Shortening of Business Processes as an Effective Vehicle of the Cash Management Improvement

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Improvement (shortening) of the business processes

Improving business processes leads to cost reduction, which enables commodity producers to sell products and services at a lower cost price and a higher profit margin.

We can argue that reducing costs and increasing positive margin of goods and services (= profit) is the function of improving business processes.

In order to maximize this function, commodity producers are forced to constantly renovate and innovate their business processes.

Improvement (shortening) of the business processes

One of the relevant parameters in this function is the duration of a business process.

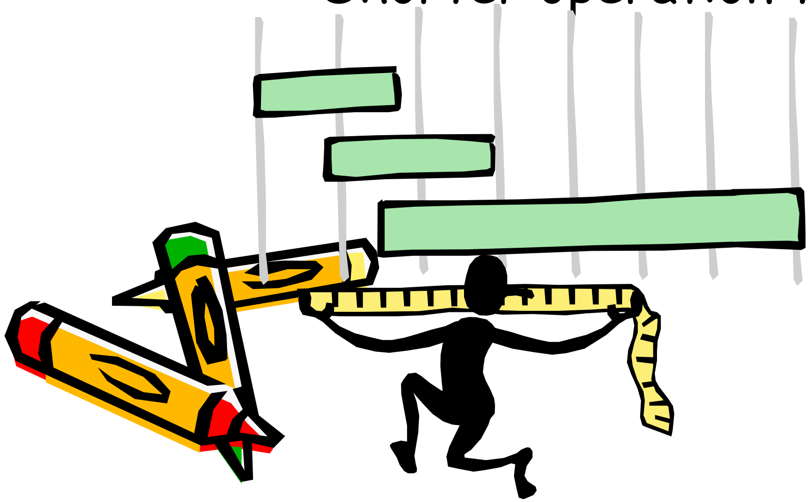
If we focus only on the time aspect and if in so doing we also consider its money aspect, ceteris paribus, the above function can be written as follows:

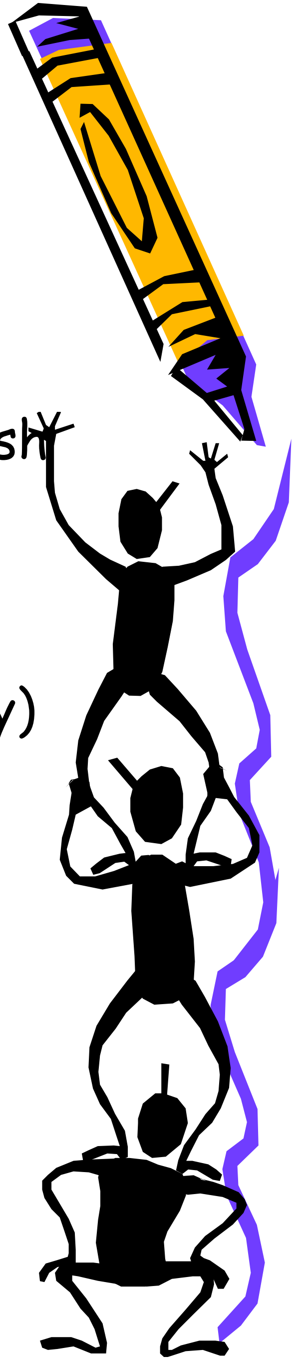
Financial effects = max f (shortening of business processes)

Potencial financial effects of the shortening of business processes

What are the effects of the improvements of business processes on (fixed and varible) costs and operating cash flow? How to achieve them?

- Better utilization of the equipment
- Better exploitation of the labor (higher productivity)
- Lower waste and scraps
- Lower inventories
- Shorter operation time





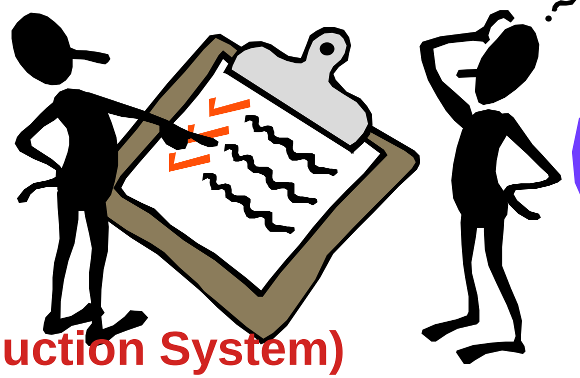
Price, cost and profit: two formulas

Both formulas are mathematically speaking equivalent, although they have a different meaning.

What do the formulas mean? Which one is the right one for us, commodity producers?

