* Tasks, problems and real South African project

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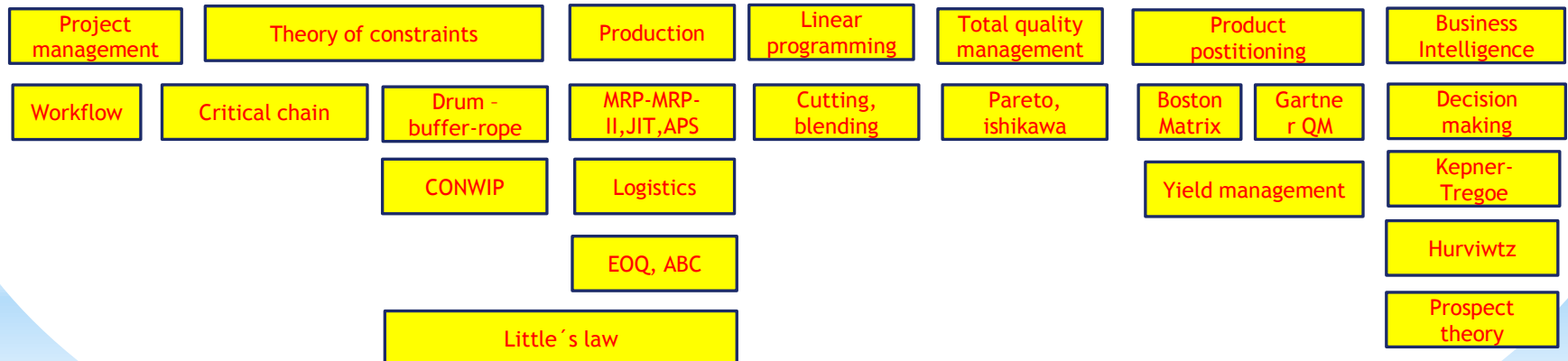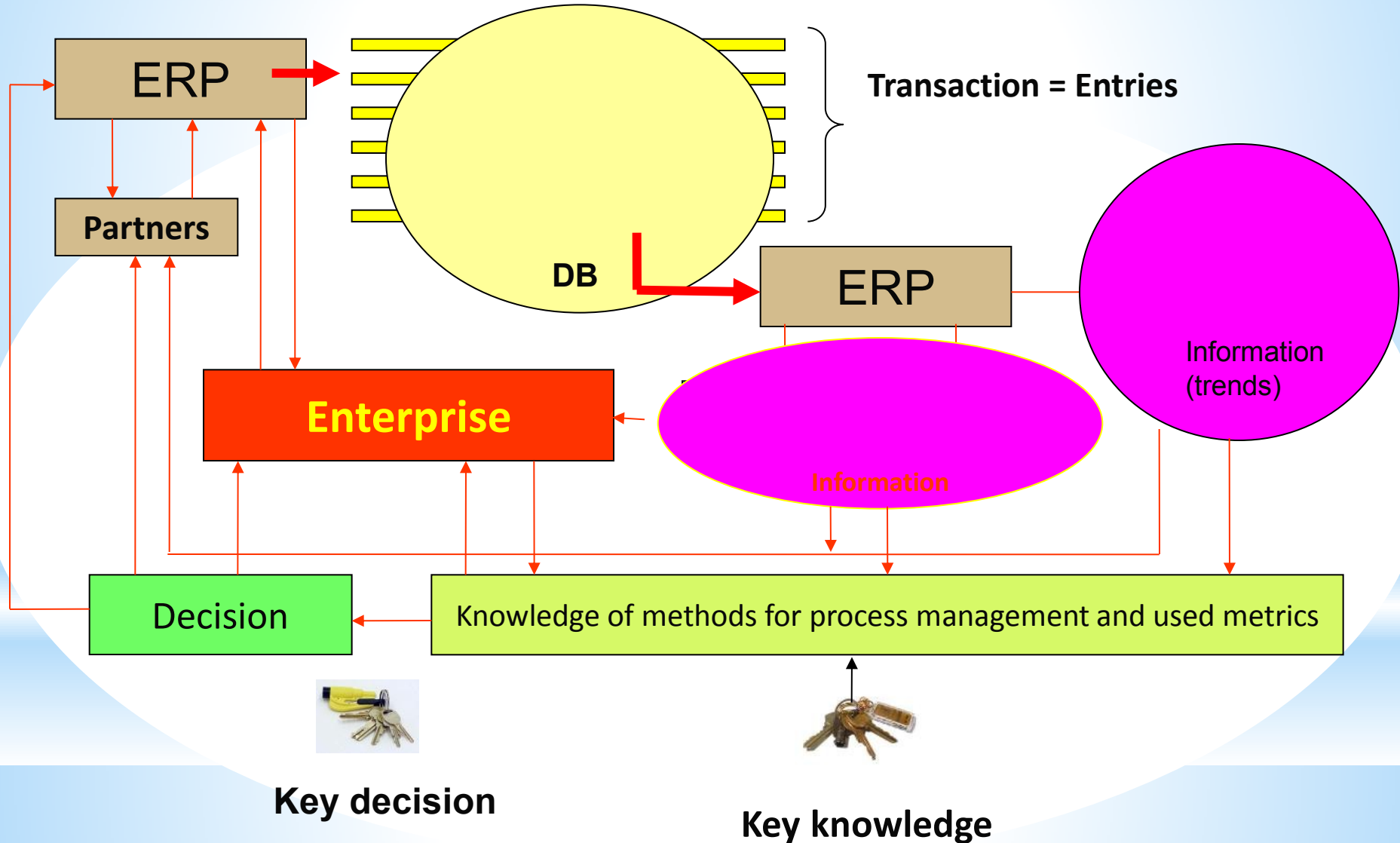# * Methods (not sorted so far – was already presented in OM Introduction show)

