NOKIA



New trends in telecom market value distribution in Europe: the shift towards fixed services

01 EXECUTIVE SUMMARY

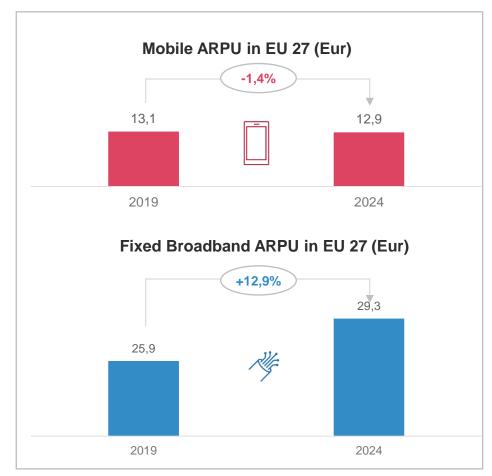


Historically, mobile segment has largely dominated the breakdown of telecoms market revenues in Europe, but this seems to be changing

For years, mobile services have been the primary revenue driver in the telecom industry in Europe. However, this trend is shifting as fixed broadband networks begin to take a more prominent role in revenue growth.

Over the past five years, fixed ARPUs have increased by nearly 13%, while mobile ARPUs have slightly declined by around 1.5% across the EU27. This divergence reflects changing consumption patterns, with users demanding higher bandwidth and more stable connections for remote work, streaming, and connected home applications. The rollout of fibre networks and premium service tiers has also supported higher fixed ARPUs. In contrast, intense price competition and market saturation have constrained growth in mobile revenues.

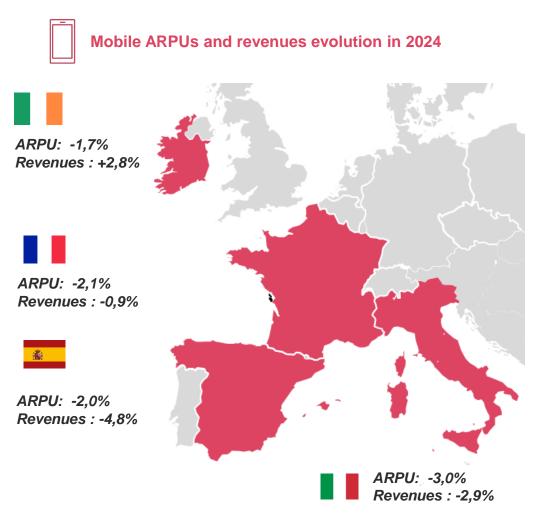
This study explores the changing revenue landscape, highlighting the rise of fixed broadband as a strategic growth area for telecom operators. Through examples and market data from selected countries in Europe (France, Ireland, Italy and Spain), this report provides concrete proof points on the revenue contributions of both mobile and fixed services and examines the market dynamics fueling this transformation.

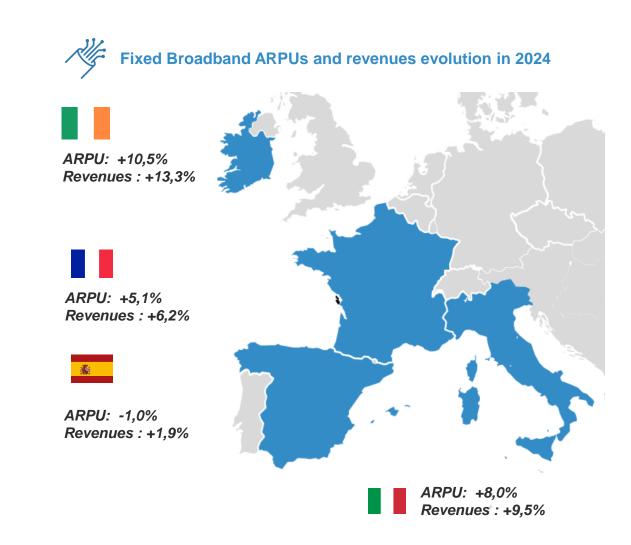


Source: IDATE 2025



Fixed Broadband segment is driving value creation in Europe in 2024





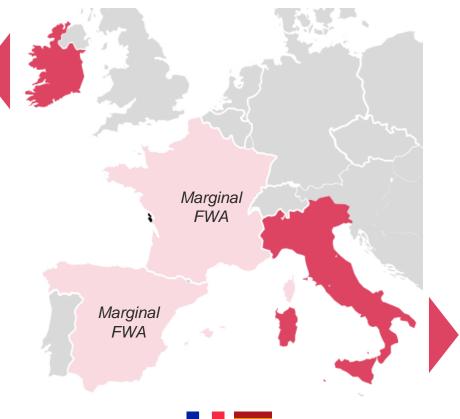


Source: IDATE 2025 © IDATE – p. 4

A growing FWA market with different purposes: a strategic broadband solution in Italy and a temporary alternative in Ireland



Fixed Wireless Access accounts for 5% of broadband connections in Ireland and is primarily considered a temporary solution pending the full rollout of fiber. It remains a flexible and cost-effective way to deliver highspeed internet access to a wider range of customers, particularly in areas where fiber deployment is still in progress. The FWA market in Ireland is shaped by both pure players and established telecom operators, contributing to a competitive and evolving broadband landscape.





FWA plays a marginal role in France and Spain, where fiber deployment is more widespread and prioritized.



Fixed Wireless Access accounts for 12% of the broadband market in Italy and plays a crucial role in ensuring full coverage, particularly in rural and less densely populated areas where fiber deployment is challenging. As a complementary solution to fiber, FWA helps bridge connectivity gaps, providing high-speed internet access where fiber rollout is limited or not economically viable. The FWA market is dynamic and growing, with pricing increasingly aligned with fiber. Additionally, a multitude of broadband operators, including TIM and openfiber in the FWA sector contribute to a diverse and competitive landscape, driving innovation and expanding connectivity options.



Source: IDATE 2025 © IDATE – p. 5

The shift from mobile to fixed broadband: a growing value trend in European telecom markets



A market **disrupted by DIGI**. The mobile segment mainly affected while the fixed segment remains preserved



A market where Iliad is moving from a disruptive force in the mobile market to a **convergent fixed-mobile** player keen to preserve its customer base and increase its revenues

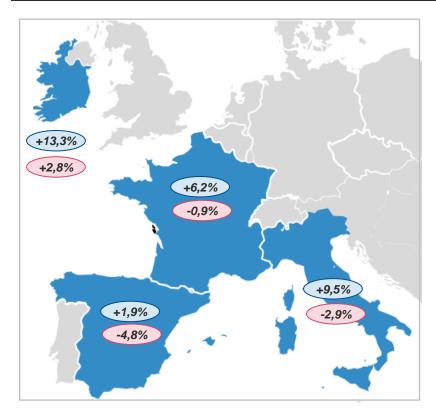


A **stable** market where pure players use fixed-wireless access solutions pending the arrival of fibre.



An intense price war, mainly in the mobile segment A fixed segment that **stimulates ARPU** thanks to a **premiumisation** of speeds

Fixed Broadband and mobile revenues evolution in 2024



% Fixed broadband revenues evolution in 2024

Mobile revenues evolution in 2024



Source: IDATE 2025 © IDATE – p. 6

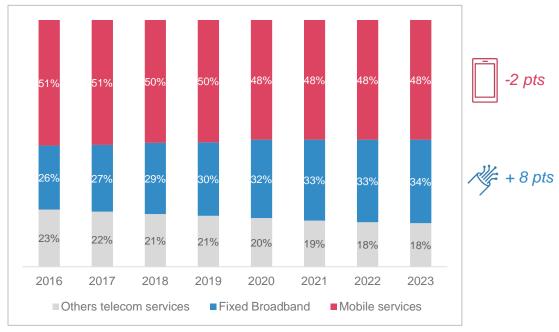
01 INTRODUCTION



Historically, mobile segment has largely dominated the breakdown of telecoms market revenues in Europe, but this seems to be changing

In the past, mobile segment led the telecoms market value in Europe, with more than 50% of the market. However, recent trends indicate a rise of the fixed lines services led by broadband acces development

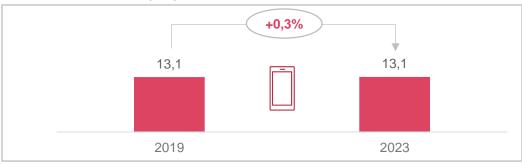
Telecommunications revenues breakdown in EU 27



Source: IDATE 2024

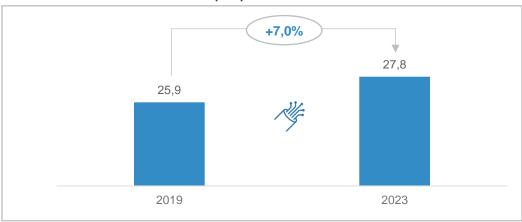
Fixed Broadband ARPUs are growing while Mobile ARPUs remained stable last five years

Mobile ARPU in EU 27 (Eur)



