

## **ERP Project Activities**

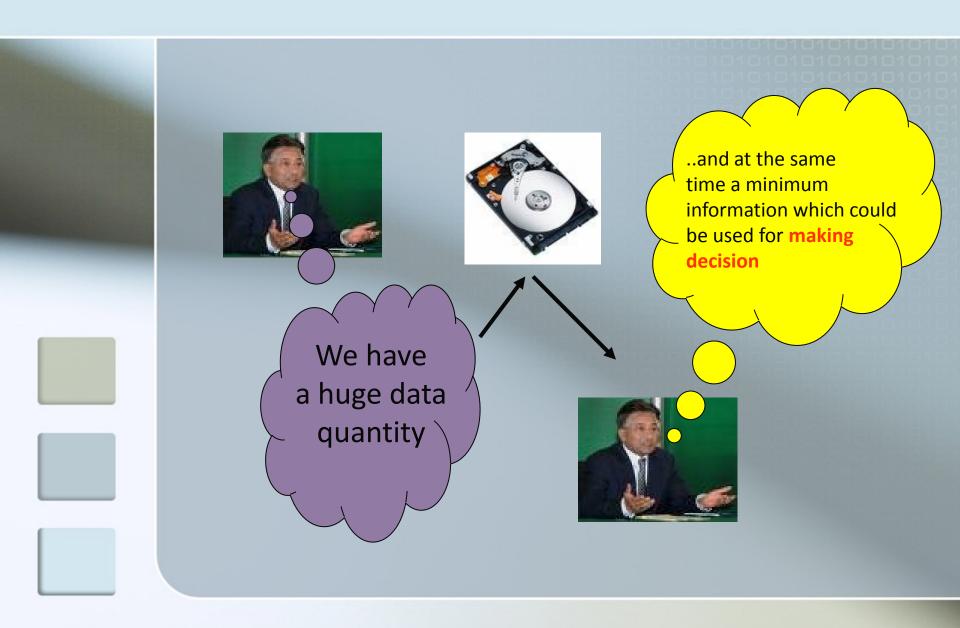
Skorkovský, ESF MU, KPH

Warning: if some of the slide is marked by Not Study Zone icon, you are not oblige to study !!!!!

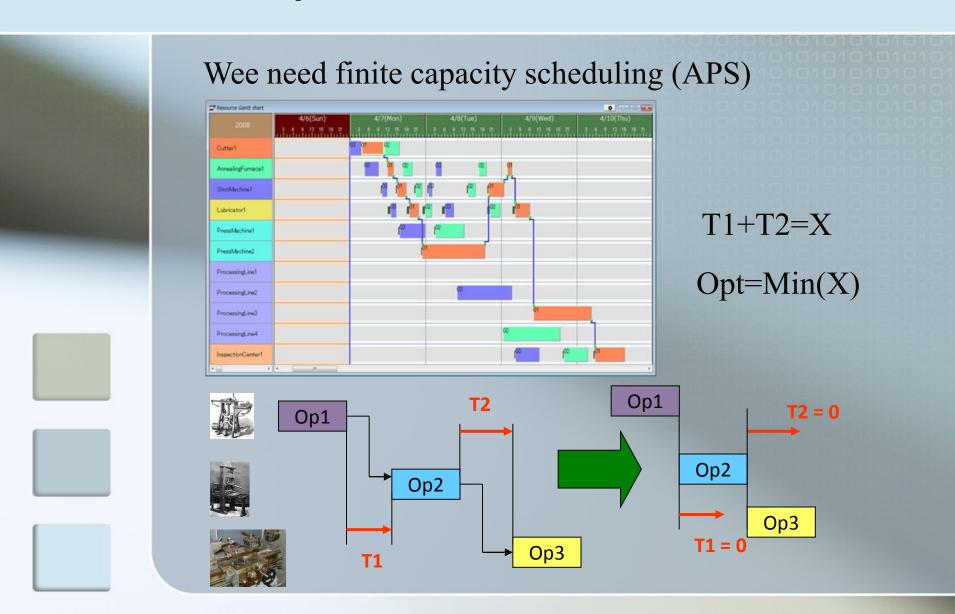


## Purchase Sales **Processes** Orders->Sub-Load and Load-> Quotes->Net change calculation-> ->Batch tracking ->Order->Vendor batch tracking e-> ->Output Quality check->Picking ->Shipment ->Input Quality check->Receive, Put-away-> -> Invoicing -> Applying payments ->Invoicing **ERP**

## Main problem (one of many)



## Main problem II (need of reliable data)



# Why we cannot manage it?

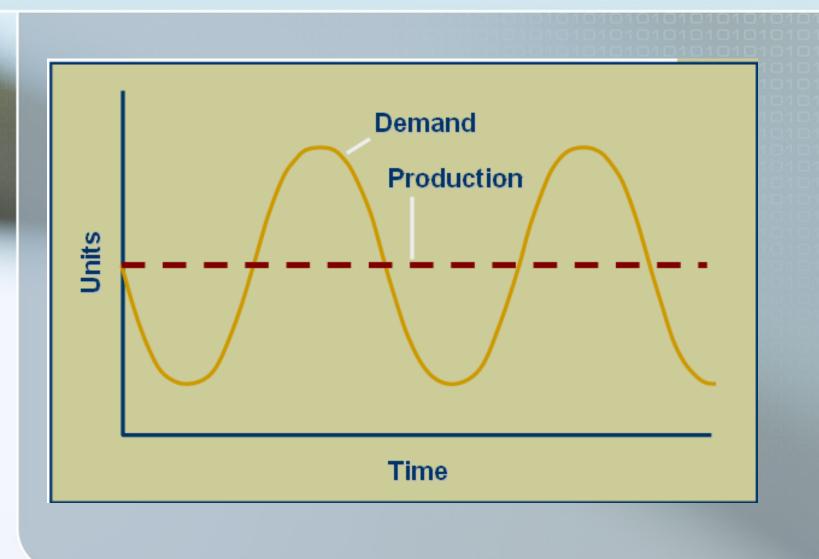


Unclear priorities, bad = SOP,....

