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ZucchettiGroup
Enterprise Wide Solutions

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Biometric Authentication Security and Usability

Criminal investigators have used fingerprints to identify suspects

loss of dignity and privacy.

"Big Brother" surveillance.

Many access-control systems use identification systems based on biometrics

An increasing demand for safety and security

Traditionally, based on

* something that the user knows

* something that the user has

But, ...traditional methods

do not authenticate the USER as such

are based on properties that can be forgotten, disclosed, lost or stolen.

main advantage

reduces the risk of information (passwords)
or tokens (keys or chip cards)
being stolen or passed on to
unauthorized people...

- First measurement (acquisition)
- Creation of master characteristics
- Storage of master characteristics
  - Card
  - Database in a server
  - Workstation
  - Authentication terminal

- Acquisition
- Creation of new characteristics
- Comparison
- Decision

- The primary advantage of biometric authentication methods over other methods of user authentication is that they really do what they should,

  - i.e., they authenticate the user!!!

Disadvantages of biometric authentication

- false rejection <1%
- False acceptance <1‰
- biometric sensors limited lifetime
- User afraid
- Cultural problem

Identification

- "one-to-many" match

Authentication

- "one-to-one" search
- Not necessarily in a database
- Stored sample

LEADER IN ICT

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More than **1.600**
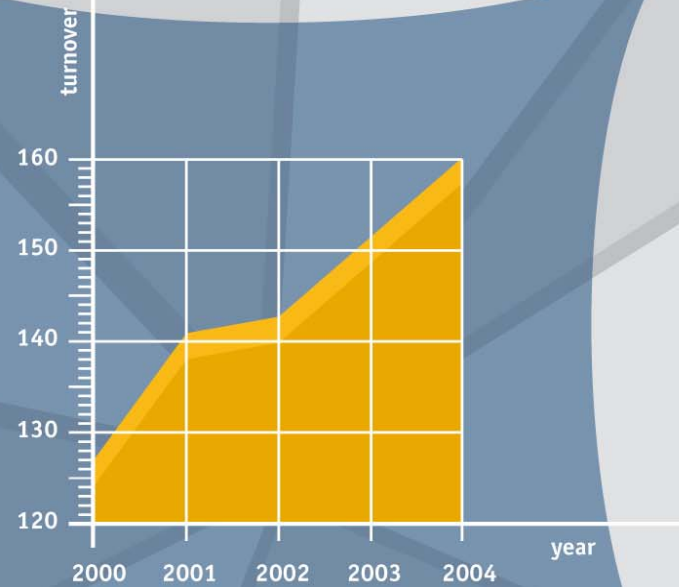**employees**

Over **1.000**
Partners
in Italy and abroad

Over 800
engineers
daily involved in research and development

Over 14.000
terminals
for Time & Attendance - Access Control
delivered each year

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ZucchettiGroup
turnover (in MLN euro)

turnover

160
150
140
130
120

2000 2001 2002 2003 2004   year

A strong presence on foreign markets

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ZUCCHETTI USA   ZUCCHETTI ROMANIA

and its international network
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IL SOFTWARE CHE CREA SUCCESSO

STATE- OF- THE- ART TECHNOLOGY

▼ Biometric Technology

▼ Web based technology

▼ Single and integrated database

▼ Multiplatform

▼ Workflow

▼ Datawarehouse

Innovation Technology in **H***ungary*

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Thank you!

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