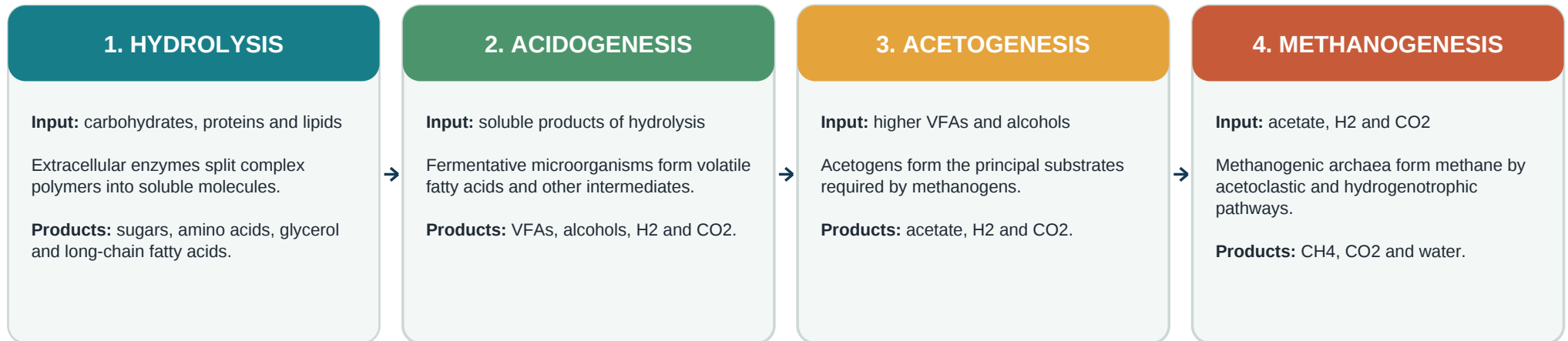


Anaerobic Digestion Process Steps

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Over 25 years in AD, biogas and waste management

A one-page study sheet: hydrolysis, acidogenesis, acetogenesis and methanogenesis



Exam-ready answer

Anaerobic digestion occurs in four linked stages. **Hydrolysis** breaks complex organic matter into soluble molecules. **Acidogenesis** ferments these to volatile fatty acids and other intermediates. **Acetogenesis** forms acetate, hydrogen and carbon dioxide. Finally, **methanogenic archaea** convert acetate or hydrogen and carbon dioxide into methane-rich biogas.

Why do some sources say three steps?

Some simplified accounts combine acidogenesis and acetogenesis into one acid-forming phase. The underlying biology is not different. If an examination asks for four stages, name all four; if your course uses three, explain how the classifications relate.

Remember

- The four steps overlap inside a working digester.
- Four biological stages do not require four tanks.
- Methanogens are archaea, not bacteria.
- The products of one stage feed the next.
- Feedstock, temperature, pH, loading and inhibitors affect the balance.
- Raw biogas contains mainly methane and carbon dioxide.

Full guide: blog.anaerobic-digestion.com/the-anaerobic-digestion-process-steps/