IDEAS
PEOPLE
INNOVATION

technology & transportation

THE COMPANY

Innovative SME (Small and Medium Enterprise). T&T works in: railway, industrial automation, aerospace, defense and healthcare fields.

Certifications and awards:

- ISO 9001:2015 for railway engineering consulting services and for consulting and software design;
- ISO 27001:2017 for information security management systems;
- "Star+ Legality Rating"

The Transportation field is T&T corebusiness.

The company offers its products and services to the ma¬nufacturers of railway systems and to the private and public transport operators of railway infrastructure.

OFFER

ACTIVITIES, SKILLS, LABS AND CONSULTING

Control and Validation of railway systems, Analysis and Risk management, Definition of the RAMS requirements, Methodologies of "safety critical" systems development: activities carried out in compliance with Quality and Safety Standards and in accordance with national and international regulations in force, and with consolidated and documentable experience in the use and knowledge of National and European Railway Interoperability Specifications

Support services for the Verification & Validation of railway and underground systems and for the testing and commissioning of rolling stock;

"SOFTWARE & DESIGN DEVELOPMENT" LAB

Realization of application software platforms in the field of Diagnostics and Maintenance on the Rail Network, concerning the management and planning of infrastructure maintenance, the management of the maintenance of rolling stock in compliance with ECM guidelines, documents management, data and defects of signaling systems and post-processing of data acquired by diagnostic trains and work vehicles.

"SYSTEM ENGINEERING" LAB

T&T works in design, realization and integration of hardware and software systems, through the implementation of specific activities and processes related to the life cycle of a product, according to EN 50126 – EN 50128 – EN 50129 Standards.

Design and development of embedded systems by using consolidated, reliable, scalable technologies with configurable hardware (FPGA), System on Chip (SoC), or Microprocessors for different applications: Processing, Measurement, Control, Test, Diagnostics and Maintenance of railway Infrastructure.

In the Defense field, T&T offers high technology integrated solutions and services, with dedicated and specialized resources for applications in the Cybersecurity, Radar Control, Radar Signal & Data Processing areas.

In the Industrial Automation field, T&T is involved in the design and development of software for PLC (Programmable Logic Controller) in complex industrial plants in Italy and abroad, in the development of supervision systems and simulation of industrial plants and in the realization of measurement benches.

"INNOVATION AREA" LAB

Innovation space to promote and reinforce ideas and projects on guidelines and themes of strategic interest for client Large Companies, using and experimenting with new enabling technologies. Support area for the two labs in the technical management of research projects.

KEYWORDS

- **Fast Prototyping, PoC (Proof of Concept)**
- **Development and TRL (Technology Readiness Level) improvement**
- **Hard Real Time embedded system for Signal/Data Processing**
- **Cross platform Command and Control Console (IDE Qt)**
- **Image Recognition and Object Detection algorithms**
- **Hardware custom, Signal Integrity e PDN (Power Distribution Network) Analisys, Heat Spreader design**
- **Advanced Data Analysis (Machine Learning Datasets Design, Data mining, Predictive Algorithm)**
- **Object Oriented Programming**
- **Mobile Programming**
- **Service Oriented Architecture (SOA) and Service Oriented Computing (SOC)**
- **UML Modeling, DB Design**
- **Systems integration, Test and Commissioning**

RESEARCH & DEVELOPMENT

Research & Development Area as engine for acquiring new skills, for growing in technical knowledge and for increasing company know-how and progressing in technological knowledge, both through regional and national tenders with other industrial partners and research institutions, and by investing in internal research activities.

The company has participated and has awarded numerous R&D tenders, engaging in innovative projects in the transportation, industrial automation and in the healthcare sectors.

INTERNATIONAL PROJECT

Through its internationalization project, called NeApolis (New Approaches for Internationalisation), T&T has planned to expand its presence within the European area with an increase in its market share, to market services and products in international contexts, start new technological and commercial partnerships, increase the company portfolio of customers. International markets in general and Europe in particular are a challenge for T&T.

Distretto **DATTILO** (Distretto Alta Tecnologia Trasporti e Logistica S.C.A.R.L), promozione e sostegno per la competitività delle imprese in attività di ricerca e sviluppo, formazione e divulgazione scientifica nei settori automotive, trasporto su rotaia e della logistica avanzata.

CTIF (Consortium Company for Innovative Railway Technologies), promotion of scientific and technological activity in multiple areas of the rail sector, as well as the development of innovative applications for the railway economy.

MEDITECH 4.0 COMPETENCE CENTER of the Regions of Campania and Puglia, a highly specialized center of competence, able to favor the transfer of technological solutions and innovation in processes, products and business models deriving from the development, adoption and diffusion of technologies in the 4.0 area, in line with the framework of the interventions of the Industry 4.0 National Plan.

VALUES AND CULTURE

Great attention and investments are focused on Research and training of Human Resources. The company is organized as a Learning Organization, built to train a generation of resources able to interact with rapidly changing conditioning factors, to manage the big amount of data with which they deal day by day, with the role of knowledge workers, people who assimilate, manage and translate vast amounts of information of crucial importance for the competitive advantage and constant growth of the company in which they operate. The success of the company begins from the talent of its resources: innovative products and solutions arise from their ideas and creativity.

MAIN COLLABORATION AND PARTNERSHIP

Università Federico II	System Engineering, Electronic Engineering	**CeRICT**	Regional Information Communication Technology Center
Università Parthenope	Telecommunication Engineering	**CNR, IMM**	Institute for Microelectronics and Microsystems
Università del Sannio	Software Engineering	**ESA**	European Space Agency
Università di Salerno	Computer science, Electronic Engineering, Security	**KIRANET**	ICT Research Center
Università di Torino	Computer science, Data Management/Data Analysis, Artificial Intelligence	**Aster**	Consulting in Engineering and Innovation
		Ce.S.I.	International Study Center

MAIN CUSTOMERS

WWW.TTSOLUTIONS.IT