



Pains and benefits

Miki Skorkovský, PhD. for Department of Business
Economics ESF MU

Reasons for purchasing (buying)

- Pain
- Pain and vision distinction (difference)
- Searching for the pains depends on :
 - market segment
 - size of the company
 - ownership
 - position in SCM
 - position of the person

Reasons for purchasing (buying)

- real pain
 - a real pain (lack, deficiency, shortage), which are wittingly admitted by the customer

Examples : high value of the stock(inventory), due date performance is low, laborious and not exact calculation of production cost...



Reasons for purchasing (buying)

- vision

- particular (tangible) idea of the pain killer

Example : use of a good algorithm for replenishment planning replenishment ...



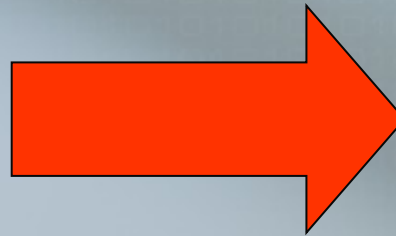
Type	No.	Action Message	Accept Action M...	Replenish... System	Description	Location Code	Original Quantity	Quantity	Unit of Measure
Item	80214	Change ...	✓	Purchase	250MB Disks/2pack	BLUE	200	150	PCS
Item	80214	New	✓	Purchase	250MB Disks/2pack	BLUE		100	PCS
Item	80217	New	✓	Purchase	Power Supply Cable			30 000	PCS
▶ Item	80217	New	✓	Purchase	Power Supply Cable			70 000	PCS

Creation of the pain chain

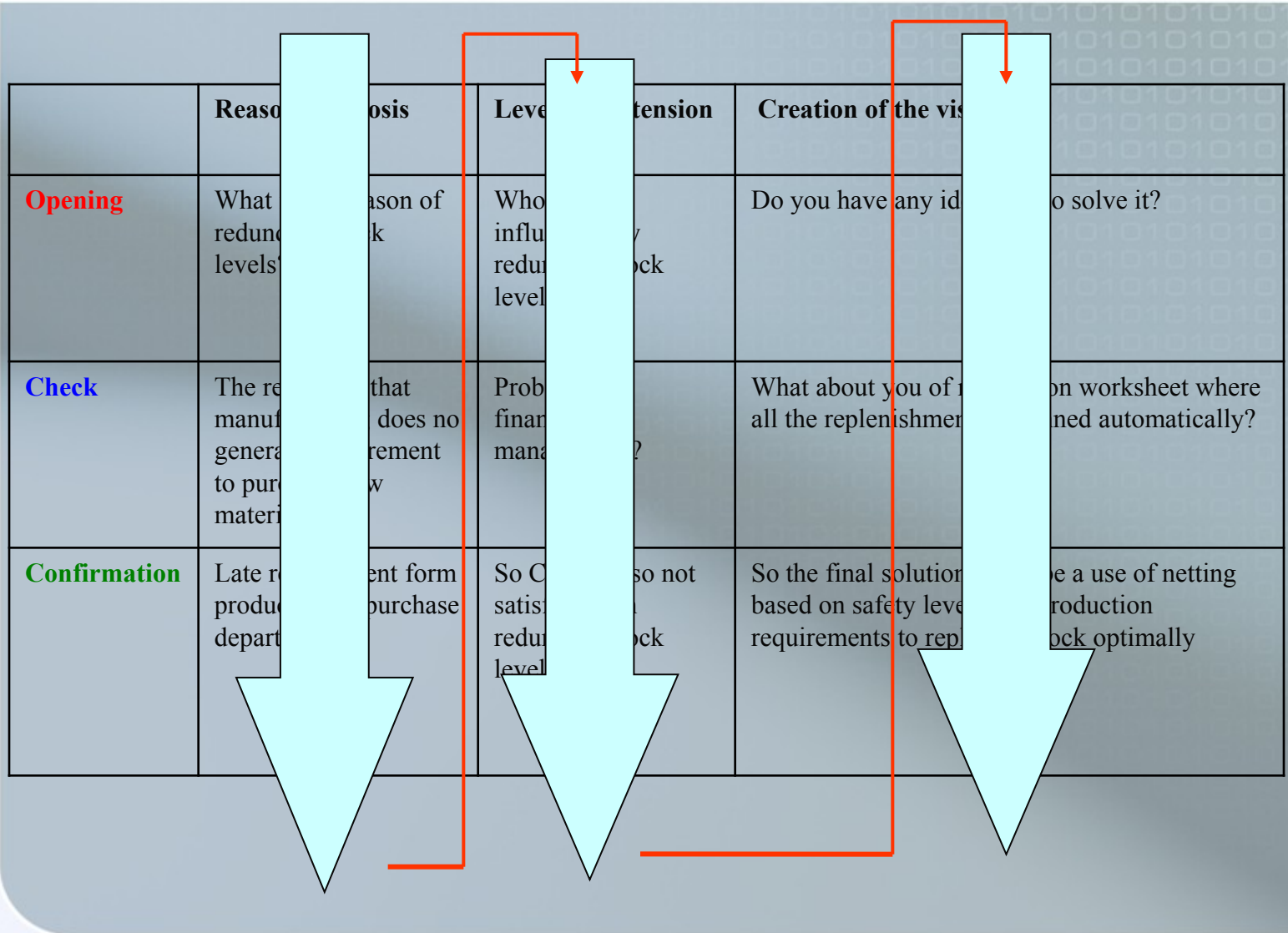
- **General pain** : difficult analysis reports from existing data
- **CEO view** : owners push me hard every week to supply results !!!!!
- **Inventory manager** : I cannot optimise manipulation movement !!!!! **Do it immediately !!!!!**
- **IT manager** : to get right data in right time I must transfer and modified a lot heterogeneous data in takes time and I am overloaded

