Tasks, problems and real South African project

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* Methods (not sorted so far - was already presented in OM Introduction show)

* **Theory of Constraints**
* Critical Chain (DBR)
* Ishikawa Fishbone Diagram (Total Quality Management)
* Pareto Analysis , ABC, EOQ, Six Sigma and Ishikawa
* OLAP (On-Line Analytic Processing)
* Kepner –Tregoe methodology
* MaxMax and MaxMin (Hurwitz)
* SWOT, BOSTON and Gartner Magic matrices
* **ERP Statistics and Reporting**
* Little´s law
* Yield Management
* **Forward Exchange Contracts**
* Balanced Scorecard
* Production algorithms (MRP,MRP-II, JIT,APS)
* **Warehouse Management advanced methods –see slide 20**
* And many, many more…..

Methods marked by red colour were used

BS and OM – slide from Balanced Scorecard show (will be presented again in BS context)

Project management

Workflow

Theory of constraints

Critical chain

Drum – buffer-rope

CONWIP

Production

MRP-MRP-II,JIT,APS

Logistics

EOQ, ABC

Little´s law

Linear programming

Cutting, blending

Total quality management

Pareto, ishikawa

Product postitioning

Boston Matrix

Gartner QM

Yield management

Business Intelligence

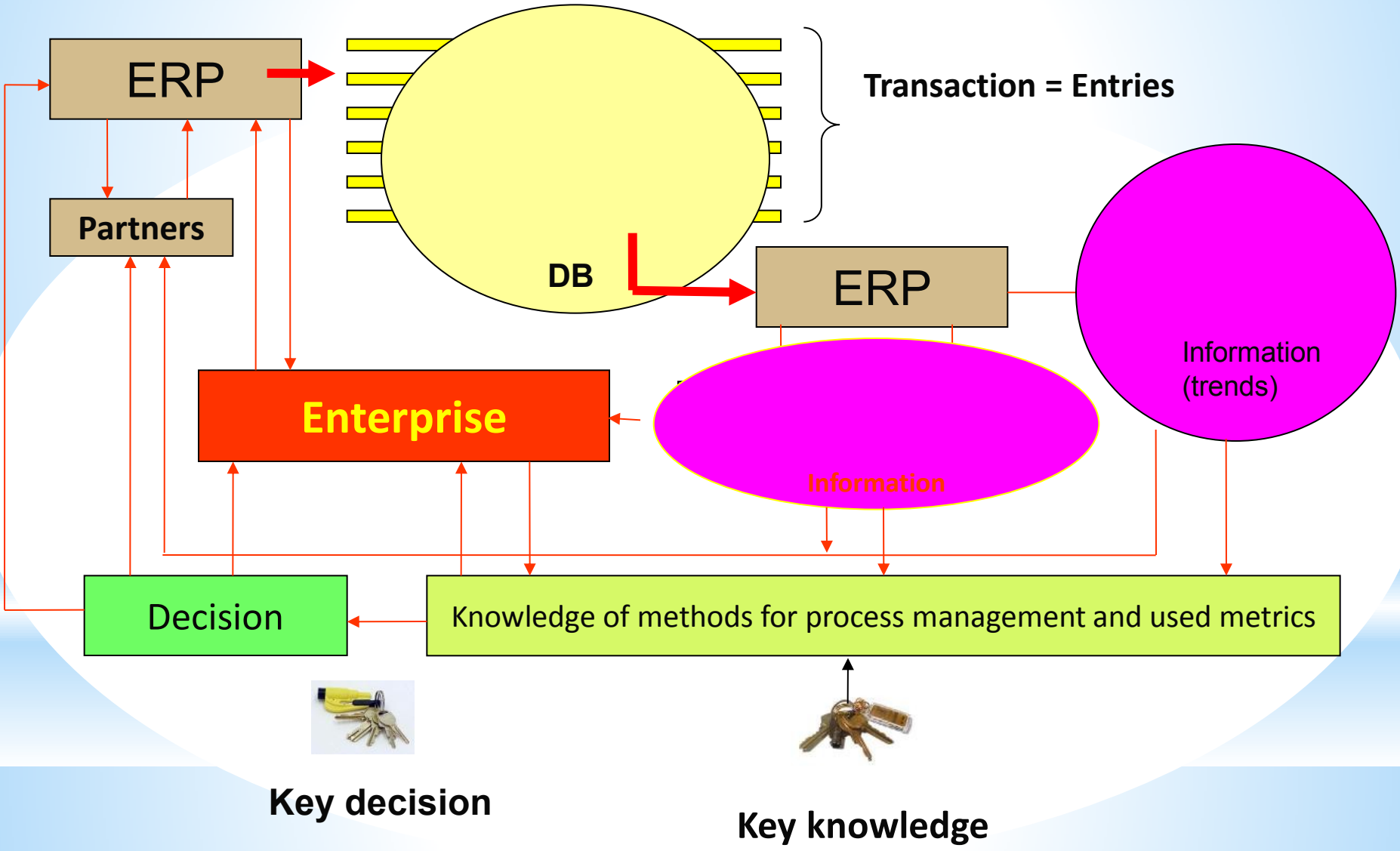
Decision making

Kepner-Tregoe

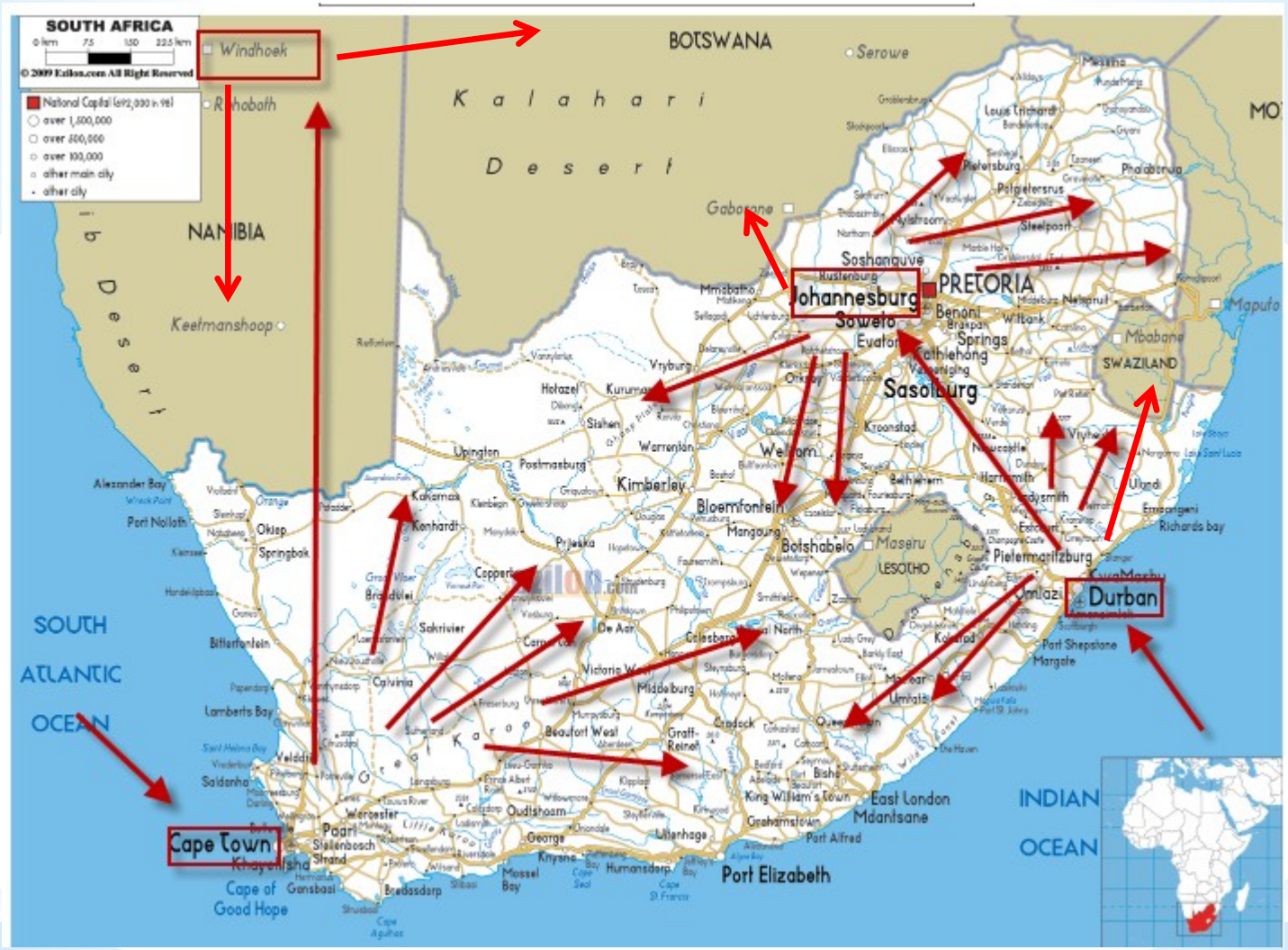
Hurviwtz

Prospect theory

Simplified diagram of ERP usage



*Wholesale-paper-warehouse management-ERP



Basic business specification

* 100 000 Tones per Year
* *Carbonless papers*
* *Cast coated papers and Board*
* *Coated papers*
* *House brands*
* *Office papers*

Products

* 5000 locations in HQ and 40 000 M2 warehousing space
* 50000 customers
* 90 vehicles
* FEC trading (Forward Exchange Contracts)
* Hundreds of employees
* Heterogeneous IT system with **every day synchronization** of data in HQ and subsidiaries
* High volume-low margin type of business

Basic requirement

* One database only (MS SQL) for HQ and 3 subsidiaries
* Modern IT technology ensuring :
  * Fast access to data providing on-line information any time
  * Easy upgrades
  * Mobile technologies (BAR code readers,..)
  * Quick response to business partner requirements
  * Multidimensional analytic tool->reporting to support decision making process
  * Efficient warehousing (inbound and outbound operations)
  * On-line reporting (warehouse status, accounting, cost control,…..)

