CASE STUDY: Emerging Technology Tracking in 5G and Network Automation

COGNITION

CLIENT
Tier-1 telecom operator with national coverage

INDUSTRY
Telecom

PRODUCTS
Mobile voice and data, enterprise connectivity, IoT services, cloud-based telecom solutions

TARGET GEO
Global

BUSINESS OBJECTIVE
- With the rapid evolution of 5G, Open RAN, and network automation, the client needed to evaluate how global telecom leaders were deploying emerging technologies. The goal was to benchmark innovation maturity and identify high-impact investment areas across core infrastructure and enterprise services.

OUR SOLUTION
- **Tech Rollout Benchmarking:** Assessed 5G standalone (SA) and non-standalone (NSA) deployment timelines, Open RAN pilots, and private network initiatives across 12 global carriers using regulatory filings, earnings transcripts, and vendor case studies. Conducted eight expert interviews with CTOs, network architects, and R&D leads to understand implementation bottlenecks and success metrics.

- **Vendor Ecosystem and IP Analysis:** Mapped relationships with emerging technology vendors in automation, AI-driven network management, and edge computing based on strategic announcements, patent citations, and co-development agreements. Benchmarked proprietary vs. third-party innovation using telco group R&D data and internal IP pipelines.

- **Service Layer and Monetization Readiness:** Reviewed competitor progress in launching edge services, smart manufacturing solutions, and 5G-enabled enterprise offerings. Used case studies from vertical launches and analyst briefings

OUTCOMES

1 Identified three innovation blind spots in client roadmap related to Open RAN orchestration, AI-led fault detection, and edge security

2 Accelerated roadmap planning for two enterprise offerings based on monetization models from peer deployments

3 Identified three potential vendor engagements aligned with global tech partnerships observed among top-performing operators