



Marwan Technology borned after a long period of collaboration between the researchers of University of Pisa and the high technology industry, for advising and prototyping of measurement instruments. The aim of spinoff is to develop sensors and instruments for Industry and Research. Specifically in the field of:

- Analytical Instrumentation
- Laser Sensors
- Laser Source
- Low-noise Electronics
- Laser Spectroscopy



Company name: MARWAN TECHNOLOGY S.R.L.

Location: PISA (PI), Via del Borghetto 34, 56124

Fiscal and VAT code: 01667620502

Established: July 2003

Legal form: LIMITED LIABILITY COMPANY (LLC, SRL)

Internet site: <http://www.marwan-technology.com/>

NACE Code: 26.51

Sector: Spinoff: Università di Pisa

Turnover
Value
40K

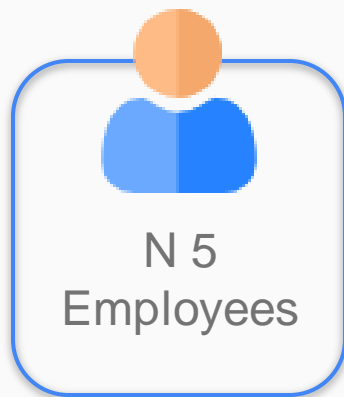
Subscribe
Capital
10,87 K

NO
Female,
Foreign or
Young
Predominance

Qualified Team and Collaboration

The enterprise was born after a long period of collaboration between the group and the high technology industry, for advising and prototyping of measurement instruments:

- LIGO Project (NSF - CalTech - MIT)
- TAMA Project (Università di Tokyo)
- Agenzia Spaziale Italiana (ASI)
- Istituto Nazionale di Fisica Nucleare
- Consiglio Nazionale delle Ricerche (CNR)
- Thales Alenia Space



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PRODUCT AND SERVICES

Sensors and Instruments for Industry and Research

- Analytical Instrumentation
- Laser Sensors
- Laser Source
- Low-noise Electronics
- Laser Spectroscopy



LOTIS TII



ANALYTICAL INSTRUMENTATION

AFS – Atomic Fluorescence Spectroscopy Instrumentation

Environmental Monitoring



Raman Chemical Imaging System

LASER SOURCE

LOTIS TII



MOBILE Dual-pulse Instrument

Fully integrated and transportable system for LIBS multi-elemental analysis of materials



LIBS - Laser Induced Breakdown Spectroscopy

extracting information on the atomic composition from the fluorescence spectrum of the plasma generated by a laser pulse on the sample surface.

APPLICATIONS OF A PORTABLE LIBS INSTRUMENT

1. Industry process control
2. Materials analysis and studies
3. Metallurgic, cement, ceramic, glass, power sectors
4. Chemical, pharmaceutical, polymers industry
5. Environmental pollution monitoring and diagnostic
6. Waters and soils analysis
7. Bio-medicine, biology, biochemistry, in-vivo tissues
8. Forensic in-situ analysis
9. Cultural heritage

ORIGINAL MOTIVATION

- ❑ Market of analytical instrumentation is huge
- ❑ Taking even a small fraction of such market is appealing
- ❑ However, big producers of analytical instruments are not enthusiastic about LIBS
 - Complex interpretation of LIBS spectra
 - Empirical approach dominating
 - Most of LIBS know-how is still “Academic research”
 - No “standard” experimental set-up, procedures or assessed applications
 - No real in-situ measurements



RESULTS

Industry ↔ *Research*

Need for affordable commercial instrumentation to speed up the process of diffusion of LIBS-based applications