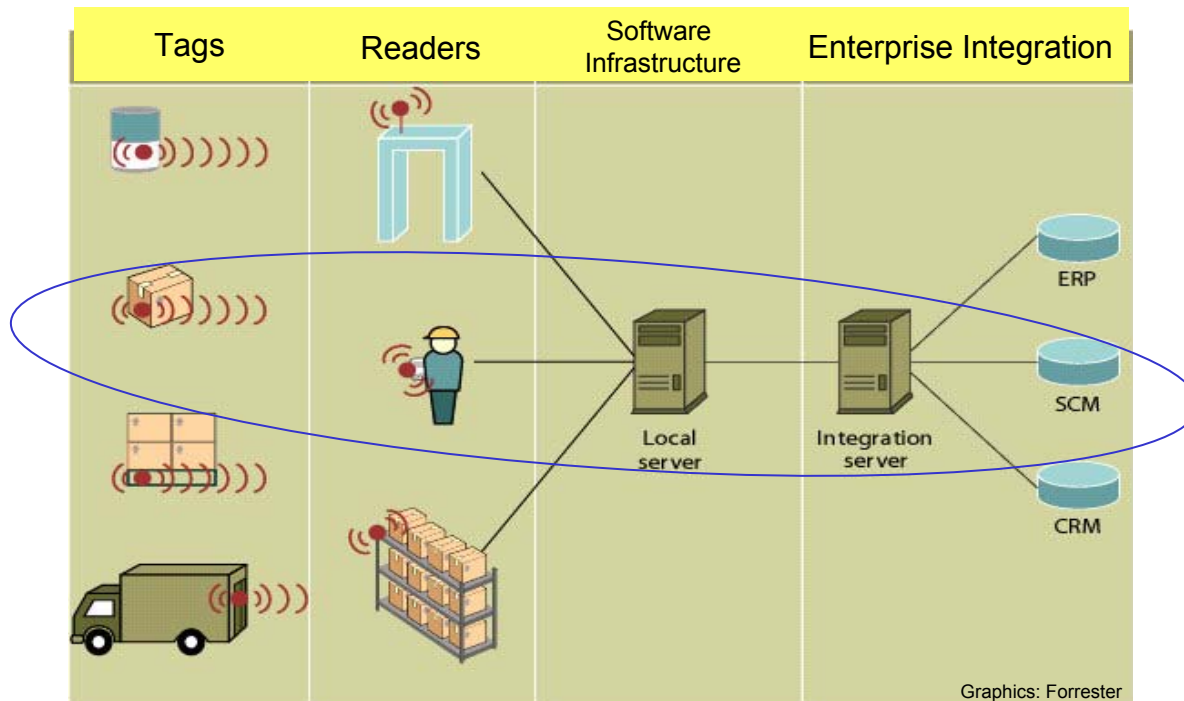


Mobile RFID prototype

Exploring business value of mobile RFID for logistics

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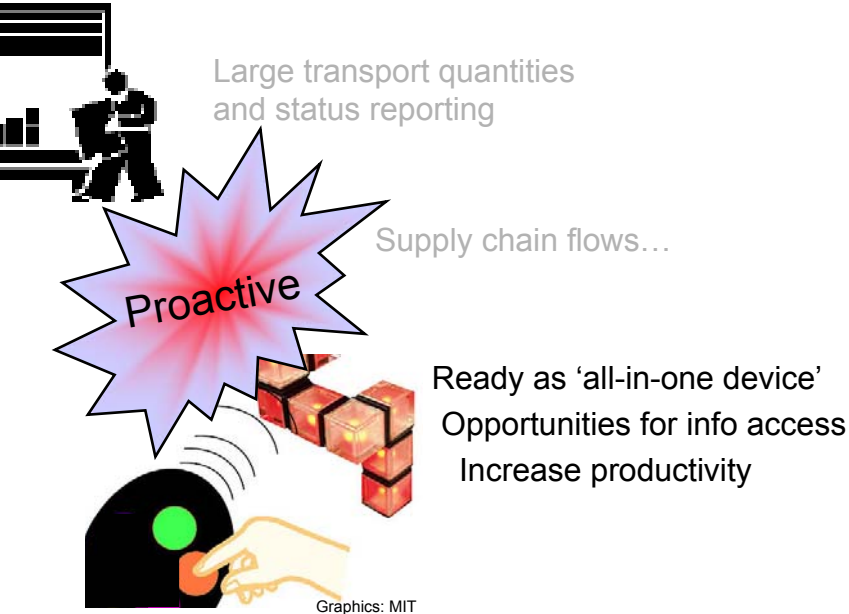
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To explore innovations and manage expectations

Mobile RFID prototype

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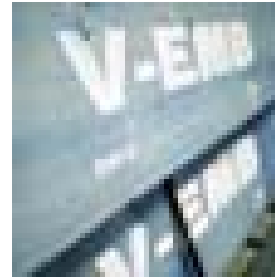


Currently most set-ups are made with fixed installations.