Source: IDATE 2024

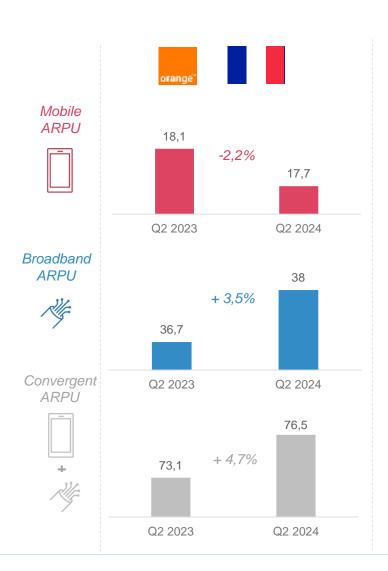
Fixed Broadband ARPU in EU 27 (Eur)

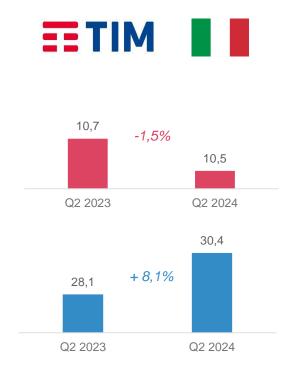


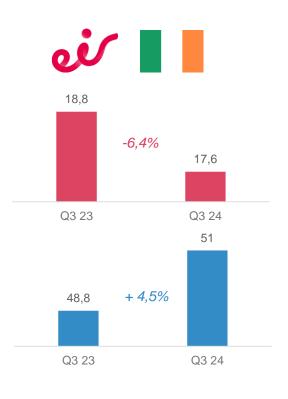
Source: IDATE 2024



Fixed Broadband segment is driving value creation and retention in the European telecom market: a trend reflected in the evolution of some operators ARPUs in 2024









Thanks to fiber deployment and bundled offers, fixed broadband sector allows operators to maintain and create value



Mobile segment is slowing down in Europe



A symbol of freedom, the mobile phone has transformed the way we live and work, especially with the rise of smartphones. In Europe, after years of holding more than 50% of the total telecom market value, the mobile sector's share has been steadily declining. Its historical dominance has resulted in market saturation, with high penetration rates across many countries. Moreover, intense competition and price wars that made mobile services widely accessible have also contributed to a drop in operators' revenues within this segment.



Fixed Broadband segment is becoming the segment that maintains and drive value



Over the past decade, the telecommunications market landscape has been evolving, with fixed services regaining appeal thanks to the rollout of fiber optics and bundled fixed/mobile offers. Fiber deployment has revolutionized fixed services by providing much higher speeds, enabling new possibilities such as remote work, 4K streaming, and other bandwidth-intensive activities. The deployment of XGS-PON is further enhancing network capacity, allowing telcos to unlock new value and offer even faster speeds.

Fixed Wireless Access (FWA) has emerged as a key strategy in regions where FTTH is underdeveloped. FWA pure players focus exclusively on this technology to serve underserved areas, while FTTH operators have incorporated FWA into their plans as a complementary solution to expand their market reach and address connectivity gaps.

The line between fixed and mobile services has blurred. Bundled packages have become standard, allowing operators to offer more comprehensive solutions and strengthen customer loyalty.

While mobile has historically been the growth driver, fixed-line is now experiencing a revival thanks to the arrival of fiber optics and changes in usage patterns. These developments have major implications for operators, who need to adapt their strategies and offerings to take advantage of these new trends.

© IDATE - p. 10 Sources: IDATE 2024

Shift toward fiber reduce carbon emission

In addition to meeting high-speed connectivity demands, the shift towards fiber is also driven by increasing adoption and awareness of its lower environmental impact. Compared to mobile subscriptions, fiber consumes three times less energy, making it a more sustainable solution for growing connectivity needs.

This energy efficiency stems from the fixed network's architecture, which requires fewer active infrastructures and minimizes signal loss over long distances. At the same time, the rise of remote work, streaming, and cloud usage naturally favors fiber, offering stable, high-speed connections while reducing the overall carbon footprint of telecommunications.

Given environmental challenges and rising data consumption, fiber is emerging as a more responsible alternative. Operators and public policies are actively promoting its development as a strategic tool to align digital and ecological transitions

Average energy consumption per subscription per year (access)



Source: IDATE 2025 based on ARCEP



Convergence and bundling: key driver growth drivers leveraging on fixed broadband

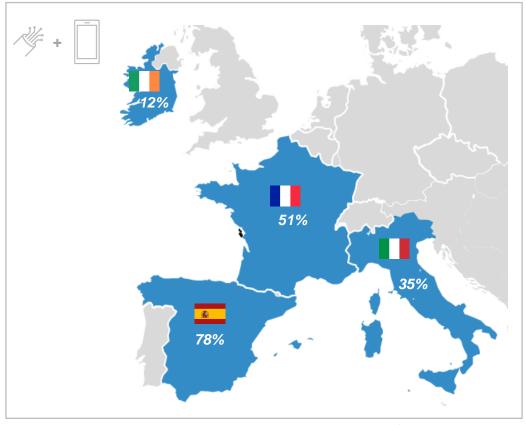
Across Europe, a growing number of operators are embracing convergence and bundling strategies, recognizing the substantial benefits of integrating fixed and mobile services.

In Spain, this trend is particularly pronounced, with 78% of households having at least one mobile line linked to their broadband access. Similarly, in France, 51% of broadband households enjoy bundled offers, demonstrating the widespread appeal of converged services.

However, fixed-mobile convergence remains limited in markets like Ireland, where single-market operators hold significant power. In these regions, consumers often opt for separate providers, diminishing the potential for cross-selling and customer retention typically associated with bundled offerings.

Despite these regional variations, the overarching trend indicates that convergence presents a substantial growth opportunity. By bundling multiple services, including broadband, television, mobile lines, and other digital offerings, operators can significantly increase ARPU and maximize customer value, unlocking substantial revenue potential across the European telecom landscape.

Bundled households (% broadband households): households with Mobile and fixed broadband offers within the same operator



Source: IDATE 2025 based on Eurostat and Operators publications

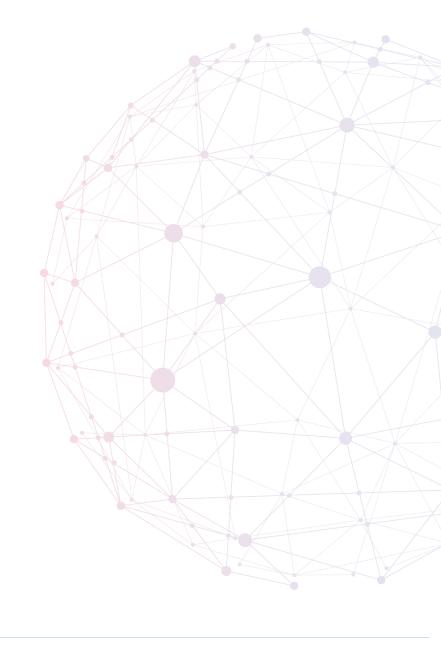


02 MARKET ANALYSIS









Fixed broadband market growth helps mitigate the decline of the Spanish telecom market



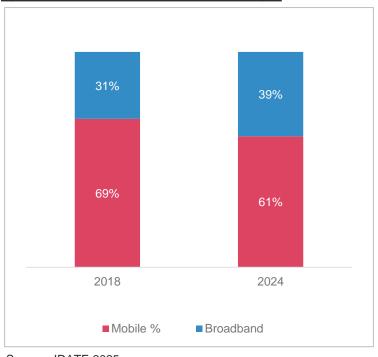
In Spain, Digi has disrupted the mobile market with significantly lower prices, intensifying competition and rapidly increasing its market share. This aggressive pricing strategy has put pressure on mobile revenues (-3% CAGR 18-24 since Digi entry in the market and -4,8% in 2024)

In the Fixed Broadband market, revenues are maintaining growth trends (+2,1% CAGR 18-24 and +1,9% in 2024), that leads to a higher part of the telecom retail market (39%, +8pts vs 2018).

Despite Digi extended its competitive push to fixed broadband, the market remained stable. Digi's impact was contained by its limited own network, while its wholesale-based offers were not aggressively priced. Moreover, instead of a price war, major operators like Orange and Telefónica countered with limited-time discounts, premium positioning, and convergent offers to maintain market balance.

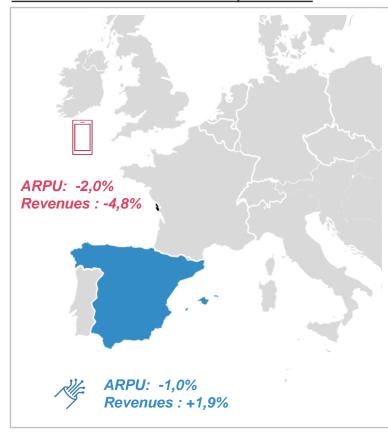
In 2024, Digi appears to be transitioning from a market disruptor to establishing a sustainable and profitable fixed broadband model, by selling its fiber assets and leveraging on XGSPON technology leadership in Spain.

Spanish telecom market retail revenues split



Source: IDATE 2025

ARPUs and revenues evolution in Spain in 2024



Source: IDATE 2025



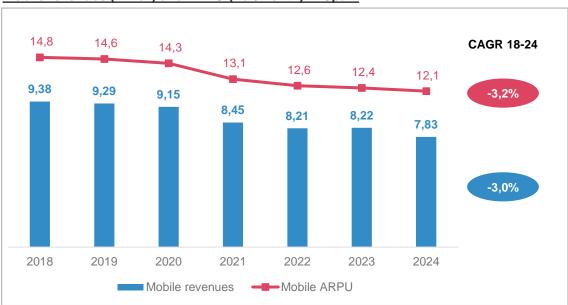


Decline in the mobile market in Spain



Decline of mobile market value in Spain...

