

# Training 6: Sustainability/Basics

## Task

Worksheet 1a



**Mr. Chaka**

Raw material supplier

### **Initial situation:**

- Mr. Chaka is the head of a large raw material supplier. The raw material deposits in Africa are currently still relatively high. However, governments have realized that raw materials will soon become scarce. This leads to rising prices. The intensive mining of raw materials leads to heavy environmental pollution. Forests are being cut down, rivers and lakes are polluted, and animals are driven away. Many people's livelihoods (agriculture and farming) have also been affected and threatened by the pollution.

### **GSI requirements:**

- GSI's requirement for Mr. Chaka is that the prices for the raw materials needed to produce the smartphones do not increase so much. In addition, GSI naturally does not want the rural population in the mining areas to no longer have a place to live. This can lead to unrest and thus have a negative impact on the extraction of raw materials.

**By using energy sparingly, you help to preserve the earth's scarce resources and can also save a lot of money.**

# Training 6: Sustainability/Basics

## Answer

Worksheet 1a



**Mr. Chaka**

Raw material supplier

Summarize the initial situation briefly in 3 key points:

- 01 .....
- 02 .....
- 03 .....

**Suggested solutions for the GSI:** Think about what can be done to prevent prices from rising too much. Write what can be done for the rural population.

- 01 .....
- 02 .....
- 03 .....
- 04 .....

# Training 6: Sustainability/Basics

## Task

Worksheet 1b



**Mr. Wu**  
Production

### **Initial situation:**

- Mr. Wu is the head of smartphone production in Asia. This includes 25 different production sites with more than 100,000 employees. Labor costs are low in Asia. At the same time, the employees hardly have any holidays and work significantly more than 10 hours a day. In some cases, this means that the labor laws are broken. The daily work takes place on the assembly line. There are hardly any environmental regulations, and the workers are not organized in a trade union. Due to overwork and poisoning caused by a lack of environmental protection measures, many workers have fallen ill. The many cases of illness have led to delivery problems of smartphones. The press has commented critically on the problems with the high sickness rate. In addition, when new employees are hired, there are always employees always incurs costs. The new employees also have to be trained first.

### **Mr. Wu's goals:**

- Mr. Wu wants to improve working conditions. He knows that money needs to be invested for this, but he thinks it is worth it

# Training 6: Sustainability/Basics

## Answer

Worksheet 1b



**Mr. Wu**  
Production

Summarize the initial situation briefly in 4 key points:

- 01 .....
- 02 .....
- 03 .....
- 04 .....

**Suggested solutions for the GSI:** Consider ways, how the working conditions can be improved in concrete terms? Think of at least 4 suggestions. Consider the impact of your ideas on the education and training of the staff and potential sales figures of the company.

- 01 .....
- 02 .....
- 03 .....
- 04 .....

# Training 6: Sustainability/Basics

## Task

Worksheet 1c



**Ms. Bauer**  
Distribution

### Initial situation:

- Ms Bauer is responsible for the worldwide sales of smartphones. The existing sales territories (Europe, USA and Australia) are generally doing well, but no sales growth is expected. In some cases, there is a risk that sales figures will even decline due to strong competition. This is also due to the bad press articles about working conditions in production. Other countries, e.g., Brazil, India and China are seen as strong growth markets. Many smartphones could be sold there in the future. However, the competition is not idle and has discovered the trend of sustainable smartphones. These are smartphones that are produced in compliance with strict environmental regulations and are also advertised to potential customers. A kind of "green smartphone". In the sale of the current smartphones, the problems in production have led to delivery delays and angered some smartphone dealers.

### GSI requirements:

- Ms Bauer must present to the management in which countries smartphones will be sold in the future. She also must make a proposal for the future products. She is also responsible for advertising and marketing the smartphones.

**There are often different interests in life, as with the environment and the economy:  
Try to find sustainable compromises.**

# Training 6: Sustainability/Basics

## Answer

Worksheet 1c



**Ms. Bauer**  
Distribution

Briefly summarize the initial situation in 4 key points:

- 01 .....
- 02 .....
- 03 .....
- 04 .....

