

torrgas

P2G / Gasification

Why we do what we do: the trends we see on which our beliefs are built



Large scale, central
production & logistics,
driven by unlimited fossil
resources



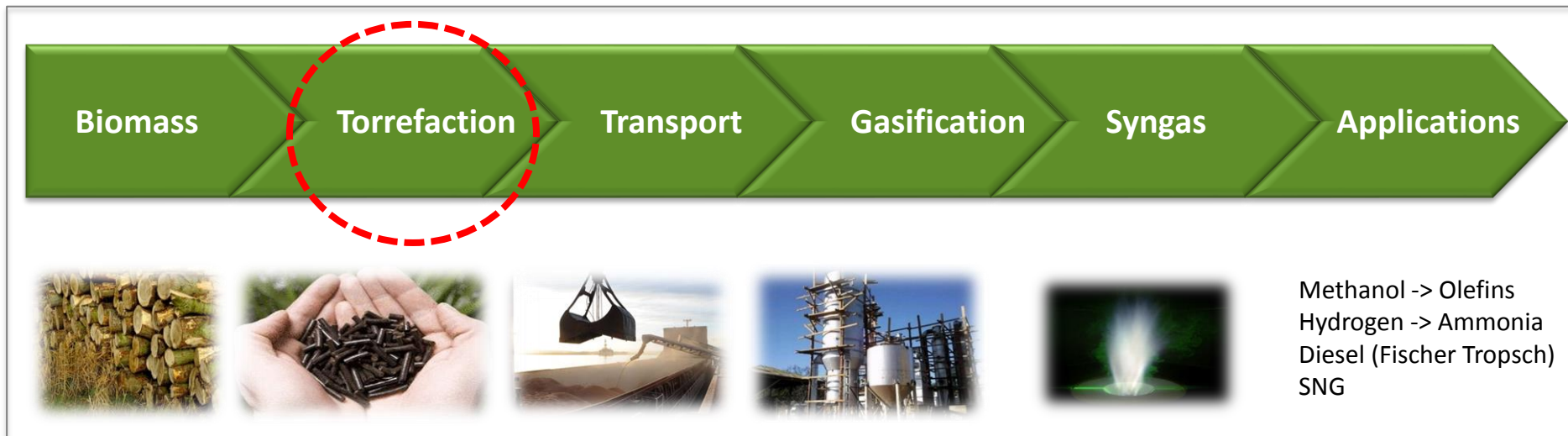
Specific, on demand, biobased and
local production

Time

Results: more efficiency; circular, renewable and safer

Torrefaction: our business approach

Develop partnerships, starting upstream, to secure the value chain from biomass (supply) to gasification.

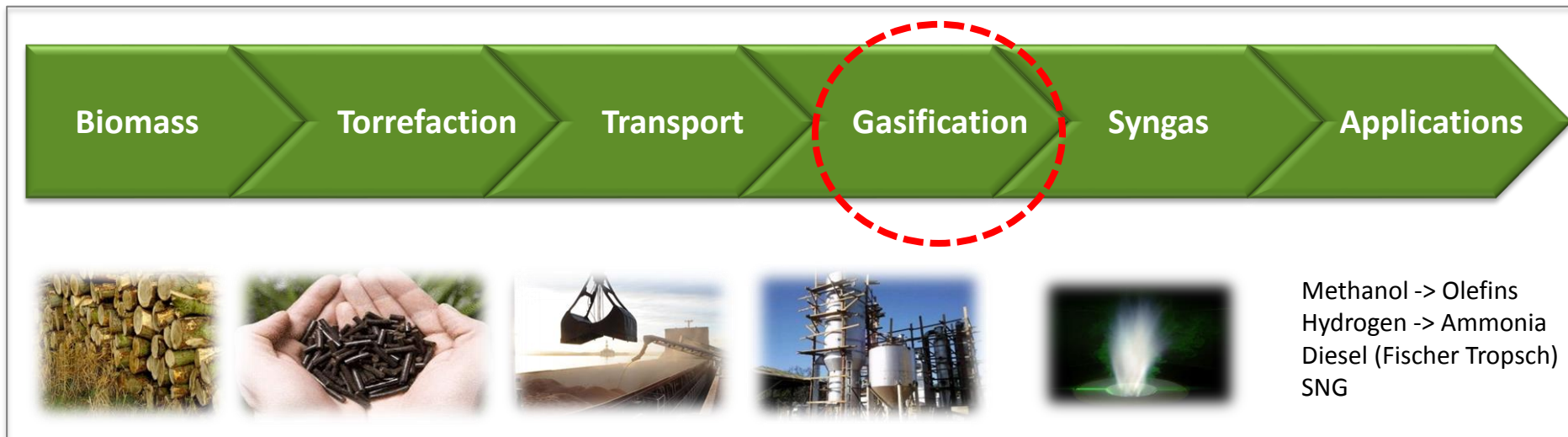


Key success factors

- Secured supply of (input) biomass
- Quality control of (torrefied) biomass
- Price control

Gasification: our business approach

Torrefied biomass gasifiers profit both technically and economically from the superior properties of input material.