Mobile revenues (M Eur) and ARPU (Eur/Month) in Spain



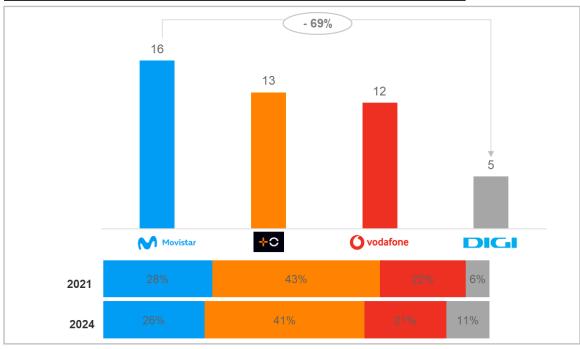
Source: IDATE 2025 based on CNMC, Operators publications 2024

Competition on low-end market particulary drives down ARPUs and revenues as some operators engage in price wars to attract price-sensitive customers.

... mainly due to the aggressive pricing strategy from the disruptor Digi

Digi has emerged as a significant disruptor in the mobile market, steadily gaining market share since 2021 (+5 pts). This aggressive expansion has put pressure on industry ARPU. Digi's entry-level mobile plans are exceptionally low-cost, starting at just 3 Euros. This aggressive pricing strategy has resulted in a very low estimated Mobile ARPU of approximately 5 Eur per month for Digi in 2024.

Spanish operators Mobile ARPU (Eur/Month - 2024) and market share (%)



Source: IDATE 2025 based on CNMC, Operators publications 2024



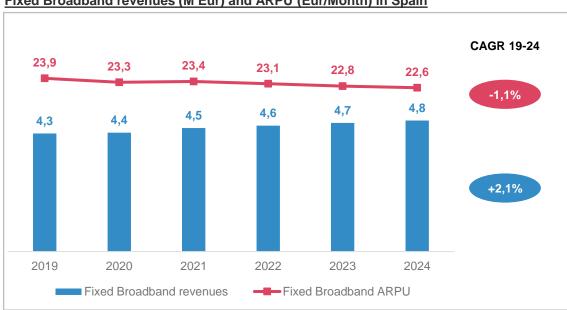


Fixed Broadband market remains resilient despite Digi agressive strategy



Increase in Fixed Broadband market...

Fixed Broadband revenues (M Eur) and ARPU (Eur/Month) in Spain



Source: IDATE 2025 based on CNMC, Operators publications 2024

Increase in the fixed broadband revenues driven by fiber take-up, and slight decrease in ARPU thanks to premium positionning from incumbant operators Orange and Telefonica who did not enter in a price war with Digi in the fixed broadband segment.

...driven by fiber take up and premium positioning from incumbent operators, despite the aggressive strategy from Digi

The fiber market in Spain is one of the most advanced in Europe, with 77% of households having fiber access in 2024 compared to 70% in 2019. This high take-up rate is driving the fixed broadband market upward and generating value growth in the sector.

Moreover, the fixed broadband market in Spain was slightly competitive, leading to a slight decrease in ARPU over the last three years. Like the mobile market, Digi launched a commercial offensive in the fixed broadband sector. However, the market did not collapse:

- Digi's expansion was limited to its own network, and its retail offers through wholesale agreements were not particularly aggressive.
- Operators like Orange and Telefónica did not engage in a price war but instead responded with limited-time discounts, premium positioning, and convergent offers.

By the end of 2024, the market is showing signs of price stability: Digi's price erosion is slowing down. The operator is leveraging technological advancements through its XGSPON network to move upmarket.





Fixed broadband operators' prices: limited-time discounts from Movistar and Orange to respond to Digi aggressive offers on their own network



Operator	Movistar Movistar				orange"	MASMOVIL		
Fiber speed	300 Mbps	600 Mbps	1 Gbps	300 Mbps	600 Mbps	1 Gbps	300 Mbps	1 Gbps
Monthly price*	34 Eur	38 Eur	48 Eur	30 Eur	33 Eur	43 Eur	29,99 Eur	39,99 Eur
Promotional acquisition price	19,90 Eur / 12 months	24,90 Eur / 12 months	29,90 Eur / 12 months	19,95 Eur / 12 months	-	33 Eur / 12 months	19,99 Eur / 12 months	19,99 Eur / 3 months +29,99 Eur / 9 months
TV option included	No	No	No	No	TV with 60 channels included	TV with 90 channels included		
Commitment	No commitment			No commitment			12 months	

Operator	vodafone				DI	DIGI	on Telefonica network		
Fiber speed	300 Mbps	600 Mbps	1 Gbps	300 Mbps	600 Mbps	1 Gbps	10 Gbps	300 Mbps	1 Gbps
Monthly price*	27 Eur	30 Eur	35 Eur	10 Eur	15 Eur	20 Eur	25 Eur	25 Eur	30 Eur
Promotional acquisition price	-	-	-	-	-	-	-	-	-
TV option inluded	No	No	TV with 70 channels included	No	No	No	No	No	No
Commitment	No commitment	12 m	onths	3 months				3 months	

^{*} Price excluding discounts

Sources: IDATE based on operators' offers catalogue - January 2025





Fixed Broadband in Spain: a base for retaining high-value customers through convergent offers



Major operators (MNOs) like Telefonica and MasOrange are leveraging on Fixed Broadband and bundled offers (4P) to secure their high values customers

Bundled offers have become the standard choice for many consumers in Spain, offering both convenience and cost savings. Spain leads the European market in Fixed-Mobile Convergence (FMC), with convergent revenues accounting for nearly 60% of MasOrange's total retail services in 2023.

Benefits reported by operators:

- Increase revenue and profitability: bundled services might help operators reduce costs and maintain margins.
- Lower churn rate and longer customer lifetime: Telefónica's convergent customers have a churn rate that is twice as low as non-convergent customers and the average customer lifetime for convergent users is nine years—three times longer than non-convergent customers.
- Reduced acquisition costs (SACs): Bundled offers help lower customer acquisition costs by streamlining marketing and onboarding efforts.
- Improved customer satisfaction: Customers benefit from a single point of contact for all telecom services, enhancing their overall experience.

Convergence indicators - Movistar (Telefonica) and Mas Orange

	Movistar Movistar	+0
	Movistar	Mas Orange
Fixed Broadband market share	33%	40%
Mobile market share	26%	41%
Convergent or bundled households	4,5 M	6,3 M
Convergent or bundled households (% Households)	75%	73%
Associated mobile lines	12 M	14 M
Mobile line / household	2,7	2,2
ARPUs	91 eur	56 eur

Source: IDATE 2025 based on operators' publications





Convergent prices: generous mobile data for convergent packages



Operator	Movistar Movistar			orange			MAS	MOVIL
Fiber speed	600 Mbps	600 Gbps	1 Gbps	600 Mbps	1 Gbps	300 Mbps	500 Mbps	1 Gbps
Mobile GB	30GB + 5GB	Unlimited + 50GB	2 x unlimited	60GB	2 x unlimited	30GB	50GB	100GB
Monthly price*	53 Eur	80 Eur	96 Eur	48 Eur	86 Eur	29,90 Eur	34,90 Eur	49,99 Eur
Promotional acquisition price	-	-	-	-	-	-		39,99 Eur / 3 months
TV option included	TV with 60 channels included	TV with 60 channels included	TV with 60 channels included	No	TV with 90 channels included + Netflix	No	No	No
Commitment	No commitment			12 m	onths	3 months		

Operator	O	vodafone			DI	DIGI	on Telefonica network			
Fiber speed	600 Mbps	600 Mbps	1 Gbps	300 Mbps	600 Mbps	1 Gbps	10 Gbps	300 Mbps	1 Gbps	
Mobile GB	25 GB	Unlimited	Unimited	30 GB	30 GB	60 GB	60 GB	30 GB	60 GB	
Monthly price*	35 Eur	45 Eur	60 Eur	15 Eur	20 Eur	26 Eur	31 Eur	30 Eur	36 Eur	
Promotional acquisition price	-	-	-	-	-	-	-	-	-	
TV option inluded	No	No	No	No	No	No	No	No	No	
Commitment	No commitment	12 m	onths	3 months				3 months		

^{*} Price excluding discounts

Sources: IDATE based on operators' offers catalogue – January 2025





Fixed broadband operators' prices: limited-time discounts from Movistar and Orange to respond to Digi aggressive offers on their own network



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Promotional acquisition price	-	-	-	-	-	-	-	-	-
TV option inluded	No	No	TV with 70 channels included	No	No	No	No	No	No
Commitment	No commitment	12 m	onths	3 months				3 months	

Sources: IDATE based on operators' offers catalogue – January 2025



^{*} Price excluding discounts

Digi: From market disruptor to building a sustainable, profitable model in fixed broadband



1 Mobile market disruption

Digi has been a major disruptor in the Spanish mobile market for years. The operator primarily targets low-end customers to increase market share.

Marginal disruption of fixed broadband and convergence market

Digi is gradually expanding its footprint in the broadband market, initially focusing on low-end customer segments to gain market share. However, the operator faces a major key constraint which is the network dependency. Digi relies on Telefónica's fiber network for coverage. This reliance, coupled with varying tariffs based on network ownership (own network vs. wholesale agreements), limits Digi's ability to replicate its disruptive mobile strategy in the fixed broadband market.