(SOP = Standard Operation Procedures)

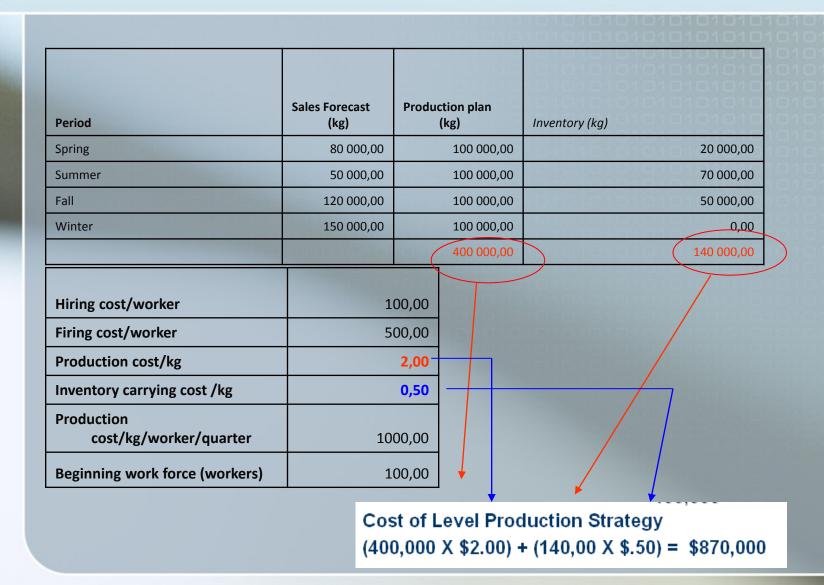


# Level production



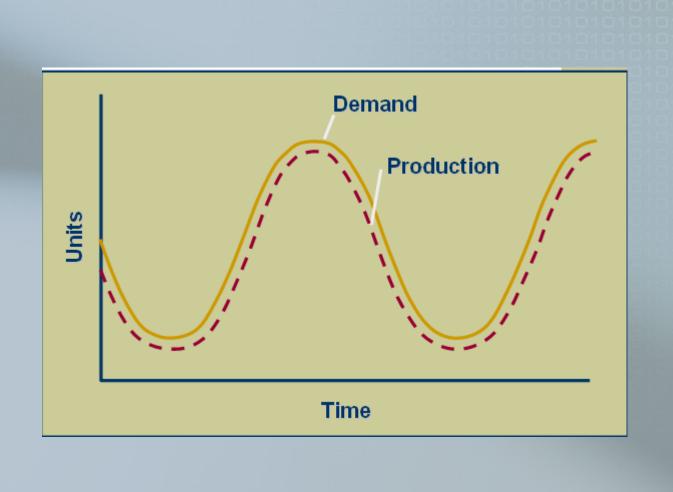


# Level production strategy





# Chase demand





# Chase demand strategy

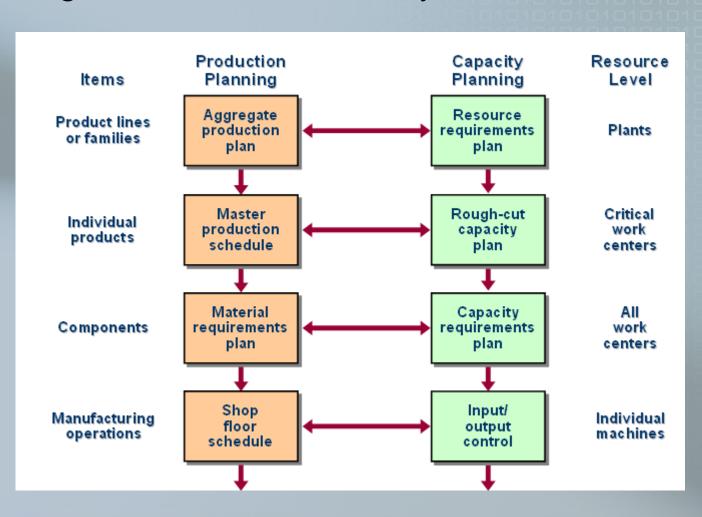
Period	Sales Forecast (kg)	Workers needed	Workers hired	Workers fired
Spring	80 000,00	80,00	0,00	20
Summer	50 000,00	50,00	0,00	30
Fall	120 000,00	120,00	70,00	0
Winter	150 000,00	150,00	30,00	1101010101
			100,00	50,00

Cost of Chase Demand Strategy (400,000 X \$2.00) + (100 x \$100) + (50 x \$500) = \$835,000



# Aggregate planning

Planning involves decision hierarchy...



#### A simple business case....(example)

- Printing Company in Upper Lower Corner village somewhere in backwoods has a small problem :
  - They use for managing printing procedures:
    - a very basic economic system Sunshine written by Six grade student (a son of the owner) – written in Pascal
    - another different systems for quotes calculation,
       logistics, production planning and control written in :
      - v obsolete FOX PRO

