Position paper on Regulatory WACC

May 2026

Executive summary

- **Regulatory WACC levels in Europe are increasingly disconnected from economic reality**, and in this paper Connect Europe outlines why this growing misalignment is now a structural issue with significant consequences for the telecom sector. Evidence from across EU countries consistently shows that the cost of capital set by regulators is materially below the levels observed in financial markets and used by investors and companies themselves. This gap is not occasional or marginal, but persistent and widespread, and it has widened since the implementation of the 2019 European Commission methodology. As a result, regulatory signals no longer reflect the true risks and financing conditions faced by telecom operators, undermining the credibility and effectiveness of the current framework.

- **The narrative that European telecom operators are sufficiently profitable is inaccurate** because it relies on simplified averages that conceal important structural differences between markets. While some analyses suggest that operators generate returns above their cost of capital, this conclusion depends heavily on aggregated indicators that mask underperformance in less concentrated markets. When examined at a more granular level, a significant share of operators fails to cover their actual cost of capital, especially in fragmented markets with intense competition. In addition, certain methodological choices—such as excluding goodwill from capital employed—artificially inflate profitability indicators, further distorting the picture.

- **The gap between regulatory WACC and market-based valuations is both substantial and well documented across multiple countries, illustrating the systemic nature of the problem.** Comparisons with financial analysts' estimates and internal company calculations show differences of several percentage points, with regulatory values consistently lagging behind market expectations. These discrepancies are observed in large markets such as France, Spain, and Germany, and persist over time, indicating that they are not the result of temporary market fluctuations but of structural deficiencies in the methodology. The cumulative effect is a sustained underestimation of the regulatory WACC, which directly impacts investment decisions.

- **The root cause of this misalignment lies in the design and implementation of the current regulatory methodology, which is overly rigid and backward-looking.** The use of long historical averages, particularly the standard five-year reference period, was appropriate in a stable economic environment but has become increasingly irrelevant in a context marked by rapid changes in interest rates, inflation, and geopolitical uncertainty. By relying on outdated data, the methodology fails to capture recent developments and future expectations, which are central to investment

decisions. Moreover, the uniform application of this approach across different national contexts limits the ability of regulators to account for country-specific risks and market conditions.

- **The regulatory process itself further exacerbates the problem by producing values that are already outdated at the time of their application.** Due to the length and complexity of the decision-making process, regulatory WACC calculations are based on data that can be up to a year old, ignoring recent market developments that are highly relevant for investors. At the same time, the lack of effective feedback mechanisms prevents the system from correcting itself when discrepancies with market reality emerge

- **The consequences of systematically underestimating the regulatory WACC are immediate and significant for telecom operators, as they directly affect investment incentives and financial performance**. When the allowed return on capital is set below market expectations, investment projects become less attractive, particularly those involving regulated assets with long payback periods. This reduces operators' capacity to finance infrastructure development, either through internal cash flows or external funding. In addition, lower expected returns negatively impact company valuations, further constraining access to capital and weakening the sector's overall financial position.

- **The broader impact of this situation is a structural decline in the profitability of the European telecom sector, which undermines its ability to support the continent's digital ambitions.** Over the past decade, returns on invested capital have fallen significantly, and in many cases no longer cover the true cost of capital. This trend reflects a combination of competitive pressures, regulatory constraints, and insufficient remuneration of investment risk. As a result, the sector faces increasing difficulty in sustaining the high levels of investment required for next-generation networks. The misalignment between regulatory WACC and market reality is particularly problematic in light of the European Union's strategic objectives, which rely heavily on large-scale telecom investments. However, these ambitions are difficult to reconcile with a regulatory framework that systematically undervalues the cost of capital and discourages investment. This creates a fundamental contradiction between policy goals and regulatory practice, weakening the effectiveness of the EU's digital strategy.