3

Gradual shift towards highvalue FTTH plans

Digi is driving substantial migration to high-value FTTH plans. With its proclaimed leadership in XGSPON technology and high-speed internet offers, the company is beginning to target the highend fixed broadband market. As a result, Digi Broadband's ARPU for migrated customers increased by €5 in 2024



Seeking for long term sustainability

Market disruption is not a sustainable long-term strategy. Once disruptor operators achieve a significant market share, they typically adjust their strategy to upgrade their customer base and focus on premium offerings, ensuring long-term profitability.

The company is facing challenges in terms of CAPEX, with massive investments required to maintain and expand its infrastructure, which is impacting ROI.

Digi's current model is proving unsustainable in the long term, prompting the beginning of a strategic shift:

- **Sold part of its fiber assets** in 2024 to mitigate profitability risks and ensure long-term financial stability.
- Transitioning its communication from a price-driven approach to quality-oriented messaging.

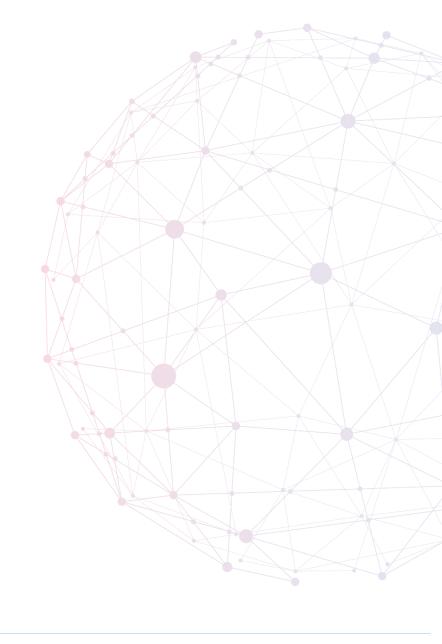
Shift in Digi communication from price-oriented to quality-oriented





Source: IDATE 2025 Source : IDATE 2025 © IDATE – p. 22







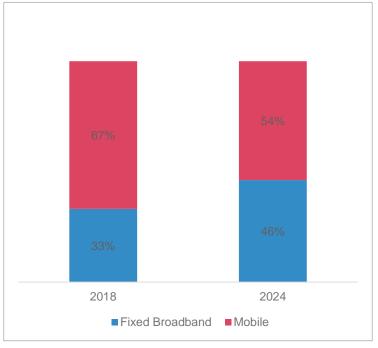
Fixed broadband growth counter-balance mobile decline in Italy

Italy's mobile market has been disrupted since Iliad's entry in 2018, triggering a price war and putting pressure on mobile revenues (CAGR 2018-2024: -4.9%, with -2.9% in 2024). In contrast, the fixed broadband market has remained resilient, showing significant growth (+4% CAGR 2018-2024, and +9.5% in 2024).

Since entering the fixed broadband market in 2022, Iliad has not applied the same aggressive pricing strategy. After reaching an 11% mobile market share, it shifted focus from price competition to convergent fixed-mobile offers, contributing to the stability and expansion of fixed broadband.

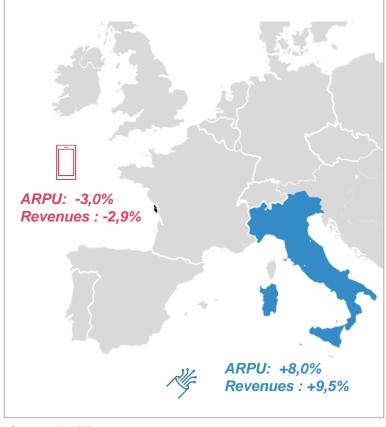
This approach has shielded the fixed sector from the intense price pressures affecting mobile, leading to an increased share of fixed broadband in the telecom market (+13 points from 2018 to 2024).

Italian telecom market retail revenues split



Source: IDATE 2025

ARPUs and revenues evolution in Italy in 2024



Source : IDATE 2025



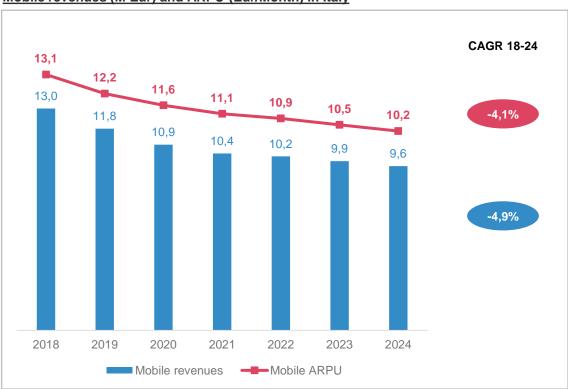


Decline in the mobile market in Italy mainly due to Illiad agressive strategy



Decrease in Mobile revenues and ARPUs...

Mobile revenues (M Eur) and ARPU (Eur/Month) in Italy



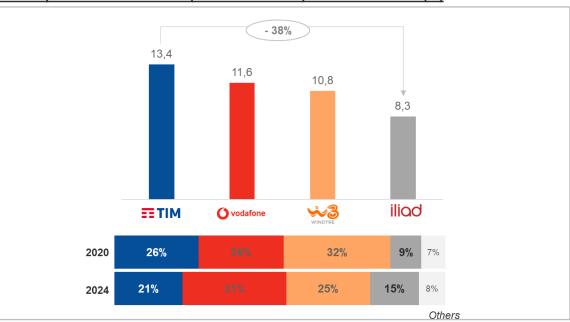
Source: IDATE 2024 - AGCOM

... since the launch of iliad in 2018 which has adopted an aggressive and disruptive pricing strategy

Iliad's aggressive pricing strategy has significantly disrupted the market, making mobile services more affordable but also eroding overall market value.

With a low ARPU, 38% below that of TIM, iliad has successfully gained market share, reaching 15% in 2024, while also driving market value erosion. However, this decline appears to be stabilizing since iliad entered the fixed broadband market in 2022.

Italian operators Mobile ARPU (Eur/Month - 2023) and market share (%)



Source: IDATE 2025 based on AGCOM and operators publications





After a decrease, the mobile price index stable since lliad entry on the fixed Broadband market



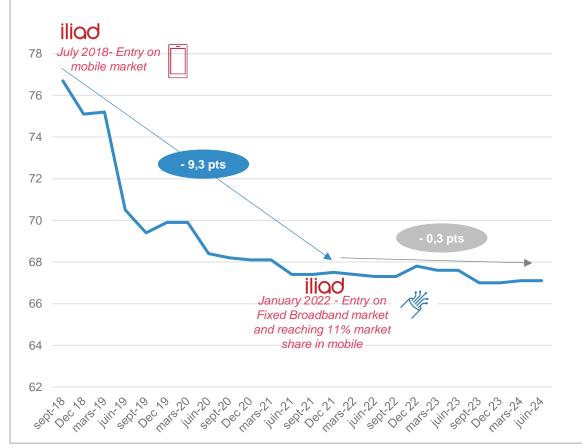
Since, the prices are stablilising with the decceleration of the agreessive strategy from Illiad

Since 2022, mobile prices in Italy have shown signs of stabilization, as Iliad's entry into the fixed broadband market has reduced its disruptive impact.

With a relatively strong presence in the mobile market (11% in 2022) and significant investments required for its fixed broadband expansion, Iliad shifted its strategy from aggressive price competition to a more sustainable growth approach.

At that time, Italian operators have made significant investments in 5G and fiber infrastructure. These high capital expenditures have further contributed to slowing the price war in mobile, as operators prioritize network expansion, service quality, and profitability over unsustainable price cuts.

Mobile services price index in Italy (2010=100)



Source: IDATE 2025 based on AGCOM



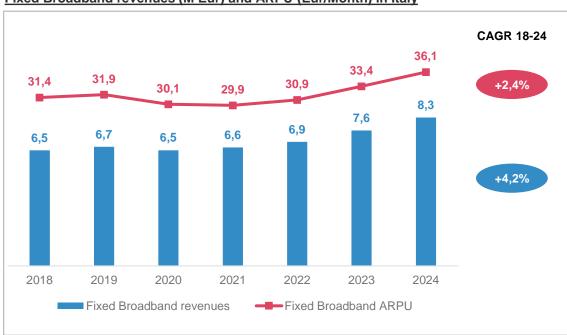


Growing fixed broadband market despite the entry of Iliad in January 2022



Growing fixed Broadband market...

Fixed Broadband revenues (M Eur) and ARPU (Eur/Month) in Italy



Source: IDATE 2024 - Telecom Markets and Players 2024 - AGCOM

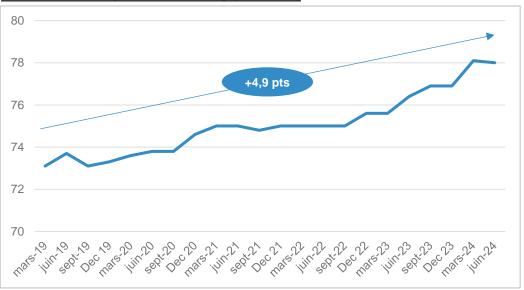
The fixed broadband market in Italy is expanding, driven by a transition from DSL to fiber subscriptions. As consumer demand for faster and more reliable internet grows, fiber-optic networks are becoming increasingly dominant.

