



# **TOPSIM-Simulations**

*Learning business by doing business*

# **TOPSIM – Euro**

## **Participants Manual**

Version 5.0

# Contents

	Page
<b>1. Introduction .....</b>	<b>1</b>
1.1 What is TOPSIM - Euro ?.....	2
1.2 The Learning Targets of TOPSIM - Euro .....	2
1.3 The Business Matters of TOPSIM - Euro.....	3
<b>2. Structural, Influence, and Decision Making Factors in TOPSIM - Euro .....</b>	<b>4</b>
2.1 Basic Concept of TOPSIM - Euro .....	5
2.2 EU as a Complex Network System .....	6
2.3 Standard Structure of a Base Company in Euro.....	8
2.4 Possible Game Strategies.....	9
2.5 Influence Factors in a Region.....	11
2.6 Structural Characteristics of the Regions.....	12
2.7 Participants' Range of Decision .....	13
2.7.1 Strategic Decisions .....	13
2.7.2 Operational Decisions .....	15
2.7.2.1 Operational Decisions for the Base Company.....	15
2.7.2.2 Operational Regional Decisions .....	17
2.7.2.3 Operational Logistics Decisions .....	18
<b>3. Starting Position .....</b>	<b>19</b>
3.1 Companies' Starting Position.....	20
3.2 Total Results for the Regions .....	21
<b>4. The Companies and their Courses of Action .....</b>	<b>22</b>
4.1 An Overview of Company Divisions .....	23
4.2 Marketing / Sales .....	24
4.2.1 Product Policy .....	24
4.2.2 Price Policy .....	25
4.2.3 Communications Policy.....	25
Sales Advertising.....	25
Sales Promotion .....	26
Corporate Identity .....	26
4.2.4 Distribution Policy .....	27
Markets and Customers.....	27
Sales Reps.....	27
Transport Cost.....	27
Loss .....	27
Development of Sales Personnel .....	28
4.2.5 Marketing-Mix.....	28
4.2.6 Inability to Supply .....	29
4.2.7 Market Research Reports .....	29
4.2.8 Costs of the Sales Network .....	29
4.3 Production .....	30
4.3.1 Number of Production Lines at the Starting Position.....	30
4.3.2 Production Costs .....	30
4.3.3 Investments .....	30
4.3.4 Rationalization.....	31
4.3.5 Stock Control.....	31
4.4 Purchasing .....	32
4.5 Personnel .....	34
4.5.1 General Personnel Information at the Starting Point .....	34
4.5.2 Possibilities for Varying Staff Levels.....	35

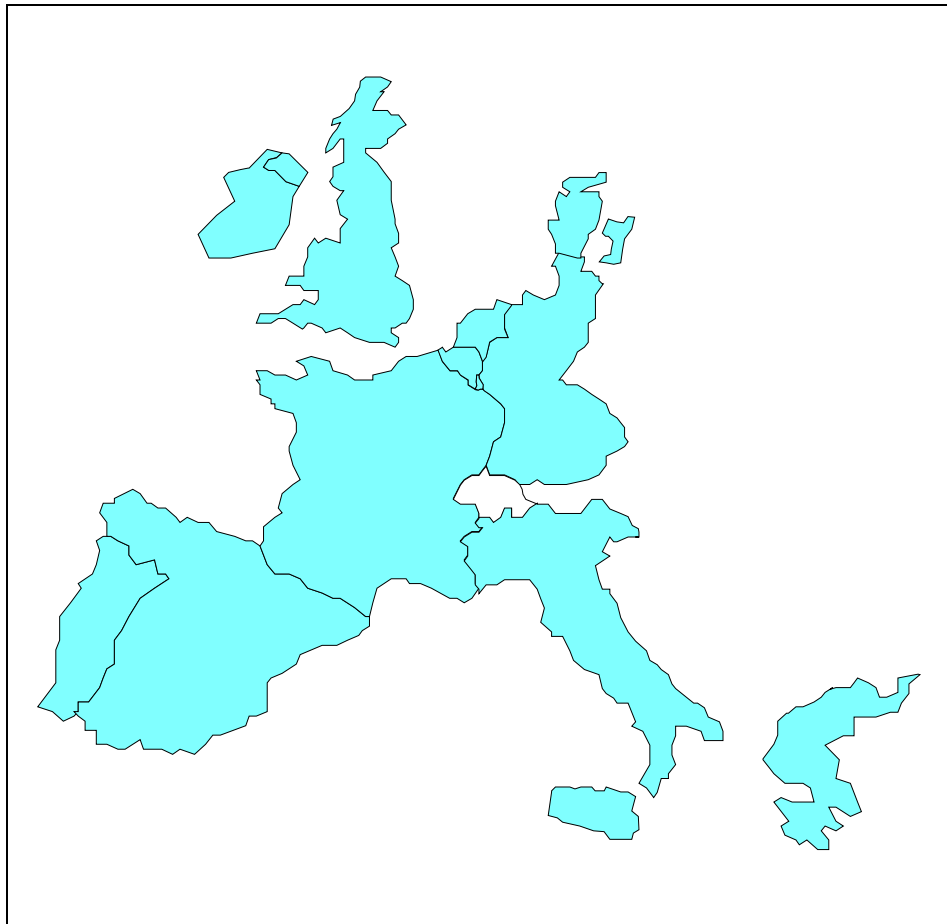
4.5.3	Training for Production Staff and Staff Turnover.....	35
4.5.4	Administrative Staff.....	36
4.6	Finance and Accounting.....	36
4.6.1	Customers' Paying Habits.....	36
4.6.2	Financial Investments.....	36
4.6.3	Loans.....	36
	Short- and Long-Term Loans.....	36
	Overdrafts.....	37
4.6.4	Taxation.....	37
4.6.5	Dividend Payments.....	37
4.6.6	Share Price and the Value of Company.....	38
4.7	Cooperation Partners.....	38
4.7.1	Cooperation Partners for Production.....	38
4.7.2	Cooperation Partners for Sales.....	39
<b>Appx. 1 Starting Point of the Company.....</b>		<b>40</b>
	Data at the Beginning of Period 0.....	41
	Overview of Stock and Staff Levels.....	41
	Balance Sheet Data.....	41
	Operational Decisions.....	42
	Operating Reports at the End of Period 0.....	43
	1. Regional Report for the Base Company.....	44
	2. Product - Transport Report.....	45
	3. General Overview (MEuro).....	46
	General Overview (Euro/Unit).....	47
	4. Cost Unit Account.....	48
	5. Profit and Loss Account.....	49
	6. Financial Report, Balance Sheet and Ratios.....	50
	7. Target-Actual Variances.....	52
	8. Market Research Report.....	53
	9. Business Report of Industry.....	54
<b>Appx. 2 The Market for Electrical Household Equipment in TOPSIM - Euro.....</b>		<b>57</b>
	1. General.....	58
	2. Electrical Household Equipment in the EU: Overview.....	58
	3. Present Situation.....	58
	4. Production.....	59
	5. Consumption.....	59
	6. Employment Rates.....	60
	7. Structural Changes.....	60
	8. Companies in the Market.....	60
	9. Prospects.....	61
	10. National Characteristics.....	61

# TOPSIM - Euro

---

1.

## Introduction



## 1.1 What is TOPSIM - Euro ?

**TOPSIM - Euro** is a strategy simulation of the opportunities and threats for companies that result from the opening of international markets (e.g. European common market).

As a business strategy game, TOPSIM - Euro simulates the manufacturing of a “Euro washing machine” for up to 9 fiscal years by 5 companies in 5 different regions. Typically, a team made up of 3 to 5 participants represents each company.

- The starting position is different for each company and is determined by the structural data of the respective regions.
- The companies have to make a variety of commercial decisions.
- **TOPSIM - Euro** simulates market behavior taking into account
  - the decisions of the participating companies,
  - the behavior of potential customers, and
  - the influence of general economic development.

The results are made available to the companies in the form of reports.

## 1.2 The Learning Targets of TOPSIM - Euro

The primary learning target is:

**Businesslike thinking, planning, and acting  
in an international context.**

Further targets include,

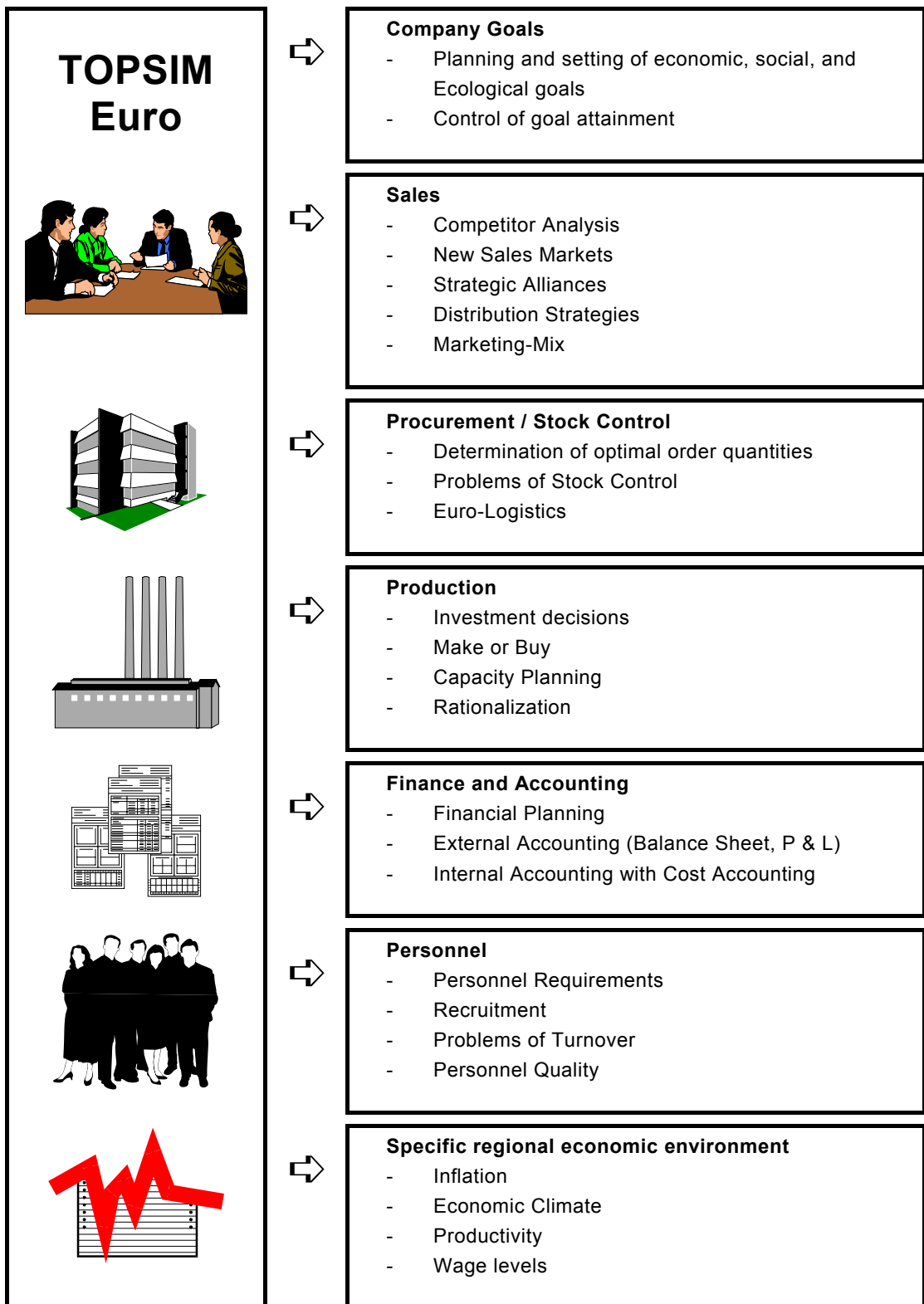
the correct analysis of market situations and market potential in Europe taking regional differences into account, and making targeted decisions on this basis, especially:

**Expansion strategies** for European regions such as:

- **Cooperation** with other companies,
- **Purchase** of other companies, or
- **Creation** of own companies.
- Further product development in line with market demands, particularly with respect to technology and environmental concerns.
- Setting prices, advertising, sales promotion, and distribution in line with market demands.
- Decisions about investments in capacity, rationalization, recruitment/lay-offs of production personnel, procurement of supplies, and financial strategies.
- Formulation of plans, their application, and ongoing control of their effectiveness.
- Practice in the use of PCs and planning software as tools and as aids in decision-making.

