

# 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)

- dormant (latent) pain : it exists, but it is not presumed



A contemporary illustration of the meeting

'Dr. Livingstone, I presume?'

**Example :** collecting money late,  
paying to early ->crippled cash-flow

# 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 ...



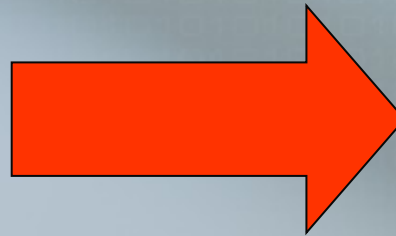
| Type   | No.   | Action Message | Accept Action M... | Replenish... System | Description        | Location Code      | Original Quantity | Quantity | Unit of Measure |
|--------|-------|----------------|--------------------|---------------------|--------------------|--------------------|-------------------|----------|-----------------|
| 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

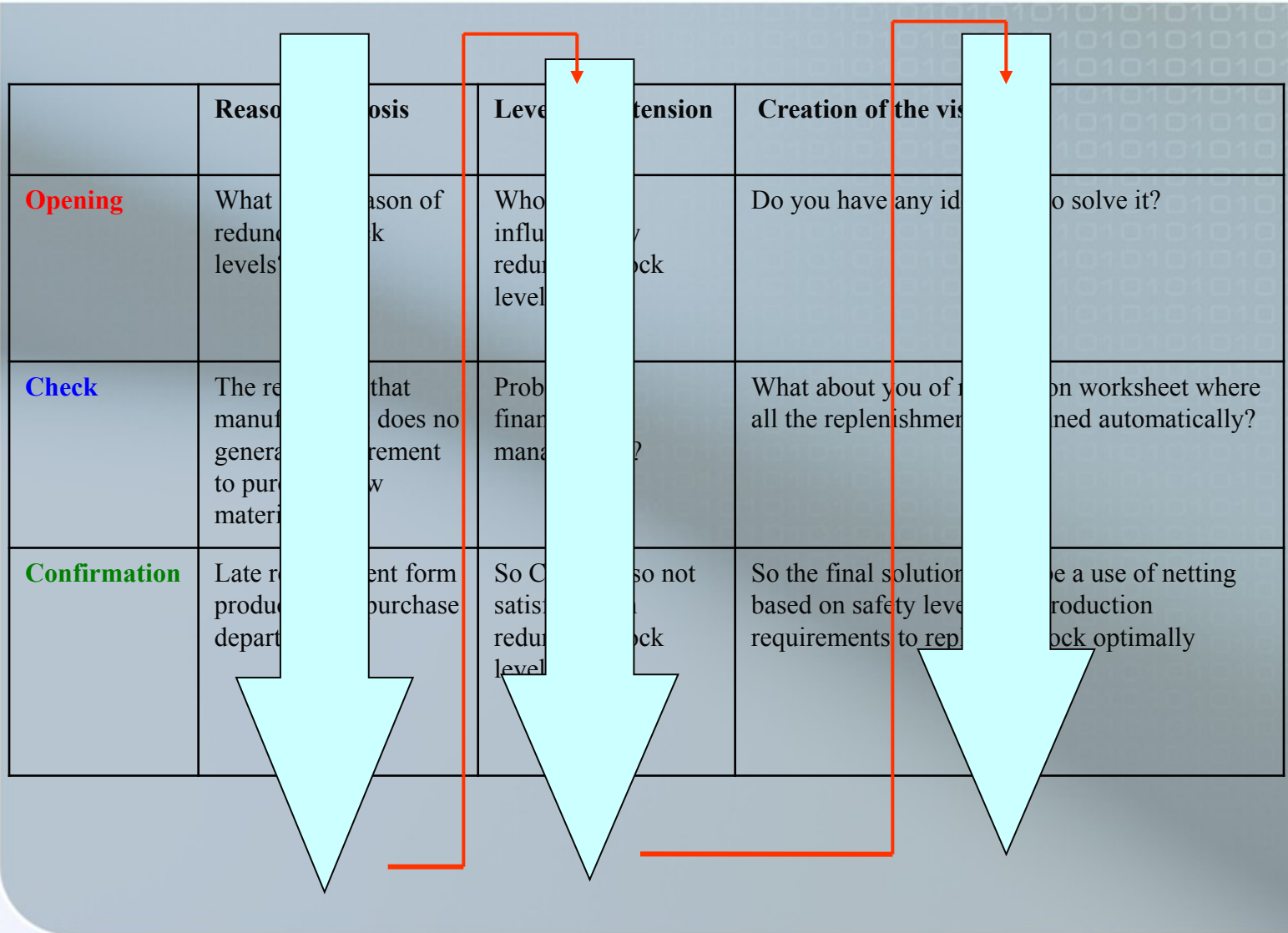
- **General pain** : difficult analysis reports from existing data
- **CEO view** : owners push me hard every week to supply results !!!!!
- **Inventory manager** : I cannot optimise manipulation movement !!!!! **Do it immediately !!!!!**
- **IT manager** : to get right data in right time I must transfer 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 (e.g. China)
- 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..