Reasons for purchasing (buying)

- what is the reason for the change (buying) ?
- what do you expect for the new solution ?
- reason for investment to the solution ?
- what do you think will be improved the most ?



Creation of the vision



Pains in the information processing

- All what any competitors is doing could be easily copied anywhere all over the world
- You cannot duplicate culture (organization system, the way you manage people and relationship to information)
- The unique enterprise is specified first and foremost by access and links the people and information
- **Work on computer is not the same as a work with information !!**

Learning to think (Thinking, Fast and slow- Dan Kahneman)



- **Indian Institute of Technology (IIT)**
 - 300 000 people sit for entrance exams
 - 5 000 admitted (acceptance rate (AR) of 1,7 % compared to Harvard, Yale and Princeton, where they have AR 9-10 %)
- **IIT has**
 - mediocre (ordinary) equipment
 - indifferent teachers
 - unimaginative class work
 - the quality of education remains **extremely poor** and many students leave the country to get trained abroad
- India - PhD. in Computer Science per year : 35 – 50
- USA - PhD. in Computer Science per Year : 1000

Resource: Fared Zakaria (The Post American Word)

- <http://www.youtube.com/watch?v=qzJxAmJmj8w> – D.K. lesson fro Zurich (2013)

Pains in the information processing

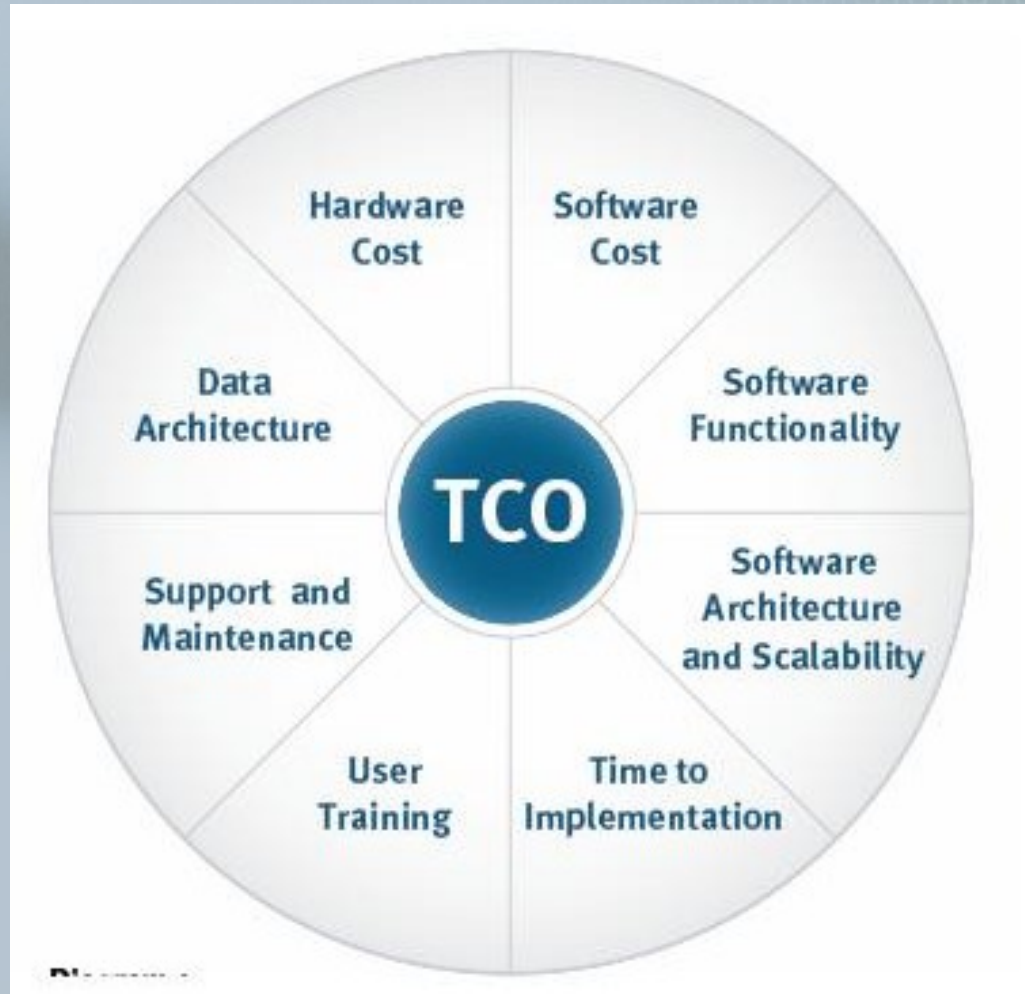
- manual /batch processing
- **BAR code reader**
- heterogeneous databases
- **Homogeneous databases, XML ports,...**
- uncertain information
- **on-line data processing, automatic data integrity checking**
- errors
- **Total quality management (to avoid errors in the future)**

Pains in the information processing

- shaky system
- Transaction processing , stable DB , automatic backups
- difficult implementation of add-ons, customization and upgrades
- Tools for upgrade top object oriented development tools
- complicated way of system usage
- Standard commands for every application –unique user environment