* **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**
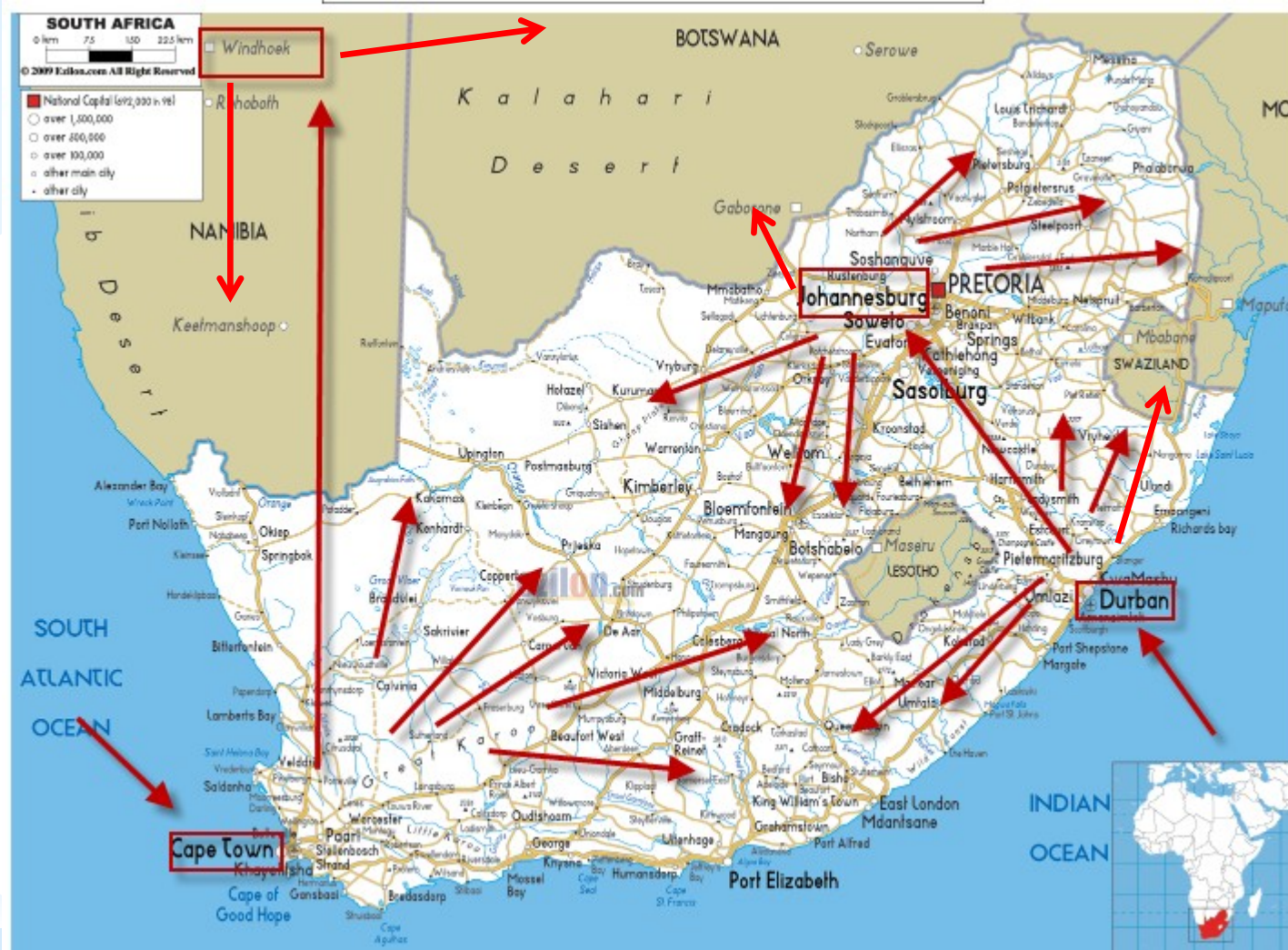* And many, many more…..