- **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)

# Pains in the information processing

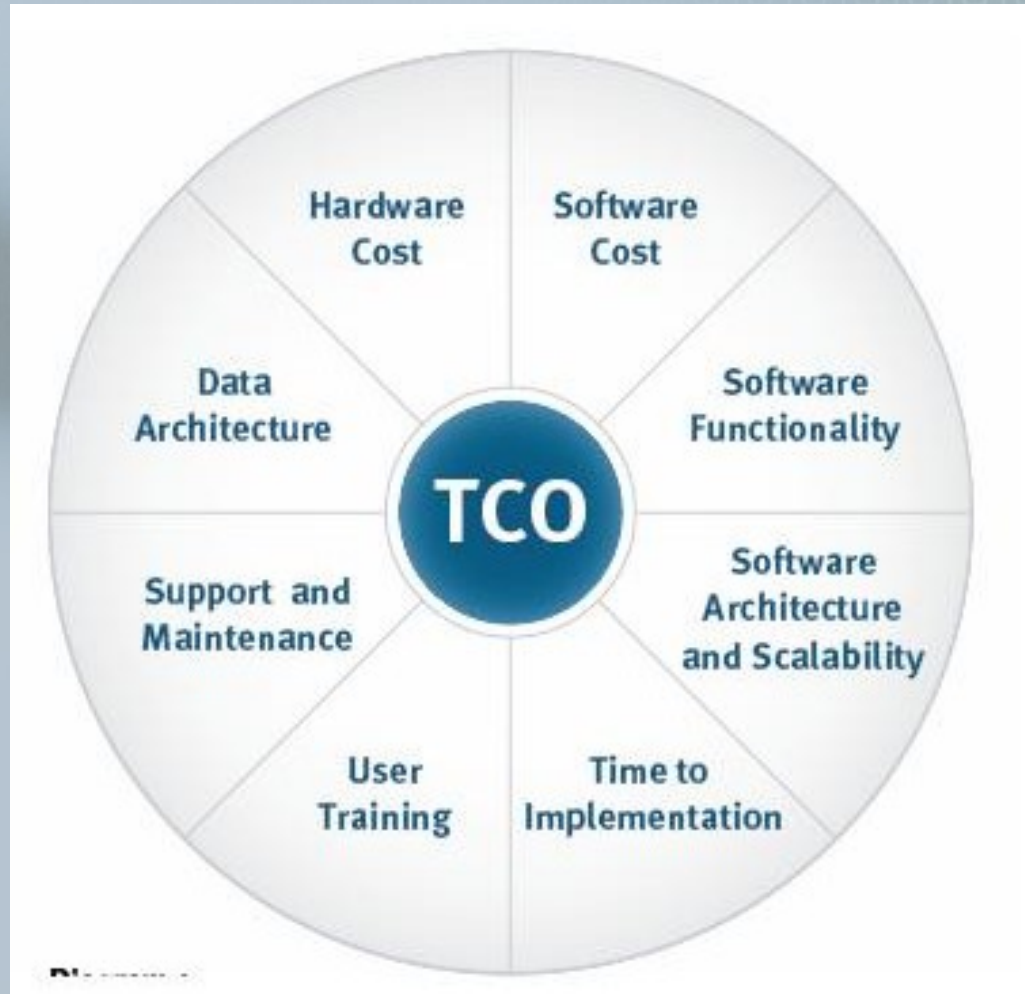
- manual /batch processing
- **BAR code reader**
- heterogeneous databases
- **Homogeneous databases, XML ports,...**
- uncertain information
- **on-line data processing, automatic data integrity checking**
- errors
- **Total quality management (to avoid errors in the future)**