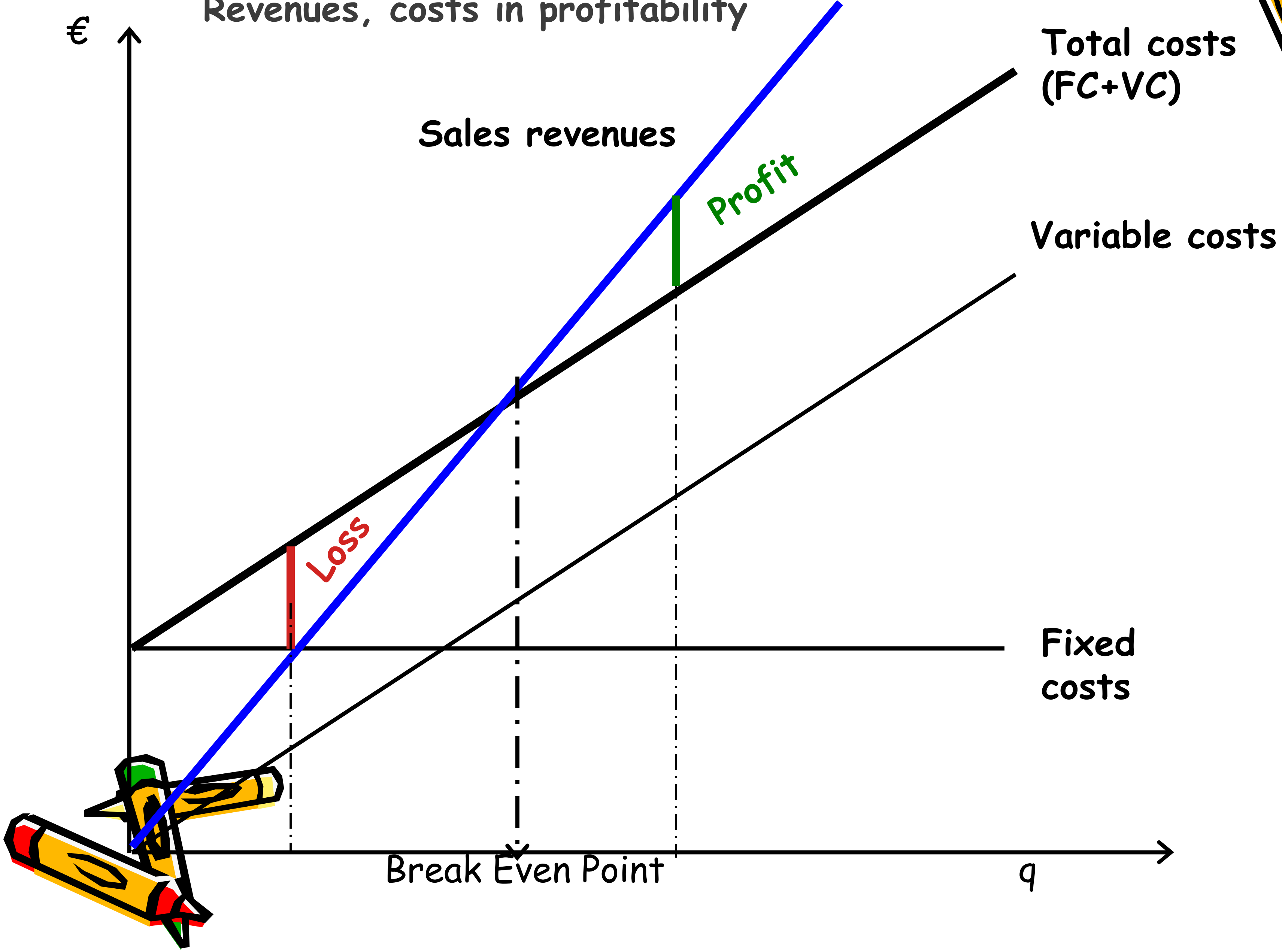
- Profit = Selling price – Costs

- Selling price = Costs + Profit



"The costs are in the first place to be reduced and not to be computed." Taiichi Ohno; Japanese businessman (Toyota Production System)

Revenues, costs in profitability



Shortening of business processes

The shorter a business process and the sooner products and services are sold, the faster money gets transferred to a bank account which results in lower transformation (conversion) costs of basic elements of a business process and in higher financial savings for a commodity producer.

The basic elements of a business process are: labor, material, premises and equipment (fixed assets) and services.

Here a simple question is being posed: What can commodity producers do in order to shorten a business proces?