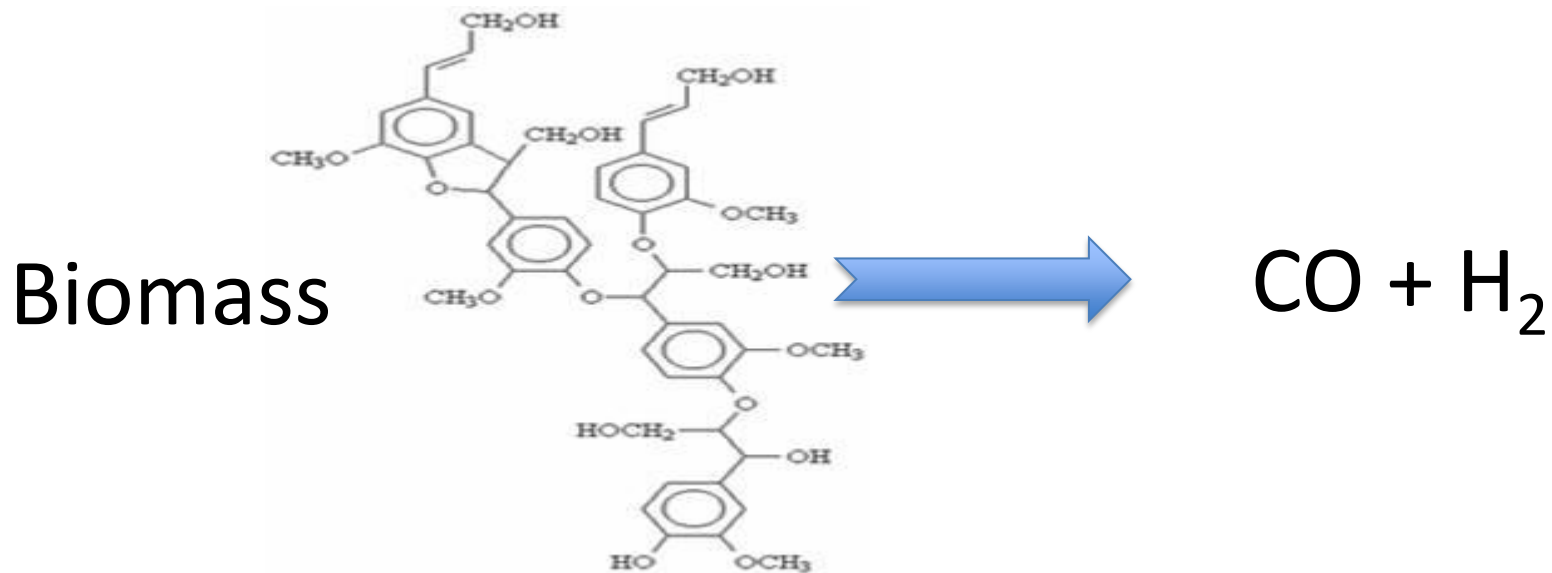


Key success factors for the gasification of torrefied biomass

- Proof of a stable and efficient operation
- Highly efficient, low cost gasifier design (no tars, no slagging)
- Design continuous nitrogen free gasification system that creates no tars and has no slagging