* Isolated Data Islands

Accounting Island

Management

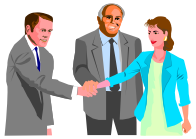
Marketing

Marketing & Sales Islands

Production Island

Customer Orders

Sales Representatives



Customers

Banks

Replenishment planning - Vendors

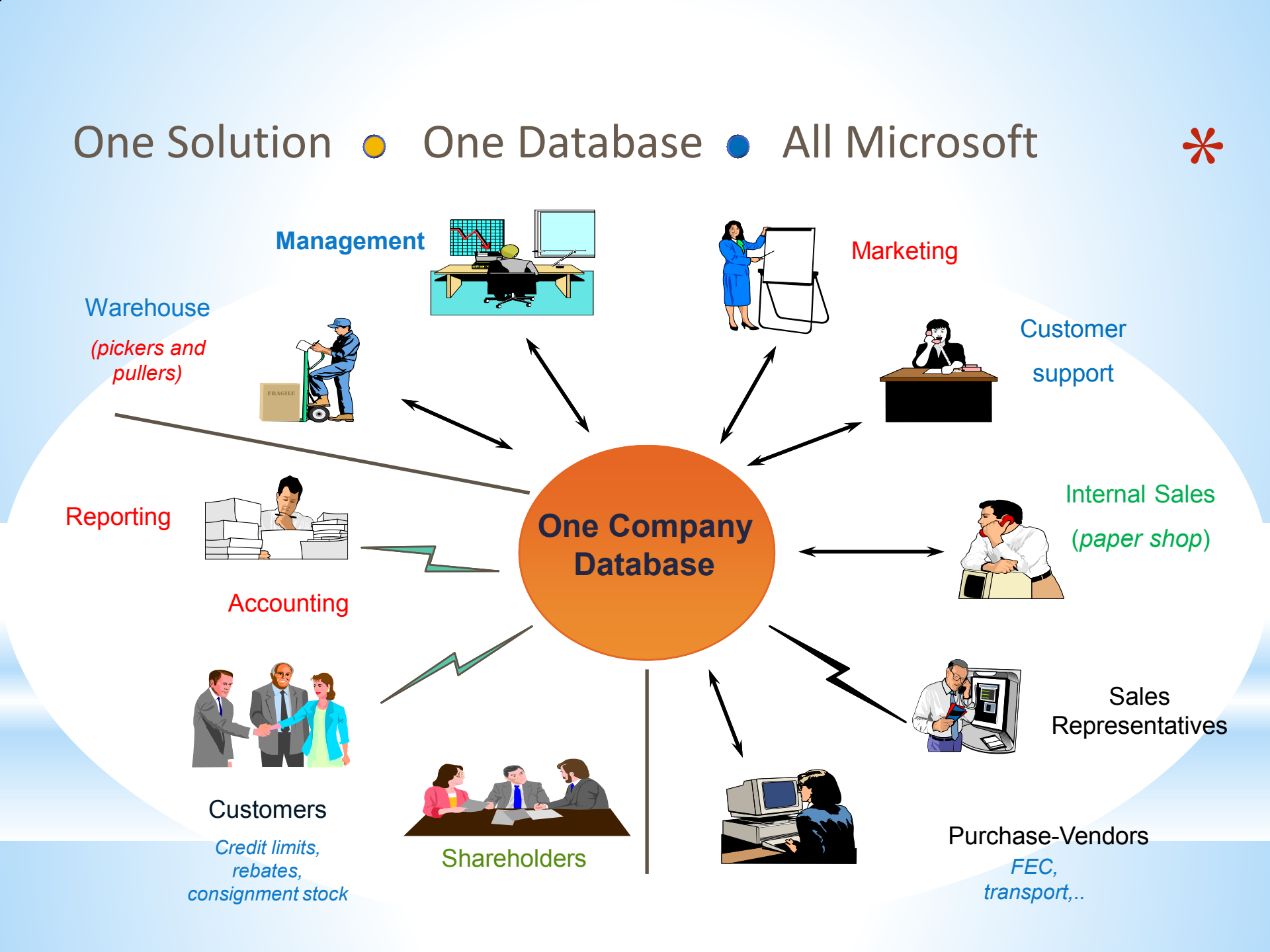
Island of Deliveries

Quality Management

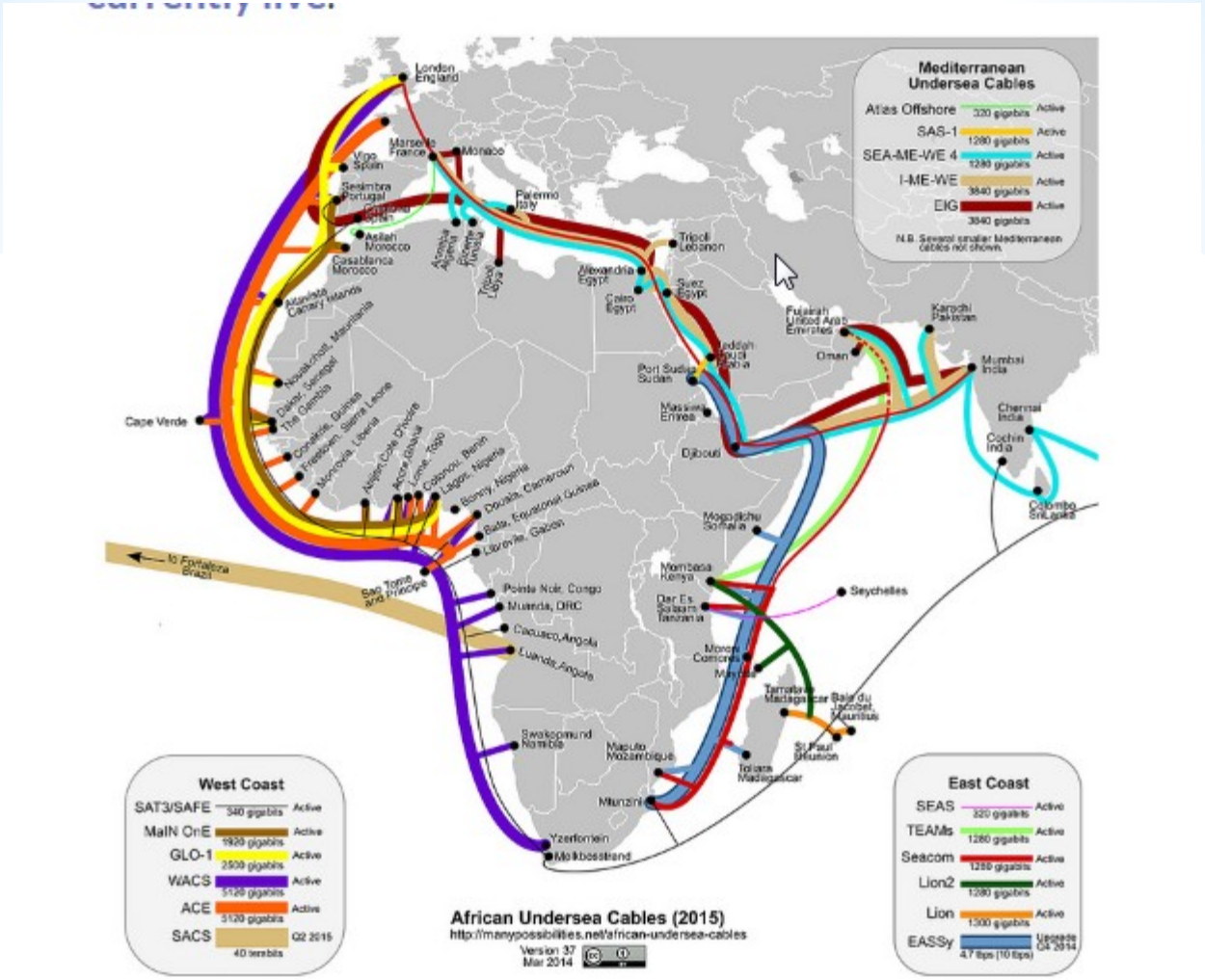
