

e-voluzione srl

F.M.Sacerdoti

foto by Luca Pieroni

e-voluzione

evolution paths for industries



Prototype Development

Hardware/Software Systems

Signal and Image Analysis systems

Advanced software development

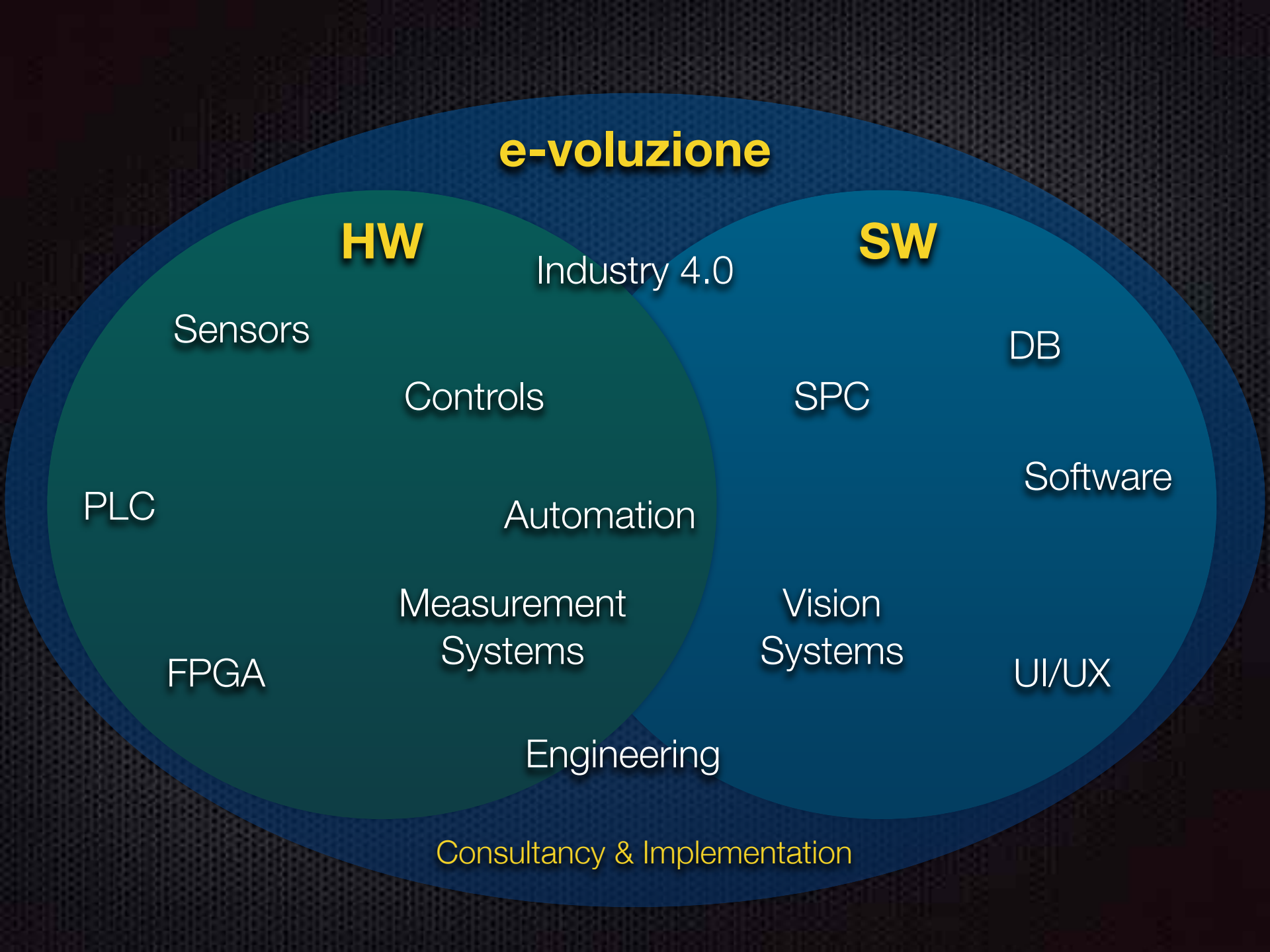
Technology and Innovation consultancy

MIMIT: Albo dei certificatori ricerca e sviluppo e innovazione

QS CERTIFIED SYSTEM ISO 9001

ISO-9001 2015 Advanced Information Technology

Anagrafe Nazionale delle Ricerche


e-voluzione
HW
SW
Industry 4.0
Sensors
DB
Controls
SPC
Software
PLC
Automation
Measurement Systems
Vision Systems
FPGA
UI/UX
Engineering
Consultancy & Implementation

Awards

F.M.Sacerdoti has developed since 1988 hardware/software systems for companies and research centers, from Artificial Intelligence systems to advanced industrial control, to complex measurement systems.
He develops the ground control center for four Space Shuttle missions and for several Sounding Rockets.

He is Adjunct Professor at **Temple University** (Philadelphia - USA)
He is teacher at University "Federico II" of Sound Engineer
He was teacher at **Apple Developer Academy**
He was **Visiting Scientist** at CERN (Geneva)

He is **Certified LabView Architect** of National Instruments
He is **Certified Professional Instructor** of National Instruments

9 patents, 1 utility patent - 3 patent pending

He won three years one after the other the second place of National Instruments for the **best Test & Measurement italian application**

Consultant for the Italian Ministry for the diffusion of Innovation and Research (DIRCE). Innovation project evaluator for Friuli-Venezia Giulia Region

ECSS Software Engineer Certified by European Space Agency (ESA)

Euroleader Award
e-voluzione was one of the three best space companies all over Europe between the BICs.











3 BOOKS
55 INTERNATIONAL PAPERS
19 INVITED SPEAKING

Our customers



Hewlett Packard Enterprise

rexroth
A Bosch Company

CIRA
Centro Italiano Ricerche Aerospaziali

asi
agenzia spaziale italiana

esa



Laminazione Sottile group





A. Abete



AVIO
ADVANCED VISION INTO ORBIT





Wabtec
CORPORATION



IPM GROUP



Whirlpool
CORPORATION



Lete



Visteon



PRYSMIAN
CABLES & SYSTEMS



COMUNE DI NAPOLI



PIRELLI





VITROCISET
a LEONARDO company

www.e-voluzione.it


Some systems realized in the past by F.M.Sacerdoti
Analisi vers.2.0
Prova 1
Start Prova
HVCU
CMP


Prova di Flusso :
1,497
1,498
1,499
1,5
1,501
Tamb
0,00
[°K]
Pin/Pamb
0,0000
Fmi
0,00000
E-voluzione
Software
Canale 1
Variant
Timer
Timer:
12NC TSW
SC1
MARIA

E-voluzione Hardware










Ground Control Centers

Space Shuttle Missions



Control Center Design and Development
Mission Operations

STS-107

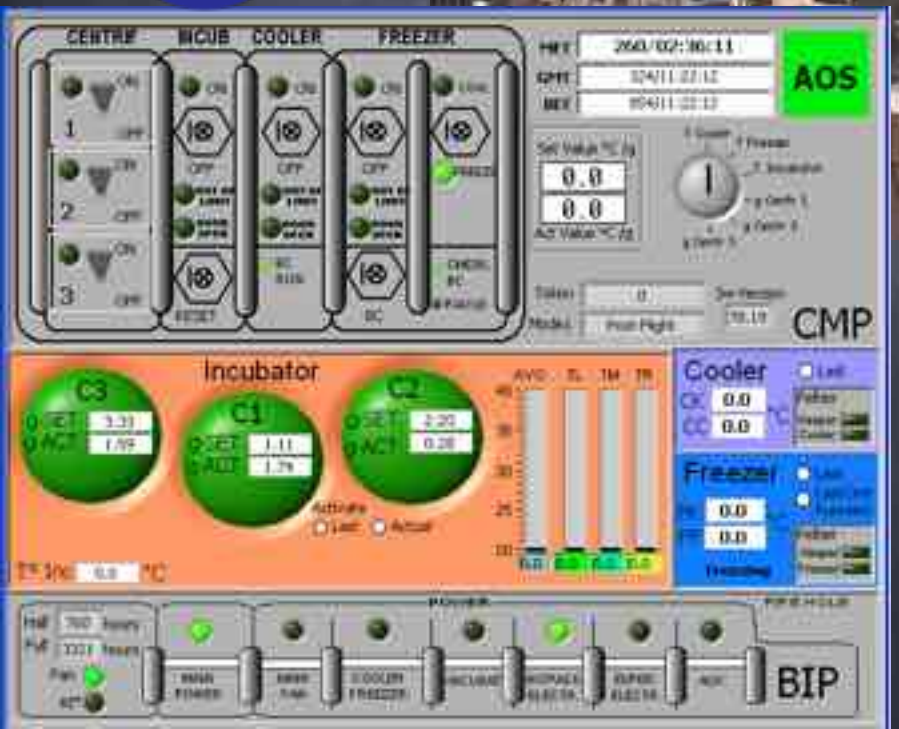






NASA

esa



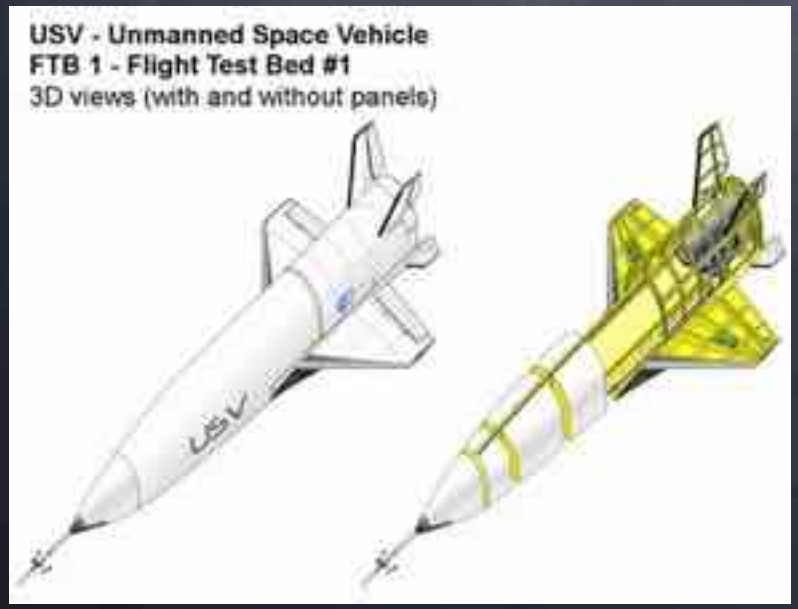


CIRA

Italian Aerospace Research Centre



- MCC (Mission Control Center) Redesign and upgrade for USV (Unmanned Space Vehicle) Polluce Mission





Avio
Rocket Engine Firing Test Control



Avio

SRM Data Acquisition System

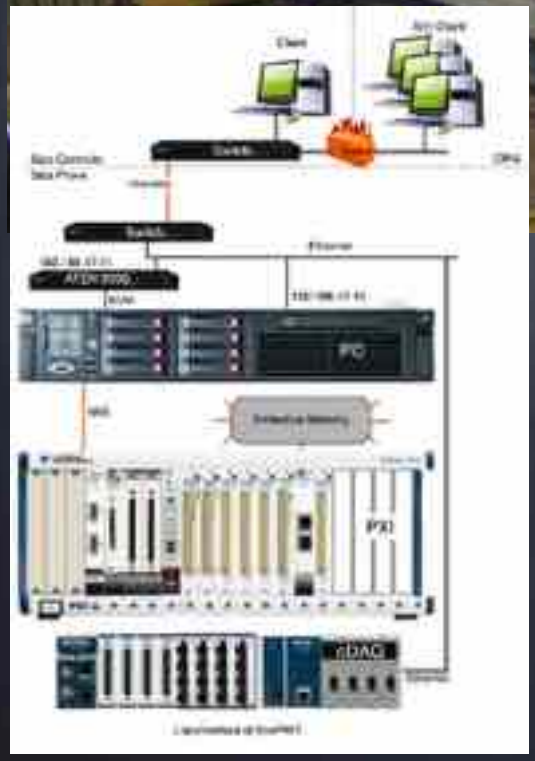


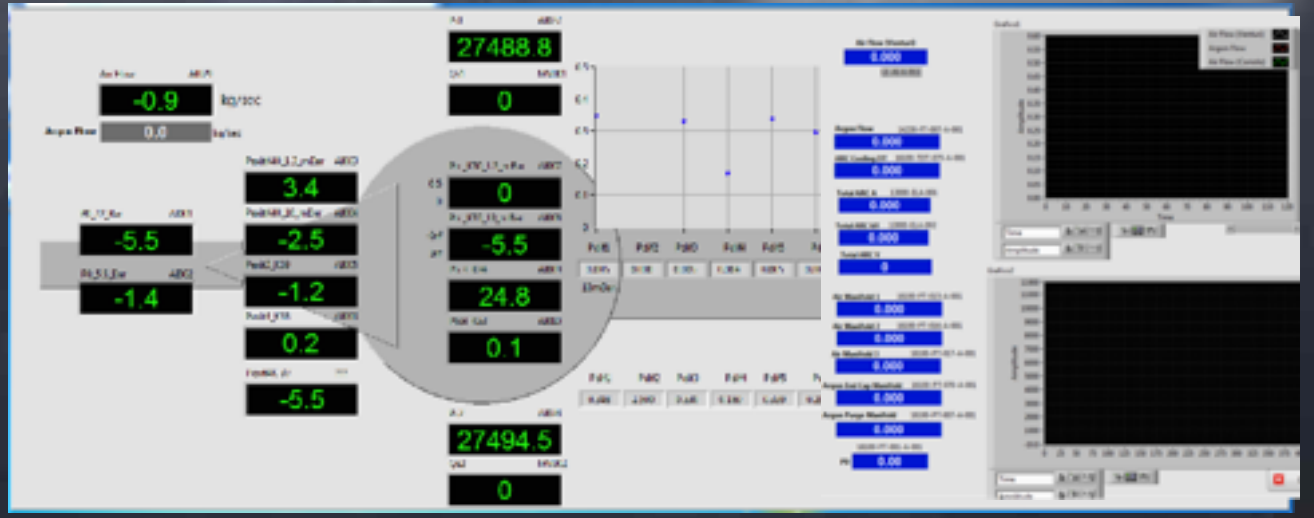
CIRA

Italian Aerospace Research Centre

PWT (Plasma Wind Tunnel)