Mobile RFID evaluated feasibility for a mobile work force including;

- RFID for short distance
- GPRS for long distance
- Web for glocal info access

Mobile RFID prototype has been a successful collaboration between several stakeholders.



Volvo Logistics

Business value
Operational opportunities
Technology features



Business Innovation
Volvo IT Concept/Application development



Prototype Set-Up

Focused area decided after process mapping;

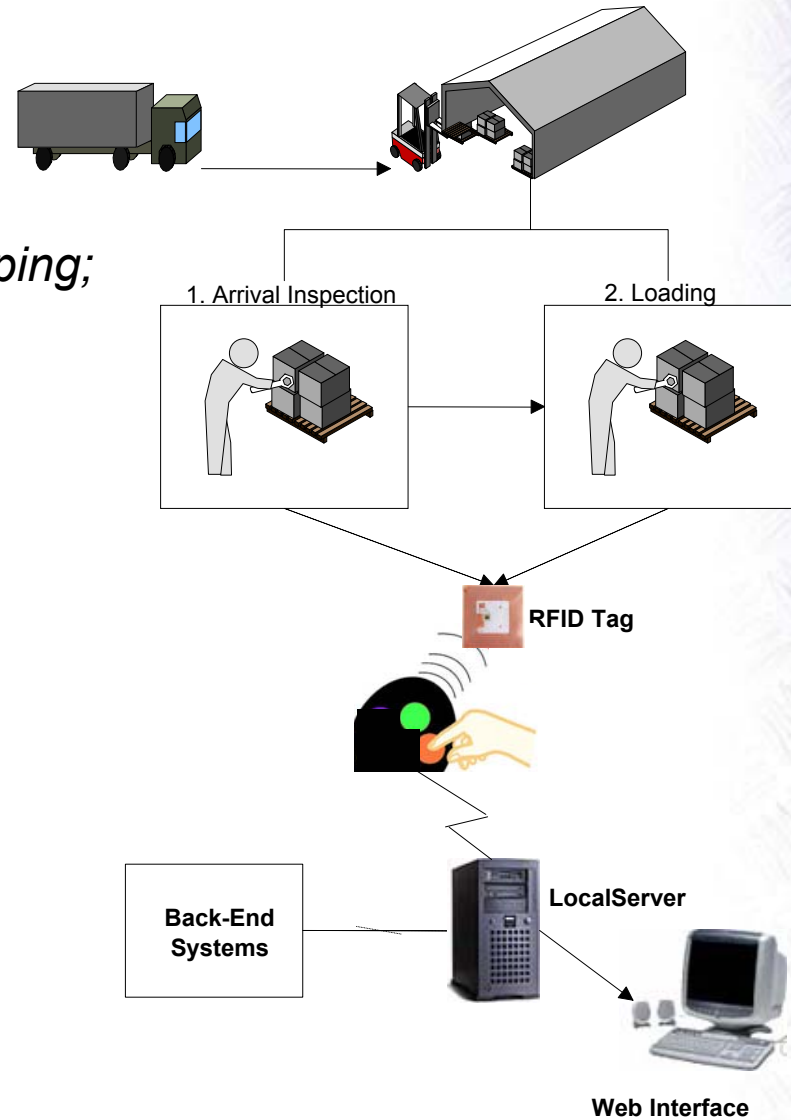
- *A complex cross-docking cargo flow to Brazil*
 - *High level of manual routines – time consuming*
 - *Current annual cargo flow >6 000 cases*
 - *Large growth*

