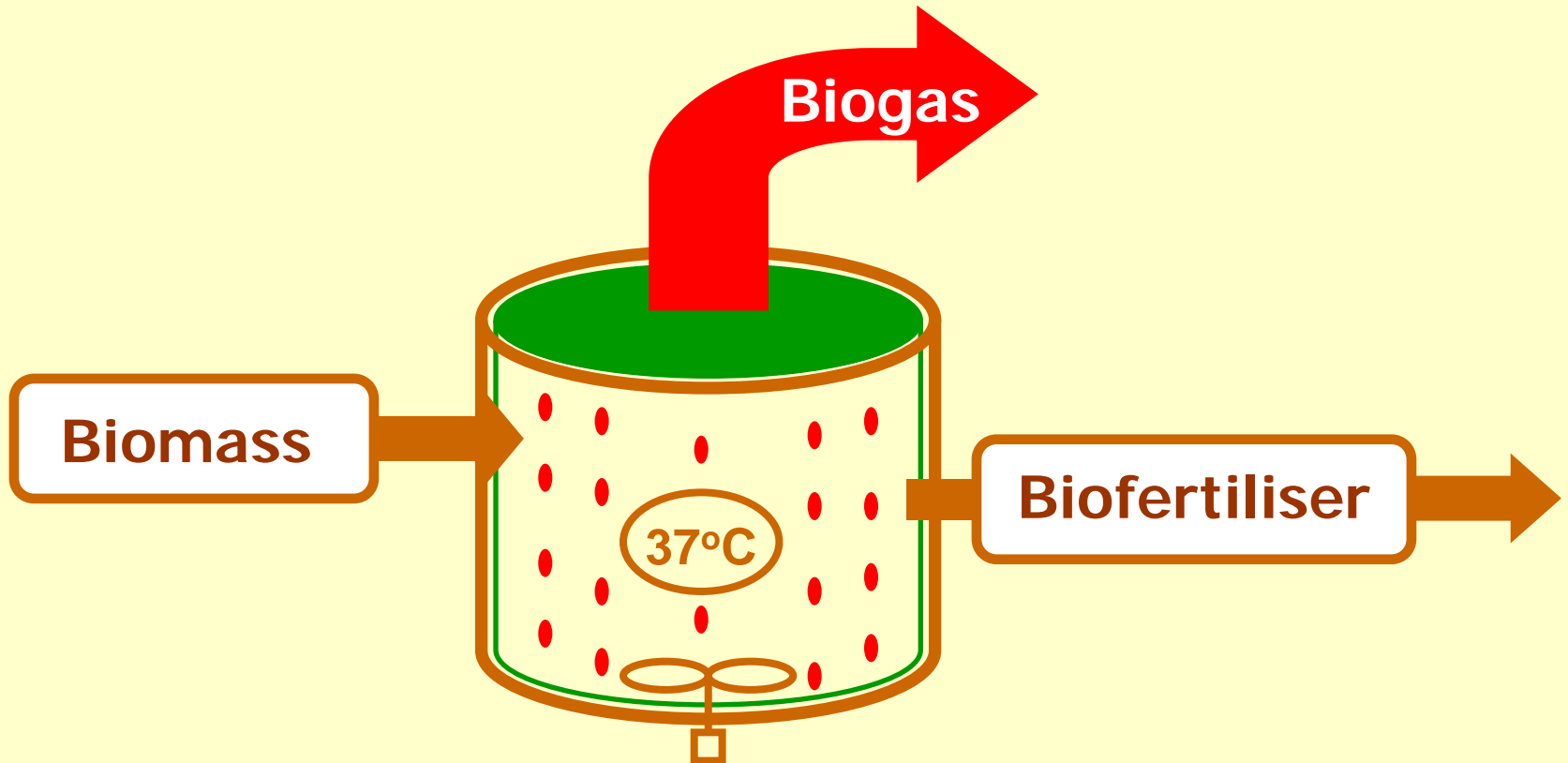


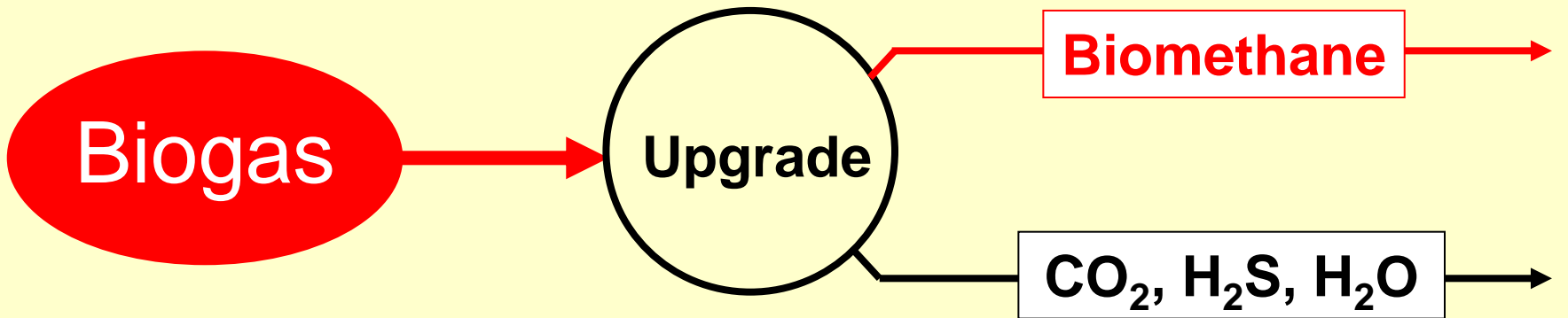