### 1.3

### The Business Matters of TOPSIM - Euro

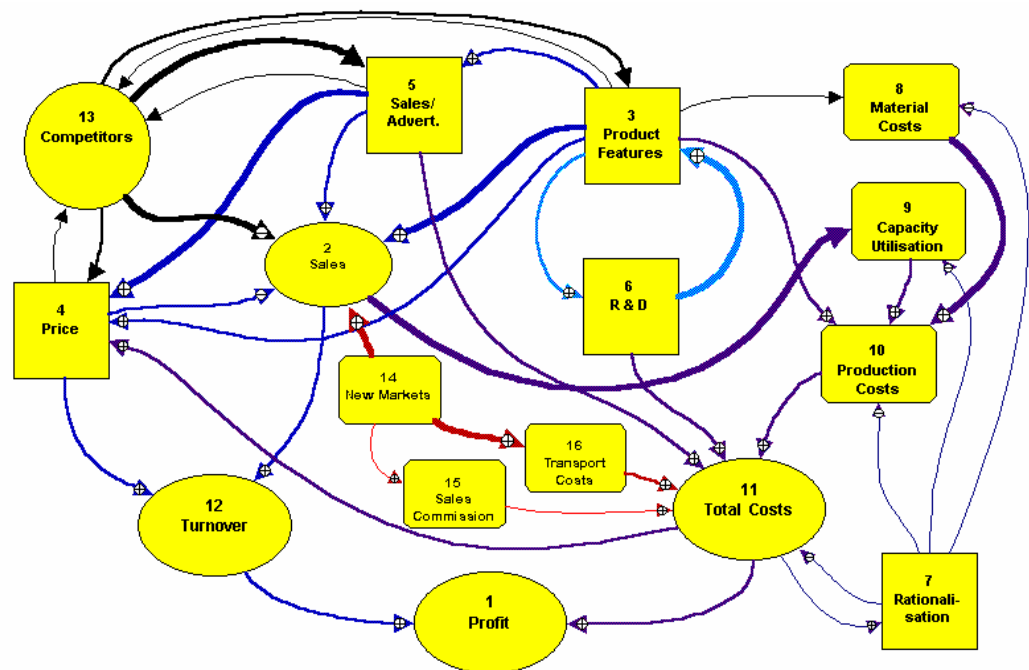


# TOPSIM - Euro

---

## 2.

### Structural, Influence, and Decision Making Factors in TOPSIM - Euro

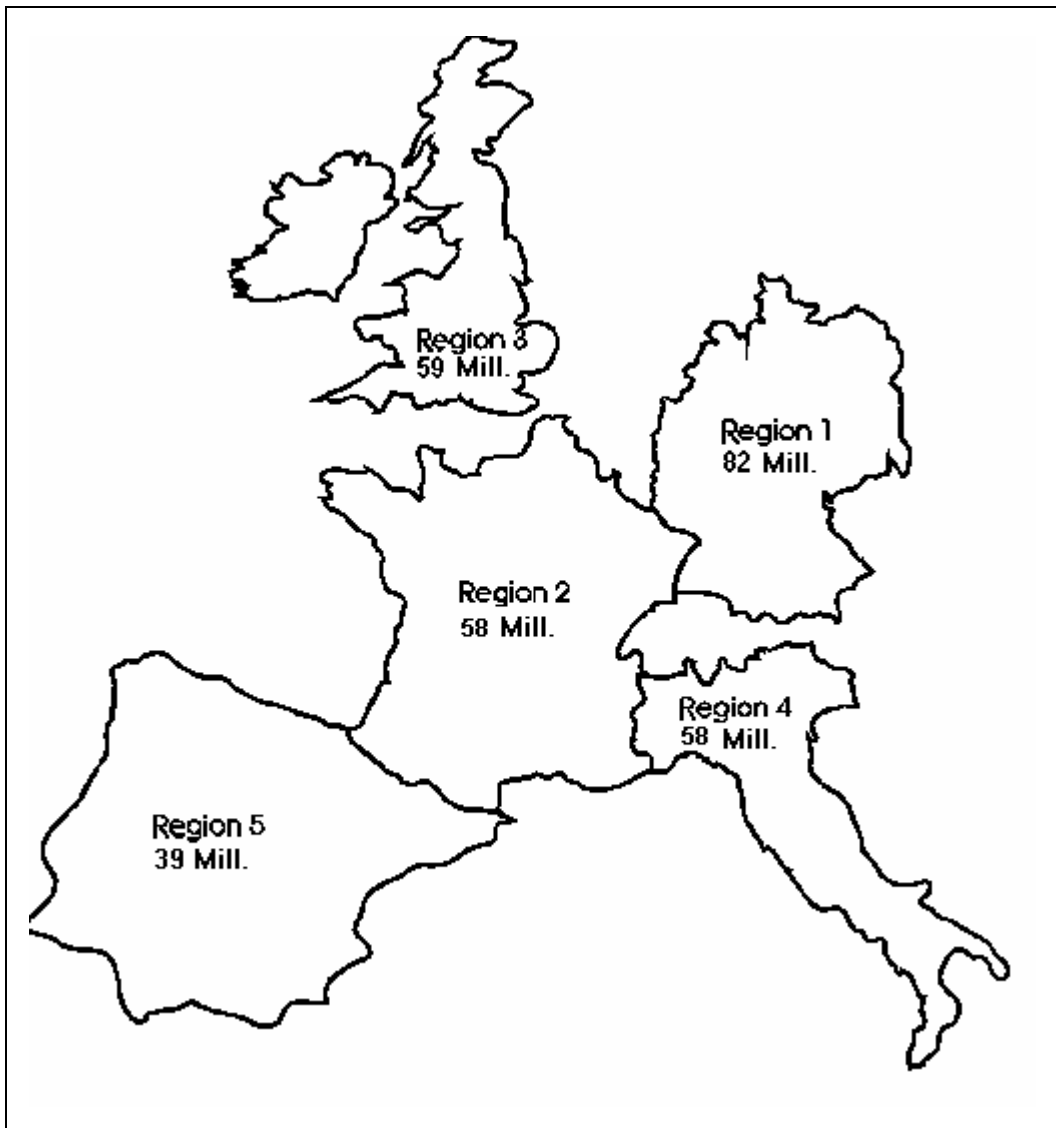


## 2.1 Basic Concept of TOPSIM - Euro

Europe is divided into the following five geographic regions. In the simulation they are represented by the following countries :

λ	<b>Region 1 :</b>	<b>Germany</b>	<b>The currency unit for the game is  Euro</b>
λ	<b>Region 2 :</b>	<b>France</b>	
λ	<b>Region 3 :</b>	<b>Great Britain</b>	
λ	<b>Region 4 :</b>	<b>Italy</b>	
λ	<b>Region 5 :</b>	<b>Spain</b>	

The five regions in TOPSIM - Euro and their population in millions.



### The situation at the start of the simulation:

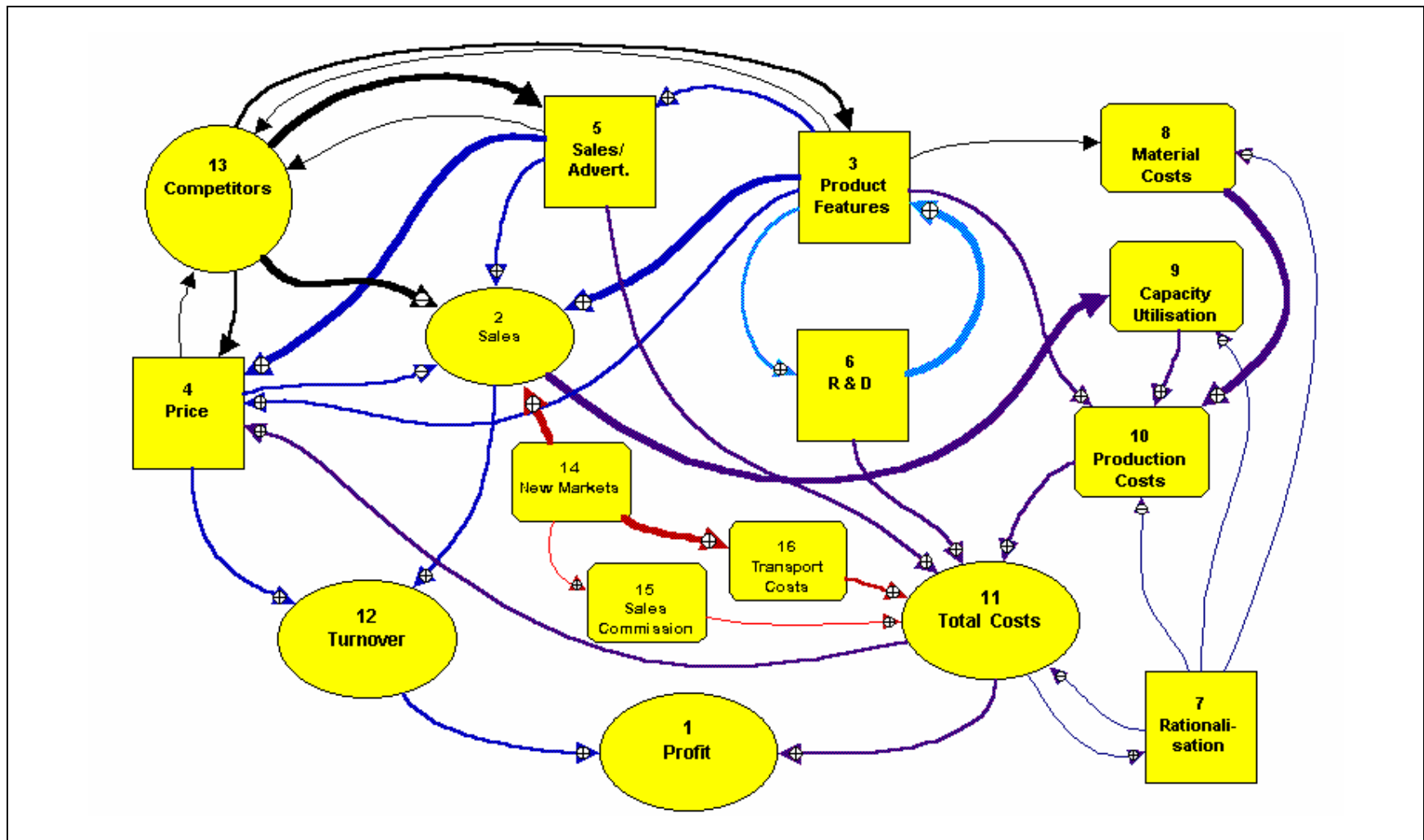
- Each group is based in one of the five regions.
- One product, the **Euro washing machine**, is produced and marketed there.
- The groups have different market shares.
- The groups are initially only active in their national markets.

The seminar leaders can open a **new Region 6** whenever they choose. (e.g. Russia, Hungary, Poland etc.)

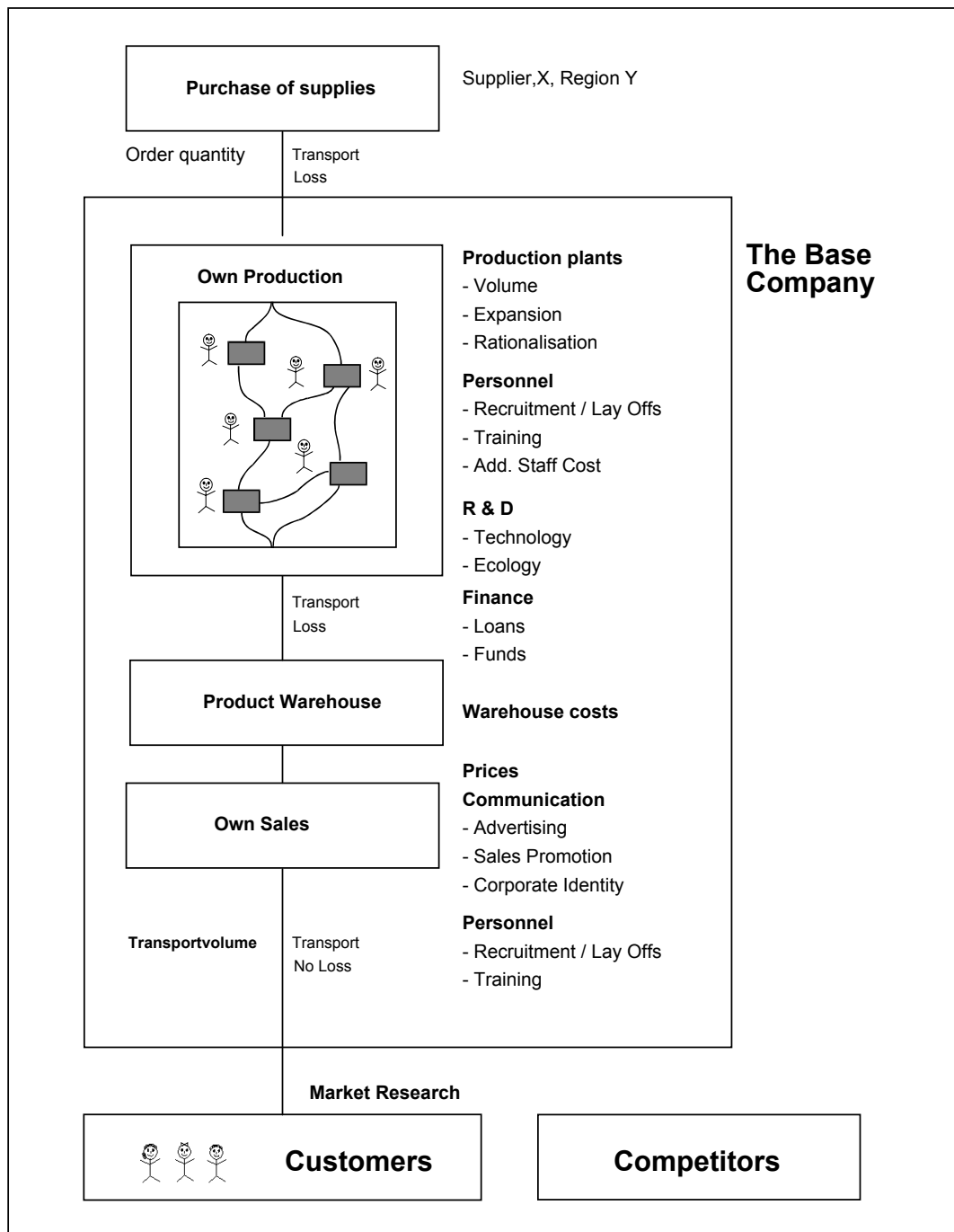


In **TOPSIM - Euro** the participants learn to understand that business is an increasing complex network. They will have to turn this knowledge into competitive advantages for their companies.

An example of a company's situation in **TOPSIM - Euro**, depicted as a network structure :



## 2.3 Standard Structure of a Base Company in Euro



The chart shows the three main elements of the base company:

- Own Production
- Product warehouse
- Own Sales

Typical variables are shown within the main elements.

## 2.4 Possible Game Strategies

The following strategic choices are available to the individual companies

Strategies in other regions:		
Creation of own Companies	<i>Production</i>	<i>Sales</i>
Cooperation with other Companies	<i>Production</i>	<i>Sales</i>
Purchase of Companies	<i>Production</i>	<i>Sales</i>

The overview shows the starting position for Company 1 Period 0: The company is based in Region 1 and has its own Production and Sales network there.

Strategy		Region 1	Region 2	Region 3	Region 4	Region 5
Own Company	Production	✓				
	Sales	✓				
Cooperation	Production					
	Sales					
Purchase of Companies	Production					
	Sales					

In each region, it can build up its own production and sales sites, cooperate with local companies, or purchase existing local companies.

### Possible situations for Company 1 in Period X :

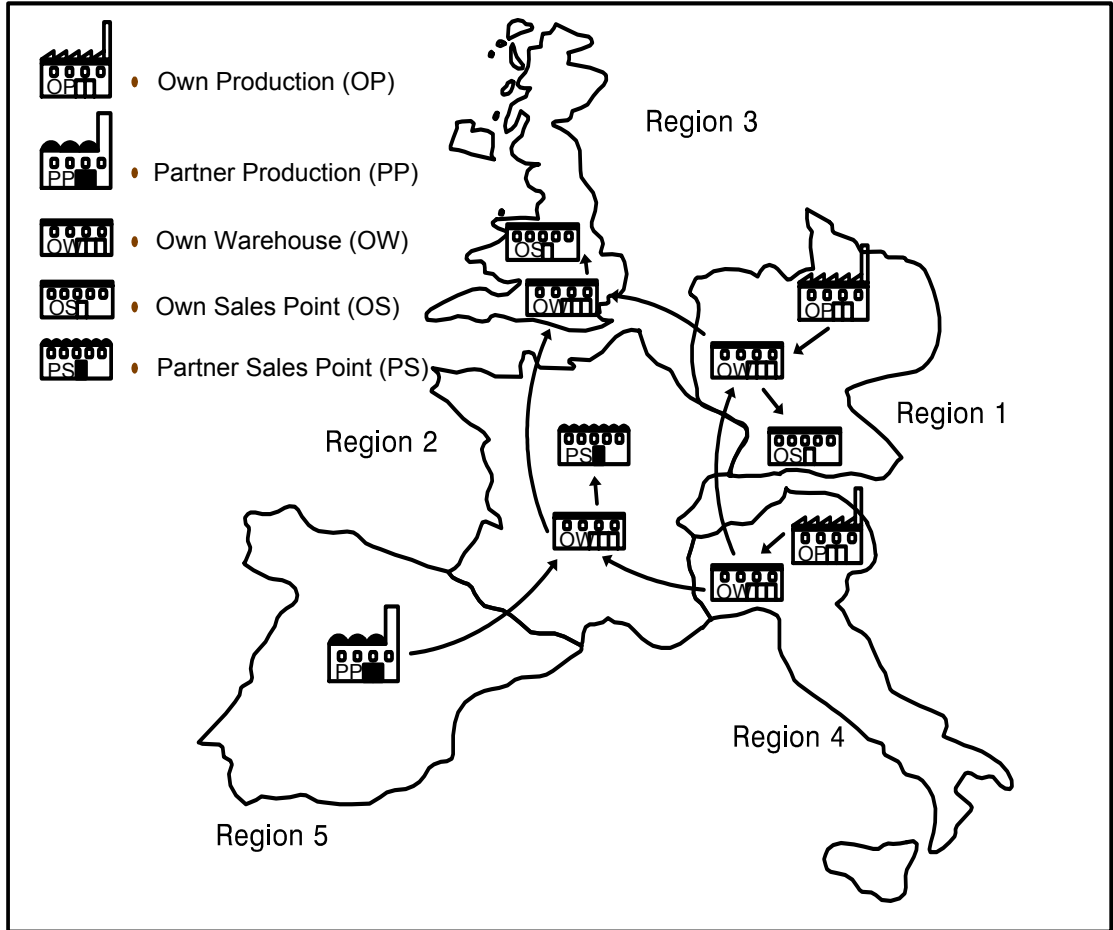
**Region 2 :** Via a joint sales program it is supplied by production lines in Regions 1, 4, and 5.

