

Carlos Fernández San Millán

Head of ICT & Acting CIO | Board Advisor



Milan, Italy

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LinkedIn Professional Site GitHub ORCID

Board Advisory | Technology Strategy | Digital Transformation
15+ Years Experience | €14M Budget | 25+ FTEs

Executive Profile

Technology executive with a dual specialty: enterprise ICT leadership at Head of ICT / Acting CIO level, and deep hands-on engineering delivery across infrastructure, storage, virtualization, and research computing. With 15+ years of total experience and 12+ years in technical roles, I combine strategic advisory support to senior leadership with operational leadership and deep engineering credibility. Proven in translating strategy into reliable operations, measurable transformation outcomes, and strong cross-functional alignment across scientific, corporate, and executive stakeholders.

Core Competencies

- Technology Strategy & Operating Model
- Executive Leadership (Head of ICT / Acting CIO)
- Board Advisory & Governance
- Digital Transformation Execution
- Cybersecurity & Risk Governance
- IT Governance & Compliance
- Scale-Up Operating Model Design
- Service Delivery & ITSM (ITIL)
- Identity & Access Management (SSO/MFA/RBAC)
- SaaS & Enterprise Platform Governance
- Cloud, Data Center & HPC Operations
- Virtualization & Storage Engineering
- Technology (AI) Adoption Enablement
- ERP Modernization (SAP S/4HANA)
- Go-To-Market Technical Readiness
- Fundraising Technical Due Diligence Support
- Automation & Self-Service Enablement
- Vendor & Contract Management
- International Stakeholder Management
- Cross-Functional HR / Ops / Security Partnership

Professional Experience

Head of ICT & Digitisation (Acting CIO) Human Technopole

Jan 2023 – Present
Milan, Italy

- Accountable for enterprise IT strategy, governance, and operating model execution across infrastructure, workplace services, identity, security, and business platforms; lead 25+ FTEs with 7 direct reports.
- Strategic partner to executive leadership on growth-enabling technology priorities, sequencing investments and execution roadmaps to align vision, risk, and outcomes.
- Delivered transformation and automation programs that improved operational efficiency by **30%** and reduced manual process workload by **45%**.
- Directed production operations for data center, HPC, collaboration, and enterprise application services, sustaining **99.99%** reliability while supporting workloads at **20PB+** scale.
- Strengthened cybersecurity and compliance controls aligned with GDPR and institutional requirements, contributing to a **60%** reduction in security incidents.
- Matured ITSM and access governance by standardizing incident/request/change workflows and joiner-mover-leaver controls with HR, operations, and security stakeholders.
- Digitalisation Programme Manager for enterprise application modernization, including SAP ByDesign to SAP S/4HANA migration and ecosystem integration to improve process consistency and decision support.
- Led cross-functional decision forums and vendor governance to improve capital allocation, delivery accountability, and enterprise-scale execution discipline.
- Managed Opex/Capex planning and strategic supplier performance, delivering **25%** optimization with stronger SLA and contract outcomes.
- Governance roles: Chairman, Internal ICT Advisory Board (IIAB); Member, Purchase Equipment Committee (PEC); Member, Large-Scale Data Committee.

Chairman, IT Review Panel European Council on Foreign Relations (ECFR)

Sep 2023
Berlin, Germany

- Chaired external IT department review panel and delivered strategic recommendations for governance, execution model, risk reduction, and operating priorities.

Data Center Infrastructure Manager Human Technopole

May 2022 – Dec 2022
Milan, Italy

- Led high-performance infrastructure operations, backup/DR strategy, and continuity controls ensuring 99.99% availability.
- Defined standards and processes aligned with regulatory and institutional requirements.
- Managed network security, campus MAN, centralized scientific data storage, procurement planning, and supplier contracts.
- Coordinated infrastructure maintenance and facility evolution with cross-functional teams.

Storage and Virtualisation Engineer Human Technopole

Jan 2021 – May 2022
Milan, Italy

- Managed central storage and virtualization platforms (PowerScale, NetApp, VMware, VDI), plus Linux services including Eduroam and RADIUS.
- Supported scientific computing demands in collaboration with research leadership and facility teams.