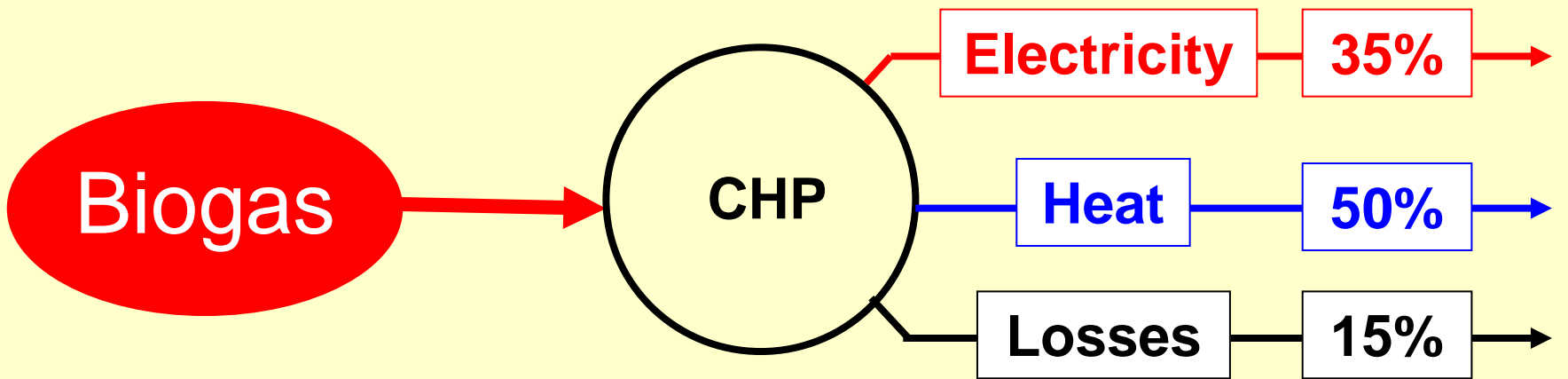
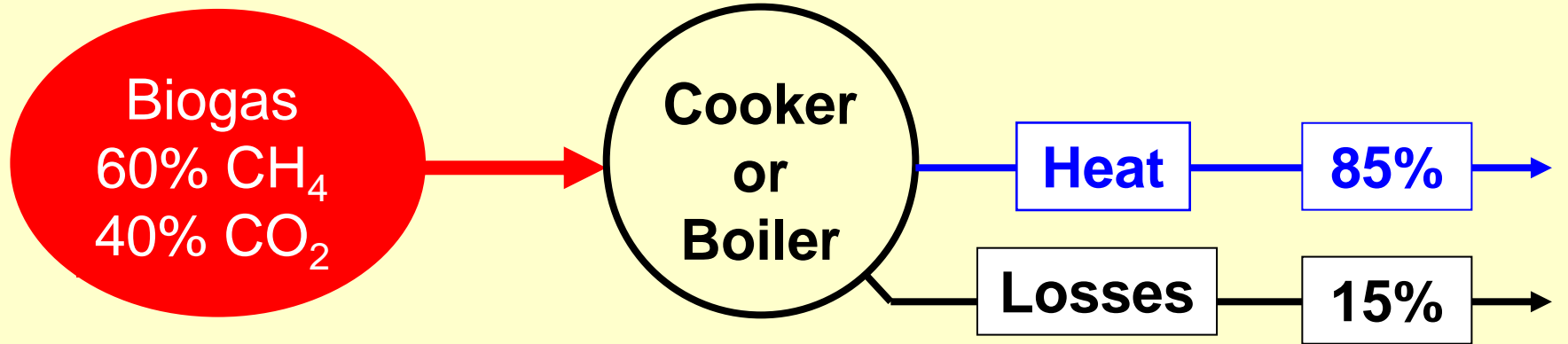
**Methane to Markets Partnership
Agriculture Subcommittee
Beijing, 30th October 2007**

