



# CFA Institute

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CFA Institute Research Challenge  
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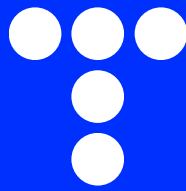
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**BUY**

**5,16 €**

**GAIN**

**47%**

Figure 1: Valuation Summary

TEF - BME	
Headquarters	Madrid, Spain
Year incorporated	1924
Market Cap.	EUR 20,10B
Current price	3,50
YTD	3,01%
52-week high	4,957
52-week low	3,218
Beta	0,92
Shares outstanding	5.896 M
Employees	103.934

Source: Refinitiv

## BRIEF

Telefónica (TEF:BME) is a Spanish global telecommunications company that provides mobile and fixed-line telecommunications, broadband, and pay television services. Telefónica has a diverse portfolio of brands, including Movistar, O2 and Vivo. The company is committed to providing innovative digital solutions to its customers and to promoting digitalization in the countries where it operates.

## EXECUTIVE SUMMARY

We begin the analysis of TEF with a **BUY** recommendation based on our target price of € 5,16. This represents a potential gain of approximately 47% with respect to the current price of €3,50. Our target price is the combination of three valuation models:(i) Discounted Cash Flow (DCF), (ii) Sum Of The Parts model (SOTP) and (iii) Relative Valuation. Our recommendation is supported by its strong geographic footprint, and its operations to reduce fixed expenditures and focus on more profitable areas of the business.

## BUSINESS DESCRIPTION

Telefónica is a multinational telecommunications company whose headquarters are located in the Spanish capital, Madrid. TEF operates across twelve countries with a strong presence in Europe and Hispam. The company owns three brands that are connected directly to the different stakeholders: Movistar for Spain and Hispam, O2 for Europe and the United Kingdom, and Vivo for Brazil. Telefónica's role is barely institutional, by means of its trademarks it provides internet access, telephone and television services, and mobile phone sales to its customers. Telefónica is present in 12 countries, in which it offers and commercializes its services. TEF has 103.934 employees in 24 countries, including 99 different nationalities in the group.

### History and Management Team

Founded in Madrid in 1924 (*Figure 3*) under the name of Compañía Telefónica Nacional de España (CTNE), fruit of the union between the peninsular telephone company and CTNE. The company was created intending to standardize telecommunications, a decision that was taken during the mandate of General Miguel Primo de Rivera, whose intention was to set up a genuine monopoly. From the very beginning, International Telephone & Telegraph became the largest shareholder of TEF. In 1928 the company achieved its first success, linking the first transatlantic connection between King Alfonso XIII and his interlocutor, the President of the United States, Calvin Coolidge. In 1945, Francisco Franco, head of state at the time, acquired 79.6% of CTNE's shares. In 1960, TEF became the first company in Spain, with 100,000 shareholders, 10,412 million pesetas of capital, and more than 32,000 employees. In 1967, satellite communications began and in 1987 TEF was listed on the New York Stock Exchange. In 2000, the Veronica operation took place, in which TEF obtained 100% of Telesp, Tele Sudeste and Telefónica Perú. However, in Argentina, it only obtained 72.42%. In 2003, Telefónica alongside Portugal Telecom created Vivo in Brazil.

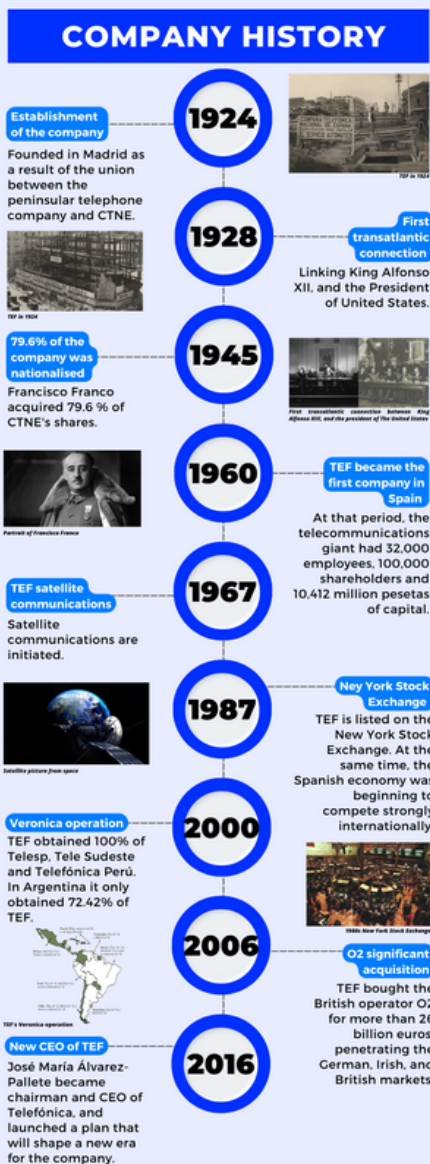
*"Companies that do not take responsibility in this new world will cease to be relevant in the short term. Executives who do not commit to the long-term and sustainability will not be responsible."*

**Figure 2: A walk through TEF's logo history**



Source: Balmes Team

**Figure 3: Telefónica's history**



Source: Balmes Team

In 2006, TEF bought the British operator O2 for more than 26 billion euros, penetrating the German, Irish, and British markets, making it one of the major transactions conducted by a Spanish company abroad. In 2016, José María Álvarez-Pallete was elected as chairman and CEO of Telefónica and launched a plan that will shape a new era for the company.

The first point of the plan was to focus on four key markets: Spain, Brazil, the United Kingdom, and Germany. The second and third point was the creation of Telefónica Tech and Telefónica Indra. The fourth point is the creation of a unit that will integrate TEF's businesses in the rest of Latin America, except Brazil. The fifth point is the learning of structures, to deliver a better service to the customers and take advantage of the group's scale and synergies (2019). Other relevant members of the management team (**Appendix 1**) are Laura Abasolo García de Baquedano, General Director of Finance and Control of Telefónica S.A and responsible for Latin America. Sergio Oslé, President of Movistar Plus+ and COO of Telefónica Spain. Enrique Blanco, Global CTO of Telefónica SA, Global Director of Systems and Network (GCTIO), and currently Chief Technology and Information Officer (CTIO).

### Business Segments and Technologies

Telefónica operates in several business segments. Under its commercial brands, it offers mobile and data services to individuals and businesses, fixed-line communications, broadband internet, and TV with its own and third-party content.

Regarding businesses, it relies on its subsidiaries to deliver services to SMEs and large companies. The services provided are focused on offering Cloud technology, Cybersecurity, IoT, Big Data, Artificial Intelligence, and Blockchain. TEF offers customized solutions according to the activity in which the company is engaged and the sector in which it operates. Through Telefónica Global Solutions and Telefónica Tech, two of its five divisions, it guides multinationals, companies, and wholesalers to offer them tailor-made technological solutions. Telefónica Tech's core purpose is to provide cybersecurity and cloud solutions in order to transform businesses into fully digital firms. This is possible through ACENS, a corporate solutions provider, which is part of TEF, and whose mission is to provide cloud services, a backup - a service designed to help consolidate business backups in the cloud - and hosting. The services offered by ACENS can be divided into two main lines: acensHOST - which provides Internet presence solutions - and acensNET - which covers professional Internet access services, as well as virtual private networks on MPLS technology. **Appendix 1**

Through Telefónica TECH VENTURES, it invests in the best cybersecurity start-ups in the world, with the intention of building a joint business. The most remarkable aspect of its networks and technology is the 5G which TEF has rolled out in four of its five main markets. Telefónica Infra is a subsidiary whose main objective is the management of infrastructure assets, focusing on capturing opportunities that add value. TI owns Telxius, which primary role relies on the exponential increase in data traffic expected over the next few years. Telxius runs 100,000 km of fiber optic cable connecting Europe with America, as well as connecting the US with Latin America, and Latin American countries with each other. Lastly, TEF has an R&D department (TID) devoted to innovation and development with the ultimate goal of launching new ideas, advanced products, and services. TID works with vastly over 150 universities worldwide, making it one of the largest innovation ecosystems in Europe.

**Figure 4: Customer Base**



Source: Refinitiv

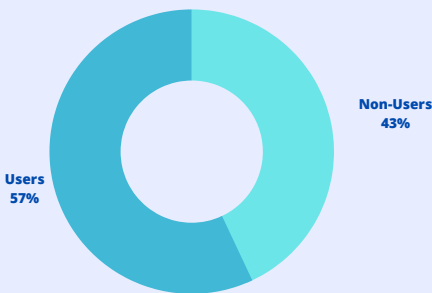
**Customer Base**

In Spain, under the Movistar brand, it offers products covering fixed and mobile communications, television with self-produced content, and businesses such as security and health services (32.61% revenue). In Brazil, it is a leader in telecommunications, offering products and services through Vivo, a subsidiary of the Spanish group, for B2C and B2B customers (18.15 % revenue). In Germany, it operates under its main brand O2, where it offers prepaid and postpaid telecommunications products that include both internet and fixed telephony services (20.39% revenue). In the United Kingdom, under the brand of O2, it has merged with Virgin Media, owned by Liberty Global, to form Virgin Media O2, where it operates 50:50 to reach more than 47 million customers (6.90 % revenue). In Hispam, TEF operates under the Movistar trademark, supplying more than 108 million private and business customers, and is present in Mexico, Colombia, Venezuela, Peru, Ecuador, Uruguay, Chile and Argentina (21.96% revenue). *Figure 4*

**INDUSTRY OVERVIEW**

We expect growth in the Telco industry to be driven by three main factors in the coming years, which are the following:

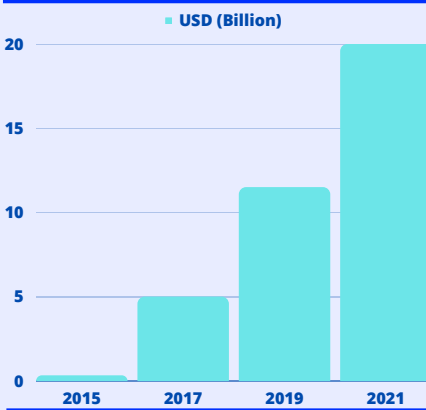
**Figure 5: People with internet access (%)**



Source: CyberSecurity Ventures

**Demand for higher broadband speeds and rising competition:** Almost every new device on the market can deliver the same or faster speeds than home Wi-Fi connection networks. Moreover, the introduction and exponential adoption of 5G technologies, which can also match and even surpass the performance of today’s broadband connections will set the stage for new ways of using and connecting to the internet, most probably with a whole new set of applications and use cases. Telecommunication companies will have to rethink their services’ offering to meet these new demand characteristics. They will have to find a balance between fiber and wireless asset deployment, and carefully consider the rise and potential threat of virtual network operators using their wireless scale to build their own networks. Another important factor is that people with access to internet will increase year over year.

**Figure 6: Cybersecurity costs worldwide**



Source: CyberSecurity Ventures

**The shift from cable to fiber and wireless networks:** Although cable broadband speeds are sufficient, their elevated OPEX and ESG factors make it less favorable in the long-term compared to fiber networks. Therefore, to meet future demand expectations, telecommunication services companies face the challenge of a complete industry infrastructure redesign, both physical and wireless to future proof their businesses. Assuming the current growth of high-speed internet usage coupled with the high energy consumption of cable technologies, it is very likely that within the next decade it will become obsolete. Therefore, the correct redesign and number of resources dedicated to this matter is crucial in order to maintain/improve business efficiency.

**Figure 7: ESG Scorings by Refiinitiv includes the scorings referred to each segment on the text**



Source: Refinitiv

**Cybersecurity:** Two key computing and networking trends are emerging within the virtual network operators’ space. These are Software Defined Networks (SDNs) and Network Function Virtualization (NFV), and both rely on the separation between basic hardware and related network functions from application service functions that operate as virtual networks (in the software space). This emerging virtualisation trend offers greater exposure to cybersecurity risks and therefore new standards will have to be developed for networks to be secure, vigilant and resilient.