Systems & Virtualisation Engineer
European Molecular Biology Laboratory (EMBL)

Oct 2018 – Dec 2020
Heidelberg, Germany

- Managed VMware cluster (28 hosts, 650+ VMs) and international operations across EMBL sites.
- Administered NetApp environment (18 nodes, ≈9PB), including policy, QoS, quota, snapshots, and migration from 7-Mode to clustered Data ONTAP.
- Planned and administered vSAN for GPU-driven VDI; managed backup with Veeam Backup & Replication.
- Automated infrastructure workflows (Python), and managed services with Foreman/Puppet/Zabbix/Git.

Systems Engineer
European Molecular Biology Laboratory (EMBL)

Oct 2012 – Oct 2018
Heidelberg, Germany

- Delivered enterprise virtualization/storage operations and lifecycle upgrades (ESX/ESXi 4.1 through 6.7) across a multi-site environment.
- Supported datacenter services, Linux administration, and enterprise applications (e.g., Alfresco, OwnCloud).
- Contributed to platform observability and operational tooling using Zabbix and automation scripts.

IT Manager
Digital Arts & Designers, S.L.

Jul 2010 – Sep 2012
Las Palmas de Gran Canaria, Spain

- Managed IT projects, Linux/server administration, network operations, infrastructure monitoring, and technical procurement/vendor relationships.

Freelance System Administrator
FIFA Refereeing Department

Jun 2010 – Jul 2010
Pretoria & Johannesburg, South Africa

- Operated Referee Channel e-learning and video-streaming infrastructure during the 2010 FIFA World Cup.

Earlier Career Positions
Various Organizations

1997 – 2010
Spain / USA

- Systems Administrator, Neuronal Software S.L. (2009–2010)
- Media Producer & System Administrator, University of Las Palmas de Gran Canaria (2008)
- IT Consultant (Freelance) (2005–2008)
- Technical Officer, Gran Canaria Espacio Digital (2005)
- Consultant, Gran Canaria Campus Junior Entrepreneurship (2004–2005)
- Project Manager & Developer, La Provincia – Diario de Las Palmas (2002)
- Laboratory Assistant, University of San Francisco (1997–1999)

Key Strategic Achievements

Strategy-to-Execution Transformation

Converted strategy into execution at Human Technopole, delivering **30%** efficiency improvement and **45%** manual-process reduction through targeted digital modernization and automation.

Cybersecurity & Control Maturity

Embedded GDPR-aligned security governance and operational controls across core services, contributing to a **60%** reduction in security incidents.

Scalable Operating Reliability

Stabilized and scaled infrastructure supporting **20PB+** scientific workloads while maintaining **99.99%** service reliability in production environments.

Governance, Capital Efficiency & Vendor Performance

Restructured supplier governance and contract strategy to produce **40–60%** optimization in targeted agreements and improve service accountability.

Education & Credentials

Technical Engineering in Computer Science

University of Las Palmas de Gran Canaria

2000 – 2005

Las Palmas, Spain

- Specialization: Systems Architecture and Infrastructure
- Activities: Gran Canaria Campus Junior Entrepreneurship

BSc Computer Science

University of San Francisco, School of Arts and Science

1996 – 2000

San Francisco, USA

- Activities: USF Men's Soccer Team

Summer Courses (Physics & Computer Architecture)

University of California, Berkeley

Summer 1998

Berkeley, USA

Professional Certifications

- ITIL 4 Foundation (Fast Lane, 2023)
- PRINCE2 Practitioner (Fast Lane, 2023)
- PRINCE2 Foundation (Fast Lane, 2023)
- VMware Certified Associate - Data Center Virtualization (VMware, 2013)
- Bacula Administrator I (Bacula Systems, 2021)
- Kubernetes Fundamentals & Operations (Amazic, 2019)

Selected Training

Instructor-Led

- 2016 – VMware vRealize Automation ICM
- 2016 – VMware vSphere ICM + Optimize & Scale
- 2015 – IBM Tivoli Storage Manager 7.1.1
- 2014 – Clustered Data ONTAP 8.2 Admin
- 2013 – Data ONTAP 7-Mode Admin