**Region 4 :** A production company was purchased and supplies the sales force in that region and possibly sales forces in other regions.

Strategy		Region 1	Region 2	Region 3	Region 4	Region 5
Own Company	Production	✓				
	Sales	✓		✓		
Cooperation	Production					✓
	Sales		✓			
Purchase of Companies	Production				✓	
	Sales					

**Restrictions:** Only one production line and one sales force per region.  
 A warehouse must be provided to begin activities in a region.

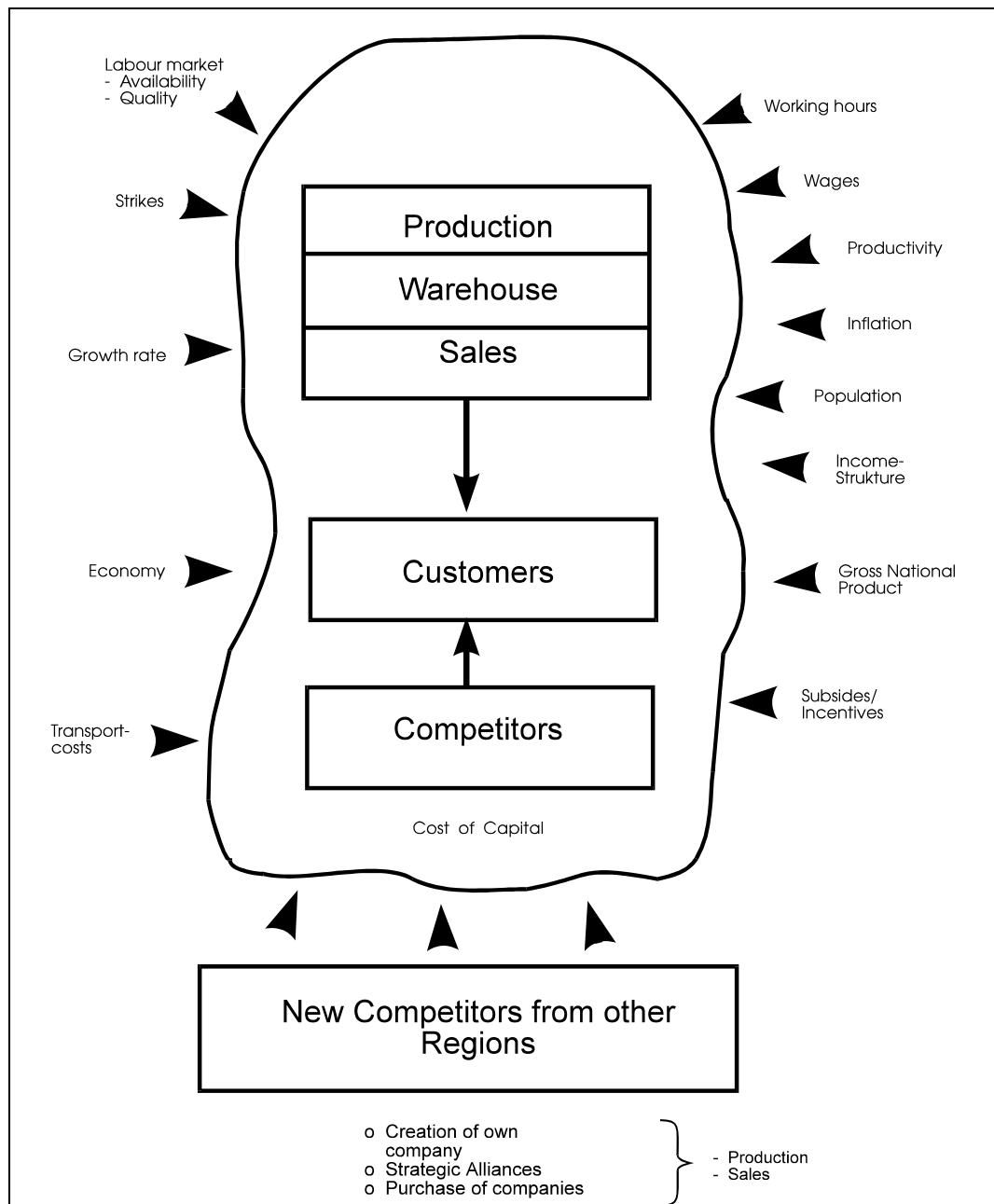
**Description of a company situation at a later period of the game**



The chart shows the strategic situation of the company as explained on the previous page:

- Region 1 :** Own Production and own sales.  
 Their own production line in Region 1 and the product warehouse in Region 4 supply the product warehouse.
- Region 2 :** Cooperation sales partner.  
 The warehouse is supplied by their own warehouse in Region 4 and by the production cooperation partner in Region 5.
- Region 3 :** Creation of own sales network.  
 Their own warehouse is supplied by the warehouses in Regions 1 and 2.
- Region 4 :** Own production through purchase. Supplies the product warehouse.
- Region 5 :** Production cooperation partner.

## 2.5 Influence Factors in a Region



Typical and continually changing variables are:

- Growth rate
- Wage level
- Inflation rate
- Productivity
- Raw material situation
- Labor market (Working hours and availability)
- Cost of capital
- Subsidies/Incentives
- Tax rates

## 2.6 Structural Characteristics of the Regions

The following table shows general data for the individual regions in **TOPSIM - Euro** at the starting date. The following countries are representative of these regions.

	<b>REGION 1</b> <b>Germany</b>	<b>REGION 2</b> <b>France</b>	<b>REGION 3</b> <b>Great-Britain</b>	<b>REGION 4</b> <b>Italy</b>	<b>REGION 5</b> <b>Spain</b>
<b>Population in millions</b>	82.0	58.4	59.0	57.6	39.4
<b>Area in 1000 km<sup>2</sup></b>	357	544	242	301	505
<b>Population density Inhab. per km<sup>2</sup></b>	230	107	244	191	78
<b>Gross national product (GNP) 1000 Euro mill.</b>	2,604	1,704	1,245	1,163	670
<b>GNP / inhabitant ( Euro)</b>	31,756	29,178	21,102	20,191	17,005
<b>Households with washing machine %</b>	94	88	84	92	95
<b>Houses in Mill.</b>	37.5	23.7	24.5	20.4	12.1
<b>Inhabitants per household</b>	2.2	2.5	2.4	2.8	3.2
<b>Inflation rate in %</b>	1.5	1.6	0.5	2.5	3.2

## 2.7 Participants' Range of Decision

The following section explains the possible decision fields of each company. There are :

### strategic decisions and operational decisions

Strategic decisions indicate, in which regions - except the base region - and in which form a company will set their actions. With operational decisions prices, production quantities, transports etc. are set for the base region and those regions in which the company has set activities.

### 2.7.1 Strategic Decisions

The following example shows for the company 1 (period 6) the possible fields of strategic decisions. However, not all the fields are available from the beginning. The seminar leader informs about which fields are active. By means of strategic decisions certain type of operating units = **elements** are chosen.

Decision data
✕

Company: 1
Period: 6

**Strategic decisions**

		R1	R2	R3	R4	R5	R6
<b>Creation</b>	Production					X	
	Sales						
<b>Cooperation</b>	Production-1						
	Production-2						
	Sales-1						
	Sales-2		2	2		2	
<b>Purchase</b>	Production-1						
	Production-2						
	Sales-1						X
	Sales-2				X		

✓ OK

PgUp

PgDn

? Help

✕ Cancel

Estimated sales / Strategic decisions / Base decisions / Regional decisions / Logistics /

**Types of operating units (elements):**

	Creation of own companies			Cooperation		Purchase	
	Type 1	Type 2	Type 3	Type 1	Type 2	Type 1	Type 2
<b>Production-element:</b>	P-SMALL	P-NORMAL	P-LARGE	CP1-R <sub>x</sub>	CP2-R <sub>x</sub>	PP1-R <sub>x</sub>	PP2-R <sub>x</sub>
<b>Sales-element:</b>	S-SMALL	S-NORMAL	S-LARGE	CS1-R <sub>x</sub>	CS2-R <sub>x</sub>	PS1-R <sub>x</sub>	PS2-R <sub>x</sub>

Explanation of the entries in the decision form:

<b>White shadowed fields</b>	Fields of the home region or of operating units that are not yet released by the instructor are white. No strategic entries possible.								
<b>Grey shadowed fields</b>	Fields where the company is already active as well as those of other companies are grey. No strategic entries possible.								
<b>Yellow shadowed fields</b>	Fields of possible strategic decisions. Entering <b>X</b> is possible.								
<b>Indicated number</b>	Remaining life time (periods) of an active sales cooperation. You may enter <b>*</b> for prolongation, when <b>1</b> is indicated, see below.  Right mouse click opens a window with the contract characteristics.								
<b>Entering X</b>	Applying for activities.								
<b>Entering blank or Del key</b>	Correction for <b>X</b> as long as the activity has not been allocated (by running the period).								
<b>Entering *</b>	Applying for extension of a sales cooperation, possible in a field with indicated "1". Correction: by entering "1" again.								
<b>Applying for activities</b>	Entering <b>X</b> (or in case of extension: <b>*</b> ) opens a window : <table border="1" style="margin-left: 40px;"> <tr> <td><b>Creation:</b></td> <td>Enter type number</td> </tr> <tr> <td><b>Cooperation</b></td> <td></td> </tr> <tr> <td><b>Sales :</b></td> <td>Enter your bid</td> </tr> <tr> <td><b>Purchase :</b></td> <td>Enter your bid</td> </tr> </table> <p>In case of sales cooperation or purchase of sales organization, the allocation of this activity to the applying companies is decided at the end of the period. The activity starts at the beginning of the next period.</p>	<b>Creation:</b>	Enter type number	<b>Cooperation</b>		<b>Sales :</b>	Enter your bid	<b>Purchase :</b>	Enter your bid
<b>Creation:</b>	Enter type number								
<b>Cooperation</b>									
<b>Sales :</b>	Enter your bid								
<b>Purchase :</b>	Enter your bid								
<b>Creation of Production/Sales capacity</b>	Type of business required. Three sizes of business can be chosen. Information about the terms and the sizes can be had from the seminar leader. Enter type number.  The creation of a business takes one period. Only then is the business able to supply or begin selling.								
<b>Cooperation Production</b>	No further decisions necessary. The cooperation partner can deliver the desired amount immediately.  The life of the cooperation is <b>1</b> period.								
<b>Cooperation Sales</b>	A Cooperation partner for Sales receives a sales commission. Enter the proposed commission rate.								

When several companies are bidding for the same partner, the company that offers the highest commission rate gets the contract, as long as it is equal to or higher than the minimum rate determined by the seminar leader.

At the end of the period the seminar leader announces who has won the contract. The Partner begins trading in the following period.

**Purchase of Production/Sales Capacity**

Offer Price. The purchase price must be higher than a minimum price determined by seminar leader. When there are several offers, the highest offer wins.

At the end of the period the seminar leader announces who has won the contract. The Partner begins trading in the following period.

**Deleting a running activity**

Is not possible. You can only correct applying X in the actual period.

**2.7.2 Operational Decisions**

**2.7.2.1 Operational Decisions for the Base Company**

**Decision data**

Company: 1      Period: 6

Region: 1

**Base decisions**

**Market / Sales**

Price (Euro/Unit)	720,00	Sales promotion (MEuro)	4,00
Advertising (MEuro)	23,00	Corpor. identity (MEuro)	2,00
Recruit./Dismiss.	20	Training (MEuro)	1,40
Market research rep. R1: <input type="checkbox"/> J R2: <input type="checkbox"/> J		R3: <input type="checkbox"/> J R4: <input type="checkbox"/> J	R5: <input type="checkbox"/> J R6: <input type="checkbox"/> J

**Production / Purchasing**

Production vol.(Units)	530000	Plant extentions (No.)	0
Recruit./Dismiss.	50	Rationalisation (MEuro)	0,00
Training	2,50	from supplier 1 in region	6
Purchasing RMS volume	565000	from supplier 2 in region	0
Purchasing RMS volume	0		

**R & D**

Technology (MEuro)	12,00	Ecology (MEuro)	0,00
--------------------	-------	-----------------	------

**Finance (MEuro)**

Short term loans	82,00	Securities	
Long term loans	0,00	Purchase(+) / Sales(-)	0,00

**Planned results (Units/MEuro)**

Sales	1122000	Turnover	717,09	Net earn.	28,61	Cash	7,31
-------	---------	----------	--------	-----------	-------	------	------

Estimated sales / Strategic decisions / Base decisions / Regional decisions / Logistics /

This decision form relates to the base company's activities in its own region.

**Market / Sales**

**Sales price (Euro/unit)**

Sales prices per washing machine in Euro.

<b>Advertising (MEuro)</b>	Advertising expenditure in home region Euro mill.
<b>Recruit. / Lay Offs</b>	Recruitment/ Lay Offs of sales personnel in No. of people.
<b>Sales promotion (MEuro)</b>	Expenditure for Sales promotion in the home region in Euro mill.
<b>Corpor. identity (MEuro)</b>	Expenditure for Corporate identity (Image advertising) in Euro mill. for the home region.
<b>Training (MEuro)</b>	Expenditure for Training programmes for sales personal in Euro mill.
<b>Market research reports</b>	A Market research report can be ordered for each region by entering <b>Y</b> = Yes ( <b>N</b> = No).
<b>Production/ Purchasing</b>	
<b>Prod. vol. (unit)</b>	Planned production volume in No. of washing machines.
<b>Recruitment/Lay Offs</b>	Recruitment or Lay Offs ( - ) of Production Personnel in No. people.
<b>Training (MEuro)</b>	Expenditure for Training measures for Production Personnel in Euro mill.
<b>Plant extensions (Numberl)</b>	Investment in further production units: Enter the number. The seminar leader gives the unitary capacity of a new production unit.
<b>Rationalization (MEuro)</b>	Expenditure for the rationalization of existing production plants in Euro mill.
<b>Purchase vol. supplies</b>	Purchase of raw materials and supplies in number of units per supplier per region. The terms are given by the seminar leader.
<b>Research and Development</b>	
<b>Technology (MEuro)</b>	Expenditure in Euro mill. for further technological developments.
<b>Eco (MEuro)</b>	Expenditure in Euro mill. for improving the ecological performance of the washing machine.
<b>Finance</b>	
<b>Loans (short-term) (MEuro)</b>	Short-term credit requirement in Euro mill. for one period.
<b>Loans (long-term) (MEuro)</b>	Long-term credit requirement in Euro mill. for 10 periods. The principal is not repaid during this period.
<b>Purchase of securities (MEuro)</b>	Purchase or selling (enter with - ) of securities for investment purposes.
<b>Planning values</b>	The planning values of all company activities in all regions should be entered here.

### 2.7.2.2 Operational Regional Decisions

This decision form refers to the operating units of the company in other region. Per region there are only the decision fields of active units offered.

#### Identification of Partner

Eg. :CS2-R5 signifies:

**Cooperation Sales** partner No. **2** in **Region 5**.

CP1-R3 means:

**Cooperation Production** partner Nr. **1** in **Region 3**.

#### Own sales / Own production

The decisions are comparable with those for the base company in the home region.

#### Cooperation Sales

##### Sales price (Euro/unit)

The company sets a fixed sales price for the cooperation partner.

##### Advertising (MEuro)

##### Training (MEuro)

Expenditure for advertising and training constitutes an additional contribution on behalf of the company in line with the expenditure of the partner. The seminar leader decides on the amount spent by the partner.

#### Cooperation Production

##### Order quantity (units)

Enter the finished products to be supplied.

The delivery terms are determined by the seminar leader.

