Consulting & Training

Planning & Solutions Design

Services & Products

Tailor - made Solutions

R&D
NEXTWORKS
HEADING THE FUTURE

Base
Pisa

Ideal location for development of advanced technologies, maintaining excellent links with local academia.

Headquarters
Pisa

Branch office
Rome

Established
2002

Core team with 20 years of experience in ICT, telecommunications, control & automation

R&D Expenditure
~20%

(out of 7.3 M€ turnover)
The time gap between technological innovation and obsolescence is narrowing, so it's mandatory to invest in research and innovation

R&D
HIGHLIGHTS

60+
Projects funded since 2006

63
projects in European research programme frameworks

5
projects in Regional/National research programmes

Ranked at top positions among SMEs (and beyond) for number of projects and funding received at National and European level

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SCAN TO SEE NEXTWORKS WEBSITE
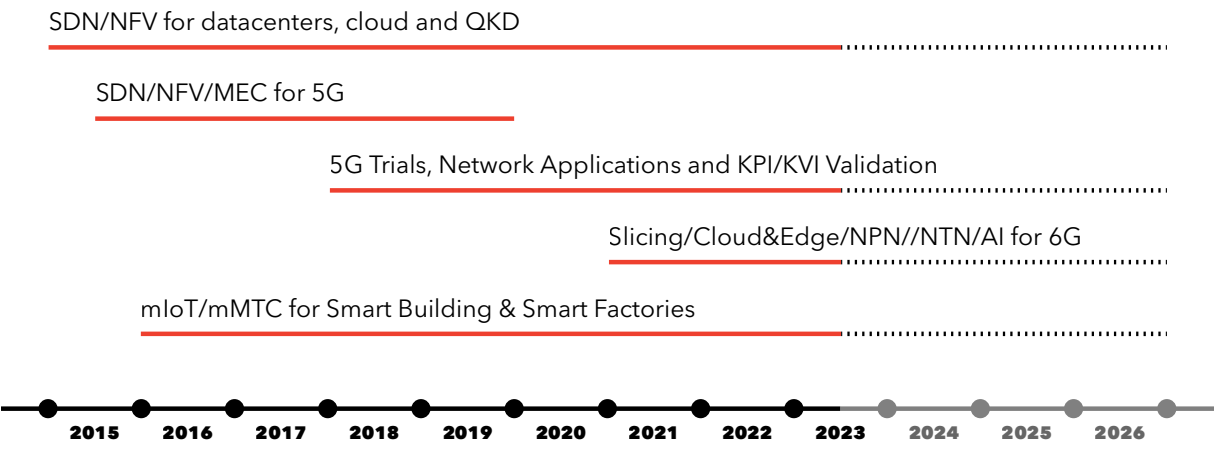
Cloud Edge

NEXTWORKS
R&D DEPARTMENT

5G/6G

AI

Industry 4.0

IoT

Network Security

SDN/NFV for datacenters, cloud and QKD

SDN/NFV/MEC for 5G

5G Trials, Network Applications and KPI/KVI Validation

Slicing/Cloud&Edge/NPN//NTN/AI for 6G

mIoT/mMTC for Smart Building & Smart Factories

| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |

SDN/NFV for datacenters, cloud and QKD
Software-Defined control of optical data centre for inter- and intra-DC connectivity services.
Composition and chaining of VNFs, joint orchestration of network and cloud resources.
Software-Defined Quantum Key Distribution control plane for photonic networks.

Slicing/Cloud&Edge/NPN//NTN/AI for B5G & 6G
Network Slicing for end-to-end 6G networks in the extreme-edge/edge/cloud continuum.
Federation of multi-stakeholder domains and NPNs integration.
AI for trustworthy and intent-based automation of programmable networks.
AI-as-a-Service framework for common and unified AI functions operation and exposure (training, inference, monitoring).
Management and Orchestration frameworks for multi-technology infrastructures and flexible network-of-networks topologies.
Cloud-native functions and Network Applications for media distribution, smart factories, network security.