# 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)



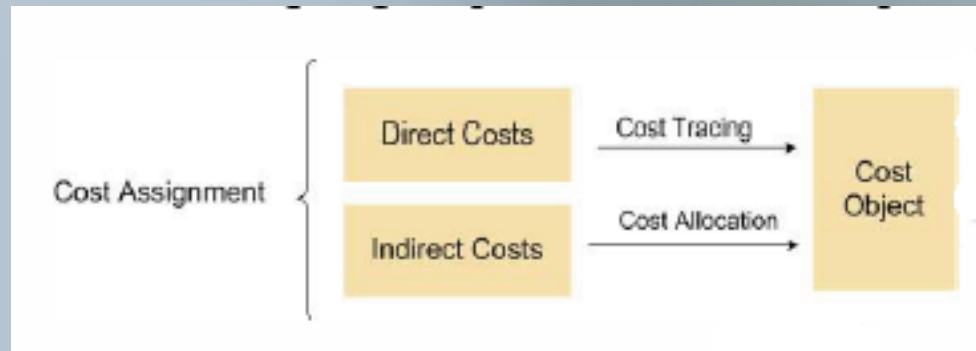
- out-of-date information
- CRM directly connected of Sales, Purchase and Inventory
- processes such as Sales, Inventory, Manufacturing, Purchase and Accounting are not connected
- All above mentioned processes are connected
- out – of - date or wrong information about customers
- Questioners – evaluation 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

