

Anticounterfeiting solutions: toward a standardisation of performances

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The Traceability Centre

Vocation, structure, ethics

- Competence centre for traceability
 - *Identification, localisation*
 - *Authentication*
 - *Middleware*
 - *Organisation*
- Founder of the french national reference centre for RFID
- Non profit-making association
- Independance, neutrality



Counterfeiting of products

Situation



Pôle traçabilité

All sectors producing manufactured products are concerned by counterfeiting: electro-technics equipments, computers, automotive spare parts, aeronautics, drugs industries, sport, pesticides, products for dogs and cats, food, etc.



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Counterfeiting of products

Many risks

▪ Risks for people's health and security

- Drugs
- Toys
- Automotive
- ...

▪ Risks for companies

- Looting of know-how
- Lost of Turnover
- Lost of jobs
- Lost of image
- Legal risk
- Discouragement to innovate

▪ Risks for states

- Lost of jobs
- Lost of taxes
- Lost of economical performance

Counterfeiting of products

Situation



Pôle traçabilité

- **Legal protection:** law enforcement, seizures, destructions, punishing those who seek to profit from breaking the law but, today, **counterfeiting is more profitable and less penalized than drug, weapons or human traffic!**
=> revenue source for crime and mafia.
- **Prevention:** need for **worldwide multisectorial action for interoperability and improvement of delay of reaction** with **effective services** to all actors involved



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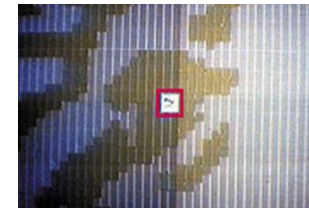
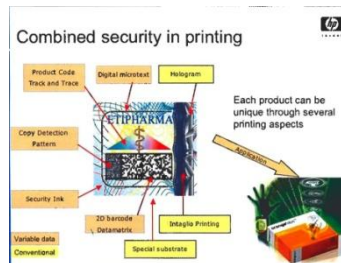
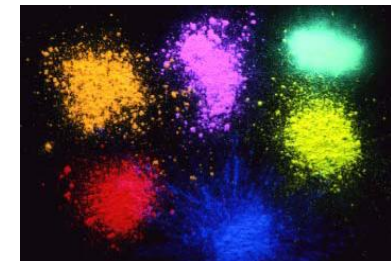
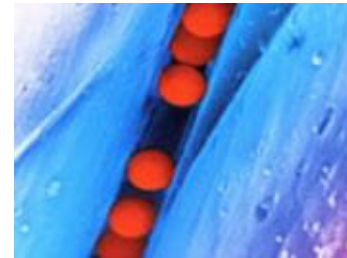
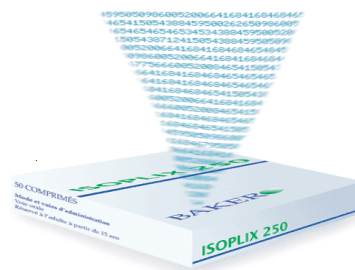
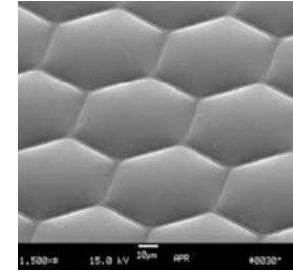
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Preventing counterfeiting by technical means

- **Preventive approach:**
 - to make products resistant to counterfeiting threats during the **whole product life cycle** and not only in relation with the supply chain
 - to include in the products protections against counterfeiting by technical means that :
 - May be able to provide the evidence that products are not counterfeited
 - May be able to provide the evidence that the technical means themselves are not counterfeited, nor hacked