Shortening of cash conversion cycle and net working capital management

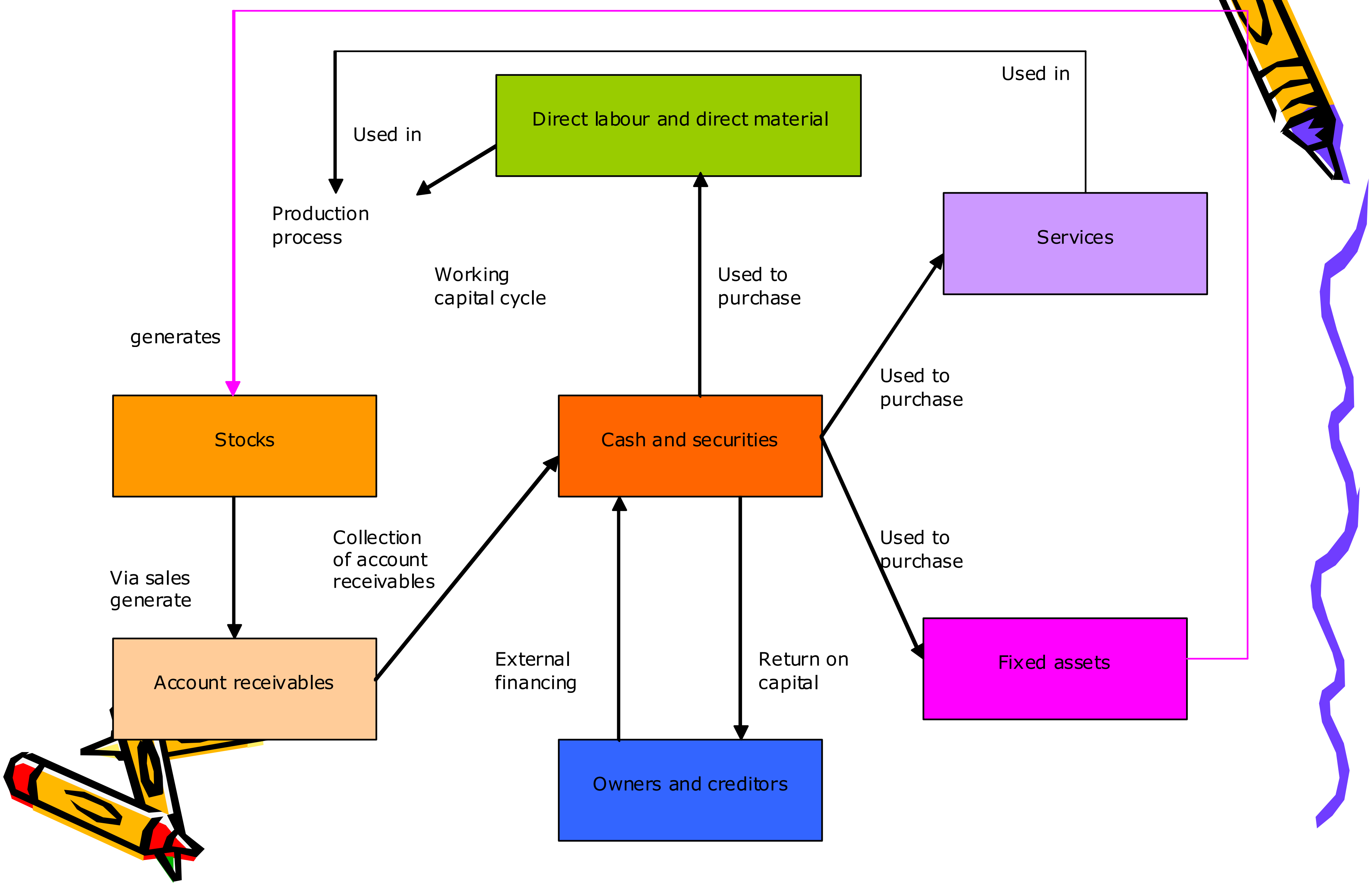
A simple cash conversion cycle:

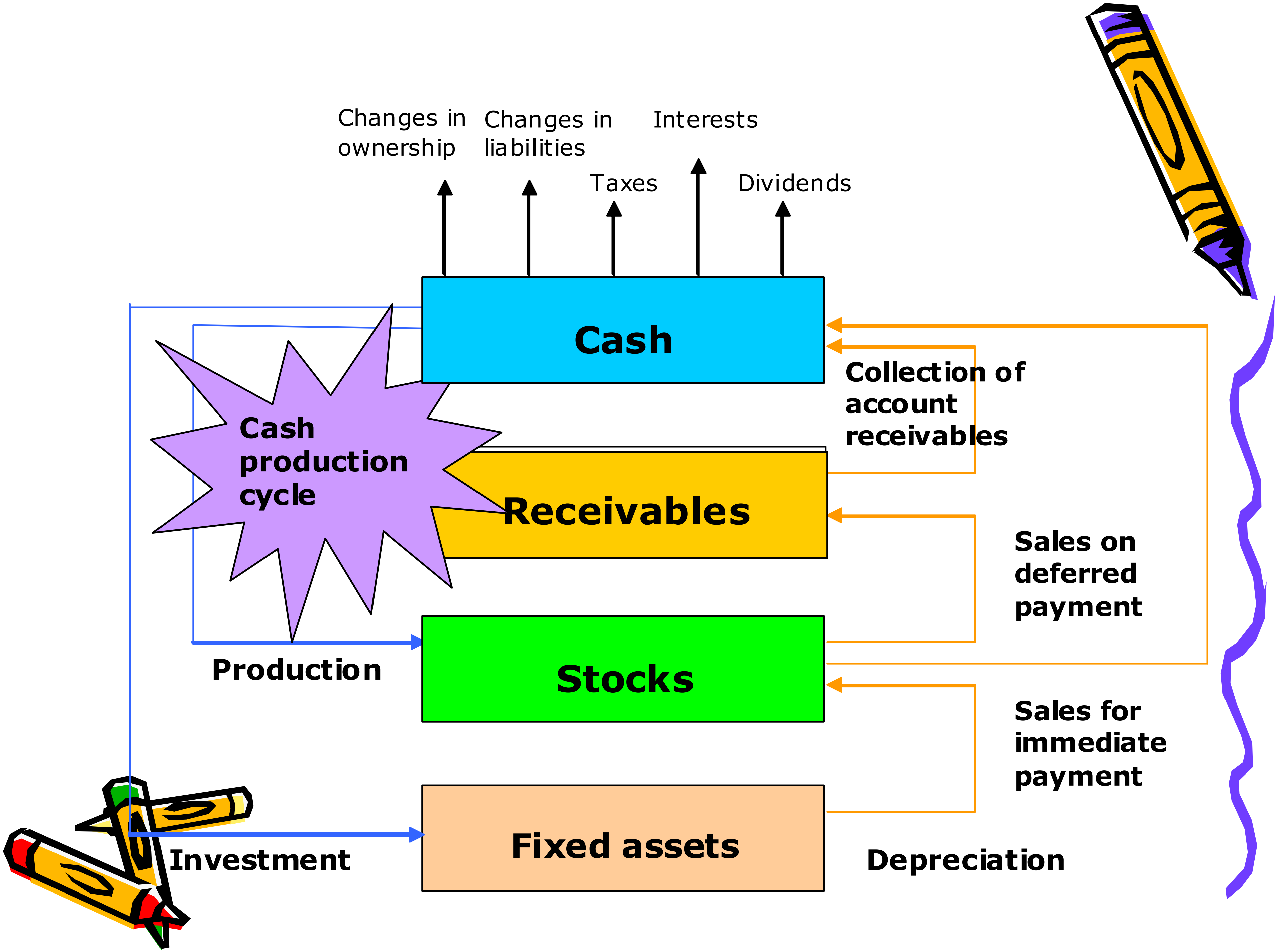
Cash → Purchasing of raw material → Production → Stocks of finished goods → Sale → Accounts receivable → Cash'