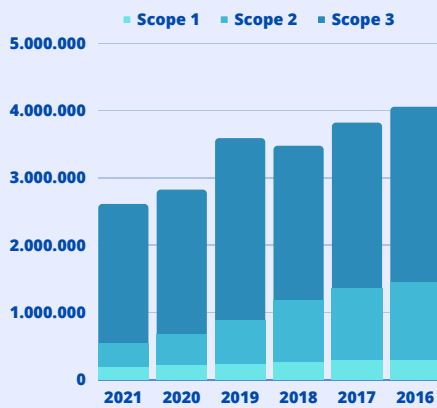
**ENVIRONMENTAL, SOCIAL AND GOVERNANCE**

TEF is highly regarded in the sector from the ESG rating perspective, with ratings described in *Figure 7*. Being the first in the industry to introduce green bonds in their financing scheme is reinforced by their goals of funding with up to 25% of financing linked to sustainability, making ESG a pillar of the company’s endeavors.

General data depicted in **Appendix 2**.

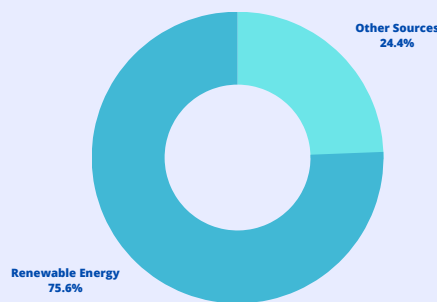
**A-**  
Environmental Pillar Score

**Figure 8: CO2 Emissions distributed by Scope 1 + Scope 2 + Scope 3**



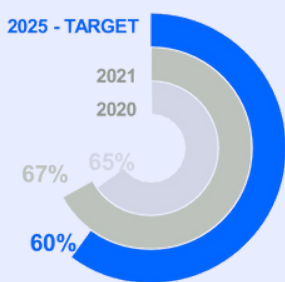
Source: Refinitiv

**Figure 9: Distribution of Consumed Energy Source**



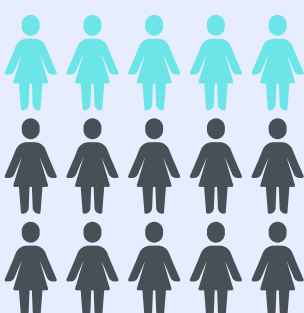
Source: Refinitiv

**Figure 10: Employee Net Promoter Score, Targets and Achievements**



Source: ESG Highlights, Telefónica

**Figure 11: For every two Men on the board, one is a Woman**



Source: Balmes Team

## ENVIRONMENTAL

Environmental-focused targets include fostering the use of renewable electricity and the reduction to zero the waste the company produces, pushing the efficiency of the energy used, and compromising with the 100% global use of renewable electricity target for 2030, sitting right now at over 76%, as per *Figure 9*. Zero-waste policies are encouraged with the recycling of up to 98% of their waste, including the reuse of electronic equipment, which amounts to 16% of their recycling. Furthermore, data traffic has seen an increase in the efficient use of energy, widening the gap between both year by year since 2020. Decarbonization is being pushed from inside the company and towards their clients, with the avoidance of carbon emissions through digitalization and the use of Smart devices, with the target to avoid up to 12 million tons of CO2 emissions per year. Scope 1 and 2 emissions are to be reduced up to 80% by 2030, which is already at the 70% mark, as seen in *Figure 8*, with the idea to reduce all emissions up to 90% and neutralize the rest by the acquisition of carbon absorption credits. Because of this, TEF scores the highest in environmental ratings among its peers.

Water use per revenue is above the sector average, anchoring them to lower scores and something to be addressed shortly.

**A+**  
Social Pillar Score

## SOCIAL

Increasing rural connectivity in main markets and ensuring gender equality in pay gap measures and parity in the directors' board are the main tools TEF uses in their social department. As of 2021, while Spain and Germany are in range for their targets (between 90 and 97% rural coverage), Brazil is yet to enter the bracket with the 77% coverage achieved. The adjusted pay gap has been reduced to 1.2% with the goal set to a 1%, as well as women in director's positions have increased up to 30%, being one of the highest among peers, and targeting 33% for 2024. Development programs being reached by 70% of the employees and the employee Net Promoter Score at 67% (*Figure 10*), with an "Excellent" score being at the 40% mark, puts them above their targeted provisions, together with Gender parity policies TEF is highly regarded in the sector and social scores reflect that. Safety and Health are being also improved, with 86% of their employees covered by Health & Safety. Management System. Customer satisfaction is reflected in variable remunerations for both the CEO and the COO showing efforts towards improving NPS metrics, reaching 27% for 2021 and 67% on Reprtrak Reputation score, an independent scorer ranking the societal perception of TEF's performance. Responsible supply chain management focuses on working with suppliers that comply with a set of minimum standards and are subjected to performance assessments, with up to 71% of risk suppliers already being evaluated on their sustainability sections. As for negative impacts on scores, the multiple cyber incidents in 2021 brings concerns to their data management and cybersecurity sections.

**B**  
Governance Pillar Score

## GOVERNANCE

TEF board has seen a reduction in members in 2021 but the women ratio appearance is situated at 33,33%, and tenure revolving at an average of 8.5 years, with up to 60% of the members being independent, something to value in a board with up to 15 members. Distribution of professional experience through the board composition remains a positive note on the board but women's appearance is still below the Spanish recommendation, situated at 40%. The executive remuneration program is aligned with international standards and inspected by an independent compensation consultant. Short-term variable remunerations include ESG targets to help them achieve social interests, along with financial metrics. Including long-term variable remunerations, which include metrics on shareholder value as well as CO2 neutralization, they sum up to 79% of the total pay mix of the CEO, incentivizing social improvements and long-term decisions. Board evaluation is constant with monthly meetings, to keep strategic issues in check and maintain best practices with external third-party audits every three years. A shareholder with over 3% ownership is eligible to request agenda items and create submissions, to increase shareholder engagement over TEF, bringing value to ownership.

# COMPETITIVE POSITIONING

## Comparables Selection

Market share data from the major European telecommunications companies, as well as data on revenue, operating margin, and capital over net sales, were gathered and evaluated to determine Telefónica's main competitors.

With 38.5% of total Wireless Subscribers worldwide (accounting for 355 billion Wireless Access Lines), Telefónica is the top telecoms' provider in Europe (Figure 12), followed by Orange (32% of total WAL), Vodafone Group PLC (29.8% WAL), and Deutsche Telekom AG (19.5% WAL). Telefónica is the market leader in Spain, Brazil, and the United Kingdom, with 40,1M, 98,5M and 55,9M wireless access lines, respectively (Figure 13). With a total of 50,1M WAL, it ranks second in Germany behind Deutsche Telekom AG (53,2M WAL).

Even though TEF's revenues have been decreasing on average by 7% YoY in the past five years (-24,28% since 2017) (Figure 14), its operating margin has improved by 22,98 pp vs. 2020, attaining the greatest margin among its key rivals (34,59%) (Appendix 4I). Telefónica ranks fourth in terms of rival revenues with 39.28 billion in 2021, after Deutsche Telekom AG (108.79 billion), Vodafone Group PLC (45.48 billion), and Orange SA (42,52B) (Figure 15).

This stems from its increased presence among important operational markets such as Spain (32,61% of total revenue), Germany (20,39%), Brazil (18,15%), and the United Kingdom (6,90%), while decreasing its exposure in Latin America (21,96%) (Figure 16). In addition, the successful merger of O2 and Virgin Media to form a prominent UK operator, as well as the sale of Telxius towers for record multiples, have resulted in a reduction in total capex expenditure of around 14% YoY since 2019, accounting for the second lowest capex among its competitors in 2021 (VOD: -5,80B; TEF: -6,16B; ORA: -8,75B; DTE: -13,62%) (Appendix 4.1 & 4.2).

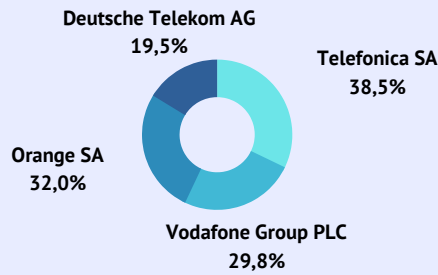
## Market Dynamics

The Industry had a rapid economic recovery from the pandemic. The Telco Industry expanded in the last decades to mobile data calls, internet calls, text, TV broadcasting services, and the internet from telephonic calls; with the increasing population, modernization of society and the use of smartphones. Nowadays the telecom network infrastructure market has had a substantial rise in demand. The data traffic, where its demand is exploding. From a regional perspective, the Europe Telecom network infrastructure market had \$20 billion dollar revenues in January 2022 and the market size surpassed USD 95 billion and is expected to exhibit a 6% of CAGR between 2023 and 2032 (Figure 16).

The adoption of artificial intelligence and machine learning and IoT deployment contributes to the telecom market growth. In fact, Telefónica stands in 5G, IoT, and Metaverse, since there is new demand coming. The industry is on the verge of a great transformational change. In fact, these days, companies have been investing significantly more to keep on being up to date with coverage and requirements.

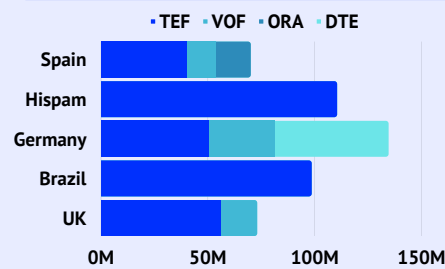
Nowadays, digitalization is an important asset that next to COVID-19 has made it very clear that investing in new technologies is much needed, that's why 20% of the European Recovery Funds are devoted to digitizing and updating companies; for which in this case Telefónica is beneficiary.

Figure 12: Total Wireless Subscribers



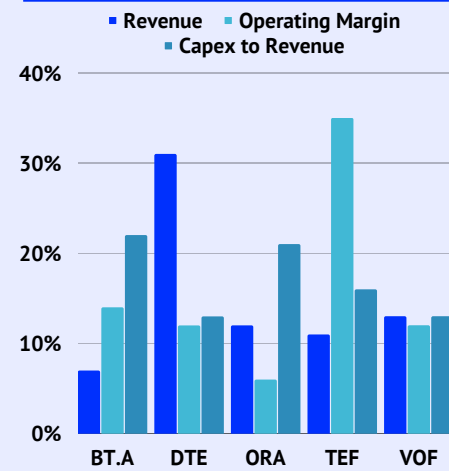
Source: Bloomberg

Figure 13: Wireless Access lines 2021 (millions EUR)



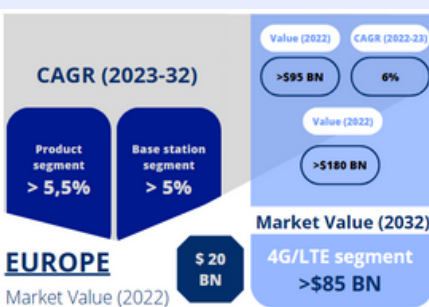
Source: Bloomberg

Figure 15: Market view



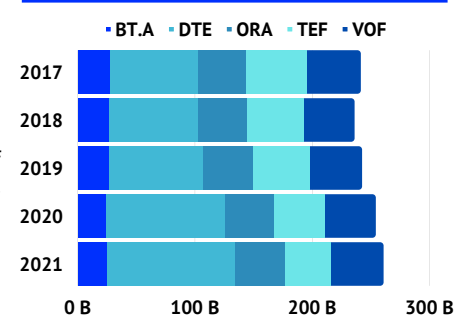
Source: Bloomberg

Figure 16: Europe Telecom network infrastructure market



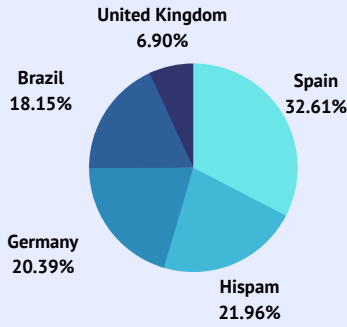
Source: Refinitiv and Balmes Team

Figure 14: Revenues (Billions EUR)



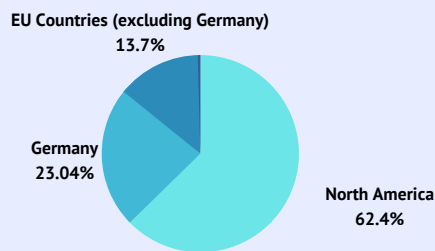
Source: Bloomberg

**Figure 17: TEF's Revenue by Operating Region**



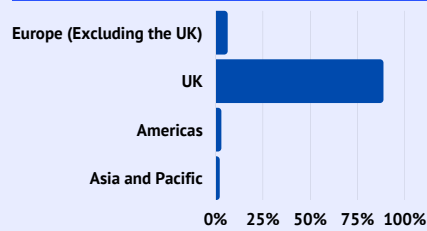
Source: Refinitiv

**Figure 18: DET's Revenue by Operating Region**



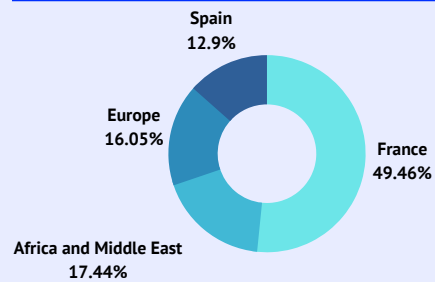
Source: Refinitiv

**Figure 19: BT.A's Revenue by Operating Region**



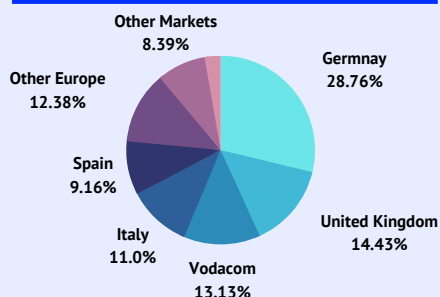
Source: Refinitiv

**Figure 20: ORA's Revenue by Operating Region**



Source: Refinitiv

**Figure 21: VOD's Revenue by Operating Region**



Source: Refinitiv

Nowadays telecom and cable companies are targeting customers with increasingly similar product offerings such as broadband internet and mobile-services bundles. It's said that 5G FWA can help put telcos on equal footing with cable companies, which nowadays often have a footprint advantage in delivering faster broadband services.

