Telecom, Media & Technology

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TELECOM, MEDIA & TECHNOLOGY INDUSTRY ID CARD

10 000 BUSINESS TECHNOLOGISTS, + 3 000 industry experts

GLOBAL
CUSTOMERS
representing
c. 58% OF REVENUE

€**1.8**bn 2019 REVENUE

€1.9bn 2019 ORDER ENTRY 10.2% 2019 OPERATING MARGIN RATE

Present in 73
COUNTRIES

TOP 10 CUSTOMERS representing c. 44% OF REVENUE -2,7% 2019 Organic growth 292 TMT CUSTOMERS

50%
OF BUSINESS IN TELCO & MEDIA

€2.5bn
2019 FULL BACKLOG
representing 139% year of revenue



TELECOM, MEDIA & TECHNOLOGY INDUSTRY MARKET TRENDS



7_{bn}

people are connected to mobile



90%

of users said they find personalized advertising appealing



SaaS

74% of operators have less than 10 percent of their BSS/OSS in a cloud



31%

CAGR Chatbot Market to reach USD 10.08 bn by 2026



25_{bn}

X3 more IoT objects will be connected by 2025



80%

enterprises will use software-defined networks by 2021



80%

80% of internet traffic is consumed today via video and TV



80%

of enterprise data will be processed outside data centers & the Cloud by 2025



61%

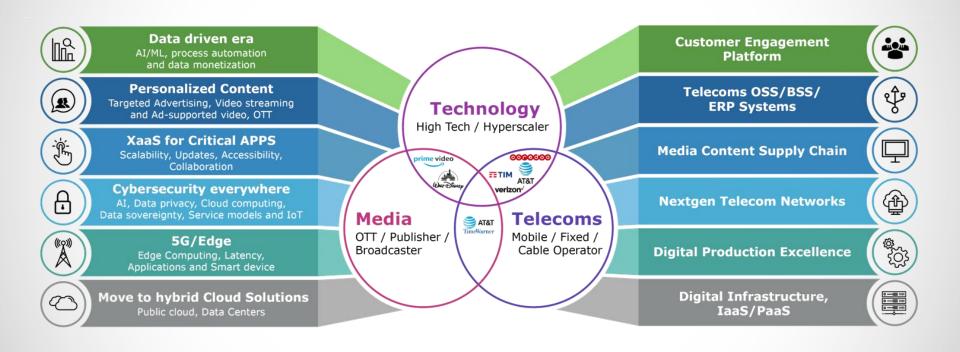
of the sector's AI spending go to network operations, management and new data monetization stream

Sources: Cisco, Ericsson, IDATE, IDC, GSMA, GlobeNewswire



TOWARDS SUBINDUSTRIES CONVERGENCE

ATOS INVESTMENT PRIORITIES & PORTFOLIO





TELECOM, MEDIA & TECHNOLOGY OUR STRENGTHS

OUR EXPERTISE

1300

IP in Telco

BNCS+

IP on the end-to-end broadcasting platform

NFV Lab

to help CSPs test NFVs in a DevOps environment

OUR SOLUTIONS

CYBERSECURITY, DATA ANALYTIOR & DECARBONIZATION

- l Customer I Engagement I Platform
- I Telecoms
 I OSS/BSS/ERP
 I Systems
- I Media I Content I Supply Chain
- Nextgen Telcom
- Networks
- I Digital
 I Production
 I Excellence
- I Digital
- I Infra, I IaaS/PaaS

OUR EXPERIENCE



OUR PARTNERS





GROWTH STRATEGY

EXPORT OUR PLATFORMS AS OUR CUSTOMERS EXPAND TO NEW GEOGRAPHIES

TELECOMS

TOP **CUSTOMERS**





Nextgen Telcom Network (5G)





MEDIA





- Customer Engagement Platform
- Media Content Suppl Chain
- Digital Production Excellence
- Data Analytics (AI/ML)
- Cybersecurity

TECHNOLOGY



- Digital Infra, IaaS/PaaS (Bare Metal Services, Edge computing)
- Data Analytics (AI/ML)
- Cybersecurity

PORTFOLIO

- Telecoms OSS/BSS/ERP Systems
- Digital Infra, IaaS/PaaS (Bare Metal Services, Edge computing)
- Data Analytics (AI/ML)
- Cybersecurity













DIGITAL BUSINESS SUPPORT SERVICES FOR BBC SERVICE DELIVERY OF DIGITAL & BROADCAST OPERATIONS



MANAGING COMPLEXITY FOR UK'S PUBLIC SERVICE BROADCASTER

CHALLENGE

- New IP BBC and S4C broadcast facilities in Cardiff to provide TV, radio and online services
- I And create a wide range of programming for viewers across the UK and supporting Welsh language

SOLUTION

Around 600 Atos expert working on broadcast infrastructure based on the Atos Broadcast Network Control System (BNCS): design, build and handover of technology and infrastructure

- I Enabled **efficient**, converged support and maintenance
- Faster and more flexible production workflows
- **Easier** and more costeffective content re-purposing
- In our current contract with BBC, we are committed to a **50% reduction in our energy** usage in the services we provide to the BBC.