- too much IT managers
- Modern ERP requires less of standard IT guys and more IT guys understanding methods used to control enterprise processes
- High price/ low system performance
- Long term TCO (Total Cost of Ownership)
-



TCO



Pains in the financial management (accountancy)



- late access to information, difficulties in finding the reason why any entry (transaction) was created
- Navigation functions, workflow, dimension, Business Analytics, ...
- comparing actual and expected is a foolish dream only
- Budget functionality, On-line data....
- difficulties in of applying (invoices<->payments)
- Functionality allowing manual or automatic apply using unique entry numbers and possibility easily un-apply recently wrongly applied entries



Pains in the financial management (accountancy)



- difficult analysis of the customer or vendor balances
- **Flow field (calculated fields)**
- unconvincing repairs of wrongly posted documents
- **Necessity to generate corrective documents**
- futile / doubled operations
- **Integrated database- every record is written only once**
- unequal load of the users during the period of one month
- **Continuous accounting** – decrease of number of the accountants and less stress during closing at the end of every period



Pains in the CRM, workflow and financial management (accounting)

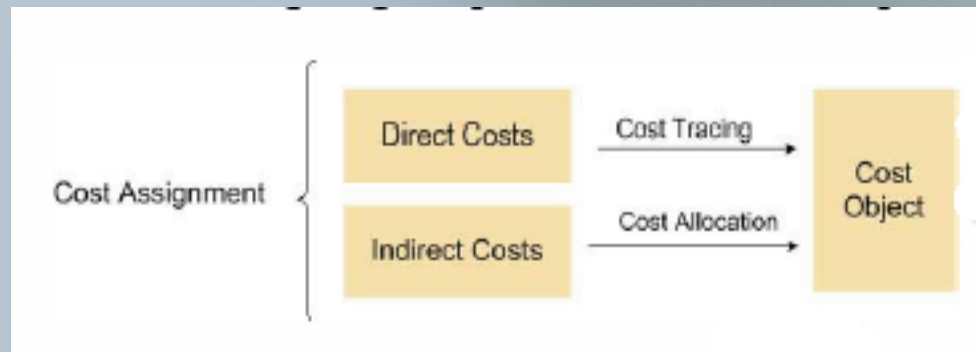


- out-of-date information
- CRM directly connected of Sales, Purchase and Inventory
- processes such as Sales, Inventory, Manufacturing, Purchase and Accounting are not connected
- All above mentioned processes are connected
- out – of - date or wrong information about customers
- Questioners – evaluation of their profiles, connected to Sales
- rigidity of sales processes
- Tracking of the business opportunities, tasks and activities and follow up procedures
- difficult substitutability of sales people
- Work flow and better and flexible access to the information
- Non-existent E-Shop
- Integration with Outlook, E-Shop application, B2B, B2C, document management

