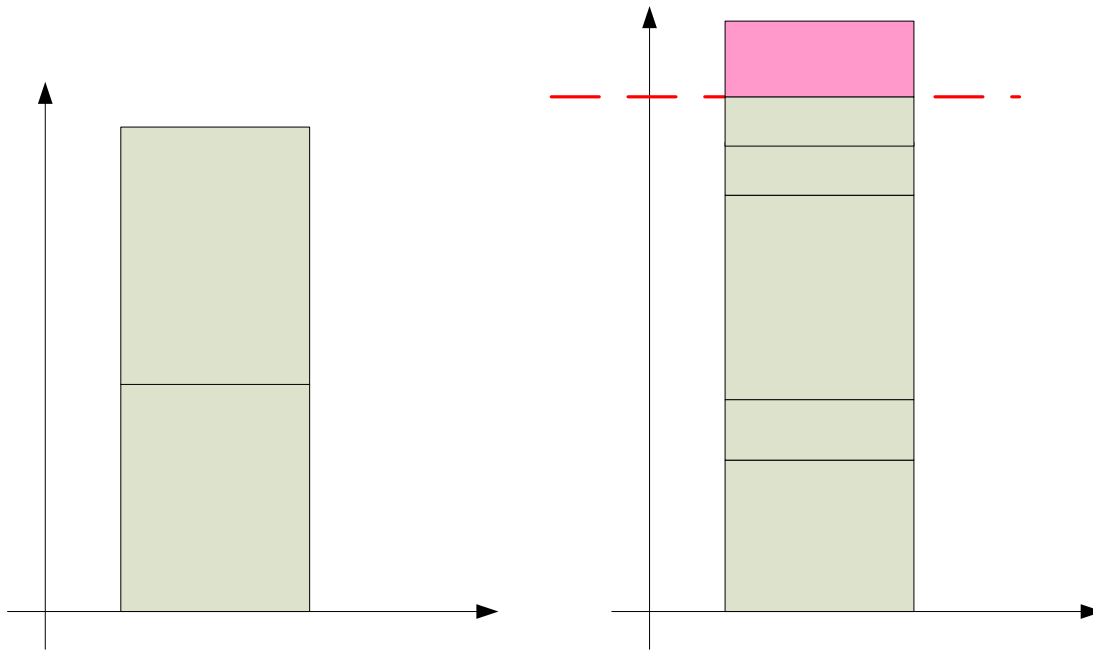


# 1 Rutherford Ltd, New Castle/GB – gas measurement

- 60 employees
- turnover: 12,8Mio€
- pfo: -0,4Mio€



## 1.1 Analyse the P & L

- deviations **12Mio**
- ratios:

$$\frac{\text{sales}}{\text{employees}} = \frac{12,8\text{Mio}}{60} = 210000\text{€}/\text{employee}$$

$$\frac{R \& D}{\text{sales}} = \frac{2}{12,8} = 15,6\%$$

**GM**  
(normal: 4-5%)

$$\frac{\text{marketing}}{\text{sales}} = \frac{0,8}{12,8} = 6,3\%$$

**6Mio**  
(3-4%)

$$\frac{\text{sales costs}}{\text{sales}} = \frac{2,7}{12,8} = 20,1\%$$

(6-10%)

$$\frac{\text{ad min}}{\text{sales}} = \frac{0,7}{12,8} = 5\%$$

**Standard costs**

- R&D
- Marketing
- Admin
- Sales
- profit

## 1.2 Analyse production costs

### 1.2.1 products/production program

products:	Sales 2003 in Mio€
- open path/7h	1,5
- H <sub>2</sub> S detection	0,4
- CH <sub>4</sub> detection	1,8
- O <sub>2</sub> detection	0,2
- CO detection	3,4
- Garage detection	0,4
- Ex/Tox detection	0,8
- Detection tubes	2,4
- Pumps	0,1
- H <sub>2</sub> detection	0,3
- spare parts	1,1
- engineering	0,4

- find priorities in product range
  - ABC-Analysis (A-products: main sales drivers, ...)
  - analyse sales / product
  - analyse standard costs / product
  - analyse GM/product

### 1.2.2 standard costs

- standard costs per product
- burden rates/cost center

### 1.2.3 quality

- ratio scrap/rework
- customer complains
- quality improvement program

### 1.2.4 production

- layout
- material flow
- lead times
- equipment
- organization

### 1.2.5 purchasing

- number of suppliers
- ration inhouse/extern
- purchase prices (for material)

### 1.2.6 human resources

- o number of employees
- o absentism rate
- o wages
- o direct/indirect employment

- skills

1.2.7 work organization

1.2.8 ratios

1.2.9 production control