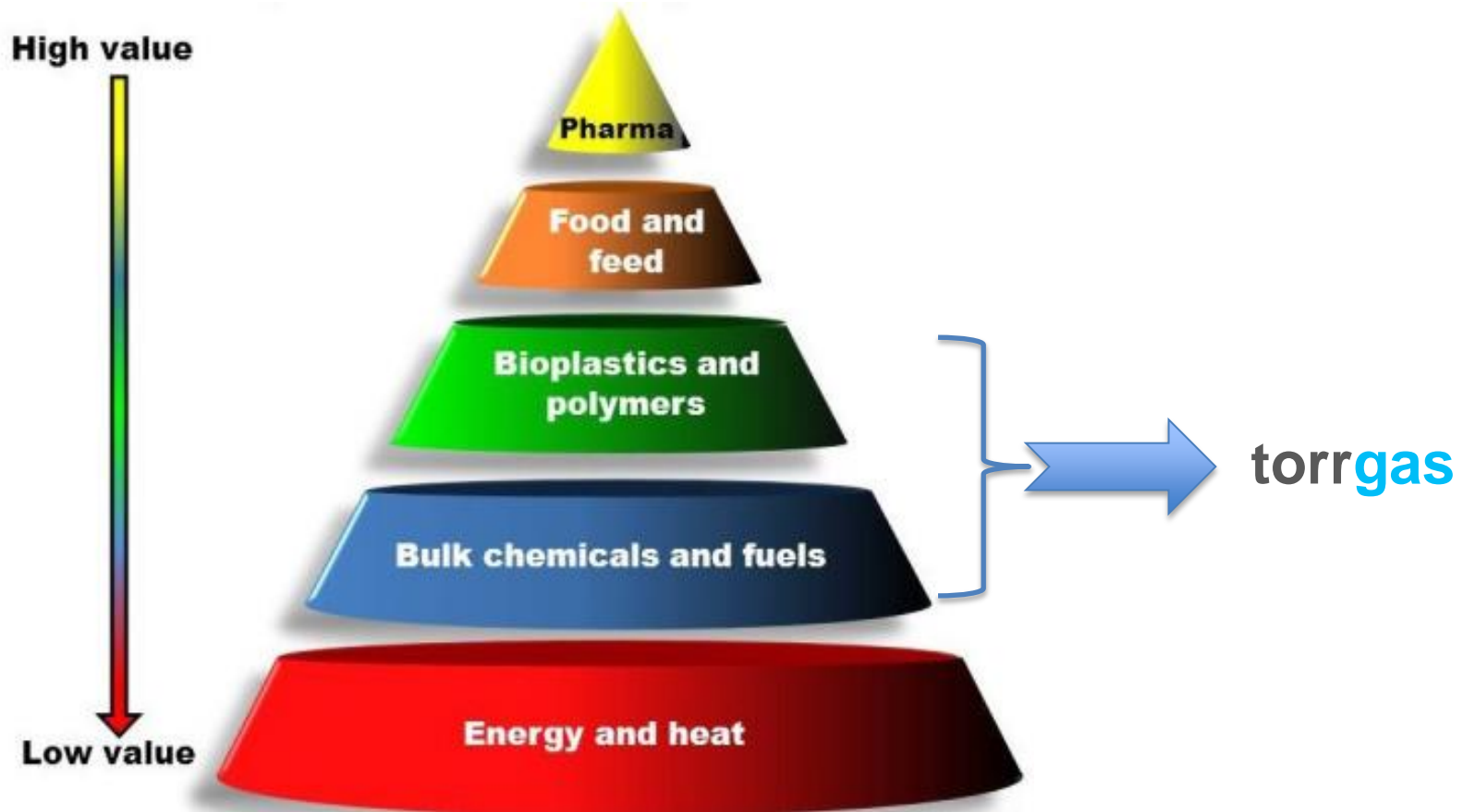
Gasification: the basics

Syngas (synthesis gas) is the name given to a gas mixture that contains varying amounts of carbon monoxide and hydrogen.