Our objective: Cash' > Cash (must!)

Net working capital management is one among the key drivers for a successful performance of the company.

DIRECTING OF (NON) CASH FLOWS WITHIN A COMPANY




Changes in ownership
Changes in liabilities
Taxes
Interests
Dividends
Cash
Cash production cycle
Collection of account receivables
Receivables
Sales on deferred payment
Production
Stocks
Sales for immediate payment
Investment
Fixed assets
Depreciation

Net working capital and net current assets

Financial stability of each company – to be sustainable in the long run – can be estimated by net working capital:

Net working capital = Current assets - Current liabilities

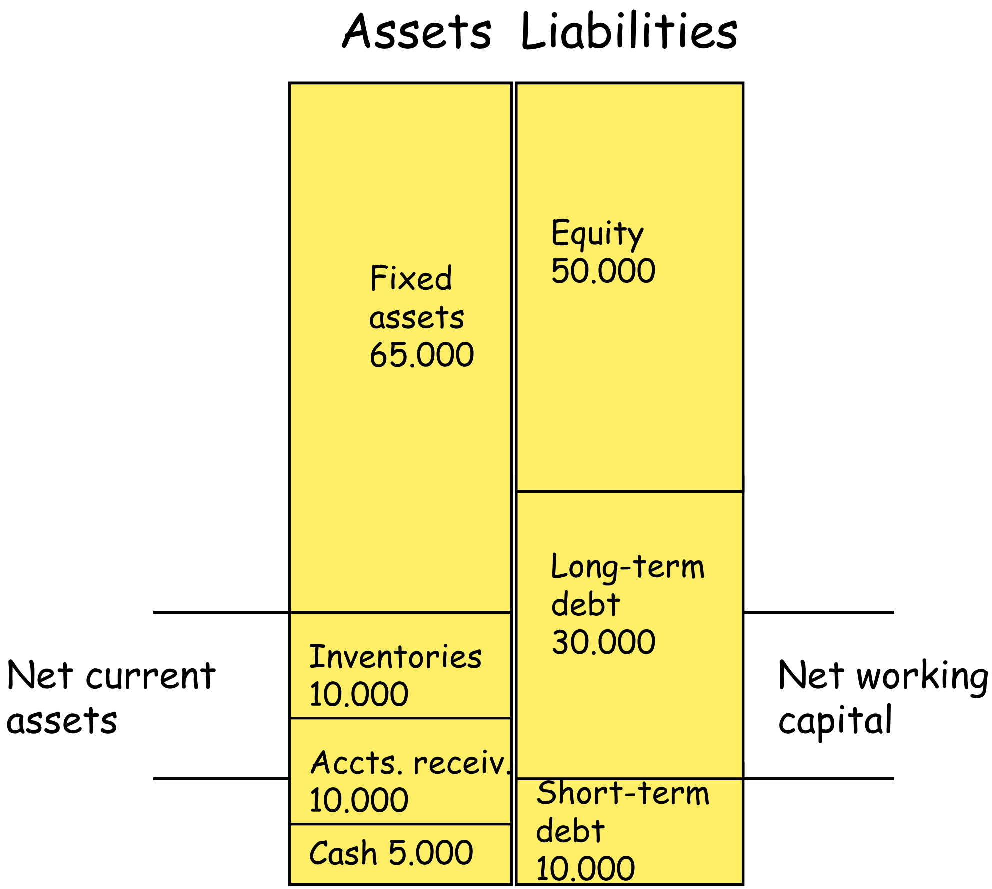
Net working capital = Equity + Long-term debt - Fixed assets