Methods marked by red colour were used

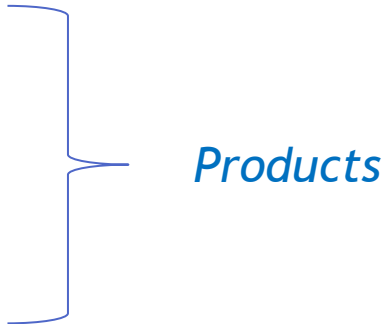# BS and OM – slide from Balanced Scorecard show (**will be presented again in BS context**)

Finances – how should we look to our shareholders ?

Processes – at which business processes must we excel ?

Customers – how should we look to our customer ?

Learning and Growing – how will we sustain our ability to change and improve ?

Project management	Theory of constraints		Production	Linear programming	Total quality management	Product postitioning		Business Intelligence
Workflow	Critical chain	Drum – buffer-rope	MRP-MRP-II,JIT,APS	Cutting, blending	Pareto, ishikawa	Boston Matrix	Gartner QM	Decision making
		CONWIP	Logistics			Yield management		Kepner-Tregoe
			EOQ, ABC					Hurviwtz
		Little´s law						Prospect theory

* Simplified diagram of ERP usage

ERP

Transaction = Entries

DB

ERP

Partners

Information (trends)

Enterprise

Information

Decision

Knowledge of methods for process management and used metrics

Key decision

Key knowledge

*Wholesale-paper-warehouse management-ERP

Basic business specification

* 100 000 Tones per Year
* *Carbonless papers*
* *Cast coated papers and Board*
* *Coated papers*   *Products*
* *House brands*
* *Office papers*
* 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,Scan guns,..)

  * 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 ✳

Management

Marketing

Warehouse
(pickers and pullers)

Customer support

Reporting

One Company Database

Internal Sales
(*paper shop*)

Accounting

Customers
Credit limits, rebates, consignment stock

Shareholders

Sales Representatives

Purchase-Vendors
FEC, transport,..
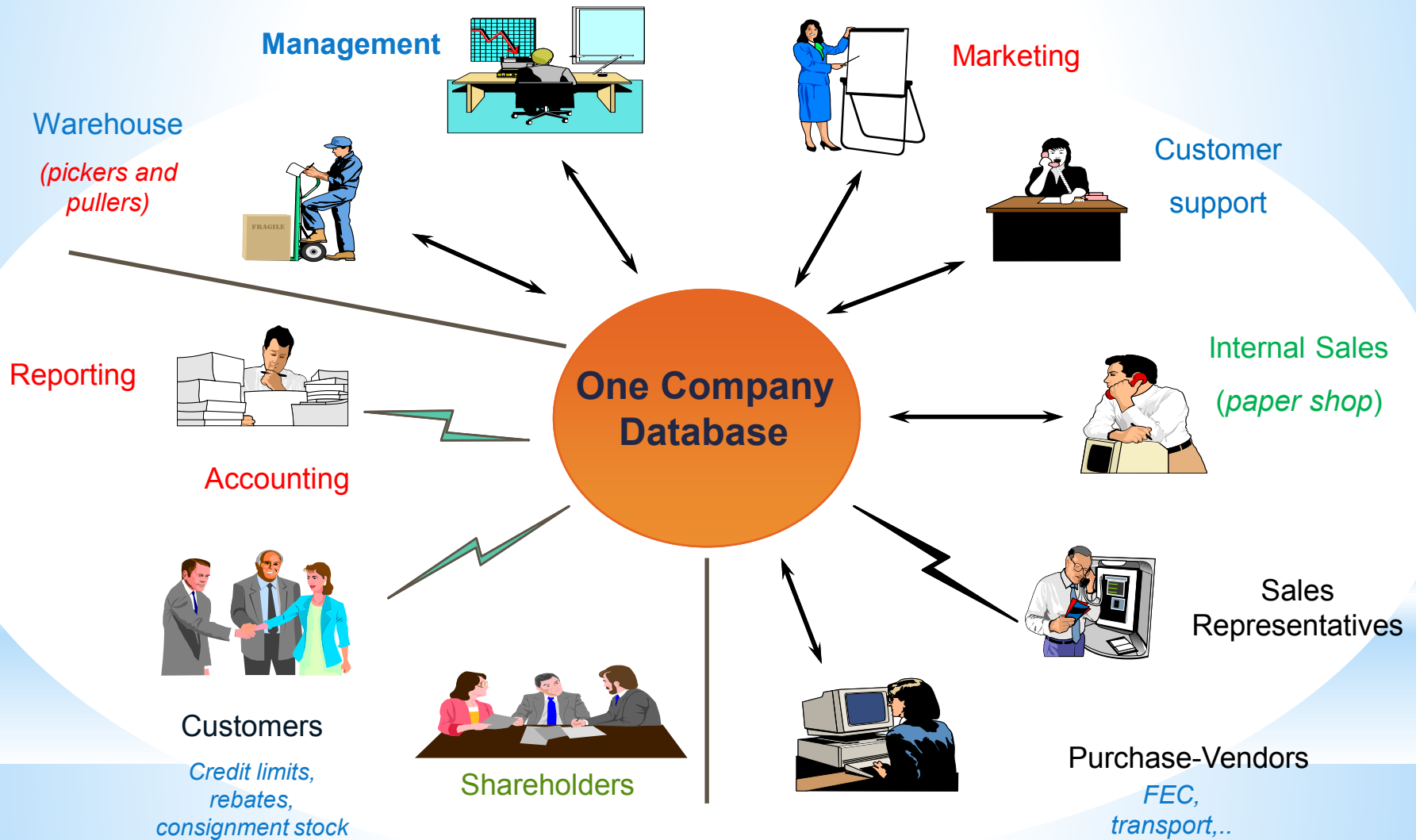
Communications limits (band width, stable connection…)