Quality Management Island

Inventory -warehousing

One Solution • One Database • All Microsoft



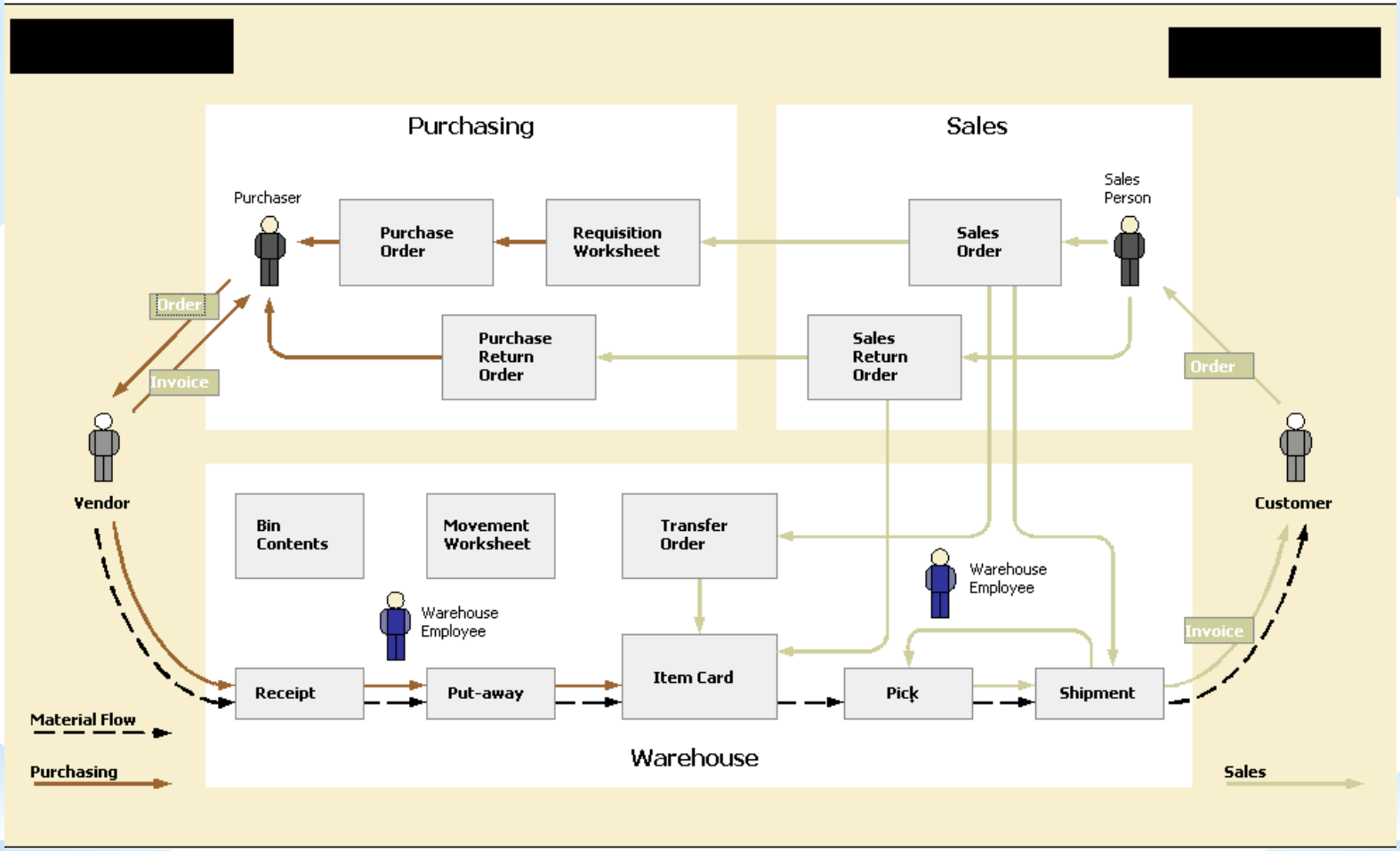
Communications limits (band width, stable connection…)