Net working capital

- Net working capital measures to what extent the current liabilities are covered (funded) by current assets
  - Current assets = Cash and assets convertible into cash earlier than in 12 months:
    - accounts receivable, inventories, short-term financial investments
  - Current liabilities = Liabilities due earlier than in 12 months:
    - wages, accounts payable (suppliers, creditors), taxes, …

Positive working capital enables continuation of the business perfomance of the company

Net current assets and net working capial in BS

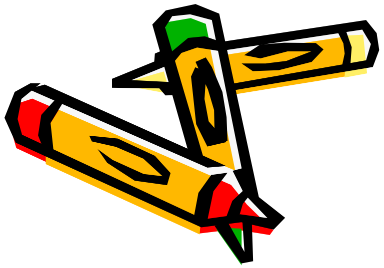


Net current assets = 25.000 - 10.000 = 15.000
Net working capital = 65.000 - 50.000 = 15.000

Net working capital can be increased / decreased by

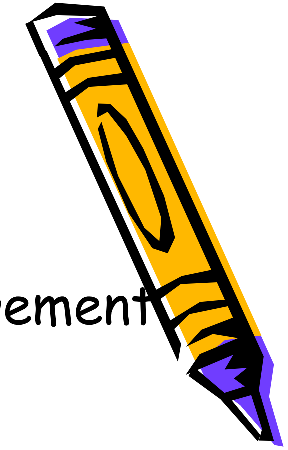
- Sale of fixed assets
- Retained earnings
- Borrowing of long-term loans and credits

- Purchasing of fixed assets
- Loss
- Repayment of the long-term loans and credits



Remember the golden Balance Sheet Rule

A company should fund the long-term assets and permanent (lasting) current assets by long-term funds, i.e. by equity and at least by long-term debt.



Net working capital management

NWCM includes three key items, upon which the management can influence directly (straightforward):

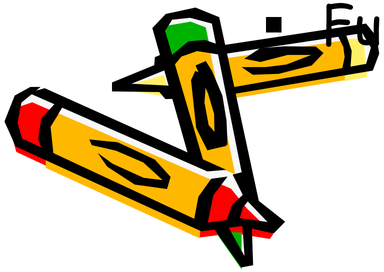
- Accounts payable (current assets),
- Inventories (current assets) and
- Trade payables (current liabilities).

Objective = positive, but least working capital used as possible to enable:

- Profitability of the company and
- Sufficient operating cash-flow.

Short-term decisions relating to:

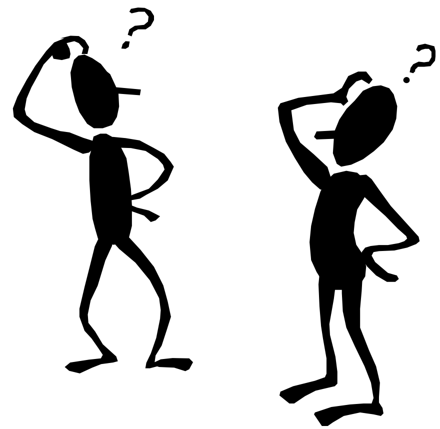
- Funding the customers (payment terms of the clients)
- The level of all kinds of stocks and
- Funding the stocks (payment terms of the suppliers).



Operating cash-flow

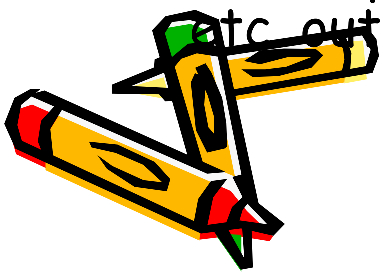
Operating cash-flow (in a period) =

+ Cash receipts from the sale of commodities / services
+ Interests received from the financial investments
− Expenses for the material, components and services
− Wages
− Taxes paid
− Inerests paid to the creditors



Can we pay invoices for material, wages, energy, etc. out of cash received from the customers?

Why?



Duration of cash cycle

… it is a time period between the cash receipts coming from the customer and the day when we settle the invoice to the supplier for the same commodity
(*Cash Conversion Cycle, CCC)*

CCC = Duration of inventories + Duration of accounts receivable - Duration of the trade payables