MEDIA ASSET MGMT./MEDIA WORKFLOW FOR INA FRENCH NATIONAL AUDIOVISUAL INSTITUTE



CHALLENGE SOLUTION

- **Modernize** the information system
- Leverage latent asset

Data lake to centralize storage, correlation and media assets metadata enrichment automation

INNOVATE WITH A DATA LAKE

- Segmentation and categorization of data formats (images vs videos...)
- Migration of the Legacy data
- AI/ML-driven audio-video analysis tools for face, image and sound automatic recognition, speech to text and text OCR.

- Better sourcing of media archives (17 millions hours of TV and radio)
- Possibility to develop new services (audio description...)



CUSTOMER ENGAGEMENT PLATFORM FOR SFR

FRENCH TELECOMMUNICATIONS OPERATOR



ADDRESS EXPONENTIAL MOBILE DATA GROWTH

CHALLENGE

- Handle huge mobile data growth while revenue per subscriber are flat
- Reduce time & cost to deploy Large Edge DC for 5G
- Network Capex and Opex reduction
- Agility to deploy new VNF and services

SOLUTION

- Create a fully virtualized NFV infrastructure (private cloud) for 4G centralized DC and 5G decentralized DC
- V15+ VNF onboarded (running either on Openstack or VMWARE on the same x86 infrastructure)
- I Design, Build, Operate 24/7
- ANSSI R226 approved for security
- Network automation of main deployment use cases:
 - I New Large Edge DC
 - DC resource extension
 - VNF onboarding

- Reduction of deployment time and costs via innovation, industrialization and automation
- NFV DC deployment divided by 6 (from typically **12 months to 2 months**)
- Industrial deployment of 5G DC
- **50% gain** on some capacity extension
- Removing of several **legacy virtual infrastructures** in the network



CUSTOMER ENGAGEMENT PLATFORM FOR T-MOBILE DUTCH TELECOMMUNICATIONS SERVICE PROVIDER



AI POWERED CHATBOT TO INCREASE CUSTOMER SATISFACTION

CHALLENGE

Provide a more personalized customer care experience on the T-Mobile website and social medias channels

SOLUTION

- **Multi-channel chatbot** to streamline customer queries in a cost-efficient way:
 - Atos industry expertise
 - Latest AI/ML technologies from Google Cloud

- Improved and more efficient service, with faster insights into customer data
- Intent recognition increase of 300+% through machine learning only after 4 sprints in 4 weeks



TMT PORTFOLIO

LAST WINS ALIGNED WITH NEW STRATEGY



CUSTOMER ENGAGEMENT PLATFORM



TELECOMS
OSS/BSS/ERP SYSTEMS



MEDIA CONTENT SUPPLY CHAIN



NEXTGEN TELECOM NETWORKS



DIGITAL PRODUCTION EXCELLENCE



DIGITAL INFRASTRUCTURE, IAAS/PAAS



















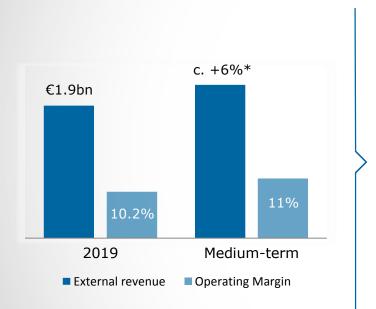






MEDIUM-TERM TARGETS FOR TMT INDUSTRY

REVENUE GROWTH AND OPERATING MARGIN



MAIN ORGANIC GROWTH DRIVERS

- l Leverage Atos Digital Portfolio as our Top Customers grow
- Address B2B shifts to Cybersecurity, AI/Edge, IoT
- Enrich portfolio with strong partnerships

MAIN OPERATING MARGIN DRIVERS

- I Business replication using mutualized platforms for Network function & Media
- Right-Shoring delivery and move to Agile
- I High value services developing more IP with software partners

MAIN AREAS FOR ACQUISITIONS

- Online/Streaming and media platform
- NFV transformation & Media Ipfication expertise



^{*}medium-term annual growth rate at constant currency

Q&A



Thank YOU

