Decision making instructions:

Sim*Com*

PRACTICE MAKES PROFIT

Arkadiankatu 21 A
00100 Helsinki, Finland
puh. 09-406 660
www.cesim.com

1 Introduction

The main objective of the SIMCom–model is to familiarize the participants with today's telecommunication business. Main emphasis is placed on customer-focused business thinking. The purpose of the model is to mirror - not to predict - events and phenomena in the telecommunication markets.

The teams' task is to price and promote various types of telecommunications services, as well as to make the necessary network investments. In addition, research and development (R&D) plays an important role in the SIMCom-model.

Each company offers its services to private and business customers. Three different types of services are offered for private:

- Fixed-line calls
- Mobile calls and services
- Broadband Internet connections

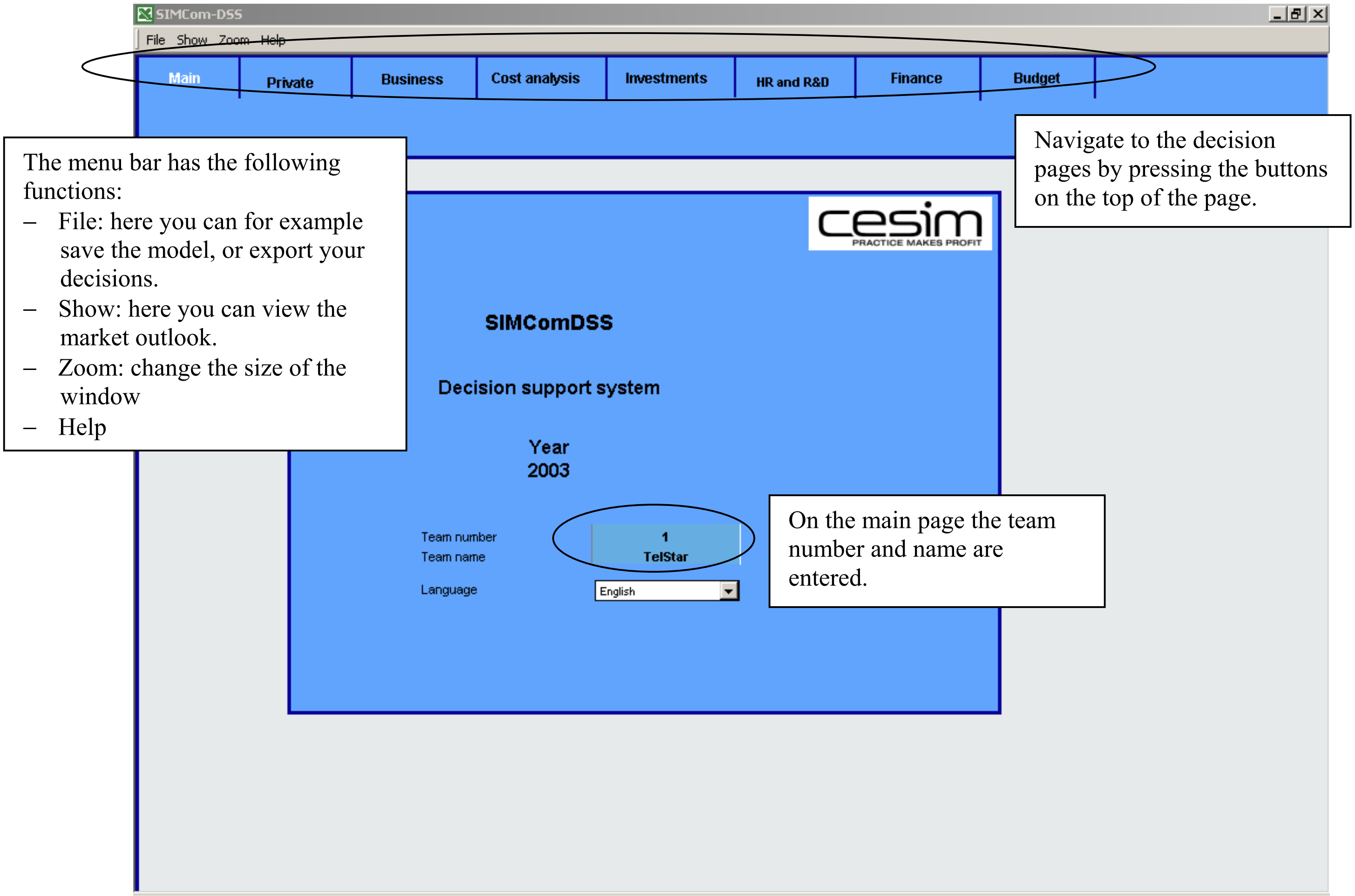
Fixed-line calls, mobile calls and -services and data services are offered for business customers.

Mobile customers are divided into two segments, cross-country and half-pipers. Half-pipers can be considered as early adapters what comes to new services and products.

The success of the SIMCom-company is evaluated after each round by its share price. The share price is based on company's ability to produce return for capital and also future outlook (future outlook depends on customer base and investments in R&D and marketing).

2 Main page

When opening the SIMCom-model the following window will appear:



3 Demand

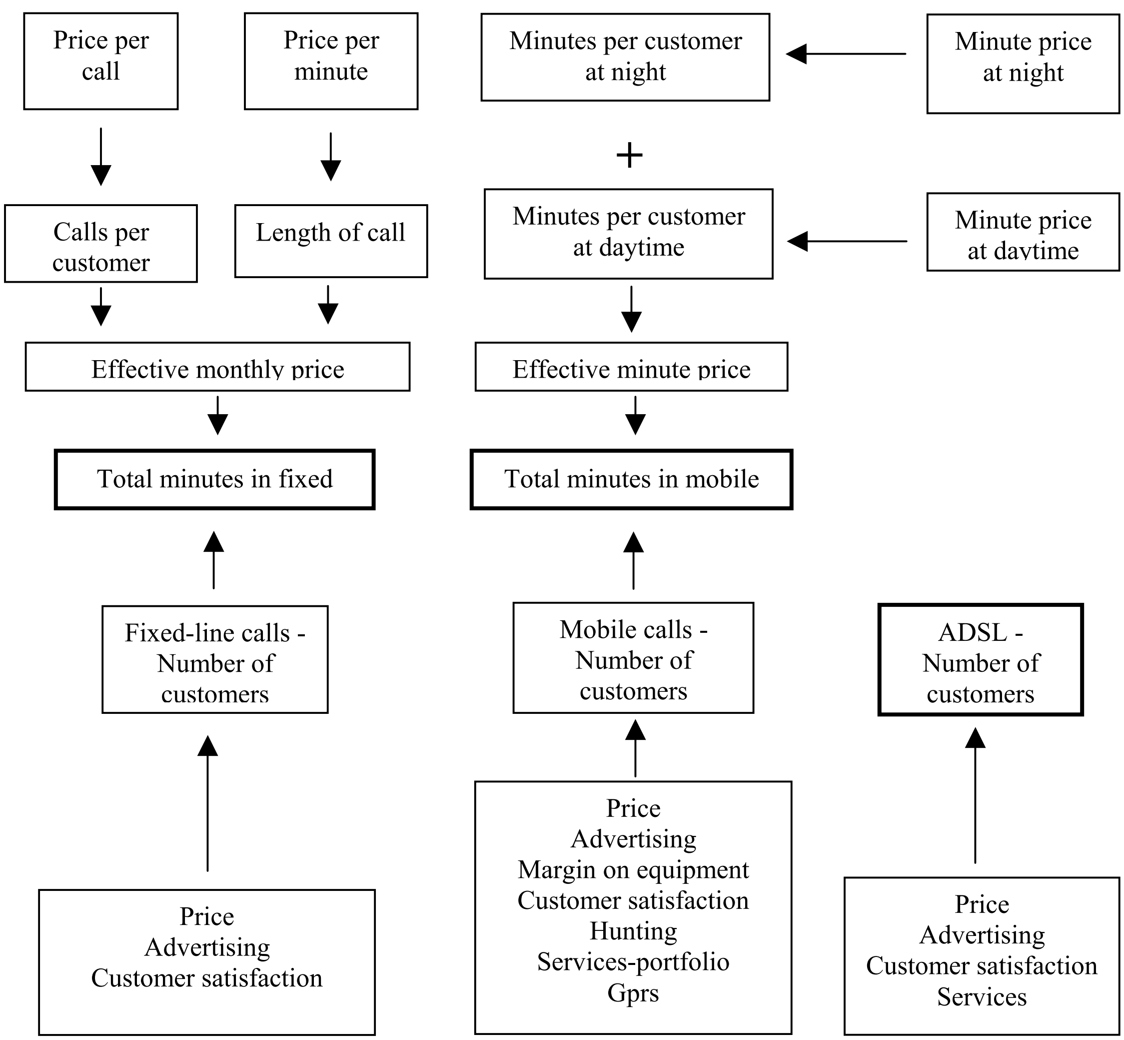
The demand for a company's products and services depends not only on the management team's own decisions but also on the actions of the other players. The competition in the market is tight, and competitors' aggressive price cuts or marketing efforts can bring your market share down.

3.1 Market demand

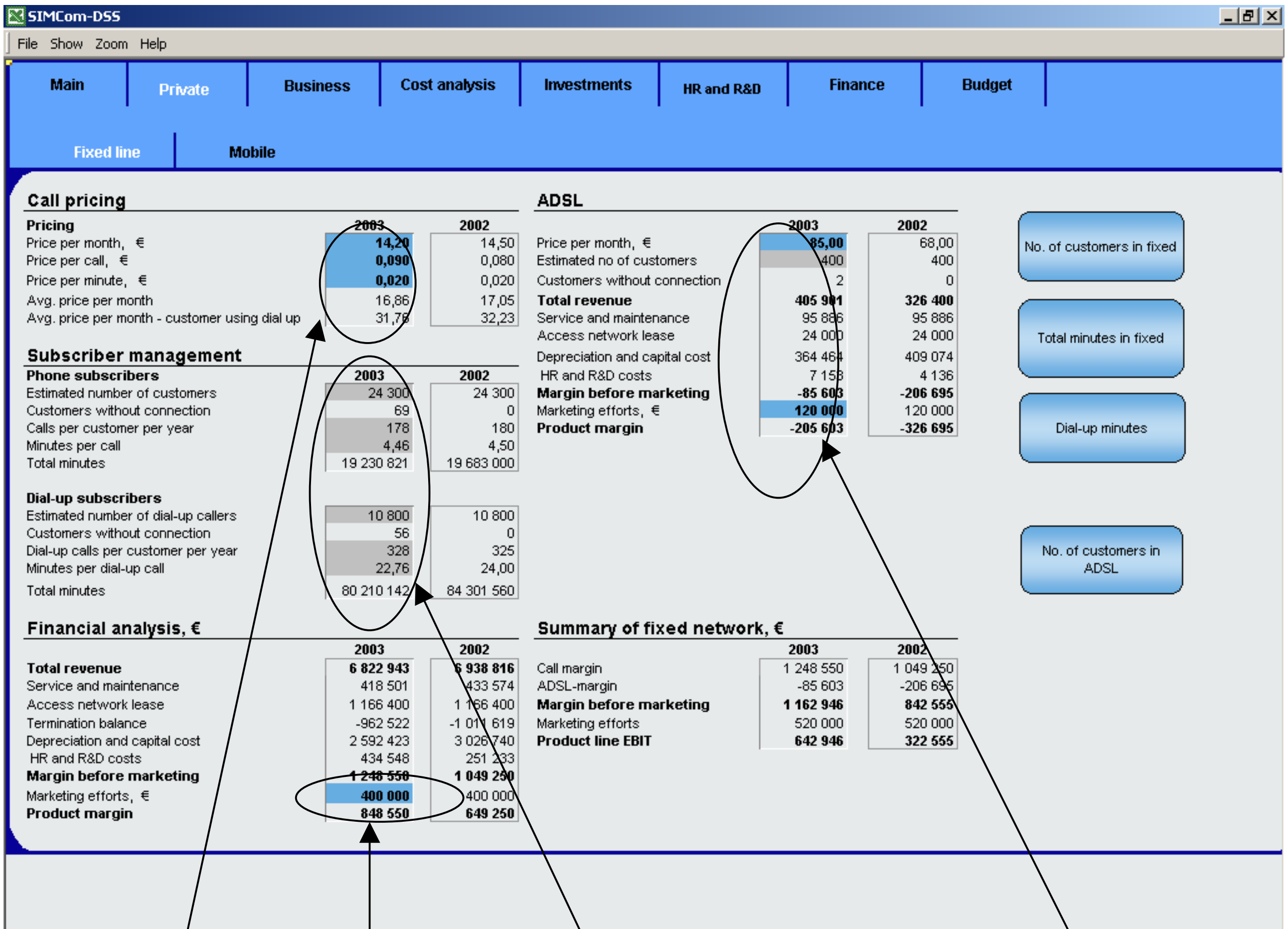
The total market demand forms from a base demand, which is influenced by the average price level and the average marketing effort in the different product markets. Annual market outlook reports give information on the expected changes in the market demand. Players themselves can affect the demand for different products through their actions.

3.2 Market share – private customers

Market share is the company's share of sales from total sales in the market. Both the market share of units sold as well as market share of revenues are important to consider. The picture on the next page clarifies the logic of demand and the factors affecting it.



4 Private customers – fixed line



Pricing of fixed line calls is decided in three parts: a fixed monthly price, price per call, and price per minute. Customers compare the average monthly prices offered by different companies, and this has a strong effect on the companies' market shares.