Data Acquisition System



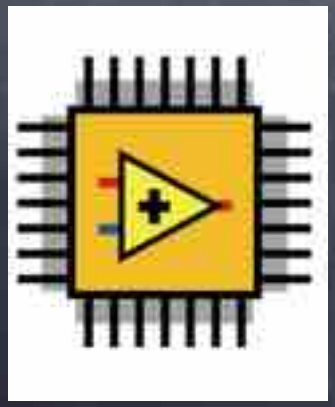


MEOLUT

VITROCISET
a LEONARDO company





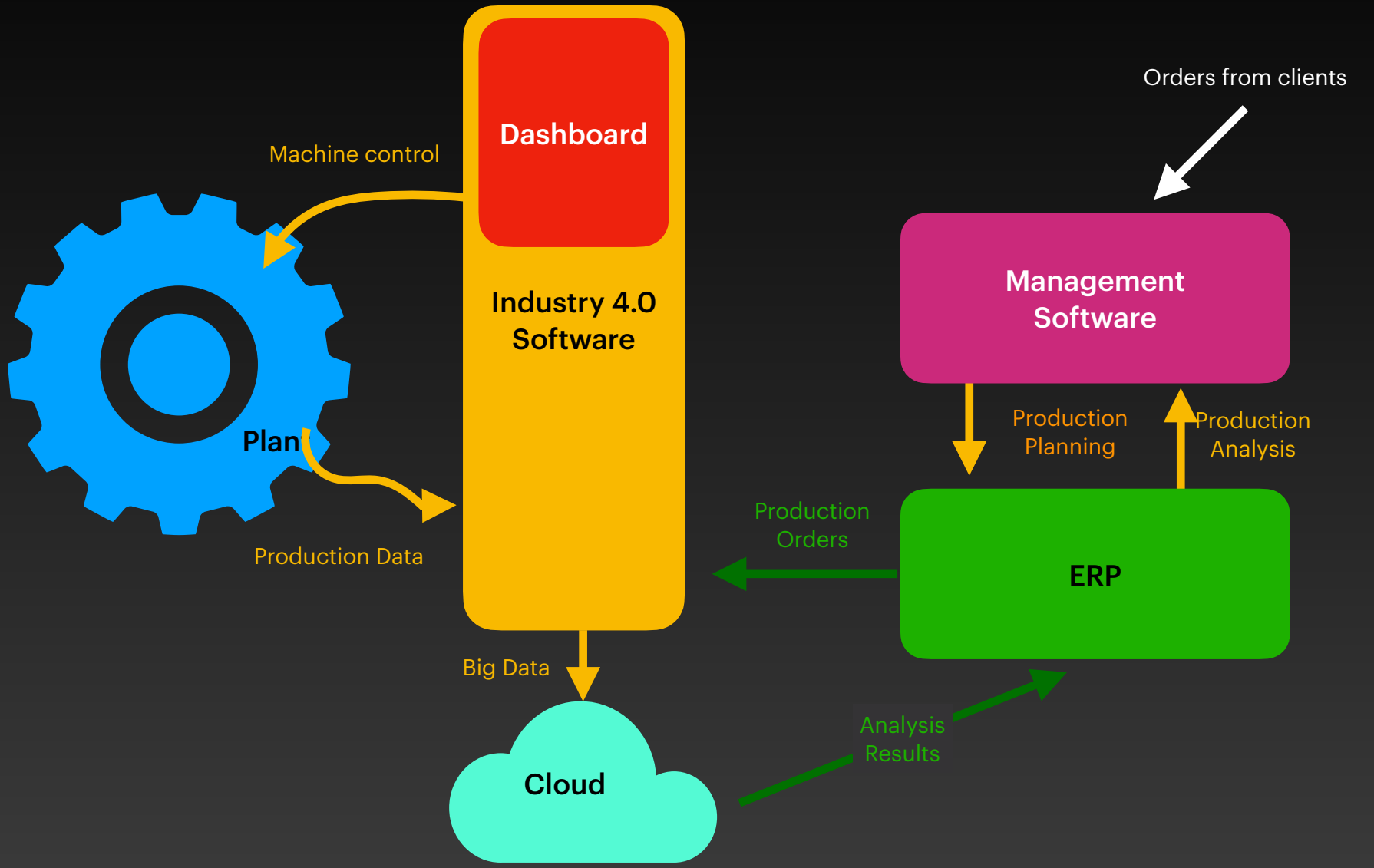


- FPGA/PXI System to analyze signals coming from Beacons

Industry 4.0

Interconnections

Interconnection



4S-FACTORY

Scalable
Suitable
Simple
Smart

Integrated Management Tool to interconnect industrial machinery

IN COOPERATION WITH AGILAE





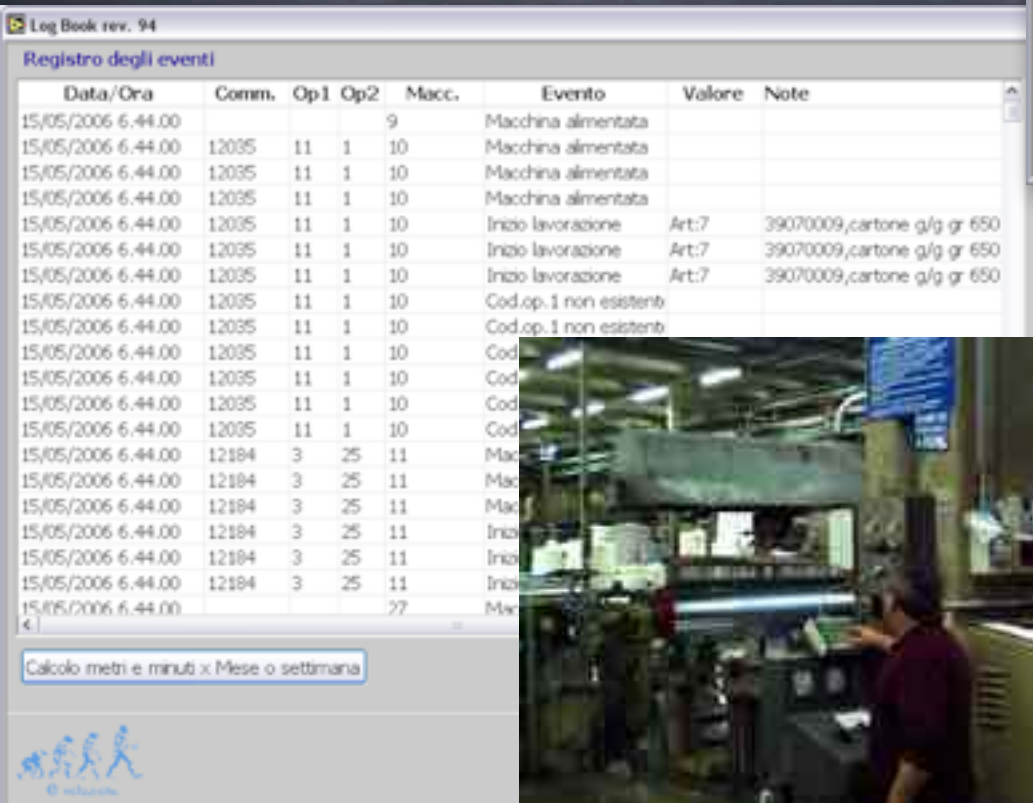




Roncoroni SpA

Real Time Production Monitoring system



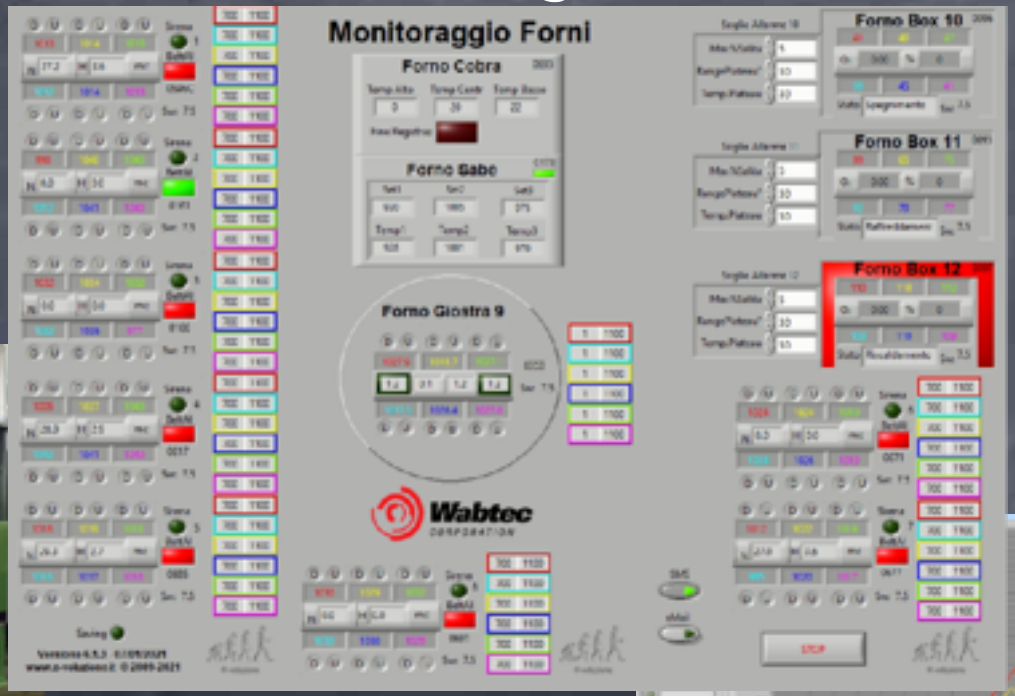




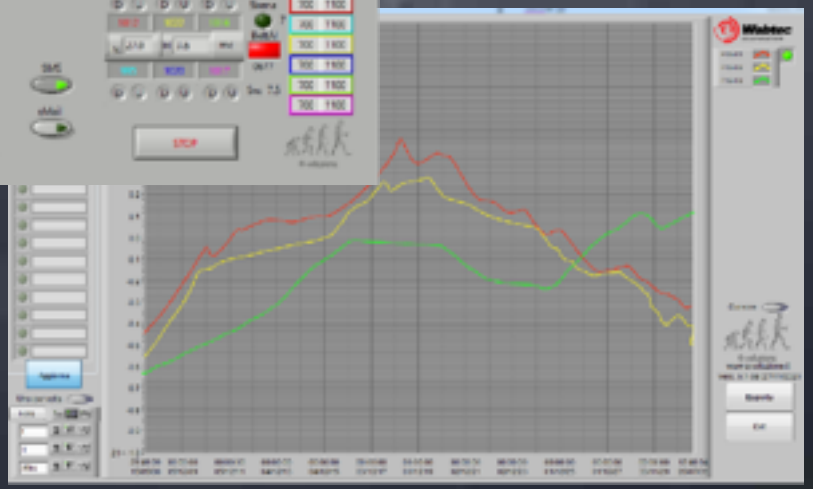
Cofren-Wabtec

Plant ovens monitoring & analysis

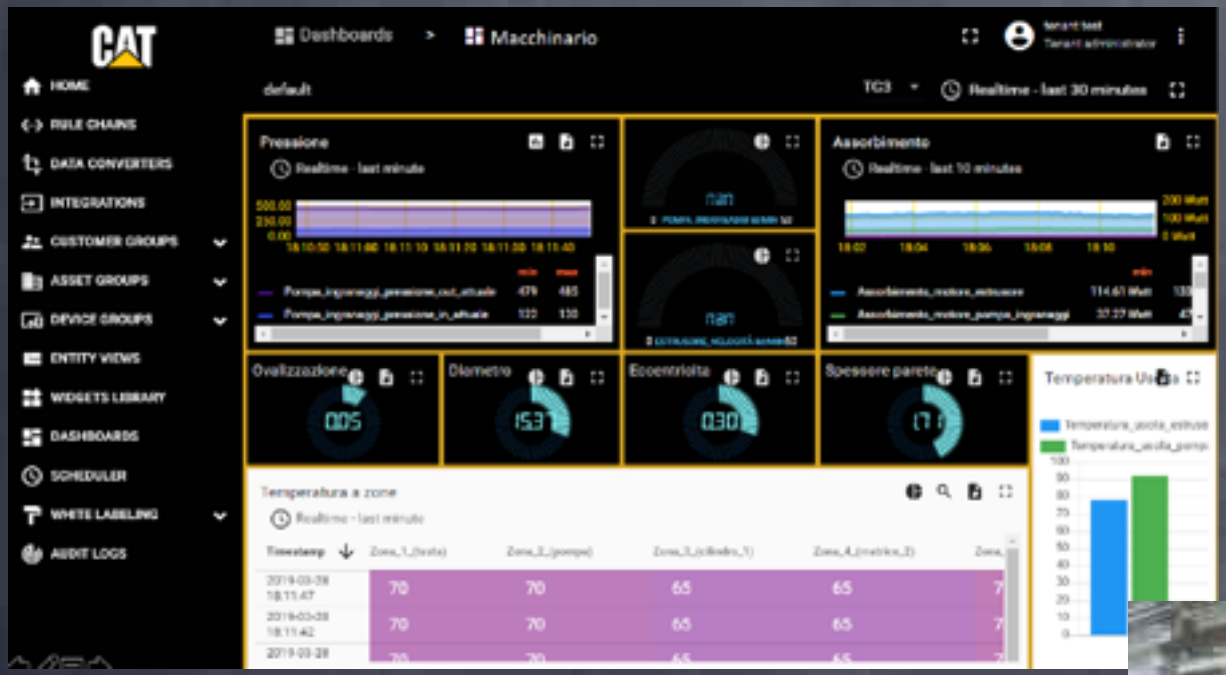








Caterpillar Fluid Systems









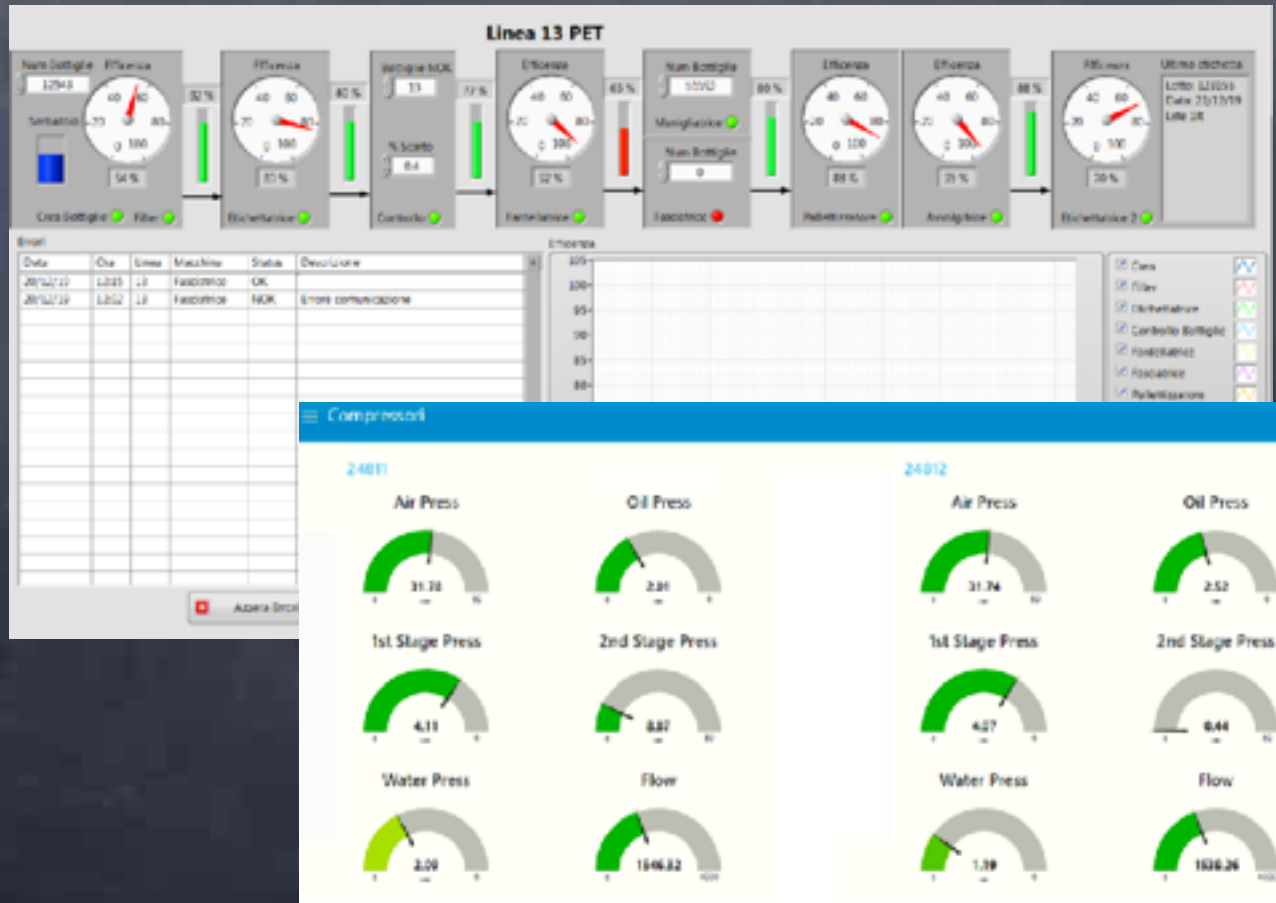
- Big data acquisition
- Whole plant KPIs

Hewlett Packard Enterprise

Acqua Lete

IoT plant data acquisition system



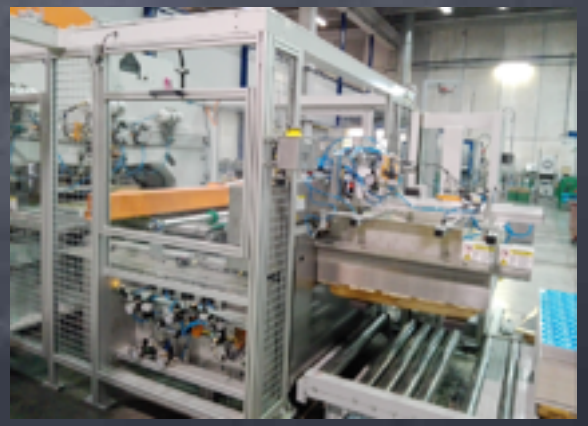


Tecnocap










Scatole in uscita - Baia 1
Scatole in uscita - Baia 2
PRODUCTION ORDER
PRODUCTION ORDER
BARESA PESTO GENOVESE
CONAD ALICI

Industry 4.0

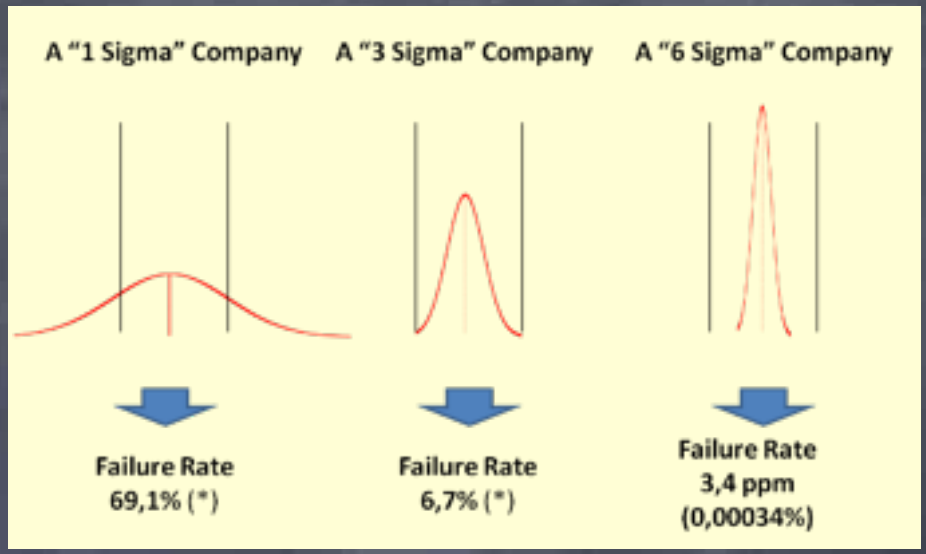
Consultancy, OpEx/6Sigma, Security

Industry Consultancy

- Expert report on industry 4.0 or other public funded projects
- Innovation Management
- Security Management and procedures
- ISO standards
- CE Certifications
- Training

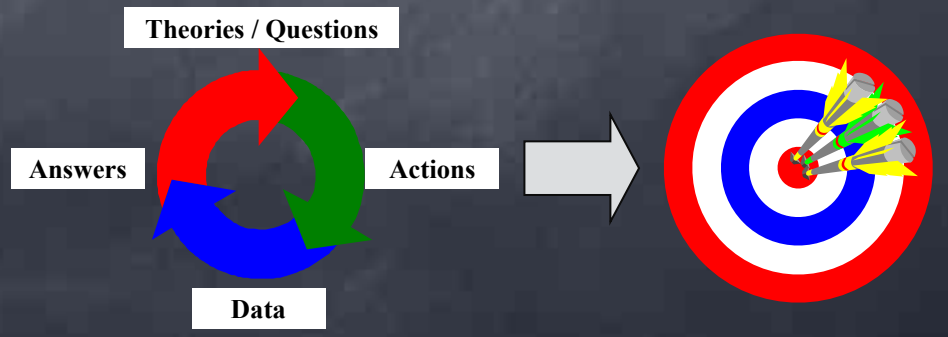
OpEx/6-Sigma Consultancy

- Best Internal Quality
  - No Design Reloops,
  - Zero Scraps,
  - No Reworks,
  - Highest Efficiency,
  - Lowest Costs



- Best External Quality
  - Product Leadership = Innovation + Quality + Reliability + Best Value.

- OpEx – Six Sigma:
  - to use the appropriate tool, …
  - at the appropriate time, …
  - in the appropriate manner, …
  - to guide engineering work.



On Target with Minimum Variance!

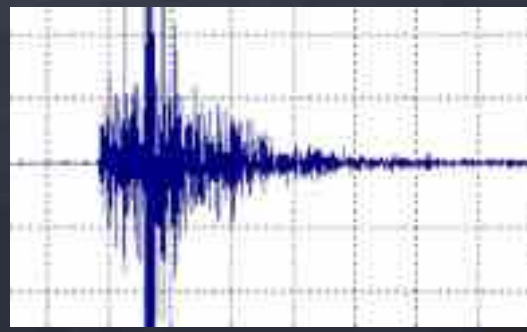
Security

- Security Day
  - Training on Security procedures
  - Psychological experience
  - Training on Plant Security
- SicurQuest:
  - Educational game for safety and emergency management.
  - Target: schools, public bodies, companies
  - Recipients: pupils, teachers, workers
  - Roles: emergency coordinator, first aid worker, people assigned to specific tasks, ecc.







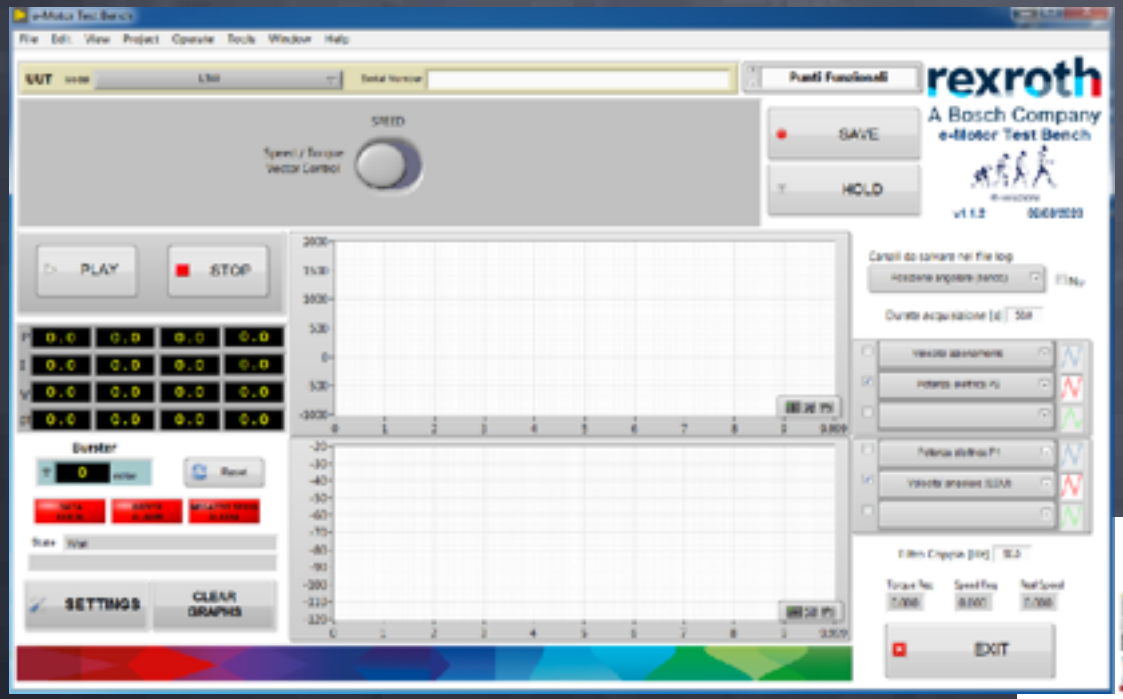


Test Benches

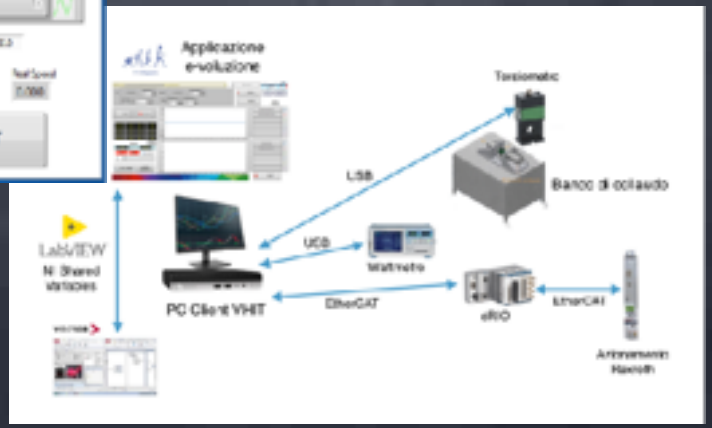
Bosch Rexroth

rexroth
A Bosch Company

Test bench software for e-Cars Engine components







VITROCISET
a LEONARDO company

INFN

Test equipment for SYS-100 FAIR Synchrotron







NomeTest	Index	Comando	Parametri	Commenti
-- Inizio misure alta tensione			----------	----------
HV		SO		tutti i relè nella condizione di Disecitati
HV		SG	B1,B2,B3,B4,B5,B6,B7,B8	Rete a GND
HV		SG	V0,V1,V2,V3,V4,V5,V6,V7,V8,V9	Rete a GND
HV		SF	HV	Switch Off HV
HV		VA	runElem,0	Modifica l'interlaccio utente (9 elementi dell'array)
HV		SO	B1-	disecito B1-
HV	0	MG	B1+,0,120,600,1e+6,5000,B1 ,30000	Switch to V, aspetta 0 sec, Megger per 120 sec Megger a 600 V, Valor atteso > 1e+6, poi lo mette a 0,attende 5 secondi, mette a GND il relè iniziale, attende 30 secondi,lo disecita
HV	0	MG	B1+,0,120,1500,1e+5,5000,B1-,30000	Megger a 1500 V