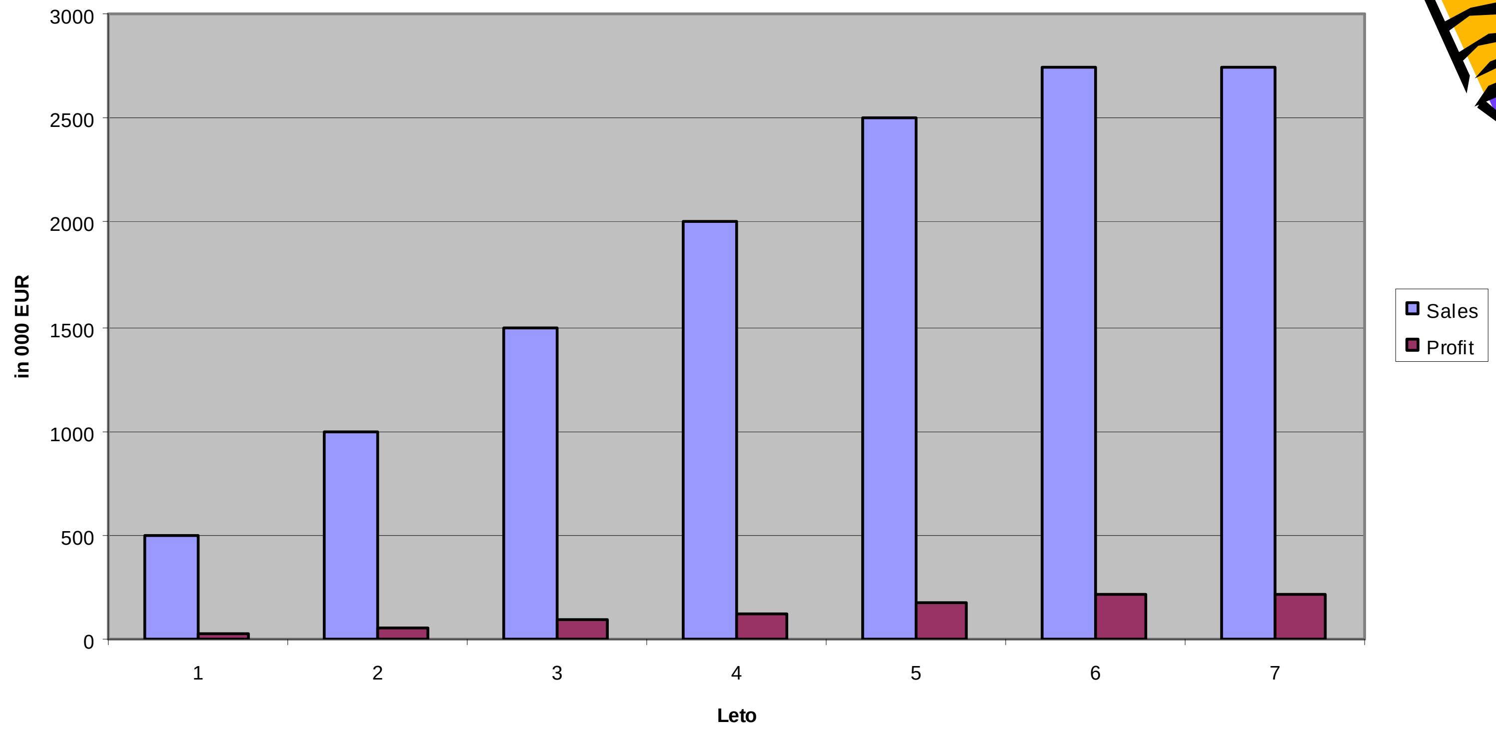
When is a duration of cash cycle positive and when is it negative?
What is a better solution for the company?

A CASE

We've founded a new company; it produces and sells a product A.
We have made the following sale and profitability forecast:

Year	Sales in € 000	Growth Rate in %	Profit. rate in %	Profit in € 000
1	500		5	25
2	1.000	100	5	50
3	1.500	50	6	90
4	2.000	33	6	120
5	2.500	25	7	175
6	2.750	10	8	220
7	2.750	0	8	220

Sales and profit growth



Let us neglect fixed assets and focus on net working capital.
Let us assume:

- cash: 2,8 % of sales
- accounts receivable: 9,7 % of sales (average collection period is 35 days)
- inventories: 16,7 % of sales
- current liabilities: 4,2 % of sales

	% of sales
Cash	2,8
Accounts receivable	9,7
Inventories	16,7
Current assets	29,2
Current liabilities (suppliers)	- 4,2
Net working capital	25