- **Addressing this issue requires a fundamental revision of the current approach, rather than incremental adjustments to the existing methodology.** The 2019 framework is no longer fit for purpose and should be replaced with a system that better reflects market conditions and investor expectations. In particular, a shift away from purely model-based calculations towards approaches that directly incorporate market evidence is required, thereby reducing the risk of systematic bias. Such market-based, forward-looking approach to WACC calculation offers a practical and effective solution to the identified shortcomings. By relying on financial analysts' estimates or benchmarking against observed market data, regulators can ensure that WACC values remain aligned with actual financing conditions. Such an approach would improve the accuracy of

regulatory signals, enhance transparency, and provide greater flexibility in adapting to changing economic environments. It would also better reflect the risks faced by investors, thereby supporting more efficient allocation of capital.

- **Aligning regulatory WACC with market expectations is essential to restore investment incentives and support the long-term development of telecom infrastructure in Europe.** A framework that accurately reflects the cost of capital would enable operators to undertake the necessary investments in fibre, 5G, and future technologies, while maintaining financial sustainability. Conversely, maintaining the current methodology would continue to distort investment decisions and risk widening the gap between Europe and other regions in digital development. Reforming the WACC methodology is therefore both an economic necessity and a strategic priority for the European Union. By adopting a more flexible, market-oriented approach, regulators can ensure that the regulatory framework supports, rather than hinders, the achievement of the EU's digital and economic objectives. The urgency of this reform reflects not only the scale of the current misalignment but also the critical role of telecom investment in driving innovation, productivity, and competitiveness in the European economy.

I: The level of regulatory WACC is alarmingly disconnected from economic reality

Introduction: A recent draft report from BEREC exposes the flawed perception of WACC and profitability levels of European telecom operators

The ongoing debate on regulatory WACC levels, telecom profitability, and investment capacity gained fresh momentum from BEREC's draft "Telecom Reality Check" report (BoR(26)36, March 2026, consultation deadline 8 May). While providing market overview, it advances a narrative that European operators remain financially sound, generating ROCE above cost of capital (10.96% average in 2024 vs regulatory WACC 6.08% pretax), thus facing no structural under-remuneration.

This interpretation rests on analytical choices that mask fundamental discrepancies. Simple averages of ROCE and WACC conceal that operators in fragmented 4-player markets systematically fail to cover costs, while 3-player markets enable recovery. Against analysts' individual WACC (7.3% post-tax average), ROCE falls slightly below, with 6/14 peer operators underperforming. Excluding goodwill artificially inflates ROCE by ~2pp, against global accounting practice.