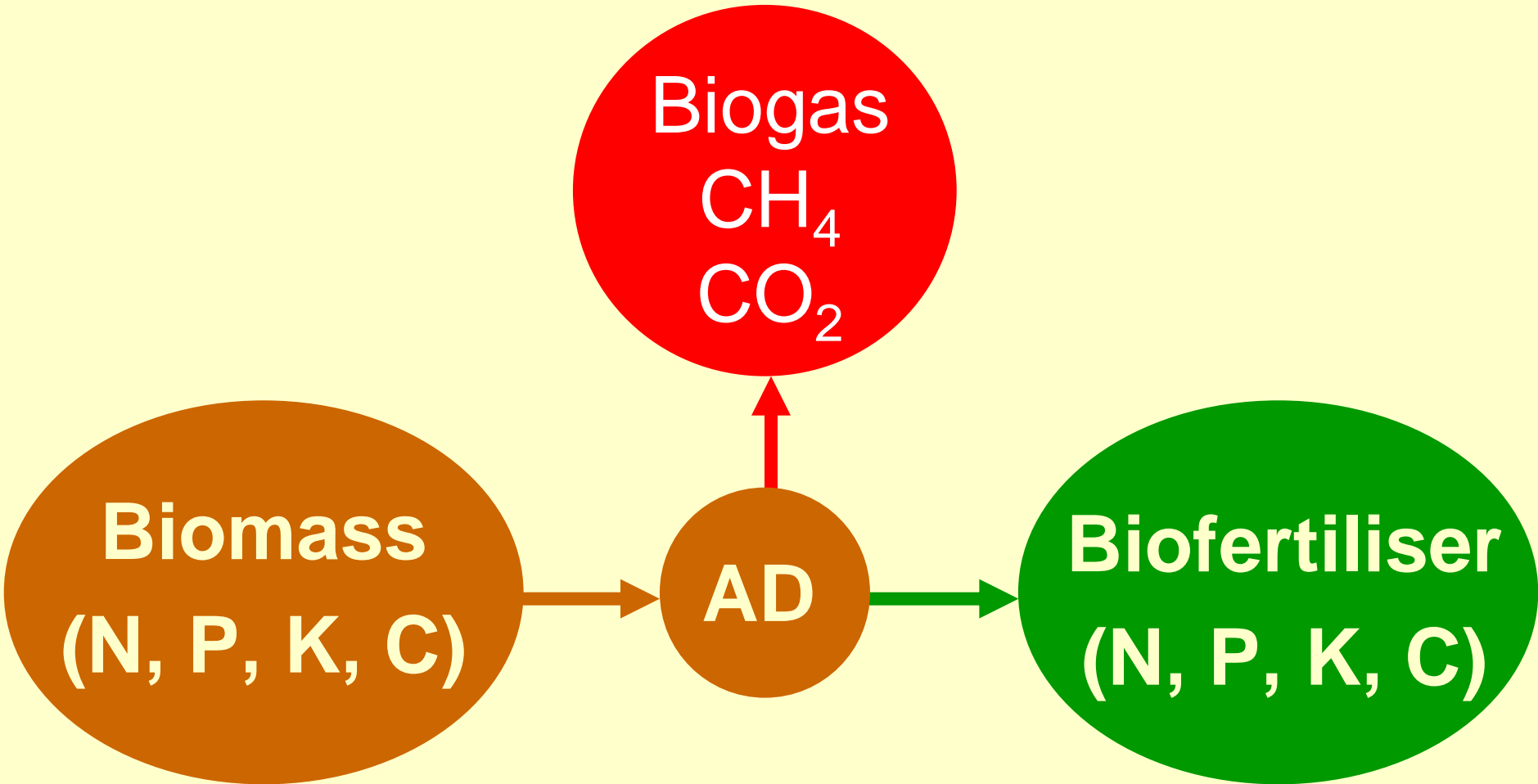
**Anaerobic Digesters
Across the World**