### 2.7.2.3 Operational Logistics Decisions

Decision data X

Company: 
Period:

Logistics

From	To store region					
	R1	R2	R3	R4	R5	R6
R1		0	0	60000	0	0
R2	0		0	0	0	0
R3	0	0		0	0	0
R4	0	0	0		0	0
R5	0	195000	205000	64000		0
R6	0	0	0	0	0	

Estimated sales
Logistics
Strategic decisions
Base decisions
Regional decisions

**Attention !**

**Finished goods only may be transferred; no raw materials may be moved once they are in inventory.**

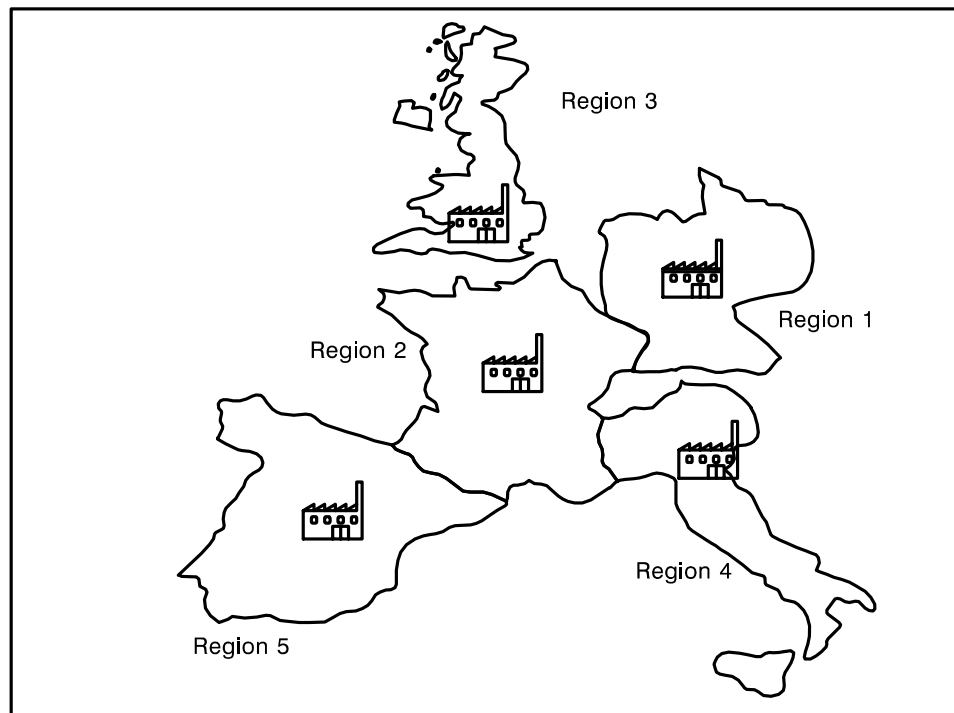
**That is, raw materials may be purchased from another region, but once purchased, the raw materials remain in the region, where received.**

# TOPSIM - Euro

---

## 3.

### Starting Position



### 3.1 Companies' Starting Position.

The companies competing in the game are - as mentioned - based in five different regions, which represent

<b>Germany</b>	<b>Region 1,</b>
<b>France</b>	<b>Region 2,</b>
<b>United Kingdom</b>	<b>Region 3,</b>
<b>Italy</b>	<b>Region 4 and</b>
<b>Spain</b>	<b>Region 5</b>

The markets are all structured as an oligopoly. The companies have been in existence for many years and have been able to defend themselves successfully against major competitors in the past.

The following company reports are available for the last financial year and can be viewed for each company in Appendix 1:

- 1. Regional report for the base company**
- 2. Product-Transport report**
- 3. General Overview**
- 4. Cost Account**
- 5. Profit and Loss Account**
- 6. Financial report, Balance Sheet, Value Orientated Ratios**
- 7. Target/ Actual Variances**
- 8. Market Research Report**
- 9. Business Report of Industry**

The companies all have a similar starting position, but one which reflects the different regional characteristics. The company strategies should take account of these differing market positions. For this reason the performance and results of the various companies are not given in absolute figures but in respect to their specific starting positions.

**Example :** How much increased the profit after tax in comparison to the starting position and how good was the planning quality?

Appendix 2 gives an overview of the current state of the market for electrical equipment in Europe.

**APPENDIX 2**  
**Branch Information from EUROSTAT <sup>1)</sup>**

### 3.2 Total Results for the Regions

At the starting point (end of period 0) the following results are available for the regions:

Region	Value	Base Company	Remaining Branch
<b>1</b>	Sales (units)	262,471	1,500,004
	Turnover (Euro mill.)	177,17	1012,4
	Market Share(%) <sup>2)</sup>	14.89	85.11
<b>2</b>	Sales (units)	245,836	1,294,263
	Turnover (Euro mill.)	164,71	867,16
	Market Share(%) <sup>2)</sup>	15.96	84.04
<b>3</b>	Sales (units)	294,605	1,251,794
	Turnover (Euro mill.)	188,55	801,15
	Market Share(%) <sup>2)</sup>	19.05	80.95
<b>4</b>	Sales (units)	240,112	820,894
	Turnover (Euro mill.)	158,47	541,79
	Market Share(%) <sup>2)</sup>	22.63	77.37
<b>5</b>	Sales (units)	256,806	868,835
	Turnover (Euro mill.)	152,80	516,96
	Market Share(%) <sup>2)</sup>	22.81	77.19

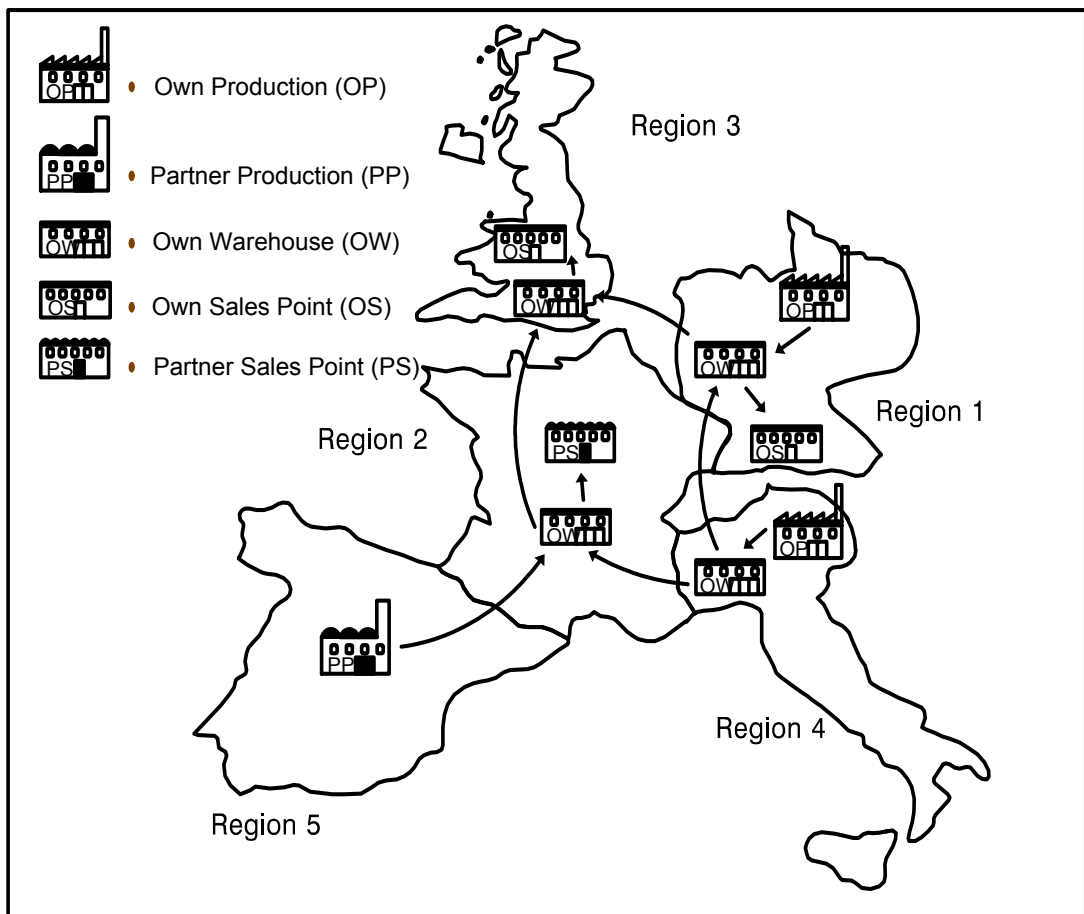
<sup>1)</sup> **EUROSTAT** is the European Statistical-Office.

<sup>2)</sup> The market share is calculated on turnover.

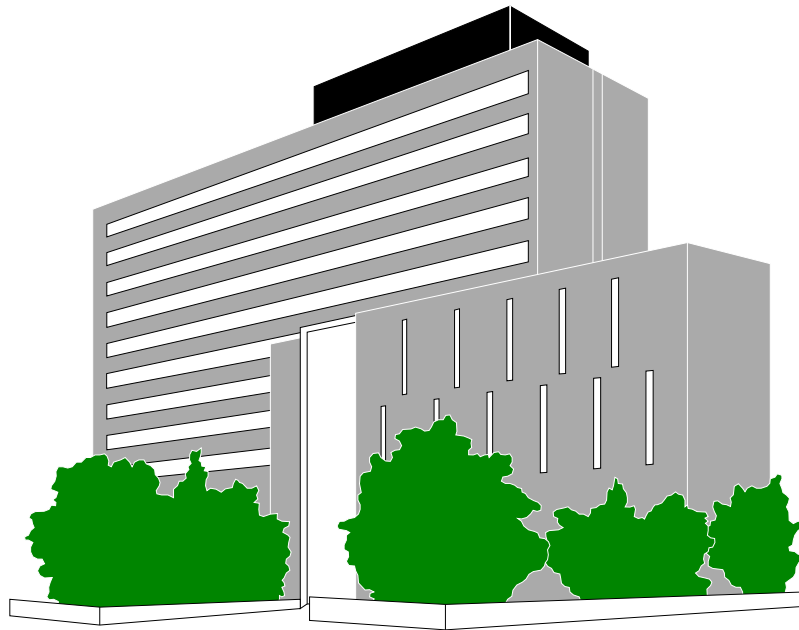
# TOPSIM - Euro

## 4.

### The Companies and their Courses of Action



## EUROWASH Inc.



### Company Departments

- |  |   |
|--|---|
| <input type="checkbox"/> Marketing / Sales         | <input type="checkbox"/> Personnel              |
| <input type="checkbox"/> Purchasing                | <input type="checkbox"/> Research & Development |
| <input type="checkbox"/> Production                | <input type="checkbox"/> Finance & Accounting   |
| <input type="checkbox"/> Logistics                 | <input type="checkbox"/> Administration         |
| <input type="checkbox"/> Warehousing/Stock Control |   |

## 4.2 Marketing / Sales

### 4.2.1 Product Policy

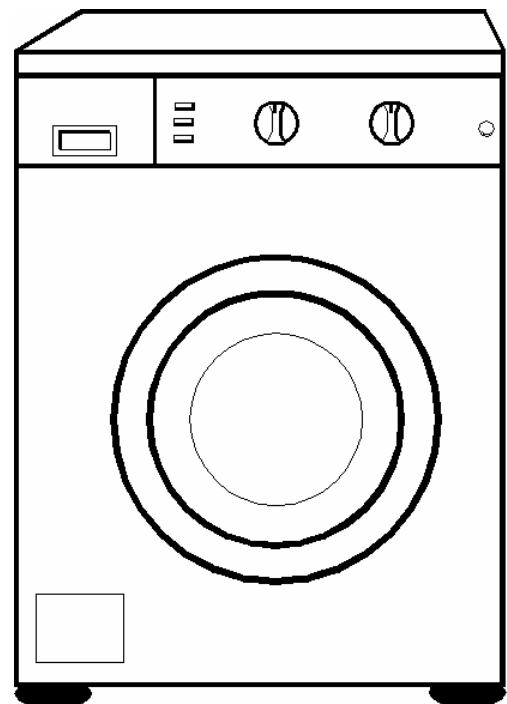
At the starting position the companies sell

#### Euro washing machines, Type Eco

which all have a similar performance, in their home markets. The machines have the following technical specifications:

#### Technical Data

- Cycle and Temperature Selection
- Energy Saving Mode for 95 Degree Wash
- Half Load for smaller quantities
- Spin Selector for 1000 or 500 revs/min
- Tangle Free Spin Cycle
- Short Cycle for colors and easy care garments
- Tested wool cycle
- Intake for detergent and fabric softener
- Quiet running



#### Further Product Development

The high level of water pollution by detergents in all regions has led to an increased consumer awareness of environmental questions. This factor, together with increasing pressure from competitors, makes continual product improvement necessary. In addition it is likely that in the foreseeable future manufacturers will be obliged to take back old machines and ensure their proper disposal themselves. The companies have the following product development possibilities:

Measures	Goals	Effects
Investments in Product improvement	Increased technological Quality	Market share Costs of rework
Ecology orientated Investments	Increased environmental neutrality	Market share

#### Decisions in Period 0 :

<b>Expenditure for: Technology 1 Euro mill.</b>	<b>Actual Effectiveness Index: 1.00</b>
<b>Expenditure for: Ecology 1 Euro mill.</b>	<b>Actual Effectiveness Index: 1.00</b>

**If the effectiveness index for Technology and/or Ecology is raised by more than 0.10 points, then the washing machine counts as new generation and makes significant gains in market share.**

#### 4.2.2 Price Policy

The price for the washing machine is to be set within the price policy. The price becomes effective immediately and is a powerful instrument in competition with other suppliers.

**Basic principle: The lower the sales price, the higher the potential sales (and vice versa).**

At the starting position the washing machines are sold at different prices in the different regions. (Trade price) :

<b>Region</b>	<b>Base Company</b>	<b>Remaining Industry</b>
<b>1</b>	675.00 Euro/unit	675.00 Euro/unit
<b>2</b>	670.00 Euro/unit	670.00 Euro/unit
<b>3</b>	640.00 Euro/unit	640.00 Euro/unit
<b>4</b>	660.00 Euro/unit	660.00 Euro/unit
<b>5</b>	595.00 Euro/unit	595.00 Euro/unit

#### 4.2.3 Communications Policy

Within the framework of a communications policy the company can engage in Sales Advertising, Sales Promotion and Corporate Identity. The expenditure for the individual instruments and the right "Mix" is determined by cultural differences and national preferences and varies from region to region.

##### **Sales Advertising**

Expenditure for advertising generally increases sales. It has an effect over several periods with the greatest influence in the period of expenditure.

The advertising budget in the starting period was

<b>Region</b>	<b>Base Company</b>	<b>Remaining Branch</b>
<b>1</b>	6.25 Euro mill.	34.00 Euro mill.
<b>2</b>	6.30 Euro mill.	30.00 Euro mill.
<b>3</b>	6.30 Euro mill.	33.00 Euro mill.
<b>4</b>	6.00 Euro mill.	26.00 Euro mill.
<b>5</b>	5.80 Euro mill.	24.60 Euro mill.

### **Sales Promotion**

Sales promotion initiatives can draw attention to the product. Sales Promotion generally increases sales. Its effect is not as great as that of advertising, but the echo effect in following periods is stronger.

In period 0 the following expenses occurred:

<b>Region</b>	<b>Base Company</b>	<b>Remaining Branch</b>
<b>1</b>	1.25 Euro mill.	6.70 Euro mill.
<b>2</b>	1.10 Euro mill.	6.00 Euro mill.
<b>3</b>	1.40 Euro mill.	6.00 Euro mill.
<b>4</b>	1.00 Euro mill.	4.70 Euro mill.
<b>5</b>	0.50 Euro mill.	3.10 Euro mill.

### **Corporate Identity**

Sales can be positively influenced by the creation of a targeted corporate image.