African Undersea Cables (2015)
http://manypossibilities.net/african-undersea-cables
Version 37
Mar 2014
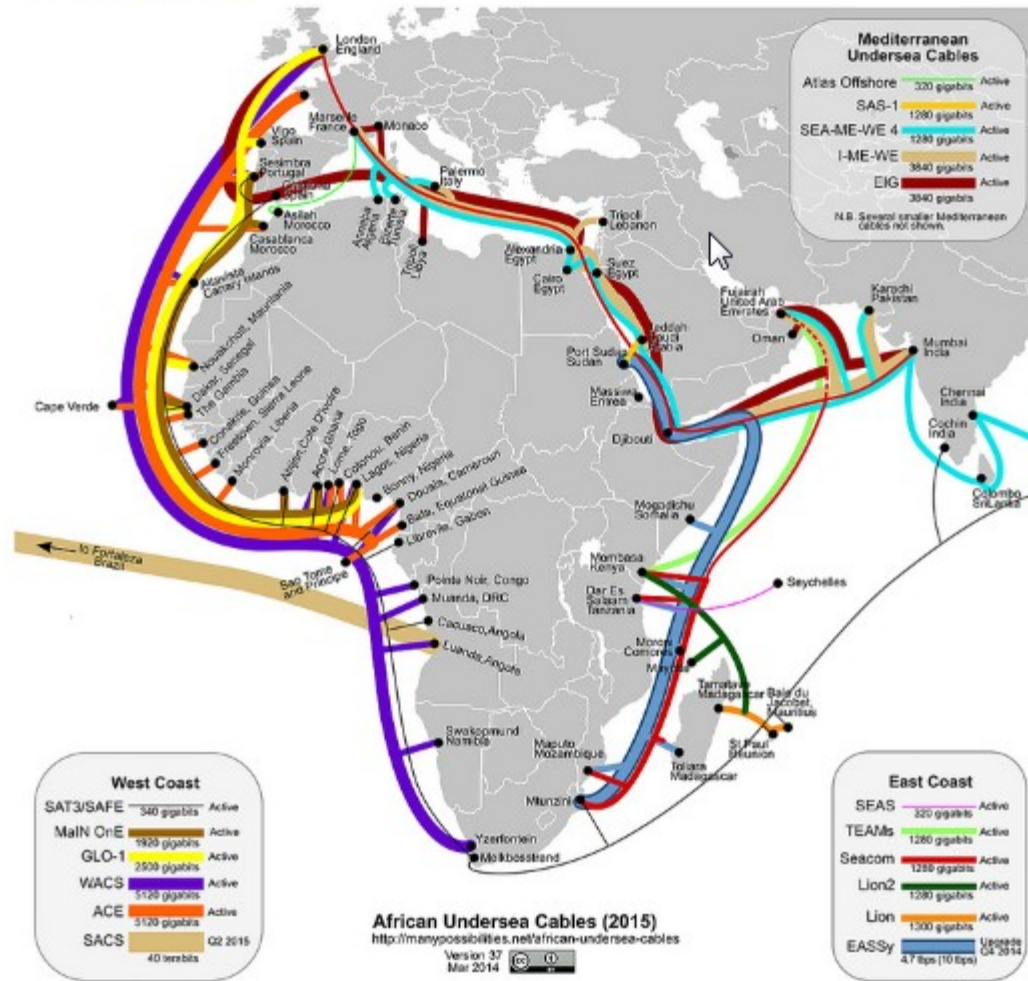
Efficient warehousing -(only a few examples)