...thanks to the shift towards fiber and the operators seeking for profitability

Faced with massive investments in fiber infrastructure, operators are striving to maintain profitability while avoiding a price war.

Moreover, the Fixed Broadband Price Index is on the rise, and Iliad has even taken the opportunity to increase its tariffs with the introduction of Wi-Fi 7 in Q3 2024.

Fixed Broadband price index in Italy (2010=100)



Source: IDATE 2025 based on AGCOM





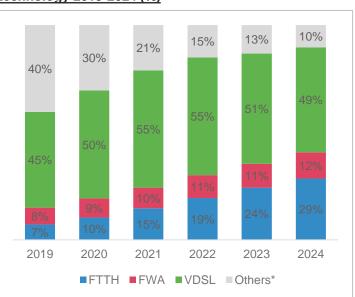
Fixed Broadband: Fixed Wireless Access plays a crucial role in ensuring full coverage across Italy, especially in rural or less densely populated areas



FWA: a complementary solution to fiber

FWA helps bridge connectivity gaps, especially in rural and semi-urban areas where fiber deployment is impractical. Using 4G/5G with selective fiber backhaul, it provides high-speed, reliable broadband as both a complementary and transitional solution to fiber.

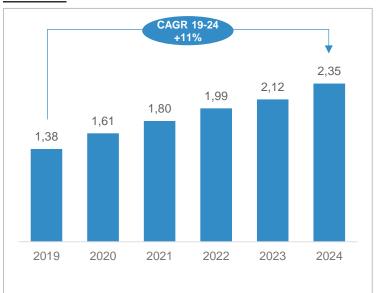
Fixed broadband subscribers breakdown by technology 2019-2024 (%)



FWA: a dynamic and growing market

The FWA market in Italy is thriving, with double-digit growth in subscriptions over the past five years. Operators are leveraging 4G and 5G with selective fiber backhaul to enhance speed and coverage. As demand surges, competition is intensifying, positioning FWA as a key solution for bridging connectivity gaps and complementing fiber deployment.

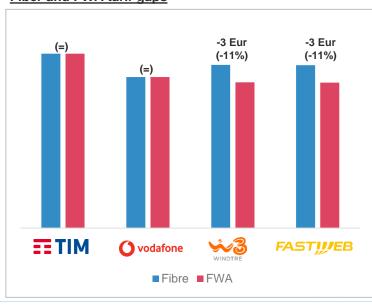
Evolution of FWA subscriptions (Millions) 2019-2024



FWA pricing: a profitable alternative to fiber

In Italy, FWA prices are mostly aligned with fiber broadband, enabling operators to drive profitability while offering a competitive alternative. This pricing strategy highlights FWA's growing value proposition, positioning it not just as a fallback solution but as a viable, high-margin broadband option

Fiber and FWA tarif gaps





Source : IDATE 2025 based on AGCOM, operators publications © IDATE - p. 28





The FWA market in Italy is characterized by a mix of pure-play FWA providers and traditional telecom operators who have integrated FWA offerings into their broader service portfolios.

EOLO and Linkem as pure players FWA, are leaders cumulating half of the market:

- EOLO leads the FWA market with a strong focus on rural and remote areas.
 Using EOLOwaveG technology (28 GHz millimeter-wave), EOLO delivers speeds exceeding 100 Mbps and integrates Open Fiber's backhaul to enhance network stability.
- Linkem (Tiscali), following their 2022 merger, targets urban and semiurban areas with affordable and rapidly deployable FWA solutions. Combining 4G/5G technologies with selective fiber backhaul,.

Almost all retail fixed and mobile operators are providing FWA offers to their customers:

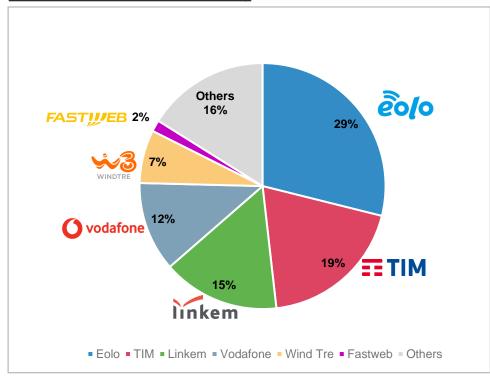
For exemple:

- **WINDTRE** has progressively expanded its **5G FWA services** nationwide, starting from an initial launch in five regions.
- **Fastweb** integrates FWA into its **5G infrastructure**, developed in collaboration with **WINDTRE**, as part of its hybrid strategy. It uses FWA as a **transitional solution** to provide connectivity in underserved areas while continuing to expand its fiber coverage.

Some wholesale operators like Openfiber are investing in the market :

For exemple: openfiber use FWA as a complement to FTTH in white areas

FWA Subscribers market share in Italy



Source: IDATE 2025 based on AGCOM

OpenFiber included in Others





Fixed Broadband pricing in Italy: bundles discounts are proposed by almost all operators



Fiber pricing

Operator Contract of the Contr	EETIM		vodafone	WINDTRE	sky	FASTIIIEB	iliad
Fiber speed	Up to 2,5 Gbps	Up to 10 Gbps	Up to 2,5 Gbps	Up to 2,5 Gbps	Up to 1 Gbps	Up to 1 Gbps	Up to 5 Gbps
Monthly price*	29,90 Eur	34,90 Eur	25,90 Eur	27,99 Eur	29,90 Eur	27,95 Eur	25,99 Eur
Wifi	N/A	N/A	N/A	Wifi 7	Wifi 6	Wifi 6	Wifi 7
Reduction for mobile customers	- 5 Eur	- 5 Eur	- 3 Eur	- 5 Eur	N/A	- 4 Eur	- 4 Eur
Commitment	No com	nmitment	No commitment	No commitment	No commitment	No commitment	No commitment

FWA pricing

Operator (e o	lo	E TIM	linkem	O vodafone	WINDTRE	FAST <u>IJ</u> EB
Speed	Up to 100 Mbps	Up to 300 Mbps	Up to 300 Mbps	Up to 300 Mbps	N/A	Up to 300 Mbps	Up to 1 Gbps
Monthly price*	24,90 Eur	29,90 Eur	29,90 Eur	26,90 Eur	25,90 Eur	24,99 Eur	24,95 Eur
Promotional acquisition price	19,90 Eur / 12 months	24,90 Eur / 12 months	N/A	N/A	N/A	N/A	N/A
Reduction for mobile customers	N/A	N/A	- 5 Eur	N/A	- 3 Eur	- 1 Eur	N/A
Commitment	No com	mitment	No commitment	No commitment	No commitment	No commitment	No commitment

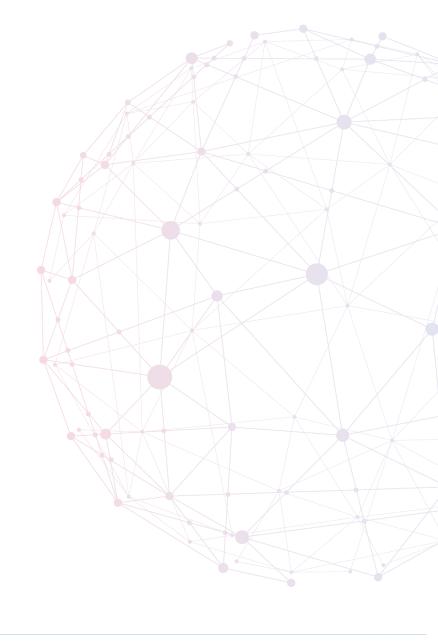
- Broadband prices are largely independent of speed, except for TIM's 10Gbps offer.
- FWA and fiber prices are very similar, especially for TIM and Vodafone.
- Most operators offer bundle discounts, with no commitment required.

Sources: IDATE based on operators' offers catalogue – January 2025



^{*} Price excluding discounts

IRELAND



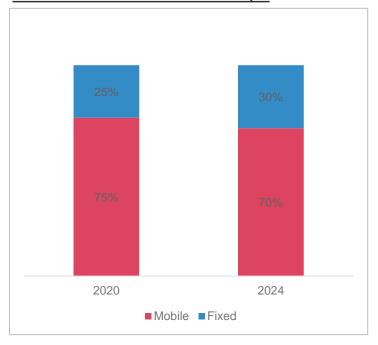




The mobile market in Ireland has seen little significant change recently, with limited competition. Revenue growth remains modest, driven by high-level 5G unlimited data tariff plans (CAGR 2018-2024: +1.9%, with +2.8% expected in 2024).

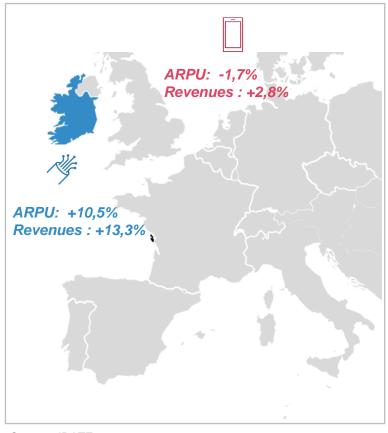
Meanwhile, the fixed broadband market is experiencing stronger growth in both revenues and ARPU, fueled by increasing demand for high-quality, reliable connections. As remote work and high-definition media consumption continue to rise, consumers are seeking better internet services (CAGR 2018-2024: +6.1%, with +13.3% expected in 2024).

