

# 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, ≈9PB) and implemented vSAN for GPU-driven VDI infrastructure.
- Developed automation tools using Python and managed infrastructure with Foreman/Puppet.

## Key Strategic Achievements

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### 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

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

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

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