ESG has become a relevant factor in the industry, since cable emissions are 60% higher. There is a need to reduce carbon and environmental footprint while developing and growing new businesses which is a challenge for the telco and broader tech sector. For starters they are trying to use water instead of air and trying to cool down data centers.

## Geographic Footprint

TEF has a competitive edge over its counterparts due to its diverse geographic reach and substantial market share in the majority of its operational nations. TEF's profit share is uniform across its key markets (excluding the United Kingdom), in contrast to Deutsche Telekom AG, whose 62.40% of profits originate from North America, or Orange S.A., whose largest operating country is France (49.46% of total revenue). Furthermore, TEF is not just active in Europe, but it is also the market leader in Latin America, in contrast to Vodafone Group PLC, whose primary market is Europe (Figures 18,19,20,21).

## Acquisitions and Investments

Since the establishment of the company in 1924, it has acquired twelve companies. In fact, in 2022, Telefónica acquired three companies at a disclosed total price of \$399,76 M.

Telefónica Tech has acquired for up to \$350 M BE-terna, one of the top five Cloud Microsoft Dynamics partners in Europe. This acquisition is relevant, due to the fact that it positions Telefónica Tech as a relevant tech services player by securing a presence in Germany, Austria, Switzerland, the Adriatic region and the Nordics. (Figure 22)

Nowadays the Metaverse and IoT market has a lot of potential and Telefónica with the acquisition of Imascono, a startup that specializes in the Metaverse and the applied imagination, has opened a wider door to the metaverse and will be able to empower the strategy and digitalization in the new Enterprise Metaverse in which Imascono is based (Appendix 4.3).

**Figure 22: Adquisitions done by Telefónica**

ACQUISITIONS			
Tech	Firm	Company ac.	Disclosed V.
Cloud	Telefónica Tech	Be-terna	\$374.58 M
Disruptive	Telefónica Tech	Imascono	Unknown
Cloud	TIS	Vita IT	\$25,14 M

Source: Refinitiv

Moreover, the company has also invested in a company specialized in cryptocurrency and the biggest Spanish speaking exchanger named Bit2me, for its wallet. In addition to the already-known alliances with Meta and Microsoft and closed arrangements with emerging groups such as Niantic and Unity. (Figure 23)

**Figure 23: Investments done by Telefónica**

INVESTMENT		
Tech	Firm	Company invested in
Disruptive	Telefónica Tech	Bit2me
Disruptive	Telefónica Ventures	Helium
Disruptive	Wayra (TEF innovation hub)	Others

Source: Refinitiv

Moreover, Telefónica announced Wayra's (Telefónica's open innovation hub) investments in NFT creators, fintech, and holographic video calls. These three acquisitions are added to other operations, such as the acquisition of CANCOM UK&I in the United Kingdom and Ireland to strengthen Telefónica Tech UK&I in March of 2021. Moreover, the public entity bought in 2021, Acens, Altostratus y Geoprom (Appendix 4.4).

<b>PRICE per SHARE</b>	<b>3,5</b>
<b>EQUITY VALUE per SHARE</b>	
<b>DCF</b>	<b>5,45</b>
<b>SOTP</b>	<b>4,20</b>
<b>MULTIPLES</b>	<b>5,85</b>
<b>5,16 €</b>	
<b>GAIN</b>	
<b>47%</b>	

## VALUATION

With a 12-month target price of 5,16 EUR which represents a 47% increase from TEF's closing price of 3,5€ on January 30, 2022, we issue a **buying** recommendation based on three equally weighted valuation methods, (i) Free Cash Flow to the Firm (FCFF) Discounted Cash Flow (DCF) model (ii) Sum of the Parts method (iii) multiples method.

BUY

5,16 €

### Discounted Cash Flow (DCF)

The DCF method takes into account TEF's potential for future development in light of the difficulties that might result from investments to address the industry's disruptive and continuously changing environment.

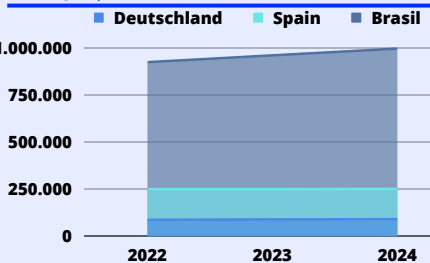
We predict that sales will increase by 5% in 2022E due to the projected expansion in market share in the UK, via the joint venture with Liberty Global and in Brazil, one of TEF's market bets with strong future growth potential. However, starting in 2023, we expect a less pronounced increase in TEF's organic sales due to fierce competition in Germany and Spain. Despite the company's efforts to boost the efficiency of its services by reducing costs, increased power and energy costs will result in higher operational expenditure. Telefónica will need to make significant investments if it is to maintain its position as a market leader in the operational markets. Hence, we anticipate elevated capex values. We expect amortisation in the coming year to be more contained due to the sale of many property plant & equipment. However, to be more competitive and introduce 5G technologies, TEF will have to invest not only in R&D but also in infrastructures, which will increase future depreciation. **Appendix 5.1** shows more detailed assumptions taken into account to build the expected future cash flows.

Figure 24: WACC

<b>Risk Free Rate</b>	2,17% German 10-year bond at 20/01/2023
<b>Country Risk Premium</b>	The country risk premium for each operational region, taking into account the 10-year bond rates, is as follows: Brazil (10,83%), Spain (0,99%), and the UK (1,2%). The relative income contribution of each nation to TEF—Spain (32,61%), Brazil (18,15%), and the UK (6,90%)—determines the weight of each CRP.
<b>Adjusted Unlevered and Levered Beta</b>	0,812 Average 2-year monthly adjusted unlevered beta with respect to STXE 600 Index is obtained from Bloomberg. Levered beta of 2,522 is calculated considering D/E of 280,75%.
<b>Tax Rate</b>	Normalized 25% tax rate.
<b>Equity Risk Premium</b>	3,73% considering 1 year's IBEX 35 market return of 5,9%.
<b>Cost of Debt</b>	3,356% Euribor 12-month
<b>WACC</b>	5,52%

Source: Refinitiv

Figure 25: Normalized EBIT evolution million \$



Source: Balmes Team

**WACC.** Figure 24 and **Appendix 5.2** provides the assumptions that were made in order to calculate our 5,52% WACC.

**Terminal Growth:** Based on the presumption that Telefónica would continue to expand at the rate of inflation beyond 2025, the terminal growth rate of 2.1% was derived.

**Perpetuity ROIC:** 3,78% Return on Invested Capital is an average of the last three business years excluding 2021.

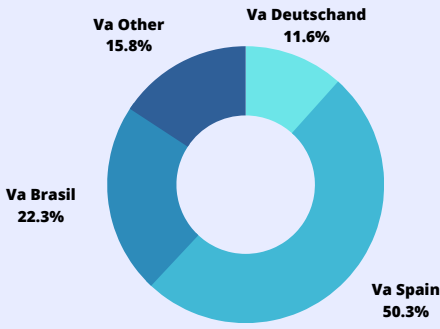
**Appendixes 5.2 & 5.3** show the detailed DCF valuation model along with the Team's expectations on future financial statement flows.

### Sum of the Parts (SOTP)

We have determined, that the value of the company using the SOTP is 24.759,00 € million (Figure 26) and the target price is 5,14, by making assumptions, analyzing how the company and the market perform, and calculating a normalized EBITDA in order to extract the eV. We have analyzed the number 1, 2, and 3 players, concluding that in the case of Spain, the division has higher EBITDA margins and the highest market share, as well as less churn. We have also observed that the players with the highest market share have good financial leverage and therefore a good margin. That is why, when comparing Spain to Germany or Brazil, the normalized margin differs by 100 basic points (Figure 25). And the same methodology is followed in the case of the EV/EBITDA. The assumptions used to arrive at that result, are provided in **Appendix 5.4**.

The company has been divided into three major divisions: Spain, Brazil, Germany, and others. We have decided a percentage of EBITDA margin for each, taking into account how Telefónica is performing in each territory. In the case of Spain, due to the fact that there was no information on the next year's projections, we have done one based on the average between Germany, Brazil, and the rest.

Figure 26: TEF value using SOTP method



Source: Balmes Team

Figure 28: Three different scenarios. P/E ratio

EARNINGS		P/E	
WORST CASE	0,18	WORST CASE	6,96
BASE CASE	0,45	BASE CASE	13
BEST CASE	0,69	BEST CASE	16

Source: Refinitiv

Figure 29: Relative valuation Target Prices

EARNINGS	SCENARIO	P/E		
		WORST	REGULAR	BEST
EARNINGS	WORST	1,25	2,34	2,88
	BASE	3,13	5,85	7,2
	BEST	4,80	8,97	11,04

Source: Refinitiv

Figure 30: Relative valuation margins

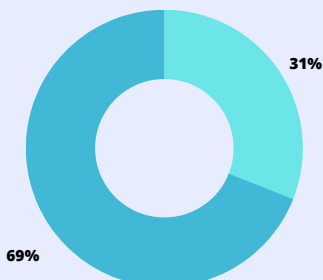
EARNINGS	SCENARIO	P/E		
		WORST	BASE	BEST
EARNINGS	WORST	-64,21%	-33,14%	-17,71%
	BASE	-10,51%	67,14%	105,71%
	BEST	37,21%	156,29%	215,43%

Source: Refinitiv

**TARGET PRICE**  
**5,85 €**

Figure 31: 5G Telecommunication services

By 2026, 69% of telecommunication services subscriptions will have 5G connectivity.



Source: Ericsson

Figure 27: Total Asset Value in million \$

Va TELEFONICA SOTP METHOD TOTAL			
	2022E	2023E	2024E
Deutschland	7.504,14	7.662,92	7.772,77
Spain	32.494,25	32.103,89	32.093,34
Brazil	14.375,15	15.139,80	15.868,56
Other	10.178,44	10.516,80	10.589,78
Va TOTAL	64.551,98	65.423,41	66.324,45

Source: Refinitiv and Balmes Team

Figure 28: Total Equity Value of the company EUR million

Va TOTAL	59.020,00
Vd Consolidated	34.261,00
Ve TOTAL	24.759,00

Source: Refinitiv and Balmes Team

## Relative Valuation

Considering the relative valuation analysis (Appendix 5.6), we have considered three different scenarios reflecting different market conditions.

**1) Worst case scenario:** strengthened competitive environment, low EBIT margins, and high financial costs. In this scenario, we estimate a 7x P/E ratio and 0,18 EPS. This scenario aims to reflect a possible deterioration of the market conditions, which would put pressure on the ability of the company to sustain its current financial performance.

**2) Base case scenario:** average EBIT margins and adjusted costs which lead to an estimated EPS of 0,45 and a P/E ratio of 13x. This is the average between the historical and current P/E ratios of Telefónica's peers.