Irish telecom market retail revenues split



Source: IDATE 2025

ARPUs and revenues evolution in Ireland in 2024



Source: IDATE 2025





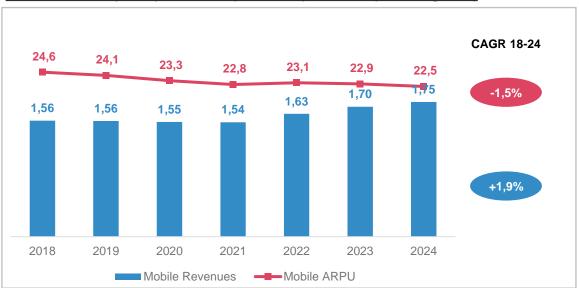
Stable mobile market with a lack of competition



Slight growth of the mobile market since 2020:

Mobile revenue has witnessed a slight growth at an average annual rate of 1,9% since 2018, driven by the migration from prepaid to postpaid and the high prices of 5G tariff plans. The mobile Irish prices are characterized by the lack of entry-level or low-cost plans, even in the prepaid segment. The entry plan starts at €25 from Virgin Mobile, with most plans offering unlimited data. Moreover, most plans are subject to 12 months or 24 months commitments and tariffs are subject to an annual price increase of the Consumer Price Index (CPI) each year.

Mobile revenues (M Eur) and ARPU (Eur/Month) in Ireland (excluding M2M)



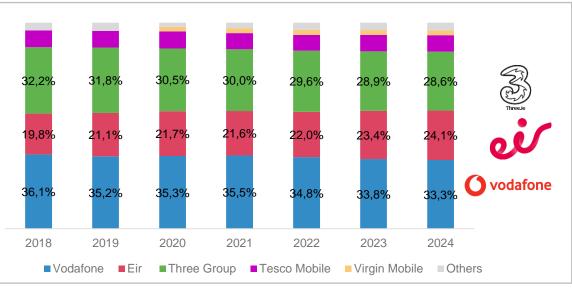
Source: IDATE 2025 - COMREG

And lack of competition in the Irish mobile market

The market share (excluding M2M) has seen little to no change since 2018, with the three major MNOs accounting for more than 86% of the market.

Although several MVNOs and sub-brands add competitive pressure, the market remains heavily concentrated. ComReg is working to promote effective and sustainable competition and to identify regulatory remedies to address this issue.

Mobile subscribers market share evolution- excl. M2M/IoT (%)



Source: IDATE 2025 - COMREG





Irish mobile market is characterized by IoT SIMs (M2M SIMs) expansion



The Irish mobile market is experiencing a notable surge in IoT expansion, driven by a confluence of factors, including a robust telecommunications infrastructure and a decidedly business-friendly environment.

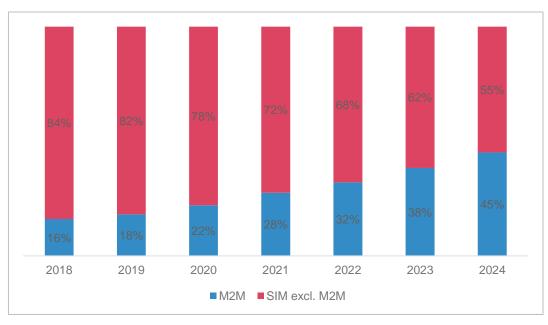
Ireland's commitment to technological advancement is evident in its rapid 5G rollout and the widespread availability of reliable 4G networks, providing the essential connectivity for IoT deployments. This infrastructure, coupled with the prevalence of multi-network SIMs, ensures consistent and dependable data transmission for various IoT applications.

Furthermore, Ireland's favorable business climate, characterized by supportive government policies and a culture of innovation, encourages businesses to invest in and implement IoT solutions.

This environment fosters growth across sectors like agriculture, logistics, and healthcare, where IoT technologies are increasingly utilized for efficiency and optimization. Consequently, the demand for M2M SIM cards and IoT connectivity solutions is steadily rising, solidifying Ireland's position as a dynamic hub for IoT development.

H3G dominates the M2M market in Ireland, holding a 78% market share. The company has strategically focused on this segment, leveraging its expertise to drive innovation and growth. By developing tailored solutions, H3G has strengthened its leadership in the M2M space, positioning itself as a key player in the industry.

Evolution of the share of M2M (IoT) in Ireland (%)



Source: IDATE 2025 - COMREG





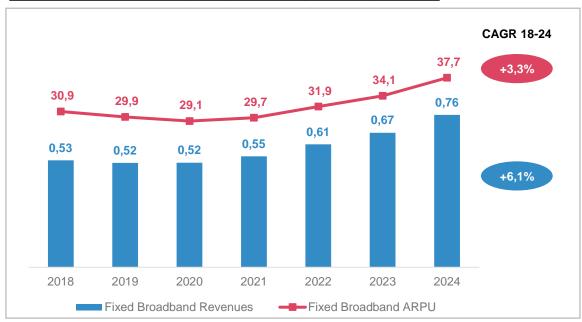
The fixed broadband market is expanding, driven by the increasing demand for high-speed connectivity.



Ireland's fixed broadband market is experiencing steady growth...

Fixed broadband revenues are growing, driven by increasing demand and operators' pricing strategies. Most broadband plans feature a promotional acquisition price with discounts of up to 50%, require a 12- or 24-month commitment, and are subject to an annual price increase based on the Consumer Price Index (CPI).

Fixed Broadband revenues (M Eur) and ARPU (Eur/Month) in Ireland



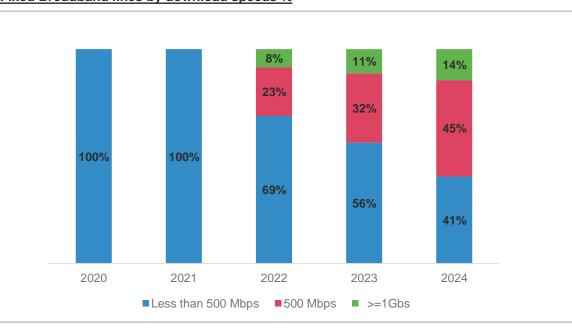
Source: IDATE 2024 - Telecom Markets and Players 2024 - COMREG

...partly driven by the increasing adoption of FTTH and a strong demand for high-speed broadband.

This demand is fueled by changing usage patterns, including the rise of online gaming, remote work, and 4K streaming, all of which require faster and more reliable internet connections.

The proportion of fixed broadband connections operating at speeds above 500Mbps reached 59% in 2024, compared to none in 2021.

Fixed Broadband lines by download speeds %



Source: IDATE 2025 - COMREG





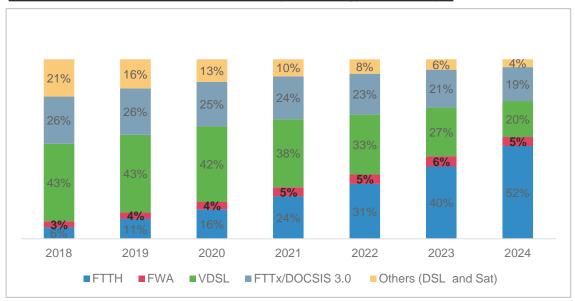
FWA in Ireland: mainly a temporary solution pending the roll out of fibre



FWA in Ireland: a flexible and cost-effective solution to deliver high-speed internet access to a wider range of customers

FWA account for 5% of the broadband in Ireland 2024. This ratio remains stable since 2021, as the Fiber coverage is increasing. In many areas of the country, FWA is used as a temporary solution until the arrival of fiber network. In other areas, where fixed-line infrastructure is difficult or uneconomical to implement, FWA is considered as a complementary solution to achieve full broadband coverage of Ireland.

Fixed broadband subscribers breakdown by technology 2018-2024 (%)



Source: IDATE 2025 - COMREG

Pure players and traditional operators are shaping the market:

Imagine, the pure player leader of the FWA market with more than 50% of the connections:



Imagine provides high performance broadband service for rural Irish homes and businesses, prioritizing those that have little or no broadband. The company covers 1.1 million homes and businesses. Imagine aims to extend fast, reliable broadband coverage up to 150 MBps to everyone.

Major telecommunications operators like Vodafone and Three have integrated FWA into their service offerings:



Three, which is not present on the fiber market, leverage on its existing cellular networks and 5G technology to provide fast and reliable broadband connections. FWA acts as a gateway to the fixed market, which is driving telecom sector growth: the operator is seeking new sources of revenue to offset the stagnation in the mobile market.