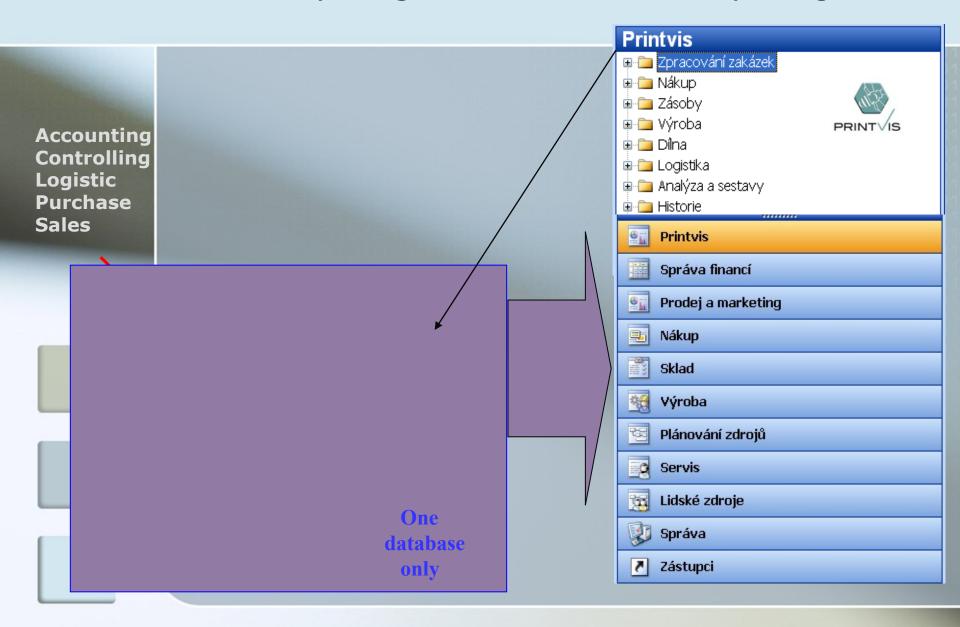




- by 3 different programmers from 3 different companies
- MS Office

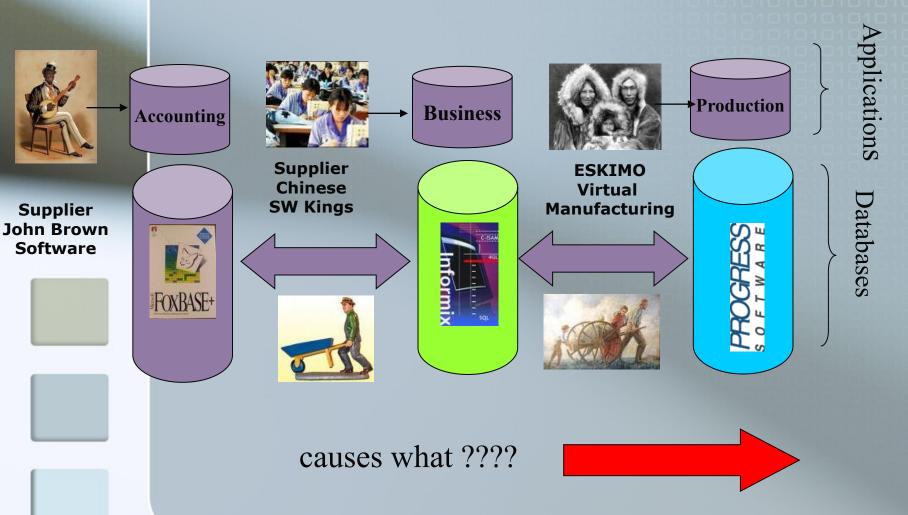


#### Solution fully integrated to standard ERP package



## Actual situation (example)





#### **Effects**

- difficult upgrades of applications
- difficult communication between different applications
- reduplicated data (redundant)
- non actual data->bad decisions
- etc.

#### A simple business case (printing

industry)....example

#### Competitive market could requires for instance:

- fast reaction to quotes
- variable quotes and their immediate costing (calculation)
- shortening of delivery times
- shortening lead times and flow times
- reduction of inventory values (paper, colors)->higher liquidity
- quality improvement ->8D reports should be used
- processes driven by flexible workflow
- exact evaluation of finished jobs (production orders) in order to know real costs
- feed backs to external and internal signals such as :
  - reasons of quotes dismissals (why ???????)
  - reason of unexpected costs

- Competitive market also requires :
  - Modern and efficient SW tools to control these processes :
    - prepress: desktop publishing, computer to plate, ...
    - purchase of material (paper, colors,..)
    - imposition (how to put locate texts on the paper )
    - printing using different technologies (sheets, rotary press,..)
    - production planning and shop floor control
    - finishing operations such as
      - cutting
      - gathering
      - stitching

- special printing operations
- flexible invoicing
- on-line accounting and so on and so on



# Printing machine





#### Bottlenecks (TOC) - Threats (SWOT):

- obsolete information system, which requires all time some changes, patches,...
- all parts of information system form an heterogeneous is IT tools heterogeneous hydra :finance management, costing, production, inventory, HR,..., which never provides user with real picture of the business
- inaccurate data from one application is inherited by another one, so the picture of the business always late
- Costing depends on human failing factors
- one author of every single subsystem
- these authors never meet each other to coordinate their efforts...

#### Bottlenecks (TOC) – Threats (SWOT):

- internet auctions favour competitors which are cheaper and faster
- the size of paper and colour purchase orders are based on inexact assessment of purchasers (if we have a lot of orders, types of papers, various machines and so on, the optimum assignment of the purchase batches sizes is beyond ability of human being with paper and pencil)

Gaza gate ——

- Messiah arrives and says : "I have for you this :"
  - modern and flexible and standard ERP system
  - background of IT company with tradition and experience
  - background of global IT vendor
  - On the other hand an arriving messiah did not offer.
  - the knowledge of printing industry
  - printing application fully integrated with standard ERP
  - Arriving applicant must:
    - understand processes in printing industry (or any other base on chosen branch)
    - be able to write printing application using development tools (languages) of standard ERP system
    - implement the solution
    - OR instead of these three blue marked points to find already existing vertical solution for printing industry, which is used all over the globe

#### Finding a vertical is right!

Let say, that we have found a foreign company with Print SOLUTION, which was implemented 100-times and in different languages

One database only

## Other standard ERP modules:

Service Management Human Resources

**Business Analytics..** 

Accounting

Logistics

Purchase and Payables

Sales and Receivables

Standard production

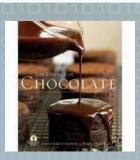
**CRM** 

# A simple business case....project management – intro

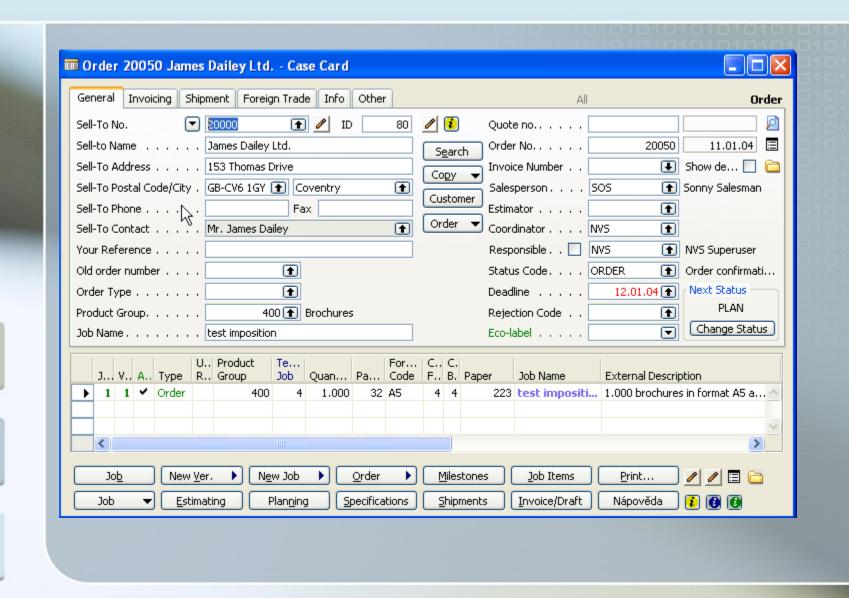
#### Live Meeting:

- application setup
- basic functions and a "sweet points"
- business case workflow (all the stages)
- Customer is happy and awaits consequential actions
- Vendor signs a contract about localisation and selling in pre-determined geographical area

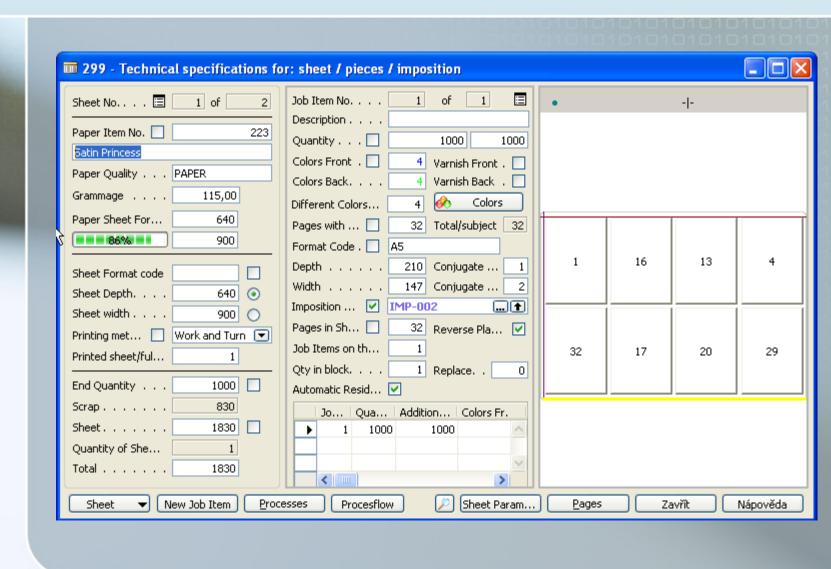




# A simple main form of printing application **PRINT** integrated to ERP Navision (only a small demonstration of application window)