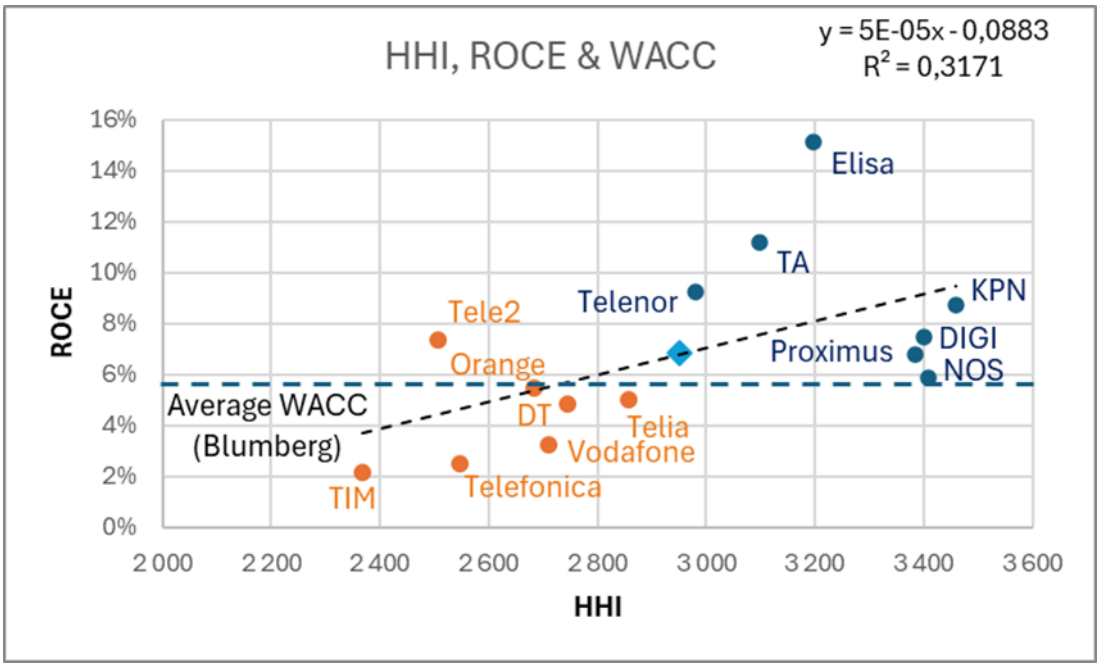


Figure 1: HHI vs ROCE, Peer Group 2021-2023

Evidence from financial markets and operator accounts confirms regulatory WACC materially understates investor-perceived costs of capital. This disconnection — **methodological rigidity** (5-year historical averages ignoring post-2020 rate shocks) **and circular validation** (ROCE > biased WACC) directly undermines investment incentives at a time of at least €200bn gigabit/5G needs.

The European Commission in the DNA Impact Assessment (SWD(2026) 13 final) finds that EU telecom operators' ROCE are persistently below their cost of capital,

meaning the sector is structurally destroying value despite high investment levels. This reflects low revenues, strong price competition, market fragmentation, and regulatory constraints, which together limit profitability and the ability to scale returns. As a result, operators face weakened incentives and capacity to invest, contributing directly to the investment gap in advanced networks.

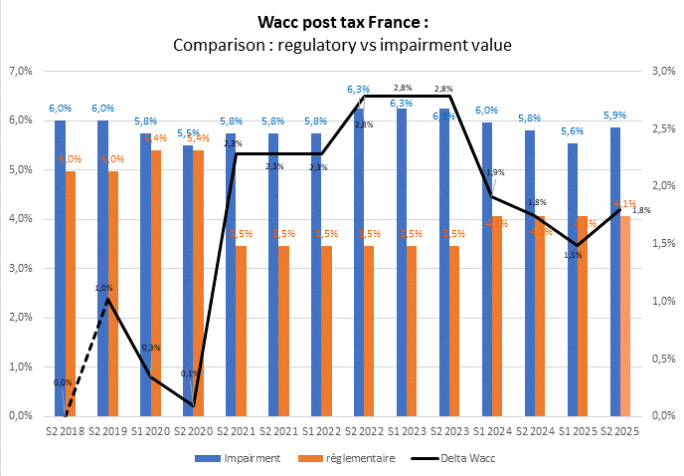
This paper documents the scale of the shortcomings of today's EC and BEREC approach, identifies causes, and proposes pro-investment solutions.

1-1 *The gap between regulatory WACC calculations and market valuations is widespread.*

We observe a very significant gap between, on the one hand, the values set by the NRAs under regulatory WACC, and on the other hand, the WACC assessments produced and used in the world of finance, whether it be the figures that are consensus among financial analysts, or the rates calculated by the financial services of operators, which calculate WACC for impairment procedures.

Case of France: The French regulatory WACC, as it results from the 2019 Notice, is indeed in blatant disregard of economic reality, whether compared to the WACC of financial analysts or to the WACC impairment.

- Comparison with the WACC impairment:

