TELEFONICA S A Form 6-K April 14, 2011

FORM 6-K SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16 of the Securities Exchange Act of 1934 For the month of April, 2011 Commission File Number: 001-09531 Telefónica, S.A. (Translation of registrant s name into English) Distrito C, Ronda de la Comunicación s/n, 28050 Madrid, Spain 3491-482 85 48

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F þ Form 40-F o

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Yes o No þ

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Yes o No þ

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934: Yes o No b

If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): N/A

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1. Eighth Investor Conference: Chief Executive Officer of Telefónica Europa

Continued outperformance, whilst seizing the digital opportunity Chairman and Chief Executive Officer, Telefónica Europe

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outperformance will continue through focus on value and business model extension

Market leadership in high value smartphone segment Led market away from unlimited data tariffs Under-indexed on low value dongle market in UK LTE spectrum in Germany landscape set for 15 years Acquired HanseNet to deliver growth in convergent market Acquired Jajah with significant IP capability Growing business beyond core mobile via Media, Financial Services and WiFi Network quality comparable with the best

Greater rationality and options for improving the environment Regulation: • MTR certainty until at least 2013/2014 in UK & Germany • Data roaming price reductions to be offset by usage elasticity over time LTE: • Nationwide coverage opportunity in Germany via 800 MHz • Catalyst is data devices in Germany in H2 11, other countries spectrum dependent Industry Partnerships: • Where limited customer differentiation (e.g. network sharing) • Or market scale is needed (e.g. Media, Financial Services) Data monetisation, a necessity for all: • Current disruptive competitors unlikely to change market pricing Data delivery: • Unit cost reducing with more efficient spectrum <1 GHz • Situation specific: WiFi, LTE, Femtocells

Our strategy remains meeting evolving customer needs, driving market dynamics, delivering market leading profit growth T. Europe subscriber share1 22.3% Outperform the market in a fast changing environment 21.3% Leading smartphone adoption in Europe 20.4% Moving away from unlimited data in UK Breaking the subsidy model in Germany FY 2008 FY 2009 FY 2010E Build capability in our core business and beyond T. Europe MSR share2,3 25.1% Co-operation in Mobile Advertising and Financial 24.4% Services 23.6% Investing in M2M across T. Europe Czech R. growing ICT business and Security FY 2008 FY 2009 FY 2010E Restructure our cost base T. Europe mobile OIBDA share2 23.2% Online at the core 22.2% Network share in UK, Ireland & Czech R. 20.5% Transmission sharing to manage NGA costs Leverage TEF scale and global initiatives FY 2008 FY 2009 FY 2010E ICT: Information and Communications Technology; M2M: Machine to Machine; NGA: Next Generation Access 1 Source: T. Europe Estimates (UK, Germany, Czech Republic, does not include Ireland or Slovakia) 2 Source: BofAML Wireless Matrix Q1 11, T. Europe Estimates (UK, Germany, Czech Republic, does not include Ireland or Slovakia) 3 Includes My Handy revenues in T. Germany 5

In Germany we have built a platform for sustainable growth Market Position Current market momentum is with us T. Germany contract share of Net Additions1 Tariff innovations, My Handy offer 67% Market Traction 61% CSI leader 24% Retail distribution network complete Distribution Over 2,000 business sales partners FY 2008 FY 2009 FY 2010E Discount Brands 4.7m customers Fonic / Tchibo Total Mobile Revenue growth (y-o-y)1,2 +7.1% +3.2% +2.9% -1.2% -2.8% T. Germany Integrated 3rd operator in German Telco market -6.6% Mobile Business Model Cross-selling / up-selling opportunity Market FY 2008 FY 2009 FY 2010E Mobile OIBDA growth (y-o-y)1 Network on par with market leaders Infrastructure Network sharing opportunities ahead +20.5% +10.2% +7.0% +6.5% Cost Base ~20% reduction in employee numbers +1.3% +3.2% T. Germany3 Mobile FY 2008 FY 2009 FY 2010E Market CSI: Customer Satisfaction Index (Internal metric measuring customer satisfaction relative to competitors) 1 Source: BofAML Wireless Matrix Q1 11, Quarterly & annual reports of operators, T.Europe estimates 2 Total Mobile Revenue = Total Revenue Fixed Revenues 3 OIBDA excludes the consolidation of HanseNet, non-recurrent restructuring expenses and one-offs