* 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,….
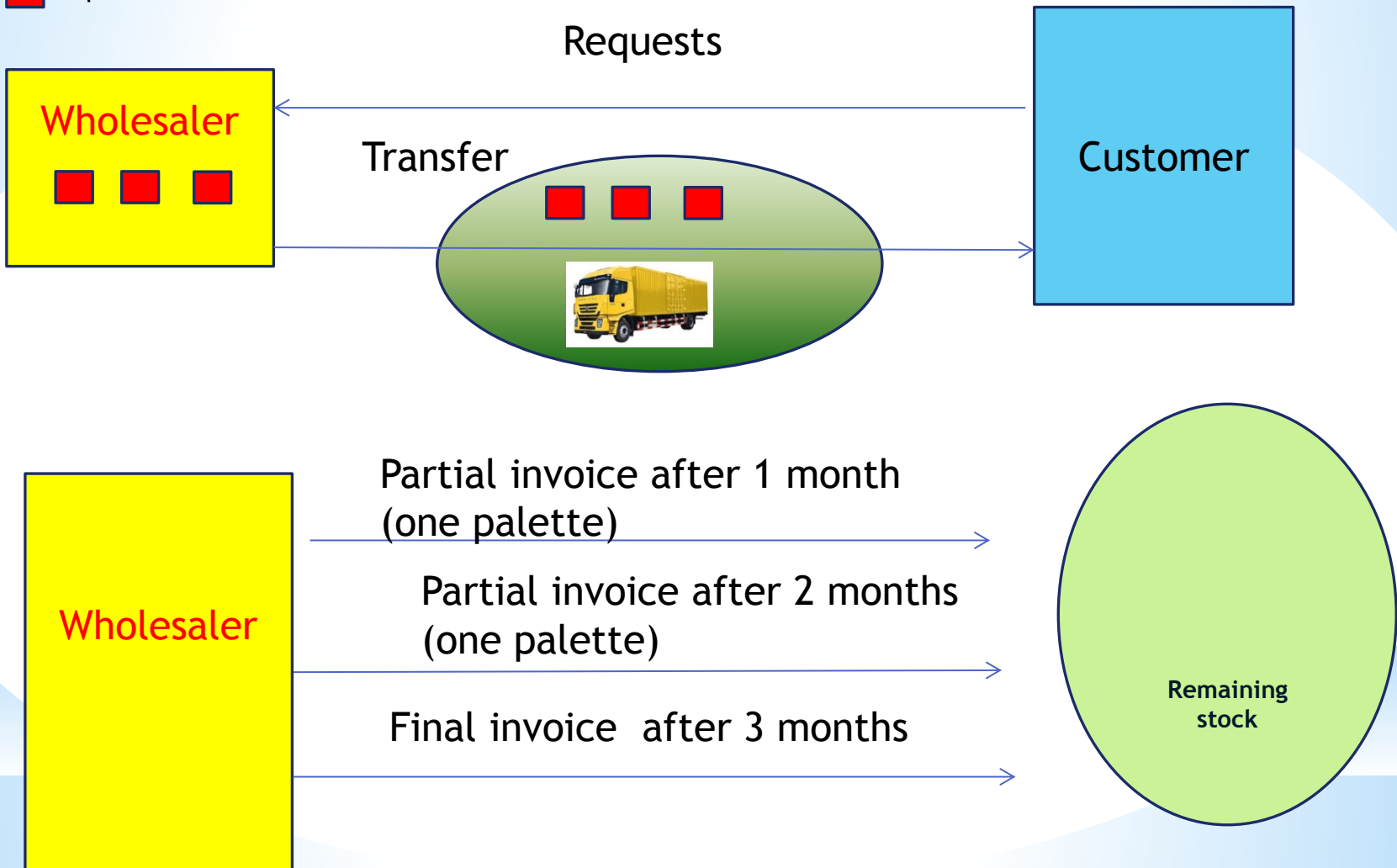* Claim management