This scenario aims to reproduce current market conditions, hence the use of average EPS and P/E ratios. We believe this scenario to be the highest probability scenario and it is the one that we take into account to establish a final target price.

**3) Best case scenario:** price increases, reduced capital expenditure, and higher operating leverage is assumed in this scenario. This translates into an average of 0,69 EPS and an adjusted average 16x P/E ratio, which is the average of the last seven years.

This scenario aims to reflect upbeat market conditions, where the company would experience higher margins, revenues, and better financials overall

Figure 28 represents the different scenarios and the possible target prices per share. Figure 29 shows the potential upside/downside margins.

Using the relative valuation method and in confluence with the results obtained in both the DCF and SOTP valuation methods, we believe the highest probability scenario to be the base case scenario, where current market conditions continue into the near future and thus we expect the final target price to be 5,85 EUR.

## INVESTMENT RISKS

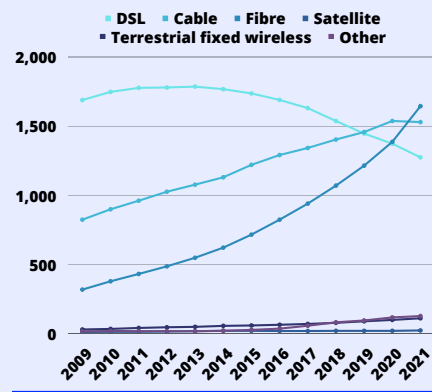
**[S1] Sector risk – Rapid technological changes require the right investment decisions.**

The telecommunications sector is constantly evolving, and to ensure longevity and stay competitive in the market, companies must continuously make investment decisions, the most important ones being the renewal of new deployment of its operating infrastructure. For example, high-capacity networks will be needed to be able to meet the demand for new services built on top of newly developed technologies such as 5G or fiber optics. Regarding infrastructure investment, the risk of virtual network operators entering the market is significant, as these types of network operators don't have to face the initial cost of setting up a physical network infrastructure. This may force Telefónica to rethink certain aspects of its business model.

Telefónica is amongst the top-3 telecommunication companies in market share in all the geographies that it operates in, therefore, we classify this risk as a medium impact, low probability risk.

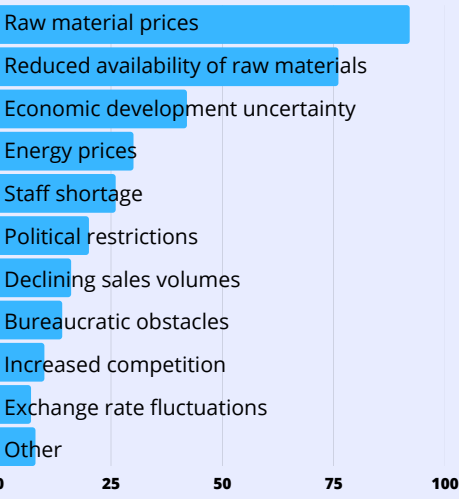
**Figure 32: Broadband speed subscriptions**

Progression in fixed broadband subscriptions by technology



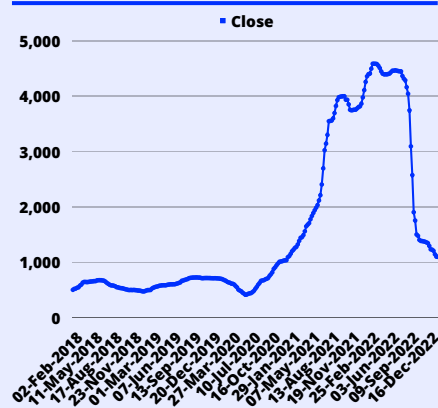
Source: OECD.org

**Figure 33: External factors affecting businesses' performance**



Source: Inverto

**Figure 34: Harpex Shipping Index**



Source: Refinitiv

**[S2] Sector risk – Reliance on concessions and licenses to perform its business operations.**

The telecommunications sector is subject to laws and sector-specific regulations. Many of the Group's activities require licenses, concessions, or authorisations from governmental authorities, which typically require that the Group satisfies certain obligations, including minimum specified quality levels, and service and coverage conditions. The sector is also subject to regulatory actions of antitrust authorities.

The Group requires sufficient spectrum to offer its services. The goal of the Group is to maintain the current spectrum, and expand it, if possible, by actively participating in the spectrum auctions at which parts of the spectrum are assigned to companies. This raises the risk of competition with other private corporate networks and a price increase in spectrum prices. Telefónica currently holds multiple spectrum concessions in each location, with expiration dates later than 2030 in its Europe divisions, and as early as 2023 in some of the HISPAM divisions. The strongest division is the UK division, with all spectrum concessions at indefinite expiration, whereas the weakest being Colombia, Ecuador, and Venezuela. Being able to renew or adjudicate new concessions is key to continue and expand the Group's operations.

We classify this as a high impact, low probability risk.

**[S3] Sector risk – Regulatory environment.**

Telefónica Group and thus the telecommunications sector operates in a highly regulated environment. The Group was involved in a judicial tax procedure in Perú for which it ended up condemned to a €790 M sanction. Another immediate threat that could have adverse effects is another judicial tax proceeding in Brazil for which a sentence is still pending. The group had already provisioned €916 M and €340 M for the Peru and Brazil proceedings, respectively. Although the risk is partially mitigated due to the provisions made by the Group, there is no guarantee that this will not have an effect on its business operations and financial condition.

Another important threat to the Group's business is the decision that the European Commission will take regarding the consolidation deal between Orange and MasMovil, that will set the stage for the coming years. This will be key to determine the stance of the EU Commission on imposing new obligations for consolidation deals and making way for new competitors to enter the market.

This is naturally a high impact risk, but due to the mitigation measures that the company has already put in place in the form of cash provisions, we classify this risk as a medium impact, high probability risk. The Group has already been sanctioned in Perú, and it will be key to monitor their ability to not let that affect the Group's business in the near future.

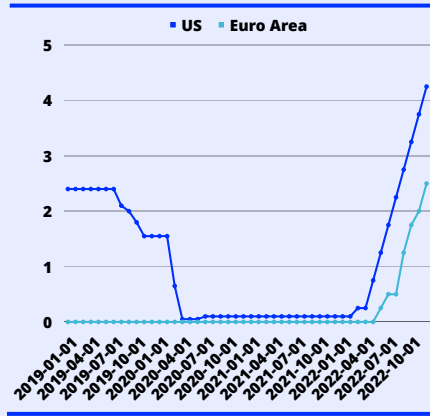
**[F1] Financial risk – Economic and political environment**

Telefónica is greatly exposed to economic and geopolitical environment changes, due to its presence in multiple geographies. Central Banks' monetary policies, sovereign risk fluctuations, continued supply chain disruptions, etc. are key factors that will influence Telefónica's business.

Despite its high level of indebtedness, Telefónica has been improving its financial condition this past years, mainly in a reorganisation of its debt obligations, which are at a fixed interest rate, and covered by cash and credit lines. However, the current environment of rising interest rates and high inflation, could affect the renewal of undrawn credit lines thus affecting the liquidity of the company due to the increased cost of borrowing.

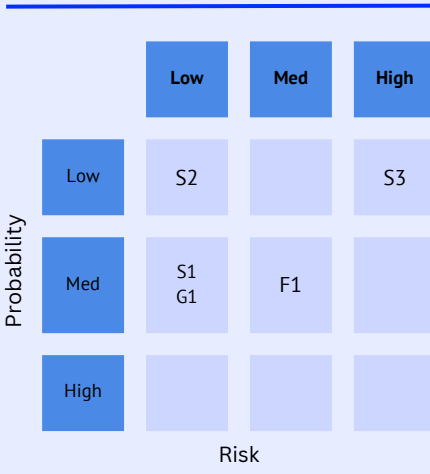
The fact that Telefónica is present in various geographies makes it crucial to effectively manage its foreign currency exposure. This exposure can be found in the form of financial debt trade receivables or payables denominated in a foreign currency to the currency of the company with which the transaction was registered.

**Figure 35: Central Bank interest rate evolution**



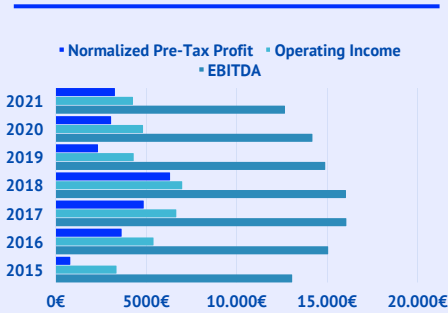
Source: TradingEconomics

**Figure 36: Risk Matrix**



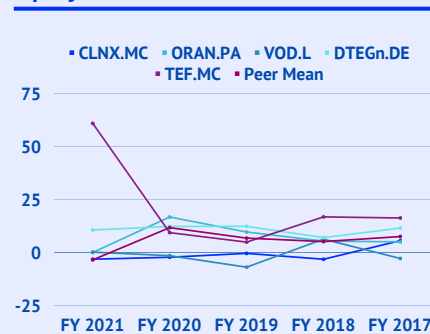
Source: Balmes Team

**Figure 37: Evolution of Income for TEF (millions)**



Source: Refinitiv

**Figure 38: Return on Average Common Equity for Telefónica and Peers**



Source: Refinitiv

To manage these risks Telefónica uses different derivatives strategies. However, these strategies are also exposed to other types of risk, for example, counterparty risk. We classify this risk as medium impact and medium probability.

**[G1] Global risk – Supply chain.**

Telecommunication operators depend highly on its suppliers in areas such as network infrastructure, information systems or handsets to adapt to the rapid development of new technologies. A high concentration in a small number of suppliers could affect the Group's operations, which can be translated into delays in the completion of projects or deliveries, poor-quality execution, cost deviations and inappropriate practices.

Telefónica has concentration risk from providers located in China, both in the handset and network infrastructure areas. The initial COVID-19 pandemic outbreak led to serious supply chain issues affecting almost all types of businesses, and although supply chain issues have almost normalised since then, China remains firm with its zero COVID policy and despite some signs of abandoning such restrictive policy, it is still very unclear what path the Chinese authorities will take. The war between Russia and Ukraine has to be considered as well. Air-freight availability and lanes are changing as flights need to be rerouted around closed air space over Russia and Ukraine, and freight trains that were moving goods from China to Europe through Russia, Ukraine and Belarus may no longer be available. Despite that, the Group has not been affected and has been able to continue its operations without disruptions. We classify this as a high impact, medium probability risk.

We have performed a sensitivity analysis for the risks described to assess how they would impact our target share price. It is done with our DCF model and can be seen in **Appendix 6**.

## FINANCIAL ANALYSIS

With six consecutive years of declining sales, TEF relieves the pressure with a marginally faster decline in operating expenses, leaving the company with manageable operating margins that are steadily positioned at 11% for the past two years, and an average of 11.6% for the five-year mark, approximately 2 points behind the mean for similar capitalized peers, at a 13%. On a positive note and despite all the negatives related to the decrease in sales, we see an improvement in normalized Pre-tax Profit in the last three years, with a 6.9% increase from the past year, hinting at a sane state of business. As seen in *Figure 1*, the decreasing tendency observed in sales does not fully translate to profit that keeps a steady pace.

For 2021 there is a rather abnormal situation with the Return on Average Common Equity, (*Figure 38*) which skyrockets toward the 60% mark but is a rather adulterated measure as it is distorted by the recent selling of some of their assets, something obviously not normal for the company. If we observe the track record of the company, the position is much more on average at a 12% ROACE, and in general keeps on track with its peers with some highlights in the past years. This along with the aforementioned Pre-Tax Profit gives TEF a positive view on the business activity side of the financial statements.

However, the company's debt has been historically high, although now has seen a decrease and is marginally aligned with the average Net Debt to EV of the company's peers, with just a 3% uptick. On the other hand, Net Debt to Operating Income still shows a multiple of 8.93, even if decreased a 20% in the past three years, is still something to keep in mind for their future operations.