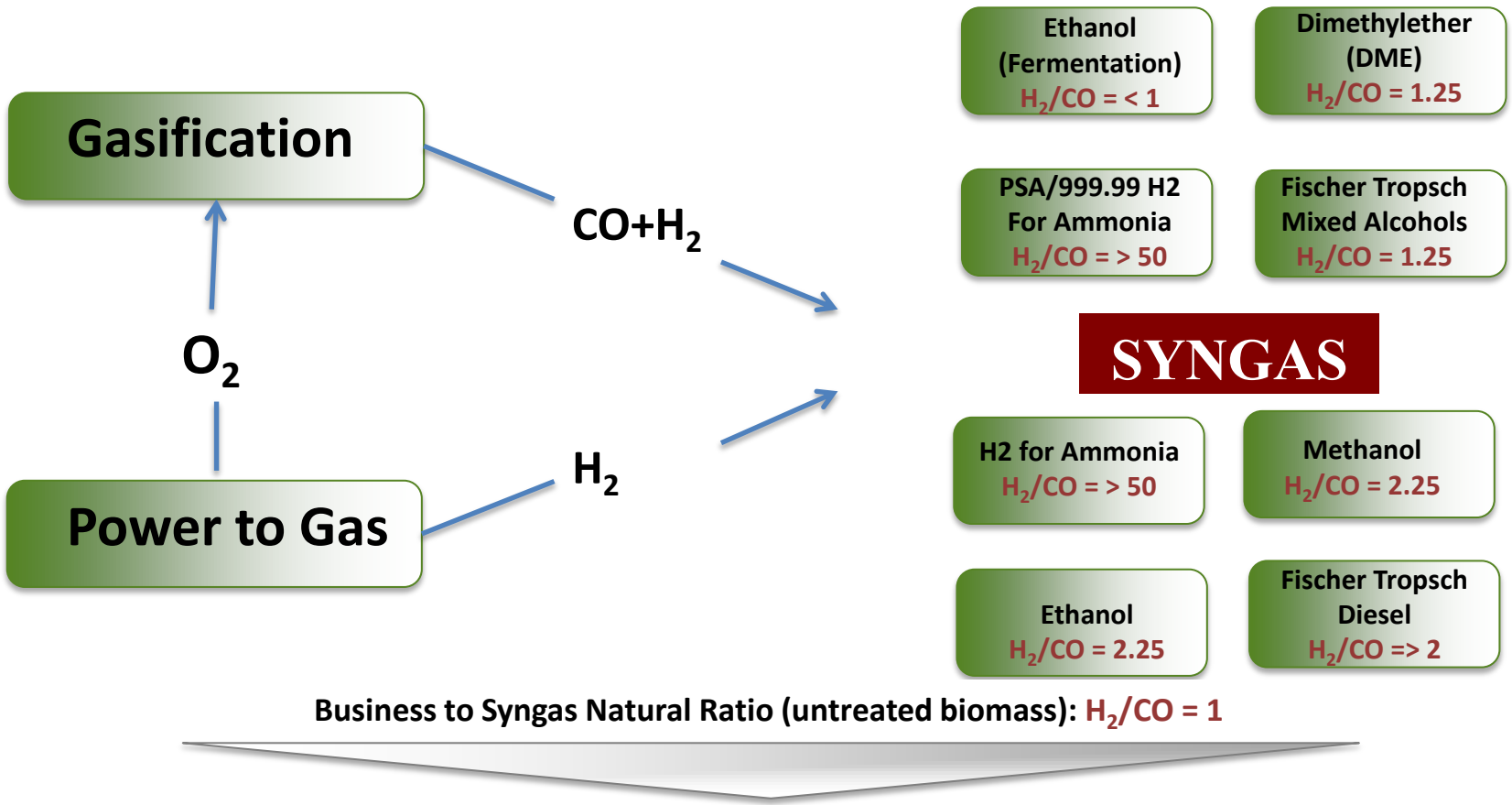


Examples of production methods include steam reforming of natural gas or liquid hydrocarbons to produce hydrogen, the gasification of coal and **biomass**.

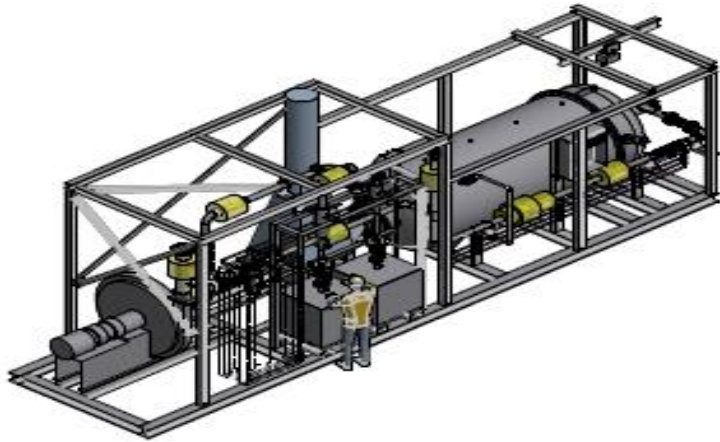
Biomass creates most value by conversion to (base) chemicals & plastics



Bio Syngas: Catalytic syngas production requires oxygen(P2G) and the optimal hydrogen vs carbon monoxide ratio. P2G and gasification can create optimal ratio



Projects



Boekelermeer Pilot plant

- 1 MW demo facility
- Non slagging gasification
- Project partners: TAQA, Gasunie, A-Hak



gasunie

Delfzijl Commercial plant

- 25 MW commercial facility
- With integrated 12 MW Power to Gas (Siemens)
- H₂ production for chemical industry
- Project partners: Dutch Government, Gasunie, A-Hak





HAPPY CHEMISTRY