Also a decision about marketing efforts is made. Advertising is believed to have a cumulative effect on demand, in the sense that advertising efforts made in one year still influence the demand in the following year

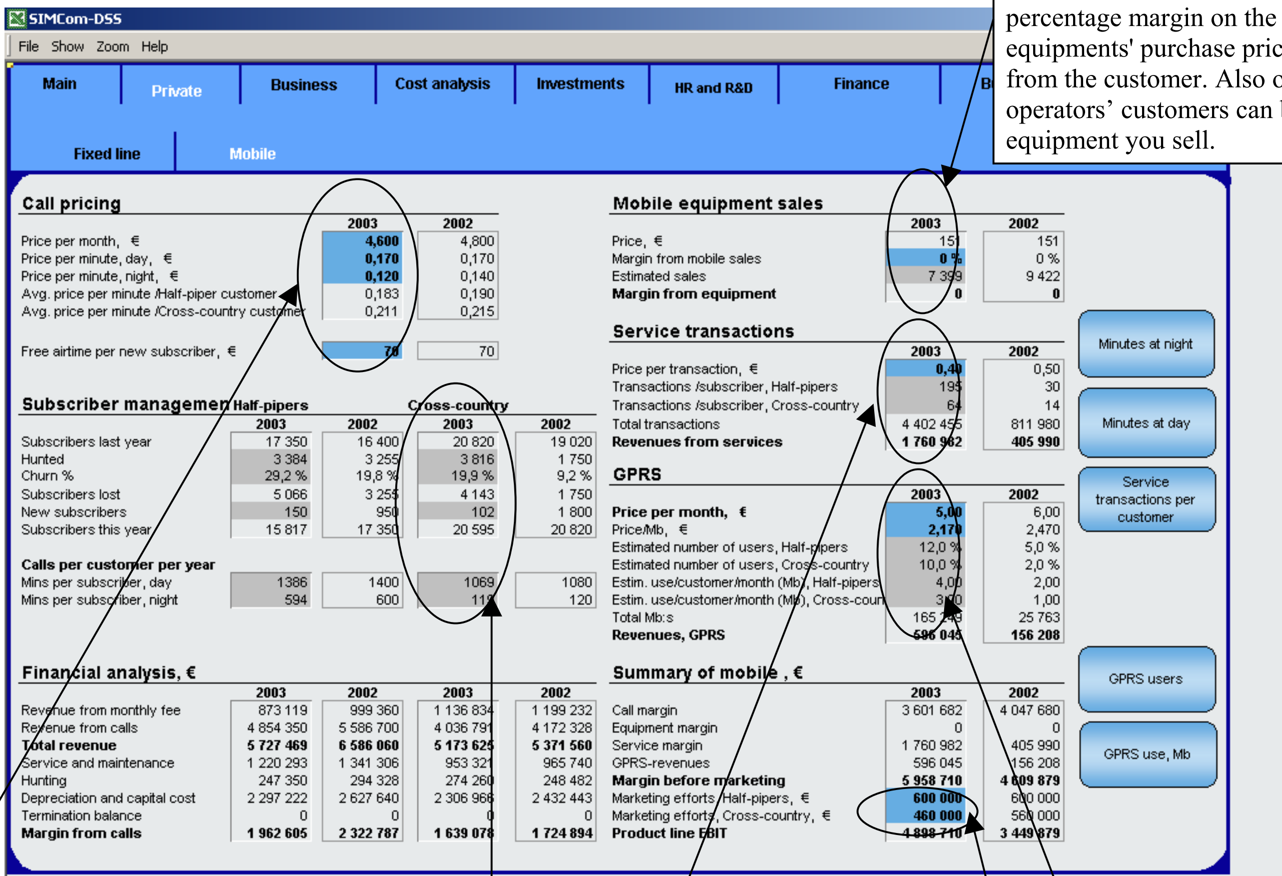
Estimations of number of customers and the number of calls and minutes per call are being made to the gray cells. The average number of calls made by a subscriber in a year varies slightly depending on the price per call, and similarly the average length of call per subscriber varies slightly depending on the minute price.

ADSL connections are priced per month. ADSL customers are quite price-sensitive, which should be considered, when estimating the number of customers. Also a marketing decision is made for ADSL.

The summary demonstrates how the profit of the segment is formed.

Important! The blue cells are for the actual decisions. The grey cells are only for estimations, which help the budgeting process. The estimations should be based on the decisions and the market outlook.

5 Private customers - mobile



In addition to call subscriptions, customers are offered terminal equipment in the mobile sector. The decision made is the percentage margin on the equipments' purchase price charged from the customer. Also other operators' customers can by the equipment you sell.

Pricing of mobile calls is also decided in three parts: a fixed monthly price, price per minute at daytime, and price per minute at night. The prices are same for both segments.

Free airtime offer is an offer of free phone time made to attract new and other teams' mobile customers, which are referred to as "hunted" customers.

The average minute price of mobile calls determines the number of subscribers the company gets. The number of customers is estimated for both segments separately. Churn% demonstrates the no. of customers lost to competitors.

The average time spoken, in both call types, by a subscriber in a year is determined by the price for that type of call.

Services for the mobile segment are priced per transaction. A transaction is for example using a SMS service such as ordering a ring tone.

The demand for services is determined according to the price and the number of services available

For GPRS, a monthly fee and price/Mb is determined. The usage rates of GPRS are at a quite low level in the beginning of the game.