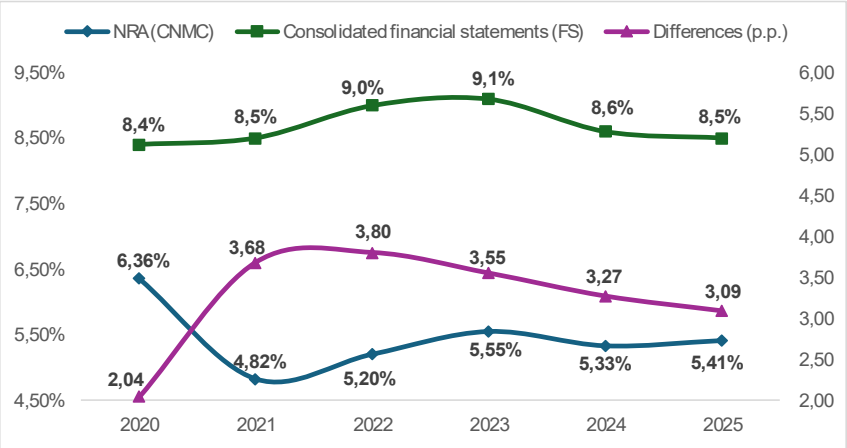


Source: Internal Orange

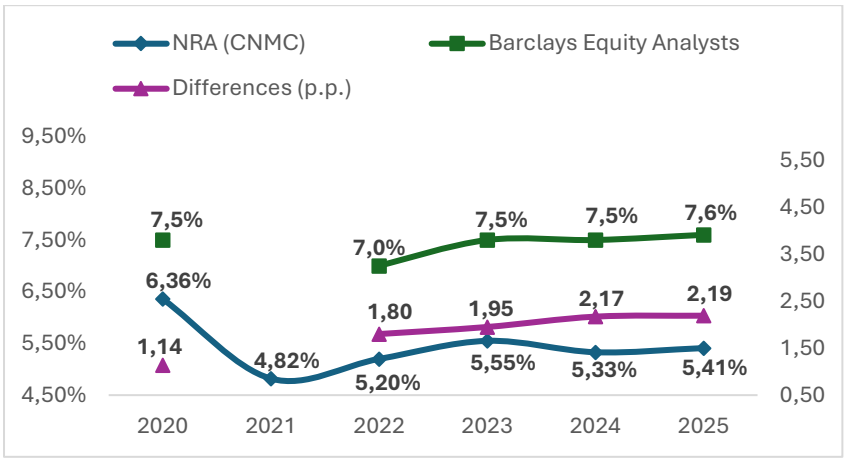
- Comparison with analyst WACC: an even more significant gap exists between regulatory WACC and the WACC of telecom operators as assessed by financial analysts: for example, in 2026, for France, Orange's regulatory WACC is 3.7% versus Barclays' 7.7% for the telecom sector as a whole (nominal post-tax). The emergence of this discrepancy coincides with the implementation of the EC's guidance note. Upon its initial implementation in 2020, the methodology resulted in a sharp 2.8 percentage-point reduction in regulatory WACC, from 7.6% to 4.8% pre-tax.

Case of Spain:

- Comparison with the WACC impairment: In Spain there are more significant differences between the WACCs approved by the NRA and those which have been audited in the consolidated financial statements. In the last five years, it has been above 300 basis points.



- Comparison with the WACC analyst: There is also a significant difference between the figures approved by the regulator and those used by investment bank analysts. In this case, there is a gap of 200 basis points over the last four years between the CNMC's figures and those used by Barclays Equity Research.



Case of Germany:

- The German regulator, Bundesnetzagentur (BNetzA) became fully compliant with the WACC Notice in 2025 with a regulatory WACC of 4,88% (nominal, pre-tax). This value underestimates the WACC of Deutsche Telekom by several percentage points. According to a study by KPMG, commissioned by DT in 2023, current investors in telecommunications networks in Germany would face a WACC in the range between 7,55% and 13,77% (nominal, pre-tax).

- The regulatory WACC is also in stark contrast with the results of a market survey, which BNetzA conducted in 2023. BNetzA asked all major companies which are investing in telecommunications networks in Germany for data on the cost of equity and cost of debt. According to the BNetzA analysis, the average cost of equity for the larger companies amounted to 10,16% and 11,92% for the smaller ones. Cost of debt was 4,96% and 3,99% for larger/smaller networks. Based on the debt ratios of the 2024 BEREC WACC parameter report and a weighting of the values for smaller and larger telcos, BNetzA computed a market survey average WACC of 7,54% (nominal, pre-tax).

- Comparison with the WACC analyst: it is positive that BNetzA investigated a market WACC based on a market survey. The result of the BNetzA survey (7,54%) came close to the range of the KPMG analysis (7,55%-13,77%). The contrast between the analysts and market survey findings on the one hand and the regulatory WACC in accordance with the WACC notice on the other hand demonstrates, that the WACC notice methodology underestimates the WACC by several percentage points. .