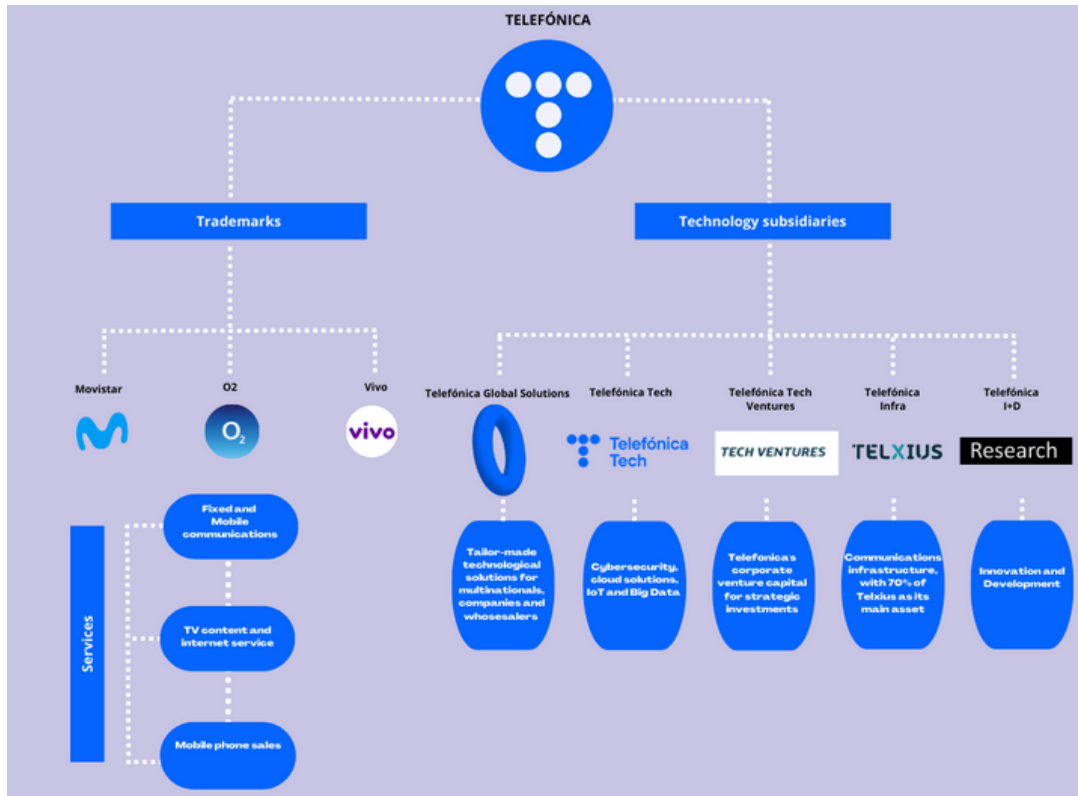
Redistribution to shareholders from TEF is one of the management's key focuses, with the highest dividend per share yields among its peers, and a strategy of Scrip Dividend avoiding dilution of share price for shareholders, which adds to this year's share repurchase.

# APPENDIX MAP

1. BUSINESS SEGMENTS & EXECUTIVE COMMITTEE
2. ESG
3. SWOT

4. COMPETITIVE POSITIONING
5. VALUATION
6. INVESTMENT RISKS
7. FINANCIAL ANALYSIS

## 1. BUSINESS SEGMENTS



Source: Telefónica's homepage



Source: Telefónica's homepage

## 2. SELECTED ESG DATA

	2021	2020	2019
<b>Period End Date</b>	2021-12-31	2020-12-31	2019-12-31
<b>ESG Reporting Scope</b>	100%	100%	100%
<b>ESG Report Auditor Name</b>	PricewaterhouseCoopers Audiores SL	PricewaterhouseCoopers Audiores S L	PricewaterhouseCoopers Audiores, S.L
<b>ESG Score (Weight 100.0%)</b>	<b>A-</b>	<b>A-</b>	<b>A</b>
<b>Environmental Pillar Score (Weight 20.3%)</b>	<b>A-</b>	<b>A-</b>	<b>A-</b>
<b>Social Pillar Score (Weight 53.2%)</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>
<b>Governance Pillar Score (Weight 26.5%)</b>	<b>B</b>	<b>B-</b>	<b>B</b>
<b>Total Energy Use / Million in Revenue \$</b>	492.36	429.05	424.43
<b>Energy Use Total</b>	21,983,850.00	22,571,863.20	23,038,758.00
<b>Total Renewable Energy</b>	16,623,496.84	16,925,035.31	16,017,562.92
<b>Total Water Use / Million in Revenue \$</b>	61.25	53.22	60.79
<b>Water Withdrawal Total</b>	2,735,000.00	2,800,000.00	3,300,000.00
<b>CO2 Equivalent Emissions Total</b>	536,737.00	675,459.00	886,320.00
<b>CO2 Equivalent Emissions Direct, Scope 1</b>	183,231.00	207,872.00	229,296.00
<b>CO2 Equivalent Emissions Indirect, Scope 2</b>	353,506.00	467,587.00	657,024.00
<b>CO2 Equivalent Emissions Indirect, Scope 3</b>	2,072,159.00	2,146,226.00	2,699,717.00
	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Period End Date</b>	2018-12-31	2017-12-31	2016-12-31
<b>ESG Reporting Scope</b>	100%	100%	100%
<b>ESG Report Auditor Name</b>	PricewaterhouseCoopers Audiores SA	PricewaterhouseCoopers Audiores, S.L	Ernst & Young S.L
<b>ESG Score (Weight 100.0%)</b>	<b>A</b>	<b>A</b>	<b>A</b>
<b>Environmental Pillar Score (Weight 20.3%)</b>	<b>A-</b>	<b>A-</b>	<b>A-</b>
<b>Social Pillar Score (Weight 53.2%)</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>
<b>Governance Pillar Score (Weight 26.5%)</b>	<b>B+</b>	<b>B</b>	<b>B</b>
<b>Total Energy Use / Million in Revenue \$</b>	450.68	398.22	451.83
<b>Energy Use Total</b>	25,168,510.80	24,844,377.60	24,717,308.40
<b>Total Renewable Energy</b>	14,901,579.94	14,901,579.94	--
<b>Total Water Use / Million in Revenue \$</b>	72.70	59.95	68.62
<b>Water Withdrawal Total</b>	4,060,000.00	3,740,000.00	3,754,000.00
<b>CO2 Equivalent Emissions Total</b>	1,176,656.00	1,355,418.00	1,444,833.00
<b>CO2 Equivalent Emissions Direct, Scope 1</b>	252,937.00	295,622.00	291,787.00
<b>CO2 Equivalent Emissions Indirect, Scope 2</b>	923,719.00	1,059,796.00	1,153,046.00
<b>CO2 Equivalent Emissions Indirect, Scope 3</b>	2,296,042.00	2,460,656.00	2,606,625.00

Source: Refinitiv

## 3. SWOT ANALYSIS

### TELEFÓNICA SWOT ANALYSIS



#### STRENGTHS

- **Broad geographical presence:** Telefónica has an extensive network of distributors, to help deliver efficient services to customers.
- **Strong brand awareness:** Telefónica's services enjoy a strong brand reputation in the communication services market.
- **Variety of revenue models:** Over the years, TEF has embarked on different business ventures outside the services sector. As a result, the company has grown with a diversified revenue stream beyond the services sector, and the communications services segment.
- **Market leadership status:** Tef has a strong dominant position. Because of that, can ram up the success of new products very fast.
- **High-profit margins** compared to its peers in the telecommunication services sector

#### WEAKNESSES

- The telecommunications services sector is expanding quicker than the business.
- **An additional expense of developing a brand new supply chain and logistics network:** Internet and AI have significantly altered the business model in the services industry. Due to the decreasing role of the distributor network, TEF has to set up a new and robust supply chain network which can be hugely costly.
- **Elevated employee rotation at operational levels** is also a worry for Telefónica: It might result in paying higher salaries to retain talent inside the company.
- **High cost of replacing current experts in the company:** A limited number of employees are in charge of the TEF knowledge base, and replacing them will be very difficult given the present circumstances.

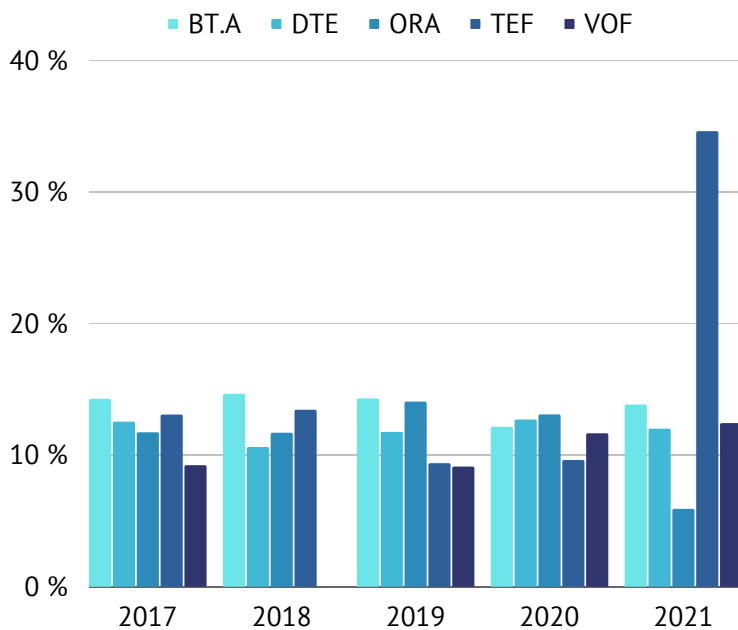
#### OPPORTUNITIES

- **Due to the COVID-19 pandemic,** working mobile is now a reality, resulting in a large number of people considering high-speed internet and telecommunication services as a priority
- **TEF has invested significant amounts of capital in the online platform over the last few years.** The investment opened up a new sales channel for the firm. In the upcoming years, the business can take advantage of this opportunity by knowing its customers in depth and addressing their needs through the analysis of big data.

#### THREATS

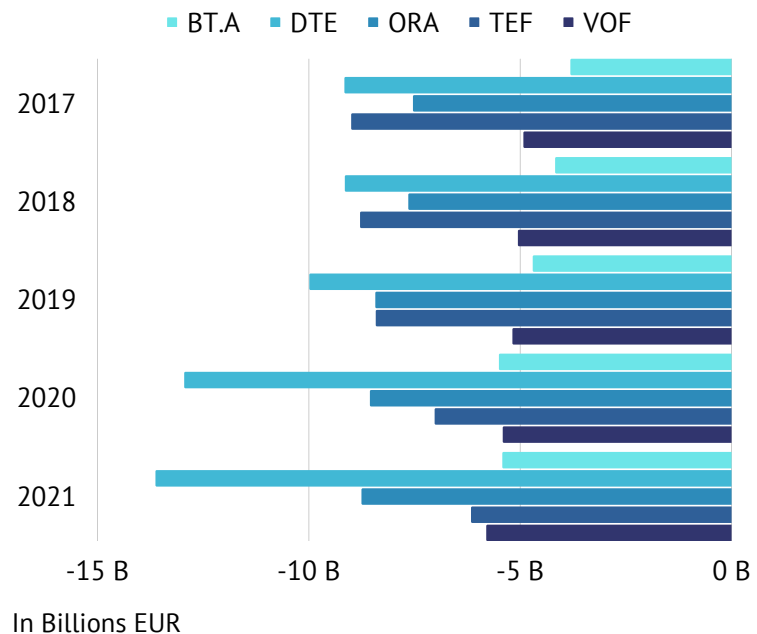
- **TEF can face potential lawsuits in various markets** because of the different legislations and the continuous changes in product standards in these markets.
- **Technologies developed by competitors** could present a major threat to the sector in the medium to long term.
- **Higher commodity prices** could pose a threat to TEF profitability.
- **TEF operates in numerous countries** and is exposed to fluctuations in currency exchange rates, especially due to the volatile political climate in various markets around the world.
- **Companies in the telecommunications industry** depend highly on concessions and licenses to perform their business operations. Managing the renovation, and adjudication of new concession and license deals will be key for the group in the coming years.

## 4.1. OPERATING MARGIN



Source: Bloomberg

## 4.2. TOTAL CAPEX



Source: Bloomberg

## 4.3. ACQUISITIONS

### CLOUD

### DISRUPTIVE



## 4.4. INVESTMENTS

### DISRUPTIVE

Others



## 5.1. MODEL ASSUMPTIONS

### Sales and Services

Due to the anticipated growth in market share in the UK via the joint venture with Liberty Global and in Brazil, one of its market bets with significant future potential, we forecast that revenues will climb by 5% in 2022E. Due to intense competition in Germany and Spain starting in 2023, we anticipate a less marked growth in TEF's organic sales. We anticipate the firm will expand at a 2.1% rate starting in 2026, as we expect the company to growth near the inflation rate.

