

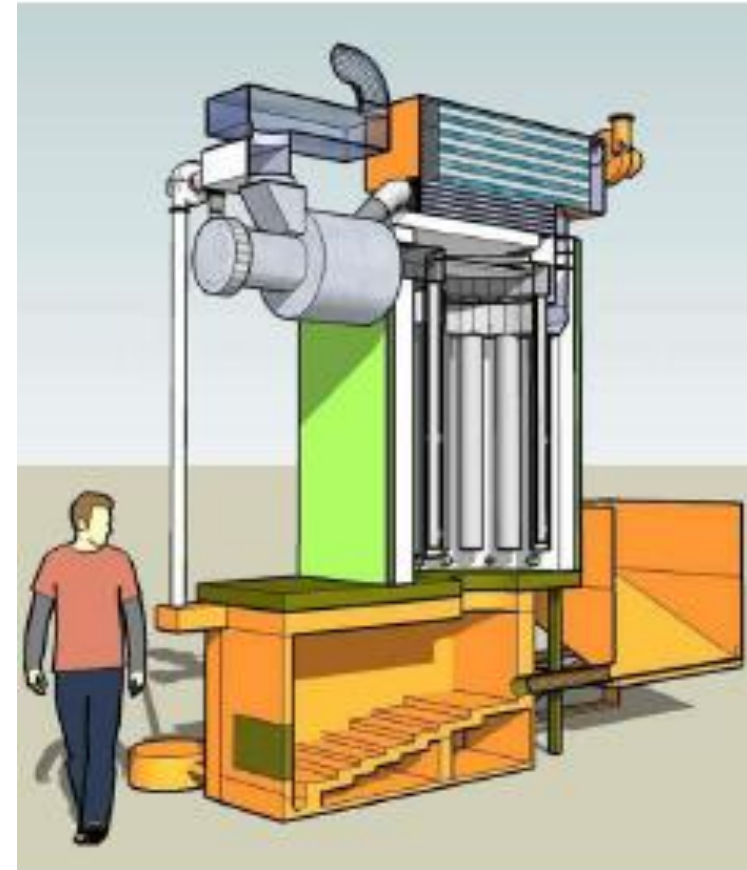
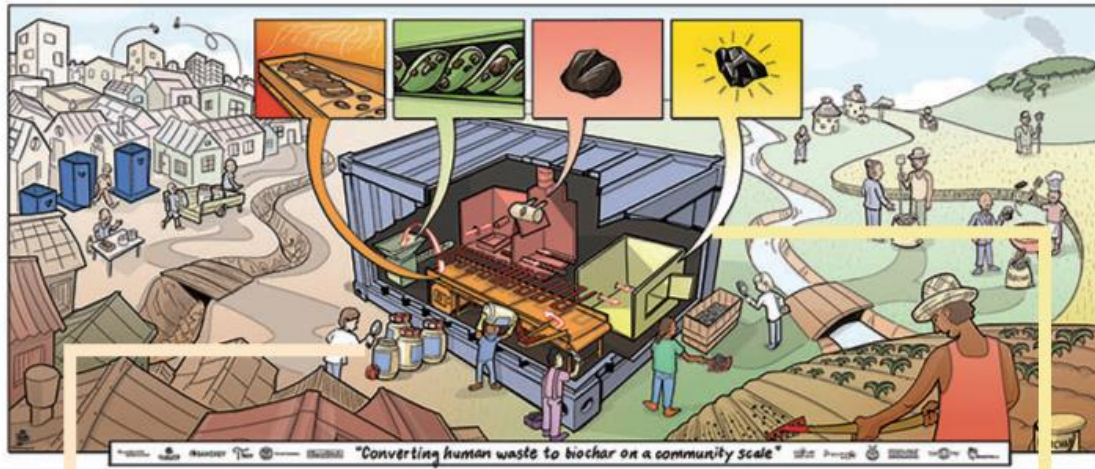
Pyrolysis of faecal sludge in low-income countries