Discrepancies between the WACC notice WACC values and operators cost of capital are not only alarmingly significant, but they also appear to be widespread:

- This phenomenon can be observed in most countries of the European Union. As the German regulatory approach demonstrates, even differences in the methodology compared to the EC/BEREC recommended approach fall short of being consistent with market valuations.
- Moreover, these discrepancies have been recurring since the implementation of the guidelines. Thus, the cumulative gap has only increased since 2020, and this will continue until interest rates enter a downward trend, which nothing currently suggests will happen.

1-2 *The BEREC 'Reality Check' average-based narrative conceals structural underperformance of telecom markets*

BEREC's draft 'Telecom Reality Check' report argues that, based on a simple average, EU operators covered their cost of capital and even outperformed global peers (notably citing Felten et al. (2025)). This reading must be challenged on three grounds:

- **The simple WACC average is statistically misleading.** Using a single blended WACC (6.08% for fixed legacy networks in 2024) against an average ROCE (10.96%) ignores the heterogeneity of market structures. When operators are assessed against their own analysts' WACC — the economically relevant benchmark for investor decision-making — the average ROCE (approximately 7-8%) falls below the analysts' average WACC (7.3%). More critically, 6 out of 14 peer group operators do not cover their capital costs when individual WACCs are applied.

- **Market concentration — and the associated question of scale — is the decisive explanatory variable.** There is a highly significant statistical correlation between market concentration (HHI) and ROCE: an increase of

1,000 HHI points is associated with an average increase of 5 percentage points in ROCE. Operators in markets equivalent to four or more symmetric competitors systematically fall below their cost of capital. This is not an incidental disparity — it reflects the structural reality that the European regulatory framework has created too many fragmented, sub-scale markets.[1]

- **Goodwill exclusion distorts the comparison.** BEREC's peer group ROCE figures, when presented excluding goodwill, artificially inflate returns by approximately 2 percentage points on average. Goodwill represents actual invested capital and must be included in any honest assessment of capital remuneration. Even on this inflated basis, 6 operators fail to cover their costs.

This matters directly for the WACC debate: a regulatory framework that sets WACC at levels systematically below market reality cannot be validated by an average that aggregates markets generating higher return on capital with fragmented markets where investors' expectations are not met. The WACC used for regulatory purposes should reflect the actual investment risk faced by operators across all market conditions, not the average performance.

1-2 *The consequences for operators are immediate and significant, and manifest themselves on several levels:*

These undervaluations send negative messages to the telco sector and hinder its development by disrupting its investment and financing policies.

- The insufficient return on regulated assets also disrupts operators' investment policies: as cash flows decrease, the self-financing capacity of investment projects is reduced accordingly. At a minimum, investments, however economically sound, risk being deferred in the stock price, based on financial logic, pending a mechanical rise in interest rates. The operator's choice between investment projects will be made at the expense of developing regulated assets, potentially leading to the abandonment or reduction of these projects.
- The valuation of the operator's stock is affected because the regulatory assets are not remunerated at the overall rate of return expected by shareholders.

[1] Echoed in the 2024 Letta Report: *„While on the one side, it is recognised that European pro-competitive regulation has brought, over the years, greater benefits to end users in terms of (price of) access to services (compared for example to the U.S.), on the other side, many industry players complain excessive entry of operators into the market, fostered by a liberalisation and regulation approach that that may have generated strong incentives for 'excessive entry' by small-scale, territorially focused operators and, consequently, unsustainable market balances harbouring low incentives for innovative investment. Today, in a European market with more than 100 operators, keeping the focus only on pro-entrant regulation, would be detrimental for a technology switch towards advanced networks that require massive investments.*" Much more than a market – Speed, Security, Solidarity. Empowering the Single Marker to deliver a sustainable future and prosperity for all EU Citizens

II: The causes of these discrepancies are, however, well-known

Firstly, the rigid, uniform method, which de facto imposes a single approach regardless of the scenario to be addressed. Practical implementation rarely shows the reflection of national (or other relevant) circumstances that would bring its results closer to market valuations.

