D-Essence

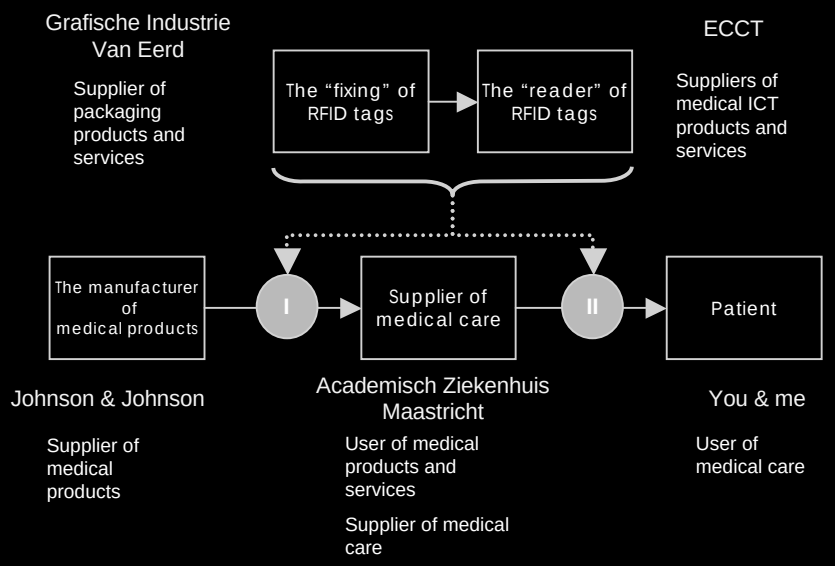
RFID:
Not a goal but a means to an end

Ir. Coen Jeukens (coen@d-essence.nl)
Dr.Ir. Sander de Leeuw (sleeuw@feweb.vu.nl)

vrije Universiteit amsterdam

A hospital supply chain study

- Studies in the US show that RFID can be used successfully in the pharmaceutical industry but a supply chain perspective is required.
- In 2006, a feasibility study has been conducted searching for answers to how RFID can be used in a hospital supply chain.
- The study has brought together four supply chain partners to design an integral RFID application in the supply chain and capture the value added in a cost-benefit trade-off. The study has been sponsored by NV Industriebank LIOF under the i-Zone cluster project.
- This presentation provides the key results of this study.



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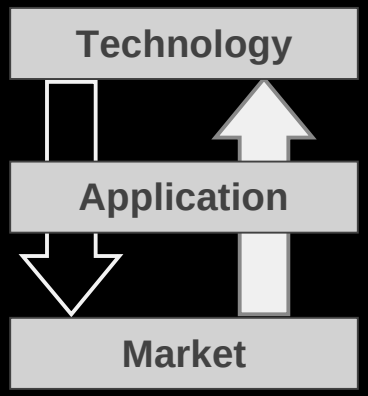
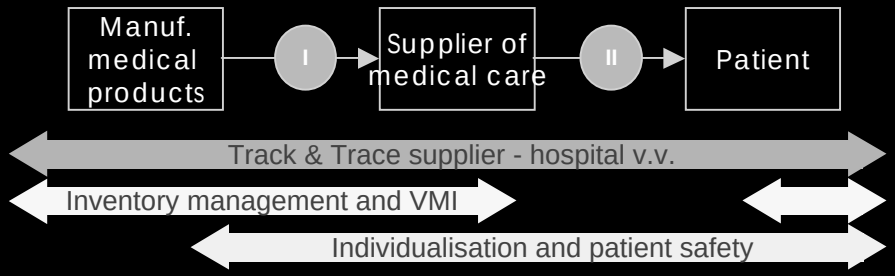
Process first, then technology

- Many projects are focused on feasibility of technology, few take the business value as a starting point:
  - Start from an analysis of processes and improvement potential
  - Investigate business issues and drivers for other ways of identification of products in a supply chain
  - Redesign supply chain using different methods of product identification; check technological limitations
- Supply chain focus is required for success:
  - Multiple application areas
  - Multiple partners
  - Multiple products
- RFID is just a means to a an end





