



Critical Raw Materials Survey

Age:

- 13 • 14 • 15 • 16 • 17 • 18 • 19

Gender:

- M • F

What school do you attend?

- High school
- Professional institute
- Evening school
- Middle school
- None

Have you ever taken part in some lessons about raw materials considered critical in Europe (Critical Raw Materias)?

- Yes
- No

1. How is it important to you, on a scale from 0 to 9, food supply for Europe? *

- 0 • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

How is it important to you, on a scale from 0 to 9, energy supply for Europe? *

- 0 • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

How is it important to you, on a scale from 0 to 9, raw materials supply for Europe? *

- 0 • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

2. In your opinion, will the new technological devices be available for everyone? *

No, they contain raw materials which reduce the possibilities to produce them on a large scale.

Yes, they are so small that they can be produced as many as needed.

No, because the new media are dangerous for the West world.

Yes, but we should try to use them as long as possible and recycle them when they broke.

3. In what percentage does Europe import raw materials? *

0%: Europe doesn't import any raw materials

50%: Europe import half of the industrial needed raw materials

50-80%

> 80%

4. Why are certain raw materials defined critical? *

Because of their large use

Because of their small percentage of presence in nature

5. How many are the critical raw materials which appear in the last Europe's list? *

- 10 15 20

6. Which sectors of society use critical raw materials? *

Extraction of raw materials (Primary sector)

Manufacturing (Secondary sector)

Services (Tertiary sector)

All the sectors

Only the primary and secondary sector

7. Of which range is the critical raw materials market?/Which range does the critical raw materials market cover? *

National

European

Mondial

Solar System

8. The industrial development involves an increase of the raw materials' usage. What's changed since 1700 up to now? *

The number of elements used in the technologies

The amount of elements used in the technologies

The number and quantity of elements used in the technologies

Nothing

Oppure : -the amount of the elements that are used

-the number and the amount of the elements that are used

-no one of these

9. In which of these things there aren't any critical raw materials? *

Battery

Fertilizer

Fabrics

Electronic

Hybrid vehicles

Solar cells

Wind turbines

10. How many elements do you think there are in a mobile phone? *

from 5 to 10

from 10 to 40

from 40 to 60

from 60 to 100

11. Where are used rare earths (lanthanoids)? *

Gardening

Permanent magnet, hard-disks and metallurgy

Food industry

None of these sectors

9) In which of these elements there aren't critical raw materials?

-battery

-fertilizer

-textile

- hybrid vehicles
- solar cells
- wind turbines

10) How many elements do you think there are in a mobile phone?

- from 5 to 10
- from 10 to 40
- from 40 to 60
- from 60 to 100

12) Where are used rare earth (lanthanoids)?

- gardening
- permanent magnet, hard-disk and metallurgy
- food industry
- no one of these sectors

13) In your opinion which of these following elements is more plentiful on the Earth?

- neodymium
- copper

15) How many tonnes of copper are produced everyday by the biggest mine?

- 1500 tonne/day
- 3000 tonne/day
- 4000 tonne/day

16) Why **bulgars**/BURGLARS steal old **cars silencers**/MUFFLER?

- to recycle tubes
- for collectors
- because silencers contain platinum
- because silencers contain glass wool?

17) Which of these materials is more expensive per kilo?

Rhodium ; platinum; gold; gallium

18) What does it mean "WEEE"?

- Waste Electrical and Electronical Equipment.
- Water Efficiently European Extraction
- It's a famous boy-band "Wonderful Electronical Ensemble Empire"
- Waste Ecological and Enviroment Emergency.

19) Why is Platinum so expensive? (You can select more than one answer)

- Because of the difficulty of its extraction process.
- Because of the scarcity of this material in nature.
- Because of its use in electronic.
- Because of its use in automotives.
- Because of its importance in jewelry.
- All the previous answers are correct.

20) Which of those things are WEEE? (You can select more than one answer)

- Freezing machines
- Washing machine.
- Farming and herbaceous wastes .
- TVs and monitors.
- Cars' scraps.
- Light sources.
- Glass and cans.

21) What do you think would be the best option which to invest on? (You can select more than one answer)

- More efficiency of extraction and production processes.
- The recycling.
- The replacement of those materials with others which are not critical.
- All the previous answers are correct.

22) Do you practice selective collection?

Yes No

23) If yes, how often do you practice it?

- Glass: | Never | Sometimes | Often | Always |
- Plastic: | Never | Sometimes | Often | Always |
- Paper: | Never | Sometimes | Often | Always |
- WEEE: | Never | Sometimes | Often | Always |

24) How often do you replace your mobile phone?

| Every 1-2 year(s) | every 3-5 years | more than every 5 years |

25) When you replace your mobile phone, what do you do with your old one?

- I put it in a drawer and I forget it.
- I throw away it with paper or plastic.
- I bring it to the recycling area where are collected all those wastes to be recycled.
- I sell it.

26) Which of the following professions do you think are the most useful in the raw materials' area?

- Economist/ manager
- Mining engineer/ electrical engineer
- Physicist/ chemist/ geologist
- Designer/ architect
- All the previous answers are correct.

27) Which of the following social sector do you think offers more job opportunities connected to raw materials?

- Mobility .
- Energy supply .
- Machinery and equipment building .
- Information, communication and technology .
- All the previous answers are correct.