Avio
Test bench for Jet Engines



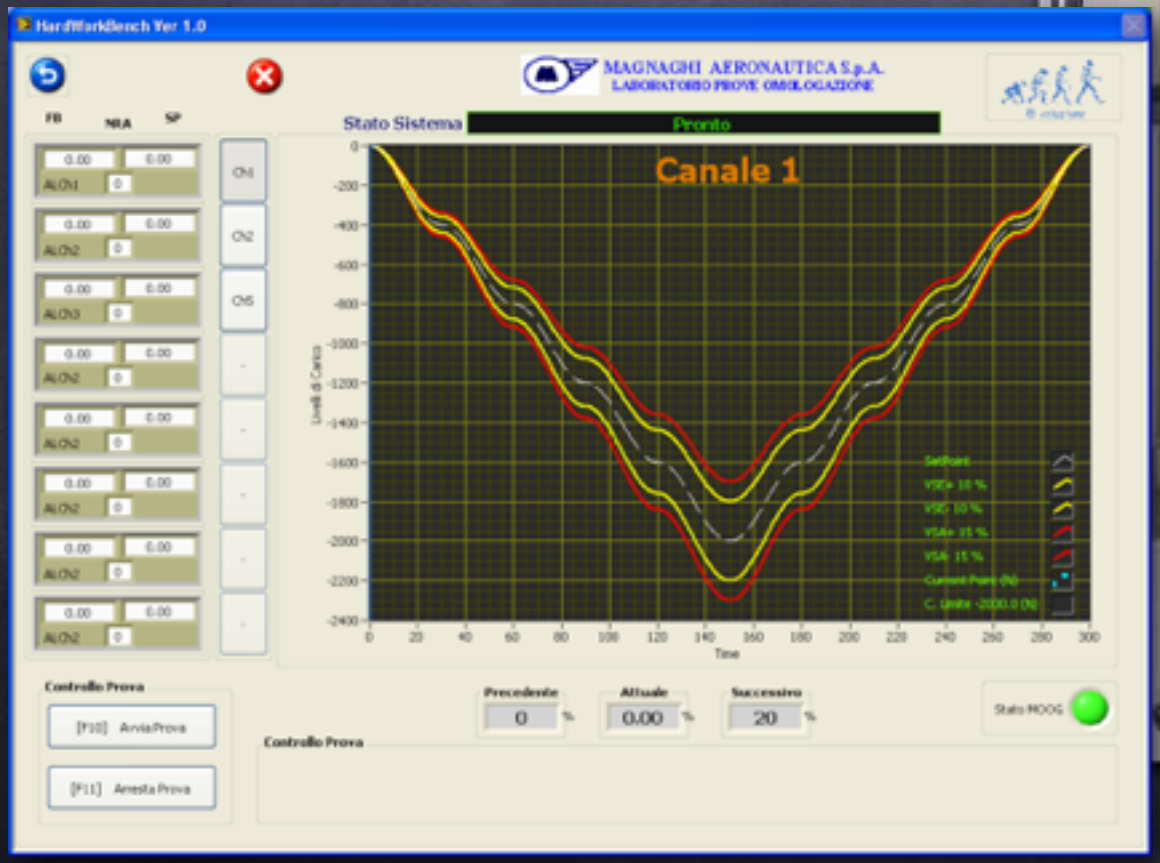




Magnaghi Aeronautica



Landing Gears
Static Test Bench



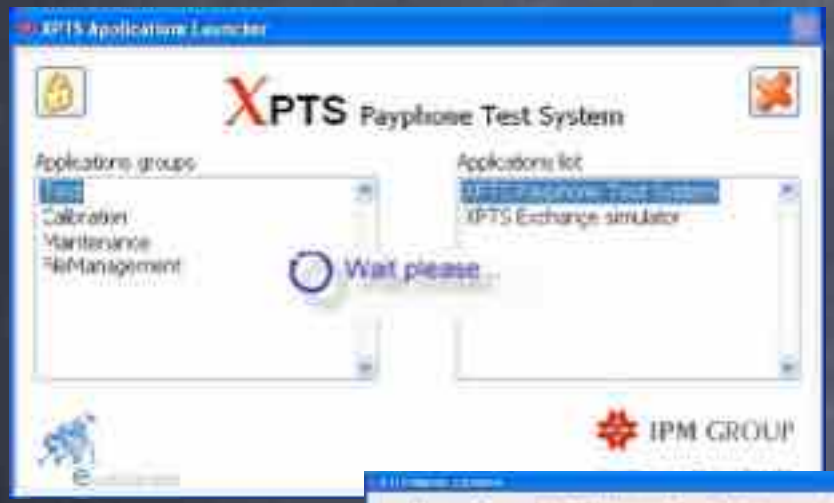


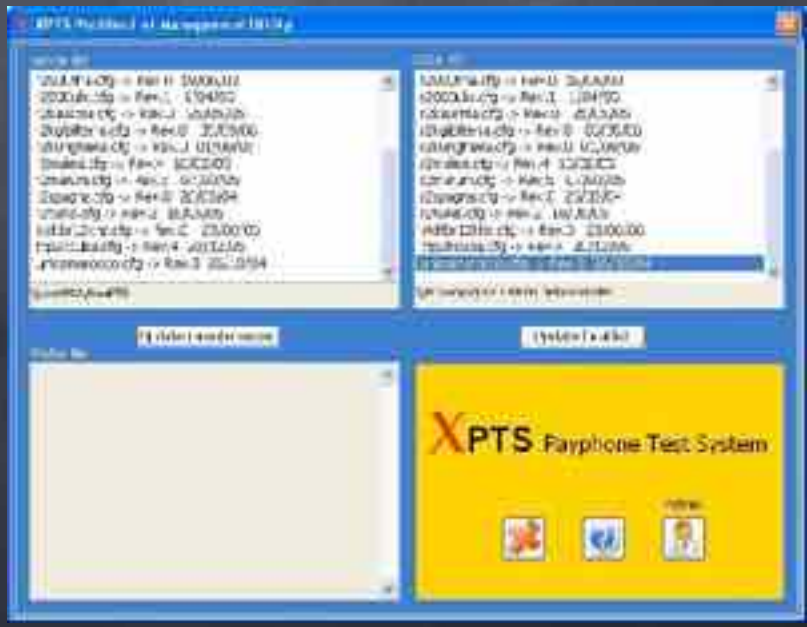
IPM GROUP

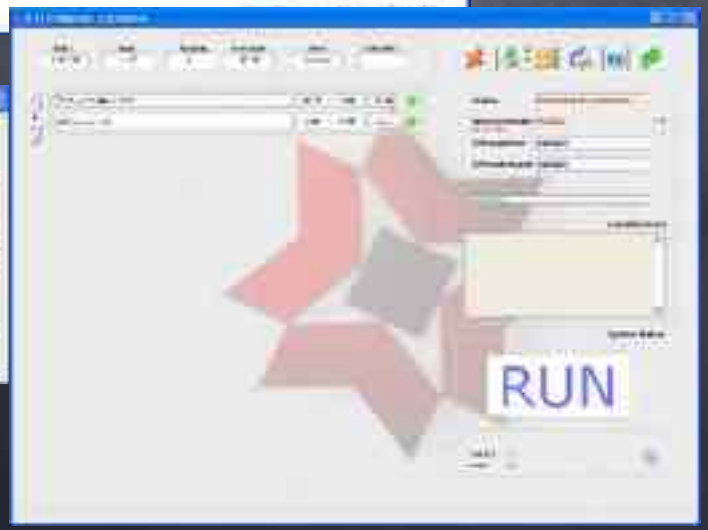
IPM Group

- Public phone test bench



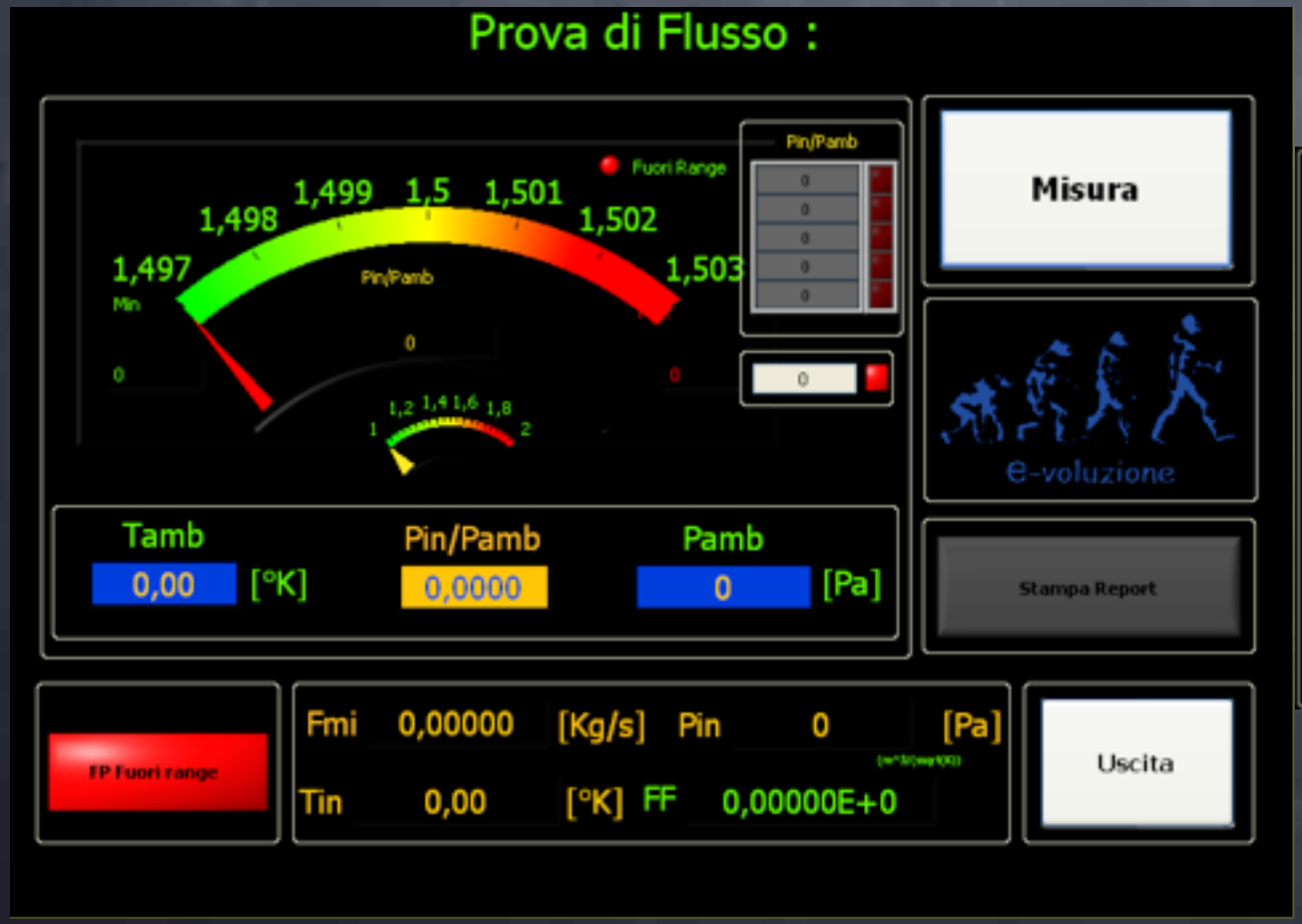


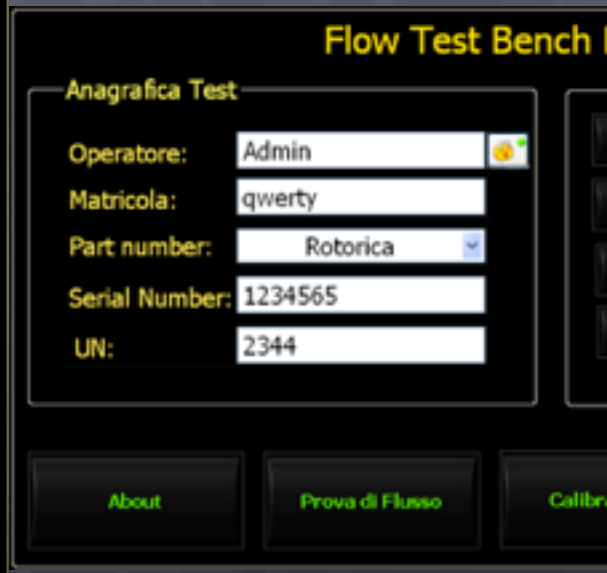






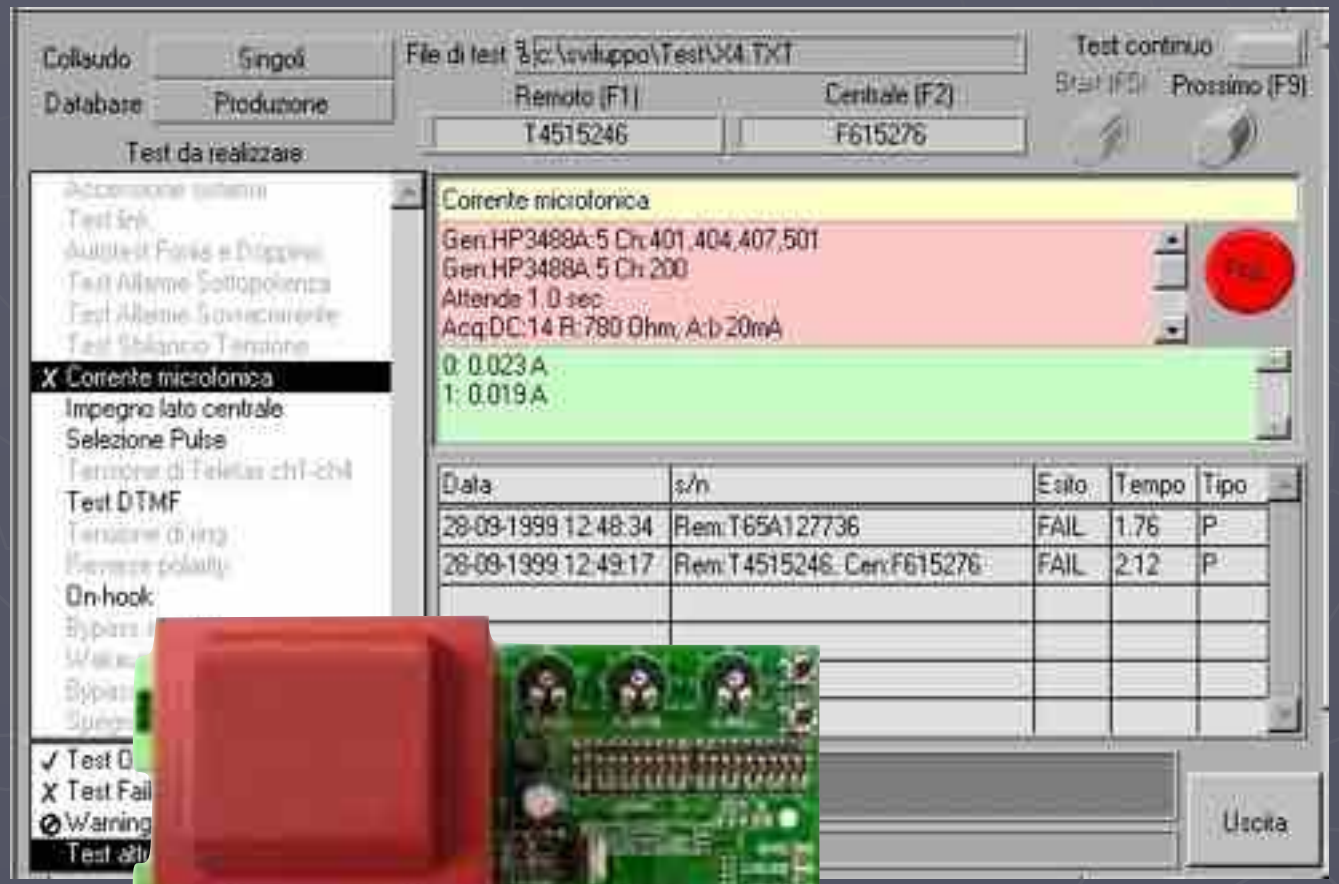
Avio
NGV Fluxometry Test bench





Test in a Text: user-programmable test procedure

Test system to test voltages, currents, frequencies, etc. where the test programming is defined in a text file and the results are saved on a DB



WASHTEST

Washing machine test
according to EN-60456





Whirlpool CORPORATION

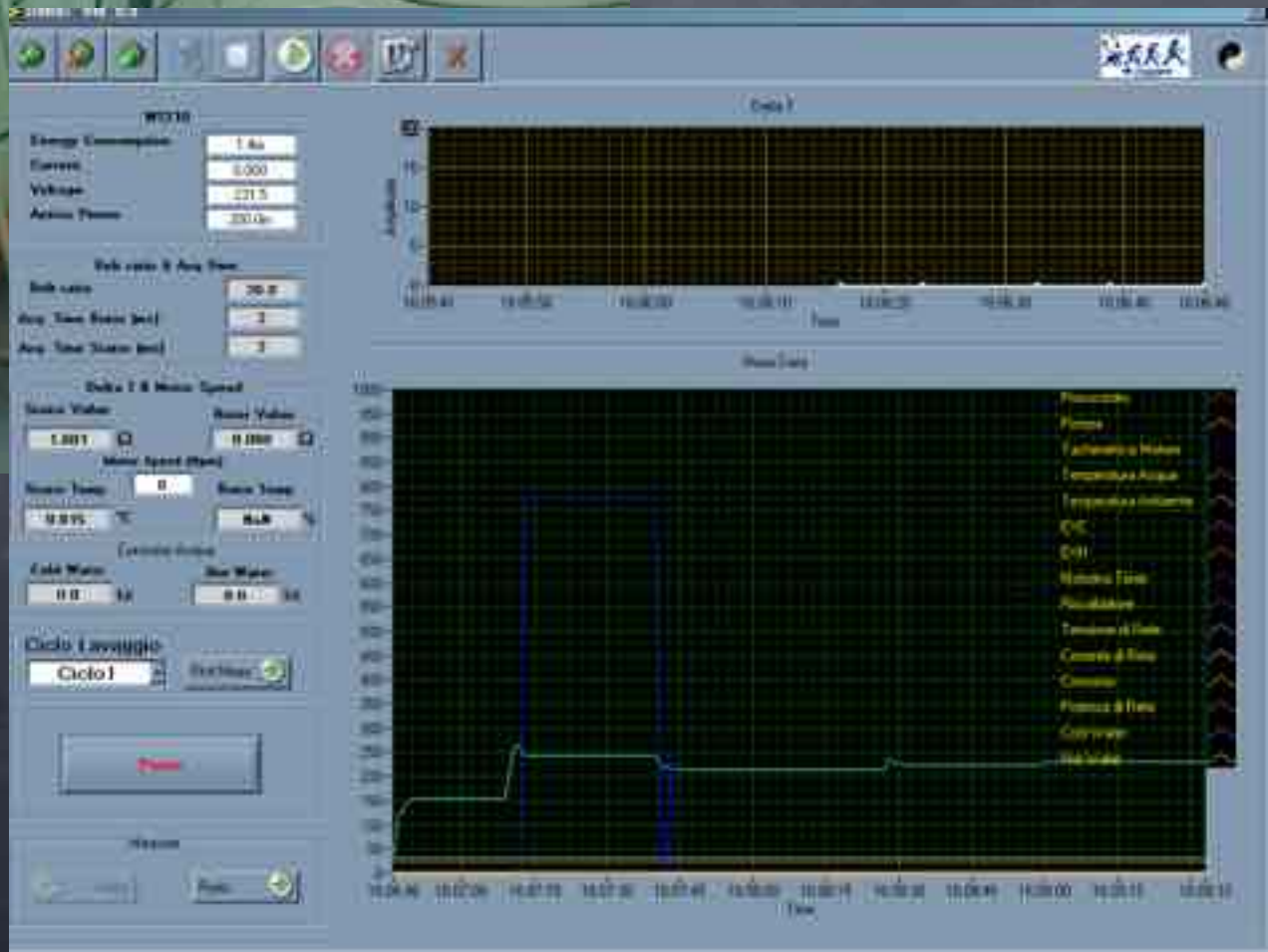




Whirlpool CORPORATION

Motor DeltaT Test Bench





Marconi Mobile

- Mobile phones test bench



e-Met



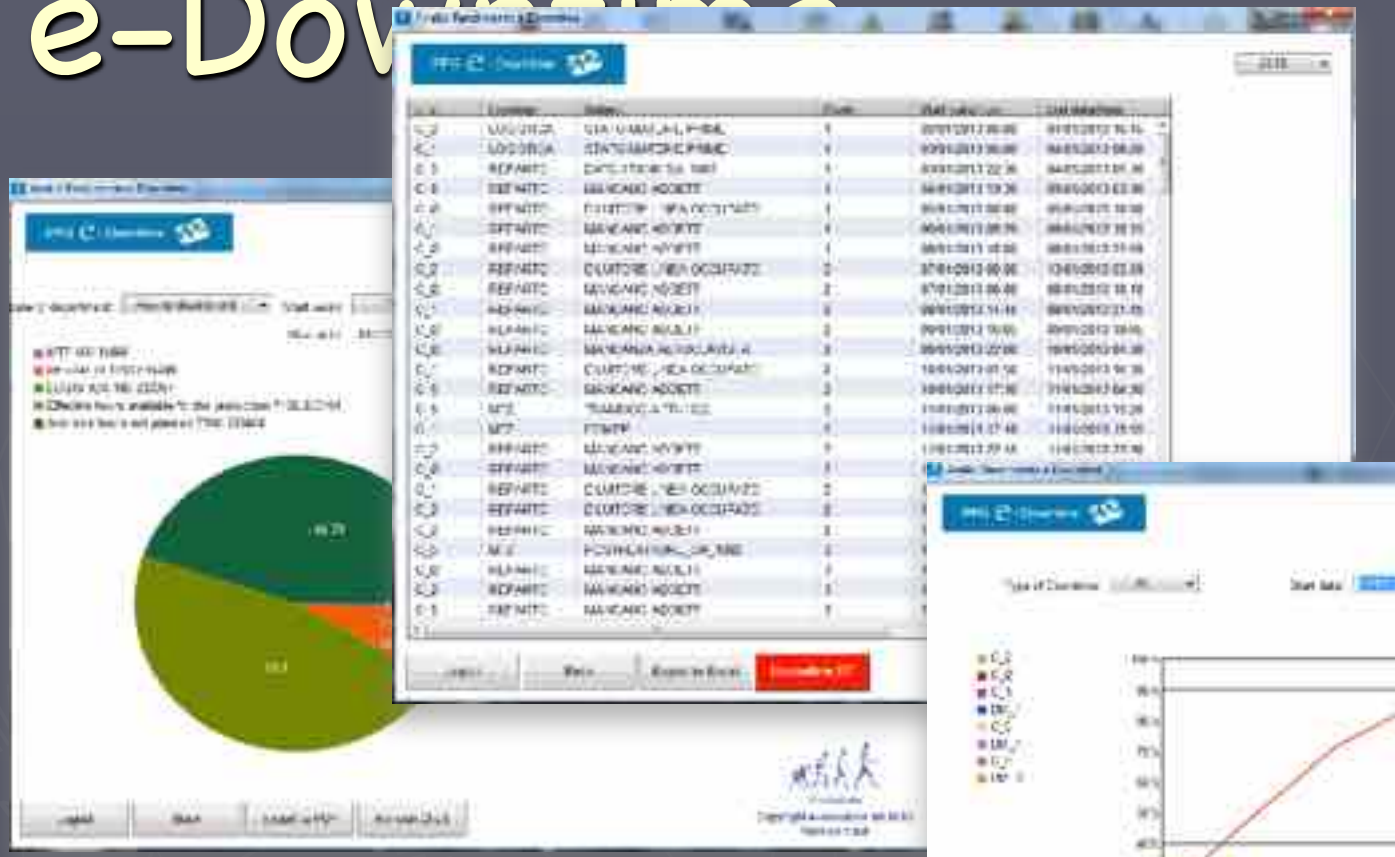






- Metrology under control
- Charts printing
- Maintenance & calibration planning
- Email warnings

e-Downtime







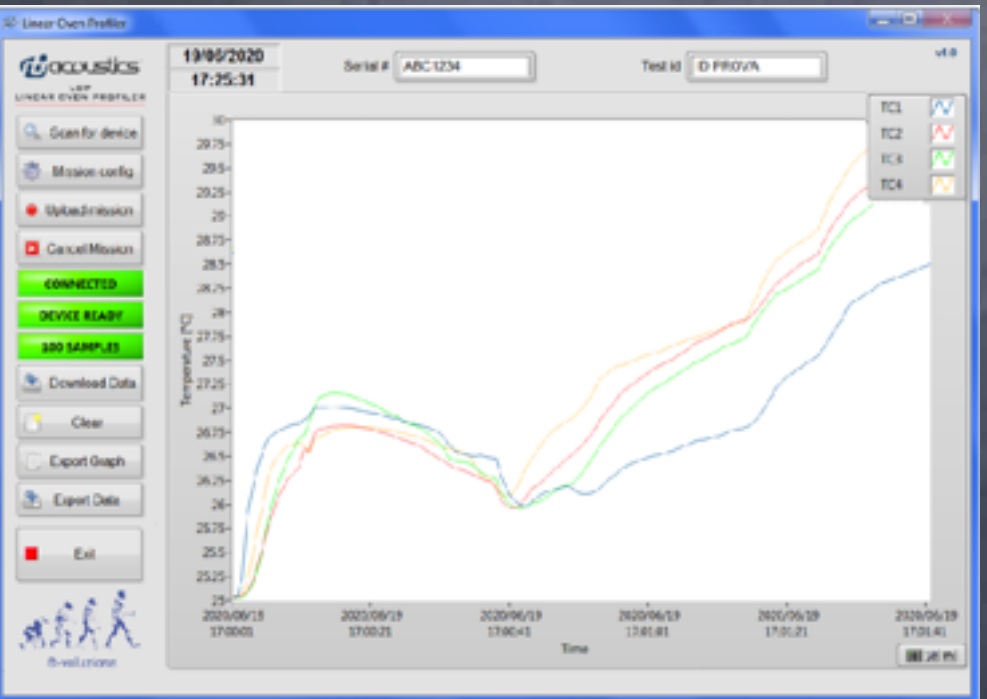
- Downtime History
- Downtime Analysis
- Downtime impact on production
- Secure Remote DB