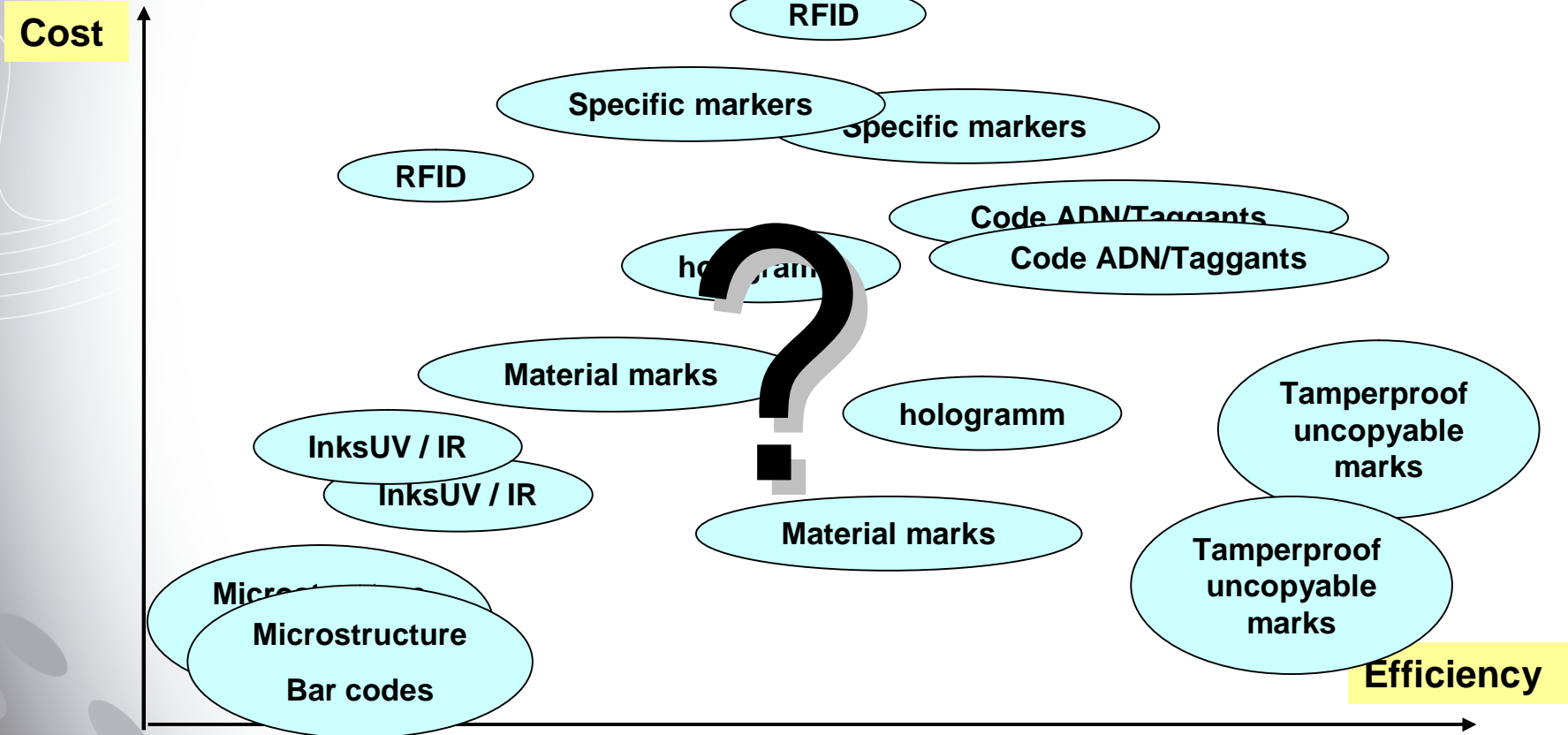
Anti-counterfeiting solutions

too many technologies to be considered!



Anticounterfeiting solutions

Cost/Performance/Efficiency?



... what is efficiency ?

Anti-Counterfeiting solutions

Situation



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- **Proprietary** solutions
 - Heterogeneous
- **Secrecy**
 - Performances?
 - References?
- **Multiple** control tools
 - Human senses
 - One tool per solution
- **Integrability** in product life cycle
 - Need of product enhancements?
 - Need of process enhancements?
 - Link with metadata management?