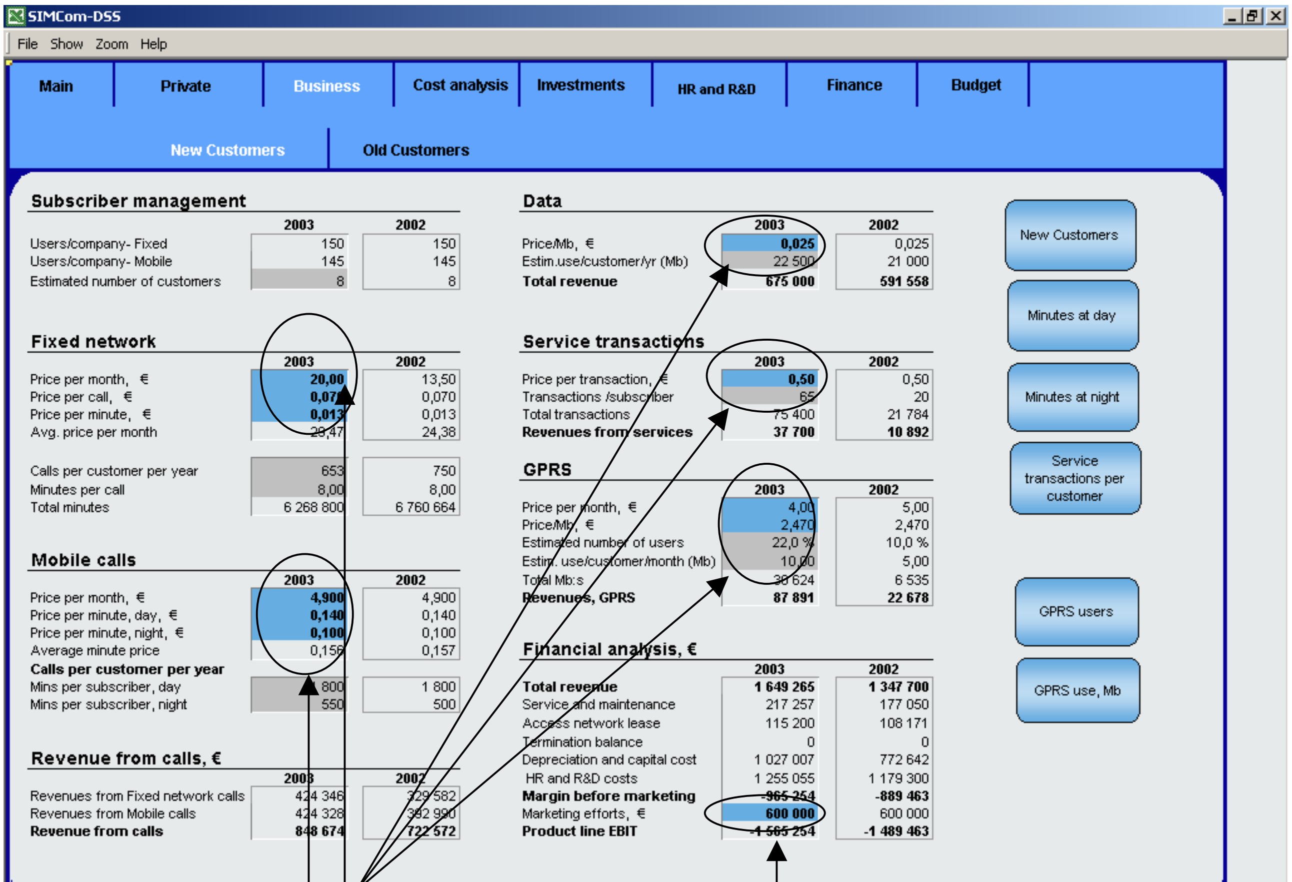
The effect of advertising on demand is different in the different segments, i.e. some customers are more sensitive to advertising efforts than others.

6 Business customers

The business segment is further divided into two categories: new customers and old customers.

6.1 New customers

The New customers-segment consists of totally new customers on the market, and also unsatisfied customers, who are about to change their present operator. New customers are usually not profitable in the first year (high acquisition costs). Profitability is sought through creating the customer value in following years. Integration personnel is needed in acquiring new customers. If there is not enough integration personnel, new business customers can not be acquired.

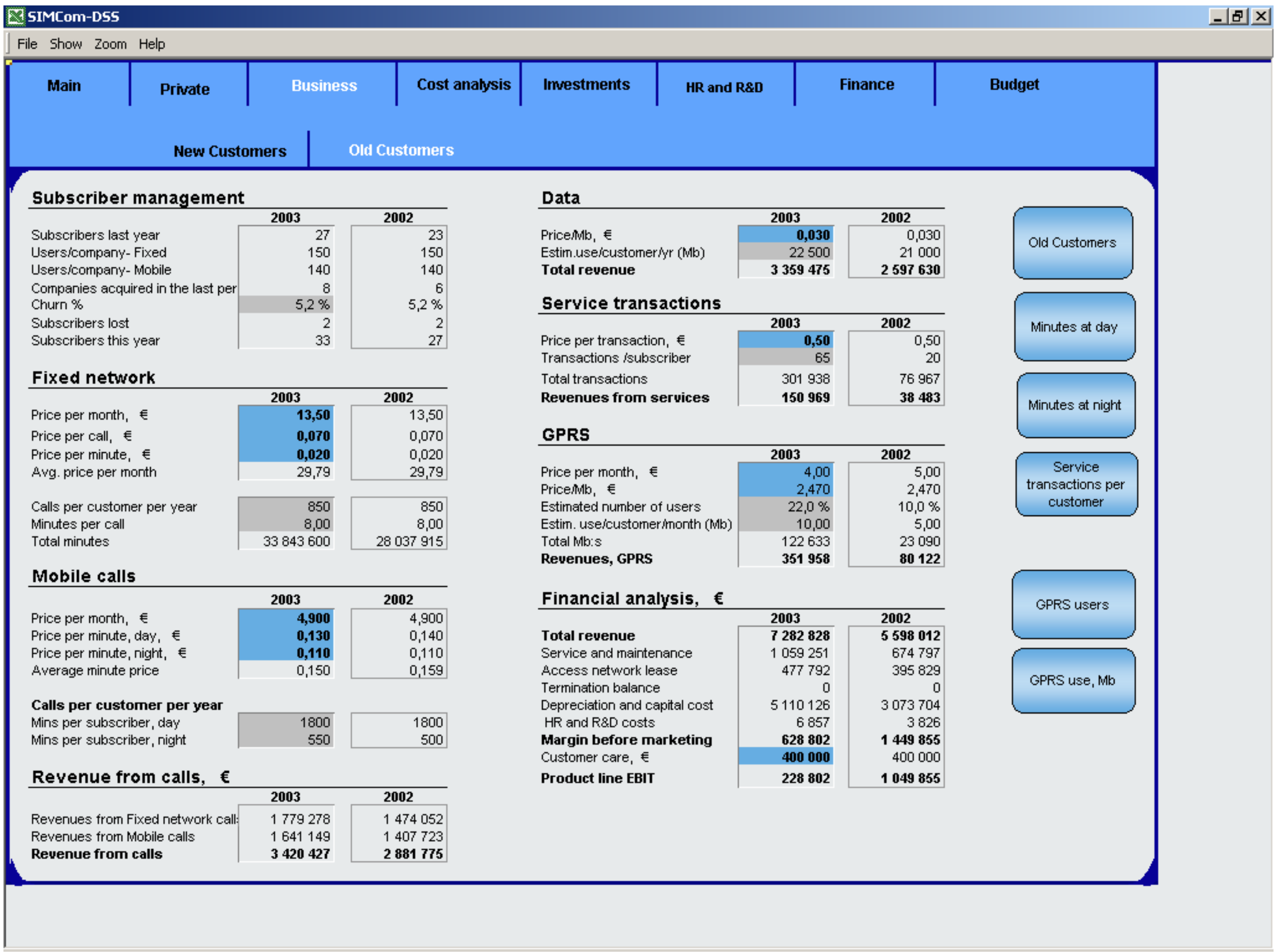


Setting prices for the business customers happens in the same way as for private customers. However, business customers buy all the services from the same operator. Thus business customers estimate the pricing as a whole package. Besides pricing, the demand is affected by advertising, size of service portfolio and the customer satisfaction considering the network capacity.