We are in the best position to exploit the mobile data opportunity Smartphone market relatively ...Smartphone CLV higher in Germany Germany at the start of the smartphone underdeveloped... Indexed, relative to UK2 Installed Base, 2010E1 revolution 38% 130 · Adoption levels ~2 years behind UK 100 · Higher CLV driven by lower subsidies and less rich 17% tariffs · Tiered data pricing from day 1 O2 leading smartphone adoption... ...O2 customers increasingly paying Smartphone share of sales, Q4 10 for mobile data... % Contract customer on paid for data plans Telefónica Germany winning in the consumer 88% data market 11% 37% 18% 20% Data PayGo LTE is a 3 Player Market 6% Data Plan Market3 O2 FY 2009 FY 2010 · Data coverage beyond 60% only economically feasible Test with 800 MHz Voice Data scores · 3G investment in market stopped at ~60% coverage O2 163 243 T-Mobile 149 229 · Commercial offerings H2 11: routers / dongles Vodafone 152 277 MNO winner: E-Plus 142 127 2006, 2007, 2008, 2009, 2010 CLV: Customer Lifetime Value, defined as ARPU, less interconnect and direct costs, per customer per month; MNO: Mobile Network Operator 1 Source: Strategy Analytics, Jun-10, Smartphone installed base as % of total handset installed base 2 Source: T.Europe estimates, FY 2010 3 Source: GfK Retail & Technology 7

We are well positioned as an integraged player to enhance our growth and capture more value from our customers HanseNet brought a step-change impact on our business... ...integrated offerings to capture more value from our customer base Mobile DSL turnaround Data Fixed 106k (Net adds H2 10) BB / TV -14k H2 09 Market Market share gains Success (Share of total FBB net adds H2 101) 20% (Alice) Customer potential for cross- 1.3m selling of O2 mobile2 HH Mobile Company merger on 1 April 2011 a catalyst Voice Smart NGN upgrade ~25% Combined household (HH coverage with own and regulated accesses) 26% reach via O2 / HanseNet3 Costs / Network Significant cost synergies Converged customers have ~ 200m significantly lower churn4 -50% (Cumulative OpEx reduction FY 2010-2013) FBB: Fixed Broadband accesses; NGN: Next Generation Networks; HH: Households 1 Source: Quarterly & annual reports of operators; T.Europe estimates 2 Number of Alice DSL customers without Alice mobile / O2 mobile 3 Share of households with minimum one O2 /Alice product, Dec-10 4 Converged contract voice churn rate vs. standalone product rate, Q4 10 figures

We will outperform in Europe s largest telco market Increase share in no frills market T. Germany mobile revenue market share1 Market SME / SoHo upside 18% Share New MNP regulation from FY 2012 15% Selective MNC growth FY 2010 FY 2013E T. Germany MBB penetration2 Smartphones & tablets >45% Mobile Data Fixed / mobile integration Opportunity 20% LTE: 800 MHz coverage FY 2010 FY 2013E New Opportunities through Telefónica verticals, e.g. M2M Growth MPass and other micro-mobile payments Engines Launch new innovative services e.g. Dating via Jajah Increased cash generation: CapEx reducing and OIBDA T. Germany OpCF3 Increased expansion >3x Cash Short-term variability in margins (%) as a result of introduction of subsidised smartphones FY 2010 FY 2013E MBB: Mobile Broadband accesses; SME: Small/Medium Enterprise; SoHo: Small office/Home office; MNP: Mobile Number Portability; MNC: Multinational Corporations 1 Source: Quarterly & Annual reports from operators; T.Europe estimates 2 MBB accesses with data attached rate/Total mobile customer base 3 OIBDA-CapEx excluding spectrum 9

