

## A

## Products

A **product** can be: something natural, e.g. wood, oil, paper; something made to be sold, e.g. cars, computers, clothes; a service, e.g. broadcasting, insurance.

**Produce** (uncountable) normally refers to agricultural products such as crops or fruit.

Noun: things	Noun: company or country	Verb	Noun: activity
(manufactured) products / goods (see Unit 17)	maker / manufacturer / producer	make / manufacture / produce	manufacture / manufacturing / production
(agricultural) produce / products	producer	produce	manufacture / manufacturing / production
services	provider	provide	provision

## B

## Mass production

Car production started in **workshops** where each car was individually **hand-made**. Producing cars like this was a **craft industry**. It was very **labour-intensive** – it took a lot of work to produce each car.

Then, in 1913, Henry Ford had the idea of an **assembly line** or **production line** at the Ford **manufacturing plant** in Detroit: a team of workers were responsible for each part of the manufacturing process, which meant that the plant could make cars in very large numbers – it could **churn** them **out**.



Today, the same system is used in manufacturing, but with the addition of **industrial robots**. The machines are expensive but very **cost-effective** – they produce a lot in relation to what they cost. These robots are part of the **CAD/CAM** system of **computer-assisted** (or **computer-aided**) **design and manufacturing** (see Unit 14).

## Note

BrE: **labour-intensive**; AmE: **labor-intensive**

A **plant** can also be referred to as a **factory** or a **works**, but **works** is a slightly old-fashioned word.

## C

## Capacity and output

The number or type of things that a company, plant, industry or country produces is its **output**. **Productivity** is a measure of the number of things produced in relation to the number of employees. When there is high output per employee, productivity is high.

The maximum amount that a particular company, plant or industry can produce is its **capacity**. If it is actually producing this amount, it is **working at full capacity**.

## Note

There is **overcapacity**, **excess capacity**, **spare capacity** or **surplus capacity** if there is too much capacity in relation to what is required. The expressions are given in their order of frequency. These expressions are also used in service industries.



If too many things are being produced by a particular industry in relation to the number of people who want to buy them, there is **overproduction**. If far too many things are produced, there is a **surplus** or **glut** of these things. If not enough goods are being produced, there is a **shortage**.

# Exercises

**16.1** Complete the sentences with grammatically correct forms of the words in the table in A opposite. (The number in brackets indicates the number of different possible answers.)

- 1 A lot of mobile phone ..... (3 possibilities) takes place in China, but Nokia still ..... (3 possibilities) them in Finland too, so Finland is a ..... (3 possibilities) of mobile phones.
- 2 India is important for call centres, but it is also emerging as a ..... of ..... of all kinds, including accountancy.
- 3 Russia is a major oil ..... and also important for the ..... of gas.
- 4 The United Kingdom is a big ..... of legal and financial services.
- 5 Brazil is still the world's biggest coffee ....., but coffee is also ..... in many other countries, including new ones such as Vietnam.
- 6 With the increase in medical tourism, Thailand is emerging as an important centre for the ..... of healthcare services to people from other countries.

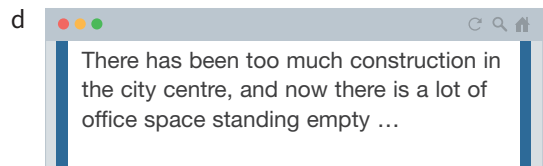
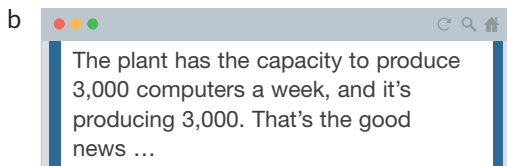
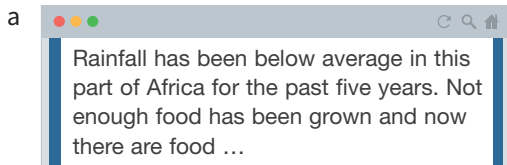
**16.2** Look at B opposite. Rearrange these sections of a short presentation about manufacturing into a logical order.

- a work. Of course, we still have a large number of assembly-
- b plant producing TVs in Singapore. We have two production
- c My name's George Chien, and I'm director of a manufacturing
- d lines working 24 hours a day. CAD/
- e intensive. But with the help of computer-
- f line workers, so it's quite labour-
- g CAM and robots do some of the assembly
- h assisted design and automation, productivity is increasing.



**16.3** Match the headlines (1–4), containing words from C opposite, with extracts of the articles they relate to (a–d).



## Over to you

Are hand-made products better than mass-produced products?