*Warehousing
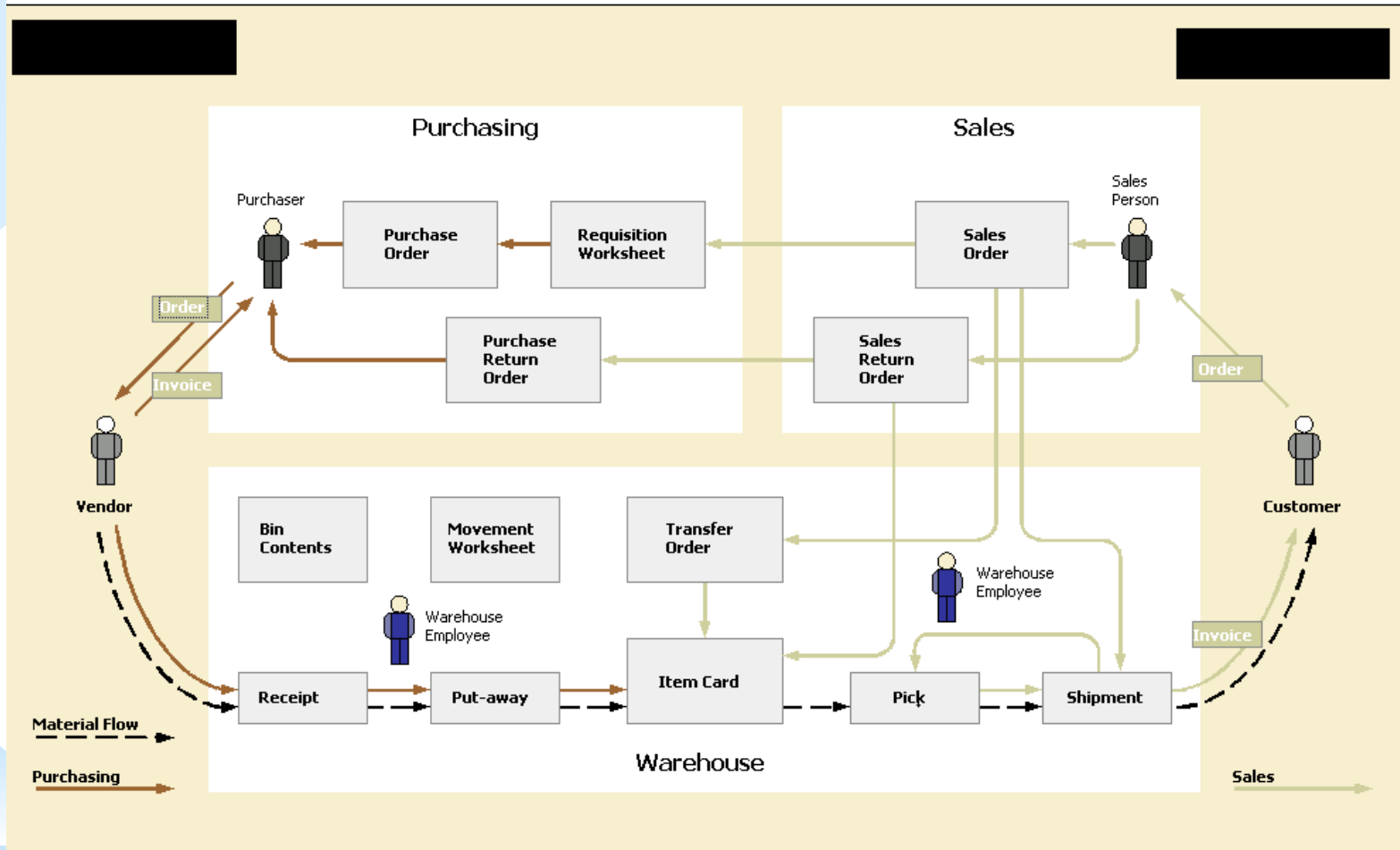
*Warehousing
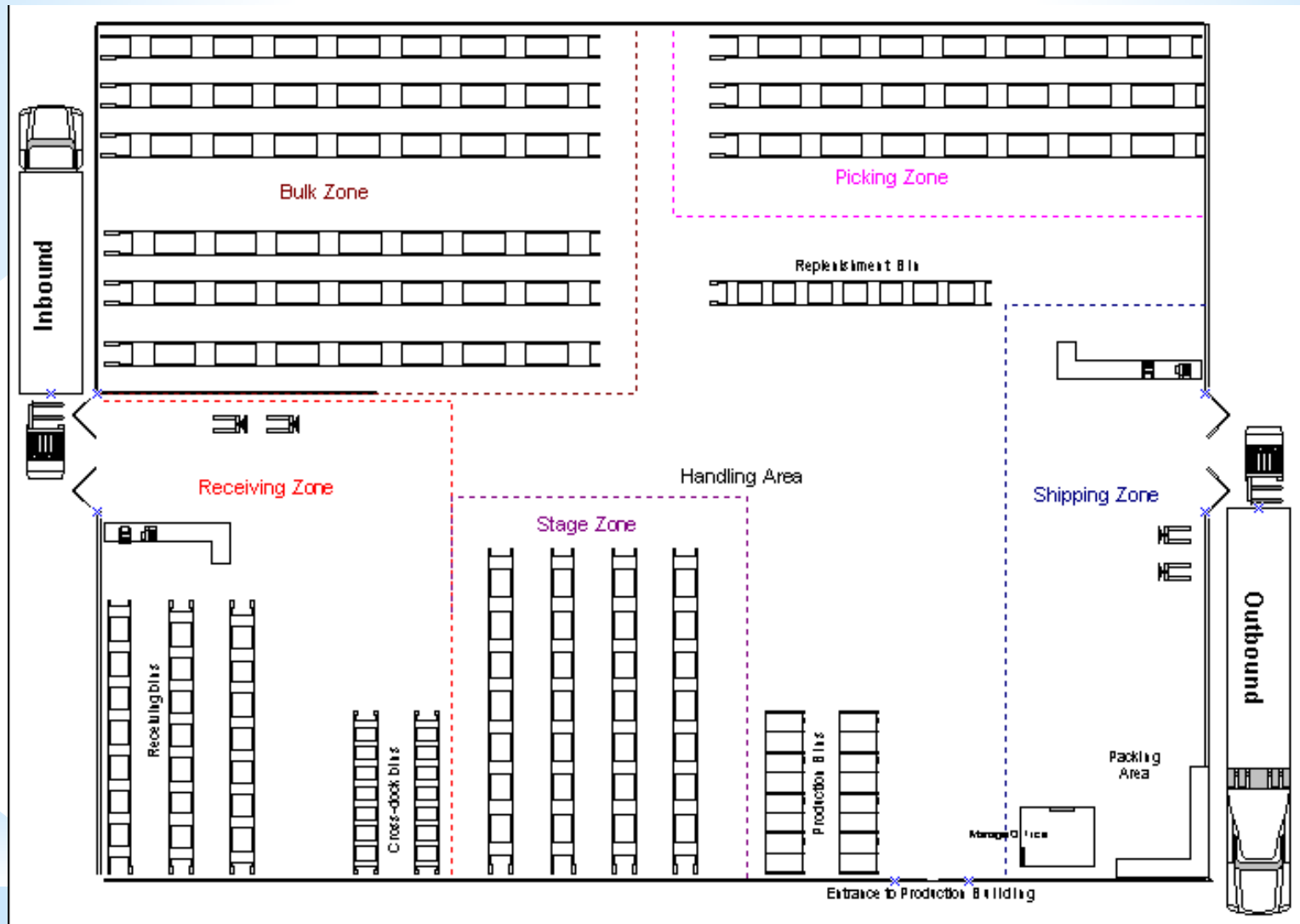
*Project management

