How can we solve the plastic-problem?

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Alternative raw materials

- Plastics can be made from biological starting materials

For example:
- Starch
- Wood
- Mails-Hydrolysate

Plastic degradation with microorganism

- Fungi and bacteria can degrade substances such as cellulose (an important component of plants)
- Cellulose is structurally similar to certain types of plastic, therefore some microorganism are able to degrade plastic

How does it work?

- Fungi and bacteria produce enzymes
- Certain enzymes are able to catalyse the degradation of plastic

Advantages of biological degradation

- Plastic is degraded completely therefore no microplastic arises
- No solvents or toxic catalysators are necessary
- The activity of enzymes can be further enhanced, e.g. through genetic modification