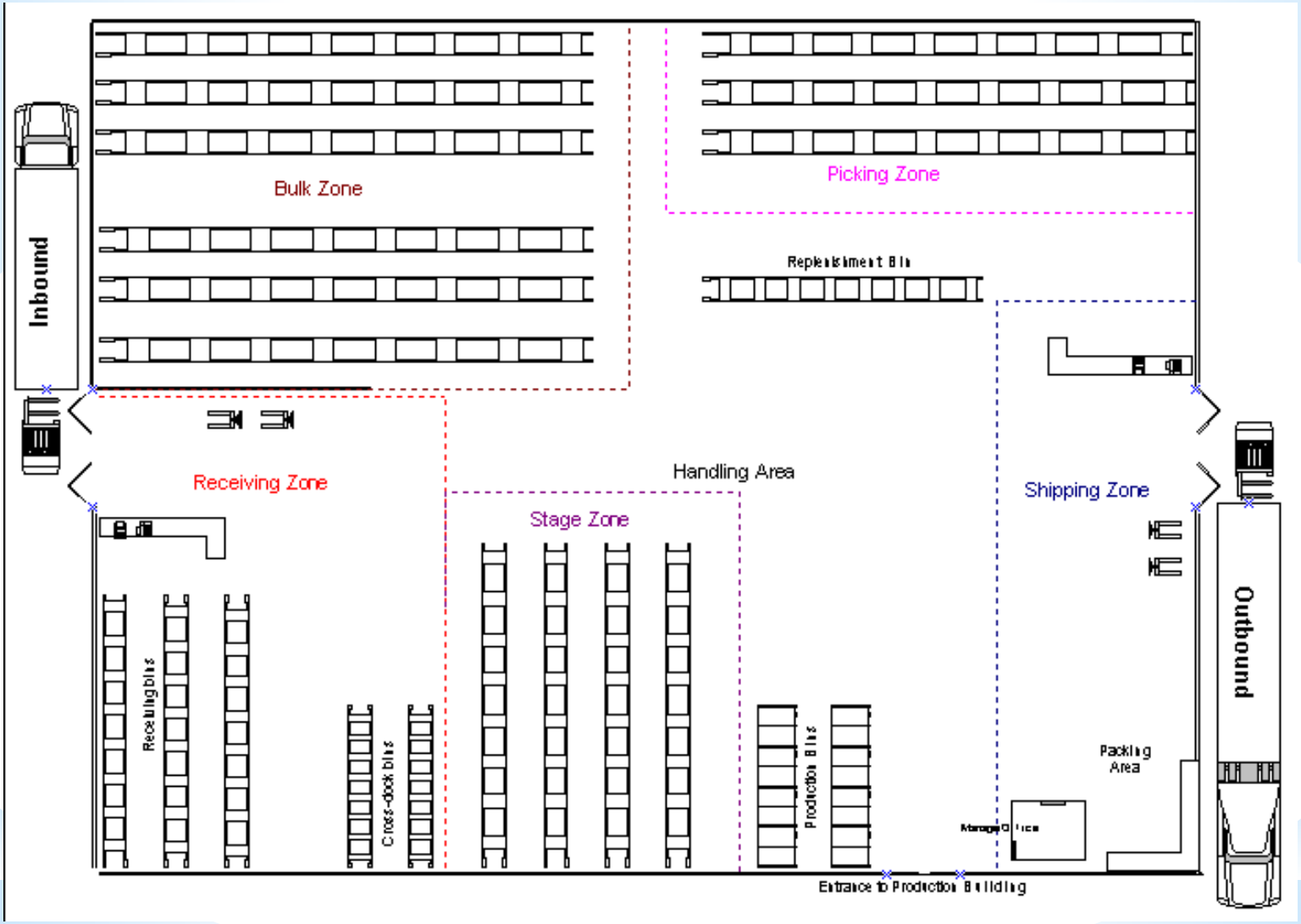
Efficient warehousing -(only a few examples)

* Receipt bins (area where lorries are unloaded)
* Put-away to bins (racks) based on zones definition
* Capacities of the bins (racks) – (weight, size)
* Cross docking (from inbound are directly to outbound area)
* Transfer between location (HQ and subsidiaries)
* Picking slips (from rack to shipment area)
* Shipments area (bins, cages)
* Transport planning
* Credit limits and overdue payment check
* Invoices, Credit memos,….
* Claim management