*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)

■ = palette

Requests

Wholesaler ■ ■ ■

Transfer

Customer

Partial invoice after 1 month (one palette)

Partial invoice after 2 months (one palette)
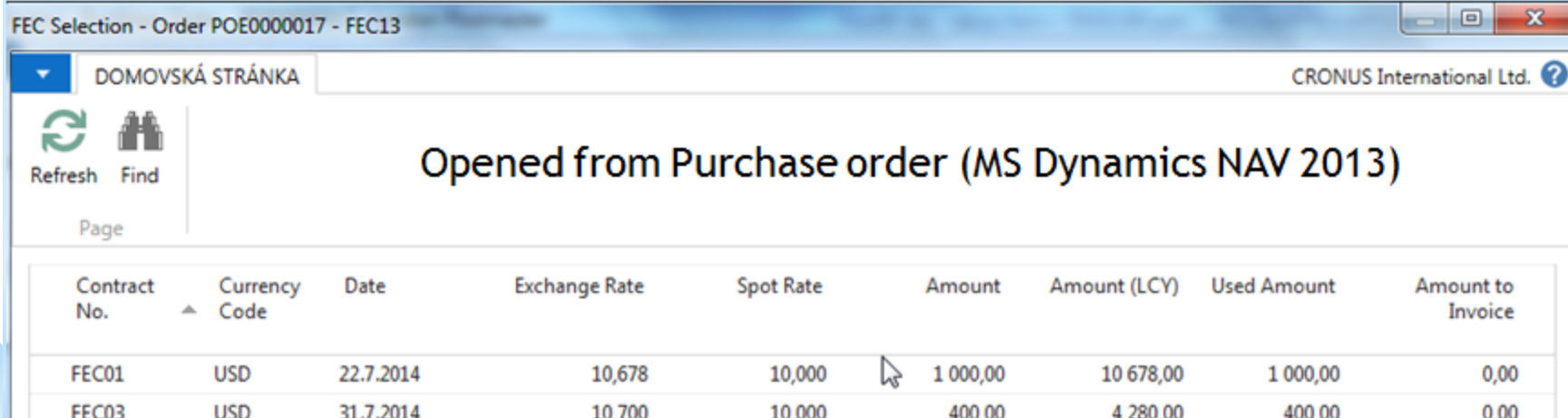
Wholesaler