Measurement & Control

LOP
Linear Oven Profiler



Measure internal temperature in linear ovens with a complete temperature profile output





Chattering RealTime Control

A. Abete



Real time control of CNC speed to reduce Chattering effects

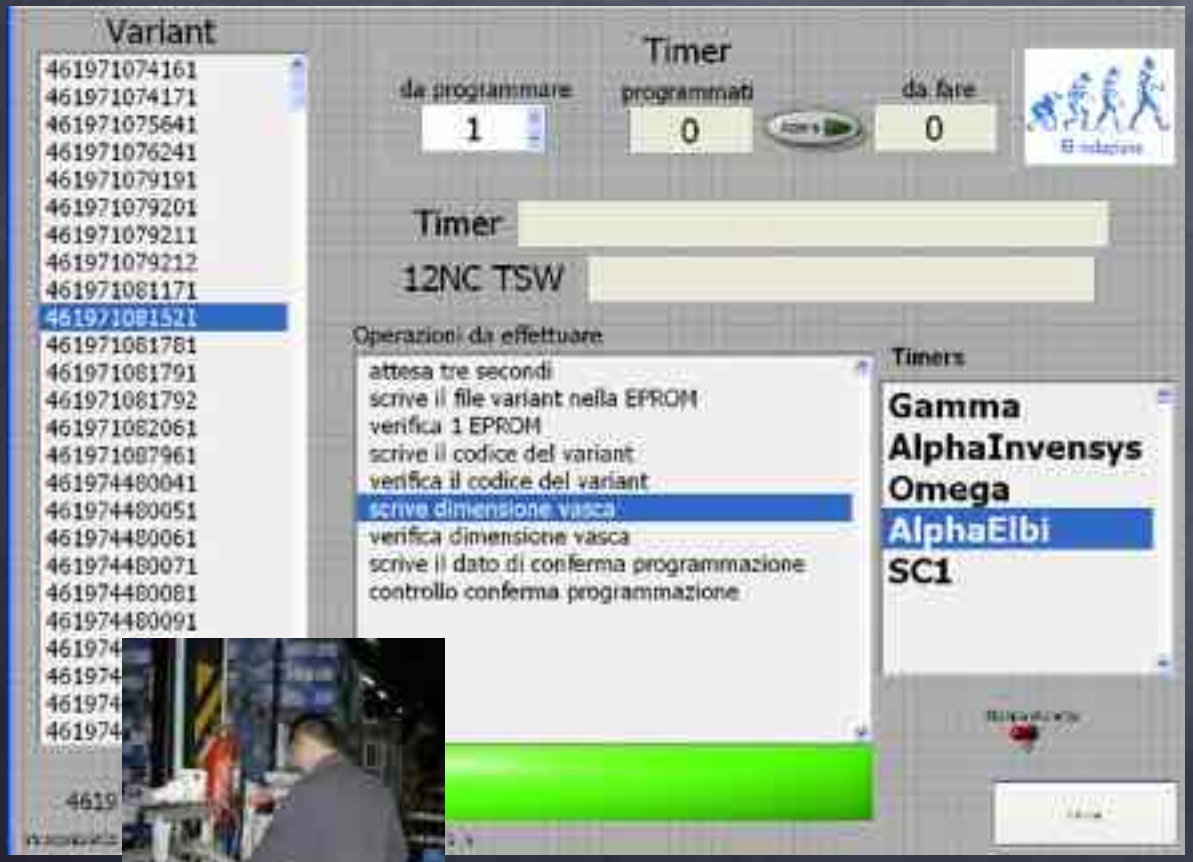


ERMAS



Realisation of a new additive machine to create 3D printer with deposition

Whirlpool
Timer Programming







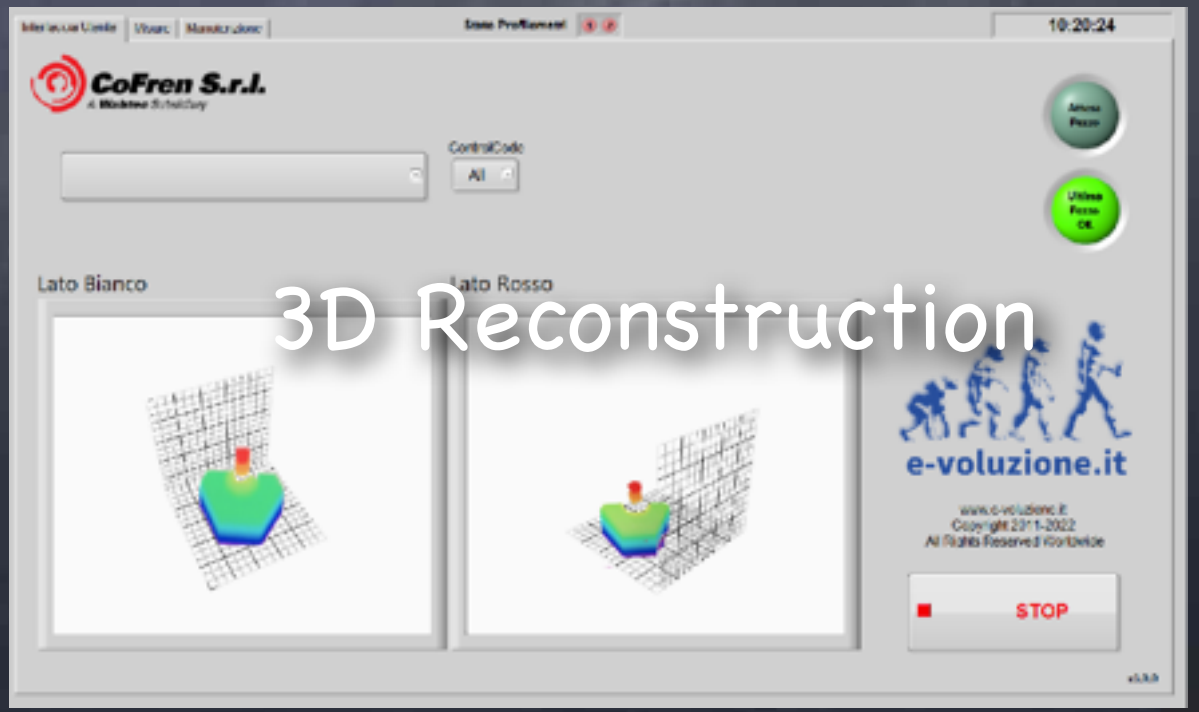
Quality Control

Cofren-Wabtec

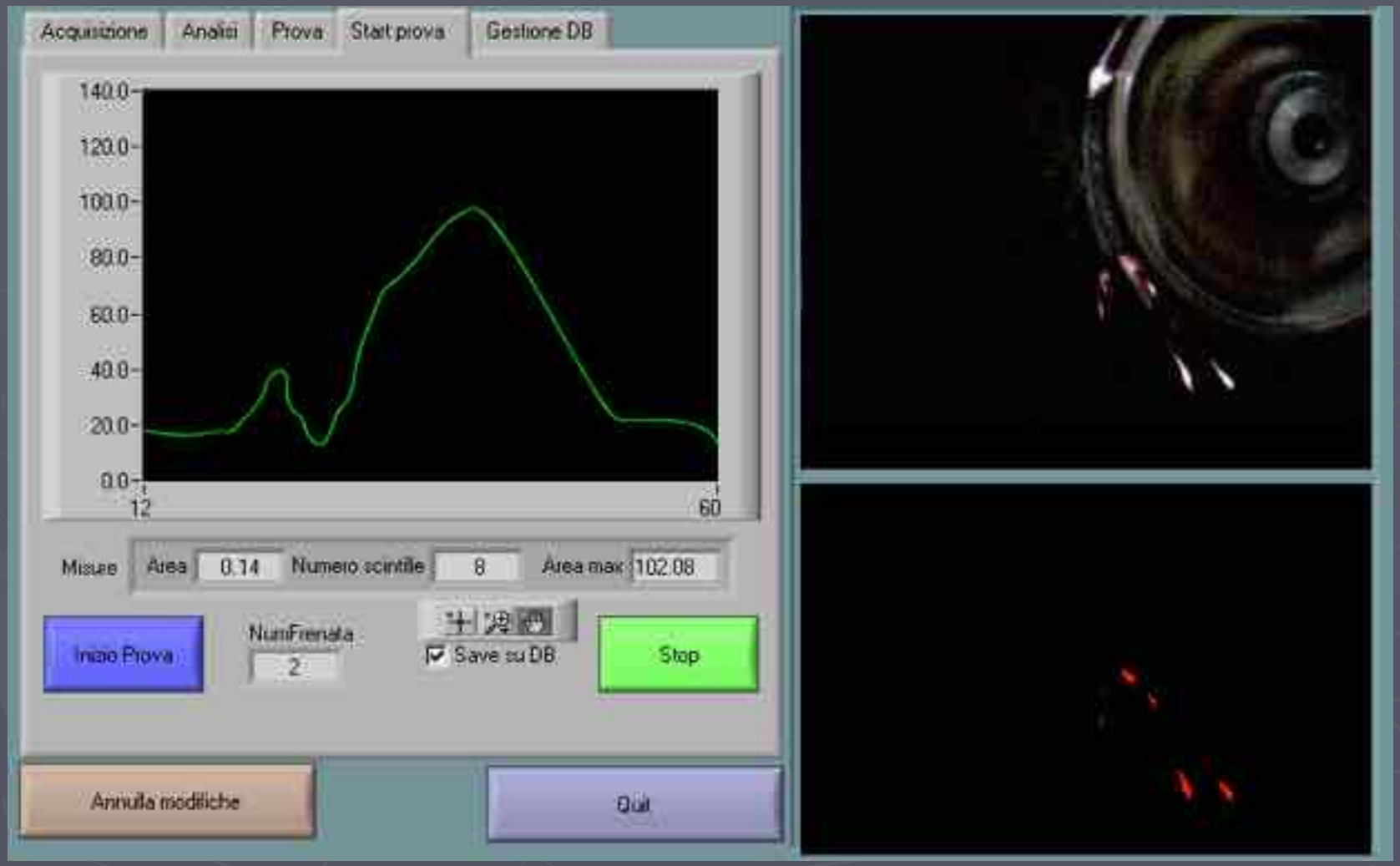
Laser Vision System
Dimensional control
100% in line



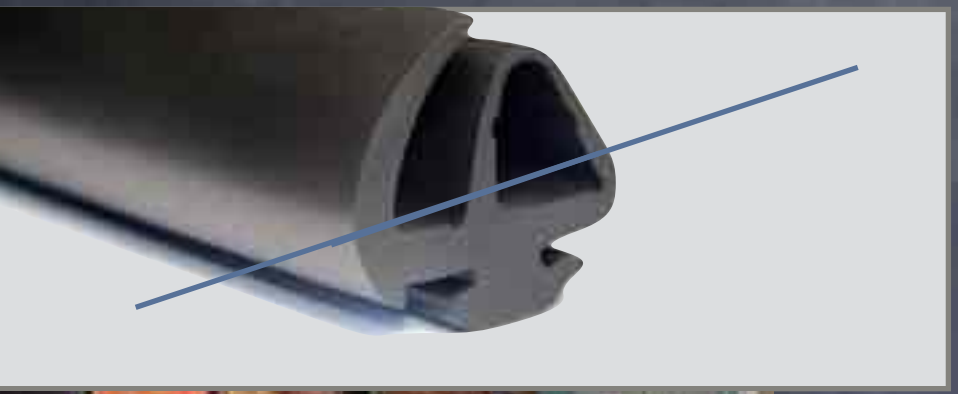


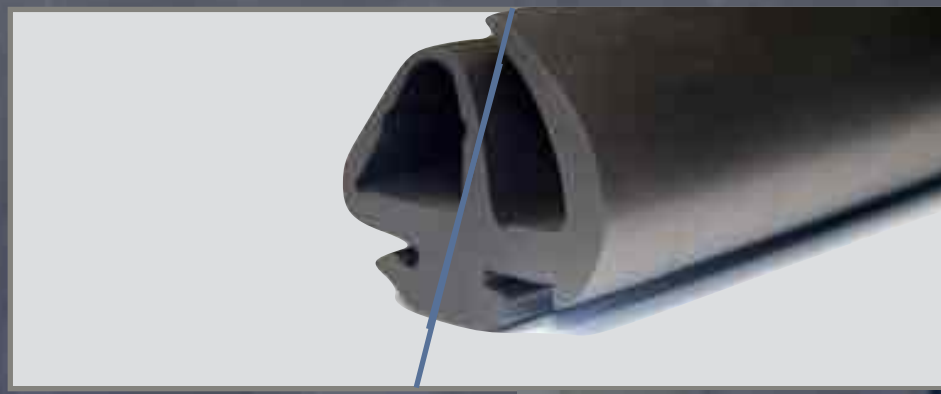


Train wheel brakes sparking test



ATG - Extruded plastics Quality Control





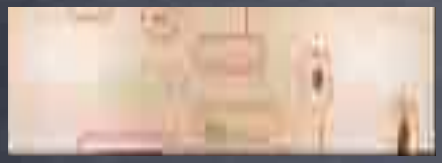




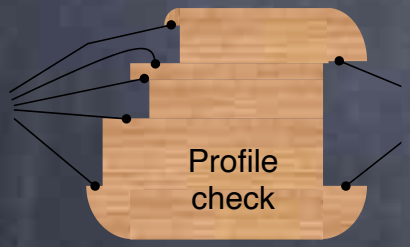
VISION SYSTEM



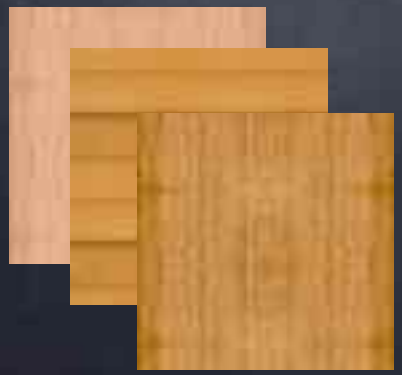
Prosit - Wood Quality



Defects

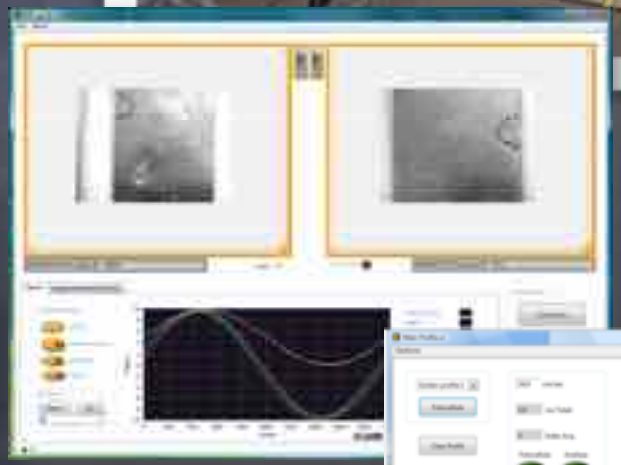


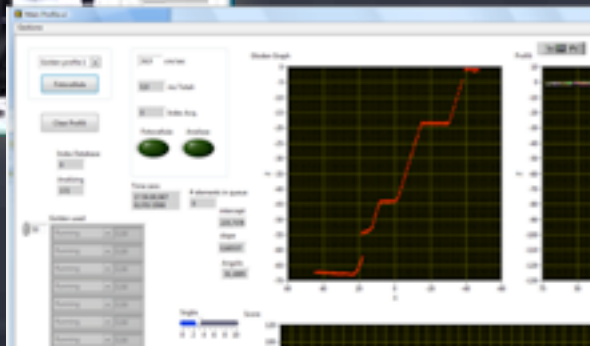
Profile



Color

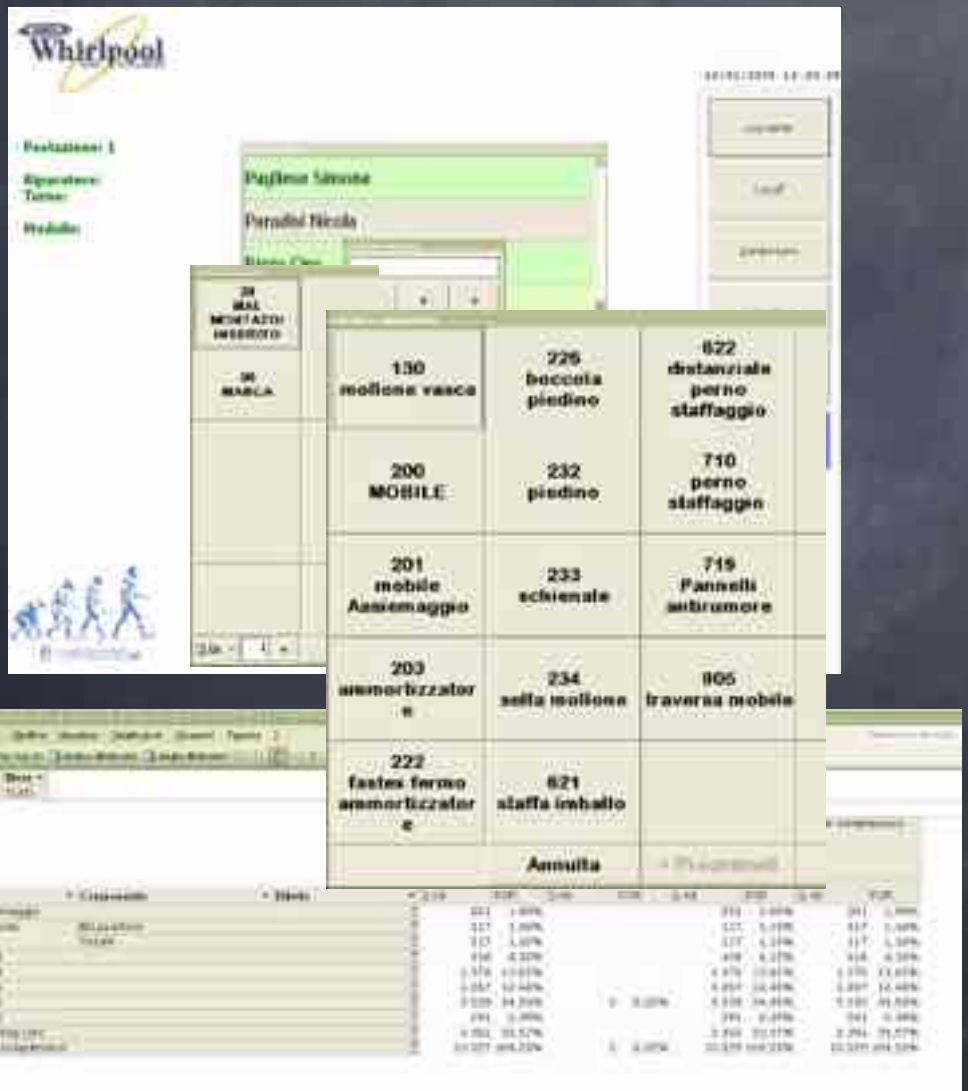






VISION SYSTEM

Quality Control





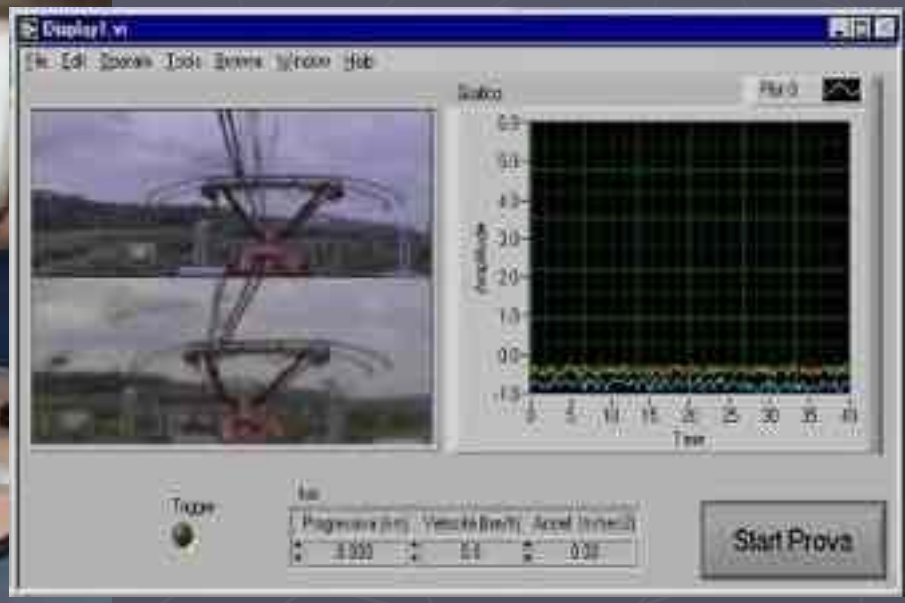
- System to measure production defects
- Production statistics
- New components or new defects management