Pains in the manufacturing processes

- processes such as Sales - Inventory-Production- Accounting- Purchase are not connected internally
- **Function Order tracking and Dynamics action tracking – see later**
- lack of information about Work In Progress
- **Automatic posting of 2140 (121|611 in Czech legislation)**
- lack of actual cost information
- **Good calculation setup, tracking of indirect costs – see value entries**

See next slide



WIP



Posting Date	D...	Document...	G/L Accou...	Description	G...	G...	G...	Amount	B...
15.01.09		101006	2130	Direct Cost 1250 on 15.01.09				-0,35	G...
15.01.09		101006	2140	Direct Cost 1250 on 15.01.09				0,35	G...
15.01.09		101006	2130	Direct Cost 1250 on 15.01.09				-0,95	G...
15.01.09		101006	2140	Direct Cost 1250 on 15.01.09				0,95	G...
15.01.09		101006	2140	Direct Cost 1250 on 15.01.09				36,00	G...
15.01.09		101006	7791	Direct Cost 1250 on 15.01.09				-36,00	G...

No.	Name	I...	A...	Totaling	G...	G...	G...	Net Change	Balance
2140	WIP Account, Finished goods	B...	P...					37,30	37,30

Pains in the manufacturing processes

- useless manual work spent to issue documents
- Automatic Data Capture, XML data ports, PDA, touch screens
- difficult planning/ changes in production
- **MPS (Master Production Schedule)**, MRP-II, JIT and direct link to sales and production orders for direct planning from sales orders (netting), manual MRP, automatic suggestion of replenishment and automatic issuing of purchase orders
- difficulties in subcontracting management
- Subcontracting worksheet in MS Dynamics
- constrained capacities of resources in production
- Graphical planning tools, TOC application

Touch Screen application

MSS

- Grid
- Production
- Lot
- Packaging
- Parameters
- Allocations
- Planning
- Measuring
- Work Teams
- Setup
- Mob Scanners
- TouchScreens
- TouchScreen Manufacturing

User ID: **Annette Hill**

Actions

- Run this... **Login to machine.**
- Run this... **Logout from machine**
- Run this... **Start setup**
- Run this... **End setup**
- Run this... **Start processing**
- Run this... **End processing**
- Run this... **Post Output.**
- Run this... **Post RTS**
- Run this... **Measures and Checks**
- Run this... **Delay**

Action data

120 Bryan Walton

No.	Name
▶	120 Bryan Walton
	130 Linda Mitchell
	210 Packing table 1
	220 Packing table 2
	230 Packing Machine
	310 Painting Cabin

