



T & T of Drugs: the Italian way

Global Healthcare User Group (GS1 HUG™)

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Italian way

- Goals and Drivers
- Instruments
 - I.T.
 - Tecnology and coding systems
- Work in progress
- Logistic Problems
- Conclusion

DRIVERS

- Public Administration
 - expense control *et al.*
 - pride of being first
- Production
 - Tactical
 - Strategic



ITALIAN PRESCRIPTION

- Serial number :
 - Legitimate payments
 - never pay twice

I.T. instruments

- Supply-chain lacks:
 - A standard of communication
 - An interconnection network
- The system becomes old
- It's necessary to define and to **impose** standards

TECNOLOGICAL INSTRUMENTS

- What I mean for parallel or serial processes
- Today we have a barcode labels with serial numbers
- We have no big problems where processes are mostly serials
- We hope to have a single-shot reading process for a stock of products

RFID ?

- Italy was (after USA) the first country in the world to be interested in this technology
- In my first meeting (Health Ministry) on May, 29th 2001 I spoke about RFID: optical ID is obsolete
- In the 2° meeting on June, 26th 2001 all the supply-chain showed up in favour of it

RFID vs. Barcode

Two aces in the sleeve, two critical points

■ The pros

- Parallel process without optical contact
- DB inside (expiry date etc.)

■ The cons

- Collisions
- Laborious repair process of the lacked readings

Work in progress

- The first with pride
- 1st phase: life cycle of at least 2 years
- Spain failed to start tracking of the expiry date and stocks (starting in June 04)
- USA talks about “Electronic Drug Pedigree”
- Robin Koh (Director of Applications Research, Auto-ID Center, M.I.T, Boston) agrees on RFID:
 - 2005 : labels on pallet
 - 2006 : many factories support this technology
 - 2007 : mass-serialization
- FDA hopes RFID to be running in 2008

Work in progress

- Optical Reading in the serial phases of the system
 - Production
 - Delivery to SSN (italian NHS)
- RFID technology could be active in the intermediate tracking
- Innovation must not damage the system functionality



LOGISTICS

- Throughput is reduced by each ring of the chain
- Today technology is not cheap
- Data feedback is not economically rewarding

LOGISTICS

- Positive feedback for PA
- Moving stocks are tracked as a standardized record but a communication protocol is missing
- Matching records with stocks must be granted by serial reading (expensive)



LOGISTICS

- It's mandatory to balance productivity and the amount of information
- The choice of technology may change this equilibrium point

LOGISTICS

- **Sustainable** is the keyword
- A Logistics revolution not supported by technology can't win...
- To track drugs not packages...
- Pharmaceuticals is an international market.
- Tags don't have an international standard

Meanwhile

- Optical data acquisition in the serial phases of the system with an eye to implementation with radio-frequency technology.
- Create a network to exchange information

In pills

- In systems by now to elevated automations and throughput, with performances of excellence in the elapsing time between demand for drugs and preparation and delivery, the delay introduced by data acquisition, in absence of technologies with the same performance, produces absolutely unacceptable quality of service regarding the time it needs to access the drugs



Goals of distribution

- To reduce the lead time
- More productivity
- Better accuracy

Opportunity

- Standardization and automation of every information exchange
- To conjugate public needs, like control of the expense, with private, tactical and strategical need.
- We do not trace the banknotes in spite of the enormous advantages in the fight against the crime and the tax evasion



Conclusion

- Not only intelligence but fantasy

I believe ...



The winning cocktail

- We study and observe (knowledge)
- We understand > synthesis (intelligence)
- We imagine something new (fantasy)
- We create (ability to undertake)

Without forgetting our humanity

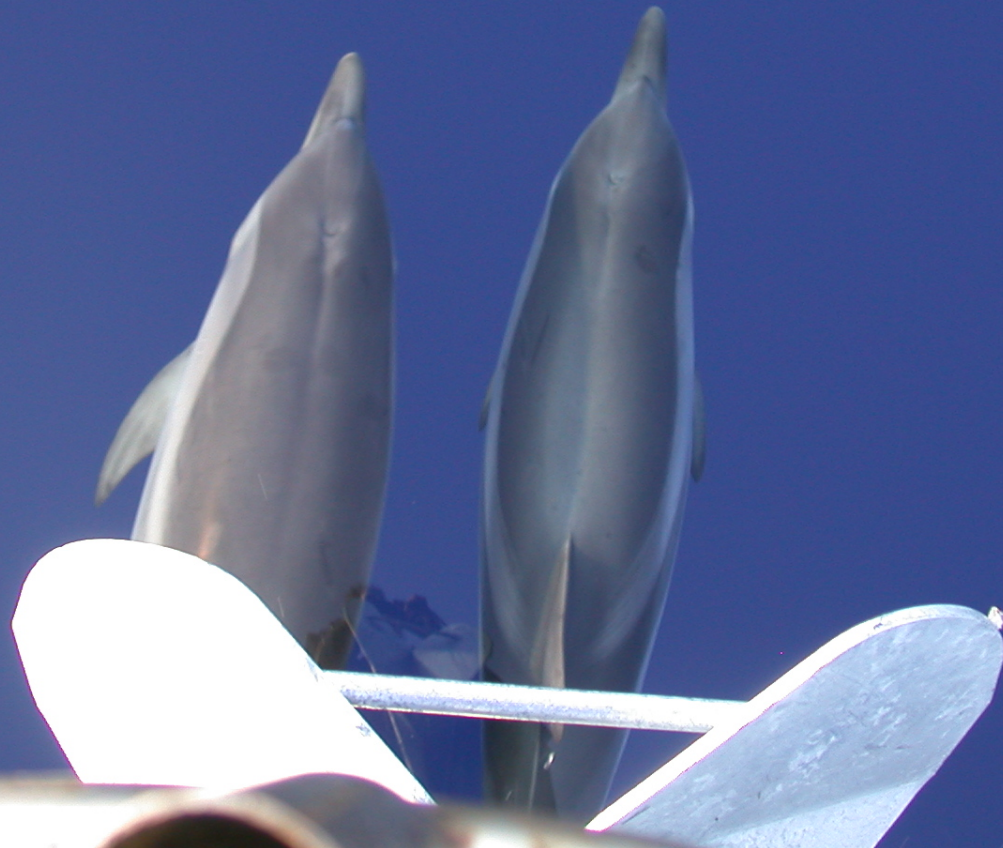
- “Where is the wisdom that we have Lost in knowledge? Where is the knowledge we have Lost in information?”

(Thomas Stearns Eliot)



Look at the future
with young eyes

With the
intelligence of those
who always look
ahead



With the pleasure
to have such a
beautiful future

