

## Dear Director,

The business simulation „SimEconomy“ intends to demonstrate the main coherences in global market economy. While simulating the value chain of the cell phone market, participants shall learn the basic market mechanisms in the game. They take on the role of employees, factory owners, intermediaries or retailers and prove their negotiating skills. More detailed information can be found in the role descriptions.

## Participants

17 pupils are needed to guarantee an efficient economic cycle. The participants should ideally be between 15 and 19 years old.

## Material

Following material is attached to the game and should be used as a master copy:

- Several role descriptions for trade chains, intermediaries, european and asian factory owners as well as for european and asian employees
- Billing sheets for each role
- Sheets with cut-out-masters for mobile phones

Following material has to be provided additionally:

- Per asian employee:
  - 1 pair of nail scissors
  - Thin crayons in several different colours (one colour per gaming period)
- Per european employee:
  - 1 pair of scissors (appropriate for doing handicrafts)
  - Thick crayons in several different colours (one colour per gaming period, colours should match with the ones used by the asian employees)
- Per factory owner:
  - 1 thin black pen
- Calculators

The different sizes of scissors and crayons are used to simulate the different production efficiencies of the regions. Mobile phones can only be sold in the period in which they have been produced because they are subject to an ageing process. The different colours are used to label in which period the phones have been manufactured. To avoid confusion it should be secured that the colours used by everyone in each period are consistent. The factory owner's black pen is intended to be used for the drawing of the logo which should be accomplished by the employees. This is to be coordinated by the factory owners.

## Division of the class

First of all, every pupil has to be assigned to one part:

- Retailer
- Intermediary
- Factory Owner Europe
- Factory Owner Asia
- European Employee
- Asian Employee

It is advisable to cast motivated pupils for the important roles of intermediaries and retailers. It is recommended to firstly ask who wants to act as retailer agent without giving information about the other roles. Afterwards the intermediaries are casted, then the factory owners and the employees at the end. The different parts should be accantuated by the seating arrangement in the class room. Europe, Asia and the retailers should be considerably seperated. The intermediaries do not need any seating.

The following division is expedient for a class of 17 pupils (the minimum): 3 retailers, 2 intermediaries, 2 factory owners in Europe, 2 factory owners in Asia, 4 European employees, 4 Asian employees. A factory with one owner and two employees should be arranged around one table. In case of a differing class sizes the amounts of roles have to be adjusted proportionally (please see attachment). Thereby it has to be taken care of a balanced amount of employees at each factory to avoid a distortion of competition.

Once every pupil is seated and the material is divided, everybody receives his role description. The description should be read intensively in the next 10 minutes. Afterwards it should be taken some time for occurring questions and a calculation for a trade chain agent or an intermediary. An example could be used to fill out a billing sheet (an overhead projector might be useful).

## Game setting

In the beginning of the first round (and in the starting points of the following rounds as well) the director has to name the colour of the period and the logo for the whole game. Any logo can be chosen (e.g. a smiley). Each round lasts 25 minutes and is divided into two phases. It is recommended to play 3 or 4 rounds. In the first phase of a round, which lasts 15 minutes, the employees have to cut out cell phones. At the same time the factory owners have to control the quality of the cell phones and take the first negotiation steps with the intermediaries. Simultaneously the intermediaries have to negotiate with the factory owners and retailers. In this process the intermediaries transfer the information about the possible sales from the trade chains to the factory owners.

The production time ends after the expiration of the 15 minutes. Pupils are not allowed to produce anymore. In the following 10 minutes the employees have the opportunity to fill out their billing sheets and optionally to negotiate their wages. It can be reasonable to extend the 10 minutes in the first round to make sure that all negotiations lead to a result. This is left to the teacher's discretion.

The factory owners assure themselves of the actual production volume and close the deals with the intermediaries. At the same time the deals between intermediaries and trade chains are closed as well.

Now it is possible to start the 2<sup>nd</sup> round.

The director announces the colour of the round. The employees start producing and the factory owners and intermediaries use the production phase to fill out their billing sheets. The director operates as consumer and buys the cell phones from the retailers. At this point he has to check the quality of the cell phones and he purchases only acceptable phones.

Afterwards he announces a tendency about how many cell phones will be possibly purchased in the next

round. In the first period **all** cell phones that are acceptable should be purchased at a price of £ 50,00. In the following rounds the director is able to simulate influences on the economic cycle by different purchase quantities or price increases. Please point out in advance that quality plays an essential role. The country of origin becomes negligible. Your understanding of quality should be also clarified in advance.

After the expiration of the last round the billing sheets have to be hand over to the director.