Final invoice after 3 months

Remaining stock

*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.

FEC Selection - Order POE0000017 - FEC13

DOMOVSKÁ STRÁNKA — CRONUS International Ltd.

Refresh Find

Page

Opened from Purchase order (MS Dynamics NAV 2013)

| 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
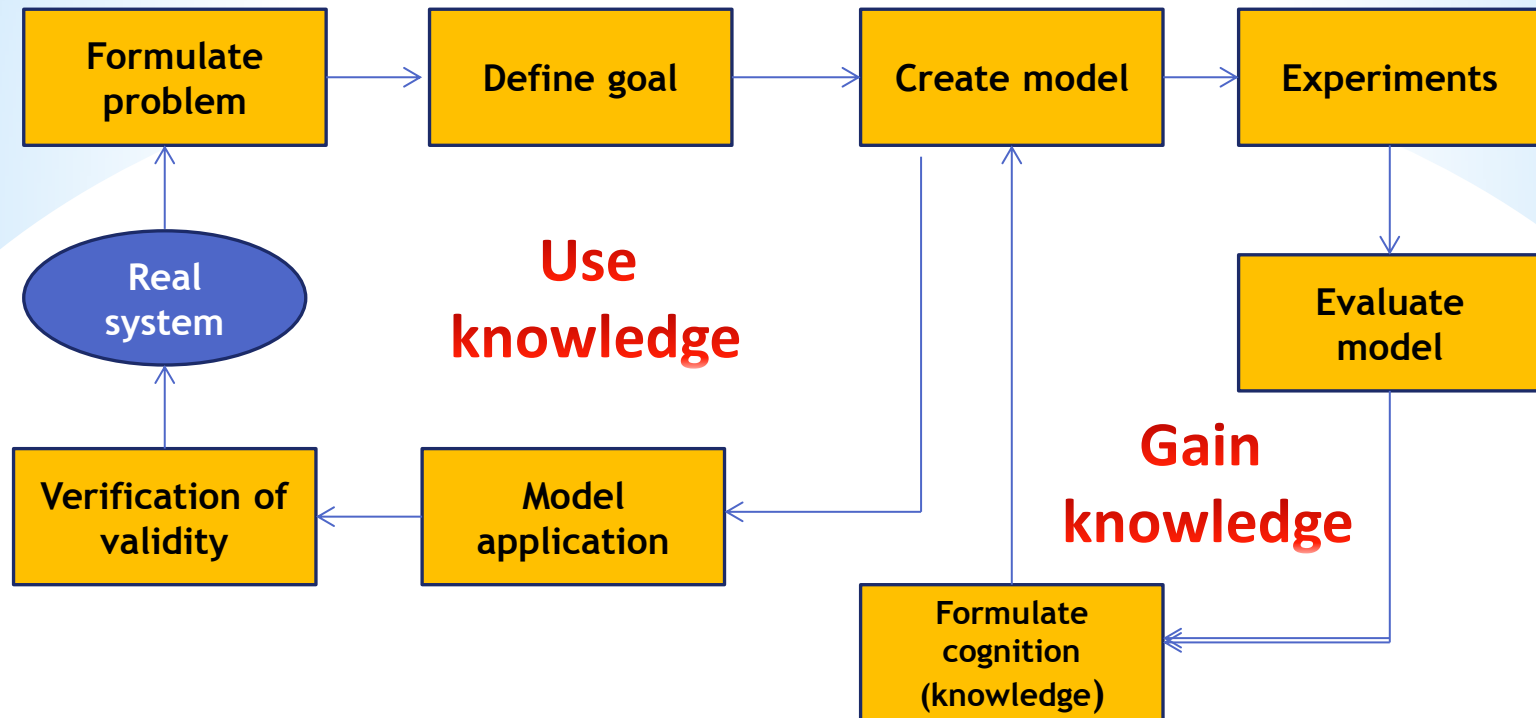
*Implementation

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