**Proposed solutions for GSI:** Name countries where GSI should be active in the future. Describes an ideal product range. Names ways to spend money wisely on advertising/marketing?

- 01 .....
- 02 .....
- 03 .....
- 04 .....

# Training 6: Sustainability/Basics

## Task

Worksheet 1d



**Mr. Basco**  
Disposal

### Initial situation:

- German and European authorities are working intensively on new recycling and environmental requirements for smartphone manufacturers. Currently, there is a campaign by the Federal Government in cooperation with an environmental organization on the disposal of old smartphones. More and more customers are asking about recycling options for their old smartphones when buying a new one. When smartphones are returned, the valuable raw materials are recycled, while the others are disposed of without any consideration for the environment. Mostly this happens in Asia or Africa. This leads to demonstrations against environmental pollution.

### Goals of Mr. Basco:

- Mr. Basco would like to extract more raw materials from the discarded smartphones. GSI itself also has specialists in the company. He also wants to improve the image (reputation) of the company.

**It's not your fault that the world is the way it is. But you can also do something to ensure that it doesn't stay that way and improve the future.**

# Training 6: Sustainability/Basics

## Answer

Worksheet 1d



**Mr. Basco**  
Disposal

Summarize the initial situation briefly in 4 key points:

- 01 .....
- 02 .....
- 03 .....
- 04 .....

**Suggested solutions for GSI:** Consider how GSI can get back more used smartphones. Smartphones back. Name a way to recycle more raw materials from these smartphones. Explain how GSI can improve its image through actions in recycling

- 01 .....
- 02 .....
- 03 .....
- 04 .....



# Training 6: Sustainability/Basics

## Task

Worksheet 1e



**Dr. Pelayo**

Environmental Consultant

### **Initial situation:**

- Dr. Pelayo is an environmental consultant for an external organization. GSI has asked Dr. Pelayo to support the company with environmental and economic issues. She has already been able to implement successful environmentally friendly product design at other companies.

### **Approach:**

- Dr. Pelayo believes in a holistic solution. The best results are achieved when production, sales and disposal are environmentally friendly, in production, sales and disposal. All activities should then also be communicated to the public in an appropriate manner.

**You decide what you really need, but always question whatever you buy with your money and how it affects the environment. Your consumer voice counts!**

# Training 6: Sustainability/Basics

## Answer

Worksheet 1e



**Dr. Pelayo**

Environmental Consultant

Briefly summarize the initial situation in 2 key points:

01 .....

02 .....

**Suggested solutions for the GSI:** Name sensible environmentally friendly measures in:

1. Production, 2. Sale, 3. Disposal

01 .....

02 .....

03 .....

04 .....

# Training 6: Sustainability/Basics

## Task

Worksheet 1f



**Ms. Martini**

Trade Union Secretary

### **Initial situation:**

- Ms. Martini is a trade union secretary at the World Federation of Electronics Workers. This union represents the interests of the workers. GSI wants to be more responsive to workers' needs in the future and has therefore invited Ms Martini to the strategy meeting.

### **Ms Martini' goals:**

- She would like to get GSI to agree that social standards (e.g. Working hours) must be set. These would also have a positive effect on the motivation of the employees and ultimately also on productivity. It can therefore also be worthwhile for the company to invest the money.

# Training 6: Sustainability/Basics

## Answer

Worksheet 1f



**Ms. Martini**

Trade Union Secretary

Briefly summarize the initial situation in 2 key points:

01 .....

02 .....

**Proposed solutions for the GSI:** List the social standards that should be concretely improved. Think of examples and arguments why these investments would be worthwhile.

01 .....

02 .....

03 .....

04 .....

## The everyday life of the Martins and greenhouse gases



**Karen Martin**  
Mother/Businesswoman

### Group A

The Martins are a family of five. They live in a town near Frankfurt am Main. When they learn that their everyday actions and habits are responsible for the release of a large amount of greenhouse gases, they want to change a few things in their everyday lives in order to live in a more environmentally friendly and sustainable way.