5G/6G Trials, Network Applications and KPI/KVI Validation
5G/6G pilots and trials for Media, Public Safety, Industry 4.0, Connected and Automated Mobility, Transport & Logistics services.
Federation of cloud/edge, SDN/NFV, IoT and 5G/6G testbeds across Europe, Japan and Brazil for large scale experiments.

mIoT/mMTC for Smart Building & Smart Factories
Unified control of multiple heterogeneous smart sensors and actuators.
Abstraction, virtualization, orchestration and federation of fragmented IoT platforms.
Integration of IoT middleware and Industrial Information Management System (IIMS) to optimize resources and production lines in the factory.

NE✕TWORKS

TRAINING

Expert-level training on 5G/6G, ZSM, NFV, MEC, SDN architecture and tools
Training service on 5G/6G architectures, ZSM, NFV, MEC and SDN solutions and related software tools (OpenDaylight, ETSI OSM, Openstack, Kubernetes).

SOFTWARE SOLUTIONS

Network solutions: design, development and support to I&V
Highly tailored solutions for embedded/carrier grade components at kernel and user-space (various OS), medium/large-scale distributed systems, carrier-grade/fault-tolerant solutions, full protocol stacks for IoT and telco equipment.

Cloud-native IoT solution design and development
Advanced cloud-native IoT control solutions for: Smart Homes & Buildings, Smart Factories, Energy monitoring and optimization, Data Analytics distributed at edge/cloud for AI/ML-based predictions and optimizations

CONSULTANCY

Senior SDN/NFV Network Architect
Experienced professional profiles for operative procedures to manage NFVIs and VNFs Experienced professional profiles for design, dimensioning and continuous improvements of SDN/NFV virtualized private/public infrastructures, PoCs and production services in large multi-site networks and datacenters.

Senior SDN/NFV Service Architect
Experienced professional profiles for operative procedures to manage NFVIs and VNFs operations, onboarding and acceptance of VNFs with business continuity and HA, test methodology and reporting.

Technical Project Management
Support delivery of complex platforms through coordination of multi-national teams, managing procurement processes (requirements, tender definition, proposal evaluation, selection of suppliers), deployment and operation of 5G/6G, NFV/SDN, IaaS PoCs and production services.

NFV, SDN, Cloud & Edge, AI development activities and assets
Network Slicing, Intent-based APIs, 5G Application and Service Catalogue, 5G Marketplace, 5G Access and Transport Network control, 5G Core Network orchestration, Cloud-native virtual infrastructure management, Distributed monitoring of network services and slices, Resource orchestration for extreme-edge/edge/cloud continuum, MLOps and AI-as-a-Service platforms.

IoT-related and Smart-Everything development activities and assets
Home and building control/automation, Energy management and optimization with policies and predictors, Real-time monitoring & event management, Cloud-based IoT services (e.g. based on MS Azure or AWS Stream Analytics and Machine Learning), Remote facility management & supervision

Contribution to 5G, 6G, NFV, MEC, IoT and Smart Factory developments in Europe
ETSI ZSM, NFV, MEC, ENI and PDL Industry Study Groups, ETSI OSM Open Source Group.
ETSI Specialist Task Forces for OpenStack/VIM APIs, NFV and MEC API Conformance Test Suites, NFV and MEC OpenAPIs.
Technical organization of ETSI NFV & MEC Plugtests.
Board of 5G and 6G Infrastructure Associations & Steering Board of Networld2020 European Technology Platform.
Alliance for Internet of Things Innovation - AIOTI.

R&D projects with top-tier international teams
33 projects in Horizon 2020 (17 in 5G PPP, 1 on 6G), 2 ESA ARTES projects, 1 EDIDP project, 7 projects in Horizon Europe.
Contributions to international top conferences and exhibitions (MWC, 5G World Forum, OFC, EUCNC, GLOBECOM, ECOC, ICC, IoT Solutions World Congress, etc.).

A wide network of contacts
Collaborations with major network vendors and telcos in Europe, IoT players and utility providers, research centers and universities in Europe and worldwide

HEADING THE FUTURE