Design of client applications

- *Arrival Inspection*
- *Loading*

Methods of Measurement

- *Operational Reliability*
- *Usability*
- *Lead-Time Productivity*



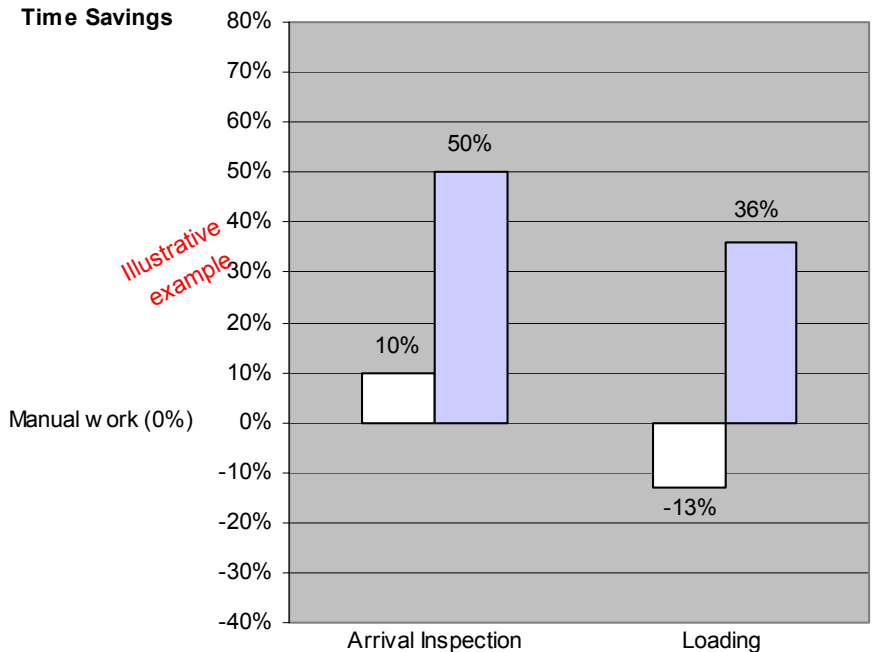
Example of Results

Benefits

- *Lead-Time Productivity*
- *RFID reliability of 99,96 %*
- *Low barriers of entry and usability*

Challenges

- *GPRS functionality*
- *Tag cost*



More than 3000 measurements performed in the real operational context during a test month in prototype system environment

Recommendations

- *Focus process gains*
 - *High-light the intrinsic value of RFID*

Mobile context design restrictions

- *High value items or for mobile reading in closed loop set-up (due to tag cost)*
- *< 10 readings/minute*
- *< 3 user inputs/reading*
- *Limited data retrieval*

Mobile context opportunities

- *Durability (Rough conditions)*
- *Extended data detail (Item level)*
- *Mobility (RFID: short range, GPRS: long range, Web: glocal info access)*
- *Low barriers of entry (Infrastructure...)*

New use-cases in Volvo are: Rental equipment return, Volvo Action Service break down assistance vans, Specific dealer inventory item control...

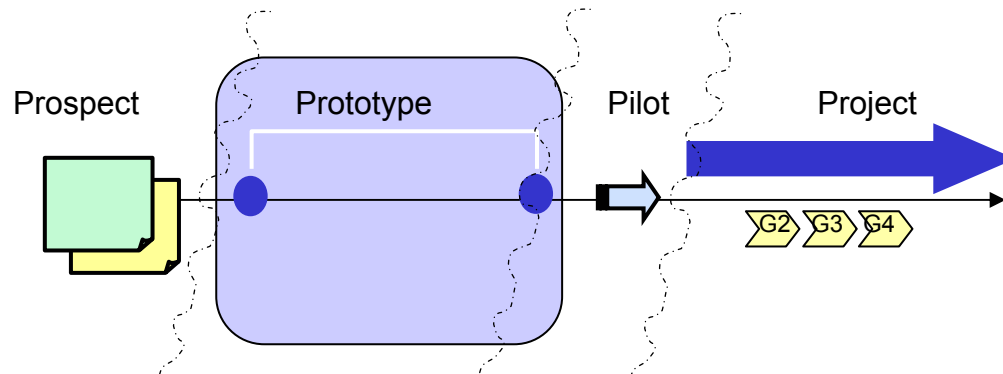


Backup

Business Innovation

Initiative from VIT to focus business value in new ways of working and/or technology

Close collaboration with customers to deliver prototypes that give on-going development a competitive edge through effective R&D



Mobile RFID prototype

Exploring business value of mobile RFID for logistics

Scope:

Idea of prototype collaboration effort, to facilitate practical set-up of a mobile RFID solution within supply chain operations (~10 mw)

Why

- To provide initial RFID hands-on experiences (=>improve supply chain productivity, Overall Business Case)
- To set better requirements for coming implementations (=>improve specifications/operations, Logistics Business Case)
- To gain skills for future application area (=>improving VIT competitiveness. RFID is a Top10 Gartner tech, VIT Business Case)
- Targeted customers: Volvo Logistics and SCM Stakeholders. Joint VIT R&D funding in progress

What

- Initial prototype set-up in connection to a logistics flow at the terminal (or equivalent)
- Support collaboration between Volvo BA/BUs, HW/SW vendors, IT-University and forwarders
- Evaluate results with key stakeholders

Deliverables (Recommendations, Spec, Next step proposal)

- Indication of feasibility (IT, Operational and Business)
- Prototype (+Master Thesis)
- Established relations with HW/SW vendors
- Enhanced knowledge and potential rationalisation projects