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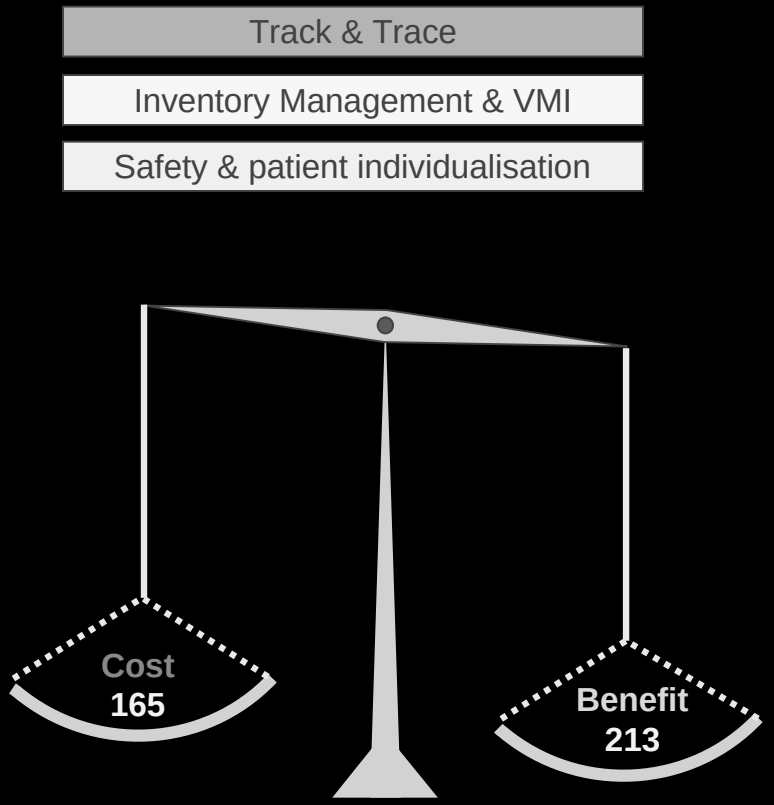
A "positive" business case requires the combined usage of RFID in multiple business areas

- No benefit of a single application in a single** organisation will offset the cost of RFID implementation.
- RFID application must address more than only (traditional) logistics area and extend towards patient.
- The cost and benefits of RFID are not equally spread and balanced over all involved supply chain partners; this requires careful balancing and therefore involvement of key stakeholders, not just the ICT department.
- Liability cost have the potential of tipping the scale uncontested. This is not expected on short notice in the Netherlands.



**) Adding the savings of multiple RFID business applications AND when including the savings of all partners of the integral supply chain, the benefit will be more convincing.

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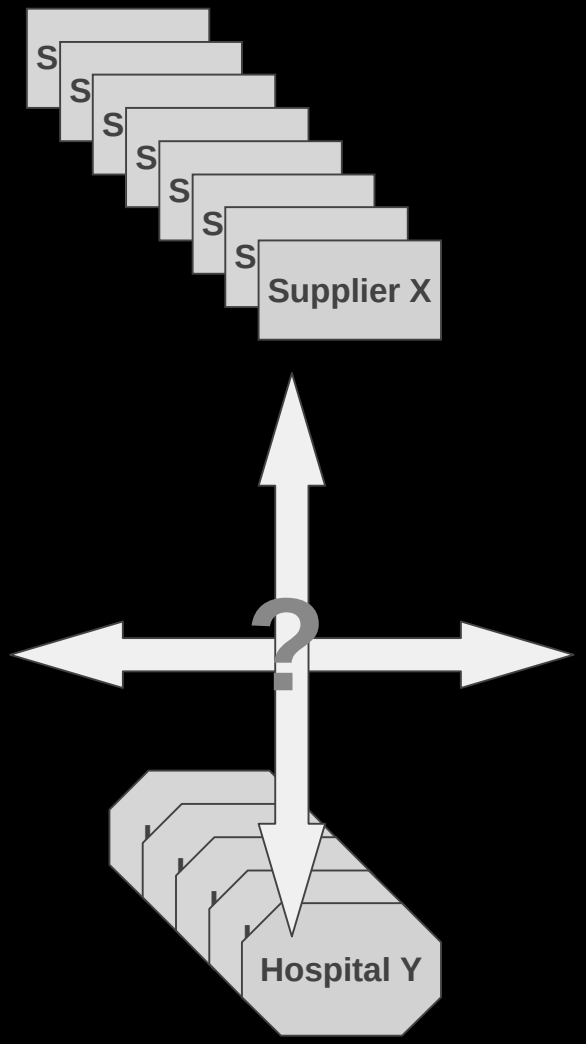
Vertical and horizontal co-operation are prerequisite for success

- Many companies will be able to work out a one-on-one RFID solution, even if it is outside the boundaries of their own company
- Typically, hospitals have many suppliers (>1000); medical suppliers serve many hospitals:
  - Many different types of products (medication, instruments etc)
  - Multiple sourcing strategies
- It is infeasible for a hospital to work with different solutions for different suppliers; it is also infeasible for suppliers to develop alternatives for each single hospital
- Therefore the success of an RFID implementation in the hospital supply chain largely depends on the degree to which companies can be brought together to develop a single solution:
  - Between supplier and hospital
  - Between suppliers
  - Between hospitals