*Warehousing



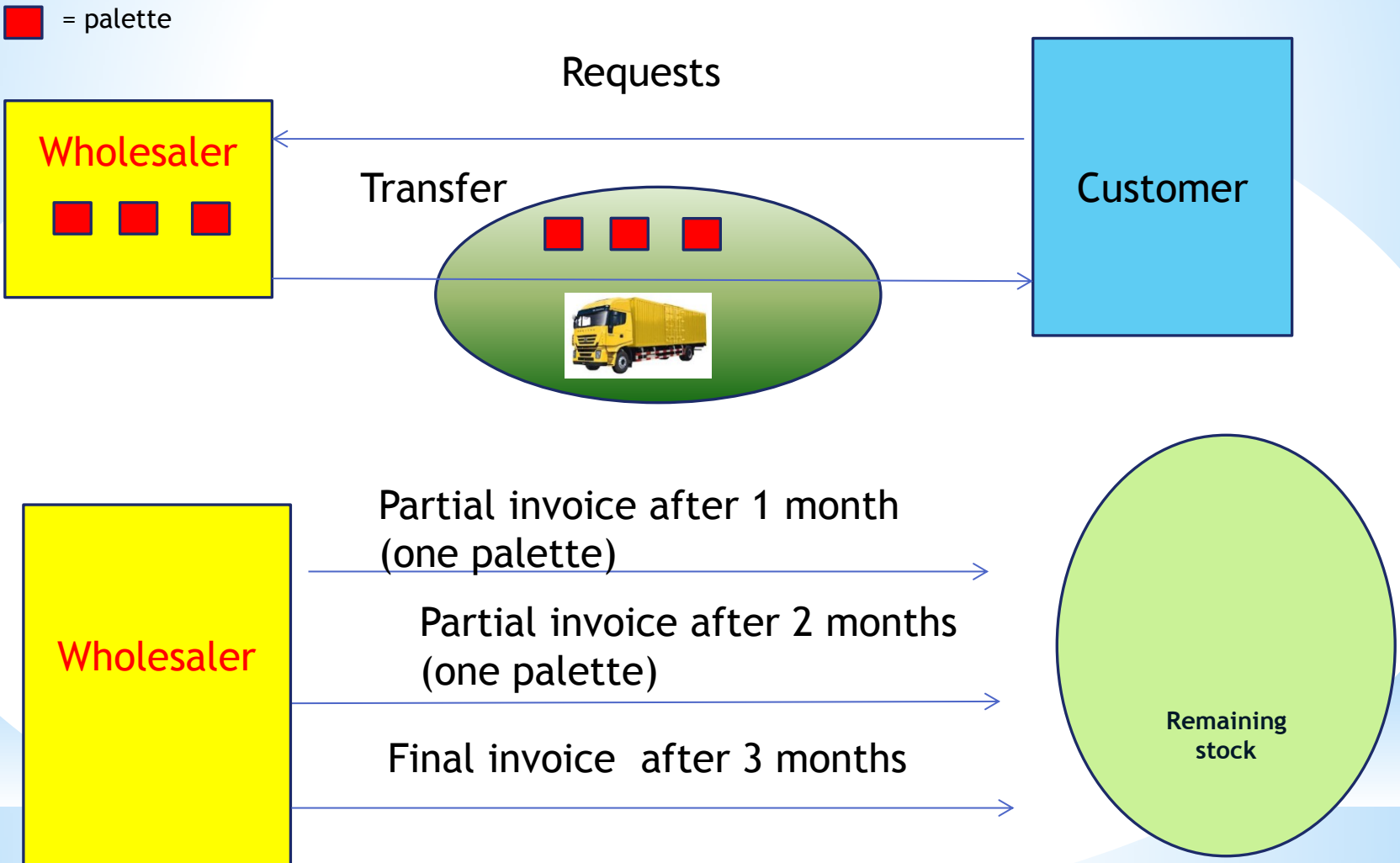
*Warehousing



Project management

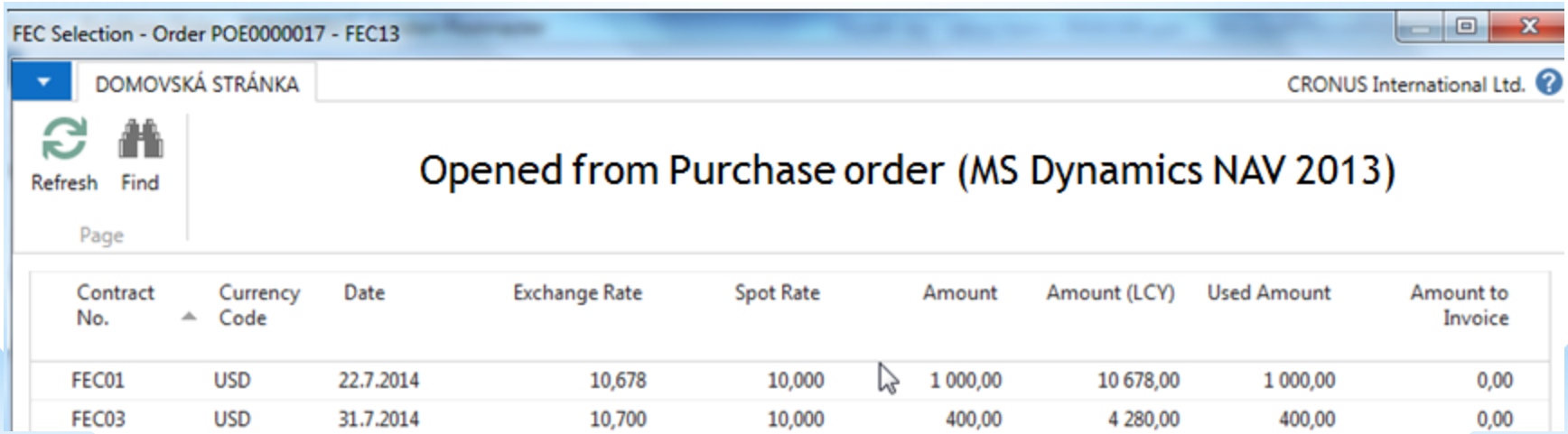
- Budget <->Quote and contract
- Planning of resources and task control
- Planning tools – see following slides
- Reporting (time-capacity usage, costs,…)
- Change management
- Project Risks
- Consignment stock
- CPM,PERT,CCPM – will be mentioned later

* Consignment stock (benefits)



* Forward Exchange Contract (home study only)

A special type of foreign currency transaction. Forward contracts are agreements between two parties to exchange two designated currencies at a specific time in the future. These contracts always take place on a date after the date that the spot contract settles, and are used to protect the buyer from fluctuations in currency prices.