The segment margin calculation shows information on how the margin is formed. Here also an advertisement decision is made.

6.2 Old customers

The old customers –segment consists of the old customers that have been acquired in earlier years. As was stated, the acquisition costs of new customers are quite high. However, the existing business customers should be more profitable. It is important keep in mind that although old customers tend to have some loyalty towards their present service provider, they are also price conscious. The decision making –page for old customers is similar to the one for new customers.



7 Investments

The network capacity consists of five types of network elements:

- Access network
- Transfer network (bandwidth 2MB)
- Mobile call centers
- Call switches
- ADSL capacity

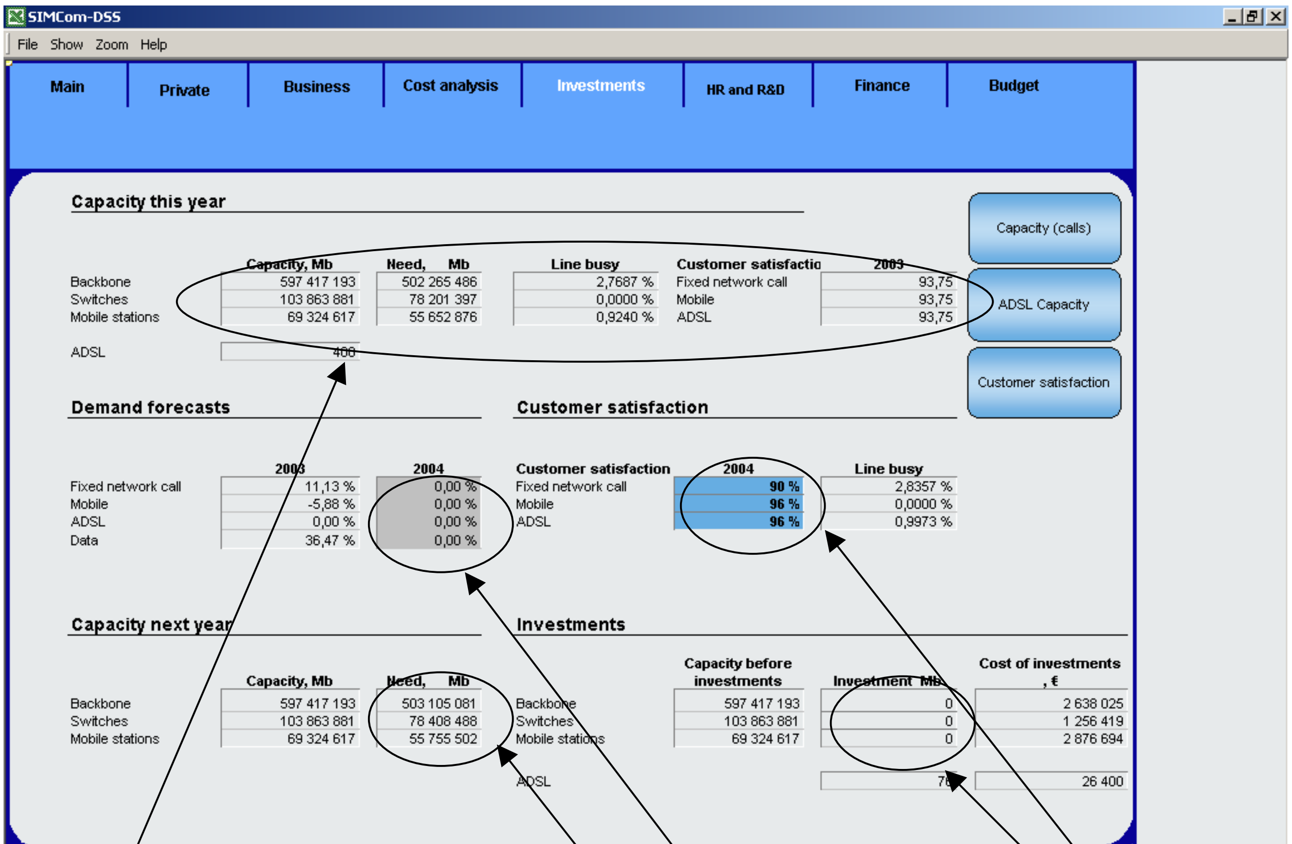
Depreciation of investments is made automatically based on declining balance depreciation. The depreciation for the transfer network is 12,5% and for the other network elements it is 16.67%. The model does replacement investments automatically.

For convenience, the actual capacity investment decisions have been replaced by the selection of targeted levels of customer satisfaction. This is quite feasible, since the achieved level of customer satisfaction and adequacy of investments are strongly related. Thus once the aspired satisfaction levels have been plugged in, the model automatically calculates the required capacity investments to achieve those targets. All investments become completed with one year's delay (excluding ADSL), which means that although the investments are paid the same year the decisions are made, they will not be in use until the following year.

Notice, however, that since the demand for traffic is not evenly spread throughout the year, it is possible that the line is busy even if there is enough capacity to satisfy average demand. Therefore, it is not necessarily optimal to require a full 100% level of customer satisfaction, because achieving perfect service level even during unexpected peaks might require hosting a lot more capacity than what is needed to satisfy the average demand.

Fixed-line calls and ADSL-connections use the access network. Access network is leased from the access network provider. The price for leased access network is fixed per customer. The backbone is used by all of the services, and each sold unit increases its need. If the investments in backbone are too small, quality of the services fall, which will result in loss of customers and call minutes. In this situation, both calls and Internet-connections will suffer from the capacity problem. The number of local calls and call minutes affect the need for call switches.

7.1 Investment decisions



The capacity need for the present year is based on the decisions made in the previous pages. The customer satisfaction depends on the line busy -rate. Because there is a year's lag in investment decisions, the customer satisfaction for the present year can be only influenced through the decisions that affect the demand (the capacity can not be increased for the present year).

Besides the decisions made this year, the growth estimates for the following year affect the capacity need for next year.

Instead of explicit capacity investment decisions, one has to decide the aspired levels of customer satisfaction. Once this is done, the model calculates automatically the required capacity investments.

7.2 Call termination

Because there are several players in the market, inter-company call terminations from one network to another play some role in the business. Termination payments are charged when the company's subscribers call to another operator's network. All calls are subject to termination payments. The model calculates the termination payments and revenues automatically depending on the companies' market shares.

Termination of calls also uses the network capacity. A call from own network to another network takes up 50% of the capacity of a normal call in own network. Similarly, receiving a call from a different network also takes up 50% of the network call capacity.

7.2.1 Fixed line calls – dial-up customers

The most important thing to understand about terminations is the costs that result from fixed line call customers making also dial-up Internet calls.

The customers who use their fixed line for both phone calls and dial-up Internet calls have acquired their dial-up connection from an outside service provider. This causes excess costs, as termination charges has to be paid for the firm providing the dial-up services. Because in this model companies do not offer dial-up services to their customers, the termination balance regarding dial-up calls is always negative, taken that the company has fixed line call customers owning a dial-up connection.