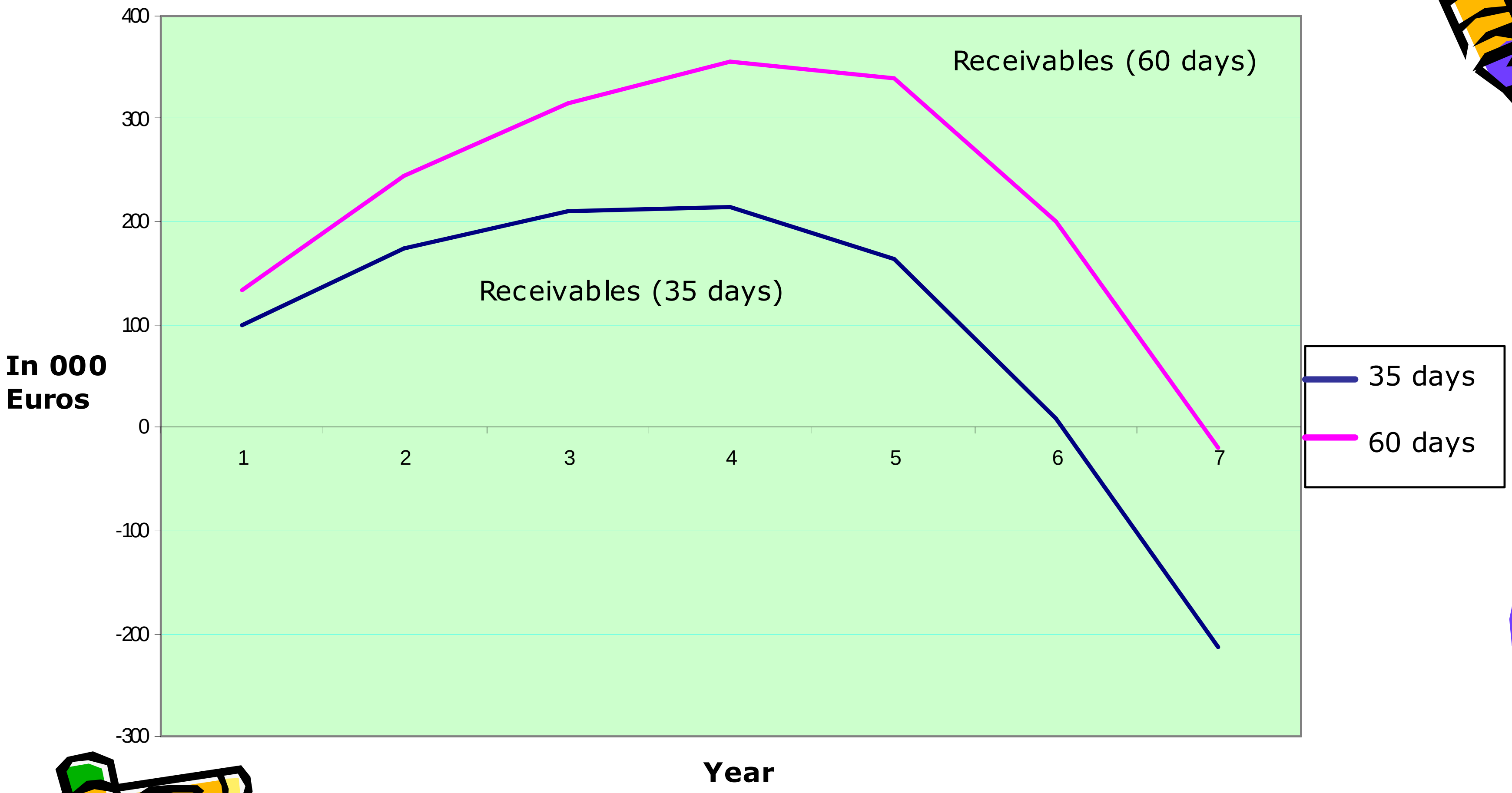
Year	1	2	3	4	5	6	7
Sale	500	1.500	1.500	2.000	2.500	2.750	2.750
NWC at 25 %	125	250	375	500	625	688	688
Profit	25	50	90	120	175	220	220
Change of NWC	125	125	125	125	125	63	0
= Net profit	-100	-75	-35	-5	50	157	220
Total ([illegible].)	-100	-175	-210	-215	-165	-8	213

What happens when collection period changes, i.e. increases from 35 to 60 days?

	% of sales
Cash	2,8
Accounts receivables	16,7
Inventories	16,7
Current assets	36,2
Current liabilities (suppliers)	- 4,2
Net working capital	32

Year	1	2	3	4	5	6	7
Sale	500	1.500	1.500	2.000	2.500	2.750	2.750
NWC at 32 %	160	320	480	640	800	880	880
Profit	25	50	90	120	175	220	220
- Change of NWC	160	160	160	160	160	80	0
= Net profit	-135	-110	-70	-40	15	140	220
Total (cumul.)	-135	-245	-315	-355	-340	-200	20