# Another form of printing application **PRINT** integrated to ERP Navision (imposition and colours)



Some reasons which persuaded ERP vendor to sign a contract with vendor of vertical solution PRINT:

- local market analysis (SWOT, GAP Analysis, BPM, BSC, Pareto, Ishikawa Fish Bone diagram, TOC, CC....)
- expectation of repetitive sales promising market segment ->CRM application (pains and benefits)
- analysis of the competitors-> CRM
- possible co-operation with other PRINT experts abroad (sales of services)

#### Project entries..

- acquire necessary printing industry knowledge
- introduction training provided by supplier of PRINT application (vertical solution)
- team building
- budget (costs "business plan"- revenues)
- language localization ENG->CZE
- modification ERP and a Print for Czech conditions (market specifications and legislation)
- cope with inner application

## Project entries..

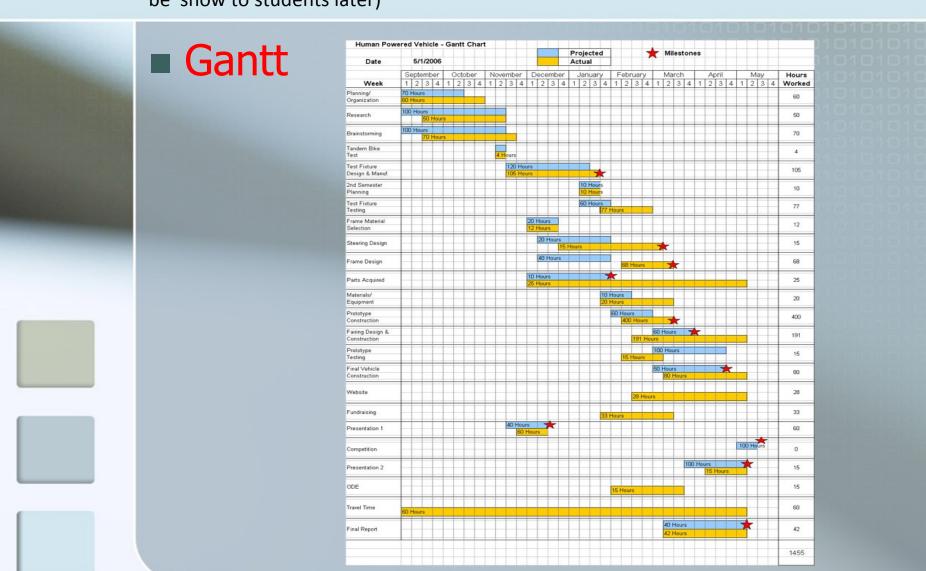
- translation of marketing material (fact sheet) and its printing in compliance with predefined templates
- creation of PWP presentation for selling
- prospect prediction segments of market
- naming of benefits "selling against"
- presentation to chosen prospects and reaction to questions- use of feedbacks to improve knowledge of printing industry
- Print price list generation

#### Project entries..

- "Kick-Off" meeting
  - when, who, what and why (Kick
  - PWP presentation
  - ■invitation, graphic design
  - selling invitation and follow-up
  - Kick-Off
  - mapping of interests, business strategy modification and resource planning

# Project entries...(will be part of Critical Chain theory, which will

be show to students later)



#### Project entries...

- contract signature with pilot customer
- System implementation (only some important activities are mentioned here..)
  - feasibility study, analysis, target solution draft ......
  - introduction training
  - system customization
  - tests of introduced modifications
  - data transfers and setup of technological "master data"
  - generation and selling licences and HW tools such as servers, ...
  - change management

## Project entries...

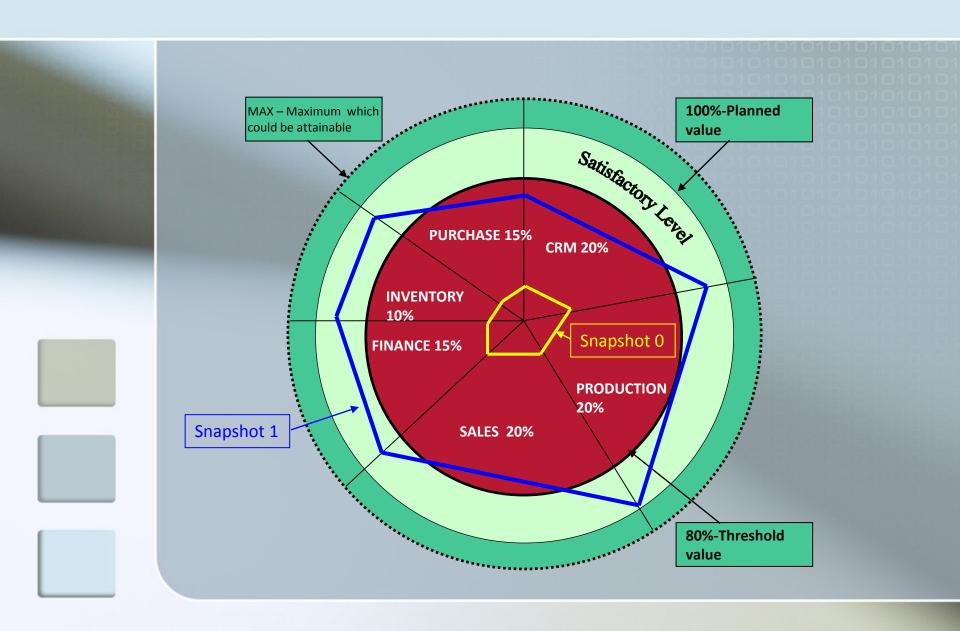
#### Activities

System implementation (only some important activities are mentioned here..)