In Period 0 the following sums were invested in the regions for this purpose:

<b>Region</b>	<b>Base Company</b>	<b>Remaining Branch</b>
<b>1</b>	1.00 Euro mill.	5.60 Euro mill.
<b>2</b>	1.30 Euro mill.	5.80 Euro mill.
<b>3</b>	1.25 Euro mill.	5.80 Euro mill.
<b>4</b>	1.00 Euro mill.	4.10 Euro mill.
<b>5</b>	0.30 Euro mill.	1.50 Euro mill.

#### 4.2.4 Distribution Policy

##### Markets and Customers

The companies sell their products exclusively through the professional retail trade. In the course of the simulation all companies have the opportunity to begin activities in the other regions. After reporting to the game leader they can cooperate in a commission agreement with other sales partners, build up their own sales network or acquire one through purchase.

##### Sales Reps

At the starting position differing numbers of sales reps were employed in the regions:

Region	Base Company	Remaining Branch
1	143 Reps	751 Reps
2	158 Reps	803 Reps
3	134 Reps	751 Reps
4	140 Reps	679 Reps
5	153 Reps	729 Reps

##### Transport Cost

The delivery of the finished washing machines to the retailers involves various transport costs.

E.g.: Washing machines produced in region 1 are to be sold in region 3:

- Transport 1: from production plant region 1 to regional warehouse region 1
- Transport 2: regional warehouse region 1 to regional warehouse region 3
- Transport 3: regional warehouse region 3 to customer region 3

In Period 0 the transport costs within the regions amounted to 25.00 Euro per unit.

##### Loss

Please notice that the transport of goods involves a certain proportion of loss due to damage and theft. There are no losses between regional warehouse and retailers and between regional warehouses.

**The transport costs, the loss and the damages are higher. the greater the distance between supplied region and production line.**

The transport costs within and between the regions are for the starting position as follows (Euro / washing machine) :

From Region	To Region				
	R1	R2	R3	R4	R5
R1	25.00	30.00	32.00	32.00	35.00
R2	30.00	25.00	32.00	30.00	28.00
R3	35.00	32.00	25.00	38.00	38.00
R4	32.00	30.00	38.00	25.00	27.00
R5	35.00	28.00	38.00	27.00	25.00

### Development of Sales Personnel

Targeted development programmes can influence the quality of the sales personnel and their success in the market.

In Period 0 companies spent the following amount on training programmes:

Region	Amount	Quality index of Personnel
1	0.20 Euro mill.	1.02
2	0.18 Euro mill.	1.02
3	0.15 Euro mill.	1.02
4	0.17 Euro mill.	1.02
5	0.14 Euro mill.	1.02

### 4.2.5 Marketing-Mix

Product sales are dependant on the choice, the form and the coordination of all sales promotion instruments.

For planning purposes it is important to consider that the effectiveness of the instruments is directly influenced by the employees' activities, economic conditions and cultural characteristics. For example in Spain print advertising is not necessarily an appropriate means of reaching the market, as Spaniards are traditionally not very interested in daily papers.

#### 4.2.6 Inability to Supply

If a company opens up a market by its Marketing policy, without being able to supply enough to satisfy the increased demand, then a situation of inability to supply arises.

**Other companies profit by the inability of a company and sell (according to their marketing expenditure) more products.**

**An incapacity to supply in one period has a negative effect on corporate image in the following period.**

#### 4.2.7 Market Research Reports

**TOPSIM - Euro** offers market research reports for sale at 100,000 Euro each. They contain information about competitors' activities in the respective regions. Market research reports are ordered for the base company in connection with operational decisions.

#### 4.2.8 Costs of the Sales Network

The Sales network has - according to region - fixed and variable costs :

Region	Fixed Costs	Variable Costs
1	2.00 Euro mill.	15.00 Euro/Unit
2	1.50 Euro mill.	13.00 Euro/Unit
3	1.40 Euro mill.	14.00 Euro/Unit
4	1.20 Euro mill.	10.00 Euro/Unit
5	1.50 Euro mill.	10.00 Euro/Unit

### 4.3 Production

#### 4.3.1 Number of Production Lines at the Starting Position.

At the starting position the companies have differing numbers of production lines. The values are the same for all regions.

<b>Capacity per line :</b>	<b>50,000 Capacity units per line,</b>
<b>Depreciation rate :</b>	<b>10% on machines and 5% on buildings</b>

<b>Region</b>	<b>Available Machines</b>	<b>Total -Capacity</b>
1	6	300,000 Units
2	6	300,000 Units
3	7	350,000 Units
4	6	300,000 Units
5	6	300,000 Units

#### 4.3.2 Production Costs

<b>Region</b>	<b>Variable costs</b>	<b>Other fixed costs</b>
1	25.00 Euro/Unit	13.00 Euro mill.
2	20.00 Euro/Unit	12.00 Euro mill.
3	22.00 Euro/Unit	11.00 Euro mill.
4	18.00 Euro/Unit	10.00 Euro mill.
5	16.00 Euro/Unit	9.00 Euro mill.

The other fixed costs of the production lines are eg. maintenance, insurance, and leasing costs for secondary equipment on the basis of current contracts.

#### 4.3.3 Investments

New production lines for washing machine production can be purchased.

<b>Each new production line produces 50,000 units per period.</b>
<b>A new line costs 10 Euro mill. and is ready for production straight away.</b>

Disinvestment of production lines is not possible.

#### 4.3.4 Rationalization

The productivity of the available machine park can be considerably improved through rationalization investments.

The available production capacity per unit is given by:

**Productivity of the machines \* Degree of rationalization (Index)**

At the starting point all machines have a rationalization index of **1,01**

#### 4.3.5 Stock Control

The warehousing of finished goods and raw materials and supplies (RMS) involves different storage costs in the various Regions. The storage costs are calculated as a percentage of the stock value at the end of the period. The following percentage rates apply in the regions:

<b>Region</b>	<b>Base Company Rates in %</b>
<b>1</b>	8.0
<b>2</b>	9.0
<b>3</b>	10.0
<b>4</b>	9.0
<b>5</b>	10.0

#### 4.4 Purchasing

In order to keep the model simple only one set of "materials/supplies" is required for a washing machine. This can, however, change during the course of the game.

In each region there are two suppliers who can deliver to all other regions.

For the purchasing of sets of raw materials and supplies (**RMS's**), the following price and order quantity conditions are applicable in each region:

**All raw materials bought in one period from one supplier will be grouped for quantity discount.**

**No raw materials may be moved to another region once they are in inventory.**

**That is, raw materials may be purchased from another region, but once purchased, the raw materials remain in the region, where received.**

Order Quantity		Supplier 1 in each Region				
From	to	R1	R2	R3	R4	R5
0 -	100,000	160.00	160.00	170.00	160.00	170.00
100,001	200,000	140.00	140.00	150.00	140.00	150.00
200,001	350,000	130.00	130.00	140.00	130.00	140.00
350,001	500,000	120.00	120.00	130.00	120.00	130.00
500,001	999,999	105.00	105.00	115.00	105.00	115.00

Order Quantity		Supplier 2 in each Region				
From	to	R1	R2	R3	R4	R5
0 -	150,000	150.00	150.00	160.00	150.00	160.00
150,001	250,000	135.00	135.00	145.00	135.00	145.00
250,001	400,000	125.00	125.00	135.00	125.00	135.00
400,001	600,000	115.00	115.00	125.00	115.00	125.00
600,001	999,999	100.00	100.00	110.00	100.00	110.00

**Transport costs per set of RMS in Euro :**

<b>From Region</b>	<b>To Region</b>				
	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>R5</b>
<b>R1</b>	8.00	8.50	10.00	9.50	10.50
<b>R2</b>	8.50	8.00	9.50	9.00	8.50
<b>R3</b>	10.00	9.50	9.00	10.50	11.00
<b>R4</b>	9.50	9.00	10.50	8.00	9.50
<b>R5</b>	10.50	9.50	11.00	9.50	8.00

**Under Buying :**

**If the purchased supplies plus those in stock are not sufficient for the planned production, then the actual production volume will be reduced accordingly.**

**The supplies/parts ordered in one period are available in the same period.**

**If the chosen supplier is not in the same region as the production line, different loss rates must be taken into account according to region.**

## 4.5 Personnel

### 4.5.1 General Personnel Information at the Starting Point

In principle the personnel situation is the same for all regions. The absolute figures differ of course according to the company's basic structure and the region.

#### Salaries in the regions at the starting point:

Region	per hour production in Euro	per hour sales in Euro
1	11.70	16.50
2	7.40	13.90
3	7.80	14.90
4	6.80	12.40
5	5.70	11.20

#### Working hours per person at the starting point:

Region	Hours
1	1579
2	1771
3	1777
4	1752
5	1788

**Worker's productivity** and the number of finished units per work period at the starting position:

Region	Productivity factor (Number of washing machines per hour and person)				No. Units per person per period
	General productivity factor (industry)	* Index of quality of staff	* Index of rationalization	= Actual productivity factor per person per hour	
1	0.148	1.01	1.01	0,151	238
2	0.112	1.01	1.01	0,114	202
3	0.121	1.01	1.01	0,123	219
4	0.124	1.00	1.01	0,125	219
5	0.122	1.01	1.01	0,124	222

**Additional staff costs** at the starting position:

Region	Values in %
1	82
2	94
3	49
4	100
5	83

The above additional staff costs will until further notice remain constant and cannot be influenced by the participants.

#### 4.5.2 Possibilities for Varying Staff Levels

The companies can adapt the production and sales staff levels to requirements by recruitments or lay-offs. If more than 5% are to be laid off in these areas a redundancy package must be worked out with the game leader.

Recruitment and Lay-Offs involve different costs in different regions:

Region	Costs in Euro for :	
	Recruitments	Lay-Offs
1	15,000	30,000
2	14,000	28,000
3	11,000	22,000
4	10,000	20,000
5	8,000	16,000

#### 4.5.3 Training for Production Staff and Staff Turnover

The quality of the production staff can be influenced by expenditure for training programmes. These have a direct effect on the level of **output/reworking** as well as on **productivity**. Increased training expenditure reduces **turnover** of production staff and sales force.

In Period 0 companies spent the following amounts on training programmes:

Region	Expenditure	Staff Quality Index
1	0.70 Euro mill.	1.01
2	0.50 Euro mill.	1.01
3	0.60 Euro mill.	1.01
4	0.40 Euro mill.	1.00
5	0.40 Euro mill.	1.01

#### 4.5.4 Administrative Staff

The salaries for staff in the overhead departments purchasing and administration are calculated as a percentage of turnover. No targeted recruitments or lay-offs can be carried out in these areas.

Region	Administrative Costs as % of turnover
1	10.50
2	10.00
3	13.00
4	9.00
5	13.50

#### 4.6 Finance and Accounting

##### 4.6.1 Customers' Paying Habits

80 % of sales result in payment in the current Period.  
20% in payment in the following period.

These figures can change per period in the different Regions.

##### 4.6.2 Financial Investments

Companies can invest surplus liquidity by purchasing securities in their home region. Interest rates at the starting point:

Region	Rate in %
1	3.4
2	3.5
3	3.9
4	3.4
5	2.9

##### 4.6.3 Loans

###### Short- and Long-Term Loans

The companies can satisfy their capital requirements by taking out loans on the capital markets. The short-term loan is automatically repaid in the following period. It's impossible to pay off long-term loans during the rest of the game. The interests for the short- and long-term loans are paid during the current period.

Interest rates in the regions at the starting point:

Region	Short-term ( % )	Long-term ( % )
1	6.0	7.6
2	6.2	7.6
3	7.4	7.7
4	6.3	7.4
5	5.7	7.2

### Overdrafts

Companies are automatically granted an overdraft when the cash balance in one period is not sufficient to cover payments. The credit is automatically repaid in the following period together with the interest.

**Cash at bank must always amount to at least 1.0 Euro mill.**

Interest rates for overdrafts at the starting point:

Region	1	2	3	4	5
Rate in %	11.0	11.4	12.3	11.2	10.6

#### 4.6.4 Taxation

The companies are taxed differently in all regions. The tax is calculated on the basis of:

- **Operating Profits**
- **+/- Extraordinary profits.**

Tax is paid in the following period.

Losses are carried forward and offset against annual profits remains until a positive balance is reached, which is then subject to tax.

Region	1	2	3	4	5
Tax rate in %	45.0	33.0	34.0	53.0	35.0

#### 4.6.5 Dividend Payments

In accordance with their terms of incorporation all companies must distribute 50% of their after-tax profits as dividends in the following year.

## 4.6.6 Share Price and the Value of Company

In each period the share price is determined as the basis for the value of the company. The following factors have an influence on the share price:

Influencing factor: When the value of the influencing factor increases ...		...the influence on the share price is
Equity capital previous period	↗	↗
Post-tax profit for period	↗	↗
Return on equity	↗	↗
Return on sales	↗	↗
Number of sales regions	↗	↗
Environmental index of washing machines	↗	↗
Sales compared with competitors	↗	↗
Planning quality	↗	↗
Debt-equity ratio	↗	↘

## 4.6.7 Value Orientated Ratios

The ratios are controlling elements supporting the management in the realization of a value orientated company strategy. Therefore, the creation of new values is the main issue of all management activities. That means that all investment decisions are based on capital costs. The capital costs are determined by the tied capital multiplied by the interest the investors want to achieve.

## 4.7 Cooperation Partners

### 4.7.1 Cooperation Partners for Production

Cooperation partners for production offer the following terms for the washing machine in the different regions:

Quantity			Price
0	-	60,000	440.00
60,001	-	150,000	410.00
150,001	-	250,000	380.00

**Duration of the cooperation: 1 Period**

The offers are based on the following current values of these indices:

**Ecology-Index : 1.00**  
**Technology-Index : 1.00**

Washing machines are delivered with the Ecology and Technology-Indices in the period when ordered of the company ordering. The delivery prices in the table above are to be corrected for the variation between the required and available Technology- und Ecology-Indices.

**Example: Ordering Company Indices**

Technology : 1.08  
Ecology 1.02

**Cooperation partner Indices**

Technology: 1.03  
Ecology: 0.98

**Order Qty :** 80,000 Washing machines.

**Delivery price** =  $(410.00 * 1.08 / 1.03) * 1.02 / 0.98 = 447.72$  Euro/Washing machine.

Deliveries are made CIF and suffer no loss.

#### 4.7.2 Cooperation Partners for Sales

Cooperation partners for sales offer their services in exchange for a sales commission. They only begin to work for the company when the cooperation is finally agreed upon. This is announced at the end of the period in which a cooperation offer is made. Final agreement depends on the proposed sales commission and on that of other potentially interested companies. In the case of a successful negotiation the sales business begins in the following period.