But the Martins don't really know yet which areas of their lives they want to change, or which areas of their lives they would not be able to change. There are a few starting points.

### Two of Mrs. Martin's activities

- Flies back and forth from Frankfurt am Main to Hamburg for work about 30 times a year (about 500 kilometers each way).
- Takes a bubble bath about 60 times a year

### Tasks:

1. Calculate or estimate how much CO<sub>2</sub> emissions Karen Martin is responsible for per year based on her activities. The information sheet will help you.
2. What suggestions can you make to Karen Martin to make her life more sustainable and environmentally conscious?
3. Discuss and write down your ideas. Think about the financial and other effects your suggestions could have on Mrs. Martin.

Make sure you use money and resources responsibly today, because you will need them tomorrow

Ms. Martin's CO<sub>2</sub> balance sheet:

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Our suggestions for improving their carbon footprint:

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Financial (and other) implications of our proposals:

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## The everyday life of the Martins and greenhouse gases



**Pablo Martin**  
Father/Web Designer

### Group B

The Martins are a family of five. They live in a town near Frankfurt am Main. When they learn that their everyday actions and habits are responsible for the release of a large amount of greenhouse gases, they want to change a few things in their everyday lives in order to live in a more environmentally friendly and sustainable way.

But the Martins don't really know yet which areas of their lives they want to change, or which areas of their lives they would not be able to change. There are a few starting points.

### Two of Mr. Martin's activities

- The Martins eat meat every day: In one-week, Pablo Martin buys two kilos of beef, two kilos of pork and one kilo of poultry.
- Keeps food in an older refrigerator: Early-2000s

### Tasks:

1. Calculate or estimate how much CO<sub>2</sub> emissions Pablo Martin is responsible for per year based on his activities. The information sheet will help you.
2. What suggestions can you make to Pablo Martin to make his life more sustainable and environmentally conscious? Discuss and write down your ideas.
3. Think about what financial and other effects your suggestions could have for Mr. Martin.

Remember that all your actions have an impact on the environment, society, and your wallet

Mr. Martin's CO<sub>2</sub> balance sheet:

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Our suggestions for improving its carbon footprint:

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Financial (and other) implications of our proposals:

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## The everyday life of the Martins and greenhouse gases



**Esteban Martin**  
Son/Pupil

### Group C

The Martins are a family of five. They live in a town near Frankfurt am Main. When they learn that their everyday actions and habits are responsible for the release of a large amount of greenhouse gases, they want to change a few things in their everyday lives in order to live in a more environmentally friendly and sustainable way.

But the Martins don't really know yet which areas of their lives they want to change, or which areas of their lives they would not be able to change. There are a few starting points.

### Two of Esteban Martin's activities

- Leaves his game console and PC on stand-by all the time - even at night and in the morning when he is at school.
- Gets driven to school every morning in the car (10 kilometres, 200 school days a year)

### Tasks:

1. Based on his activities, calculate or estimate how much CO<sub>2</sub> emissions Esteban is responsible for in a year. The information sheet will help you.
2. What suggestions can you make to Esteban to make his life more sustainable and environmentally conscious? Discuss and write down your ideas.
3. Think about the financial and other effects your suggestions could have on Esteban.

Esteban's CO<sub>2</sub> balance sheet:

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Our suggestions for improving its carbon footprint:

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Financial (and other) implications of our proposals:

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## The everyday life of the Martins and greenhouse gases



**Barbara Martin**  
Daughter/Pupil

### Group D

The Martins are a family of five. They live in a town near Frankfurt am Main. When they learn that their everyday actions and habits are responsible for the release of a large amount of greenhouse gases, they want to change a few things in their everyday lives in order to live in a more environmentally friendly and sustainable way.

But the Martins don't really know yet which areas of their lives they want to change, or which areas of their lives they would not be able to change. There are a few starting points.

### Two of Barbara Martin's activities

- Buys 1 kg of strawberries every month, not only from June to August. She also loves to eat French fries, which she does once a week.
- Treats herself to a new, fashionable cotton T-shirt six times a year.