In Czech Republic we will continue to improve customer experience to deliver best in class cash flow performance T. O2 CR revenue market share1 (Fixed & Mobile) Going forward... Sustaining 42.8% 42.3% 42.5% market position in competitive Support mobile data leadership by extending 3G coverage market... Network share in rural areas Increase competitiveness in fixed broadband by upgrading FY 2008 FY 2009 FY 2010E to VDSL Best in class OIBDA margin (comparable2,3) Implement efficiency program lowering costs despite _____while maintaining 43.9% 44.3% 44.2% growing volumes a healthy margin in Grow non-core revenues along selected innovation challenging macro verticals - M2M, Security & Cloud/Hosting Services environment... Economic recovery from FY 2011 FY 2008 FY 2009 FY 2010 _____delivering... CapEx2 324m Increase in OpCF4 during the FY 2011-2013E ... and investing 245m 224m 57% 54% period over 7292 million in FY 2010 in growth areas 51% 43% 46% 49% FY 2008 FY 2009 FY 2010 Maintenance Growth 1 Source: Company reports and T.Europe estimates 2 T. O2 Czech Republic Group including Slovakia 3 OIBDA before management and brand fees; 2008 excludes 46m from the sale of real estate and the impacts from the Universal Serv., 2009 excludes 59m from the sale of real estate, the impact of the settlement agreement with T-Mobile, and from the Universal Serv. and 2010 excludes 17m from restructuring expenses and the impact from the Universal Serv. 4 OIBDA CapEx excluding spectrum 10

Elsewhere our portfolio of businesses continues to make an important contribution... Ireland Maintain OpCF1 levels at ~ 200 million Hit 1 million customers in H2 11 Slovakia2 Turn cash flow positive in H2 11 Positive OIBDA delivered in H2 10 Product innovation hub in Silicon Valley Jajah Engineering hub in Tel Aviv Over 100 million revenue run-rate 1 OIBDA-CapEx excluding spectrum 2 Financial results reported as part of T. O2 Czech Republic Group

...whilst telefonica is developing a position as a leading player in services for MNCs Reinforced Global MNC Unit with >400 people; 37 countries focus with World class IP network reaching 139 countries global reach Strategic alliances to deliver global services Gartner s Leaders Quadrant in European mobility services Complete Managed communications e.g. WAN, ToIP or managed mobility portfolio of ICT IT solutions e.g. security, cloud based solutions, M2M services VAS for customers e.g. telecom spend management, CRM Revenues up 7% CAGR 08-10 Significant Improving pipeline of customers Growth Recent deals won including AB Volvo, Fujitsu, Opportunity Celesio, Ferrovial, PSA Peugeot-Citröen, Alstom, BMW Share of global contract sales won in year WAN: Wide Area Network; ToIP: Telephony over IP; VAS: Value Added Services; CRM: Customer Relationship Management 1 Source: Ovum

The UK business continues to outperform through market leadership and superior execution Sustained momentum through market leadership T. O2 UK share of Market Service Revenues1 #1 for OIBDA 33% #1 for customer numbers #3 for OIBDA 29% O2 Wallet End of Unlimited O WiFi 22% 2 iPhone Exclusive O2 Media Jajah International Tesco Mobile Telefónica The O2 & Priority Gurus in Store Favourites 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 Outstanding customer loyalty Superior profitability by focusing on value T. O2 UK contract churn vs. Big3 competitors average2 T. O2 UK share of market OIBDA3 1 Source: BofAML Wireless Matrix Q1 11. 2 Source: Company press releases. Churn is calculated on a yearly basis and includes the reduction in churn resulting from the Everything Everywhere merger in FY 2010 3 Source: BofAML Wireless Matrix Q1 11 and internal estimates (Orange, T-Mobile, Vodafone, does not include 3 or MVNOs)