More specifically, the decision to systematically use an outdated reference period ("the five years") renders the final result irrelevant.

- The Staff Working Document proposed this compromise solution in 2019, which was indeed in line with the economic environment at the time, market by high geopolitical stability. In a **context of stable rates, the absence of a lasting trend, interest rates systematically maintained at very low levels** (quantitative easing), security and peace, and without a significant economic shock (such as the COVID-19 crisis), the use of a 5-year average constituted a logical trade-off between the concern for the relevance of the assessments and the desire to smooth the forecasts, thus respectably accommodating the objectives of " efficiency " and " predictability ".
- But today, the economic and political environment has radically changed:
    - the economic priority is more about attracting investment and ensuring European competitiveness and sovereignty in digital,
    - economic uncertainty, abrupt disruptions, negative marked trends, and the exacerbation of volatile power dynamics have reappeared.

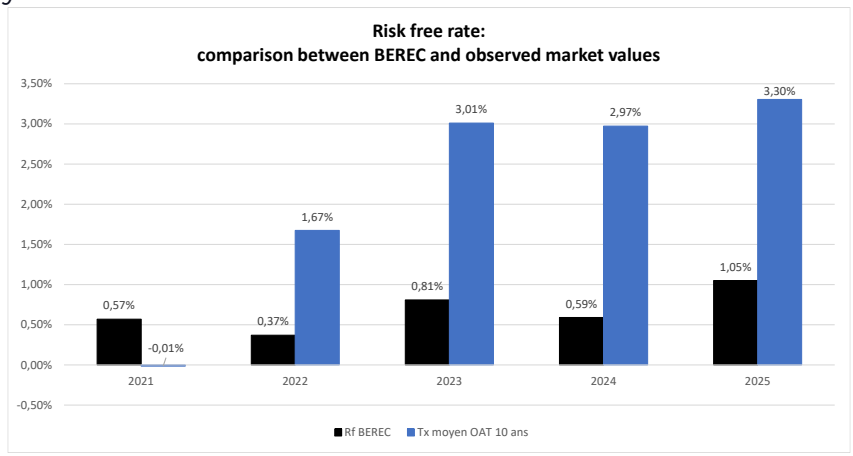
As a result, **the use of 5-year averages has gradually lost its meaning and must therefore be reconsidered.**

- In this new context, the longer the reference period, the greater the risk of incorporating into the calculation of the final rate valuations corresponding to an environment with no relation to the present and future situation.
- The rapid pace of change in the economic environment diminishes the relevance of a historical approach. To better anticipate an increasingly uncertain future, investors favor a more forward-looking approach that values the most recent information. **Consequently, the vast majority of financial analysts now use much shorter time periods to evaluate the parameters of the WACC calculation.** This is another argument supporting the necessity of a switch to market-based valuations.

While regulators may believe they can make decisions disregarding economic realities, operators cannot escape these realties, which shape and constrain their financing. This is the fundamental error underlying the policy: forgetting that when it comes to investments, "The market is always right."

- The European Commission priority for adherence to methods and processes seems to erase any concern for the accuracy of the valuations obtained, or even their simple consistency with the current financial environment.
- The absence of a comparison between the value set ex-ante and the levels actually observed (even for the risk-free rate) in annual BEREC reports is symptomatic, as if regulatory decisions affecting economic actors do not reflect the actual functioning of financial markets.

- One table alone sums up the chasm between the regulatory approach and the reality of the markets:



-

Source: Internal Orange

An administrative process disconnected from financial time, leading to valuations that are outdated from the outset.