## Special features during the game

- Point out the importance of high quality.
- In case that the pupils keep on working during off-production time the director can choose to tolerate this behavior. He could use this manner to explain the phenomenon of illicit work in the learning unit. The same procedure could be used for illegal price agreements between pupils with the same roles. Instead of this the director could also sanction those activities.
- The director could promise a reward for the best performer of each role (e.g. best intermediary, best factory owner) to motivate the pupils.
- Direct trading between trade chains and factory owners is prohibited.

	1 <sup>st</sup> year (25 min)		2 <sup>nd</sup> year (25 min)		3 <sup>rd</sup> year (25 min)		
Role	Stage 1 (15 min)	Stage 2 (10 min)	Stage 1 (15 min)	Stage 2 (10 min)	Stage 1 (15 min)	Stage 2 (10 min)	Final Phase
<b>Teacher (Consumers)</b>	<ul style="list-style-type: none"> <li>Announce logo (for entire game)</li> <li>Announce colour of cell phones (at the beginning)</li> </ul>		<ul style="list-style-type: none"> <li>Announce colour of cell phones (at the beginning)</li> <li>Buy cell phones from retailers</li> <li>afterwards: economic situation in the current year</li> </ul>		<ul style="list-style-type: none"> <li>Announce colour of cell phones (at the beginning)</li> <li>Buy cell phones from retailers</li> <li>afterwards: economic situation in the current year</li> </ul>		<ul style="list-style-type: none"> <li>Buy cell phones from retailers</li> </ul>
<b>Employee</b>	<ul style="list-style-type: none"> <li>Production of cell phones: cut out, colour, draw logo</li> </ul>	<ul style="list-style-type: none"> <li>Stop production</li> <li>Negotiate next year's wages</li> <li>Complete calculation sheet</li> </ul>	<ul style="list-style-type: none"> <li>Production of cell phones: cut out, colour, draw logo</li> </ul>	<ul style="list-style-type: none"> <li>Stop production</li> <li>Negotiate next year's wages</li> <li>Complete calculation sheet</li> </ul>	<ul style="list-style-type: none"> <li>Production of cell phones: cut out, colour, draw logo</li> </ul>	<ul style="list-style-type: none"> <li>Stop production</li> <li>Negotiate next year's wages</li> <li>Complete calculation sheet</li> </ul>	
<b>Factory Owner</b>	<ul style="list-style-type: none"> <li>Supervise production: quality and quantity</li> <li>Negotiate prices and quantities with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Inspect production results</li> <li>Negotiate with employees</li> <li>Negotiate with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Complete calculation sheet</li> <li>Supervise production</li> <li>Negotiate prices and quantities with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Inspect production results</li> <li>Negotiate with employees</li> <li>Negotiate with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Complete calculation sheet</li> <li>Supervise production</li> <li>Negotiate prices and quantities with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Inspect production results</li> <li>Negotiate with employees</li> <li>Negotiate with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Complete calculation sheet</li> </ul>
<b>Intermediary</b>	<ul style="list-style-type: none"> <li>Negotiate with factory owners and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Complete negotiations with factory owners and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Complete calculation sheet</li> <li>Negotiate with factory owners and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Complete negotiations with factory owners and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Complete calculation sheet</li> <li>Negotiate with factory owners and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Complete negotiations with factory owners and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Complete calculation sheet</li> </ul>
<b>Retailer</b>	<ul style="list-style-type: none"> <li>Negotiate with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Bring negotiations with intermediaries to a termination</li> </ul>	<ul style="list-style-type: none"> <li>Sell cell phones to teacher (consumers)</li> <li>Complete calculation sheet</li> <li>Negotiate with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Bring negotiations with intermediaries to a termination</li> </ul>	<ul style="list-style-type: none"> <li>Sell cell phones to teacher (consumers)</li> <li>Complete calculation sheet</li> <li>Negotiate with intermediaries</li> </ul>	<ul style="list-style-type: none"> <li>Bring negotiations with intermediaries to a termination</li> </ul>	<ul style="list-style-type: none"> <li>Sell cell phones to teacher (consumers)</li> <li>Complete calculation sheet</li> </ul>

## Role distribution with respect to class size

Number of pupils	Retailers	Intermediaries	Factory Owners	Employees
17	3	2	4	8
18	3	3	4	8
19	4	3	4	8
20	4	4	4	8
21	3	2	4	12
22	3	3	4	12
23	4	3	4	12
24	4	4	4	12
25	5	4	4	12
26	5	5	4	12
27	4	3	5	15
28	4	4	5	15
29	5	4	5	15
30	5	5	5	15
31	4	3	6	18
32	4	4	6	18
33	5	4	6	18