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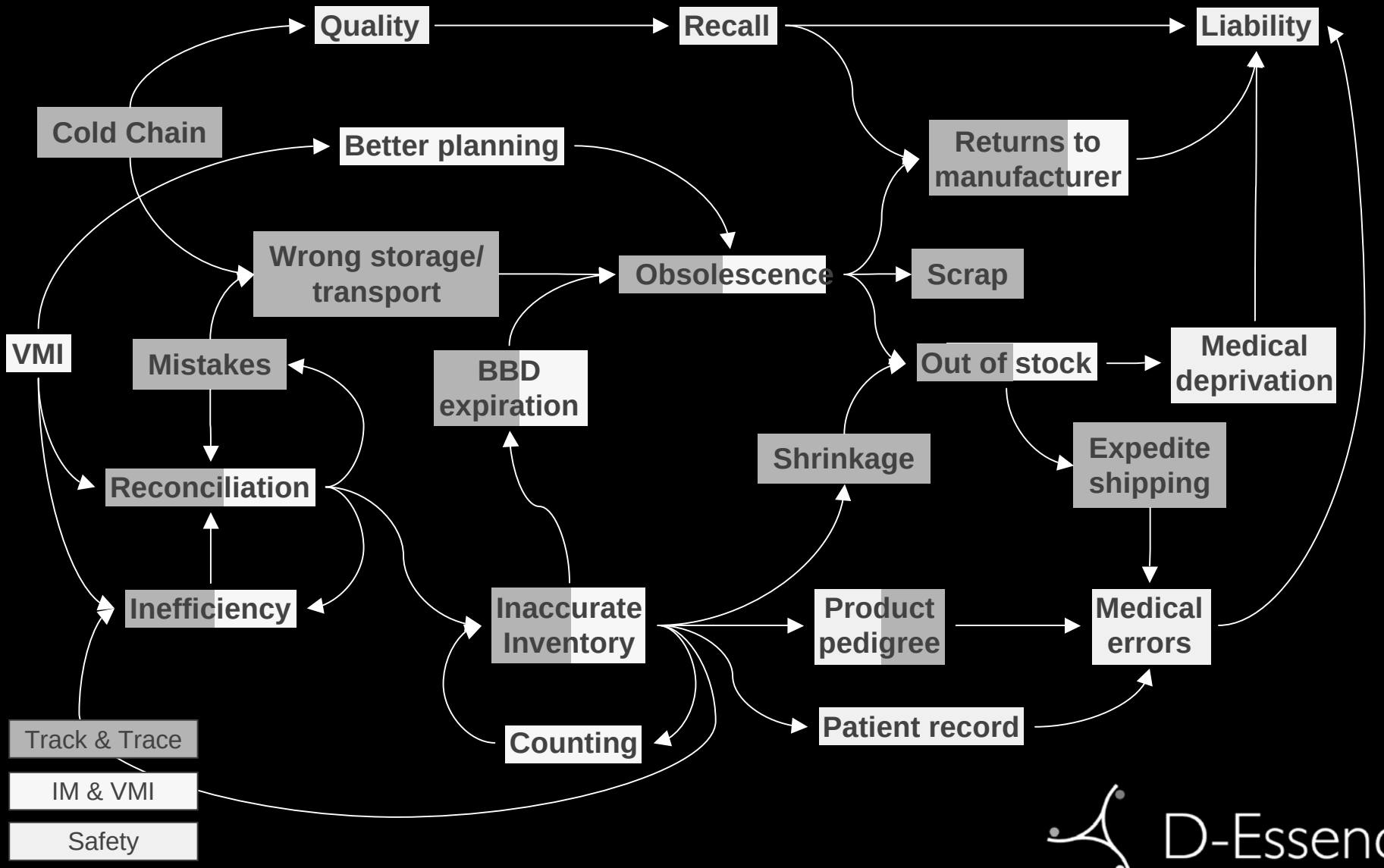
RFID is an interrelated business case: the benefits are attributed to multiple RFID applications, they appeal to multiple KPI owners across multiple horizontal and vertical integrated processes & organisations.



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Conclusions

- RFID can be of value in the hospital supply chain, provided:
  - Start with business value and processes, then technology
  - Aim at different application areas, not just one; payback based on one application area is expected to fail
  - Target for application of RFID across the boundaries of supply chain entities
    - Patient should be part of it
  - Involve key process owners, not just ICT people
  - Supply chain partners strive for a generic solution, not one that generates e.g. the largest lock-in for one company or fits the largest partner:
    - Across suppliers
    - Across hospitals
- RFID is a means to an end, not just a goal
  - An evolution, not a revolution
  - "Think big, start small, scale fast"