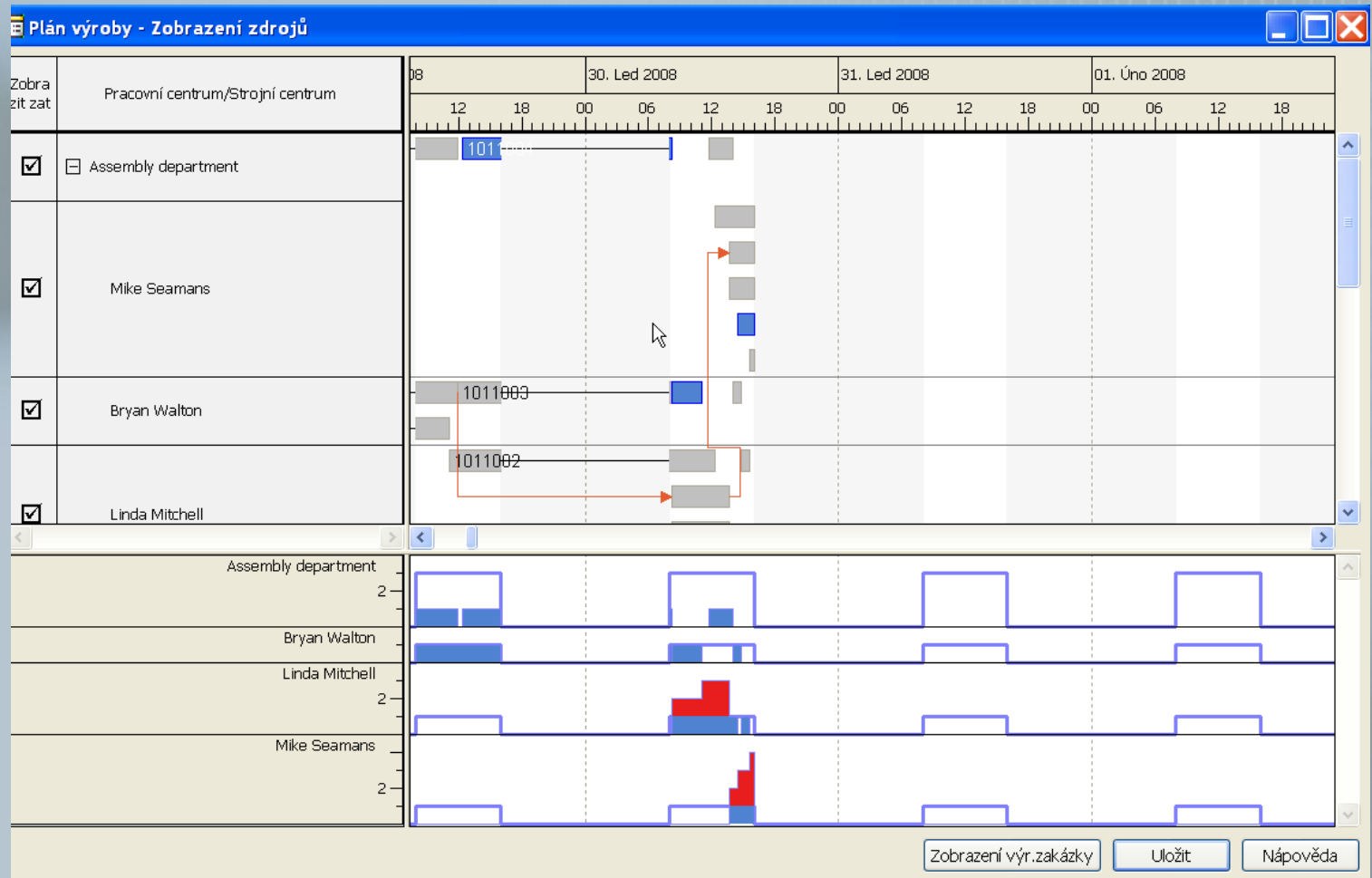
Info text

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

# Master Production Schedule

| Master Production Schedule |                 |              |                  |                           |          |              |          |          |          |
|----------------------------|-----------------|--------------|------------------|---------------------------|----------|--------------|----------|----------|----------|
| General                    |                 |              |                  |                           |          |              |          |          |          |
| 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 | 01.06.09 |
| 1000                       | Bicycle         | 0            | 90,00            | 10,00                     | 20,00    | 30,00        | 30,00    | 30,00    | 30,00    |
| 1001                       | Touring Bicycle | 0            | 130,00           | 20,00                     | 30,00    | 30,00        | 50,00    | 50,00    | 50,00    |
| 1100                       | Front Wheel     | 0            | 440,00           | 60,00                     | 100,00   | 120,00       | 160,00   | 160,00   | 160,00   |
| 1110                       | Rear Wheel      | 0            | 220,00           | 30,00                     | 50,00    | 60,00        | 80,00    | 80,00    | 80,00    |