Show Doc

Info text

Logout **Annette Hill** **Process**

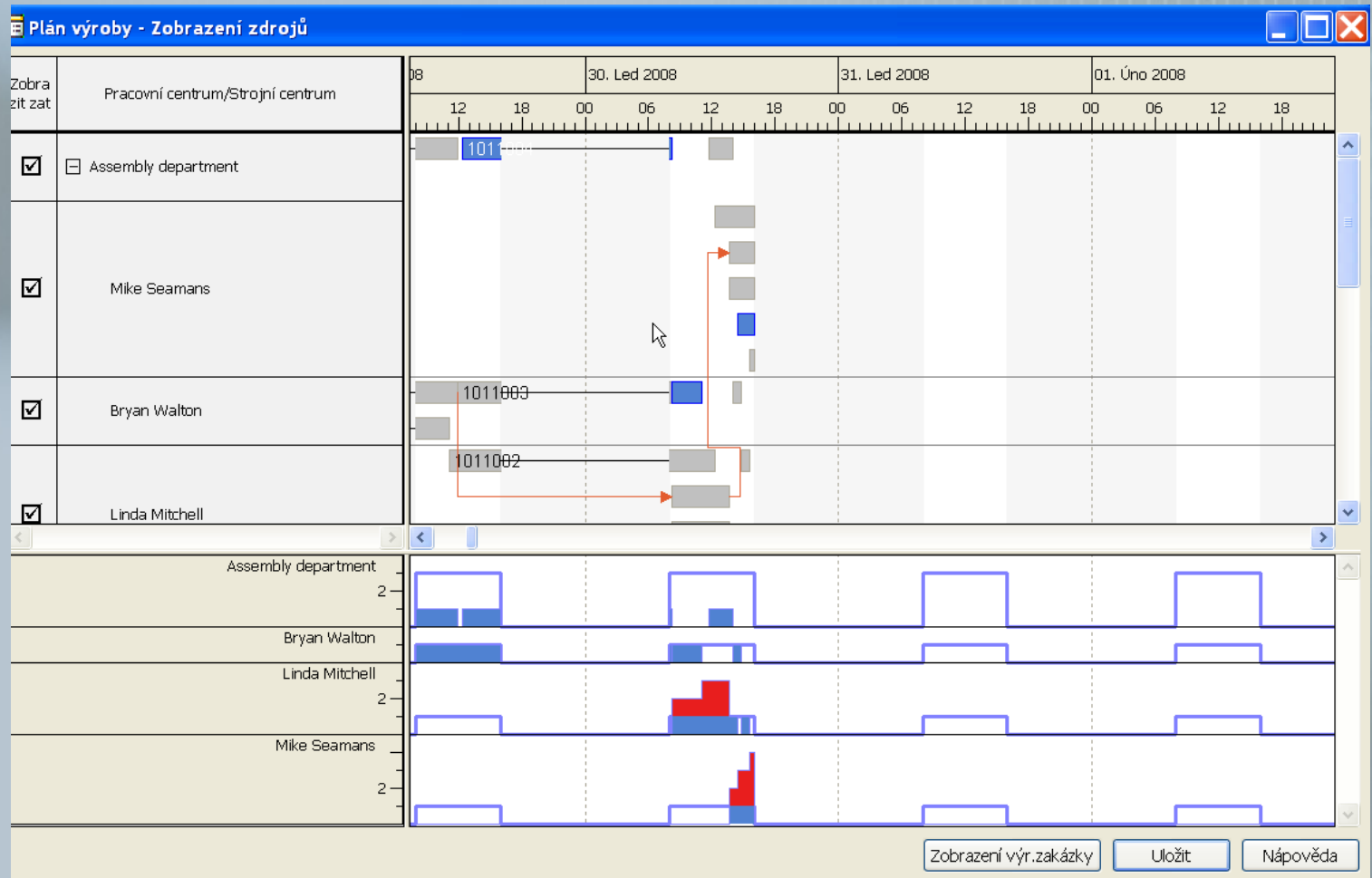
Master Production Schedule

General										
Filters					Options					
Item Budget Name	BUDGET 08				↑	Date Filter	[]			
Show as Lines	Item				↑	Customer Filter	[]			↑
Show as Columns.	Period				↑	Item Filter	[]			↑
	Show Value as					Sales Amount				▼

Code	Name	Budgeted ...	Budgeted Sale...	01.01.09	01.02.09	01.03.09	01.04.09	01.05.09
1000	Bicycle	0	90,00	10,00	20,00	30,00	30,00	
1001	Touring Bicycle	0	130,00	20,00	30,00	30,00	50,00	
▶ 1100	Front Wheel	0	440,00	60,00	100,00	120,00	160,00	
▶▶▶ 1110	Spoke	0	880,00	120,00	200,00	240,00	320,00	



