post-Merger Developments: Price Effects of Mobile Mergers in Austria, Ireland and Germany

https://www.berec.europa.eu/sites/default/files/files/document_register_store/2018/6/BoR_%2818%29_119_BEREC_Report_Mergers_Acquisitions.pdf

Conclusion: Consolidation alone is unlikely to boost Europe's digital competitiveness

Draghi's proposals to define telecoms markets at the European level, aiming to foster the rise of cross-border operators and encourage large-scale consolidation, are driven by the belief that fewer, larger players will enhance Europe's competitiveness in the global telecoms space. Coupled with his support for reducing ex ante regulation in favour of ex post competition oversight, he seeks to shift market definition from being based on empirical evidence to a simple policy decision.

In practical terms, if implemented, this would allow operators that do not compete geographically to merge with ease. However, the reality is that many telecoms groups in Europe already compete at the national or regional level, and the evidence supporting the case that further 'pan-European' scale would give rise to better outcomes in the form of more investments is limited.

This is particularly relevant given that many European markets like Denmark, France and Sweden already provide some of the world's best network performance

and consumer prices. In fact, without the highly ambitious harmonisation measures proposed by Draghi — especially in areas like spectrum management — the argument for achieving scale benefits through consolidation is even less compelling.

The notable exceptions to the trend of more concentrated market structures leading to better network performance, along with the clear negative impact on consumer prices, suggest that Europe is unlikely to benefit from a one-size-fits-all approach favouring consolidation in the long term.

Instead, a more nuanced strategy is needed, founded on a targeted policy toolkit that creates new incentives for investment, such as adjusting spectrum award design (to move away from costly auctions and reward commitments to network rollout), incentivising some level of network sharing (in targeted locations where commercial conditions prohibit standalone deployments) and reducing regulatory red tape (to reduce deployment costs and facilitate service innovation).

Summary of Key Outcomes by Market Structure



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