# Graphical planning



# Pains in purchasing and inventory

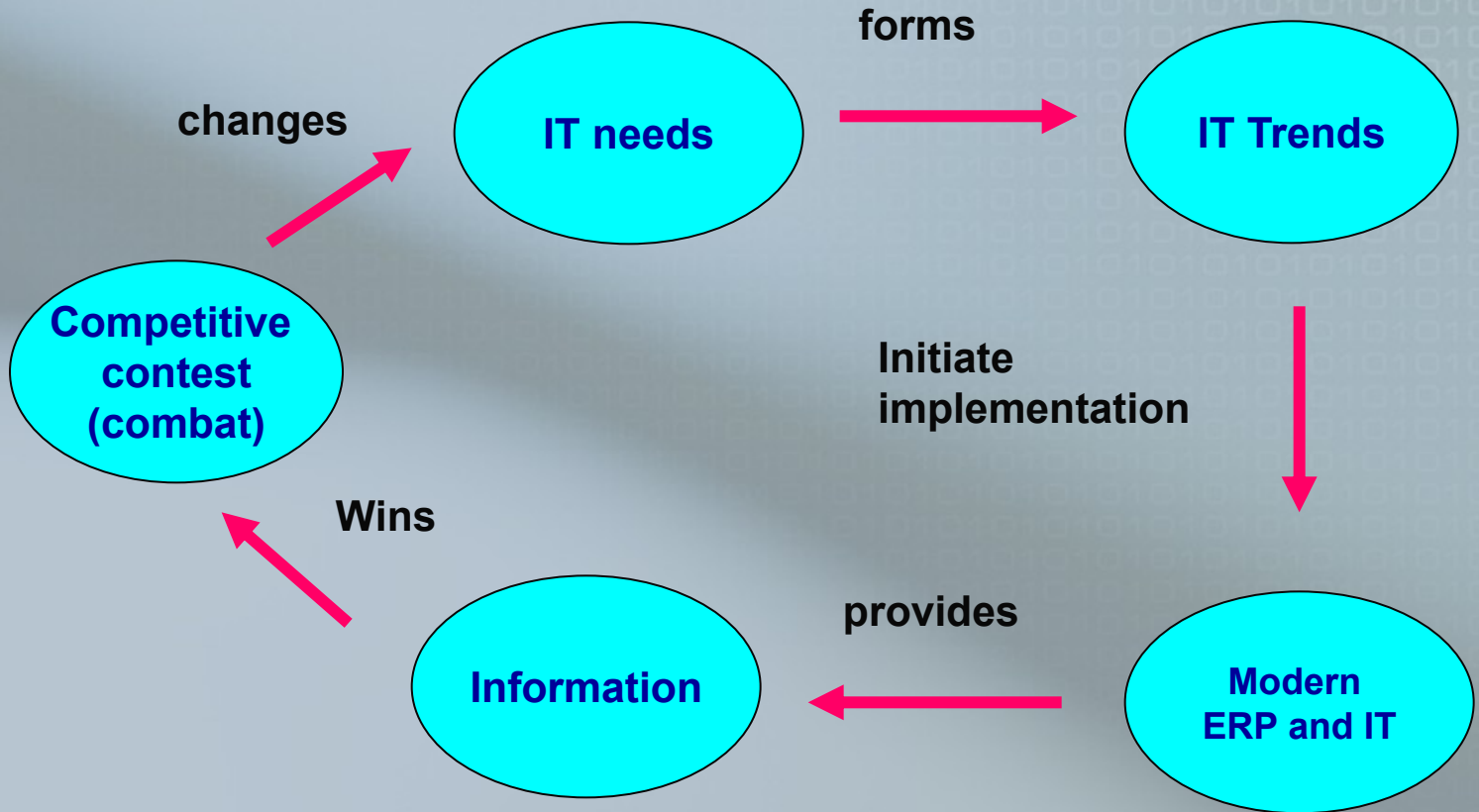
- Processes such as Purchase-Inventory-Production-Accounting are not connected internally
- **Dynamic tracking**
- A huge volume of stock (value , quantity)
- **Use of appropriate reordering policies, properly setup of safety stock, netting, prognosis (forecasts)**
- Purchase is not flexible
- **EDI, 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