**Michael Chesshire
Greenfinch Ltd**

Anaerobic Digestion a Natural Biological Process







The Global Environment

AD is a low-carbon process which contributes to the reduction of greenhouse gas emissions in 4 ways:

- **by preventing the uncontrolled emissions of CH₄ to the atmosphere (21 times more powerful than CO₂);**
- **by beneficial use of biofertiliser, displacing mineral fertilisers (the production of 1 tonne of nitrogen results in the emission of 2 tonnes of CO₂);**
- **by reducing the transport of waste; and**
- **by the production of renewable energy (displacing fossil fuels).**

The Local Environment

In addition to its low-carbon benefits, AD is beneficial for human health & the local economy:

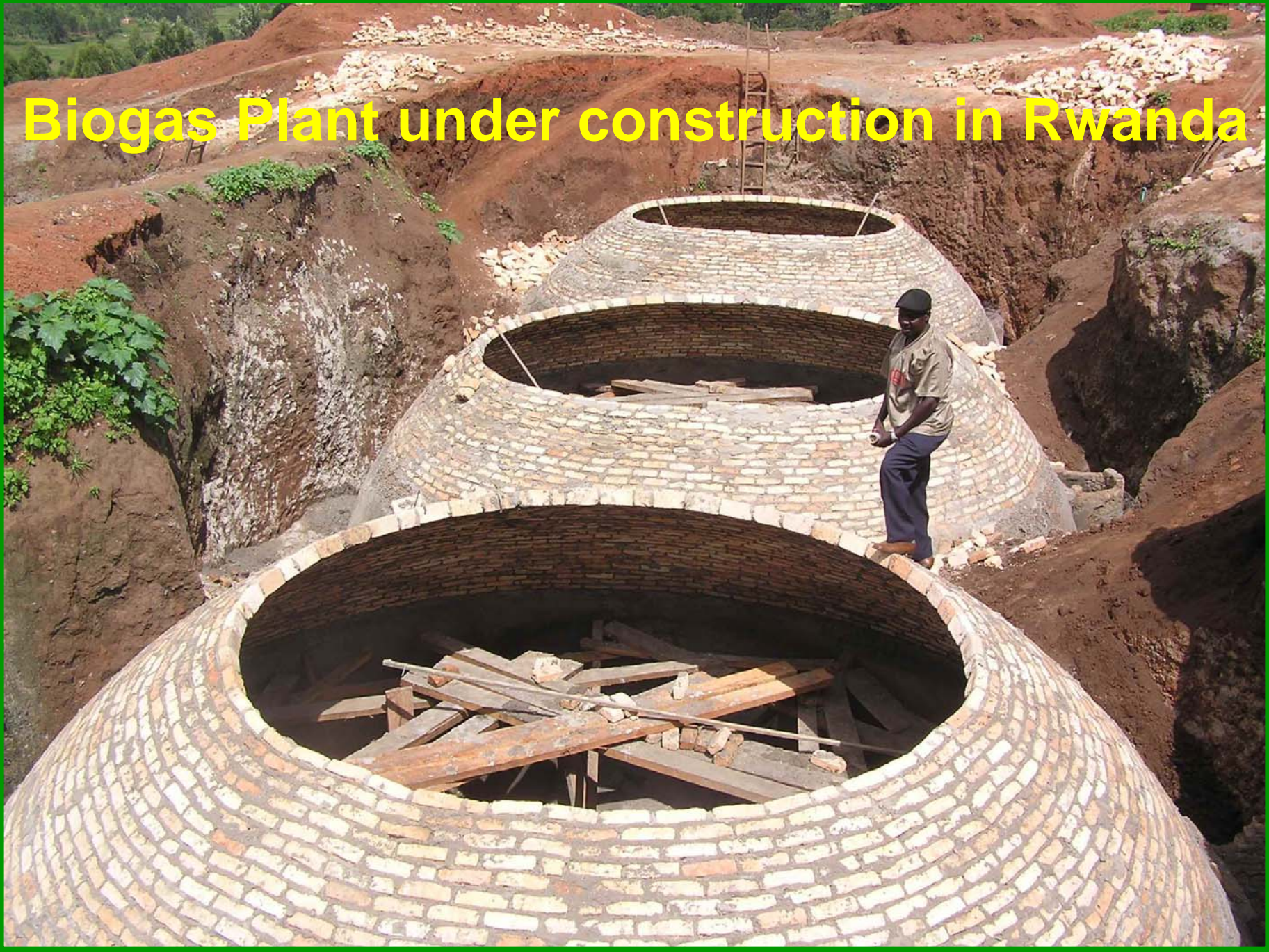
- **substantial reduction of pathogenic organisms by a factor of between 100 and 1000, thus protecting both animal & human health;**
- **reduction of odours which come from the uncontrolled decomposition of organic matter;**
- **reduction of the polluting power of waste – water courses are improved, especially when the value of the biofertiliser is recognised and is beneficially used for crop growth;**
- **displacement of wood fuel by using biogas for cooking, which reduces smoke particulates and potentially prevents deforestation;**
- **reduced dependence on high-cost artificial fertilisers;**
- **reduction of weed seeds being returned to the soil;**
- **Improved soil fertility, both through increased nitrogen availability and through returning organic matter to the soil;**
- **as well as for the production of renewable energy.**