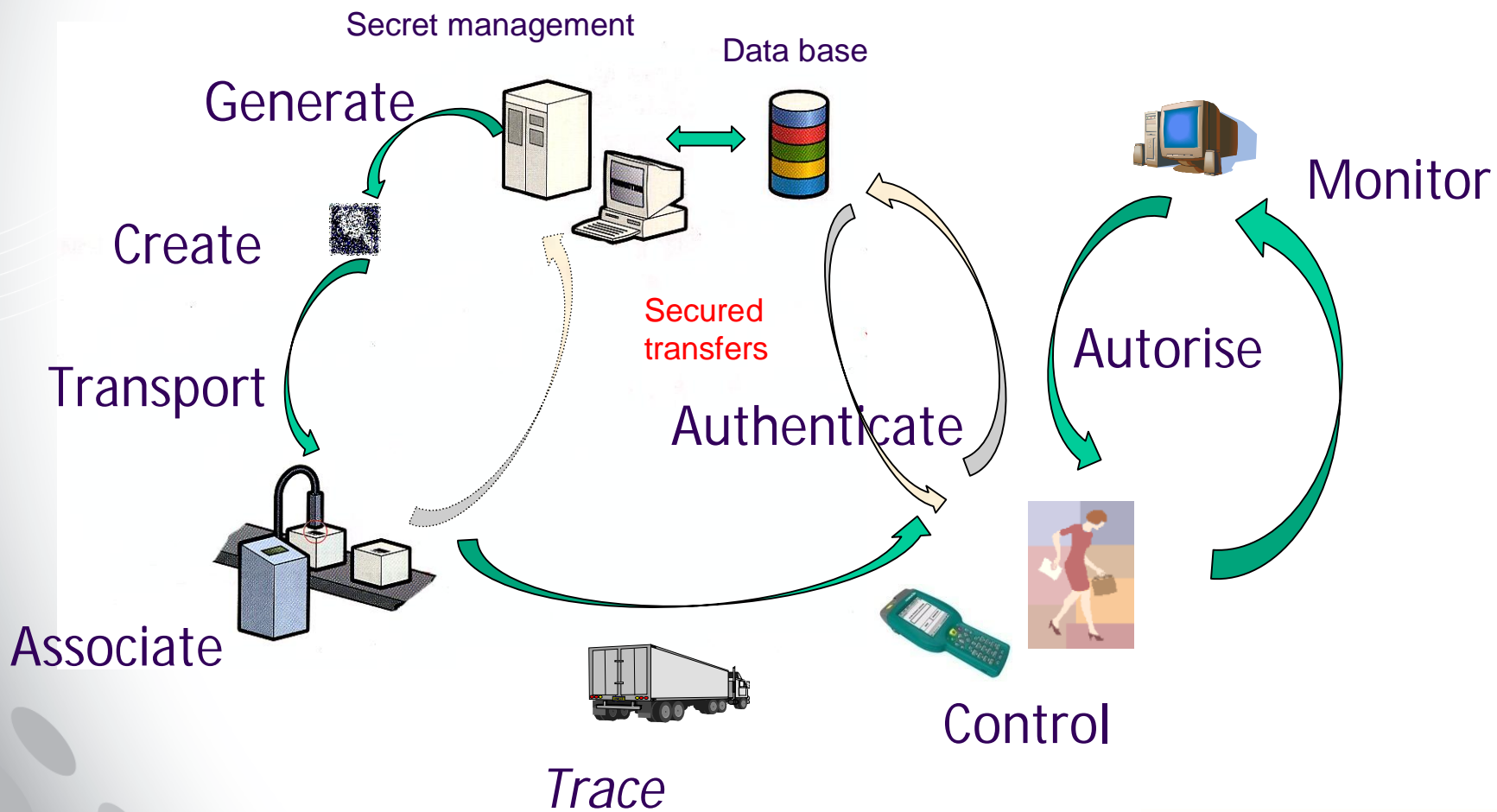


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Secure authentication chain

Principle



Standardization proposal

Objectives



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« Performance requirements for anti-counterfeiting tools »

- To establish a standard for **performance objectives** of anti-counterfeiting technical devices (not a standard for means)
- To be **vendor's independant** and applicable for **all technologies**
- To drive the Manufacturing Industry to incorporate an **anti-counterfeiting strategy in PLM**
- To define **performance criterias** considering the **whole authentication chain**
- To address the global market and have an **international scope**



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Product Life Cycle Authentication Cycle

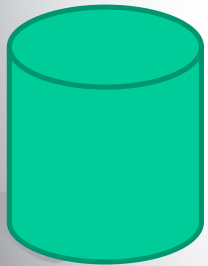


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Concept

Design

Manufacture



Manufacturing references

Generate

Create

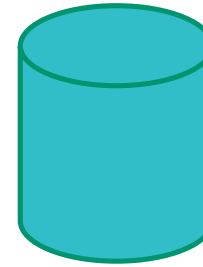
Transport

Assemble/Test

Deliver

Support

Disassemble



Authentication references

Associate

Control

Authenticate

Recycle



Références



Anti-counterfeiting solutions

Types

- **Type 1** : verifiable independently by purely human input
- **Type 2** : requires a technical tool
- **Type 3** : requires valuation by an analyses centre

- Stand alone / On-line connection
- Off the shelf / Purpose-built
- Human / Automated interpretation

Anti-counterfeiting solutions

Assessment criteria

- **Security**
 - Robustness
 - authentication elements
 - tools
 - connections...
- **Effectiveness**
 - Reliability of results
 - Operational resistance
 - Adaptability and flexibility
 - Easyness of usage



ISO/PC 246 « Anti-counterfeiting tools »

Launching of the project

- **November 2007:** First meeting of the French committee, in charge of drafting the preliminary project
- **December 2007:** Presentation of the project to a working group of the European Commission
- **Avril 2008:** Presentation of the project to the MoU e-Business
- **June 2008:** Presentation of the project to ISO/TMB
- **From 2008-06-27 to 2008-09-29:** ballot

Positive votes from Bahrain, Canada, China, Egypt, Finland, France, Israel, Italy, Korea, Malaysia, Morocco, Netherlands, New Zealand, Romania, Spain, Switzerland.





ISO/PC 246 Anti-counterfeiting tools *Membership*

- **P-Members:** Austria (ON), Canada (SCC), China (SAC), Egypt (EOS), Finland (SFS), France (AFNOR), Italy (UNI), Korea, Republic of (KATS), Netherlands (NEN), Romania (ASRO), Spain (AENOR), Switzerland (SNV), United Kingdom (BSI), USA (ANSI)
- **O-Members:** Bahrain (BSMD), Germany (DIN), Israel (SII), Japan (JISC), Malaysia (DSM), Morocco (SNIMA), New Zealand (SNZ)



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ISO/PC 246 « Anti-counterfeiting tools »

Main dates

- First plenary meeting of ISO/PC 246: 2009-03-17/18
- CD: 2009-10-23
- DIS: 2010-04-23
- FDIS: 2011-04-23
- IS: 2011-10-23

ISO 12931

« performance criteria for authentication tools for anti-counterfeiting in the field of material goods »



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Thank you for your attention

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