Vodafone: leader in the mobile market leverage on its 5G network to reach and strengthen its position in the fixed market





Fixed Broadband pricing in Ireland: FWA prices are mostly aligned with fiber broadband acquisition prices



Fiber pricing

Operator	i		vodafone			Nirgin madia			sky	
Fiber speed	Up to 500 Mbps	Up to 1 Gbps	Up to 500 Mbps	Up to 1 Gbps	Up to 2 Gbps	Up to 500 Mbps	Up to 1 Gbps	Up to 2 Gbps	Up to 500 Mbps	Up to 1 Gbps
Monthly price*	75,99 Eur	85,99 Eur	40 Eur	50 Eur	70 Eur	70 Eur	80 Eur	90 Eur	60 Eur	70 Eur
Promotional acquisition price	34,99 Eur / 12 months	44,99 Eur / 24 months	35 Eur / 6 months	35 Eur / 6 months	65 Eur / 6 months	35 Eur / 12 months	45 Eur / 12 months	55 Eur / 12 months	30 Eur /12 months	30 Eur /12 months
Reduction for mobile customers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commitment	12 months	24 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months

<u>FWA pricing</u> Operat	cing Operator imag!ne				vodafone		
Spe	ed 150 Mbps	150 Mbps	150 Mbps	150 Mbps	N/A	N/A	
Monthly price	e* 59,99 Eur	49,99 Eur	29,99 Eur	45 Eur	34,99 Eur	44,99 Eur	
Promotion acquisition pri	1 49 99 Filt / 12 months	39,99 Eur / 12 months	N/A	39 Eur / 12 months	N/A	39,99 Eur / 12 months	
Technology and da		5G / 500 GB	Unlimited / 4G	Unlimited / 5G	Unlimited / 4G	Unlimited / 5G	
Reduction for mob	IN/A	N/A	N/A	N/A	N/A	N/A	
Commitme	nt 12 n	nonths	24 months	24 months	No commitment	12 months	

All prices are subject to annual price increase of Consumer Price Index + 3% each year, (about 3 or 4 euros) on April

Sources: IDATE based on operators' offers catalogue - January 2025



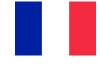
^{*} Price excluding discounts

FRANCE





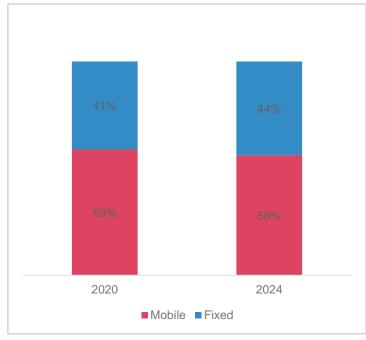




The French mobile market is experiencing a divided reality, with a stable premium segment juxtaposed against intense competition within the low-end sector. This competitive pressure has significantly escalated in 2024, leading to revenue challenges and an accelerated decline in entry-level pricing. This trend reflects a persistent and intensifying price war, signaling a market shift towards more affordable, budget-friendly offerings.

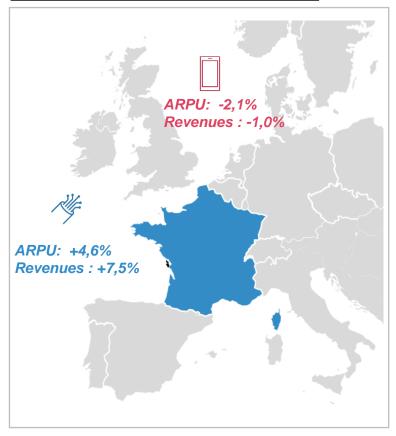
In contrast, the French fixed broadband market is characterized by a strong premiumization strategy, driving substantial revenue and ARPU growth, particularly in 2024. Operators are focusing on high-value technological attributes which has led to a significant increase in high and very high-speed broadband ARPUs. This value-up strategy, further amplified by fixed-mobile convergence and bundled offerings, is fueling market dynamics and customer loyalty.

French telecom market retail revenues split



Source: IDATE 2025

ARPUs and revenues evolution in France in 2024



Source : IDATE 2025





A mobile market with two-speed dynamic: premium stability and low-end price pressure



Competition increase on low end segment in 2024 is leading to revenues

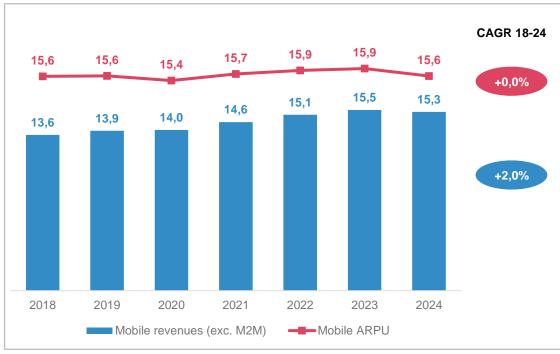
Following years of decline between 2012 and 2018, due to entry of Free (Iliad) in 2012, the French mobile market experienced a resurgence of growth from 2019 to 2023. This positive shift was propelled by several key factors:

- the end of aggressive price wars, which allowed for market stabilization;
- operators' ambition to monetize 5G, opening new revenue streams;
- the growing demand for mobile data, which fueled increased consumption.

Notably, the **mobile ARPU remained stable during this period**, largely **attributed to the loyalty of high-value customers** who were less susceptible to price fluctuations.

However, the low-end segment of the French mobile market has remained fiercely competitive for several years. In 2024, this competition intensified, leading to a more volatile and price-sensitive market. The market witnessed a 2% decrease in ARPU and a 1% decline in revenues, demonstrating the tangible financial impact of this heightened competition. Furthermore, customers are showing an increasing sensitivity to repricing campaigns, making it more challenging for operators to implement price adjustments.

Mobile revenues (M Eur) and ARPU (Eur/Month) in France



Source: IDATE 2024 - ARCEP





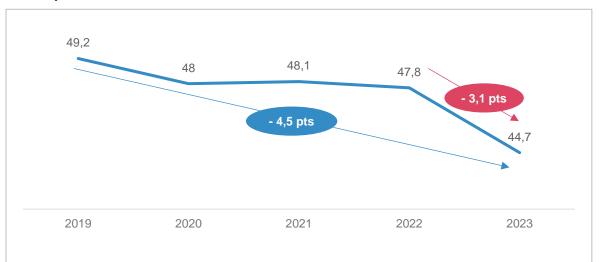
Intensifying low-end price wars since 2023: a trend reflected in the mobile price index evolution



Decrease in mobile price index since 2019

Despite a stable ARPU, strengthened by high-value customers and increased data demand, the mobile price index published by ARCEP demonstrates a clear downward trend. Between 2019 and 2023, the index fell by 4.5 points, with a particularly significant decrease observed in 2023. This accelerated decline was primarily driven by the low prices prevalent in entry-level mobile offers, indicating a persistent and intensifying competitive pressure within that market segment.

Mobile price index evolution in France - Base 100: 2010

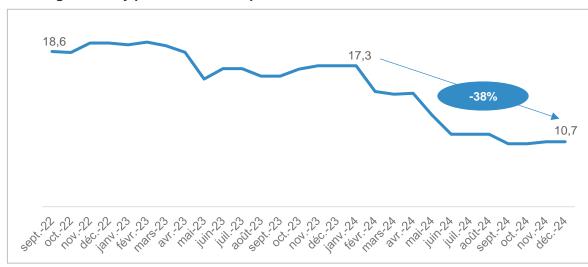


Source: IDATE 2024 based on ARCEP

Accelerate decline in low-end segment in 2024

The low-end segment of the mobile market experienced an accelerated decline in 2024, characterized by an intense decrease in the average monthly price of entry-level plans offering at least 10GB of data: Prices dropped by 38% between December 2023 and December 2024, falling from €17.3 to €10.7 per month. This sharp reduction underscores the intense competitive pressures prevailing in the entry-level segment of the mobile market.

Average monthly price of a mobile plan with 10 GB to 20 GB – incl VAT



Source: IDATE 2024 based on Barometer Ariase





French fixed broadband: premiumization drives revenue and ARPU growth

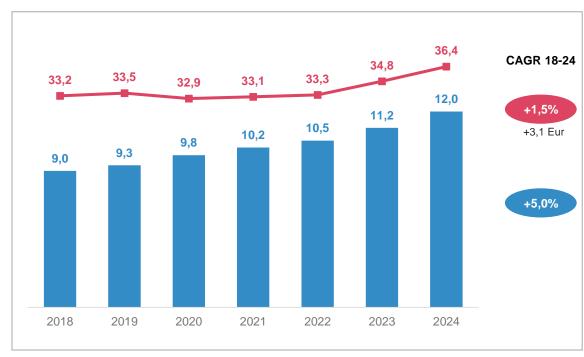


The French fixed broadband market presents a picture of **stability and growth**, characterized by a non-aggressive competitive environment and **a steady increase in ARPU.**

Broadband's growing importance in customers' lives, driven by increased usage and the demand for quality networks, has translated into strong trends in both volume and value.

Notably, since 2022, operators have successfully implemented a premium positioning strategy, resulting in a significant rise in ARPU as they focus on higher-value services and enhanced network quality. This trend has further boosted fixed broadband revenues, particularly in 2024, which saw a remarkable 7.5% increase in revenues and a 4.6% growth in ARPU, highlighting the market's robust performance and the effectiveness of operators' strategic approach.