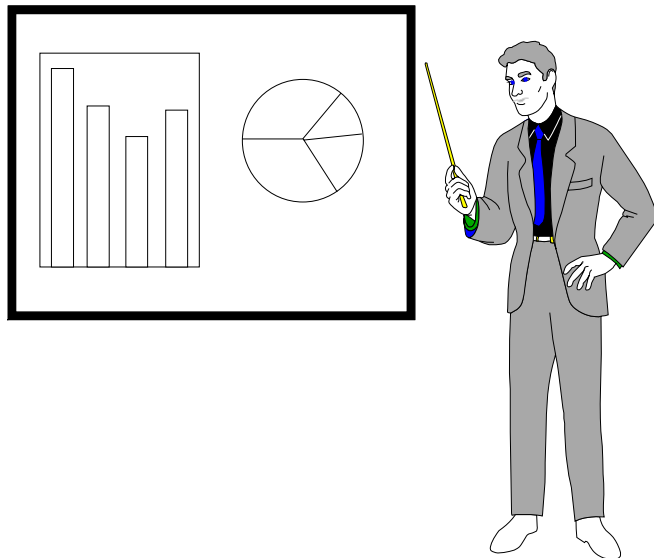
**Note! The cooperation partner sells your product under their own label. This means that the awareness factor of the cooperation partner cannot be transferred in case of setting up your own sales organization later on.**

# TOPSIM - Euro

---

## Appendix 1

### Starting Point of the Company




## Data at the Beginning of Period 0 Overview of Stock and Staff Levels

Data at the starting point for Base Companys		Company No.: 1	
Staff Levels	Sales Staff: 140 Production person.: 1100	Quality: 1.00 Quality: 1.00	
Stock Levels	RMS (Units): 20000 Products (Units): 30000	Price(Euro/Unit): 130.00 Price(Euro/Unit): 390.00	
Production Lines	Capacity (Units): 300000 Rationalisation : 1.00 Ecology - Index : 1.00	Technology- Index: 1.00	

## Balance Sheet Data

Data at the starting point for base companies		Company No.: 1	
Balance Sheet Start Periode 0 (Mio Euro)			
Assets		Liabilities	
Fixed Assets	76.00	Equity	51.80
Goodwill	0.00	Subscribed Capital	35.00
Tangible Assets		Capital Reserves	5.00
Land & Buildings	16.00	Revenue Reserves	8.00
Machines	60.00	Profit/Loss carried fwd.	0.00
CurrentAssets	45.80	Net earnings / loss	3.80
Inventories		Liabilities	70.00
Raw Materials & Suppl.	2.60	Liabilities to Banks	
Finished Goods	11.70	Short term loans	70.00
Receivables	30.00	Lang term loans	0.00
Securities	0.00	Overdraft	0.00
Cash	1.50		
Balance	121.80	Balance	121.80

## Operational Decisions

Decision data												
		<b>Company: 1</b>			<b>Period: 1</b>							
<b>Base decisions</b>		<b>Region: 1</b>										
<b>Market / Sales</b>												
Price (Euro/Unit)	<input type="text" value="675,00"/>			Sales promotion (MEuro)	<input type="text" value="1,25"/>							
Advertising (MEuro)	<input type="text" value="6,25"/>			Corpor. identity (MEuro)	<input type="text" value="1,00"/>							
Recruit./Dismiss.	<input type="text" value="15"/>			Training (MEuro)	<input type="text" value="0,20"/>							
Market research rep.	R1:	<input type="text" value="J"/>	R2:	<input type="text" value="N"/>	R3:	<input type="text" value="N"/>	R4:	<input type="text" value="N"/>	R5:	<input type="text" value="N"/>	R6:	<input type="text" value="N"/>
<input type="button" value="OK"/>												
<b>Production / Purchasing</b>												
Production vol.(Units)	<input type="text" value="275000"/>			Plant extentions (No.)	<input type="text" value="0"/>							
Recruit./Dismiss.	<input type="text" value="100"/>			Rationalisation (MEuro)	<input type="text" value="1,00"/>							
Training	<input type="text" value="0,70"/>			from supplier 1 in region	<input type="text" value="0"/>							
Purchasing RMS volume	<input type="text" value="0"/>			from supplier 2 in region	<input type="text" value="1"/>							
Purchasing RMS volume	<input type="text" value="300000"/>											
<input type="button" value="PgDn"/>												
<b>R &amp; D</b>												
Technology (MEuro)	<input type="text" value="1,00"/>			Ecology (MEuro)	<input type="text" value="1,00"/>							
<input type="button" value="Help"/>												
<b>Finance (MEuro)</b>												
Short term loans	<input type="text" value="72,00"/>			Securities								
Long term loans	<input type="text" value="0,00"/>			Purchase(+) / Sales(-)	<input type="text" value="0,00"/>							
<input type="button" value="PgUp"/>												
<b>Planned results (Units/MEuro)</b>												
Sales	<input type="text" value="260000"/>	Turnover	<input type="text" value="178,00"/>	Net earn.	<input type="text" value="7,00"/>	Cash	<input type="text" value="3,00"/>					
<input type="button" value="Cancel"/>												
<a href="#">Estimated sales</a> / <a href="#">Strategic decisions</a> / <a href="#">Base decisions</a> / <a href="#">Regional decisions</a> / <a href="#">Logistics</a> /												

## Operating Reports at the End of Period 0



**1. Regional Report for the Base Company**



**2. Product - Transport report**



**3. General Overview**



**4. Cost Unit Account**



**5. Profit and Loss Account**



**6. Financial Report, Balance Sheet, Ratios**



**7. Target - Actual Variances**



**8. Market Research Report**



**9. Business Report of Industry**

# 1. Regional Report for the Base Company

UNICON Management Systeme GmbH	D-88709 Meersburg	Copyright (c) 2000 by UNICON
Management Game		Company: 1      Period: 0
T O P S I M - EURO		Standard      Date: 1.10.2000

REGIONAL REPORT FOR REGION: 1
-------------------------------

MARKET / SALES	Company				Remaining industry			
	Period	Prev.per	Variation		Period	Prev.per	Variation	
			absolute	%			absolute	%
Price Euro/Unit	675.00	675.00	0.00	0.0	675.00	675.00	0.00	0.0
Advertising MEuro	6.25	6.25	0.00	0.0	34.00	34.00	0.00	0.0
Sales promotion MEuro	1.25	1.25	0.00	0.0	6.70	6.70	0.00	0.0
Corp.identity MEuro	1.00	1.00	0.00	0.0	5.60	5.60	0.00	0.0
Recruit / Release No.	15	0	15	0.0	60	60	0	0.0
Turnover (staff) No.	12	12	0	0.0	59	59	0	0.0
Final level No.	143	140	3	2.1	751	750	1	0.1
Training MEuro	0.20	0.20	0.00	0.0	1.20	1.20	0.00	0.0
Staff quality Index	1.02	1.00	0.02	1.6				
Sales Units	262637	0	262637	0.00	1499839	0	1499839	0.00
Turnover MEuro	177.28	0.00	177.28	0.00	1012.4	0.00	1012.4	0.00
Mkt.share as % turnov	14.90	15.00	-0.10	-0.66	85.10	85.00	0.10	0.12

STOCK FINISHED PRODUCTS	Unit	Val./Un. Euro	Tot. val. MEuro
Initial level	30000	390.00	11.70
Plus from R1	269500	406.31	109.50
R2	0	0.00	0.00
R3	0	0.00	0.00
R4	0	0.00	0.00
R5	0	0.00	0.00
R6	0	0.00	0.00
Interim level	299500		
Minus to R1	262637	404.68	106.28
R2	0	0.00	0.00
R3	0	0.00	0.00
R4	0	0.00	0.00
R5	0	0.00	0.00
R6	0	0.00	0.00
Final level	36863	404.68	14.92
Warehouse costs			1.19

STOCK RMS	Unit	Val./Un. Euro	Tot.val. MEuro
Initial level	20000	130.00	2.60
Plus deliv.S1 R0	0	0.00	0.00
from S2 R1	294000	135.71	39.90
Interim level	314000	135.35	42.50
Minus	275000	135.35	37.22
Final level	39000	135.35	5.28
Warehouse costs			0.42

PRODUCT DEVELOPEMENT	Expenditure (MEuro)		Index
	Period	Cumul.	
Technology	1.00	1.00	1.00
Ecology	1.00	1.00	1.00

PRODUCTION LINES	Period	Prev.per
Planned production volume Units	275000	275000
Current production volume Units	275000	275000
Plant extensions No. Mach.	0	2
Rationalisation MEuro	1.00	0.00
Available production cap. Units	303000	300000
Degree of rationalisation Index	1.01	1.00
Capacity utilised %	90.76	91.67

PRODUCTION PERSONNEL	Period	Prev.per
Recruit / Released No.	100	100
Training MEuro	0.70	2.50
Staff quality Index	1.01	1.00
Productivity Units/Hour	0.151	0.151
Turnover No.	85	0
Staff capacity utilised %	98.86	98.86
Staff level year end No.	1115	1100

## 2. Product - Transport Report

UNICON Management Systeme GmbH		D-88709 Meersburg		Copyright (c) 2000 by UNICON				
Management Game		T O P S I M - EURO		Company: 1		Period: 0		
				Standard		Date: 1.10.2000		
PRODUCT TRANSPORT REPORT								
TRANSPORTED UNITS TO CUSTOMERS & TRANSPORT COSTS IN MEURO								
From	To =>	R 1	R 2	R 3	R 4	R 5		Total
Region R1	Units Costs	262637 6.566	0 0.000	0 0.000	0 0.000	0 0.000		262637 6.566
Region R2	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Region R3	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Region R4	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Region R5	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Total	Units Costs	262637 6.566	0 0.000	0 0.000	0 0.000	0 0.000		262637 6.566
TRANSPORTED UNITS TO STOCK & TRANSPORT COSTS IN MEURO								
From	To =>	R 1	R 2	R 3	R 4	R 5		Total
Region R1	Units Costs	269500 6.875	0 0.000	0 0.000	0 0.000	0 0.000		269500 6.875
Region R2	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Region R3	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Region R4	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Region R5	Units Costs	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000		0 0.000
Total	Units Costs	269500 6.875	0 0.000	0 0.000	0 0.000	0 0.000		269500 6.875

### 3. General Overview (MEuro)

UNICON Management Systeme GmbH		D-88709 Meersburg		Copyright (c) 2000 by UNICON			
Management Game				Company: 1		Period: 0	
T O P S I M - EURO				Standard		Date: 1.10.2000	
GENERAL OVERVIEW (MEuro)							
	R1	R2	R3	R4	R5		Total
<b>STOCK FINISHED PRODUCTS</b>							
Initial level	11.70	0.00	0.00	0.00	0.00	0.00	11.70
+ Plus: own production	109.50	0.00	0.00	0.00	0.00	0.00	109.50
cooperation partn.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
own stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Minus: sales	106.28	0.00	0.00	0.00	0.00	0.00	106.28
own stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00
= Final level	14.92	0.00	0.00	0.00	0.00	0.00	14.92
<b>Warehouse costs</b>							
Warehouse costs RMS	0.42	0.00	0.00	0.00	0.00	0.00	0.42
Warehouse costs product	1.19	0.00	0.00	0.00	0.00	0.00	1.19
Trans. costs RMS	2.40	0.00	0.00	0.00	0.00	0.00	2.40
Trans. costs product to stock	6.88	0.00	0.00	0.00	0.00	0.00	6.88
<b>PRODUCTION</b>							
Expenses for RMS	37.22	0.00	0.00	0.00	0.00	0.00	37.22
+ other variable costs	6.88	0.00	0.00	0.00	0.00	0.00	6.88
+ wages & salaries	18.81	0.00	0.00	0.00	0.00	0.00	18.81
+ social costs	15.99	0.00	0.00	0.00	0.00	0.00	15.99
+ other personnel costs	2.20	0.00	0.00	0.00	0.00	0.00	2.20
+ depreciation	6.80	0.00	0.00	0.00	0.00	0.00	6.80
+ other fixed costs	13.00	0.00	0.00	0.00	0.00	0.00	13.00
+ reworking / defects	0.72	0.00	0.00	0.00	0.00	0.00	0.72
+ rationalisation	1.00	0.00	0.00	0.00	0.00	0.00	1.00
= Costs of manufacture	102.63	0.00	0.00	0.00	0.00	0.00	102.63
<b>SALES</b>							
Sales income	177.28	0.00	0.00	0.00	0.00	0.00	177.28
- sales commission	0.00	0.00	0.00	0.00	0.00	0.00	0.00
= Net sales income	177.28	0.00	0.00	0.00	0.00	0.00	177.28
- cost of product	106.28	0.00	0.00	0.00	0.00	0.00	106.28
- transport costs to custom.	6.57	0.00	0.00	0.00	0.00	0.00	6.57
- other variable costs	3.94	0.00	0.00	0.00	0.00	0.00	3.94
= Gross margin I	60.49	0.00	0.00	0.00	0.00	0.00	60.49
- advertising	6.35	0.00	0.00	0.00	0.00	0.00	6.35
- sales promotion	1.25	0.00	0.00	0.00	0.00	0.00	1.25
- corporate identity	1.00	0.00	0.00	0.00	0.00	0.00	1.00
= Gross margin II	51.89	0.00	0.00	0.00	0.00	0.00	51.89
- wages & salaries	3.90	0.00	0.00	0.00	0.00	0.00	3.90
- social costs	3.31	0.00	0.00	0.00	0.00	0.00	3.31
- other personnel costs	0.43	0.00	0.00	0.00	0.00	0.00	0.43
- other fixed costs	2.00	0.00	0.00	0.00	0.00	0.00	2.00
= Sales result	42.26	0.00	0.00	0.00	0.00	0.00	42.26
<b>ADMIN / R &amp; D</b>							
Admin. costs	15.96	0.00	0.00	0.00	0.00	0.00	15.96
Product improvement	2.00	0.00	0.00	0.00	0.00	0.00	2.00
Regional operating result	24.30	0.00	0.00	0.00	0.00	0.00	24.30

## General Overview (Euro/Unit)

UNICON Management Systeme GmbH		D-88709 Meersburg		Copyright (c) 2000 by UNICON		
Management Game				Company: 1		Period: 0
T O P S I M - EURO				Standard		Date: 1.10.2000
GENERAL OVERVIEW (Euro / UNIT)						
	R1	R2	R3	R4	R5	
<b>PRODUCTION</b>						
Expenses for RMS	135.35	0.00	0.00	0.00	0.00	0.00
+ other variable costs	25.00	0.00	0.00	0.00	0.00	0.00
+ wages & salaries	68.41	0.00	0.00	0.00	0.00	0.00
+ social costs	58.15	0.00	0.00	0.00	0.00	0.00
+ other personnel costs	8.00	0.00	0.00	0.00	0.00	0.00
+ depreciation	24.73	0.00	0.00	0.00	0.00	0.00
+ other fixed costs	47.27	0.00	0.00	0.00	0.00	0.00
+ reworking / defects	2.63	0.00	0.00	0.00	0.00	0.00
+ rationalisation	3.64	0.00	0.00	0.00	0.00	0.00
= Costs of manufacture	373.18	0.00	0.00	0.00	0.00	0.00
<b>SALES</b>						
Sales income	675.00	0.00	0.00	0.00	0.00	0.00
- sales commission	0.00	0.00	0.00	0.00	0.00	0.00
= Net sales income	675.00	0.00	0.00	0.00	0.00	0.00
- cost of product	404.68	0.00	0.00	0.00	0.00	0.00
- transport costs to custom.	25.00	0.00	0.00	0.00	0.00	0.00
- other variable costs	15.00	0.00	0.00	0.00	0.00	0.00
= Gross margin I	230.32	0.00	0.00	0.00	0.00	0.00
- advertising	24.18	0.00	0.00	0.00	0.00	0.00
- sales promotion	4.76	0.00	0.00	0.00	0.00	0.00
- corporate identity	3.81	0.00	0.00	0.00	0.00	0.00
= Gross margin II	197.58	0.00	0.00	0.00	0.00	0.00
- wages & salaries	14.83	0.00	0.00	0.00	0.00	0.00
- social costs	12.61	0.00	0.00	0.00	0.00	0.00
- other personnel costs	1.62	0.00	0.00	0.00	0.00	0.00
- other fixed costs	7.62	0.00	0.00	0.00	0.00	0.00
= Sales result	160.90	0.00	0.00	0.00	0.00	0.00
<b>ADMIN / R &amp; D</b>						
Admin. costs	60.75	0.00	0.00	0.00	0.00	0.00
Product improvement	7.62	0.00	0.00	0.00	0.00	0.00
Regional operating result	92.54	0.00	0.00	0.00	0.00	0.00