Moritz Gold, moritz.gold@eawag.ch

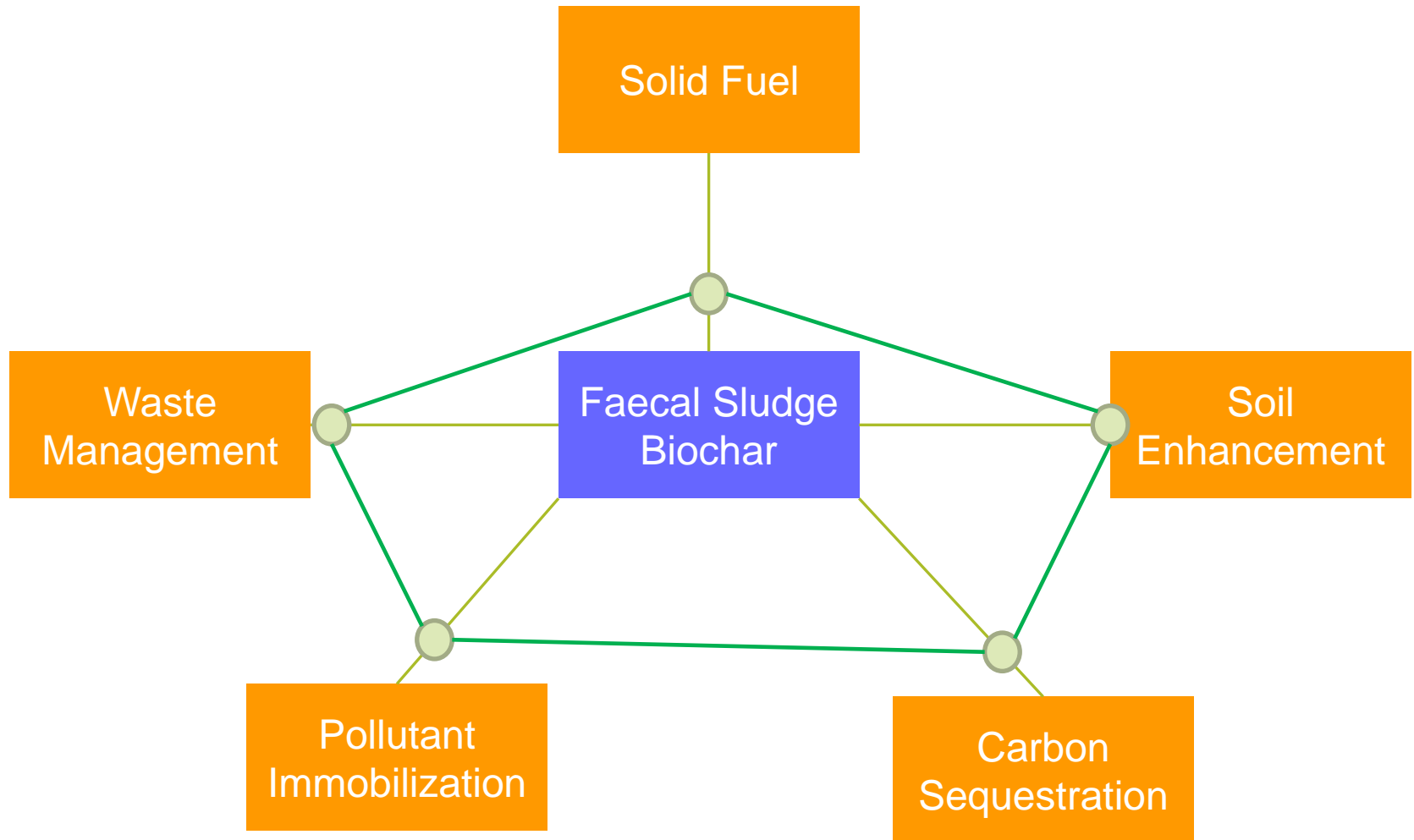
What is faecal sludge?



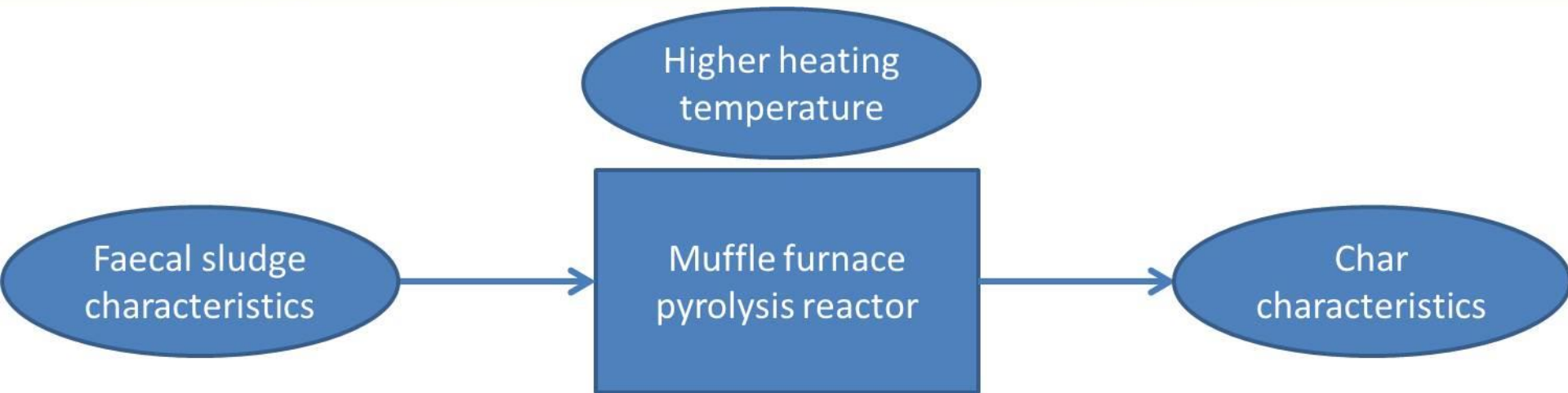
Implementation with existing technologies



Maximizing faecal sludge biochar benefits



Influence of higher heating temperature



- Proximate analysis
- Ultimate analysis
- Heavy metals
- Calorific value
- pH
- Salinity
- EC

- Higher heating temperatures of 250 °C to 500 °C

- Proximate analysis
- Ultimate analysis
- Heavy metals
- Calorific value
- Cation exchange capacity
- Available nutrients
- pH
- Salinity
- EC
- Stable carbon
- Adsorption

For example, heavy metals

		HHT (°C)			Concentration Limits			
		Initial	300	700	USEPA EQ	IBI	BBI	REFERTIL
Chromium	mg/kg	485	526	679	1200	1200	100	100
Copper	mg/kg	114	124	160	1500	1500	1500	200
Lead	mg/kg	28	30	39	300	500	500	120
Nickel	mg/kg	24	26	34	420	600	600	50
Zinc	mg/kg	646	701	904	2800	7000	2800	600

YouTube video



Short Version: Innovation in Urban Sanitation: FaME and U-ACT Research in Sub-Saharan Africa