- training with real data in the ERP system
- stock taking and transfer of balances on accounts
- sharp start
- support and surveillance

Necessary knowledge for project management

## Project successful? (from Snapshot 0 -> Snapshot 1)



## Another possible project.



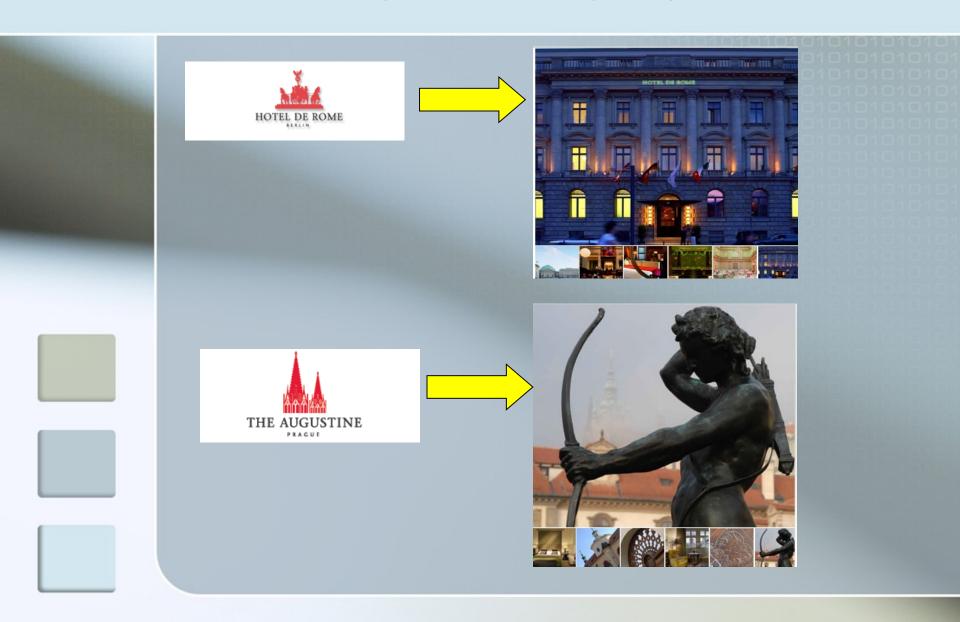
- Hotel chain Rocco Forte \* \* \* \* \*
- Where? (Great Britain 2x, Scotland 1x, Germany 2x, Prague 1x, Rome, Florence, CH, Russia ....)
- **SW choice** (chosen company for delivery standard accounting package of ERP and cooperation with author of hotel vertical solution : Serenissima Informatica, Padova)
- Choice of local partner (CZ MS Dynamics NAV partner X : requirements -> stability, knowledge of international business, languages, references- testimonial abroad, ..)
- Milano (server farm for all hotels )
- All hotels using same chart of account (USoA=Uniform System of Accounts) simple consolidation (IFRS)
- Choice of hotel SW and accounting SW



# Another possible project...



## Another possible project



#### **Basic Concept (survey)**









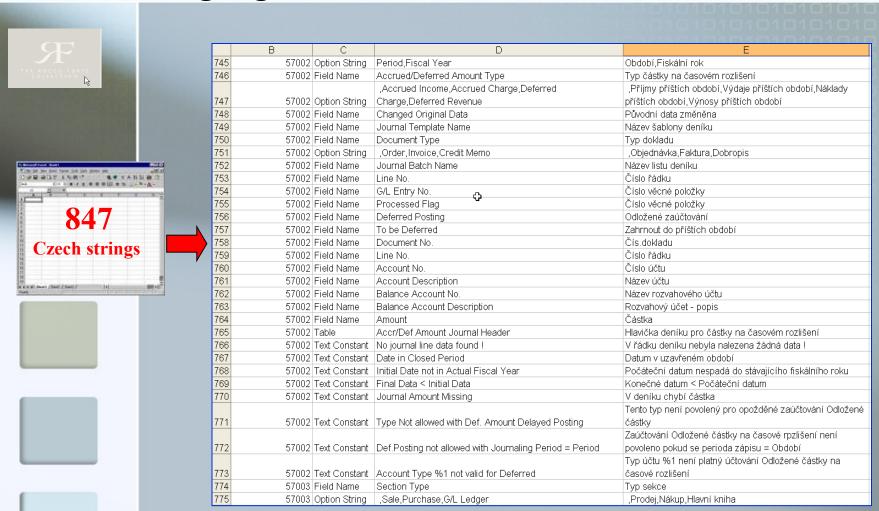






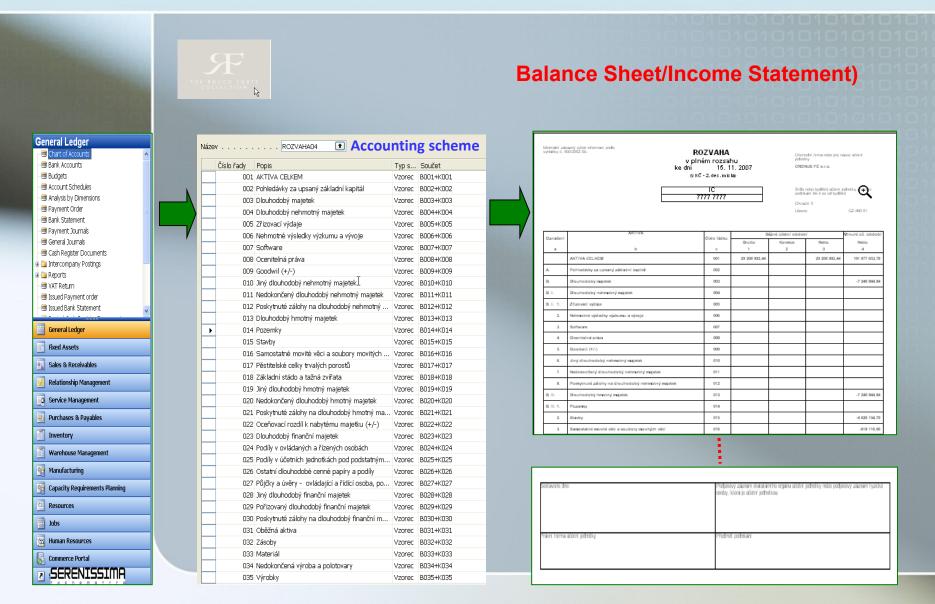
**Dataport** 

# Translation of text strings used for communication Protel<->Dynamics NAV to Czech language (necessary knowledge of terminology and language)