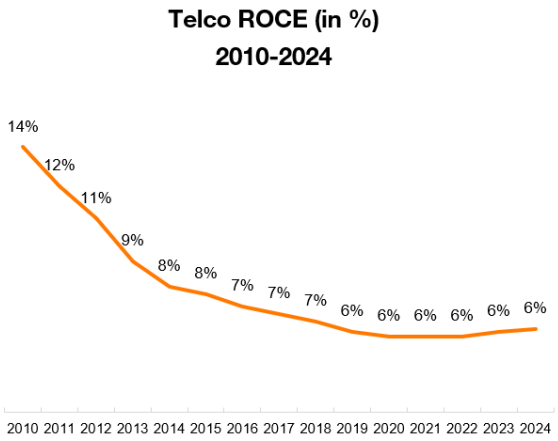
The cumbersome nature of the process leads to setting the value of the WACC based on data that is very insufficiently recent in the current context: the WACC of year (n) does not include any information after March (n-1), that is to say, it ignores the 9 most recent months of development in the economic environment, which are often very relevant for anticipating the near future.

III: A practice paradoxically at odds with the strategic objectives set by the EC itself

The scale of the issues at stake extends far beyond the financial disparities highlighted above, and well beyond the mere technical question of remuneration for a particular type of asset in a given economic sector. The issue takes on a strategic dimension for the entire European economy, especially as the European Commission assigns a crucial role to investments by telecom companies.

3-1 The declining financial performance of European Telco operators

The profitability of the European Telecom sector has collapsed: the return on invested capital has fallen from 14% in 2010 to just 6% in 2024.



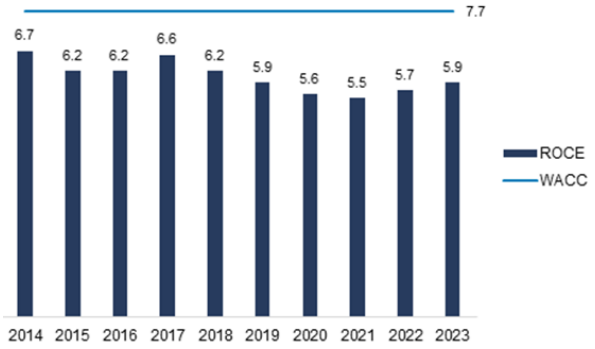
Source: Draghi Report

The sector's ROCE is, on average and across the cycle, barely covering — and in many cases falling below — the real cost of capital borne by operators. While BEREC's 2025 WACC Parameters Report records an average peer group ROCE of 10.96% in 2024, this figure reflects the transient peak performance of the most concentrated markets. When assessed against operators' true cost of capital as estimated by independent financial analysts (average 7.3%), approximately half of the 14 peer group operators fail to cover their cost of capital.

The structural collapse of sectoral profitability is undeniable: the return on invested capital fell from 14% in 2010 to approximately 6% in 2024 (Draghi Report), and the regulatory WACC — anchored to an outdated 5-year historical average — has played an active role in this decline by consistently underpricing the risk premium demanded by capital markets. BEREC's own 'Telecom Reality Check' report acknowledges that forward-looking free cash flow indicators and investment ratios paint a more concerning picture. Fitch and Felten et al. (2025) project stronger cash flows as capex peaks recede — but this recovery is itself contingent on regulatory frameworks sending accurate price signals. A chronically underestimated regulatory WACC is one of the factors limiting those very cash flows. **The sector's ROCE is consistently below our cost of capital** : in other words, operators' investments are not generating enough return on investment**; in other words, operators' investments are not generating sufficient returns**.

A ROCE below the WACC

(extract from the Draghi report)



Source: Draghi Report

3-2: ...Even though the EC grants them a key role in the recovery of the European economy

The EC has endorsed the conclusions of the Draghi report and set ambitious targets for the European economy:

- *"The declining profitability of the telecom sector now may represent a risk for industrial companies in Europe."*
- Europe needs to invest around 200 billion euros to achieve full gigabit coverage and standalone 5G.

However, achieving these objectives depends largely on telecom operators' ability **to generate cash flows to finance investments.**

It is therefore time to revise the WACC notice to align with the new economic guidelines adopted by the EC.

3-3: Orientations confirmed in the DNA

The Digital Networks Act (DNA) proposal (COM(2026)16) explicitly endorses the Draghi report's diagnosis and calls for a regulatory framework capable of supporting the €200 billion investment needed for full gigabit and standalone 5G coverage across the EU.