7.2.2 Fixed line calls and mobile calls

Terminations of fixed line calls and mobile calls generally have little impact on the company's termination balance, because incoming and outgoing calls tend to balance out. An example could be a company with a small market share in fixed line customers. This company‘s customers call quite a lot to another operator’s network. Thus the company pays termination fees to other companies. However, its customers receive calls from other networks and termination revenues tend to balance the costs.

8 Personnel and development of value-added services

8.1 Installation personnel

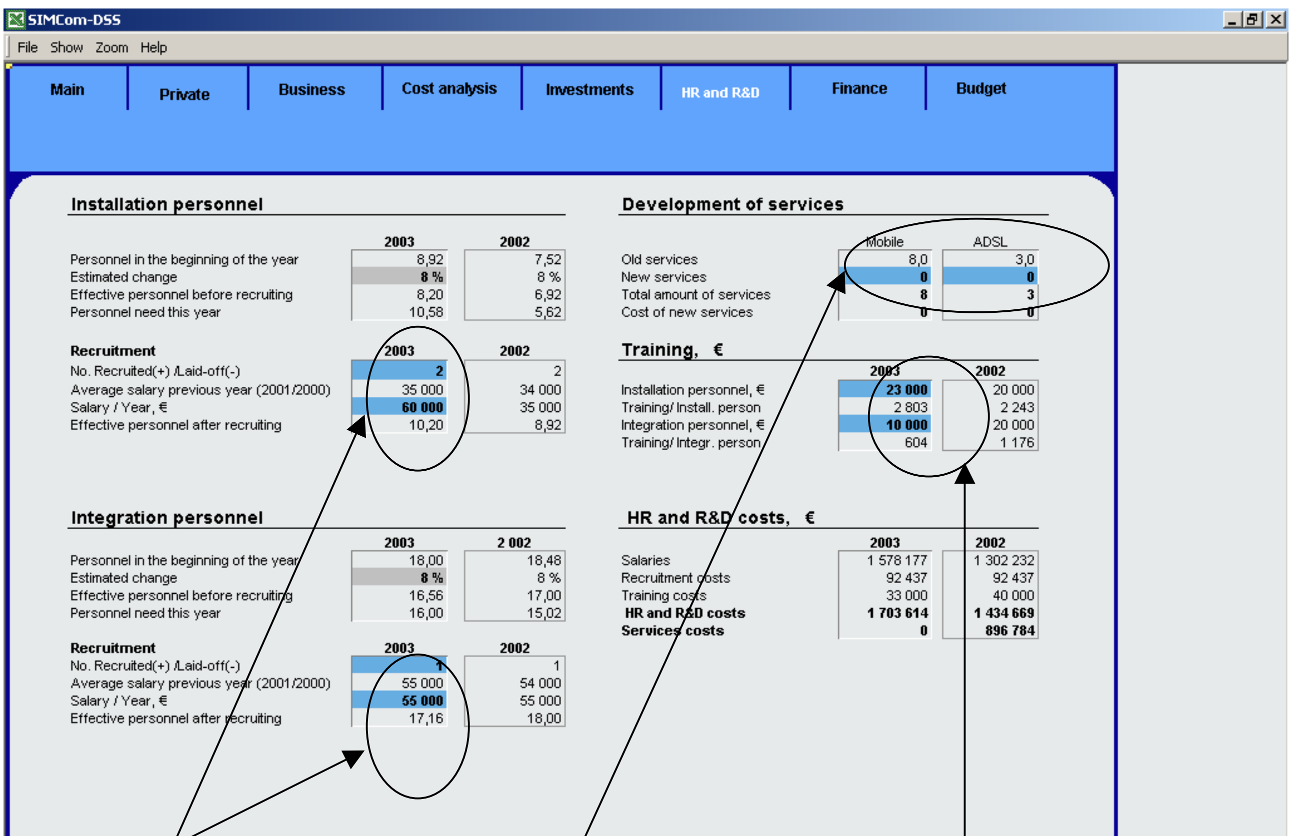
Installation personnel is needed for fixing new fixed- and ADSL –connections. There might at some times be a lack of this resource in the market. Not having enough installation personnel affects the customer satisfaction and also the demand.

8.2 Integration personnel

Integration personnel is needed to integrate the telecommunications of new business customers. If the company does not have enough integration personnel, the company cannot get new business customers. Also integration personnel is a scarce resource in the market.

8.3 Recruitment

Besides salary, the attractiveness of the company is being considered, when potential employees choose their employer. Advertising, investments into personnel training, share value, and personnel turnover in the provious years are factors that are related to the attractiveness of the company.



Personnel need is based on the estimations made in the previous pages (number of customers). Besides increasing/reducing the number of employees, also their salary is decided.

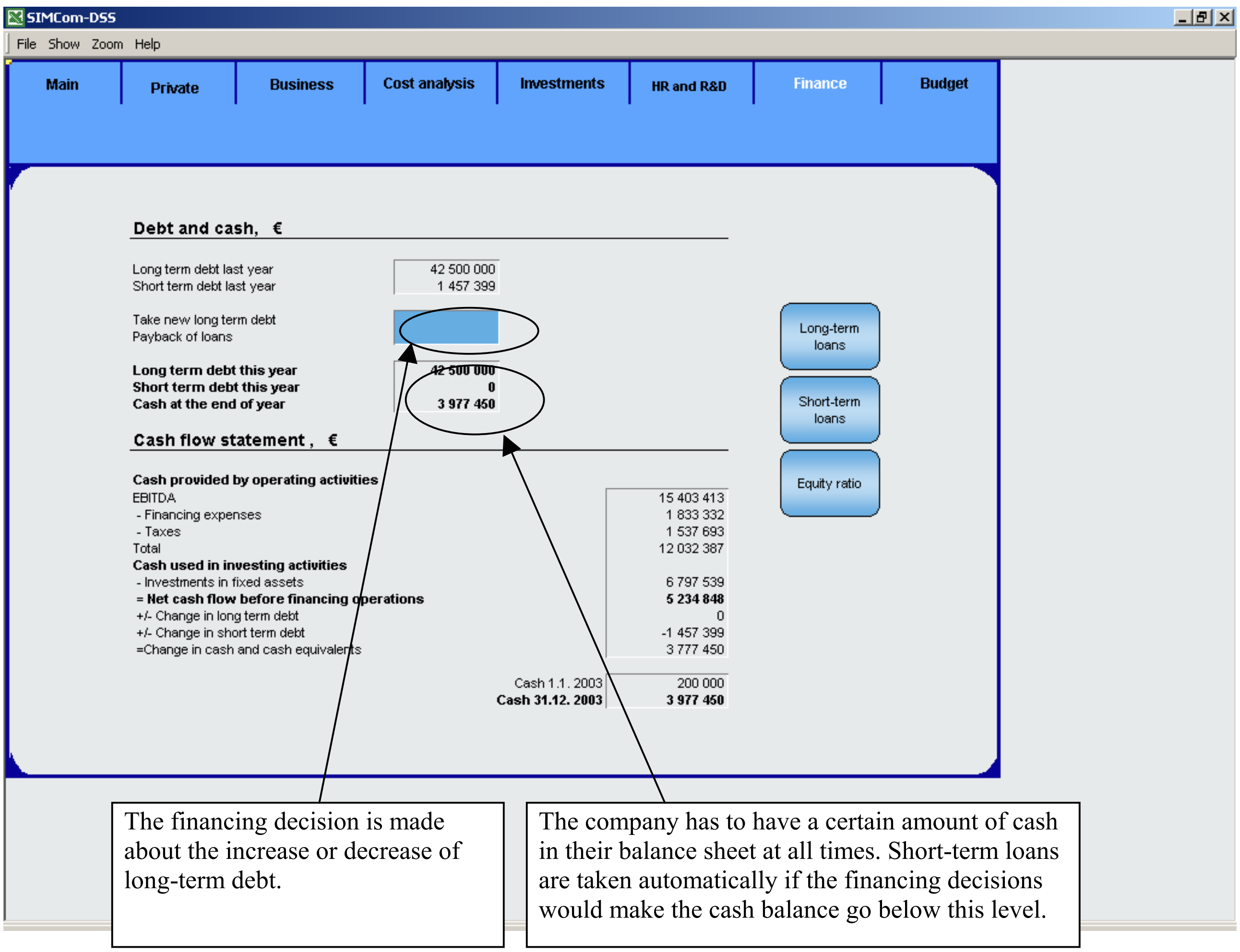
The development of services happens by deciding the number of services that are developed each year. As a result a service portfolio is being created, which affects the demand of ADSL and mobile connections and also the demand for mobile services.