## 4.

## Cost Unit Account

UNICON Management Systeme GmbH D-88709 Meersburg		Copyright (c) 2000 by UNICON					
Management Game T O P S I M - EURO		Company: 1		Period: 0			
		Standard		Date: 1.10.2000			
COST UNIT ACCOUNT							
COST FACTORS (MEuro)	Cost Unit:						
	R1	R2	R3	R4	R5		Total
Cost of RMS	37.22	0.00	0.00	0.00	0.00	0.00	37.22
+ other variable costs	6.88	0.00	0.00	0.00	0.00	0.00	6.88
+ production labour costs	37.01	0.00	0.00	0.00	0.00	0.00	37.01
+ depreciation	6.80	0.00	0.00	0.00	0.00	0.00	6.80
+ other fixed costs	13.00	0.00	0.00	0.00	0.00	0.00	13.00
+ reworking / rejects	0.72	0.00	0.00	0.00	0.00	0.00	0.72
+ rationalisation	1.00	0.00	0.00	0.00	0.00	0.00	1.00
+ warehouse costs prod. & RMS	1.62	0.00	0.00	0.00	0.00	0.00	1.62
+ prod. trans. costs to stocks	6.88	0.00	0.00	0.00	0.00	0.00	6.88
+ prod. trans. costs to custom	6.57	0.00	0.00	0.00	0.00	0.00	6.57
+ personnel costs sales	7.63	0.00	0.00	0.00	0.00	0.00	7.63
+ advertising	6.35	0.00	0.00	0.00	0.00	0.00	6.35
+ sales promotion	1.25	0.00	0.00	0.00	0.00	0.00	1.25
+ corporate identity	1.00	0.00	0.00	0.00	0.00	0.00	1.00
+ other variable costs	3.94	0.00	0.00	0.00	0.00	0.00	3.94
+ other fixed costs	2.00	0.00	0.00	0.00	0.00	0.00	2.00
+ admin. costs	15.96	0.00	0.00	0.00	0.00	0.00	15.96
+ product improvement	2.00	0.00	0.00	0.00	0.00	0.00	2.00
= Total costs	157.81	0.00	0.00	0.00	0.00	0.00	157.81
ASSETS (MEuro)							
	R1	R2	R3	R4	R5		Total
FIXED ASSETS							
Land & buildings	15.20	0.00	0.00	0.00	0.00	0.00	15.20
Machines & equipment	54.00	0.00	0.00	0.00	0.00	0.00	54.00
CURRENT ASSETS							
Stocks RMS	5.28	0.00	0.00	0.00	0.00	0.00	5.28
Finished products	14.92	0.00	0.00	0.00	0.00	0.00	14.92
INFORMATION ABOUT ACTIVITIES IN OTHER REGIONS							

## 5. Profit and Loss Account

UNICON Management Systeme GmbH D-88709 Meersburg Management Game T O P S I M - EURO		Copyright (c) 2000 by UNICON Company: 1      Period: 0 Standard      Date: 1.10.2000		
PROFIT & LOSS ACCOUNT				
TOTAL COST METHOD		MEuro	COST OF SALES METHOD	MEuro
Sales		177.28	Sales	177.28
± increase / reduction stocks of finished goods		3.22		
- costs of materials		37.22	- costs of goods sold	106.28
- personnel costs				
- wages & salariers		22.71	- sales costs	30.35
- other personnel costs		21.93	- r & d	2.00
- depreciation		6.80		
- other operating costs		69.15	- admin. costs	15.96
= Operating result		22.69	= Operating result	22.69
				MEuro
Operating result				22.69
+ earnings from securities				0.00
- interest & similar expenses				7.20
= Result from normal operating activities				15.49
Extraordinary income				0.00
- extraordinary expenses				0.00
= Extraordinary result				0.00
Taxes on earnings				8.67
Net earnings/net losses for year				6.81
USE OF NET EARNINGS / NET LOSSES FOR YEAR				MEuro
Net earnings/losses for year				6.81
± accumulated profit/loss carried forward				0.00
- transfer to reserves				3.41
= Balance sheet profit/loss				3.41
- dividends				3.41
= Profit/loss to be carried forward				0.00

## 6. Financial Report and Balance Sheet

UNICON Management Systeme GmbH	D-88709 Meersburg	Copyright (c) 2000 by UNICON
Management Game		Company: 1
T O P S I M - EURO		Period: 0
		Standard Date: 1.10.2000
FINANCIAL REPORT & BALANCE SHEET		

FINANCIAL REPORT (MEuro)	Current period	Plan for the coming period
Cash at start of the period	1.50	
<b>IN-PAYMENTS</b>		
in-payment from sales curr. period	141.82	.....
+ in-payment from sales prev. period	30.00	.....
+ securities	0.00	.....
+ interest received	0.00	.....
+ extraordinary revenues	0.00	.....
+ short & long-term loans	72.00	.....
+ overdraft	0.00	.....
= Total in-payment	243.82	.....
<b>DISBURSEMENTS</b>		
Price & transport RMS	39.90	.....
+ finished prod. from coop. partner	0.00	.....
+ personnel costs production/sales	44.64	.....
+ other operating expenses	69.15	.....
+ repayment short-term loans/overdraft	70.00	.....
+ interest paid	7.20	.....
+ purchase of production capacity	0.00	.....
+ purchase of securities	0.00	.....
+ purchase/extension of companies	0.00	.....
+ taxes	8.67	.....
+ dividends paid (prev. period)	1.90	.....
+ extraordinary expenses	0.00	.....
= Total disbursements	241.46	.....
Cash at end of period	3.86	

BALANCE SHEET (MEuro)					
ASSETS	Period	Prev.per.	LIABILITIES	Period	Prev.per.
<b>FIXED ASSETS</b>	69.20	76.00	<b>EQUITY</b>	56.71	51.80
Goodwill	0.00	0.00	Subscribed capital	35.00	35.00
Tangible assets	69.20	76.00	Capital reserves	5.00	5.00
Land & buildings	15.20	16.00	Revenue reserves	9.90	8.00
Machines	54.00	60.00	Profit/Loss carried fwd.	0.00	0.00
<b>CURRENT ASSETS</b>	59.51	45.80	Net earnings/losses	6.81	3.80
Inventories			<b>LIABILITIES</b>	72.00	70.00
Raw materials & suppl.	5.28	2.60	Liabilities to banks		
Finished goods	14.92	11.70	Long term loans	0.00	0.00
Receivables	35.46	30.00	Short term loans	72.00	70.00
Securities	0.00	0.00	Overdraft	0.00	0.00
Cash	3.86	1.50			
<b>Total assets</b>	<b>128.71</b>	<b>121.80</b>	<b>Total liabilities</b>	<b>128.71</b>	<b>121.80</b>

## Value Orientated Ratios

**Note:** This report will only be available if your instructor has installed the version including US-GAAP and Value Orientated Ratios. For further information refer to your instructor.

UNICON Management Systeme GmbH	D-88709 Meersburg	Copyright (c) 2000 by UNICON
Management Game		Company: 1
T O P S I M - EURO		Standard Date: 1.10.2000
VALUE ORIENTED RATIOS		

PROFIT & LOSS STATEMENT	Period MEuro	Prev.per MEuro	Deviation		% from Sales	
			absolut	%	Period	Prev.per
Sales	177.28	569.28	-392.00	-68.86	100.00	100.00
- costs of goods sold	106.28	372.13	-265.85	-71.44	59.95	65.37
- sales costs	30.35	115.89	-85.54	-73.81	17.12	20.36
- r & d	2.00	22.00	-20.00	-90.91	1.13	3.86
- administration costs	15.96	27.11	-11.16	-41.16	9.00	4.76
= Operating result	22.69	32.15	-9.46	-29.42	12.80	5.65
± financial result	-7.20	-27.14	19.94	-73.47	-4.06	-4.77
± extraordinary result	0.00	0.00	0.00	0.00	0.00	0.00
- taxes on earnings	8.67	2.20	6.47	293.39	4.89	0.39
= NET INCOME (NI)	6.81	2.81	4.01	142.86	3.84	0.49
+ depreciation	6.80	18.30	-11.50	-62.84	3.84	3.21
= CASH-FLOW AFTER TAX (CF)	13.61	21.11	-7.49	-35.50	7.68	3.71
Operating result	22.69	32.15	-9.46	-29.42	12.80	5.65
- taxes on earnings	8.67	2.20	6.47	293.39	4.89	0.39
= NET OPERATING INCOME (NOI)	14.01	29.94	-15.93	-53.19	7.91	5.26

NET ASSETS (NA)	Period MEuro	Prev.per MEuro	Deviation		% from Net Assets	
			absolut	%	Period	Prev.per
Goodwill	0.00	0.00	0.00	0.00	0.00	0.00
+ land & buildings	15.20	16.00	-0.80	-5.00	11.81	13.14
+ machines	54.00	60.00	-6.00	-10.00	41.95	49.26
= FIXED ASSETS	69.20	76.00	-6.80	-8.95	53.76	62.40
Raw Materials	5.28	2.60	2.68	103.03	4.10	2.13
+ finished goods	14.92	11.70	3.22	27.50	11.59	9.61
+ receivables	35.46	30.00	5.46	18.19	27.55	24.63
+ securities & cash	3.86	1.50	2.36	157.51	3.00	1.23
= CURRENT ASSETS	59.51	45.80	13.71	29.95	46.24	37.60
NET ASSETS (NA)	128.71	121.80	6.91	5.68	100.00	100.00
EQUITY	56.71	51.80	4.91	9.49	44.06	42.53

Average interest rate: for net assets  $i = 8.00\%$ ; for CFROI  $j = 13.0\%$

RATIOS	Periods							
	0							
1 Net Oper. Income (NOI) MEuro	14.0							
2 Cash-flow (CF) MEuro	13.6							
3 Net Assets (NA) MEuro	128.7							
4 RONA (NOI/NA) %	10.9							
5 EVA (NOI - $i\% * NA$ ) MEuro	3.7							
6 EVA (per. - prev.per.) MEuro	3.7							
7 CFROI (CF/NA) %	10.6							
8 DTCF (CF - $j\% * NA$ ) MEuro	-3.1							
9 DDTCF (per. - prev.per.) MEuro	-3.1							
10 MVA MEuro	7.6							

ad 4:RONA = Return on Net Assets

ad 5:EVA = Economic Value Added =  $GWB$

ad 7:CFROI= Cash-flow Return on Investment

ad 8:DTCF = Difference Total Cash Flow

ad 9:DDTCF = Delta Difference Total Cash Flow

ad 10:MVA = Market Value Added = Value of comp. - equity

## 7. Target-Actual Variances

UNICON Management Systeme GmbH		D-88709 Meersburg		Copyright (c) 2000 by UNICON							
Management Game				Company: 1		Period: 0					
T O P S I M - EURO				Standard		Date: 1.10.2000					
TARGET - ACTUAL VARIANCES											
Value	Periods										Y
	0										
Sales target	260.0										260.0
(thou. units)actu.	262.6										262.6
Variance (absol.)	2.6										2.6
Planning quality	0.9										0.9
Turnover target	178.0										178.0
MEuro actual	177.3										177.3
Variance (absol.)	-0.7										-0.7
Planning quality	1.0										1.0
Net earn. target	7.0										7.0
MEuro actual	6.8										6.8
Variance (absol.)	-0.2										-0.2
Planning quality	1.0										1.0
Cash target	3.0										3.0
MEuro actual	3.9										3.9
Variance (absol.)	0.9										0.9
Planning quality	0.9										0.9
Net earnings MEuro	6.8										6.8
Cum.net earn.MEuro	6.8										6.8
Planning qual.per.	3.8										3.8
Cum. planning qu.	3.8										3.8
Success rate per.	10.6										10.6
Cumul.success rate	10.6										10.6

## 8. Market Research Report

UNICON Management Systeme GmbH		D-88709 Meersburg			Copyright (c) 2000 by UNICON					
Management Game					Company: 1		Period: 0			
T O P S I M - EURO					Standard		Date: 1.10.2000			
MARKET RESEARCH REPORT										
SALES INFORMATION REGION: 1										
COMPANY	C1	C2	C3	C4	C5					Remain. industry
Price	675.00									675.00
Advertising	6.25									34.00
Recr.sales reps	15									60
Sales promotion	1.25									6.70
Corp.identity	1.00									5.60
Training	0.20									1.20
Sales	262471									1500004
Turnover	177.17									1012.50
Market share	14.89									85.11
Stocks	28236									0
No. sales reps.	143									751
Personnel qual.	1.02									1.02
Product-quality										
Techno.-index	1.00									1.00
Ecology-index	1.00									1.00
Awareness fact.	61.87									81.16
Duration										

Production - data	Companies				
	C1	C2	C3	C4	C5
Creation					
Purchase					
Cooperation					

## 9. Business Report of Industry

UNICON Management Systeme GmbH D-88709 Meersburg Management Game T O P S I M - EURO		Copyright (c) 2000 by UNICON Company: 1      Period: 0 Standard      Date: 1.10.2000			
BUSINESS REPORT OF INDUSTRY					
PROFIT & LOSS ACCOUNT (MEuro)					
TOTAL COST METHOD	Comp.1	Comp.2	Comp.3	Comp.4	Comp.5
Sales	177.28	164.13	188.22	162.34	155.38
± increase / reduction stocks of finished goods & work in progress	3.22	3.83	-0.52	-0.17	6.03
- costs of materials	37.22	35.18	43.76	36.26	41.44
- personnel costs					
- wages & salariers	22.71	19.63	24.55	18.36	19.24
- other personnel costs	21.93	19.92	12.57	19.46	14.00
- depreciation	6.80	6.50	7.75	6.65	6.40
- other operating costs	69.15	63.28	74.80	56.15	58.85
= Operating result	22.69	23.45	24.26	25.28	21.49
Result fr. normal op.activity	15.49	15.91	15.49	17.58	10.77
Extraordinary result	0.00	0.00	0.00	0.00	0.00
- taxes on earnings	8.67	6.20	5.42	8.09	3.77
= Net earnings/losses for year	6.81	9.70	10.07	9.49	7.00
BALANCE SHEET (MEuro)					
ASSETS	Comp.1	Comp.2	Comp.3	Comp.4	Comp.5
FIXED ASSETS	69.20	63.50	77.25	66.35	61.60
Goodwill	0.00	0.00	0.00	0.00	0.00
Tangible assets	69.20	63.50	77.25	66.35	61.60
Land & buildings	15.20	9.50	14.25	12.35	7.60
Machines	54.00	54.00	63.00	54.00	54.00
CURRENT ASSETS	59.51	55.28	54.82	45.14	48.40
Inventories					
Raw materials & supply	5.28	1.34	2.04	1.31	4.19
Finished goods	14.92	15.38	11.33	7.43	10.59
Receivables	35.46	32.83	37.64	32.47	31.08
Securities	0.00	0.00	0.00	0.00	0.00
Cash	3.86	5.74	3.80	3.94	2.54
Total assets	128.71	118.78	132.07	111.49	110.00
LIABILITIES					
EQUITY	56.71	60.78	67.07	56.49	43.00
Subscribed capital	35.00	40.00	45.00	35.00	25.00
Capital reserves	5.00	5.00	6.00	6.00	5.00
Revenue reserves	9.90	6.08	6.00	6.00	6.00
Profit/Loss carried fwd.	0.00	0.00	0.00	0.00	0.00
Net earnings/losses	6.81	9.70	10.07	9.49	7.00
LIABILITIES	72.00	58.00	65.00	55.00	67.00
Liabilities to banks					
Long term loans	0.00	0.00	0.00	0.00	0.00
Short term loans	72.00	58.00	65.00	55.00	67.00
Overdraft	0.00	0.00	0.00	0.00	0.00
Total liabilities	128.71	118.78	132.07	111.49	110.00
RATIOS	Comp.1	Comp.2	Comp.3	Comp.4	Comp.5
Return on sales (%)	3.8	5.9	5.3	5.8	4.5
Return on equity (%)	13.2	18.6	17.4	19.8	18.9
Share price (Euro/Share)	257.3	275.9	311.6	253.6	188.9
Value of company (MEuro)	64.3	69.0	77.9	63.4	47.2

**Note:** This report will only be available if your instructor has installed the version including US-GAAP and Value Orientated Ratios. For further information refer to your instructor.