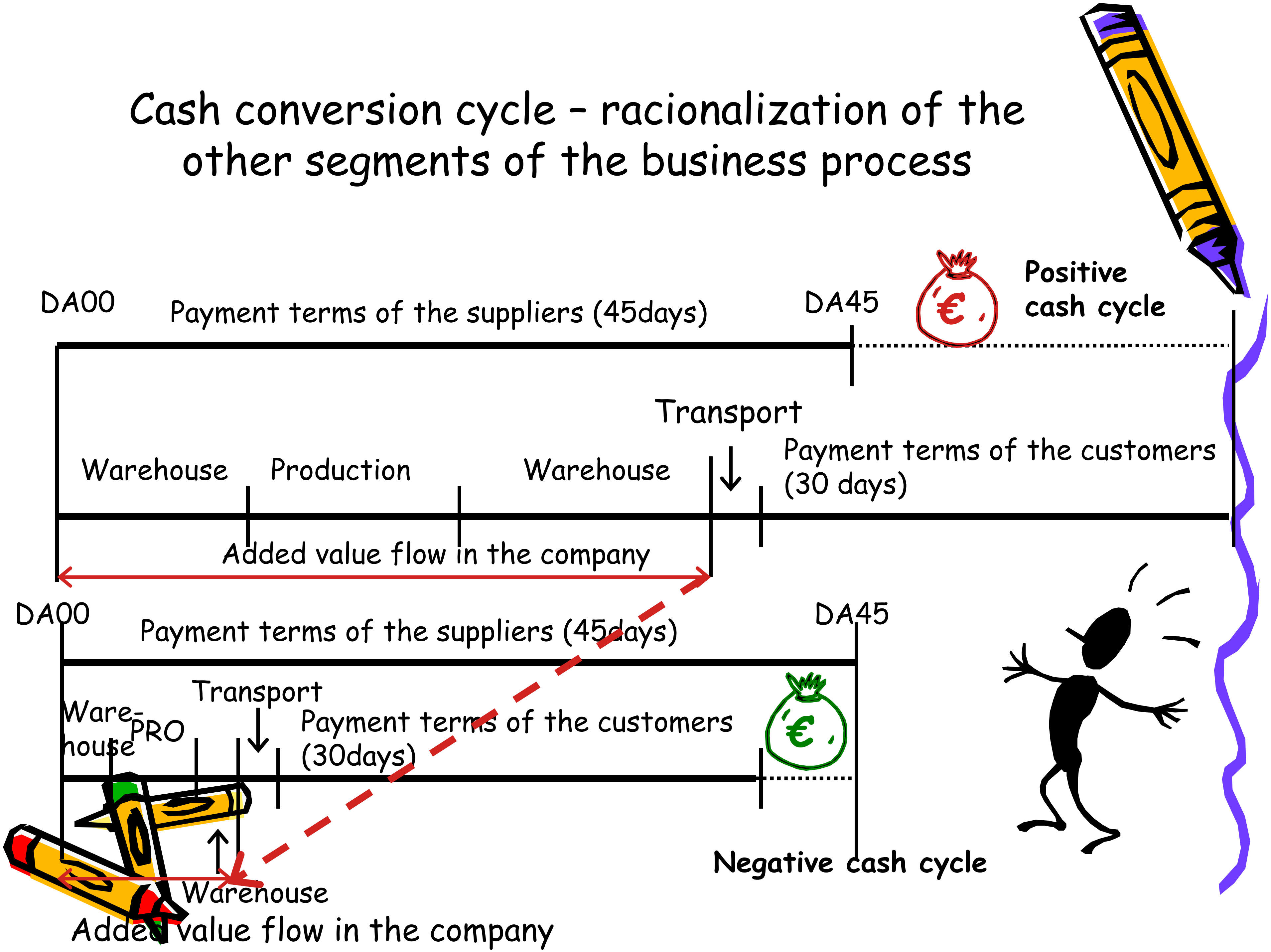
Necessary financing



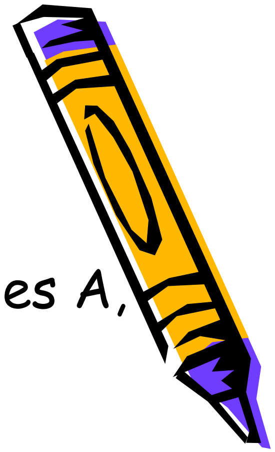
How should the companies avoid the situation of being "profit rich and cash poor"?

- Do not sale on credit
- Produce only on order
- Try to prolong the payment terms with the suppliers as much as you can
- Avoid the extremely fast sales growth
- Manage cash effectively

Cash conversion cycle – racionalization of the other segments of the business process



A problem: CCC



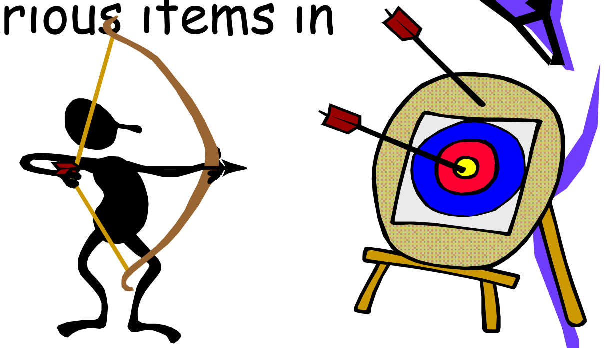
Below are the data for one year operation for three companies A, B and C, all in the same industry.
Which company has the shortest cash cycle?

	A	B	C
Sales revenues (k€)	1.500	2.500	3.000
Net profit (k€)	150	200	225
Net cash flow (k€)	130	165	200
Accounts receivable (k€)	75	75	90
Duration of inventories (days)	45	65	50
Duration of trade payables (days)	35	50	55
CCC (days)			

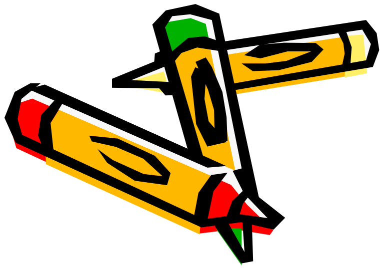
How would you shorten cash cycle or increase cash flow?

Financial effects of the improvement of the business processes

The improvements in the direction of operation racionalization can have a strong impact on various items in the financial statements:



- Material = Variable costs
- Labor = Variable costs
- Equipment = Fixed costs
- Inventories = Cash (Working capital)
- Accounts receivable and trade payable = Cash (Working capital)
- Sales volume = Revenues
- Market value/commodity price = Revenues



Financial effects of the improvement of the business processes

Of course, all the improvements cannot be seen directly in the financial statements. Which ones?

Improvements in the direction of lean production prove to have a positive effect on business results.

Conclusion

Commodity producers should continuously strive to improve their business processes.

Improvements in the direction of slenderness and speed of assets turnover evidently have a positive impact on business results and cash flow, or if this is slightly paraphrased:

generating sales revenues is vanity, profit is reasonableness and money is reality.

Therefore, let us be reasonable and realistic.