Investments into personnel training employees affect the corporate image as an employer and thus the interests of the present and potential employees.

9 Financing

9.1 Loans and cash

The company has a fixed amount of share capital. The financing decision is made about the increase or decrease of long-term debt. The company has to have a certain amount of cash in their balance sheet at all times. Short-term loans are taken automatically if the financing decisions would make the cash balance go below this level. The interest of the loans depend on the debt equity to assets –ratio. With a relatively high ratio the interest is low, however, when the amount of debt increases also the interest increases. The interest for long time debt is always lower than for short time debt.



9.2 Cash flow statement

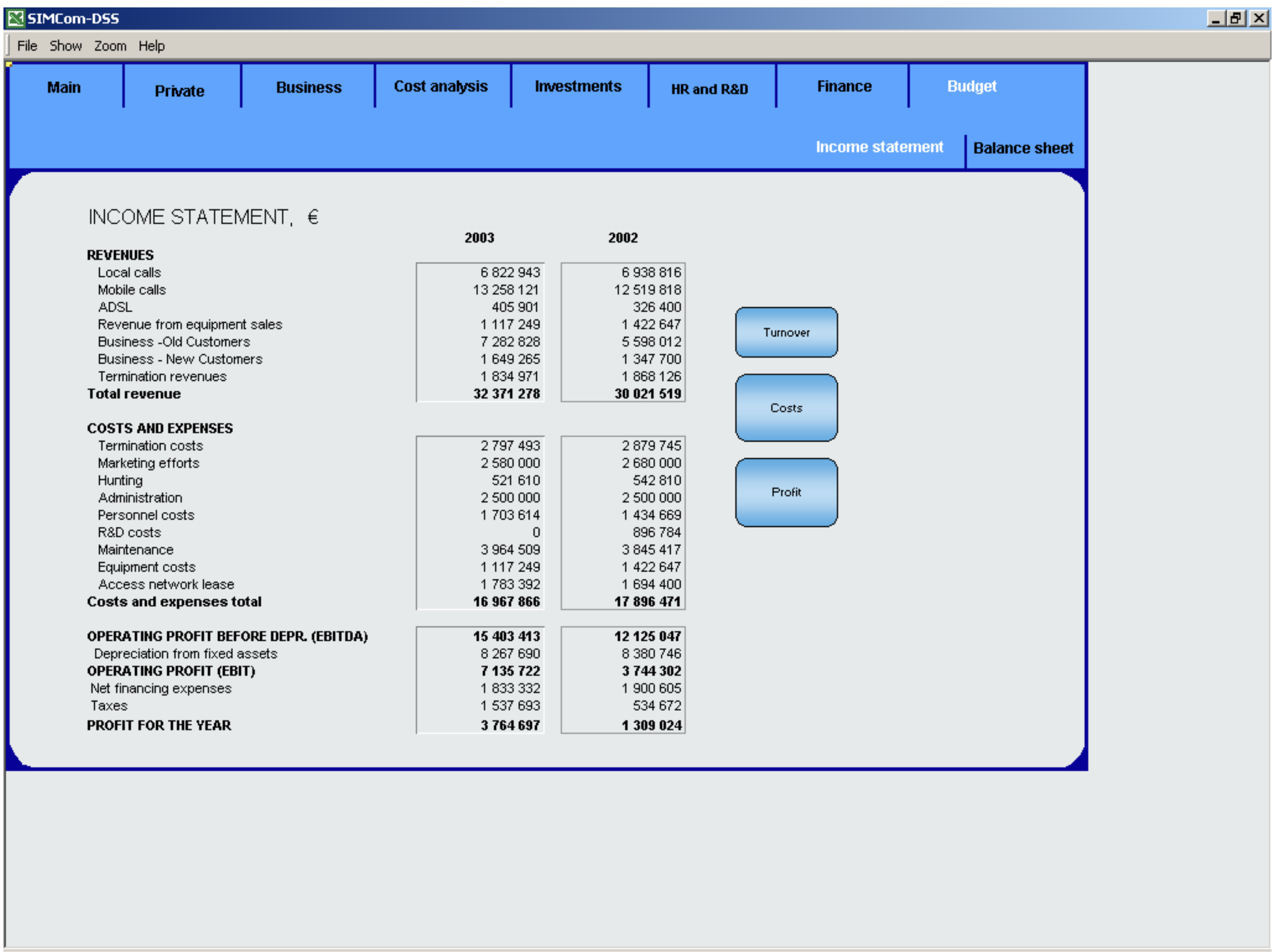
This statement is useful for financial planning. It allows the management teams to follow the sources and uses of funds. It is divided into three sections: cash provided by operating activities, cash used in investing activities, and cash provided by financing activities.

10 Income statement

The revenues of the company are divided into nine parts: fixed line calls, mobile calls, ADSL connections, old business customers, new business customers, gprs, services, equipment sales and termination revenues.