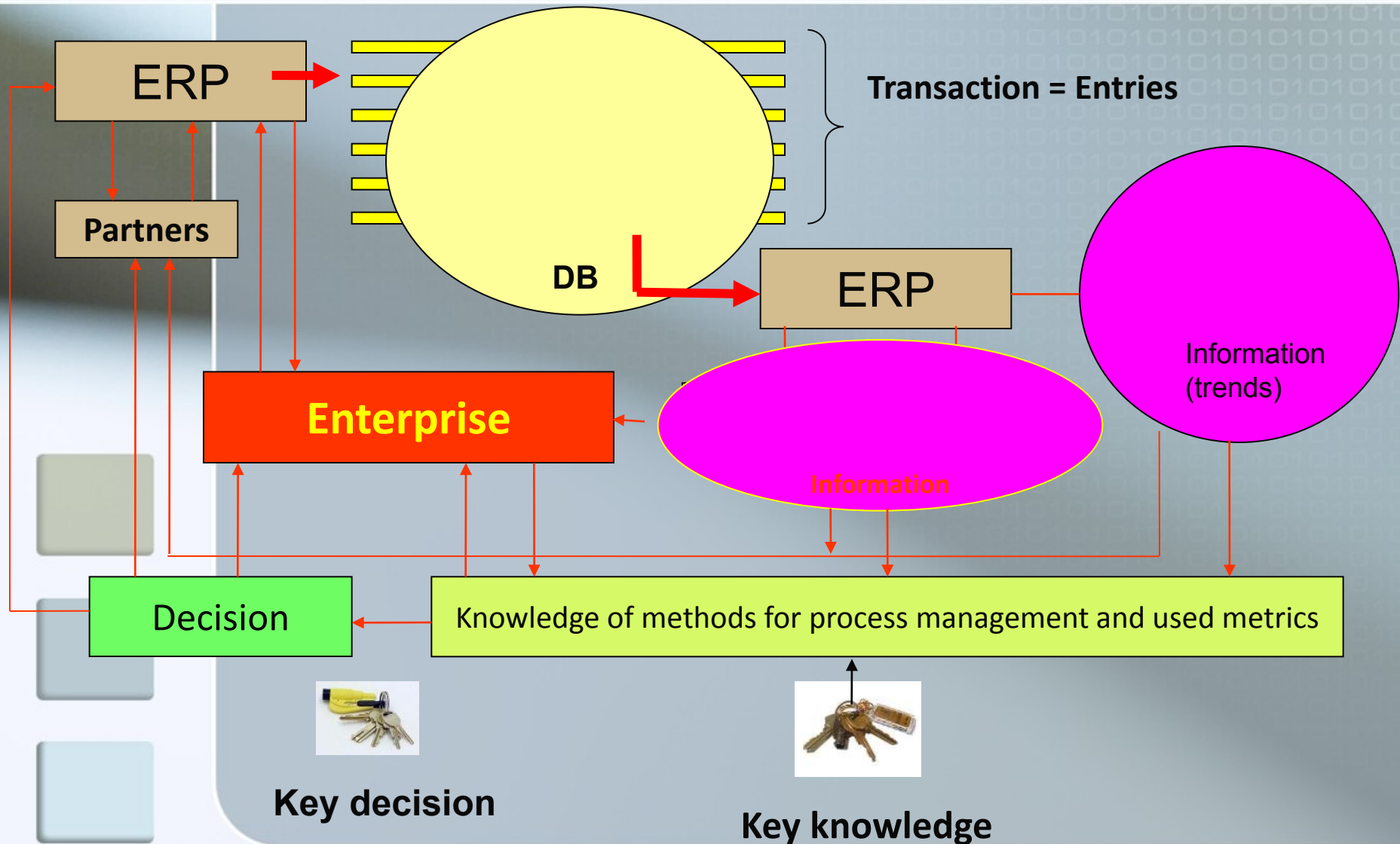
- Not even workload of purchasers
- CRM, activities, tasks, business opportunities, priorities
- E-Shop does not work or such a solution does not exist
- Biz Talk
- Difficulties in item tracking (lots, serial numbers, warranty expiration)
- Item tracking functionality of MS Dynamics
- Virtual stock (CD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



# Implementation cycle



# 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