This ambition is structurally incompatible with a regulatory WACC methodology that has systematically undervalued operator returns since 2020.

The DNA consultation process has itself surfaced widespread concern: in Orange Group's response to the WIK-DNA questionnaire (July 2025), as well as in responses from Deutsche Telekom, Telefónica and Telekom Austria, the misalignment between regulatory WACC and market-based cost of capital is cited as one of the most significant barriers to infrastructure investment.

The DNA must therefore include an explicit mandate for EC to review its WACC methodology to be based on market-based benchmarks, consistent with the Commission's investment objectives. **Failing to do so would create a fundamental contradiction at the heart of the DNA: calling for investment while maintaining a regulatory pricing framework that actively discourages it.**

IV: Concrete and easy-to-implement changes are necessary

This involves a **complete overhaul of the guidelines and changing the role of stakeholders,** with a central objective: **to reflect market values as accurately as possible**.

An immediate starting point: review the objectives and priorities outlined in the policy document to align them with the EC's strategy and reconcile them with economic realities. This involves rethinking and reprioritizing the currently purely technical objectives (efficiency, predictability, transparency, consistency) to transform them into genuine tools for implementing the Commission's strategic guidelines**.**

Indeed, currently, the 4 objectives, placed on the same level, lead to complex trade-offs, which at the same level, lead to complex trade-offs that are not optimal in terms of economic efficiency, understood as the optimal allocation of resources to effective investment.

The ambition of this revision must, as far as possible, go beyond technical and methodological adjustments and open the discussion to innovative approaches that will enable us to remain sustainably aligned with current market values.

The task is significant, but simple; innovative and practical solutions are easily conceivable.
To address current shortcomings and prioritize economic efficiency, we must be guided by two guiding principles:

- Bring the WACC as close as possible to market values
- Adopting a forward-looking approach

Our proposal:

- Change the 2019 WACC Notice to **make it refer directly to the WACC published by financial analysts:**
  - to resolve, by design, the risk of a discrepancy between regulatory value and market value
  - to rely not on a method, but on a skill: abandoning the illusory search for the optimal, stable, and universal method that would allow us to dispense with actual market knowledge
  - Choosing a consensus average allows for greater flexibility and the integration of a maximum amount of information.

Of course, it may happen that the forecasted value calculated in that way would value finally observed market value. But economic research has demonstrated that

it would not be a problem from a social welfare perspective that the regulatory WACC be slightly over the market WACC:

> *Trading off consumer surplus and expected total discounted disruption costs in the grid, we conclude that it is optimal for the regulator to set the WACC above the mean WACC on the capital market, provided that the uncertainty about the real cost of capital is not very large while the network operator is able to quickly increase the size of the investments.*
> .[2]

Conclusion: It is urgent to act!

The disconnect between the regulatory WACC calculated using the method promoted in the 2019 EC notice is a structural problem of significant proportions and calls for a complete overhaul of the outdated methodological approach it uses.

The scale of the problem, its impact, its misalignment with the EC's renewed strategic vision, and the availability of other - pragmatic, practical solutions all argue for a swift reassessment of the issue. **The Commission should recommend regulators to apply a WACC based on analysts' estimates and to launch a corresponding rapid update of the WACC calculation methodology.**

As long as price regulation will be necessary at all, we strongly support a move to a market-based "consensus" WACC, calculated annually by BEREC from a transparent set of financial analysts' benchmarks. This would ensure signals to investors are accurate, predictable, and aligned with market reality, restoring the incentives essential for future network investment.

In the meantime, we urge the Commission to request that NRA implement the 2019 Notice more flexibly, to ensure the national WACC remains aligned with financial analysts' figures, with the overall objective of supporting network investment.

[2] Romeijnders, W., & Mulder, M. (2022). Optimal WACC in tariff regulation under uncertainty. *Journal of Regulatory Economics*, *61*(2), 89-107. https://doi.org/10.1007/s11149-022-09447-6