UNICON Management Systeme GmbH D-88709 Meersburg	Copyright (c) 2000 by UNICON
Management Game T O P S I M - EURO	Company: 1      Period: 0 Standard      Date: 1.10.2000
BUSINESS REPORT OF INDUSTRY - CASH FLOW STATEMENT, RATIOS	

CASH FLOW STATEMENT (MEuro)	Comp. 1	Comp. 2	Comp. 3	Comp. 4	Comp. 5
Net earnings/losses for year	6.81	9.70	10.07	9.49	7.00
Depreciation	6.80	6.50	7.75	6.65	6.40
Changes in current assets					
Increase(-) / Decrease (+) raw material (RMS)	-2.68	1.26	0.56	0.51	-2.89
Increase(-) / Decrease (+) finished goods	-3.22	-3.83	0.52	0.17	-6.03
Increase(-) / Decrease (+) receivables	-5.46	-12.83	-17.64	-32.47	-31.08
<b>A. NET CASH PROVIDED/USED BY OPERATING ACTIVITIES</b>	<b>2.26</b>	<b>0.81</b>	<b>1.25</b>	<b>-15.64</b>	<b>-26.60</b>
Purchase of production capacity	0.00	0.00	0.00	0.00	0.00
Purchase of companies	0.00	0.00	0.00	0.00	0.00
<b>B. NET CASH USED IN INVESTING ACTIVITIES</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Dividends paid (prev. period)	-1.90	-1.08	-1.00	-1.00	-1.00
Increase(-) / Decrease (+) of securities	0.00	0.00	0.00	0.00	0.00
Increase(+) / Decrease (-) of bank loans	2.00	5.00	2.00	20.00	29.00
<b>C. NET CASH PROVIDED/USED BY FINANCING ACTIVITIES</b>	<b>0.10</b>	<b>3.92</b>	<b>1.00</b>	<b>19.00</b>	<b>28.00</b>
<b>D. NET INCREASE(+)/DECREASE(-) OF CASH (A + B + C)</b>	<b>2.36</b>	<b>4.74</b>	<b>2.25</b>	<b>3.36</b>	<b>1.40</b>

Average interest rate: for net assets  $i = 8.00\%$ ; for CFROI  $j = 13.0\%$

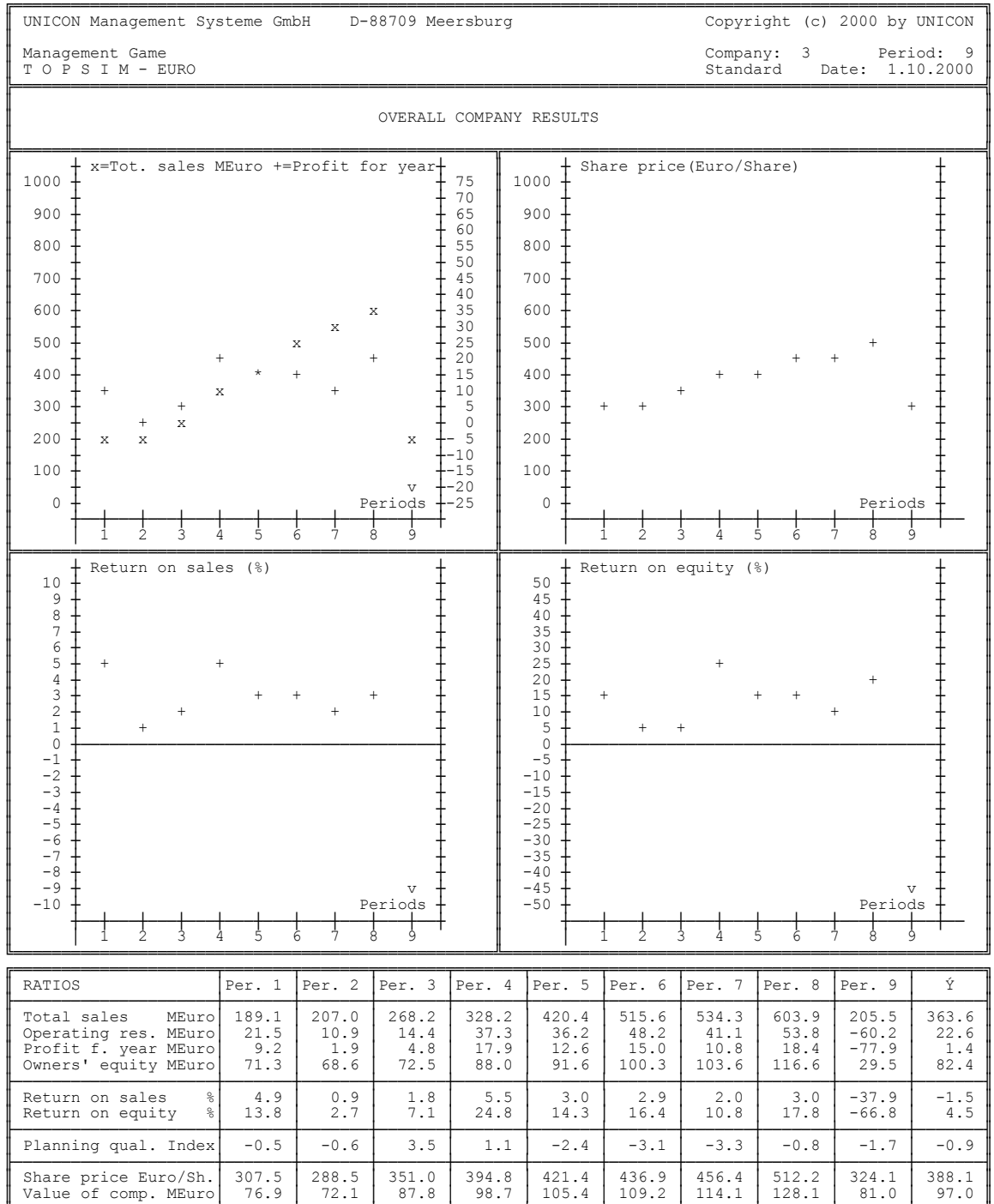
RATIOS		Comp. 1	Comp. 2	Comp. 3	Comp. 4	Comp. 5
1 Net Operating Income (NOI)	MEuro	14.01	17.24	18.84	17.19	17.72
2 Cash-flow (CF)	MEuro	13.61	16.20	17.82	16.14	13.40
3 Net Assets (NA)	MEuro	128.71	118.78	132.07	111.49	110.00
4 RONA (NOI/NA)	%	10.89	14.52	14.27	15.42	16.11
5 EVA (NOI - $i\% * NA$ )	MEuro	3.72	7.74	8.28	8.27	8.92
6 EVA (period - previous period)	MEuro	3.72	7.74	8.28	8.27	8.92
7 CFROI (CF/NA)	%	10.58	13.64	13.49	14.48	12.18
8 DTCF (CF - $j\% * NA$ )	MEuro	-3.12	0.76	0.65	1.65	-0.90
9 DDTCF (DTCF: period - previous period)	MEuro	-3.12	0.76	0.65	1.65	-0.90
10 MVA	MEuro	7.61	8.19	10.84	6.92	4.22

ad 4: RONA = Return on Net Assets  
ad 5: EVA = Economic Value Added =  $GWB$   
ad 7: CFROI = Cash-flow Return on Investment  
ad 8: DTCF = Difference Total Cash Flow  
ad 9: DDTCF = Delta Difference Total Cash Flow  
ad 10: MVA = Market Value Added = Value of company - equity

## Overall Results

This report is available starting with period 1. It follows "Financial report and balance sheet".

Example given:



# **TOPSIM - Euro**

---

## **Appendix 2**

### **The Market for Electrical Household Equipment in TOPSIM - Euro**

## 1. General

**TOPSIM - Euro** deals with the market for electrical household equipment and the **washing machine** as a typical product. The companies competing in the game are based in five different countries, which are representatives of

<b>Germany</b>	(Region 1),
<b>France</b>	(Region 2),
<b>United Kingdom</b>	(Region 3),
<b>Italy</b>	(Region 4), and
<b>Spain</b>	(Region 5).

## 2. Electrical Household Equipment in the EU: Overview

### Information from EUROSTAT (\* Eurostat is the european statistical office.)

The EU electrical equipment industry was able to overcome the declining production of the early 80's by severe restructuring and a reanimation of demand. Since 1988, the sector has largely regained its profitability and is showing strong growth. Competition is nevertheless fierce, making the need felt for better use of capacity and stronger profits.

### Sector description

The **NACE-category 346** covers the manufacture of electrical good for domestic use. The following equipment is included in the classification:

- ρ **Microwave Ovens,**
- ρ **Ranges ,**
- ρ **Dishwashers,**
- ρ **Washing machines,**
- ρ **Spinners and Tumble Dryers,**
- ρ **Refridgerators and Freezers,**
- ρ **Personal Care equipment, e.g. Hairdryers.**
- ρ **Small Kitchen appliances,**
- ρ **Vacuum Cleaners,**
- ρ **Irons, and**
- ρ **Heating appliances.**

## 3. Present Situation

The household equipment sector is one of the most important sub-sectors of the electrical industry. While electronics and telecommunications profit from investment programmes, the household equipment sector is dependent on consumer demand and building activity. This sector makes up 10% of the total electrical industry production. This percentage varies from country to country within the EU. In Germany, the proportion is only around 7% and in Italy, on the other hand, about 15%.

Total EU production was 57% above that of the US and 150% above the Japanese in 1988. Germany, France, Italy, and the UK make up around 83% of total EU production. German manufacturers have a strong export orientation and make up around 30% of EU exports to non-EU countries.

In 1995, as in 1996, the production index rose by 7.5%. This increase underlines the refreshed activity of this sector as a result of increased demand and rationalization. In some countries these rationalization efforts lead to falls in production. France and the UK were worst hit, being countries where particularly harsh rationalizations were carried out.

The market for domestic appliances is characterised by fierce competition on national and international levels. The price indices for domestic appliances rose by 0.8% per year in recent years. This figure lies well below the average inflation rate for the sector of 1.5 to 2.5% p.a.

#### **4. Production**

In 1996, production of electrical household equipment within the EU was worth 22.5 Billion Euro. This represents an increase of 9.2% on the previous year. Rising standards of living and increasingly broad based purchasing power led to a different development of demand and to a certain re-orientation of production. From 1988 to 1996, the increase in production of large appliances was only 6%, while small appliances and heating equipment showed a stronger increase of 13%. However, in 1996, production of large appliances rose by 13% and that of small appliances by only 2%, while heating equipment production sank by 8%.

In the large appliances category there has been particularly strong growth for microwaves and dishwashers since 1990. There is no sign of market saturation for these appliances. The total market share of these appliances is growing steadily, even though they only constitute a fraction of the whole. In 1996, microwave ovens had a 6.6% share of the EU white goods market compared to 2% in 1990. In the USA the figure is 16.6% and in Japan a hefty 35%. Japanese industry concentrates on technical innovation and thus on high value added goods. In 1994, the EU production of microwave ovens grew by 81%. At that time far-eastern manufacturers dominated the EU market for microwave ovens.

In 1988 refridgerators had a 37.5% share of the large white goods market. By 1996, this share had been reduced to 32.7%.

#### **5. Consumption**

The electrical household goods industry went through a difficult period at the beginning of the 1990's. Market saturation is an important factor for consumer tendencies in the 90's, as the market for certain products became essentially one of replacement.

In 1996, 97% of households had a refridgerator, 88% a washing machine, and 82% a vacuum cleaner. These consumption trends stem from stagnating population growth in the industrially highly developed member states and from reduced growth in the others.

This phenomenon is partly balanced by a strong increase in the number of households due to socio-economic factors.

## 6. Employment Rates

Rationalization measures and restructuring following surplus potential in the 90's led to a decrease in the level of employment. This tendency began at the beginning of the 1980's, but became stronger in the period 1990-96.

At the end of this period, according to the **CECED**, the number of people employed in the production of electrical household equipment had sunk by 26% compared to the employment rate of 1990 (decrease of 13% according to Eurostat).

Since then, the figure has fluctuated around 210 000 (233 000 according to **EUROSTAT**).

In some member states the employment rate has increased, however only slightly.

Productivity has increased during the past years and the significance attached by the industry to gains in productivity is clear.

To a large extent, the employment rates decreased in France and the UK and this trend is continuing. In Germany, the level of employment sank only by 9% between 1988 and 1996.

## 7. Structural Changes

Concentration has always been marked in the electrical household goods industry compared with other industrial branches. Mass production and savings from large scale manufacture are particularly important aspects of these product types. In past decades, concentration increased with a simultaneous decrease in the number of producers. This trend was strengthened by the rationalization process of the 90's. In 1990 there were 430 manufacturers in the EU, by 1996 this figure had dropped to 280. This decreasing number of manufacturers is growing weaker. Production is dominated by multinational firms who can make great saving by large scale manufacturing.

## 8. Companies in the Market

Four companies have a predominant position on the EU market today:

- Elektropsux from Sweden,
- Whirlo Hiphips from Italy,
- Wasch-Dumens from Germany, and
- Meloni from Italy.

Mergers and Acquisitions have increased among the major manufacturers in recent years:

- Takeover of Rauknecht by Hiphips in 1992,
- Takeover of Canossi in Italy and Spain by Elektropsux in 1993,
- Merger of the Italian companies Rariston und Inkredit in 1994,
- Takeover of the German company Loghwenta by the French company J.W.D. and the British company M.L.Frog,
- as well as the French concern Poolwienix' activities in Italy.

As transport costs are an extremely important part of total costs, the proximity of the markets play an important role in the choice of location. Indecision about the choice of location kept Japanese and American manufacturers away from the EU markets for a long time. Recently, however, Japanese manufacturers have been planning the purchase or transfer of production plants in the EU. Even though different opinions of EU consumers about concept and product design will constitute a significant barrier to entry, Japanese manufacturers have already begun to test their market opportunities particularly in the UK. If this attempt is successful, Japanese companies could conquer a market share of 5-10% if they penetrate other markets in the same way.

The four largest American producers have had European production capacity for a long time, thanks to purchases. The main problems for the Americans are the relatively high price of conforming to European norms, the nuclear market structure, the market variety, and the regional gaps in the white goods field.

## **9. Prospects**

The need for a considerable reduction in energy consumption and the growing requirement for manufacturers to dispose of old appliances themselves will necessitate considerable investment, which could lead to further rationalizations in the relevant branch.

Production growth in the community will slow down after the exceptional years 1988-89 and hover around zero. In the coming 5 years European industry will be working in an environment characterised by growing concentration, very lively competition, and the construction of strategic alliances at both a national and international level.

## **10. National Characteristics**

The starting positions in the individual regions are obviously very different depending on national characteristics. For example, the average European pro rata expenditure for advertising is around 110 Euro, but in the UK it is 125 Euro and in Spain only 70 Euro.

These national characteristics are included in the game and are to be considered when making your decisions.

The following overview shows how the various regions perform for important parameters in relation to the EU average:

Indication of the effect of marketing in the different countries:

At the planning stage it should be taken into consideration that the instruments' effectiveness is directly influenced by the competitors' activities, the economic climate, and the cultural characteristics. For example, print advertising in Spain is not necessarily an appropriate means of reaching the market, as Spaniards are traditionally not interested in daily newspapers. The "Maily Dirror" made this painful discovery a short time ago, when it tried to change this habit.