We are uniquely positioned to outperform in the next growth cycle 2004 2007 2008 2009 2010 and beyond Data cards & Dongles Smartphone early adopters Smartphone mass market High data usage Medium data usage Penetration upside \cdot Dongles usage $3x \cdot$ Prepay currently 12%1 smartphones High O2 market share Increasing CLV \cdot Keeping early adopters: \cdot Specific smartphone tariffs Low O2 market share smartphones drive greater \cdot Tiered data tariffs loyalty \cdot Scale and re-farming driving lower per MB cost Data card and dongle CLV iPhone 1.3x CLV higher than \cdot Declining average device relatively low: comparable devices driven by: cost \cdot Smartphone 4x higher CLV \cdot Higher ARPU than dongles Extend product adoption \cdot Higher propensity to take \cdot New revenues from Financial new services services & Media 1 Prepay smartphones/prepay mobile base excluding dongles and M2M accesses

We are focused on profitable mobile data growth Distribution of iPhone + Android Usage We have improved the data experience for all Customers already pay for data usage Heavy-user1 management freed up 7% of bandwidth2 Almost 50% of smartphone users3 are on capped tariffs Data experience has improved for the profitable majority 3% reach the threshold where we contact them Of these customers c. 25% are buying an additional bolt-on 1 Monthly usage exceeding 3GB 2 All MBB traffic: Nov-10 vs. Oct-10 3 Consumer contract segment

New tariffs position us to accelerate penetration and monetisation Distribution of iPhone + Android Usage New tariffs offer entry level data to drive penetration, greater New tariffs flexibility, as well as packages for heavier users Lowest data allowance is now at 100MB

Still a large upside to come from per customer profitability and penetration Average mobile data usage New applications and move to online services will Usage on iPhone, indexed from Dec-08 Individual usage 242 will continue to continue to drive data usage 180 grow... Improving the data experience with 900MHz refarming 100 & O2 WiFi FY 2008 FY 2009 FY 2010 FY 2013E Improving CLV on upgrade1 to a smartphone for a specific customer ______whilst +£2.00 Tiered data tariffs profitability Pre-tiered data tariffs Lower device cost differential improves... Lower marginal network costs +£0.10 FY 2010 FY 2013E T. O2 UK smartphone penetration2 62% of handsets sold in Q4 10 were smartphones1 ______and adoption >55% Low-cost devices will drive increased penetration of continues to increase as smartphone penetration today3 FY 2010 FY 2013E 1 Contract segment 2 Smartphones with data attached rate/total mobile base excluding dongles and M2M accesses 3 Prepay smartphones/prepay mobile base excluding dongles and M2M accesses

Beyond connectivity in mobile advertising we are uniquely positioned Brands (incl. SMEs) 3 Reporting & Analytics Analytics re-enforce the value of mobile advertising 1 Mobile Advertising Platform Booking & Ad network Inventory Provides a single Targeting sales & Ad server & Services planning, targeting booking & platform reporting point Consumers 2 Mobile Payment Platform Create a compelling payments & Wallet & M- Payment Transaction Payment redemption business commerce authorisation & enablers e.g. Cards services settlement NFCterminals Complete Rolling out Merchants (incl. Loyalty Schemes) Q3 / Q4 2011

O2 More already shows the effectiveness of mobile as an advertising medium Customers within ¹/2 mile of shop Ability to target, based on customer data \cdot Location, social (calling circle) and transactional data \cdot Proactive input of preferences: customers opt-in \cdot Offers always localised e.g. Starbucks 14% redemption Incremental business to brands \cdot Incremental footfall rather than offering discounts on intended purchases Device / app agnostic Publicise and drive traffic to mobile app \cdot Works for non-smartphones \cdot Push messaging: no need for app or web browser \cdot Sophistication in delivery to improve 9% take-up We will continue to innovate \cdot Improved location based messaging / geofencing / WiFi \cdot Combining print and mobile media

Summary We have outperformed by driving value Cash flow growth will be driven by: Market share growth Data penetration Return per customer In Germany we now have the capabilities to accelerate into the Premier League with mobile data the catalyst Total aggregated cash flow to increase from Czech, Slovak and Irish businesses In the UK we continue to outperform and shape the market with business model extensions now a growing and transferable reality

Telefonica

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Telefónica, S.A.

Date: April 14th, 2011

By: /s/ Ramiro Sánchez de Lerín García-Ovies

Name: Ramiro Sánchez de Lerín García-Ovies

Title: General Secretary and Secretary to the Board of Directors