#### Balance sheet (generation using accounting schemes -

#### will be introduced to students )



### **Uniform System of Accounts**

_	<b>.</b>						-		
No.	Name	▼ Income/Balance	▼ Account Type	▼ Mapping	▼ count synte	Analytic	▼ 0	zech description	1010
0213300	T CHIZION TONIO	parameesmeet	1 wasing	fie der	313	11.20	LUVULKY		1010
0047500	Other Debtors - Insurance Advances Premium Payment	Balance Sheet	Posting		381	100	Náklady	příštích období - pojištění zaměstnan	ců
0067700	Prepaid rent	Balance Sheet	Posting		381	200	Náklady	příštích období - nájemné	
0069000	Prepaid Insurance	Balance Sheet	Posting		381	300	Náklady	příštích období - pojištění budovy a o	dpovědnosti
0069500	Prepaid Licences & Permits	Balance Sheet	Posting		381	310	Náklady	příštích období-licence a povolení	
0070000	Prepaid Maintenance Contracts	Balance Sheet	Posting		381	400	Náklady	příštích období - provozní náklady	
0070300	Prepaid Sales & Marketing	Balance Sheet	Posting		381	500	Náklady	příštích období-Sales& Marketing	
0070350	Prepaid - Property taxes	Balance Sheet	Posting		381	600	Náklady	přístích období - daň z nemovitosti	
0141000	Financing Costs	Balance Sheet	Posting		381	700	Náklady	příštích období - náklady na financova	ání
0141100	Brand	Balance Sheet	Posting		381	800	Náklady	příštích období - rebranding	
0155000	Pre Opening Cost	Balance Sheet	Posting		381	900	Náklady	na zprovoznění hotelu	
0250010	GRNI-Stores	Balance Sheet	Posting		383	100	Výdaje p	říštích období - stock	
0250050	GRNI Non Stores	Balance Sheet	Posting		383	200	Výdaje p	říštích období – non-stock	
0249000	Deferred Income	Balance Sheet	Posting		384	100	Výnosy p	ríštích období	
0249100	Deferred Income Other	Balance Sheet	Posting		384	200	Výnosy p	rříštích období - jiné	
0249500	Deferred Income - Subscription	Balance Sheet	Posting		384	300	Výnosy p	říštích období	
0021000	Guestledger (Accrued Income)	Balance Sheet	Posting		385	100	Příjmy p	říštích období - nevyfakturované tržby	
0048500	Accrued Income - other	Balance Sheet	Posting		385	200	Příjmy p	říštích období-ostatní	

Accrued Revenues (revenues generated in the future periods)

Income (still not created)

General Ledger

Customer



#### Accrued and Deferrals...(one of many helping letters)

#### Ciao amico,

For Deferred Costs (In italian "Risconti") it mean when You receive an Invoice for Service; Service provided partially in one Fiscal Year, and Partially for the following Fiscal Year.

Es.: In November You receive an Invoice for IT Service provided from November 2007 until June 2008.

You have to charge 2 Months for 2007 and 6 Months for 2008 Fiscal Year.

In other words Deferred Costs happens when You receive in advance an Invoice for Services provided in the future.

It's possible to have the same also for Revenues

The opposite is called Accrued (In Italian Ratei).

Es.: In May 2008 You receive an invoice for Services provided from November 2007 until May 2008. Normally You have to charge in advance, Cost for Services for November and December 2007 without any Invoice,

and You balance this Cost with special Accounts.

This happens very often in Hotel management because, for management control, they have to produce every month Profit & loss report. It's more or less like a Year close done on every Month.

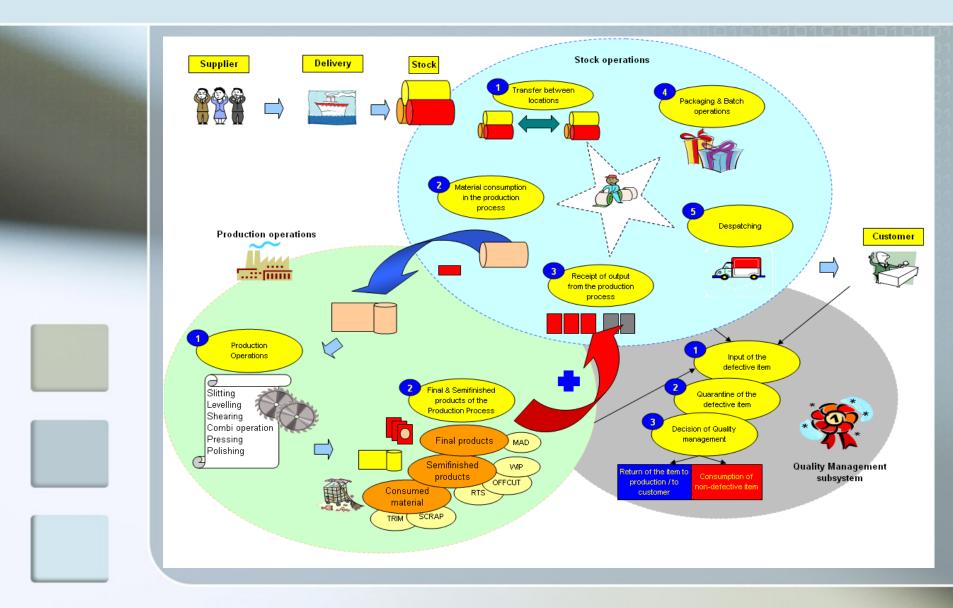
In other words Accrued Costs happens when You receive an Invoice for Services after the Service was provided.

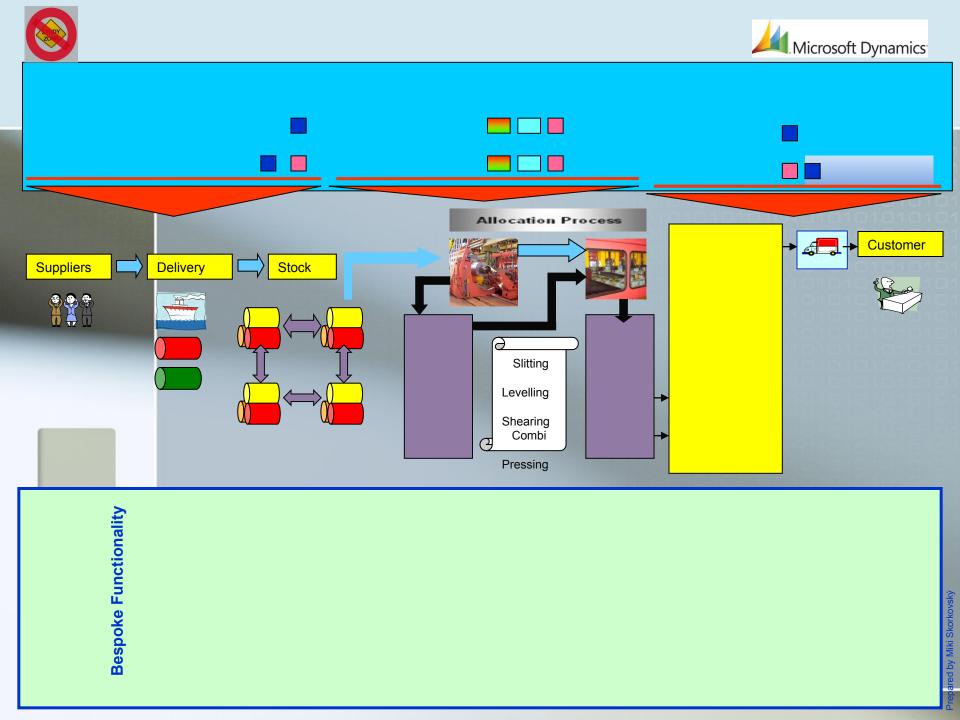
The same can happens also for revenues.

