

Carlos Fernández San Millán

Head of ICT & Acting CIO



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[📍 Milan, Italy](#) [LinkedIn](#) [Portfolio](#) [GitHub](#)

Technology Executive | Digital Transformation | Research Computing
20+ Years Leadership | €14M € Budget | 25+ FTEs

Executive Profile

Senior technology executive with 20+ years leading enterprise IT, research computing, cybersecurity, and digital transformation in complex, mission-driven international organizations. Proven track record of aligning technology strategy with institutional objectives, delivering measurable business outcomes, and building high-performing teams. Expertise spans IT governance, digital transformation, HPC/data center operations, cybersecurity frameworks, and research technology enablement in academic and scientific environments.

Core Competencies

IT Strategy & Digital Transformation | Cybersecurity & Risk Governance | Data Center | HPC Operations
Enterprise Architecture | Cloud & Hybrid Infrastructure | Research Computing Enablement
IT Governance & Compliance | Vendor & Contract Management | Budget Planning (€14M €)
Team Leadership (25+ FTEs) | Stakeholder Engagement | Program Management

Professional Experience

Head of ICT & Digitisation (Acting CIO)

Human Technopole

Jan 2023 – Present

Milan, Italy

- Strategic ICT Leadership:** Define and govern the Institute's technology ecosystem, aligning ICT strategy with scientific excellence and operational efficiency. Report directly to CAO with oversight of 25+ FTEs and 7 direct reports.
- Digital Transformation:** Lead organization-wide digital initiatives, implementing modern solutions that improved operational efficiency by **30%** and reduced manual processes by **45%**.
- Research Technology:** Oversee data center and HPC environments supporting data-intensive genomic research, enabling processing of **20PB+** of scientific data with **99.99%** availability.
- Cybersecurity Governance:** Establish comprehensive security framework achieving GDPR compliance,

reducing security incidents by **60%** through proactive controls.

- **Financial Management:** Manage ICT budget (Opex + Capex), achieving **25%** cost optimization through strategic vendor partnerships.
- **Team Development:** Foster culture of accountability and innovation, implementing ITIL-based service management.

Data Center Infrastructure Manager

Human Technopole

May 2022 – Dec 2022

Milan, Italy

- Managed high-performance IT infrastructure supporting scientific research, implementing backup/DR strategies ensuring **99.99%** availability.
- Defined IT standards compliant with regulatory requirements and institutional policies.
- Managed network security, campus MAN, and procurement planning for data center infrastructure.

Storage and Virtualisation Engineer

Human Technopole

Jan 2021 – May 2022

Milan, Italy

- Managed central storage (PowerScale, NetApp) and virtualization platforms (VMware vSphere, Horizon).
- Administered Linux-based services and supported research computing needs.

Systems & Virtualization Engineer

European Molecular Biology Laboratory

Oct 2018 – Dec 2020

Heidelberg, Germany

- Managed large-scale VMware cluster (28 hosts, 650+ VMs) supporting international research operations.
- Administered NetApp storage (18 nodes, \approx 9PB) and implemented vSAN for GPU-driven VDI infrastructure.
- Developed automation tools using Python and managed infrastructure with Foreman/Puppet.

Key Strategic Achievements

Digital Transformation Leadership

Led organization-wide digital transformation at Human Technopole, modernizing ICT infrastructure and implementing digital solutions that improved operational efficiency by **30%** and reduced manual processes by **45%**.

Cybersecurity Framework Implementation

Established comprehensive cybersecurity and data protection framework achieving full GDPR compliance, reducing security incidents by **60%** through proactive monitoring, controls, and staff training programs.

Research Computing Enablement

Designed and implemented HPC and data center infrastructure supporting cutting-edge genomic research, enabling processing of **20PB+** of scientific data with **99.99%** availability for international collaborations.

Financial Optimization & Vendor Management

Negotiated multi-year strategic agreements with technology vendors resulting in **40-60%** cost optimization while improving service levels and support capabilities across the ICT portfolio.

Education & Credentials

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

BSc Computer Science

University of San Francisco

1996 – 2000
San Francisco, USA

- Minor: Physics and Computer Architecture
- Activities: USF Men's Soccer Team, UC Berkeley Summer Courses

Professional Certifications:

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

Technology Landscape

Infrastructure & Cloud	Storage & Data	Security & Operations
<ul style="list-style-type: none">• VMware vSphere/Horizon• Linux (RHEL, CentOS, Ubuntu)• Windows Server• Hybrid Cloud Architecture• Docker, Kubernetes	<ul style="list-style-type: none">• NetApp, Dell PowerScale• vSAN, Unity• Veeam, TSM, Bacula• HPC/Research Computing• Data Governance	<ul style="list-style-type: none">• Cybersecurity Frameworks• GDPR Compliance• IAM, Endpoint Security• ITIL 4, PRINCE2• Automation (Ansible, Puppet)

Languages & Professional Activities

Languages

- ES** Spanish – Native
- EN** English – Full Professional
- IT** Italian – Professional
- DE** German – Working
- PT** Portuguese – Conversational

Professional Activities

- **Chairman - IT Review Panel:** European Council on Foreign Relations (2023)
- **Publications:** Contributor to Cell Reports Methods (2022)
- **Advisory:** Technology strategy for research institutions
- **Industry Engagement:** Conference participation