Fixed Broadband revenues (M Eur) and ARPU (Eur/Month) in France



Source: IDATE 2025, ARCEP





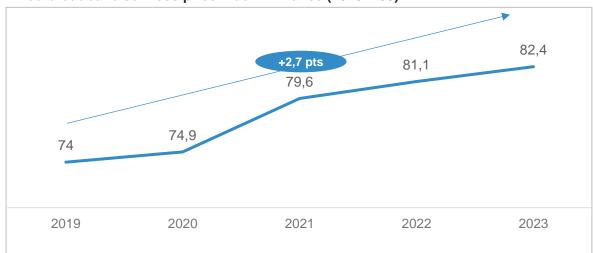
French fixed broadband market: Premium strategies and bundling fuel market dynamics



Premium Broadband: driving up the Price Index in France

The premiumization strategy implemented by French fixed broadband operators, coupled with rising consumer demand for high-speed internet, has demonstrably contributed to the increase in the fixed broadband price index published by ARCEP. Between 2019 and 2023, this index saw a 2.7-point rise, reflecting the market's shift towards higher-value offerings. This trend is driven by operators focusing on premium services, such as ultra-fast fiber optic connections and advanced Wi-Fi solutions, meeting the growing need for reliable, high-performance connectivity in households.

Fixed broadband services price index in France (2010=100)



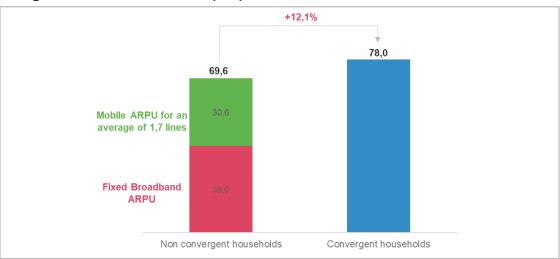
Source: IDATE 2024 based on ARCEP

Fixed-Mobile convergence: a key driver of premiumization and customer loyalty:

Fixed-mobile bundling and convergence are key to French operators' premium strategies. Bundled packages enhance customer experience and boost ARPU. For Orange France, the ARPU from convergent households is 12.5% higher than the equivalent ARPU of non convergent households in Q4 2024 (at a comparable scope).

With 51% of households having a single operator for fixed and mobile services, operators leverage broadband assets to increase satisfaction and reduce churn. To protect fixed broadband value, price reductions are generally applied to mobile components.

Orange France Q4 2024 ARPUs (Eur):



Source: Orange

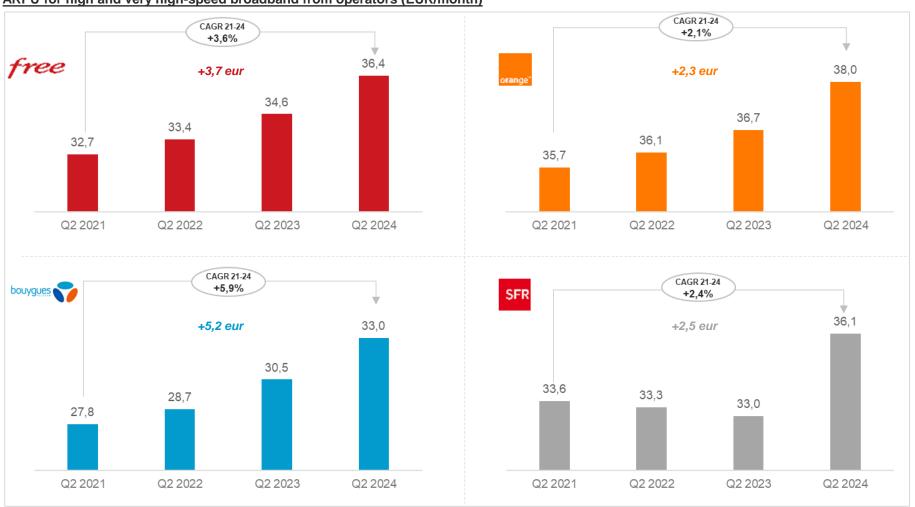




High and very high-speed broadband ARPUs saw a significant increase in the first half of 2024, confirming the premiumization of telecom operators' offers.



ARPU for high and very high-speed broadband from operators (EUR/month)



The high and very high-speed broadband ARPUs of French operators have been increasing since 2021, with a particularly marked rise in the first half of 2024.

This increase aims to absorb the inflationary effect for the operators. It results from several actions by these players:

- Price increase (Red By SFR and Bouygues)
- Reduction in the number of acquisition and retention promotions
- Shortened promotional periods at Orange
- Technological value-up with boxes priced up to €59.99/month

Note: Orange: ARPO – Average revenue per offer / Bouygues: APBU - Average Billing Per User excluding B2B / Free: ARPU BB / SFR: calculs IDATE à travers le CA Fixe

Sources: IDATE 2024 based on operators publications





Operators have a value-up strategy based on technological value attributes. Currently, Free, who has disrupted the French telecom market for years has the most expensive offer.



Operator			orange [™]				bouygues		Sesh
Fiber speed	400 Mbps	700 Mbps	1 Gbps	2 Gbps	8 Gbps	600 Mbps	2 Gbps	8 Gbps	1 Gbps
Monthly price*	33,99 Eur	39,99 Eur	42,99 Eur	51,99 Eur	57,99 Eur	32,99 Eur	41,99 Eur	49,99 Eur	25,99 Eur
Promotional acquisition price	19,99 Eur	No	24,99 Eur / 6 months	29,99 Eur / 6 months	34,99 Eur / 6 months	19,99 Eur / 12 months	34,99 Eur / 12 months	42,99 Eur / 12 months	No
TV option included	No	TV with 200 channels included+ 1 TV boxes	TV with 200 channels	included+ 2 TV boxes	TV with 200 channels included + 2 TV boxes + (-5 Eur) Netflix, Disney, Max		TV with 180 channels included + Prime, Universal 6 months	TV with 180 channels included + Prime, Universal 6 months	No
Commitment	6 months	12 months					No commitment		

Operator	SFR			free				REDSFR	
Fiber speed	1 Gbps	2 Gbps	8 Gbps	1 Gbps	2,5 Gbps (5 Gbps share)	8 Gbps	8 Gbps	1 Gbps	2 Gbps
Monthly price*	29,99 Eur	36,99 Eur	44,99 Eur	29,99 Eur	39,99 Eur	49,99 Eur	59,99 Eur	23,99 Eur	30,99 Eur
Promotional acquisition price	No	No	No	19,99 Eur / 12 months	29,99 Eur / 12 months	39,99 Eur / 12 months	49,99 Eur / 12 month	No	No
TV option inluded	160+ channels	200+ channels +Netflix + Max + Prime 6 months	200+ channels +Netflix +Disney + Prime 9 months	TV with 230 channels included	230+ channels +100 hours of recording time	280+ channels +320 hours of recording time+TV by Canal	280+ channels +320 hours of recording time +TV by Canal +Netflix +Disney +Prime	TV with 35 channels or option with 100 channels (+2 Eur)	
Commitment	12 months No commitment			No commitment				No commitment	

^{*} Price excluding discounts

Sources: IDATE based on operators' offers catalogue – January 2025



O3 RECOMMENDATIONS FOR OPERATORS



Upgrade existing networks for value creation, target FWA customers in non-fiber-covered areas, and focus on millimeter-wave bands for enhanced FWA performance

Upgrade GPON existing networks is a profitable investment that strengthens operators' market positions. The upgrade lead to value creation for operators:

• In France, operators upgraded their networks, offering packages with much higher speeds and observed a measurable increase in ARPU. In 2024, 10 out of 18 fixed broadband offers have speeds higher than 1Gbps, meanwhile the fixed broadband ARPU has increased by 5%.

• In **Italy**:

- Iliad increasing its access prices in January 2025 (+10%, +2 euros), positioning itself as a premium provider with Wi-Fi 7 and speeds up to 5Gbps (one of the highest speeds in the country).
- o TIM upgraded its network in 2024 and offers speeds of up to 10Gbps, meanwhile it has observed a 7% increase in its fixed broadband ARPU this year. In addition, the operator has announced increases for some fixed broadband offers (between €2 and €2.90 more per month) from April 2025.
- In Spain, Digi, the disruptor, has upgraded its own network.

FWA: Recommendations based on market type:

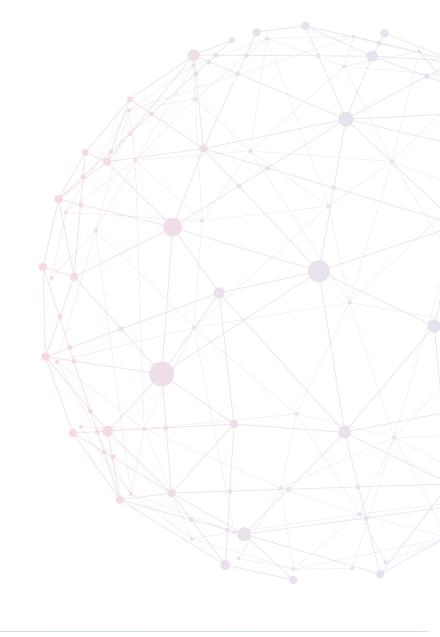
In markets like Italy, where FWA plays a crucial role as a broadband solution, operators should focus on millimeter-wave bands to deliver fiber-like speeds. This approach not only enables operators to offer high-speed internet in underserved areas but also creates new revenue opportunities.

In Italy, FWA accounts for 12% of broadband connections, with pricing that is on par with fiber-based solutions.

In markets like Ireland, where FWA serves as a temporary solution in rural areas pending fiber deployment, operators should focus on stimulating adoption and volume growth. The priority should be to attract and retain customers, ensure their loyalty to the service, and creating a strong foundation. Once fibre infrastructure is deployed, operators can then smoothly transition these customers to fiber-based services, capitalising on their established customer base.



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