Graphical planning



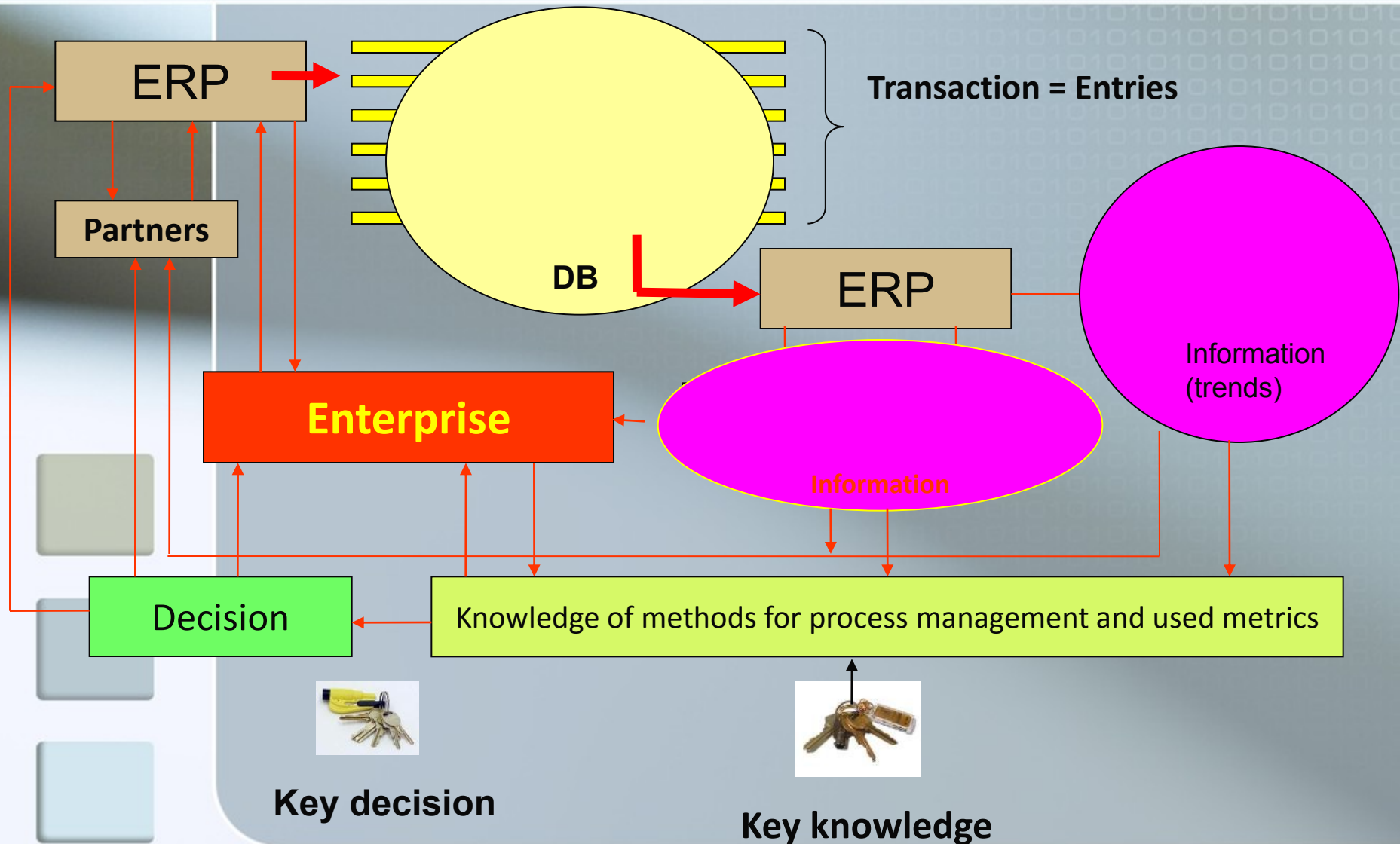
Pains in purchasing and inventory

- Processes such as Purchase-Inventory-Production-Accounting are not connected internally
- **Dynamic tracking**
- A huge volume of stock (value , quantity)
- **Use of appropriate reordering policies, properly setup of safety stock, netting, prognosis (forecasts)**
- Purchase is not flexible
- **EDI, automatic price generation, use of substitutions and cross references**
- Insufficient information about vendors
- **CRM**
- Futile purchases/payments
- **Workflow and operation approve, netting, use of modifiers on the Item card**
- Difficult stock (inventory) management in different places
- **Use of location, bins and responsibility centers**

Pains in Inventory Management and Purchase

- Not even workload of purchasers
- CRM, activities, tasks, business opportunities, priorities
- E-Shop does not work or such a solution does not exist
- Biz Talk
- Difficulties in item tracking (lots, serial numbers, warranty expiration)
- Item tracking functionality of MS Dynamics
- Virtual stock (CD catalogues) does not exist
- Non-stock Items functionality

Simplified diagram of ERP usage



Others

- Change log
- Inter-company posting (More companies)
- Business Notification
- Menu modified by users e
- Responsibility centres
- User Portal – Internet / Intranet
- Commerce Portal – B2C
- Commerce Gateway – B2B
- OLAP + Business Analytics



Thanks a lot for your attention

Ing.Jaromir Skorkovský,CSc.; KPH ESF MU Brno Czech Republic