I hope this explanation can be clear enough.

Regards.

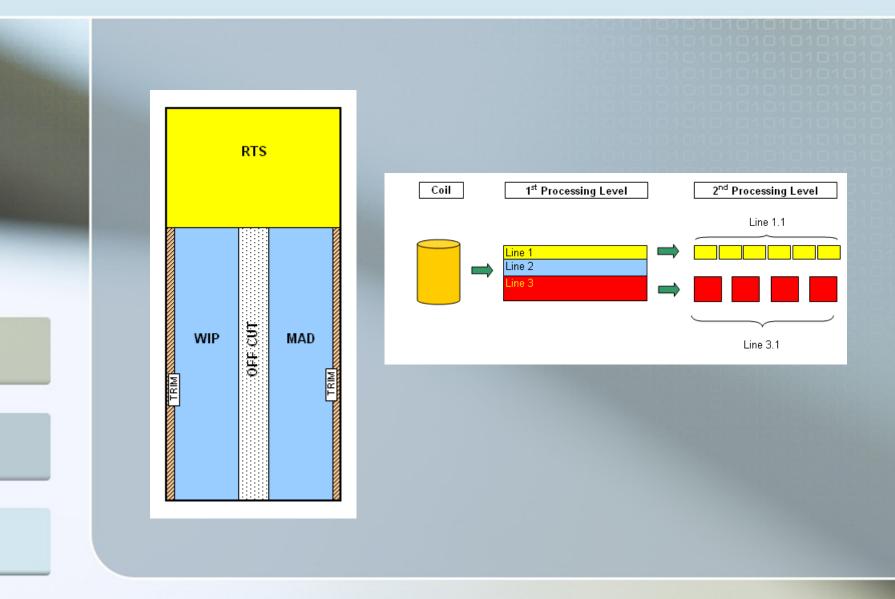
## Another possible project –Automotive, Appliances, packaging industry







### Slitting and levelling of the steel



## Knowledge of methods, which are necessary for project management and process management

- Theory of Constraint (will be introduced-72 slides)-seminar work!!!!
  - Critical chain methodology
  - Thinking tools
  - Throughput Accounting ->go to wikipedia
- Balanced Scorecard (will be introduced).
- SWOT a Gap Analysis
- MS Office (Word, Power Point a Excel)
- ERP system and its logic (will be introduced- 28 hours)
- Logistics
- Finance Management and Controlling
- Production Management (MRP, MRP-II, JIT and DBR)
- Market Analysis

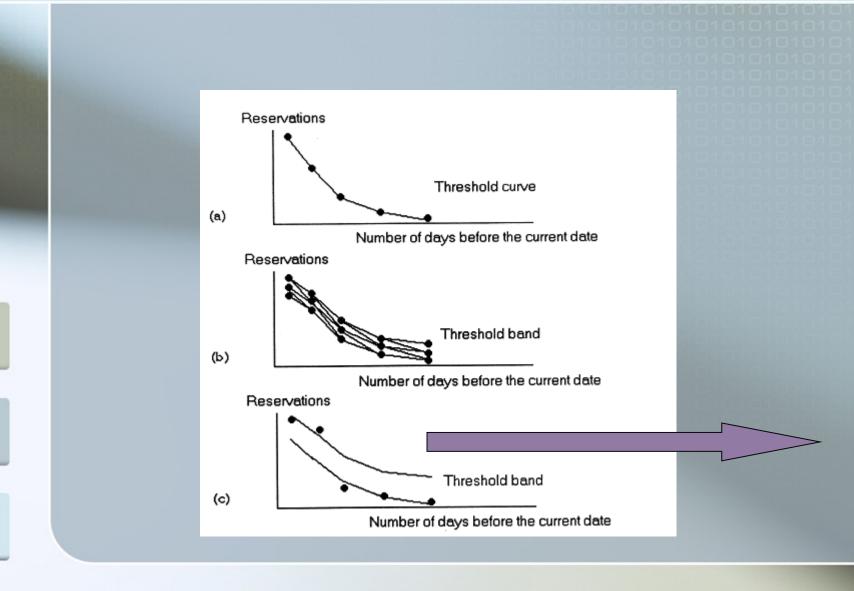


## Knowledge of methods, which are necessary for project management and process management

- **Yield Management** —**YM** (billing different rates for same service to different customers in order to reach maximum revenue)
- Knowledge of the condition necessary pro use of YM tool:
  - relatively high % of the fixed costs to complete company costs
  - predictable demand
  - ephemeral product (passing, fleeting,
  - selling before service is provided
- Some Yield management methods
  - e.g. Thres Hold method— see next slide

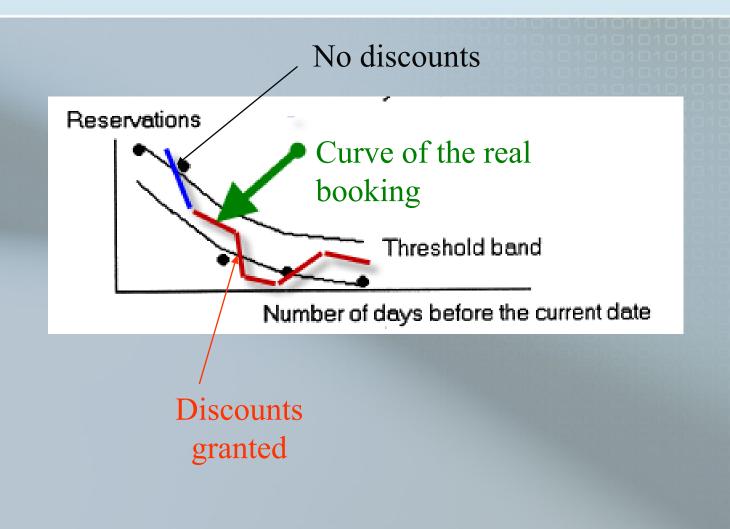


## Threshold curves (booking)





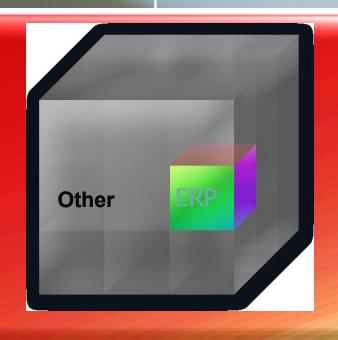
## Threshold curves (booking)