TRENITALIA
GRUPPO FERROVIE DELLO STATO ITALIANE

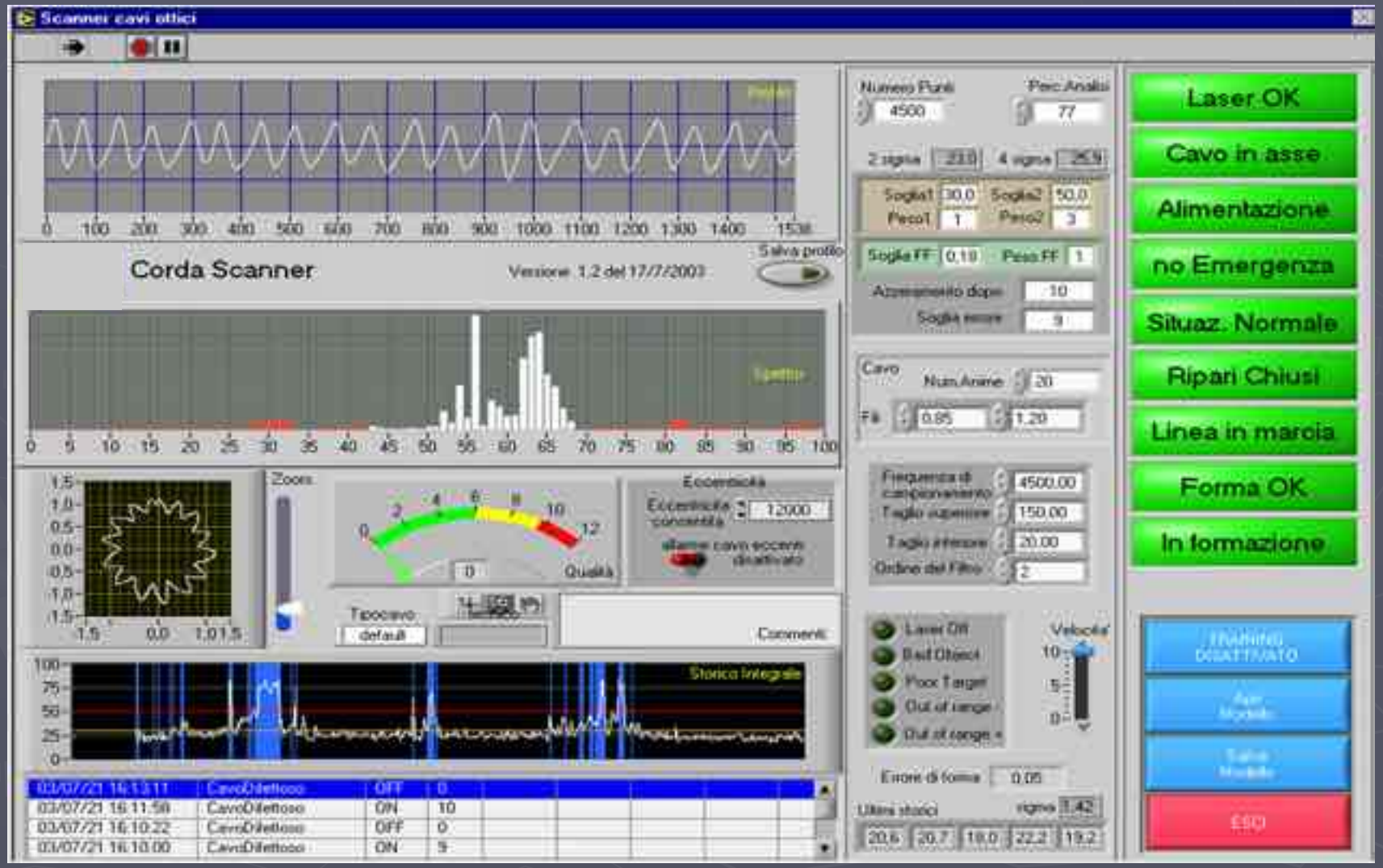
Pantographs



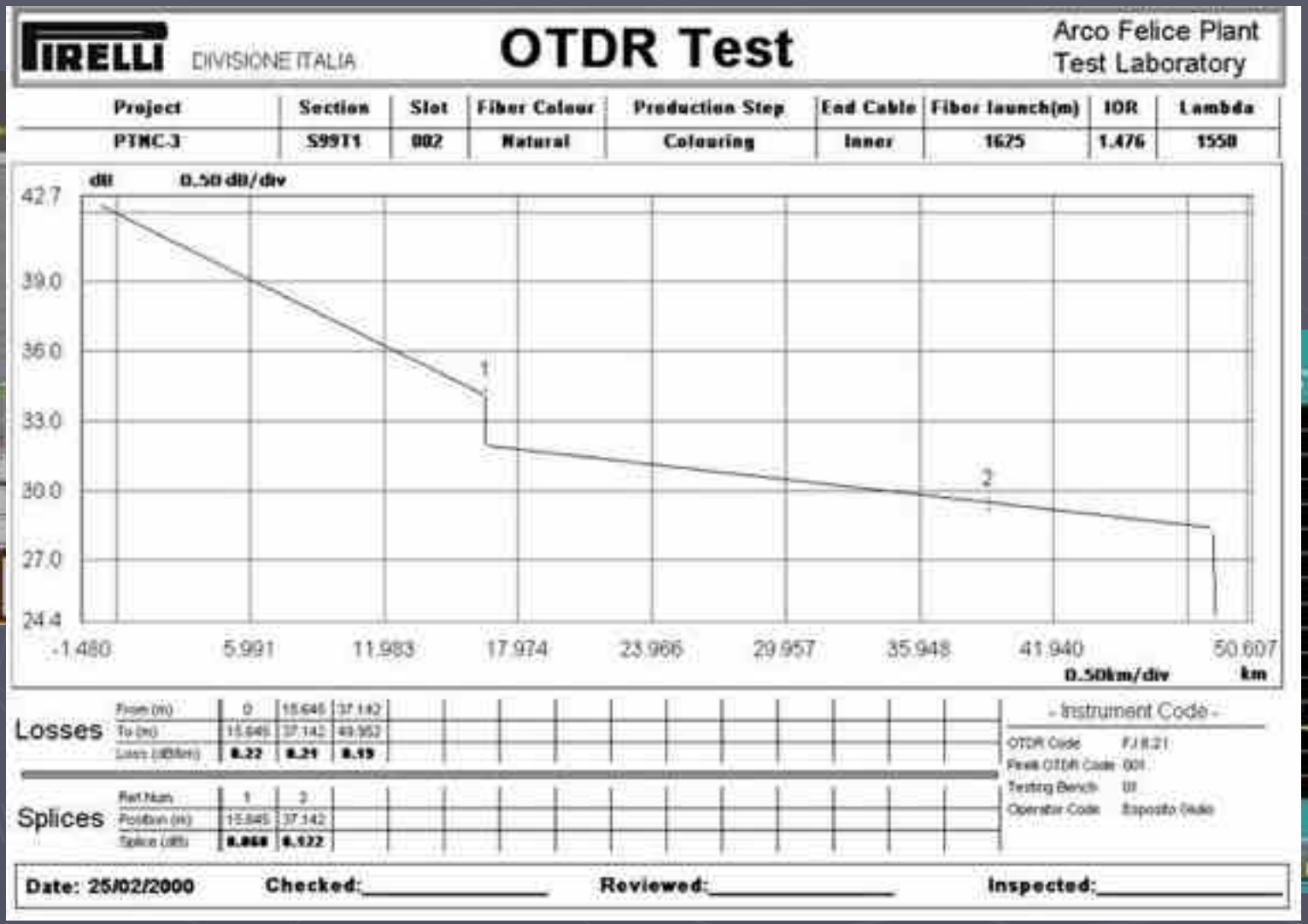




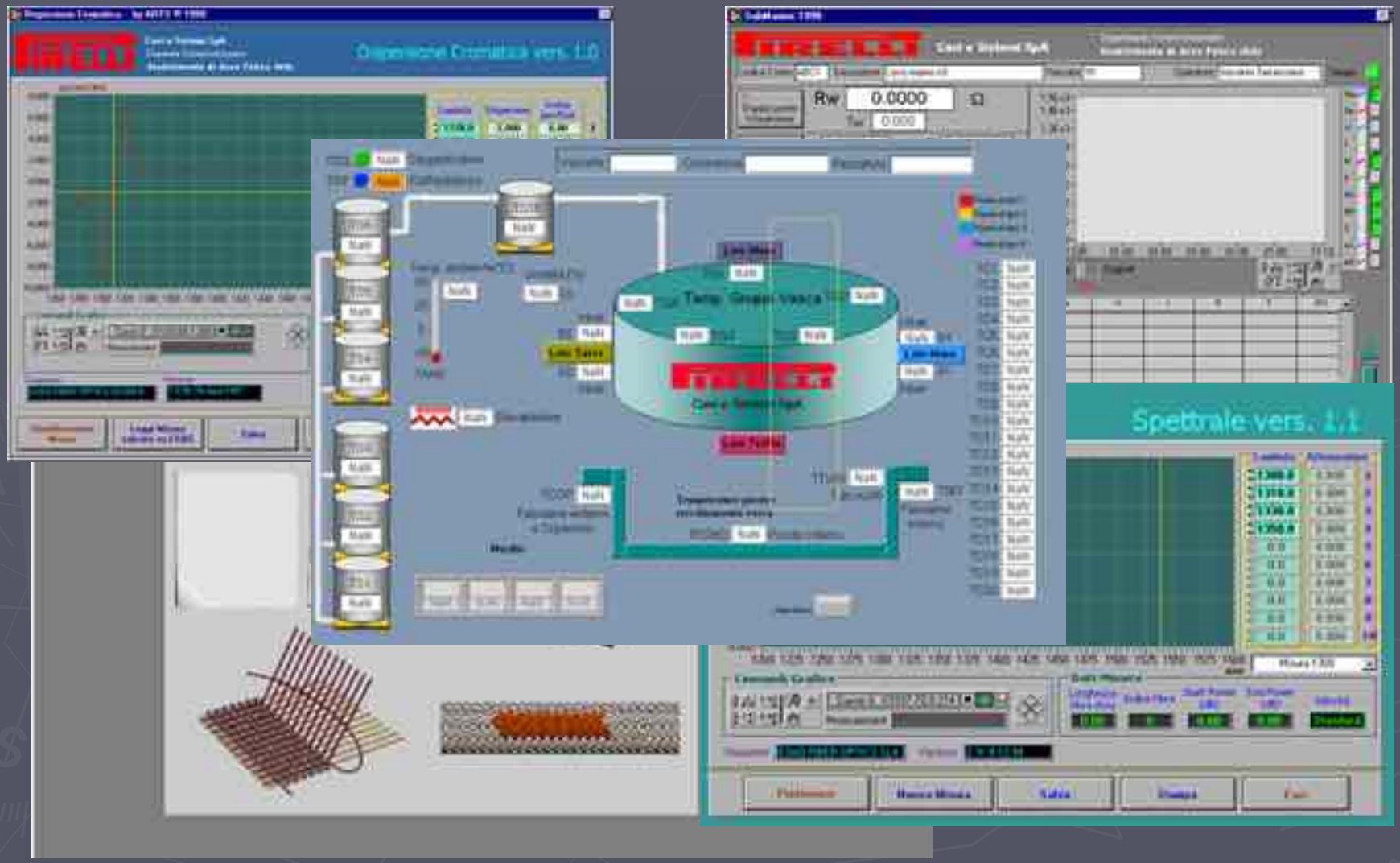
Optical cables
Rope test



Optical Time Domain Reflectometry
OTDR

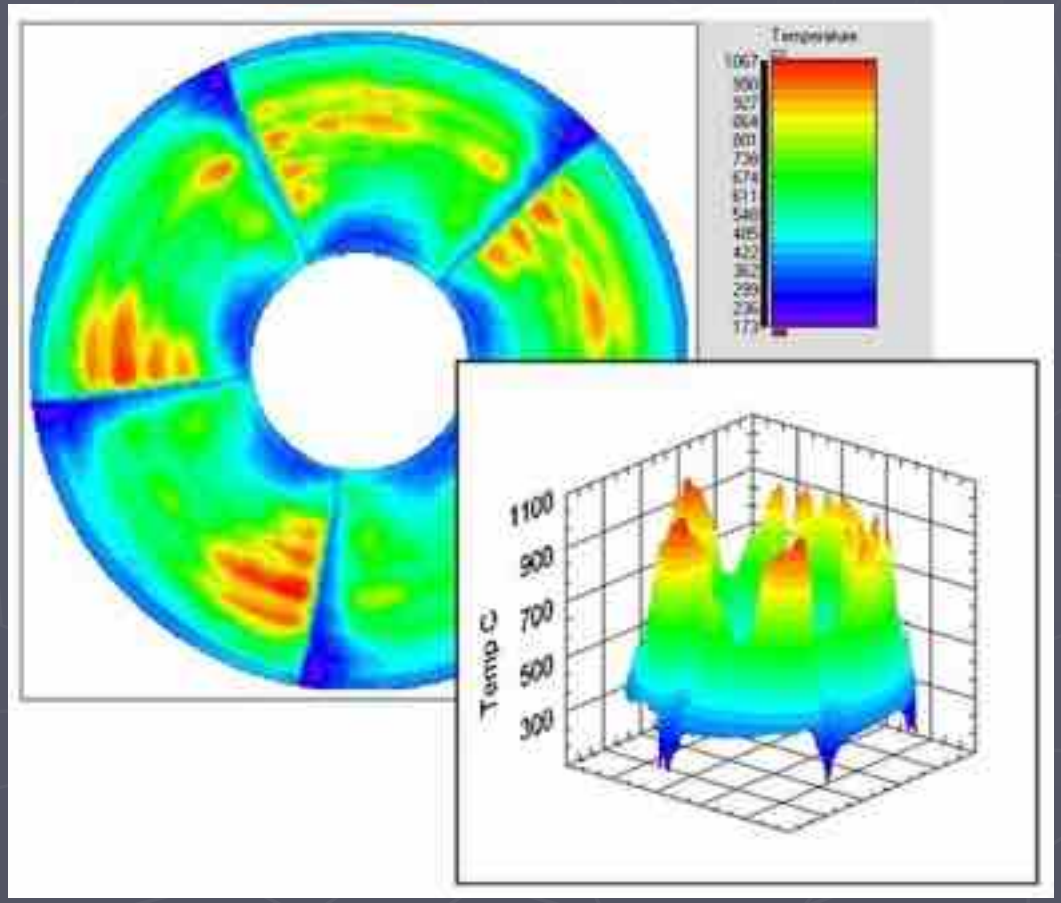


Various Pirelli Systems



Thermowheel: Termographic images representation

THERMOWHEEL system acquires thermographic images from linear thermal imaging cameras and shows the exact positioning of measured points, both in the case of disk brakes and wheels measurements