**Around the world there are very
many different ways in which
AD is applied in practice.**

Biogas Plant in India



Biogas Plant under construction in Rwanda



Co-Operative Biogas Plant in Denmark



Combined Heat & Power Unit



Biogas Car in Finland

 **VOLVO**
Pienet Autot ja Outo

 **YES-156**

V70
BIFUEL

Lanta on polttoaineeni
kulutus: 0,5m³ lantaa tai 60kg keittijätettä/100km

biokaasuauto.com

Farm Biogas Plant in Germany



Onions & Maize Silage



Cattle Farm Biogas Plant in Scotland



**How food waste is recycled
into electricity & fertiliser.**

Kitchen Caddy & Corn-Starch Bags



Food Waste in Starch Bags



Process Tanks





Combined Heat & Power Unit

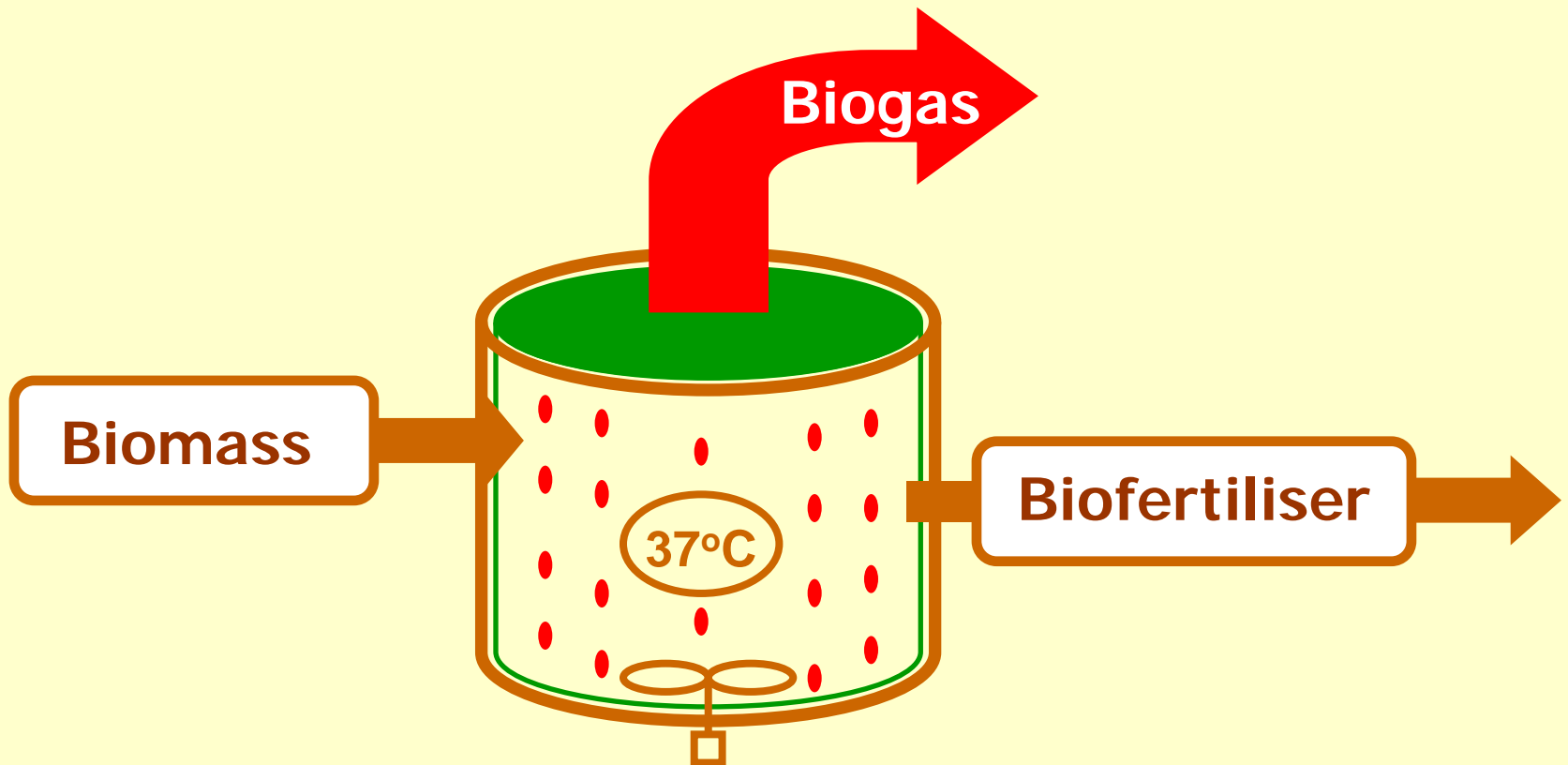
Solid Biofertiliser



Liquid Biofertiliser



Anaerobic Digestion a Low-Carbon Process



Thank you.



Greenfinch

www.greenfinch.co.uk