### Other Income

In 2021, TEF reinforced its strategic plan with divestments in different regions and business areas such as the sale of the Telxius towers and the sale of Teleónica Costa Rica. The divestment and the capital gains generated by the JV with VMED Oᄡ UK provided the company with €11,008 million. These gains will not be reflected in the coming years. However, we believe that TEF will be divesting unprofitable businesses in the coming years. Hence we expect other income to increase by 2% in the following years, gradually starting to decrease from 2024 onwards.

<b>Operating Expenses</b>	Although the company aims to become more efficient in providing its services in order to cut costs, operational expenses will increase due to higher electricity and energy costs. These costs will represent the c.73-74% of total sales & services.
<b>Capex</b>	As mentioned above, the company is disinvesting in unprofitable areas, but we expect investments to increase again from 2023E onwards in order to cope with disruptive changes in the sector.
<b>Depreciation &amp; Amortization</b>	We expect amortisation in the coming year to be more contained due to the sale of several property plant & equipment. However, in order to be more competitive and introduce 5G technologies, TEF will have to invest heavily not only in R&D but also in infrastructures, which will increase future depreciation.
<b>Total dividends paid</b>	We consider TEF to be a dividend king among the companies in the sector. It is one of its strategies to retain shareholders but this may become a burden in the future. Due to the increase in costs, the company will have to reduce dividends unless it chooses to make a capital increase.
<b>Exchange rates</b>	The reduction in inflation will cause the exchange rate to decline. We expect the EUR to appreciate, causing a negative effect on Brasil's earnings. This will be reflected in net income from 2024 onwards.

Source: Balmes Team

## 5.2. DCF MODEL

<b>Income Statement</b>	<b>2020</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>
Sales and services	43.076	39.277	41.241	42.478	43.752	44.627
Oher Income	1.587	12.673	1.619	1.651	1.618	1.586
Operating Expenses	(31.165)	(29.967)	(30.518)	(31.434)	(31.939)	(33.471)
<b>EBITDA</b>	<b>13.498</b>	<b>21.983</b>	<b>12.341</b>	<b>12.695</b>	<b>13.431</b>	<b>12.743</b>
<i>EBITDA Margin (%)</i>	31,3%	55,97%	29,9%	29,9%	30,7%	28,6%
Depreciation & Amortization	(9.359)	(8.397)	(8.313)	(8.895)	(9.607)	(9.895)
<b>EBIT</b>	<b>4.139</b>	<b>13.586</b>	<b>4.028</b>	<b>3.800</b>	<b>3.825</b>	<b>2.848</b>
Income Tax Expense	(626)	(1.378)	(974)	(870)	(869)	(473)
<b>NOPAT (Net Operating Profit After Taxes)</b>	<b>3.513</b>	<b>12.208</b>	<b>3.054</b>	<b>2.931</b>	<b>2.956</b>	<b>2.375</b>

<b>Investment Model</b>	<b>2020</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>
<i>Time Period</i>		0	1	2	3	4
+ Depreciation & Amortization	9.359	8.397	8.313	8.895	9.607	9.895
+/- Non cash accounting adjustments	1.378	(9.947)	1.296	1.857	1.185	1.874
<b>Cash Flow Bruto de las Operaciones</b>	<b>14.250</b>	<b>10.658</b>	<b>12.664</b>	<b>13.683</b>	<b>13.748</b>	<b>14.143</b>
- Capex	(7.020)	(6.164)	(6.102)	(7.323)	(8.714)	(9.934)
-/+ Changes in WK	11.401	(6.104)	2.238	2.881	1.543	573
<b>Unlevered Free Cash Flow</b>	<b>(4.171)</b>	<b>10.598</b>	<b>4.324</b>	<b>3.479</b>	<b>3.491</b>	<b>3.636</b>
<b>Terminal Value</b>						<b>31.380</b>
<b>Discount Factor WACC</b>		<b>1,000</b>	<b>0,948</b>	<b>0,898</b>	<b>0,851</b>	<b>0,807</b>
<b>Present Value Of The UFCF</b>		<b>10.598</b>	<b>4.097</b>	<b>3.124</b>	<b>2.971</b>	<b>28.245</b>

(In millions of EUR)

<b>Enterprise Value</b>	<b>49.036</b>
- Net Financial Debt	(33.715)
+ Cash at the beginning of the period	5.604
+ Financial Assets	11.182
<b>Equity Value</b>	<b>32.107</b>
Nº Shares	5.896
<b>Equity Value Per Share</b>	<b>5,45</b>

(In millions of EUR except Equity Value per Share)

#### WACC Calculation

**Risk Free Rate (German Bond 10 years) 20/01/2023** **2,17%**

#### Country Risk Premium

Spain's 10 year bond 20/01/2023 (3,16%) 0,99%

Brasil's 10 year bond 20/01/2023 (13 %) 10,83%

UK's 10 year bond 20/01/2023 (3,37%) 1,20%

**Adjusted Beta Unlevered (Bloomberg)** **0,812**

**D/E** **280,75%**

**Beta Levered** **2,522**

**Cost of Equity Rate** **25%**

**Equity Risk Premium** **3,73%**

Return of the market (IBEX 35 1 year) 5,90%

#### Lambda for each country based on revenue share

Spain 32,61%

Brasil 18,15%

UK 6,90%

**Ke** **13,95%**

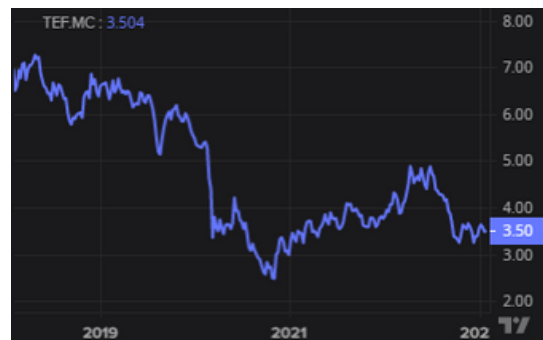
**Kd (Euribor 12 months) 29/01/2023** **3,356%**

**WACC** **5,52%**

**g perpetuity** **2,10%**

**ROIC Perpetuity (3 year average excluding 2021)** **3,83%**

## MARKET CAPITALIZATION



**PRICE per SHARE** **3,5**

Source: Refinitiv

**EQUITY VALUE per SHARE** **5,45**

**GAIN**

**55,58%**

Source: Telefónica's Annual Reports & Balmes Team calculations and expectations

## 5.3. DCF FINANCIAL STATEMENTS

### INCOME STATEMENT

INCOME STATEMENT	2020	2021	2022E	2023E	2024E	2025E
Sales and services	43.076	39.277	41.241	42.478	43.752	44.627
Other Income	1.587	12.673	1.619	1.651	1.618	1.586
Operating Expenses	(31.165)	(29.967)	(30.518)	(31.434)	(31.939)	(33.471)
<b>EBITDA</b>	<b>13.498</b>	<b>21.983</b>	<b>12.341</b>	<b>12.695</b>	<b>13.431</b>	<b>12.743</b>
EBITDA Margin (%)	31,3%	56,0%	29,9%	29,9%	30,7%	28,6%
Depreciation & Amortization	(9.359)	(8.397)	(8.313)	(8.895)	(9.607)	(9.895)
<b>EBIT</b>	<b>4.139</b>	<b>13.586</b>	<b>4.028</b>	<b>3.800</b>	<b>3.825</b>	<b>2.848</b>
Share in results of investments carried by the equity method	2	(127)	(126)	(124)	(123)	(122)
Interest Expenses	(1.558)	(1.364)	(1.391)	(1.433)	(1.462)	(1.506)
<b>EBT</b>	<b>2.583</b>	<b>12.095</b>	<b>2.511</b>	<b>2.243</b>	<b>2.240</b>	<b>1.220</b>
Income Tax Expense	(626)	(1.378)	(974)	(870)	(869)	(473)
<b>Net Income</b>	<b>1.957</b>	<b>10.717</b>	<b>1.537</b>	<b>1.373</b>	<b>1.371</b>	<b>747</b>
Attributable to shareholders of the parent company	1.582	8.137	1.190	1.063	1.062	578
Attributable to minority interests	375	2.580	347	310	309	169

## CASH FLOW STATEMENT

CASH FLOW	2020	2021	2022E	2023E	2024E	2025E
Net Income	1.957	10.717	1.537	1.373	1.371	747
Income Tax expense	626	1.378	974	870	869	473
Interest Expenses	1.558	1.364	1.391	1.433	1.462	1.506
Share in results of investments carried by the equity method	(2)	127	126	124	123	122
Depreciation & Amortization	9.359	8.397	8.313	8.895	9.607	9.895
(Payments)/Tax Receivables	(509)	(459)	(495)	(442)	(441)	(244)
Non-cash adjustments	1.378	(9.947)	1.296	1.857	1.185	1.874
<b>Net cash flow from operations</b>	<b>14.367</b>	<b>11.577</b>	<b>13.143</b>	<b>14.110</b>	<b>14.175</b>	<b>14.373</b>
Capex	(7.020)	(6.164)	(6.102)	(7.323)	(8.714)	(9.934)
Other investing activities	(770)	12.060	(778)	(793)	(825)	(866)
<b>Net cash flow from investing activities</b>	<b>(7.790)</b>	<b>5.896</b>	<b>(6.880)</b>	<b>(8.116)</b>	<b>(9.539)</b>	<b>(10.800)</b>
Total cash dividend paid	(1.296)	(3.630)	(1.302)	(1.316)	(1.289)	(1.263)
Interests	(1.171)	(1.309)	(1.194)	(1.230)	(1.218)	(1.206)
Other financing activities	(4.142)	(9.360)	(4.101)	(4.019)	(4.099)	(4.017)
<b>Net cash flow from financing activities</b>	<b>(6.609)</b>	<b>(14.299)</b>	<b>(6.597)</b>	<b>(6.564)</b>	<b>(6.606)</b>	<b>(6.486)</b>
Exchange Rate changes	(406)	(198)	(218)	(233)	(210)	(189)
<b>Net change in cash and cash equivalents during the period</b>	<b>(438)</b>	<b>2.976</b>	<b>(553)</b>	<b>(803)</b>	<b>(2.180)</b>	<b>(3.103)</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD</b>	<b>6.042</b>	<b>5.604</b>	<b>8.580</b>	<b>8.027</b>	<b>7.224</b>	<b>5.045</b>
<b>CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<b>5.604</b>	<b>8.580</b>	<b>8.027</b>	<b>7.224</b>	<b>5.045</b>	<b>1.942</b>

## BALANCE SHEET

BALANCE	2020	2021	2022E	2023E	2024E	2025E
<b>Non-Current Assets</b>	<b>71.396</b>	<b>84.284</b>	<b>82.032</b>	<b>84.439</b>	<b>84.961</b>	<b>85.615</b>
Intangible assets	11.488	11.725	11.725	14.428	14.976	14.541
Goodwill	17.044	16.519	16.111	15.649	13.888	12.557
Property, plant and equipment	23.769	22.725	20.881	19.696	21.156	23.795
Other non-current Assets	19.095	33.315	33.315	34.667	34.940	34.723
<b>Current assets</b>	<b>33.655</b>	<b>24.929</b>	<b>26.566</b>	<b>27.329</b>	<b>28.077</b>	<b>28.818</b>
Inventories	1.718	1.749	2.741	2.572	2.840	5.839
Receivables	8.425	10.407	11.399	12.905	15.184	15.863
Other current financial assets	17.908	4.193	4.397	4.628	5.008	5.174
Cash and cash equivalents	5.604	8.580	8.027	7.224	5.045	1.942
<b>Total assets</b>	<b>105.051</b>	<b>109.213</b>	<b>108.598</b>	<b>111.769</b>	<b>113.038</b>	<b>114.434</b>
<b>Equity</b>	<b>18.260</b>	<b>28.684</b>	<b>30.221</b>	<b>31.595</b>	<b>32.966</b>	<b>33.713</b>
Equity attributable to equity holders of the parent company and other equity instrument holders	11.235	22.207	23.397	24.461	25.523	26.101
Equity attributable to minority interests	7.025	6.477	6.824	7.134	7.443	7.612
<b>Non-current liabilities</b>	<b>58.674</b>	<b>55.034</b>	<b>53.482</b>	<b>57.398</b>	<b>58.091</b>	<b>58.572</b>
Non-current financial liabilities	42.297	35.290	33.831	37.993	38.541	39.106
Accounts payable and other non-current liabilities	16.377	19.744	19.651	19.405	19.551	19.466
<b>Current liabilities</b>	<b>28.117</b>	<b>25.495</b>	<b>24.894</b>	<b>22.777</b>	<b>21.981</b>	<b>22.149</b>
Current financial liabilities	8.123	7.005	6.276	5.553	5.225	4.976
Accounts payable and other current liabilities	19.994	18.490	18.618	17.223	16.756	17.173
<b>Total Liabilities and Equity</b>	<b>105.051</b>	<b>109.213</b>	<b>108.598</b>	<b>111.769</b>	<b>113.038</b>	<b>114.434</b>