Machinery

ITAG

Maria: Folding Machine

- Innovative MMI
- Linux-based
- Touch Screen





ITAG

Cassandra:
Automatic recognition

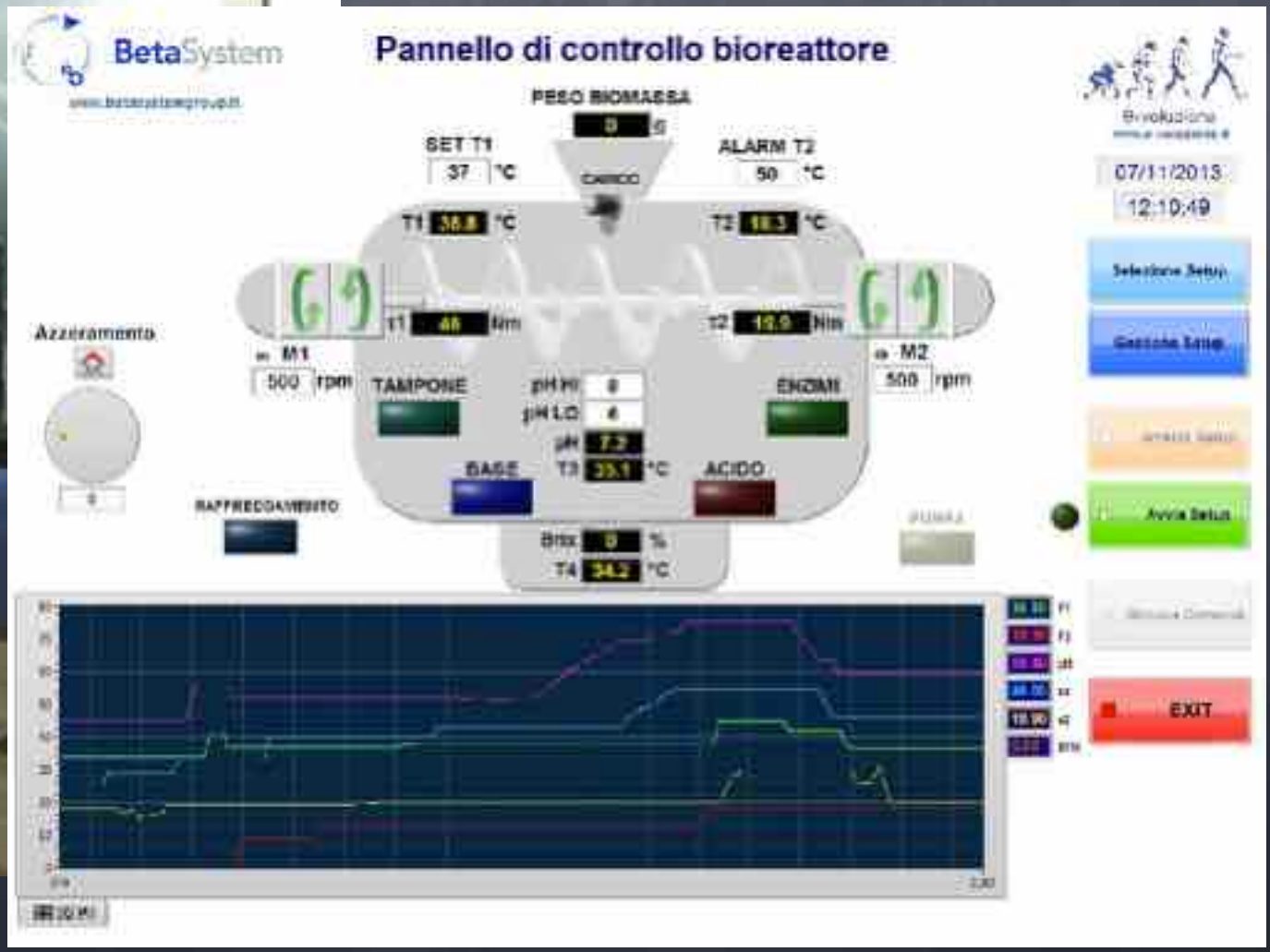






ENEA
Reactor control

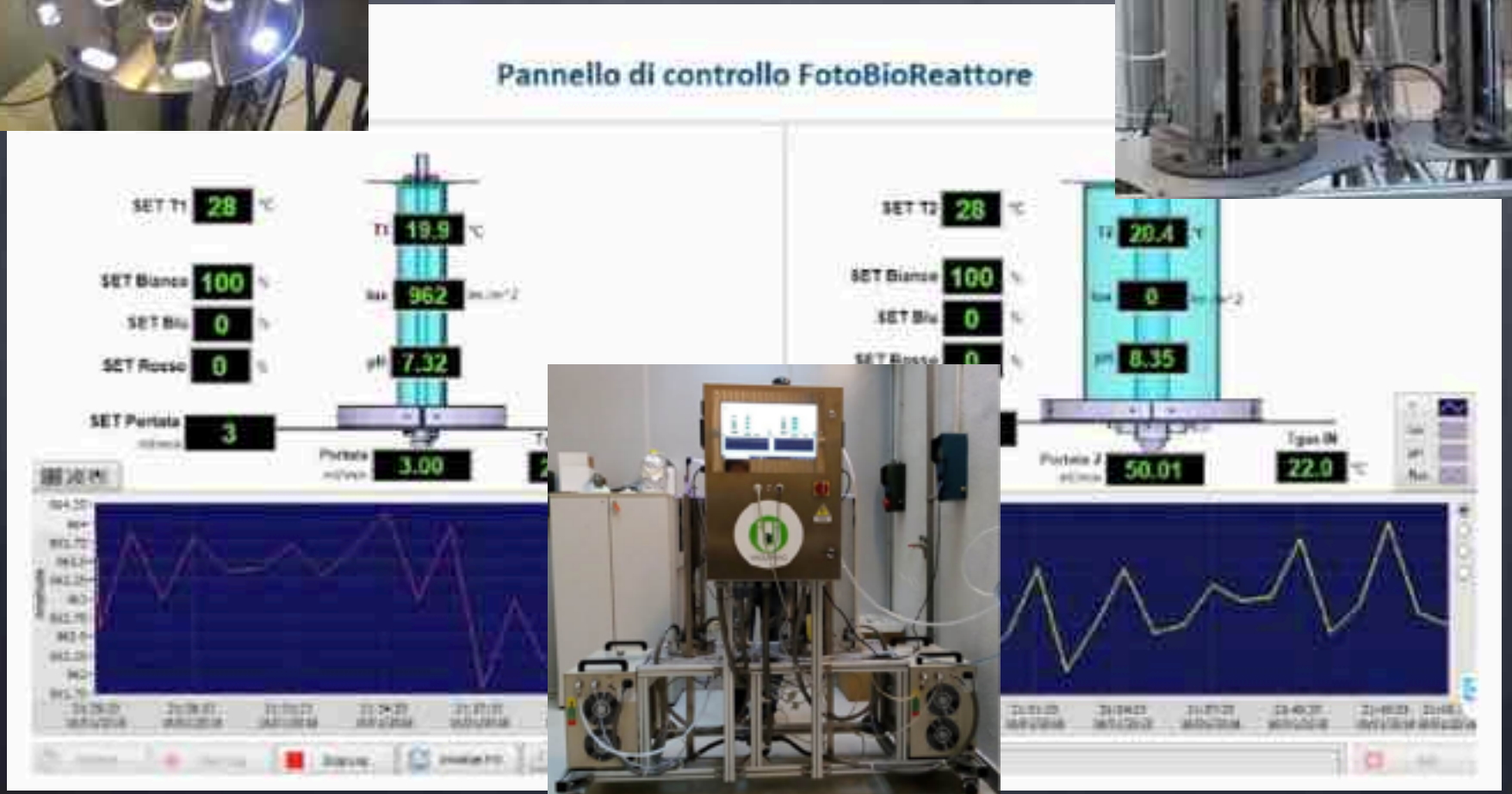




ENEA
Photo-Bio-Reactor





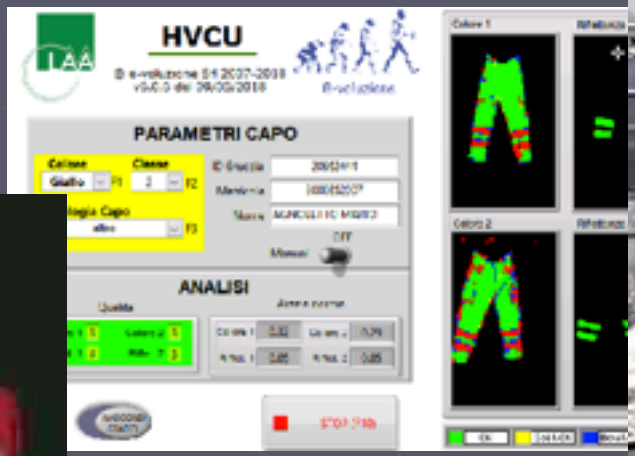


Patents

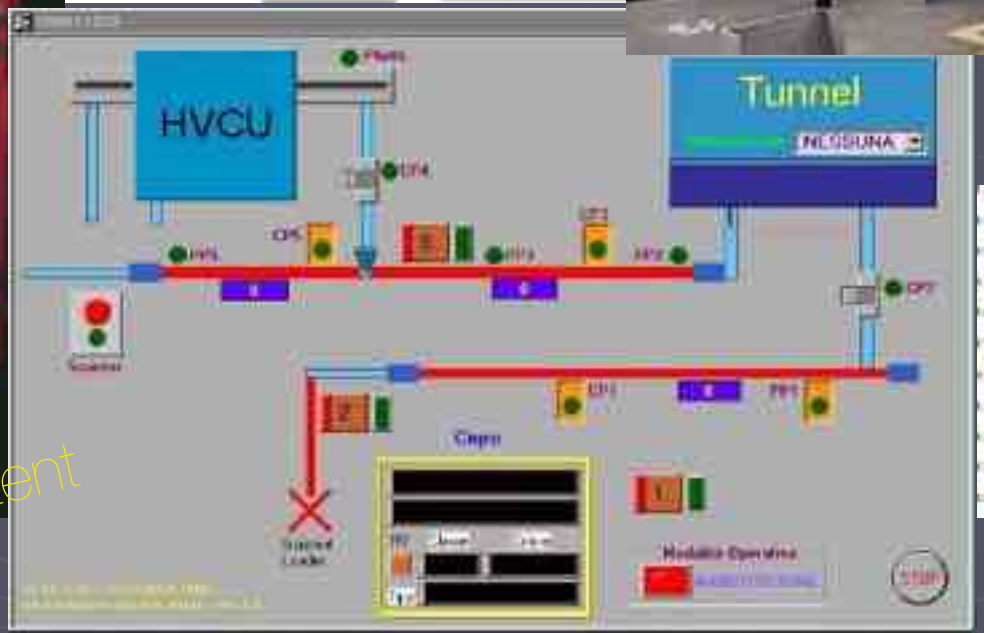
EN ISO 20471

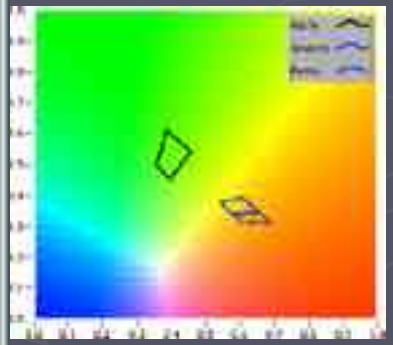
- High visibility clothing Vision System





