

# **CNIPA: RFID actions**

**Indra Macri**  
**CNIPA RFId coordinator**  
**e.mail: [macri@cnipa.it](mailto:macri@cnipa.it)**  
**Tel. +39-06-85264.474**



# What would we avoid?

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**Get it right the first time**



# What is CNIPA? What do we do?

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- CNIPA is the National Centre for ICT in the Public Administrations
- CNIPA:
  - supports the Italian Minister of Reforms and Innovations in the Public Administrations (PA)
  - defines processes and instruments to manage and control the innovation in the PA
  - coordinates the development of PA's information systems
  - contributes to the definition and application of the Italian government policies for ICT in the PA



# Starting points

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- “The Central Government has to overcome lack of innovation that is lack of democracy”,
  - “New technologies can radically change [Italian Public Administrations] only if they are used with synergy and in a coherent design”
- L. Nicolais, Italian Minister of Reforms and Innovation in the PA
- “...I want to see the benefits of RFID in terms of better services and productivity gains”....
  - “An awareness and understanding of the risks and opportunities was seen as crucial in 67% of answers”
- V. Reding, from speech of EU RFID Conference 16th October 2006



# CNIPA: RFId actions

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- Cnipa, amongst other things, is promoting the introduction of RFId in the Public Administrations, stimulated also from the European debate
- Working group with Polytechnic of Milan, School of Management to understand in which process of the Italian Public Administration RFId is convenient
- Working group to define the guidelines on RFId in the public sector with:
  - Italian Public Administrations
  - Academic Institutions (University of Tor Vergata, etc...)
  - ICT Associations
  - Italian Data Protection Authority



# Is RFID convenient for Italian PA?

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- Have been considered some case studies, such as:
  - Library for Economic Studies of the University of Turin: comparing rfid and bar code
  - Archeological finds of Santuario di Ercole Vincitore in Tivoli, Rome, evaluating the rfid technology for tracking finds and boxes
  - Loading and disembarking of containers in the seaport of Venice, using electronic seal



# Is RFID convenient for Italian PA?

<b>Projects</b>	<b>NPV (€)</b>	<b>TPB (years)</b>	<b>note</b>
Library	5.054,00	3,68	In the bar code scenario TPB is 8,5 years and the NPV is negative
Archeological finds	-22.783,00	- (*)	Sensitive analysis has confirmed the results
containers	174.167,00	1	Supposing the electronic seal has been attached before the container disembark

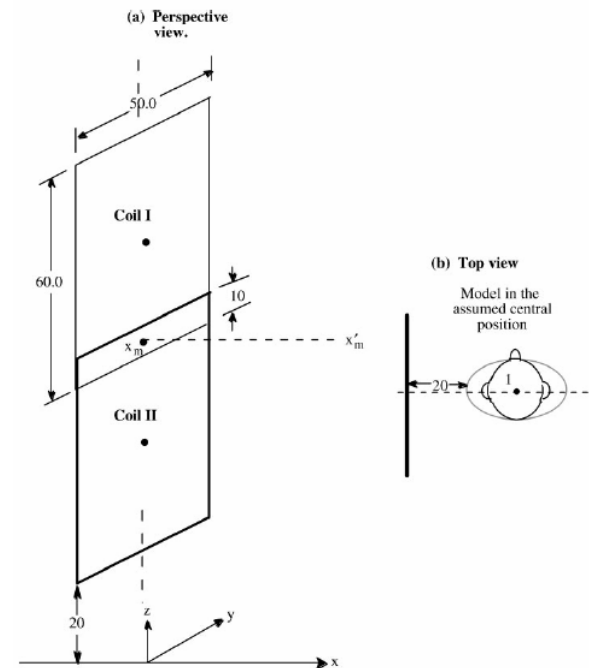
(\*) The time of pay back is more than 35 years

- The analysis has been worthwhile to decide if and how adopt the technology in the innovation of the processes of Italian PA
- i.e. the electronic seal in custom process needs a great integration with other stakeholders to be useful



# How 'healthy' is RFID ?

- Minimum distance of security between a device and a person that uses the devices or is under a continuous exposition
- Example 1. Anti-theft gate operating at 30KHz (by Gandhi, DeFord)
  - The value of current and electric fields are very low compared with the ICNIRP (International Commission on Non-Ionizing Radiation Protection) values for adults, while are close or exceeds the threshold for children





# How 'healthy' is RFID ?

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- Example 2. RFID system of UHF frequency 860-960 Mhz. SAR (Specific Absorption Rate) is calculated in realistic model of human body at the different distances from source.
- The model:
  - refers to Italian regulation
  - does not consider modulation, interaction with environment, etc...
  - has been built in the worst hypothesis of a continuative exposure
- Conclusion:
  - In the case of generic population half a meter could be a true conservative safety distance



# More information

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- <http://www.cnipa.gov.it>
- <http://www.osservatori.dig.polimi.it/>
- <http://www.icnirp.de/documents/emfgdl.pdf>
- [http://ec.europa.eu/enterprise/electr\\_equipment/lv/rec519.pdf](http://ec.europa.eu/enterprise/electr_equipment/lv/rec519.pdf)



**Thank you for your attention**

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