Source: Telefónica's Annual Reports & Balmes Team calculations and expectations

## 5.4. SOTP METHOD

### EV/EBITDA

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	mean
5,17	5,79	8,03	8,84	7,17	6,22	5,73	5,94	4,79	5,28	6,30

### EV/EBITDA TEF mean

Source: Refinitiv

### Telefónica Deutschland Holding

in million \$

	2016	2017	2018	2019	2020	2021
Revenue	8.303,13	8.245,01	8.642,01	8.281,71	8.597,51	9.184,70
%	24,00%	25,18%	26,79%	32,27%	31,90%	32,40%
<b>EBITDA</b>	<b>1.993,06</b>	<b>2.075,94</b>	<b>2.315,16</b>	<b>2.672,89</b>	<b>2.742,94</b>	<b>2.976,01</b>

Source: Refinitiv

% EBITDA margin norm. = 14,00%

Telefónica Deutschland Holding had losses until 2019, after which it started making profits. In 2022-2024, it is expected that the turnover will increase as well as the net result. Therefore, it can be concluded that the company has managed to change course, considering the country risk, we believe that it will have similar margins to the rest of Europe, which is why we expect that in the best of cases the operating margin will be 15%. Moreover, we have used an EV/EBITDA of 6x due to the fact that, as we have explained before, the company used to have losses and has been able to turn them around.

in million \$

	2022E	2023E	2024E
Revenue	8.933,50	9.122,52	9.253,30
% EBITDA margin norm.	14,00%	14,00%	14,00%
EBITDA Norm.	1.250,69	1.277,15	1.295,46
EV	12.083,14	12.182,05	10.444,58
EBITDA	269,68	278,86	420,26
EV/EBITDA	6,00	6,00	6,00
<b>Va</b>	<b>7.504,14</b>	<b>7.662,92</b>	<b>7.772,77</b>

Source: Refinitiv and Balmes team

### Telefónica Spain

in million \$

	2016	2017	2018	2019	2020	2021
Revenue	2.710,00	3.715,00	4.921,00	4.810,00	10.750,00	6.426,00
%	189,48%	54,94%	83,68%	140,27%	-8,78%	22,42%
<b>EBITDA</b>	<b>5.135,00</b>	<b>2.041,00</b>	<b>4.118,00</b>	<b>6.747,00</b>	<b>-944,00</b>	<b>1.441,00</b>

Source: CCAA Telefónica, S.A. (ind.)

% EBITDA margin norm. = 30,00%

Telefónica Spain's sales have increased gradually at first, except in 2020, when they doubled, In addition, EBIT in 2016 was more than twice turnover, mainly due to the sale of financial instruments, which we consider exceptional and therefore not included in the calculation of normalized operating margin (mean of the last seven years). Taking into account country risk, how the market is performing, and the company, we conclude that the EBITDA margin we are going to use to calculate the eV is 30,00%. In the case of Telefónica Spain, due to the fact that we don't have the forecasted results, we have taken the average of the average growth rates in Germany and Brazil and applied it to the years 2022 through 2024 in Spain, obtaining the forecasted value of Telefónica's Spanish division. Moreover, we have an EV/EBITDA of 8x, due to the fact that the company has a good market share and the EV is expected to increase.

in million \$

	2022E	2023E	2024E
Revenue	13.539,27	13.376,62	13.372,23
% EBITDA margin norm.	30,00%	30,00%	30,00%
EBITDA Norm.	4.061,78	4.012,99	4.011,67
EV	96.625,23	223.493,24	516.937,77
EBITDA	1.553,94	3.321,87	7.101,20
EV/EBITDA	8,00	8,00	8,00
<b>Va</b>	<b>32.494,25</b>	<b>32.103,89</b>	<b>32.093,34</b>

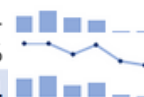


Source: Barclays Equity Research Telefónica Group an Balmes Team

### Telefónica Brasil S.A.

in million \$

	2016	2017	2018	2019	2020	2021
Revenue	12.276,49	13.542,51	11.974,88	11.239,23	8.442,81	8.171,41
%	9,81%	9,80%	8,27%	9,68%	7,33%	6,68%
<b>EBITDA</b>	<b>1.204,20</b>	<b>1.326,94</b>	<b>990,38</b>	<b>1.087,86</b>	<b>618,88</b>	<b>546,21</b>



Source: Refinitiv

% EBITDA margin norm. = 20,00%

Telefónica Brasil, S.A.'s revenues have increased mainly due to inflation. If we take into account that these amounts are in BRL, the change from BRL to EUR reduces sales due to the BRL depreciation, therefore, sales in Brazil remained almost constant. Turnover and net income are expected to rise between 2022 and 2024. It can be concluded that, considering the country risk, market performance, and historical company performance, the normalized EBITDA margin is 20%. Moreover, we have an EV/EBITDA of 8x due to the fact that the company's sales have remained constant and it has a good market share, and the EV of the company is expected to increase.

in million \$

	2022E	2023E	2024E
Revenue	8.984,47	9.462,37	9.917,85
% EBITDA margin norm.	20,00%	20,00%	20,00%
EBITDA	1.796,89	1.892,47	1.983,57
EV	14.585,68	14.404,01	14.104,03
EBITDA	1.214,85	1.394,65	1.602,67
EV/EBITDA	8,00	8,00	8,00
<b>Va</b>	<b>14.375,15</b>	<b>15.139,80</b>	<b>15.868,56</b>



Source: Refinitiv and Balmes team

## Other

### TEF

	2022E	2023E	2024E
Revenue	39.277,00	38.775,00	40.064,00
% EBITDA margin norm.	11,00%	11,00%	11,00%
EBIT Norm.	4.320,47	4.265,25	4.407,04
EV/EBIT	4,00	4,00	4,00
<b>Va</b>	<b>17.281,88</b>	<b>17.061,00</b>	<b>17.628,16</b>

Source: Refinitiv and Balmes Team

% EBITDA margin norm. = 15,00%

Moreover, we have projected the sales of the rest of the minor divisions, taking into account the weighted revenues of the public entity. Due to the market share and the evolution of sales in the company, we have decided to use an EBITDA margin normalized at 15%. In this case, we have used the average of the EV/EBITDA, 7x.

in million \$

	2022E	2023E	2024E
Revenue	9.693,75	10.016,00	10.085,50
% EBITDA margin norm.	15,00%	15,00%	15,00%
EBIT Norm.	1.454,06	1.502,40	1.512,83
EV/EBIT	7,00	7,00	7,00
<b>Va</b>	<b>10.178,44</b>	<b>10.516,80</b>	<b>10.589,78</b>

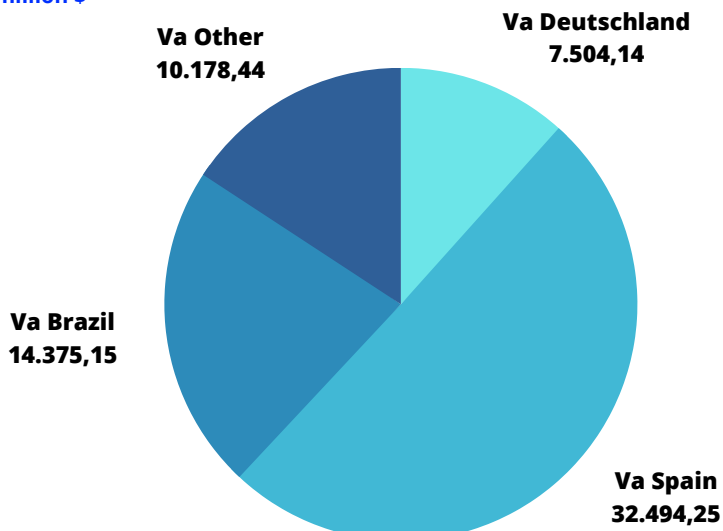
Source: Refinitiv and Balmes Team

USD a EUR = 0,914302

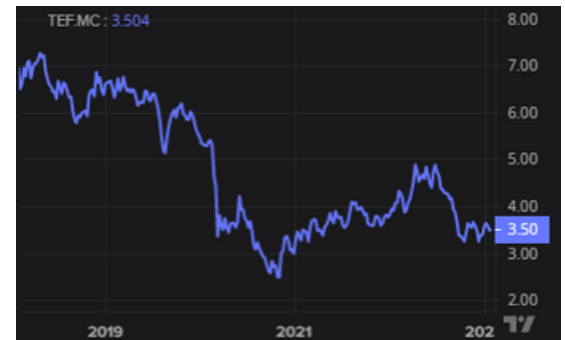
in million EUR

<b>Va TOTAL</b>	<b>59.020,00</b>
<b>Vd Consolidated</b>	<b>34.261,00</b>
<b>Ve TOTAL</b>	<b>24.759,00</b>

in million \$



## MARKET CAPITALIZATION



**PRICE per SHARE**      **3,5**

**EQUITY VALUE per SHARE**      **4,20**

**GAIN**

**16,65%**

## 5.6. RELATIVE VALUATION

	2016	2017	2018	2019	2020	2021
Price to EPS - Diluted - excluding Extraordinary Items Applicable to Common - Total, TTM	21,13	14,54	12,85	37,10	13,83	2,80
Enterprise Value	107.870	99.817	91.856	88.402	67.888	66.795
Market Capitalization	44.433	42.186	38.105	32.331	17.933	22.261
Earnings before Interest & Taxes (EBIT)	5.397,0	6.656,0	6.982,0	4.302,0	4.817,0	4.262,0
Earnings before Interest, Taxes, Depreciation & Amortization (EBITDA)	15.046	16.052	16.031	14.884	14.176	12.659
Revenue from Goods & Services	47.321	47.175	43.085	42.264	37.394	34.117
Enterprise Value to Earnings before Interest, Taxes, Depreciation & Amortization (EBITDA), TTM	7,17	6,22	5,73	5,94	4,79	5,28
Enterprise Value to Earnings before Interest and Taxes (EBIT), TTM	19,99	15,00	13,16	20,55	14,09	15,67
Enterprise Value to Sales	2,07	1,92	1,89	1,83	1,58	1,70
P/E	18,25	19,52	21,16	22,63	17,28	9,51
EPS	0,36	0,48	0,49	0,15	0,22	1,34
Net Income after Tax	2.404,0	3.373,0	3.946,0	1.651,0	1.955,0	10.844

### EV/EBITDA TEF mean

<b>Comparable P/E</b>	12,88
<b>Historic P/E</b>	12,21
<b>P/E used</b>	<b>13 x</b>
<b>Estimated EPS</b>	0,45
<b>Target Price</b>	<b>5,85</b>
<b>Current Price</b>	3,50
<b>Gain</b>	<b>67%</b>

In order to calculate the P/E ratio, we have collected two different data points: (i) Telefonica's historical P/E ratio (ii) Competitors' P/E ratio. The average P/E ratio obtained from these two data points is the one used to make the calculations, 13x P/E.

We have calculated the average EPS of the previous five years and adjusted the amount obtained (0,51 EPS) which is attributed to non-recurrent benefits generated in 2021. As we previously stated, we believe that the gains reported in 2021 from the sale of the company's different divisions have artificially inflated this year's revenues. As a result, we believe that a 0,45 EPS is more realistically adjusted.