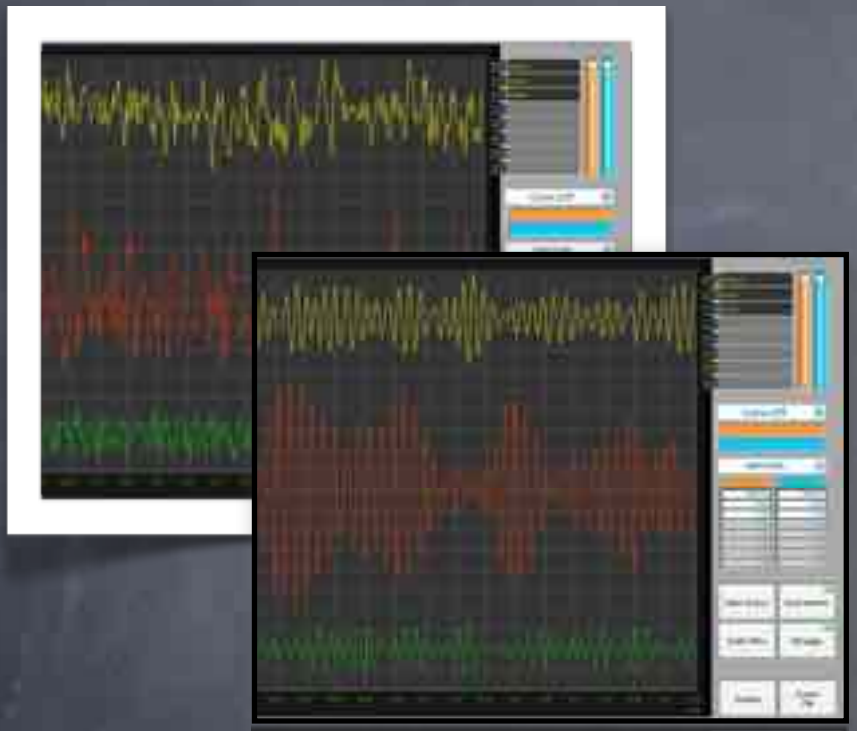


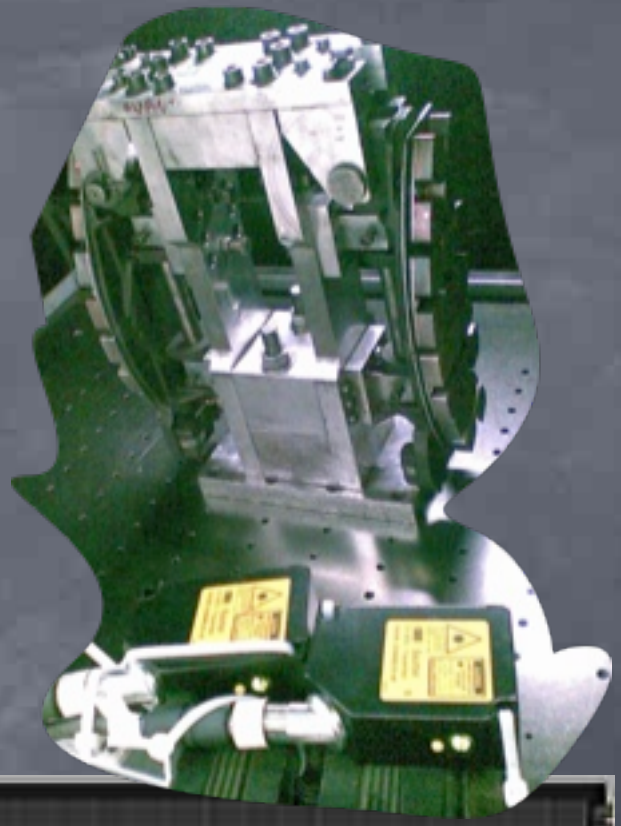


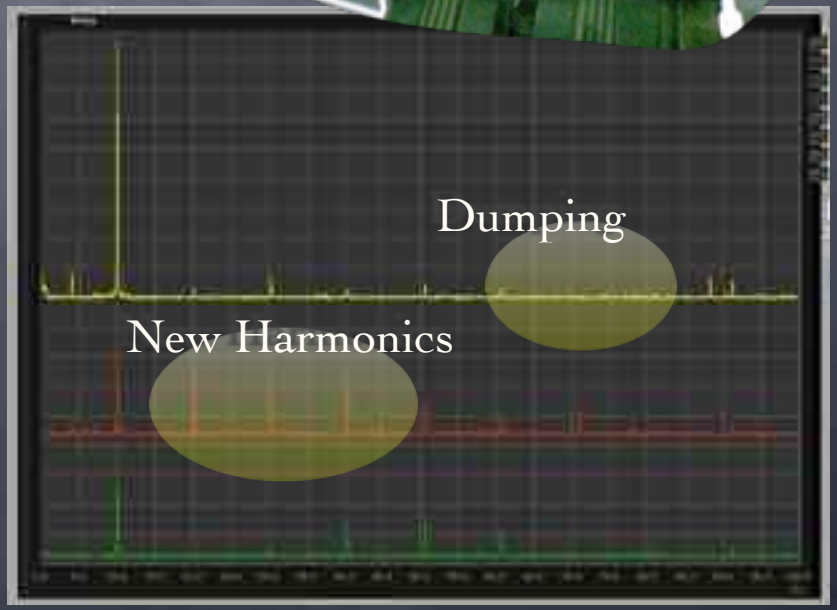


International Patent

Laser Vibrometer

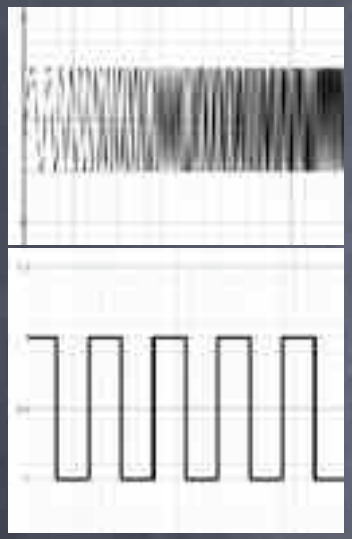




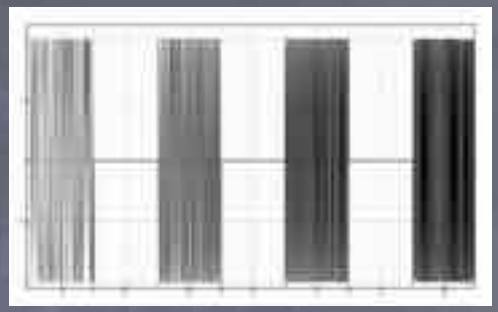


Italian Patent 0001369738

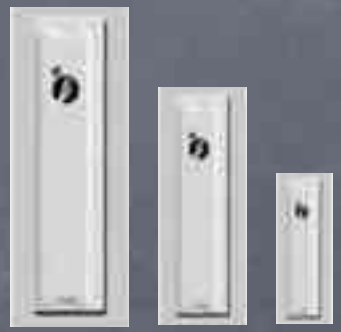
Magnetostrictive tags



X

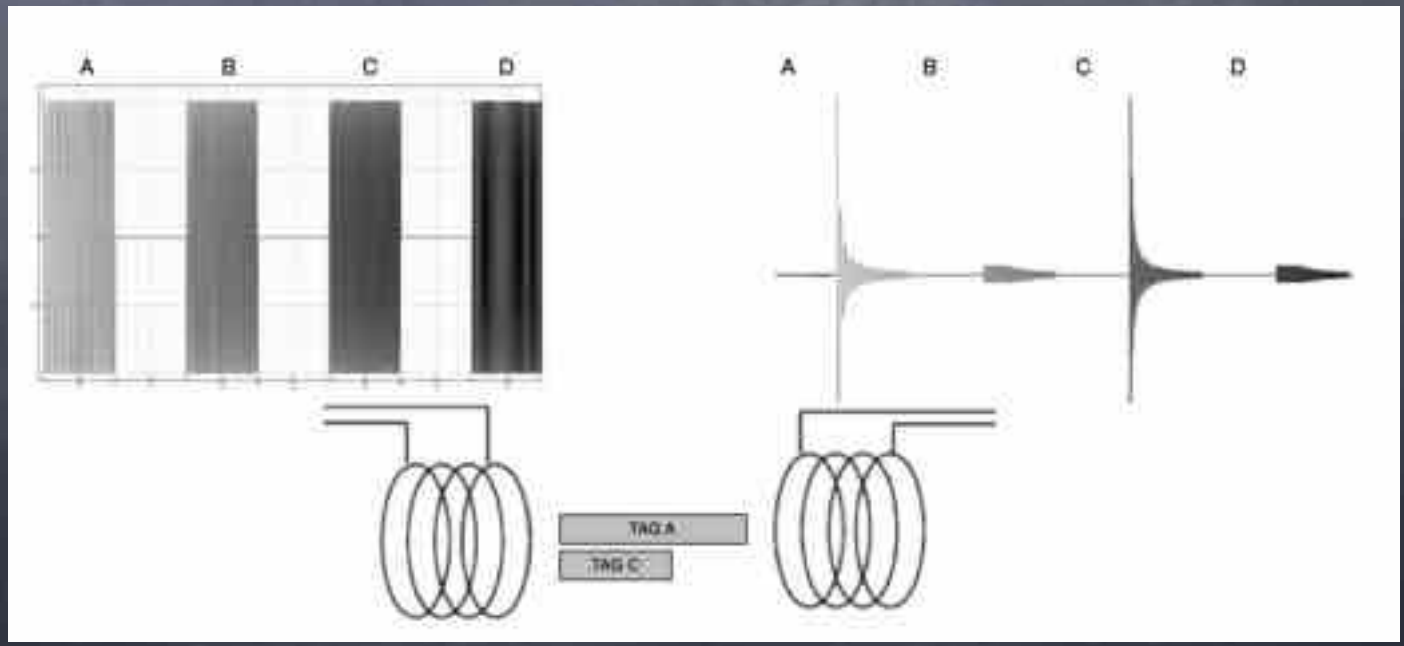


Italian Patent 0001398170



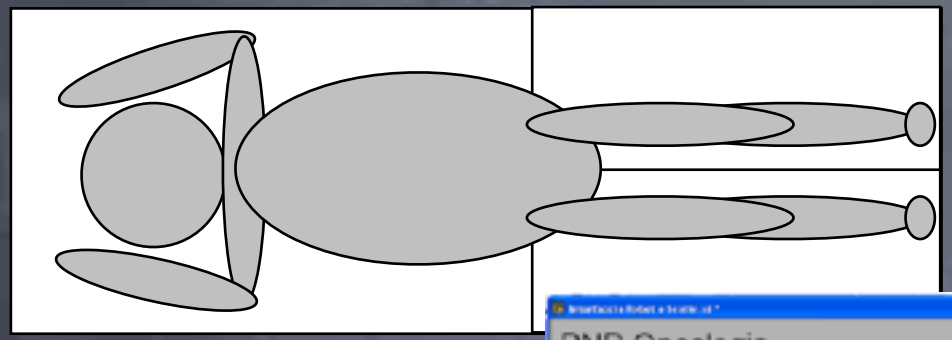
WITH

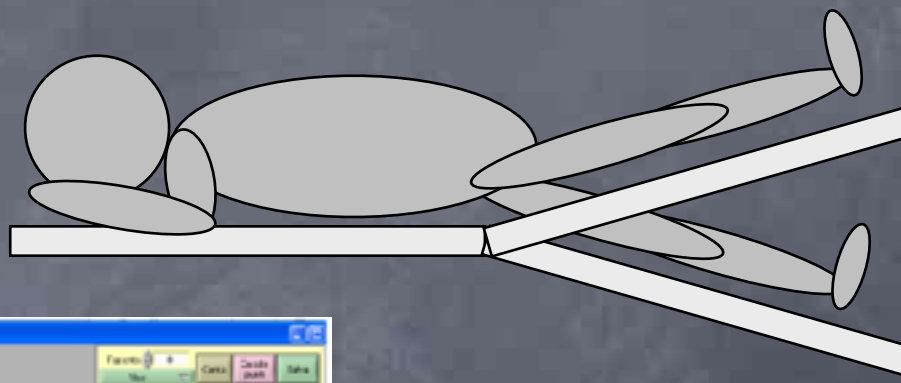
promete



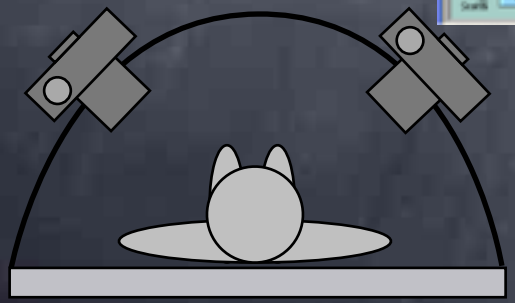
TotalBody Acq.System

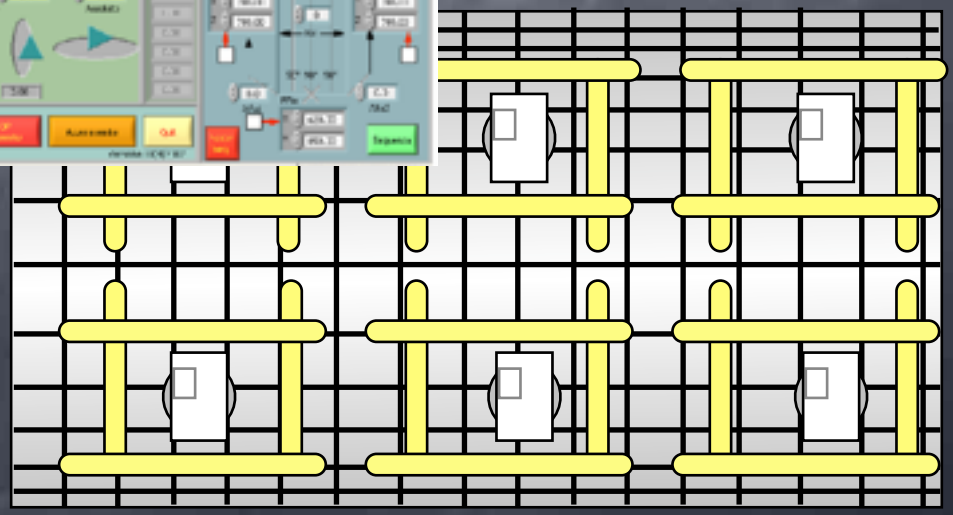
Italian Patent 0001397636





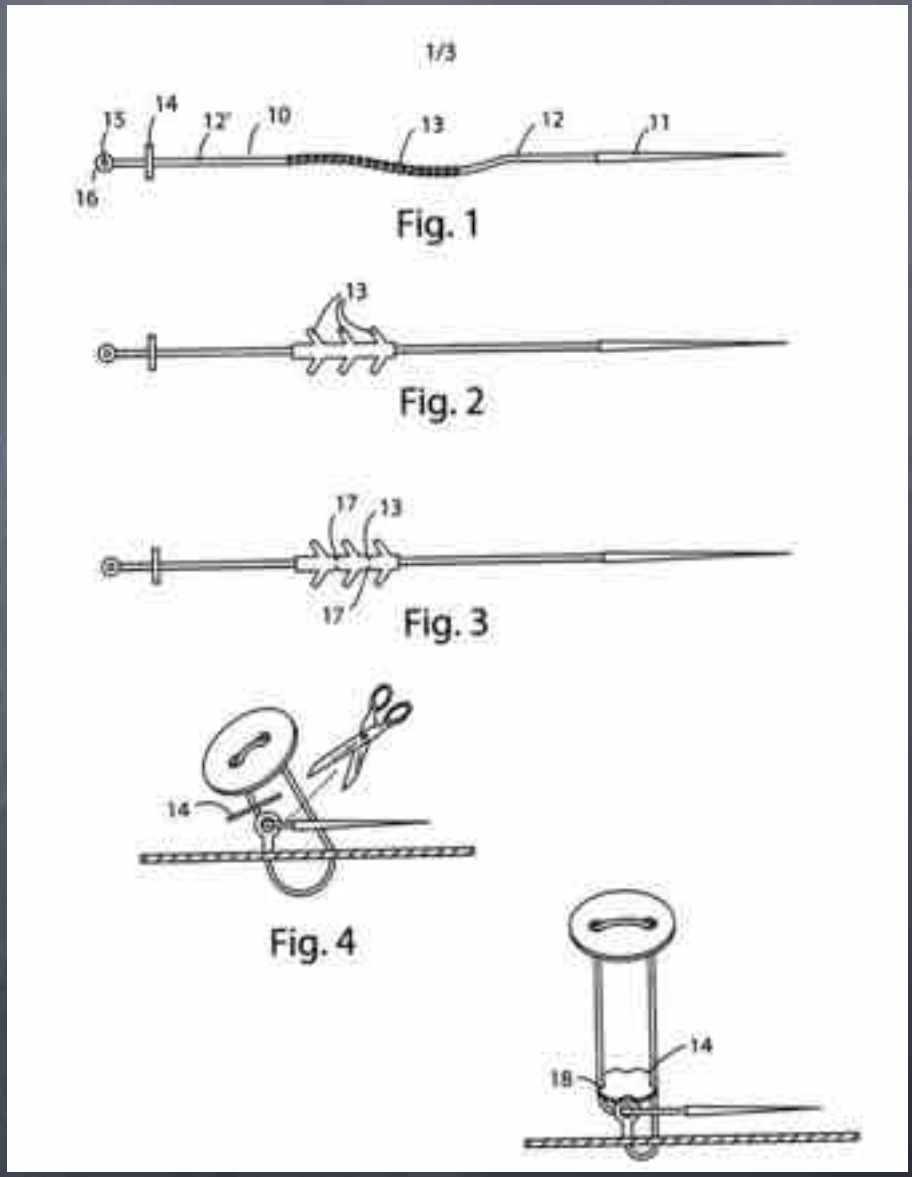






Button Fixing Device

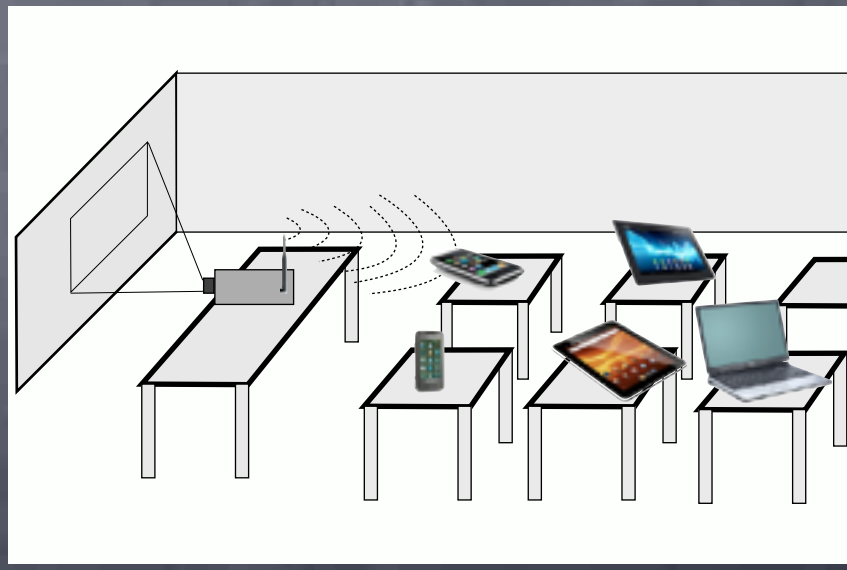
World Patent 0001397636



Didactic Projector

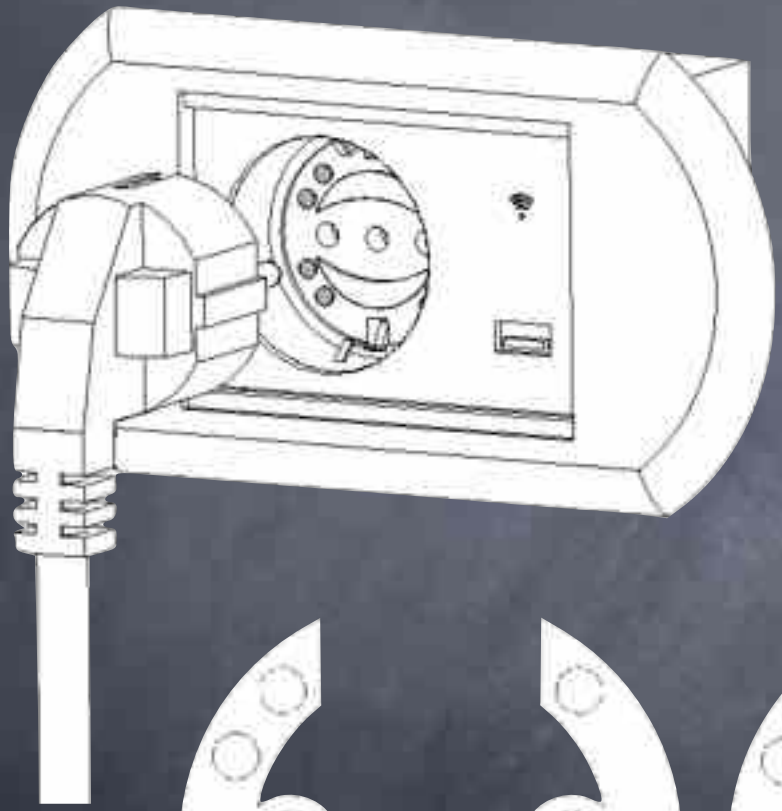
Italian Patent 0001422138

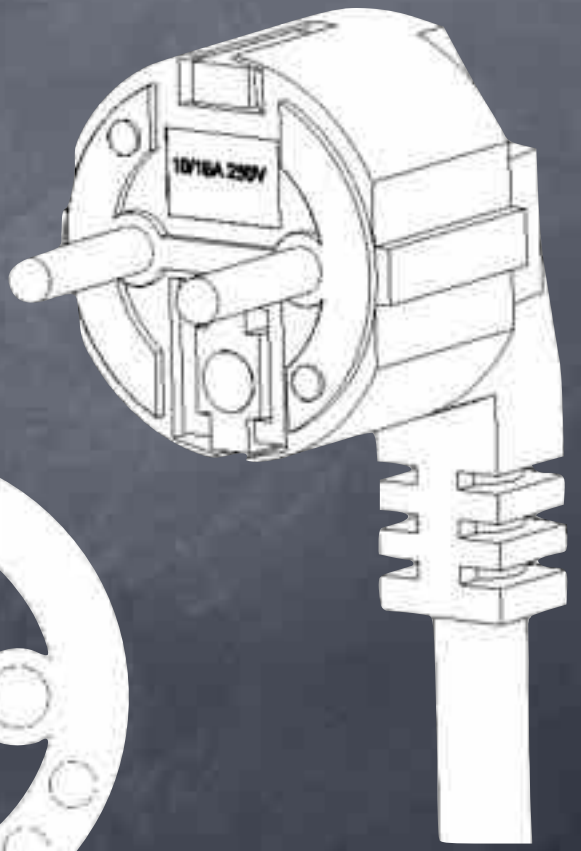


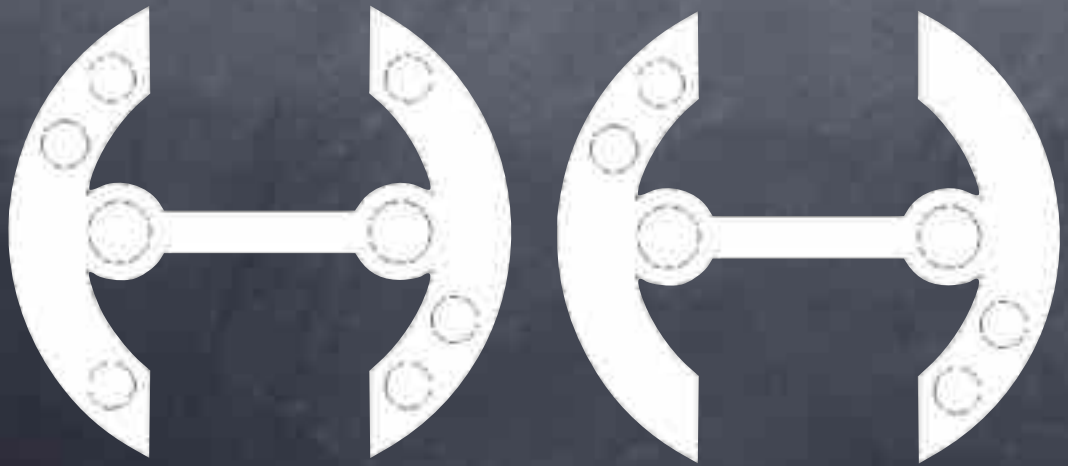


Load identification System

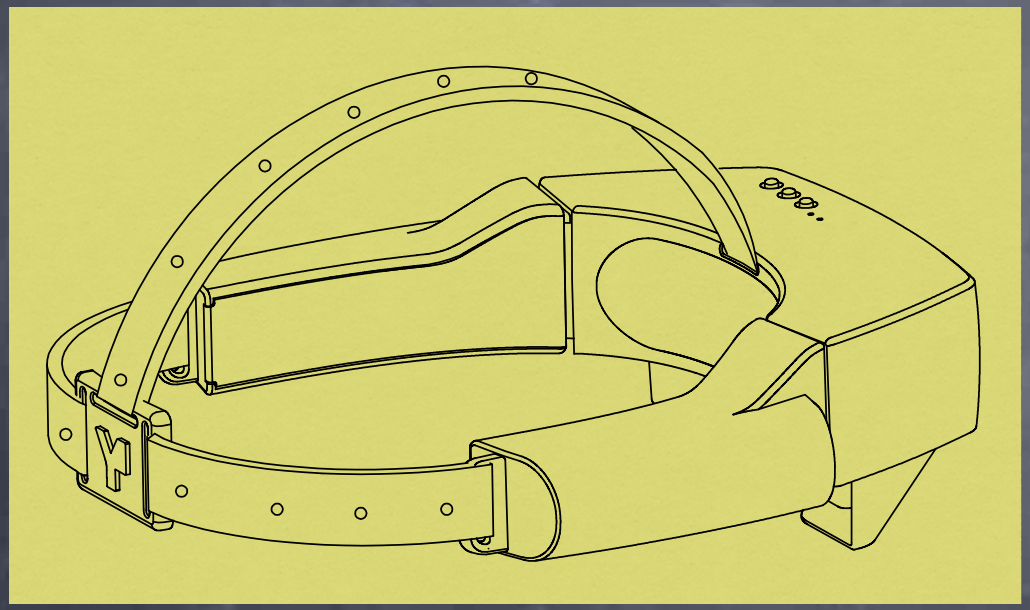
Italian Patent 0001426198



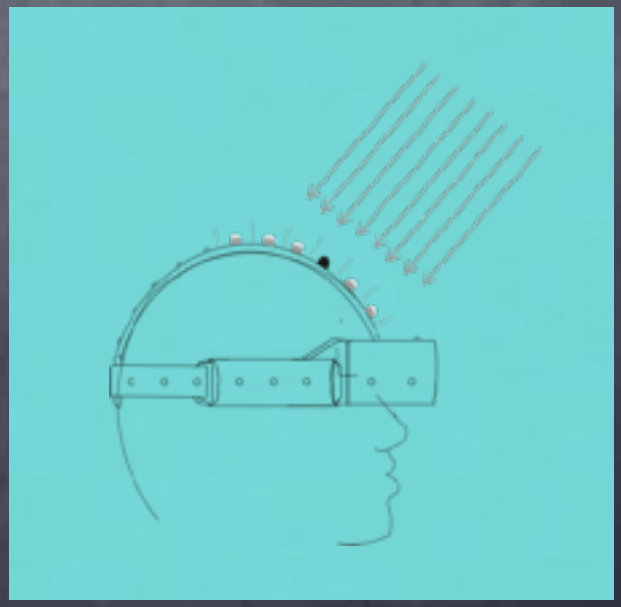




Main light identification for AR systems



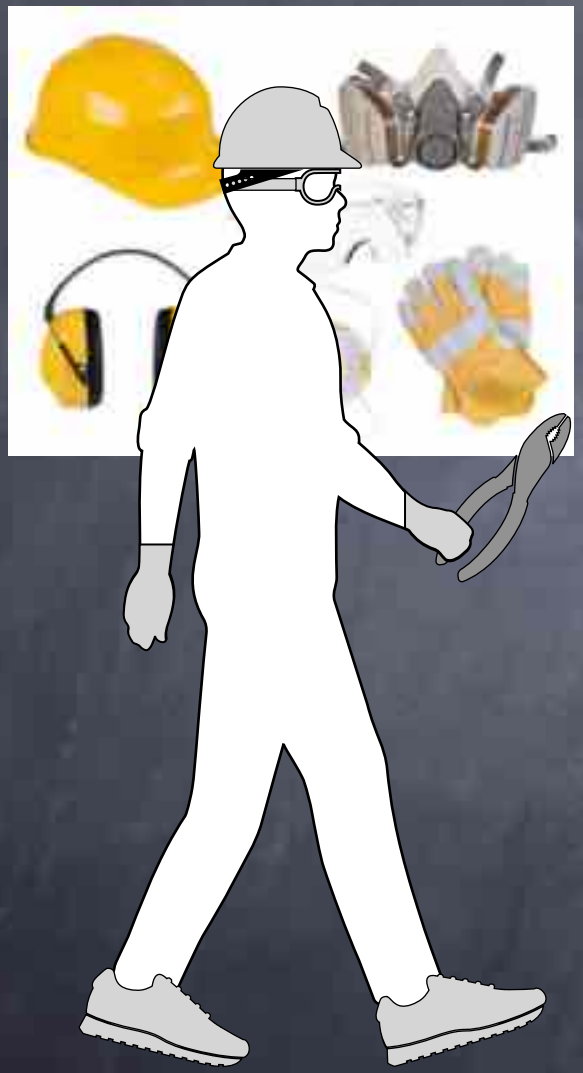
Italian Patent
102020000020302



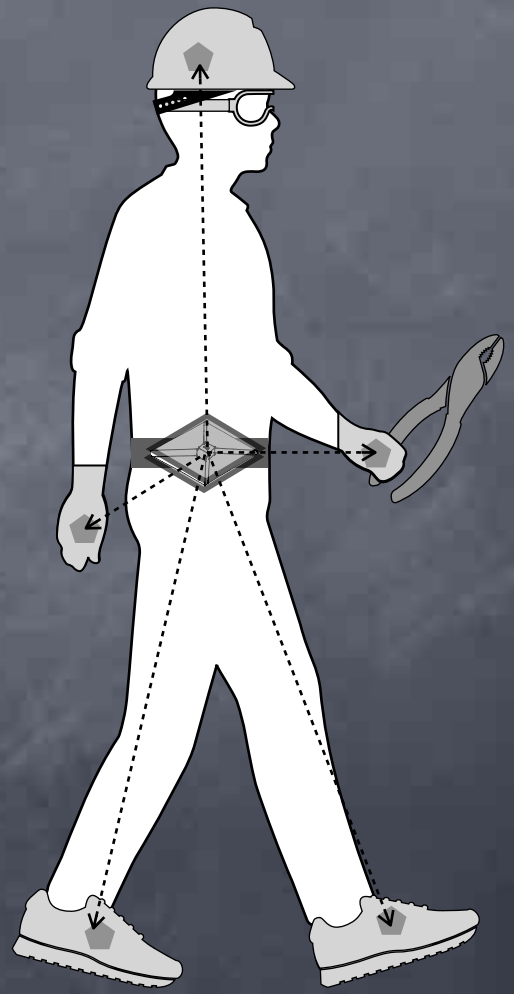
YOUBIQUO

PPE Check

Problem:
Control the presence and position of Personal Protective Equipments (PPE) for a worker to certify the application of Safety