Contract No.	Currency Code	Date	Exchange Rate	Spot Rate	Amount	Amount (LCY)	Used Amount	Amount to Invoice
FEC01	USD	22.7.2014	10,678	10,000	1 000,00	10 678,00	1 000,00	0,00
FEC03	USD	31.7.2014	10,700	10,000	400,00	4 280,00	400,00	0,00

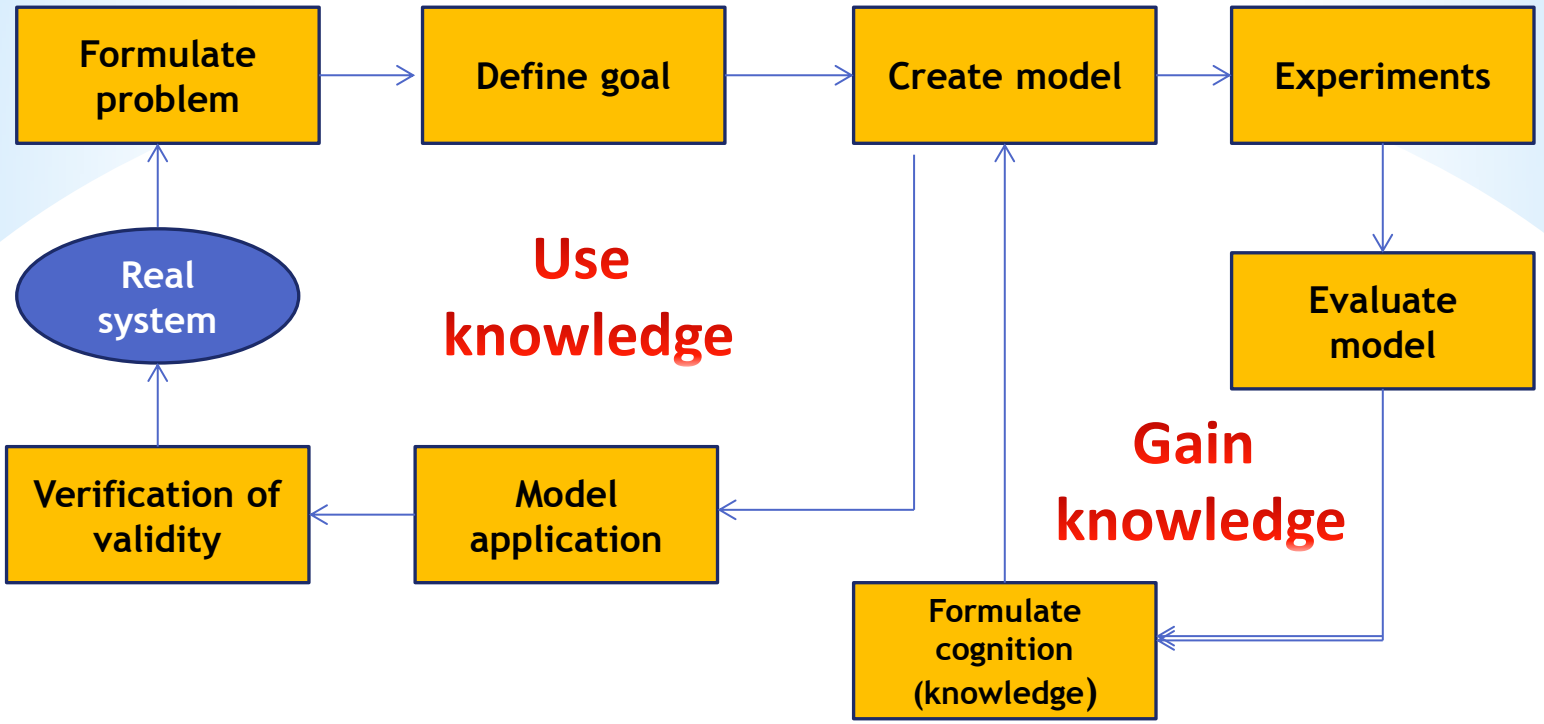
Staff training

- Study materials
- Key users – roles, processes
- Training :planning
- Examination
- Change management

Project Management I.

- Budget (financial and resource capacities)
- Data transfers (old sysetm- >new system)
- Setup of the ERP system (MS Dynamics NAV)
- Tests
- Evaluation od customized solution
- Change management
- Sharp start
- Closing project –evaluation

Steps in the model based problems solving process



* Source : Nyhuis,Wiendahl, Fundamentals of Production Logistics na Warehouse management

Implementation

- Data transfer
- Setup of the system
- Role Tailored Clients- profiles, Approvals
- Tests
- Evaluation
- Change management
- Sharp start (Namibia and SA)
- Closing project
- Next stages

THIS IS
THE END