Source: Refinitiv and Balmes Team

In this base scenario we follow the investment thesis used in the DCF method. We estimate TEF to hold margins broadly constant for the next two years and to start eroding them after 2024 as we assume it will need to make large capital investments to adapt to the disrupted industry it belongs to. Added to that, we expect inflation and interest rate stabilization. However, we anticipate this will come late in the future (4Q2023 or even 2024). Following this assumptions, we obtain a target price of 5,85 euros, which represents a 67% upside with respect to the current 3,5€ per share. Although we think that this is the scenario that is most likely to occur, we have also specified two other situations:

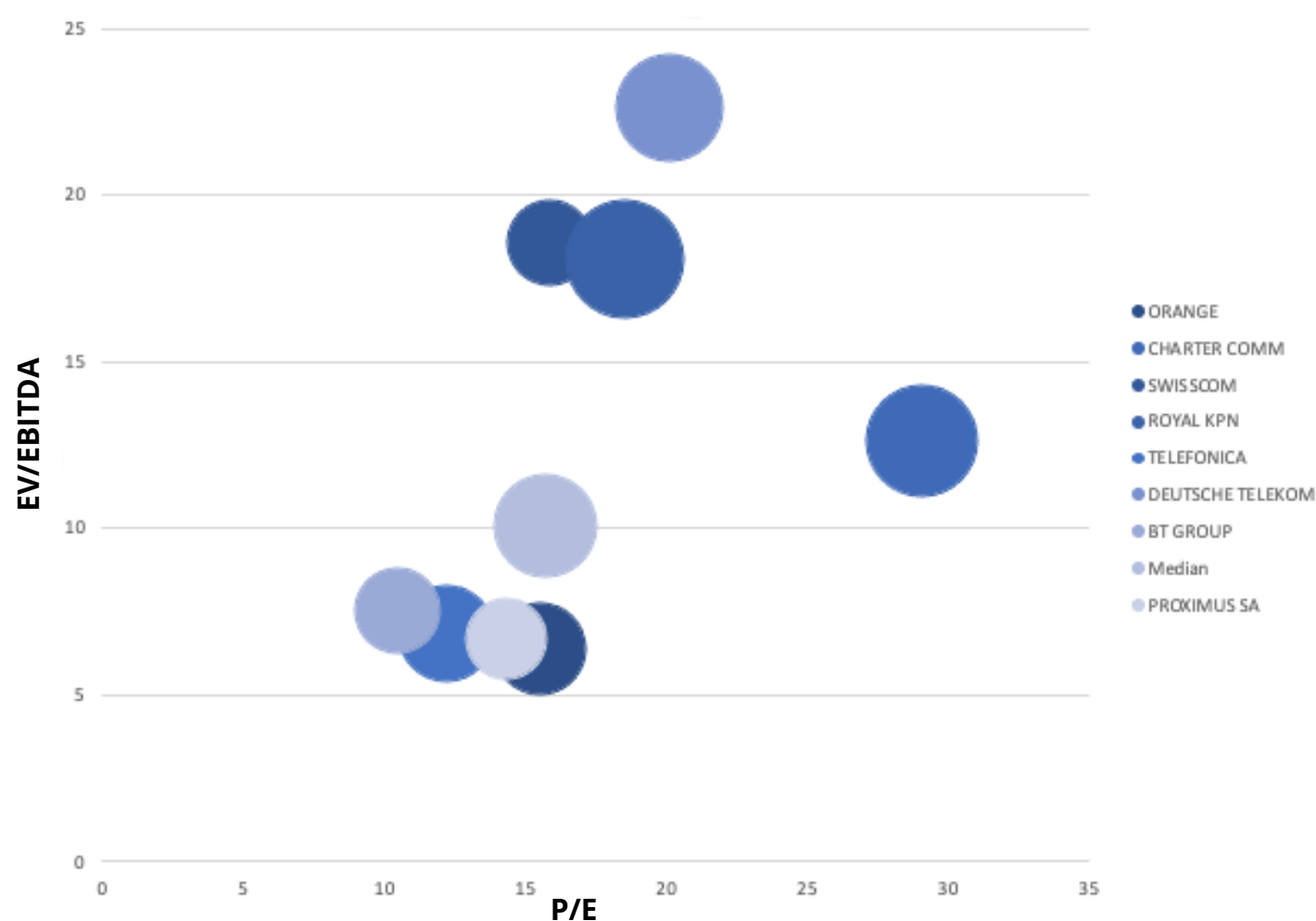
**1) Worst case scenario (0,18 EPS and 7x P/E):** According to this scenario, we anticipate that market conditions would deteriorate over the next years due to a more competitive environment, particularly in Spain and Germany, two of its important markets. In this gloomy scenario, we expect TEF's competitors to lower prices even further, leading the business to a decline in margins. Telefonica has struggled with price competition in the past, but if furthermore, in the worst case scenario, inflation continues at high levels, with interest rates rising, production costs will increase, reducing EBITDA to a minimum and the cost of financing for future projects will also be adversely affected, reducing net income.

**2) Best case scenario (0,69 EPS and 16x P/E):** In this idealized scenario, we presuppose that macroeconomic market circumstances will stabilize soon. Additionally, we anticipate that telecom firms would profit from the strong economy by raising prices and enlarging profits. We predict Telefonica to keep de-investing in the business's underperforming areas, which will lower capex and, in turn, lower depreciation and amortization. This scenario enables an increase in net income, which would allow the corporation to boost dividend payments to investors.

PEERS	HISTORIC P/E	CURRENT P/E	HISTORIC EV/EBITDA	EV/EBITDA
TELEFONICA	12,21	6,85	6,18	5,41
ORANGE	15,5	6,37	4,75	4,81
DEUTSCHE TELEKOM	20,11	22,62	6,02	6,72
SWISSCOM	15,88	18,58	7,54	7,4
BT GROUP	10,45	7,53	4,62	4,24
ROYAL KPN	18,54	18,1	5,71	8,11
PROXIMUS SA	14,31	6,69	5,3	3,69
CHARTER COMM	29,09	12,61	10	7,24
<b>Median</b>	<b>15,69</b>	<b>10,07</b>	<b>5,865</b>	<b>6,065</b>
<b>Median between current P/E and historic P/E</b>	<b>12,88</b>		<b>5,965</b>	

Source: Refinitiv and Balmes Team

Table based on Refinitiv data of Telefónica's main competitors in different countries. The analysis has been performed with two indicators, first with the P/E ratio, and then with the EV/EBITDA ratio. For the calculation of the EV/EBITDA we have used the result obtained by TEF in 2021, the historical one, and TEF's competitors resulting in an EV/EBITDA of 9x, very close to 13x P/E ratio.



Source: Refinitiv and Balmes Team

Representative chart of the peer companies, using the data obtained from Refinitiv. On the horizontal axis we find the P/E variable, and on the vertical axis the EV/EBITDA variable.

## 6. SENSITIVITY ANALYSIS

We study how the different investment risks can affect our target share price. The following tables show the impact of considering the change in the variables associated to each risk and how they affect the share price, considering all other variables unchanged.

- S1: This risk can be quantifiable with variations in Capex estimates and cost of financing (WACC). As new technological developments may cause the company to need to increase its Capex, in order to meet the challenges of new technologies, which means that it will likely need to finance these operations through debt.

		Capex Increase				
		2,5	5	7,5	10	12,5
WACC	4	9,29	9,17	9,05	8,93	8,8
	5	6,22	6,1	5,98	5,86	5,74
	6	4,71	4,59	4,48	4,36	4,24
	7	3,8	3,69	3,57	3,46	3,35

- S2: The lack of concessions to be able to perform the business' operations can affect its ability to generate revenue.
- S3: We classified the regulatory environment risk as not quantifiable. The fact that TEF operates in different geographies makes it difficult to arrive to a single conclusion on how to quantify this risk for the entire Group.
- F1: Financial, Economic and Political risks are quantified with multiple variables. However, given the current macroeconomic environment in which we have seen Central Banks adopt very restrictive policies in many countries around the globe, and the increase in geopolitical tensions, we have deemed the cost of Equity (Ke) and the perpetuity growth rate (g) to be the most important variables.

		Share Price
Revenue increase (%)	-10	4,85
	-7,5	5
	-5	5,15
	-2,5	5,3
	0	5,45
	2,5	5,59
	5	5,74
	7,5	5,89
10	6,04	

		Perp. Growth rate (g)				
		1,6	1,8	2	2,2	2,4
Ke (%)	10	8,03	7,88	7,71	7,51	7,27
	12	6,84	6,65	6,44	6,2	5,92
	14	5,96	5,76	5,54	5,3	5,02
	16	5,28	5,09	4,87	4,64	4,38
	18	4,75	4,56	4,35	4,13	3,89
	20	4,31	4,13	3,94	3,73	3,5

- G1: Supply chain risks can affect a business directly through revenues, product costs and sales and administrative costs. Therefore we have chosen to perform the sensitivity analysis for this risk by studying how a Capex increase can affect the share price.

		Share Price
Capex increase (%)	2,5	5,33
	5	5,21
	7,5	5,09
	10	4,97
	12,5	4,86
	15	4,74
	17,5	4,62
	20	4,5

## 7. FINANCIAL ANALYSIS

### OTHER COMMENTS ON THE FINANCIAL STATEMENTS

Capital expenditure has seen three years of an average of 10% decrease year over year and is expected to decrease further following recent events, reducing the fixed expenditures associated with fixed assets maintenance and deriving the subsequent difference to other more profitable areas. However, Retained Earnings have been increasing at over 35% rate the last two years, a place where it differs greatly from its peers, having the highest value among them.

Research and Development have been steadily hovering around the 900 Million € mark for the past five years. Keeping investment toward the future of telecommunications secures TEF a minimum value proposition for the future with their already established position, something that has been commented in previous sections.

### Financial Summary of Reported Items

Statement Data	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Revenue from Business Activities - Total	39,277.00 €	43,076.00 €	48,422.00 €	48,693.00 €	52,008.00 €	52,036.00 €	54,916.00 €	43,458.00 €	57,061.00 €	62,356.00 €
Operating Income	4,262.00 €	4,817.00 €	4,302.00 €	6,982.00 €	6,656.00 €	5,397.00 €	3,352.00 €	6,037.00 €	9,328.00 €	10,579.00 €
EBITDA	12,659.00 €	14,176.00 €	14,884.00 €	16,031.00 €	16,052.00 €	15,046.00 €	13,056.00 €	13,907.00 €	18,955.00 €	21,012.00 €
Operating Margin - %	10.85%	11.18%	8.88%	14.34%	12.80%	10.37%	6.10%	13.89%	16.35%	16.97%
Income before Tax Margin - %	31.12%	5.99%	5.59%	11.43%	8.83%	6.25%	1.67%	8.22%	11.54%	11.45%
Free Cash Flow	4,104.00 €	6,176.00 €	7,363.00 €	4,838.00 €	4,804.00 €	4,151.00 €	2,430.00 €	2,574.00 €	4,670.00 €	5,732.00 €
Return on Average Common Equity - %	60.90%	9.39%	4.91%	16.80%	16.28%	12.46%	1.99%	12.11%	22.06%	18.66%
Return on Average Total Assets - %	0.00%	1.75%	1.43%	3.45%	2.83%	1.97%	0.62%	2.33%	4.00%	3.39%
Return on Invested Capital - %	13.03%	3.60%	2.84%	5.63%	5.39%	4.61%	3.74%	6.09%	7.53%	6.79%
EPS - Diluted	1.34 €	0.22 €	0.15 €	0.49 €	0.48 €	0.36 €	0.06 €	0.46 €	0.81 €	0.69 €
Total DEBT - EBITDA	11.30 €	10.59 €	13.23 €	7.54 €	8.31 €	11.10 €	18.06 €	9.35 €	6.61 €	6.32 €
Total DEBT - Operating Income	4.49 €	26.08 €	34.20 €	13.32 €	16.36 €	24.97 €	80.59 €	20.06 €	12.41 €	15.18 €
NET DEBT - EBITDA	3.01 €	3.03 €	3.21 €	2.79 €	2.99 €	3.54 €	4.20 €	3.38 €	2.62 €	2.62 €
NET DEBT - Operating Income	8.93 €	8.91 €	11.10 €	6.40 €	7.20 €	9.86 €	16.37 €	7.78 €	5.32 €	5.21 €
Normalized Pre-tax Profit	3,265.00 €	3,053.00 €	2,329.00 €	6,311.00 €	4,856.00 €	3,635.00 €	798.00 €	3,784.00 €	6,733.00 €	7,555.00 €

Source: Refinitiv

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