Costs are divided into nine categories. The first row shows the termination costs. Marketing effort costs include all marketing actions taken by the company. Free airtime costs result from acquiring new customers. Administration costs are fixed in the sense that the company management cannot influence them. Personnel costs consist on salaries and personnel development. R&D costs depend on the R&D decisions. Maintenance costs consist of the costs of maintaining the networks as well as customer service costs. Equipment purchase costs depend on the number of terminals sold and the last row presents the costs of the access network.

Net financing expenses consist of the interest of the short- and long-term loans included with the interest paid for cash. The tax rate for the companies is 29%.



	2003	2002
REVENUES		
Local calls	6 822 943	6 938 816
Mobile calls	13 258 121	12 519 818
ADSL	405 901	326 400
Revenue from equipment sales	1 117 249	1 422 647
Business -Old Customers	7 282 828	5 598 012
Business - New Customers	1 649 265	1 347 700
Termination revenues	1 834 971	1 868 126
Total revenue	**32 371 278**	**30 021 519**
COSTS AND EXPENSES		
Termination costs	2 797 493	2 879 745
Marketing efforts	2 580 000	2 680 000
Hunting	521 610	542 810
Administration	2 500 000	2 500 000
Personnel costs	1 703 614	1 434 669
R&D costs	0	896 784
Maintenance	3 964 509	3 845 417
Equipment costs	1 117 249	1 422 647
Access network lease	1 783 392	1 694 400
Costs and expenses total	**16 967 866**	**17 896 471**
OPERATING PROFIT BEFORE DEPR. (EBITDA)	**15 403 413**	**12 125 047**
Depreciation from fixed assets	8 267 690	8 380 746
OPERATING PROFIT (EBIT)	**7 135 722**	**3 744 302**
Net financing expenses	1 833 332	1 900 605
Taxes	1 537 693	534 672
PROFIT FOR THE YEAR	**3 764 697**	**1 309 024**

11 Balance sheet

11.1 Assets

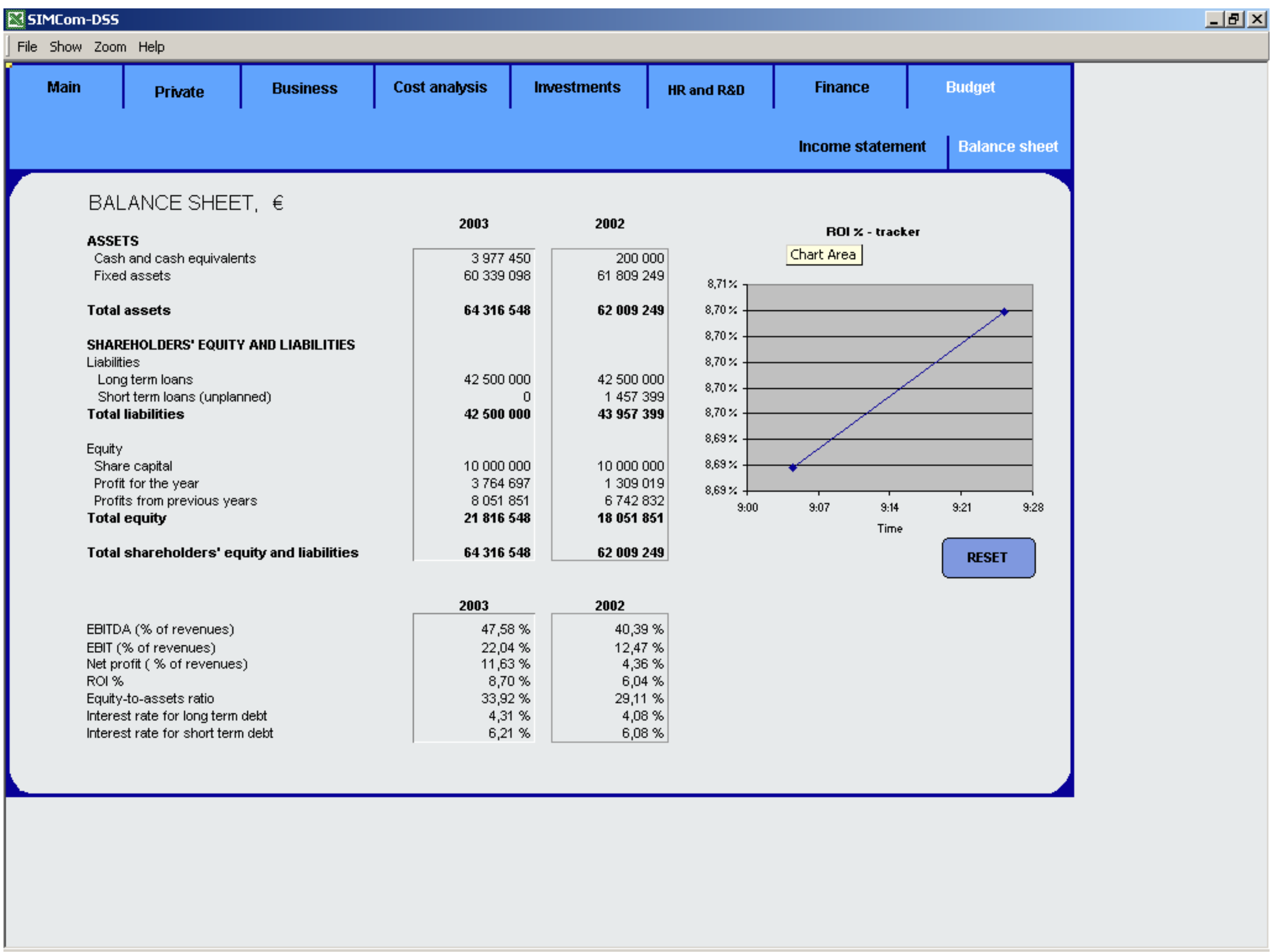
“Fixed assets” is the cumulated value of investments minus depreciations.

There is a minimum cash requirement in the game. Short-term loans are taken automatically by the model, if the management's decisions would make the cash fall below this minimum level.

11.2 Equity and liabilities

Equity consists of share capital and retained earnings. The share capital is fixed in the model, i.e. equity-financing is not possible. Cumulative earnings therefore are the only element that change the company's equity.

Liabilities are divided into short-term loans and long-term loans.



11.3 Financial indicators

The ratios presented in the reports are calculated as follows:

Operating margin (EBITDA): $100\% \times \frac{earnings\ before\ depreciation}{revenues}$

EBIT %: $100\% \times \frac{EBIT}{revenues}$

Net profit %: $100\% \times \frac{profit\ for\ the\ year}{revenues}$

Return on assets (ROI): $100\% \times \frac{EBIT}{total\ assets}$

Equity-to-assets ratio: $100\% \times \frac{Equity}{total\ assets}$

The interest for long term loans depend on the companies debt equity to assets –ratio. With a relatively low ratio, the financers want more interest for their loan.

The interest for short term loans are the interest for a long term loan plus 2-4%.