## Knowledge of methods, which are necessary for project management and process management

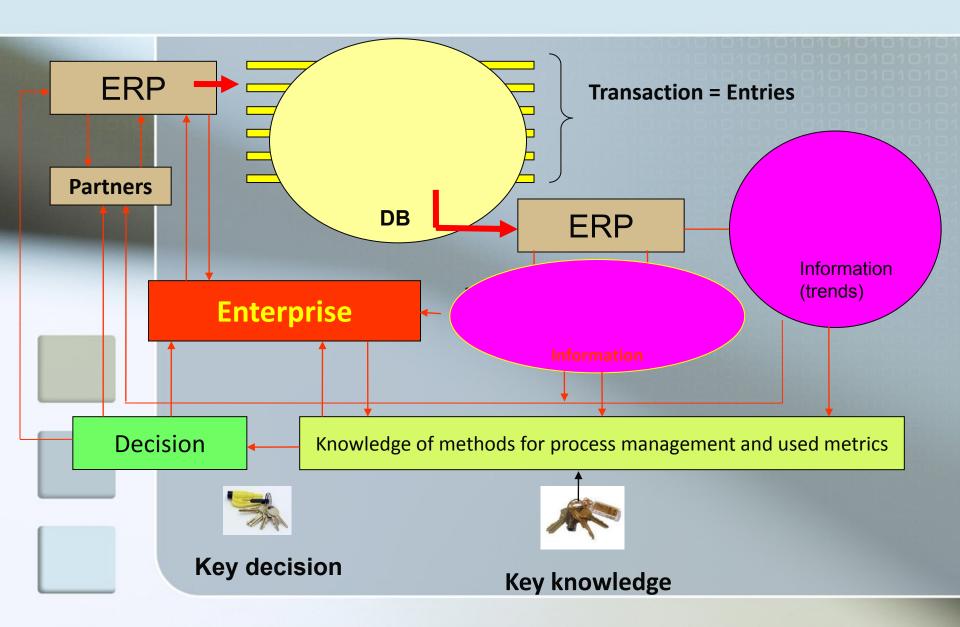
- Legal aspects of contracts
- Cost management
- Foreign languages
- Basic knowledge of IT architecture will be introduced
- Methods used for project management
- Business Analytics Will be shown later
- Methods supporting decision making
- Risk management
- Basics of marketing

#### Business Analytics – some reason why to discuss



- The data is not all in the ERP
- The tools are rigid and hard to learn
- The tools don't reflect how we work today
- They don't span the continuum of needs

### Simplified diagram of ERP usage



## Information Overload

IM/c



## What Users Need



#### **CEO**

"I need to know that the people in my organization have the right goals in place to understand and execute on the strategic initiatives of the company."



#### **VP**, Operations

"I need better visibility into my cost of operations so I can target specific cost that won't have a negative impact."



#### VP, Sales and Marketing

"I need better visibility into our pipeline performance so I can focus on deals that help me grow business with my most profitable customers."



#### **CFO**

"I need to improve our analytics capabilities so we can understand our current business performance and do a better job of planning for the future."



#### Sales Rep

"I need to have the right demographic information so I can better target my opportunity prospecting."



#### **Customer Support Rep**

"I need better access to information to make better decisions on cross-sell and up-sell opportunities."



Initially, most partners business are run by one or two founders, who manage every part of the business: sales and marketing, project management, service delivery management, accounting, sub-load and load, collection, HR and many many more....





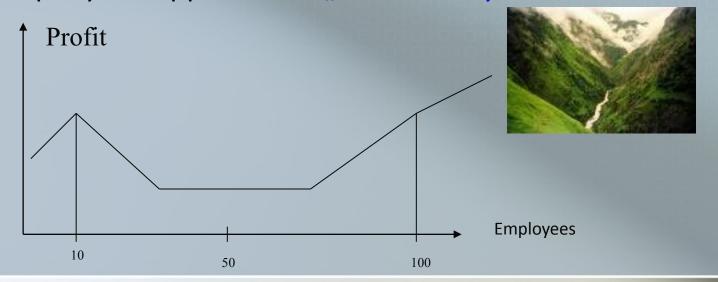




Those guys are responsible for performing all day-to-day functions of their business



- As their business grows over 10 employees, it is impossible to perform all their role properly.
  - Cash flow becomes erratic (chaos)
  - Projects go offside,
  - Filling pipeline is a struggle
  - Revenue stays still strong but profitability drops
- Company is trapped in the "Profit Valley"





- How to escape the profit valley?
- How to avoid it ?
- First key
  - Maintain revenue velocity and the momentum of the new customer adds. You cannot afford to take the foot of the gas if you want to climb out of the valley
  - The portfolio of the customers must be some smaller and some larger
- Second key
  - Maintain high level of service quality to avoid discounting and efficiency factor
  - Sure Step methodology of project Management
  - Help desk
  - Right tools and right people









#### Third key

- Financial management control and cash flow is the king
- Invoice quickly and pay consistently (but not early !!!)
- To maintaining Cash- to-Cash cycle as short as possible

#### Fourth key

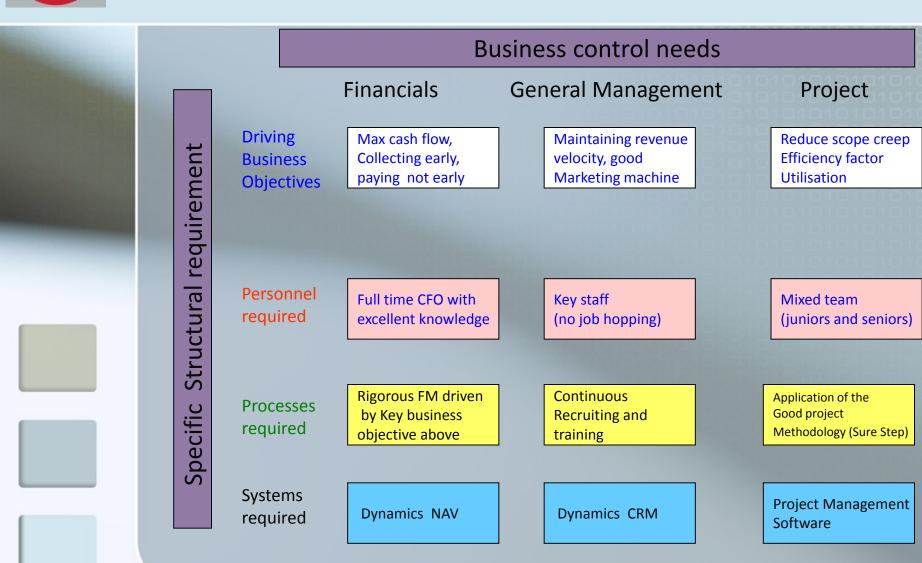
- Software package handling all aspects of financial customer relationship and project management
- Cash-to-Cash Cycle will be shown during TOC and Critical chain chapters











Do we know or we are only hoping? **Processes & Tasks** Metrics & Benefits Strategy & Aims Benefits for our **Verticals** business Show of **Problem** the Requirement **Implementation** definition definition suppliers



#### Thanks for Your Attention

Will be placed on IS.MUNI.CZ in the study materials

If everyone pulls at the different end of the rope, than your project results will be a mess... (see rule 99 %)