Online / Self-Paced

- VMware Skyline Support
- VMware Horizon 7
- Essential Container Concepts
- Containers & Orchestration (Beginner)
- Ansible Quick Start
- Puppet Quick Start
- DevOps Essentials
- Linux Command Line (Advanced)
- VIM & Git Quick Start
- NetApp ONTAP 7-Mode / 8.2 Modules

Technology Landscape

Infrastructure & Cloud

- Endpoint management
- Collaboration stack (M365)
- SSO / MFA / identity integrations
- Device security baseline
- VMware vSphere/Horizon
- OpenNebula, oVirt
- Linux (RHEL, CentOS, Debian, Ubuntu, SUSE)
- Windows Server
- Hybrid Cloud, Docker, Kubernetes
- Campus network operations and segmentation

Storage & Data

- NetApp, DELL PowerScale, DELL PowerStore, Unity
- vSAN, QNAP, Synology
- Veeam, TSM, Bacula
- HPC / Research Computing
- Data Governance
- Backup, Business Continuity, Disaster Recovery

Security & Operations

- Cybersecurity Frameworks / GDPR
- SMART
- ITIL 4
- PRINCE2
- IAM / RBAC / Endpoint Security
- Audit Readiness & Compliance Controls Mapping
- LDAP / DHCP / DNS
- Zabbix / vROps / Foreman / Puppet / Ansible / Python

Selected Projects

Referee Channel

Digital Arts & Designers S.L.

2010 – 2012

International

- Built and operated server infrastructure for global referee e-learning and video-streaming platform.
- Supported usage across major competitions and institutions in Colombia, Spain, South Africa, Russia, and USA, including the 2010 FIFA World Cup.

112 Accessible

University of Las Palmas & Cátedra Telefónica

2011

Las Palmas de Gran Canaria, Spain

- Produced and organized technical content for award-winning project improving accessibility to emergency services.

IESCampus

Neuronal Software S.L.

2008 – 2010

Las Palmas de Gran Canaria, Spain

- Supported infrastructure and platform operations for education portal serving secondary and baccalaureate curricula.

Prometeo

University of Las Palmas de Gran Canaria

2007 – 2010

Las Palmas de Gran Canaria, Spain

- Contributed to e-learning platform based on web and streaming technologies aligned with Bologna Process requirements.

Languages & Professional Activities

Languages

-  **ES** Spanish – Native
-  **EN** English – Full Professional
-  **IT** Italian – Professional
-  **GL** Galician – Professional
-  **PT** Portuguese – Conversational
-  **DE** German – Very Basic

Professional Activities

- Scientific publication contributor in international journals
- Advisory – Technology strategy for research institutions
- Industry engagement – conferences and expert panels

Selected Publications

- **CRISPRcleanR WebApp: An Interactive Web Application for Processing Genome-Wide Pooled CRISPR-Cas9 Viability Screen** — Cell Reports Methods (2022) (Contributor)
- **Integrative Imaging Reveals SARS-CoV-2-Induced Reshaping of Subcellular Morphologies** — Cell Host & Microbe (2020) (Acknowledged contributor)

Board Advisory Fit

- Trusted advisor to C-level leadership on technology strategy, governance, and execution at scale in international environments.
- Strong fit for growth-focused organizations requiring operating model clarity, risk governance, and disciplined execution.
- Able to support founders and leadership teams on technical due diligence, scaling priorities, and organizational readiness.
- International background across Europe and the USA with multilingual communication and cross-cultural stakeholder management.


References & Additional Information

References

- Dr. Rupert Lück, Head of IT, EMBL
- Dr. Florian Jug, Head of Research of Multimodal AI Across Scales Center, Fondazione Human Technopole
- Prof. Dr. Cayetano Guerra Artal, ULPGC
- Paolo Swuec, Head of National Facility for Structural Biology at Fondazione Human Technopole
- Pirosla Parti, HR Recruiter, Fondazione Human Technopole
- Soumick Chatterjee [[click for web](#)]

Other

- Driving License – B
- SSI Diver Level 3 (MID 312710)
- Willing to relocate for executive opportunities

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