### Tasks:

1. Calculate or estimate how much CO<sub>2</sub> emissions Barbara is responsible for in a year based on her activities. The information sheet will help you.
2. What suggestions can you make to Barbara to make her life more sustainable and environmentally conscious? Discuss and write down your ideas.
3. Think about the financial and other effects your suggestions could have on Barbara.

Throwing things away is not the answer - look for ways that things you no longer need can be reused

Barbara's CO<sub>2</sub> balance sheet:

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Our suggestions for improving their carbon footprint:

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Financial (and other) implications of our proposals:

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## The everyday life of the Martins and greenhouse gases



**Susana Martin**  
Daughter/student

### Group E

The Martins are a family of five. They live in a town near Frankfurt am Main. When they learn that their everyday actions and habits are responsible for the release of a large amount of greenhouse gases, they want to change a few things in their everyday lives in order to live in a more environmentally friendly and sustainable way.

But the Martins don't really know yet which areas of their lives they want to change, or which areas of their lives they would not be able to change. There are a few starting points.

### Two of Susana Martin's activities

- Buys a brand-new smartphone every second year.
- Drinks an organic lemonade every day - but from a glass bottle! She just doesn't like the PET bottles.

### Tasks:

1. Calculate or estimate how much CO<sub>2</sub> emissions Susana is responsible for in a year based on its activities. The information sheet will help you.
2. What suggestions can you make to Susana to make her life more sustainable and environmentally conscious?
3. Discuss and write down your ideas. Think about the financial and other impacts your suggestions could have on Susana.

Susana's CO<sub>2</sub> balance sheet:

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Our suggestions for improving their carbon footprint:

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Financial (and other) implications of our proposals:

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## Everyday life and the environment: What releases how much CO<sub>2</sub>?

Activity	CO <sub>2</sub> in kg
Aircraft, flight distance 500 km, calculated per passenger	178
500 km by rail, per passenger	39
500 km by coach, per passenger	16
1 km drive by car, per person	0,138
3 min. hot shower	2,9
1 Foam bath	8
3 min. blow dry hair	0,1
Brushing your teeth twice a day with an electric toothbrush	0,1
CO <sub>2</sub> Emissions of a conventional light bulb (60 watts) per day	0,04
CO <sub>2</sub> Emissions of a comparable energy-saving lamp (11 watts) per day	0,01
Eat all food for one year (meat, vegetables, etc., organic food)	634
Eat a vegetarian diet for a year (organic food)	336
Production of a cotton T-shirt	8
Buy a CD in the store	3,2
Production of a PC	1850
Television, permanently on standby	8
Production, use and disposal of a smartphone	91
A Google search query on the Internet	0,45
An Internet search query with a Green IT search engine	0,00
One day electrical appliances on stand-by	0,83
Refrigerator operation (one year, year of construction 1995)	200
Refrigerator operation (one year, energy class A+++)	75

Food	CO <sub>2</sub> in kg
Wheat bread	0,61
Baguette	0,63
Roll	0,92
Cucumber	0,23
Tomato	0,19
Potato (fresh)	0,03
Potatoes, dry (e.g., mashed, dumplings)	3,8
French fries (frozen)	5,8
Onion	0,2
1 kg strawberries (at harvest time)	0,2
1 kg strawberries flown in from South Africa	11,6
Salmon, Aquaculture, UK	2,3
1 kg pork	3,2
1 kg beef	13,3
1 kg poultry	3,5
1 kg lamb	15,3
1 kg filter coffee	8,5
1 kg instant coffee (freeze-dried)	130
Butter	23,8
PET bottle	0,16
PET bottle	0,16

Energy is valuable and costs money: always switch off the TV and computer completely.

There is a time for everything: strawberries at Christmas are expensive for your wallet and the environment.

**Sources used:** vfu.de - spiegel.de - wer-weiss-was.de - die-klima-allianz.de - netzwelt.de - chip.de - umweltbundesamt.de - oeko.de - stern.de - verbraucherzentrale-energieberatung.de - klima-sucht-schutz.de - co2spiegel.de/heidelberg/co2\_spiegel.pdf