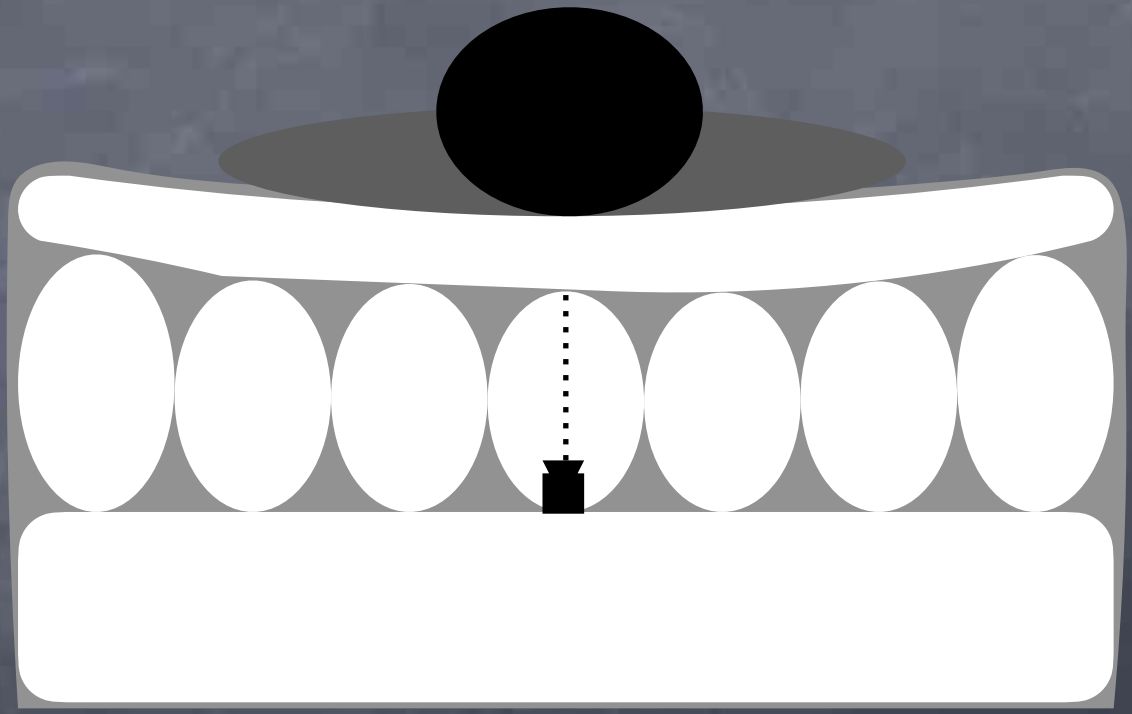


Patent
102021000012086



Mattress Usury

Italian Patent
102021000020912



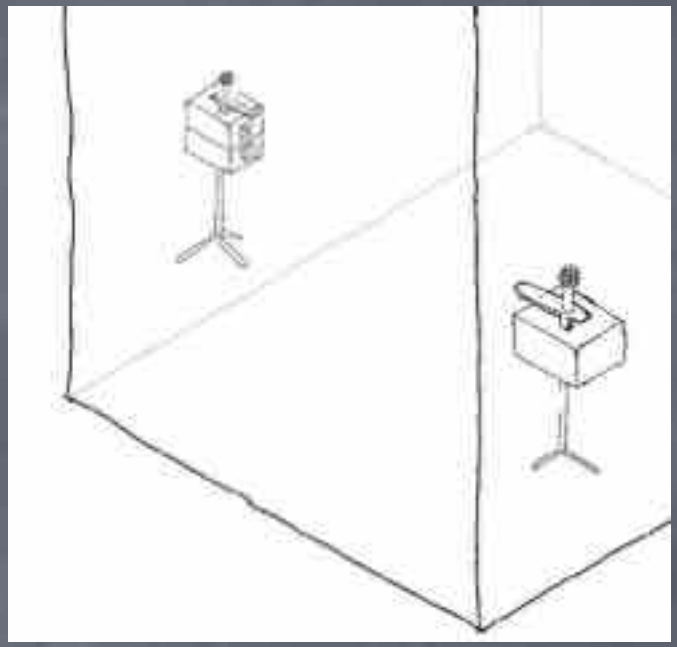
FOR

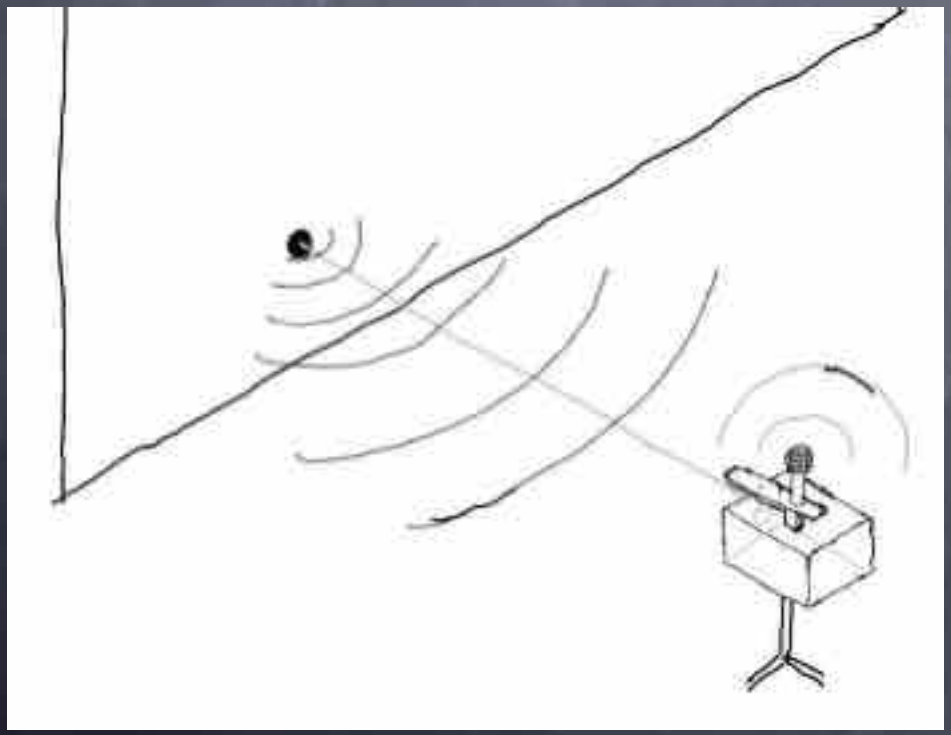
VALFLEX
italian bed system

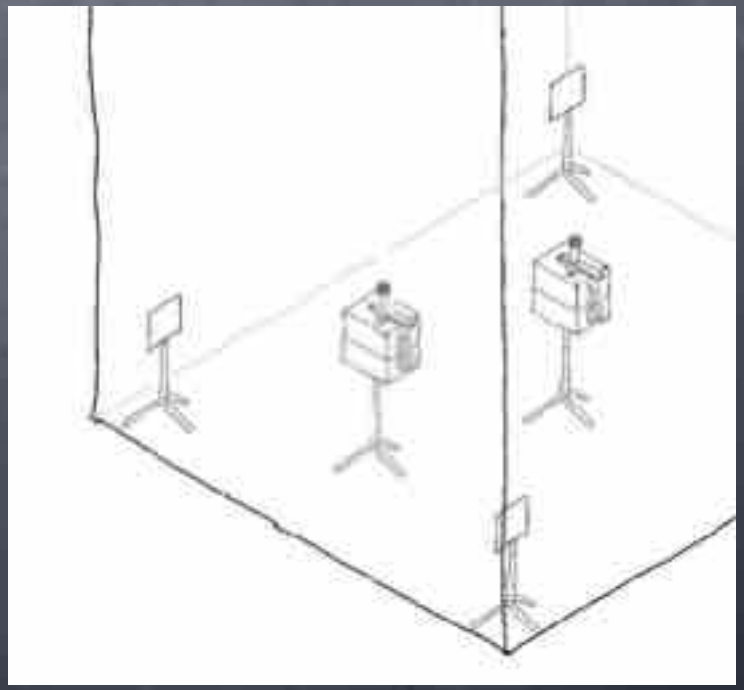
Patent Pending and Other Ideas

Acoustic Measurement System

Patent pending

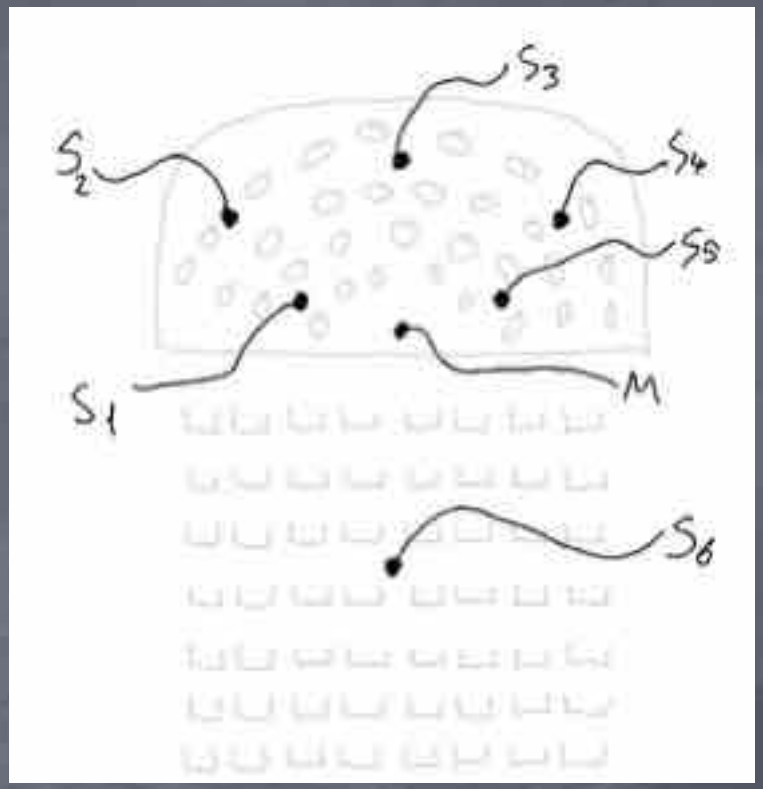


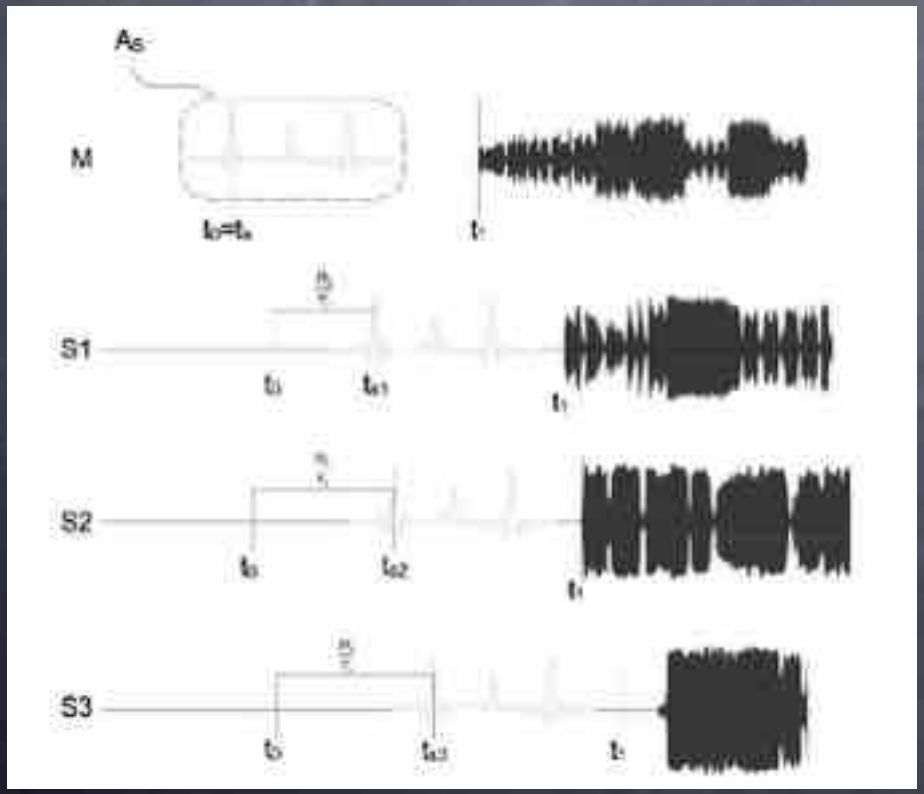


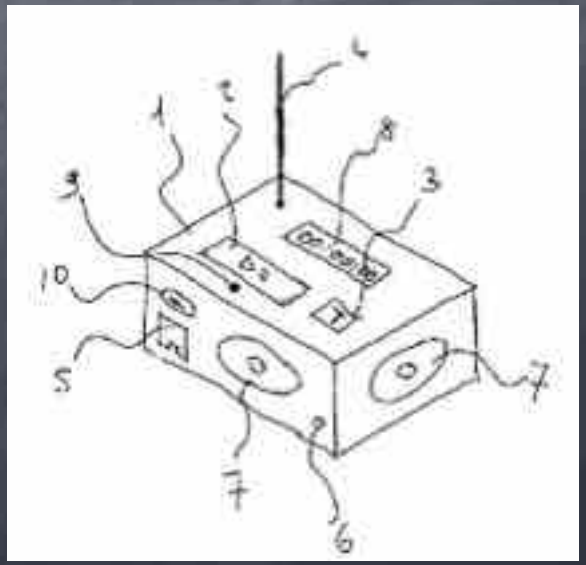


Stage Recording

Patent pending



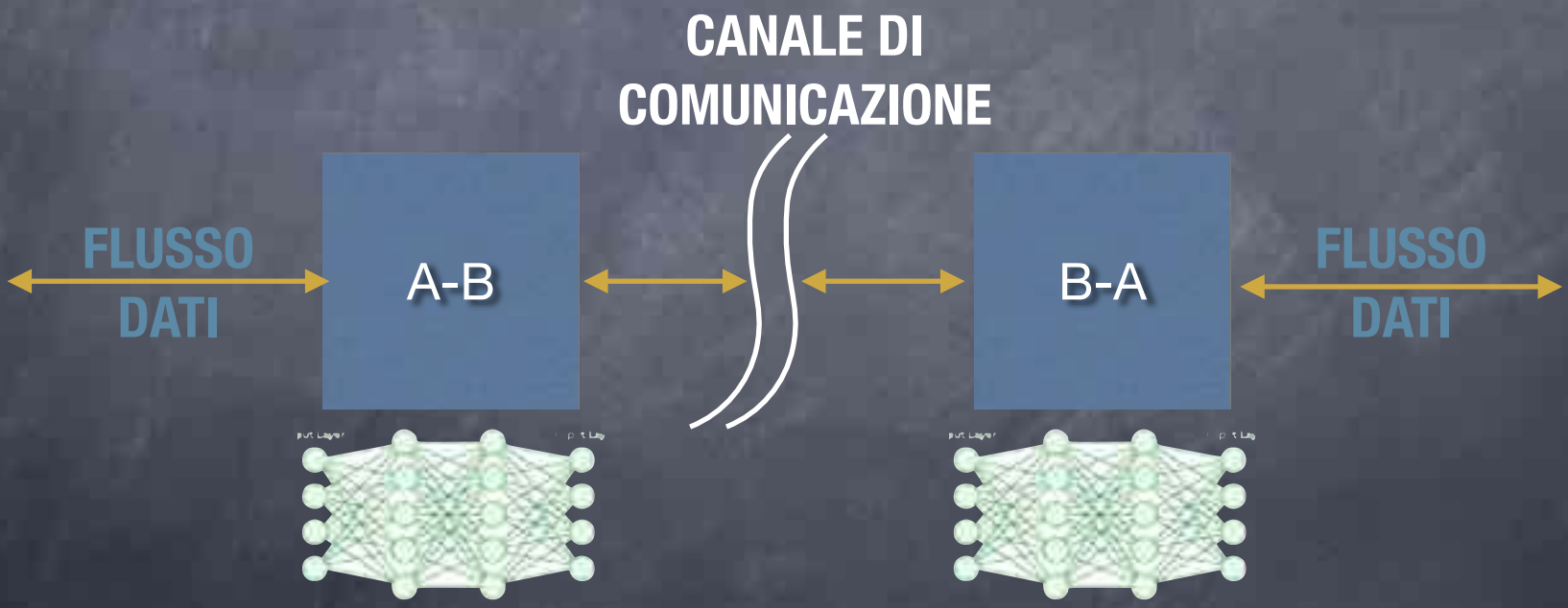




AI Crypto

Patent pending

Twin Chips to have a secure data connection



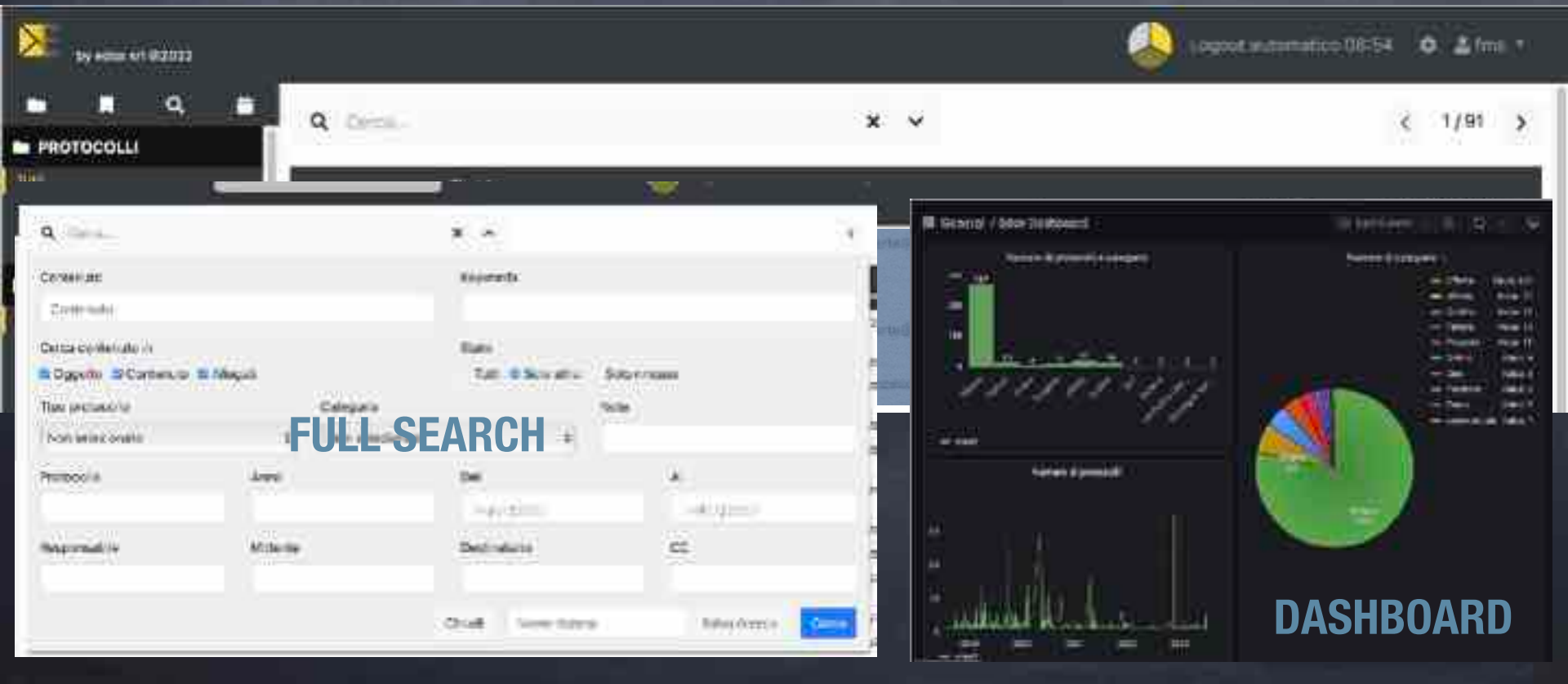
Edox

Protocol and Document Management

SIAE © n. D000018548



- Mail forward to store
- Web browser to search and retrieve



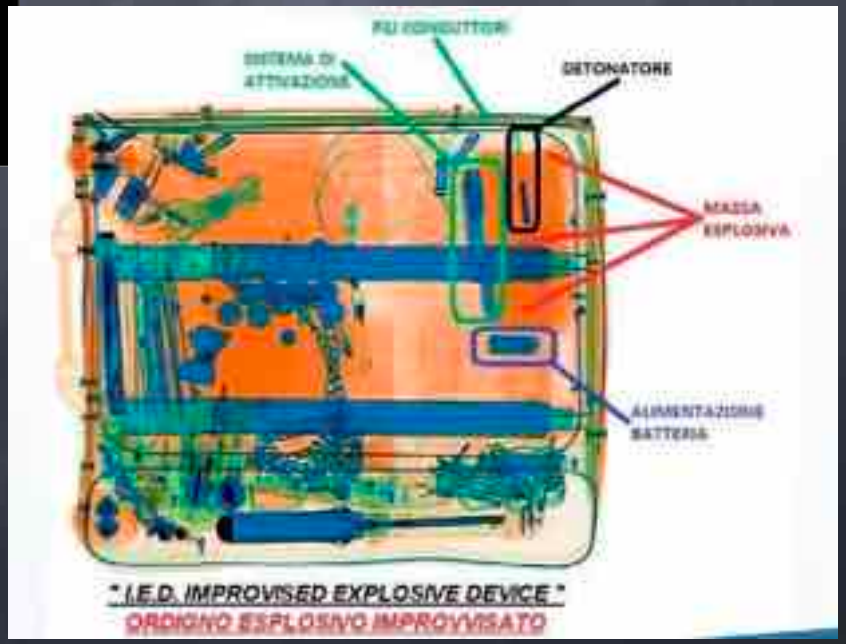
XBAG

Luggage Screening Simulator

SAN GIORGIO



XBAG



Adopted by

Venezia Airport

Trablisa

ADR Aeroporti di Roma

Museums, Education, Research





International Forum of Culture 2007 Monterrey Mexico



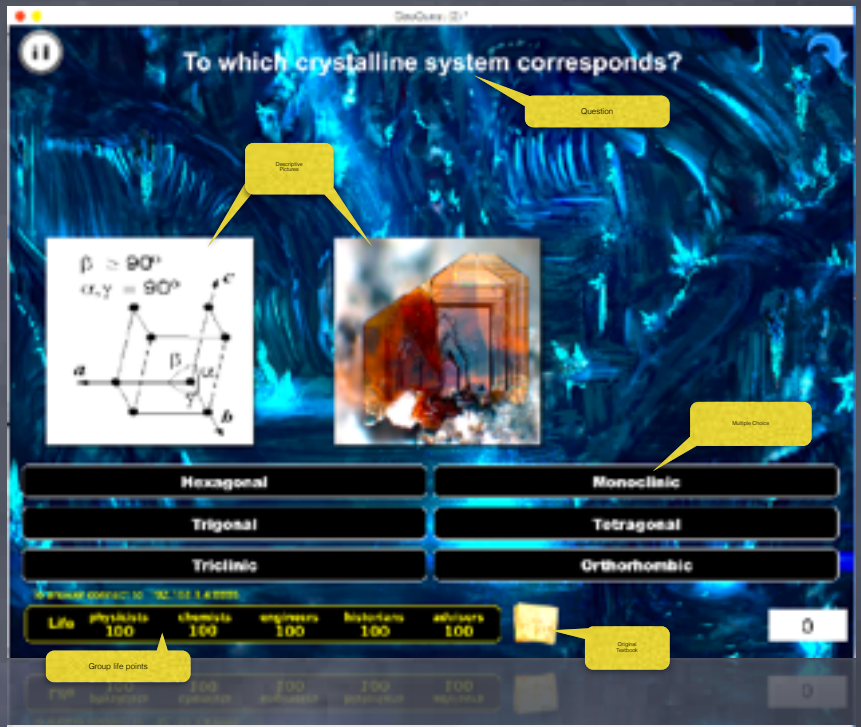


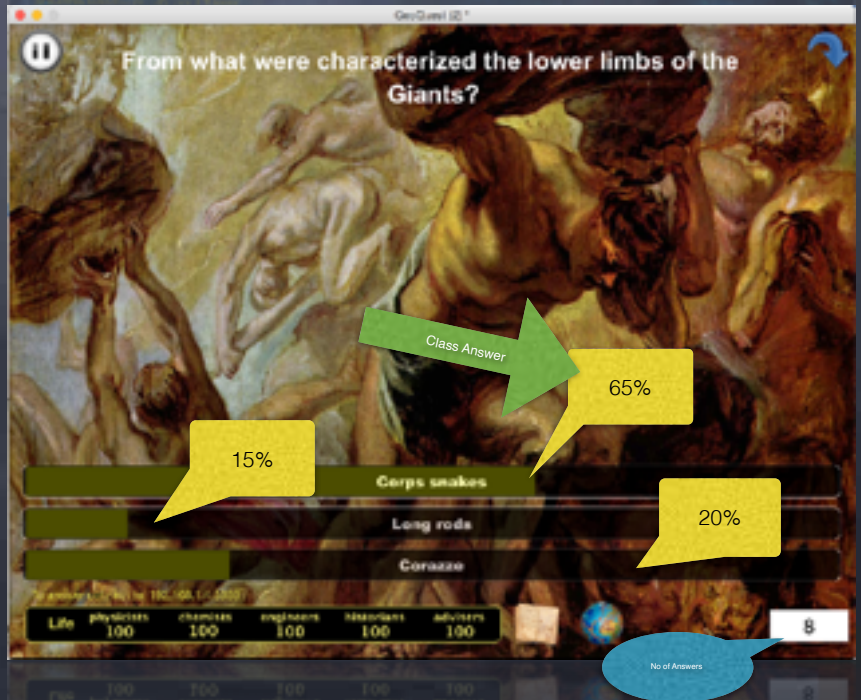
Design and development of technology inside Comune di Napoli's stand

EVOQUEST

CLASS INTERACTIVE ROLE PLAYING GAME



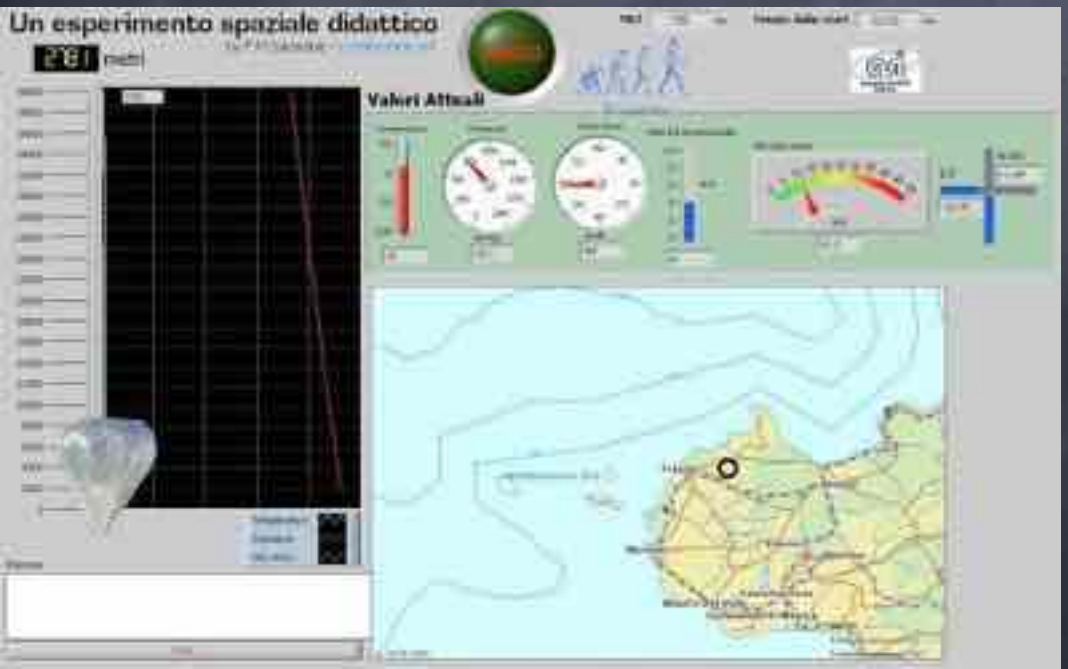




ESPRA

Space didactic balloon experiment to study the atmosphere

- Balloon delivery to study the atmosphere.
- Ground control center
- Different degree of schools









e-voluzione srl

Via Diocleziano, 107 - 80125 Napoli
Tel. 081-19578088

info@e-voluzione.it

www.e-voluzione.it