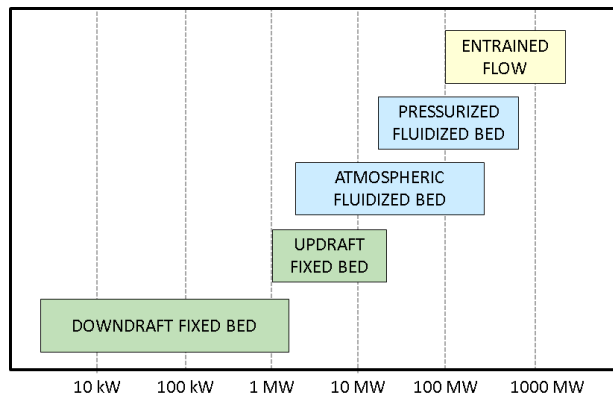
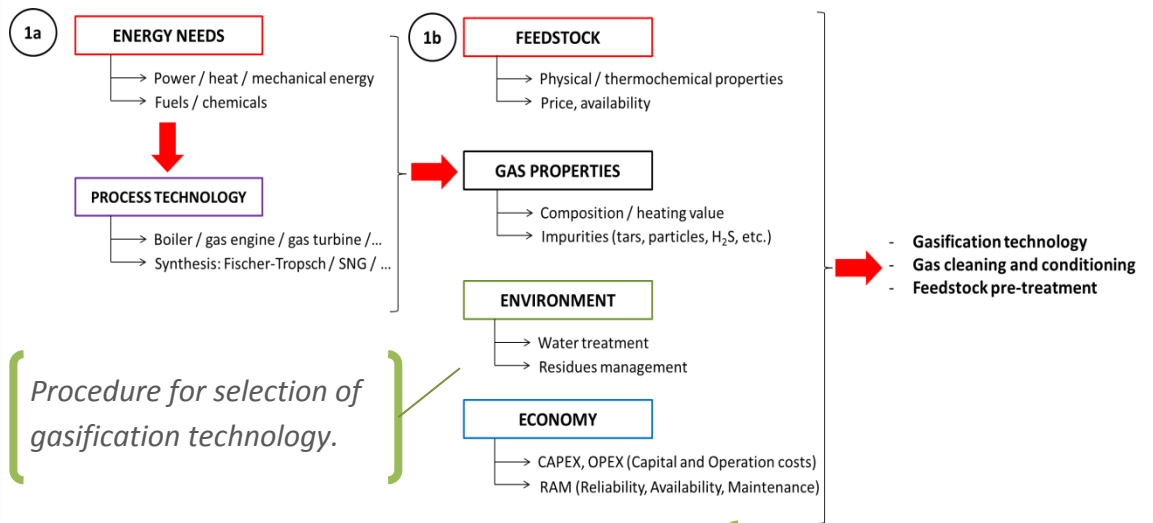


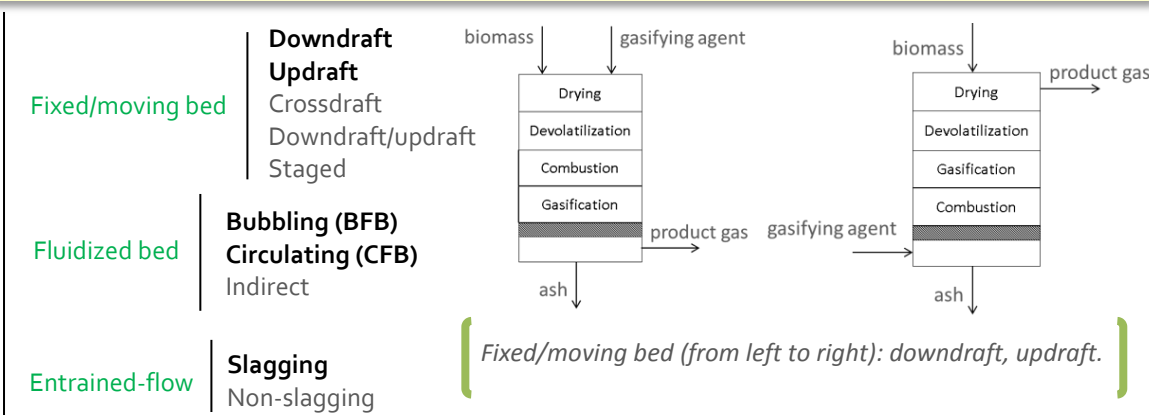
Differences between gasification technologies refer to the contact of fuel and gasifying agent, temperature, pressure, scale, or heat supply. The selection of the most appropriate gasification reactor depends on the properties of the available feedstock, the final application of producer gas, and other environmental and economic factors.

SELECTION OF GASIFICATION TECHNOLOGY

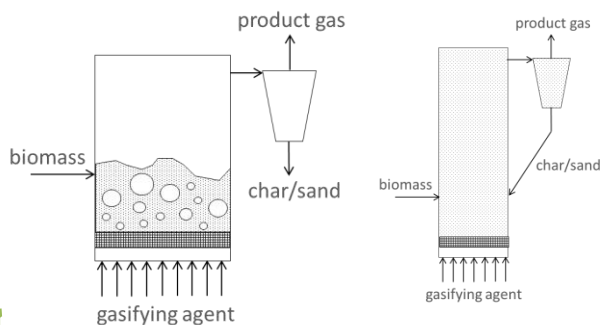


Each type of gasification technology is best suited for certain scales and applications.

MAIN GASIFICATION TECHNOLOGIES



Fixed/moving bed (from left to right): downdraft, updraft.



Fluidized bed (from left to right): bubbling, circulating.

In the case of biomass gasification, most of the small-scale gasifiers are of the downdraft type due to the low tar content, whereas most of the medium-large scale gasifiers are of the fluidized-bed type.

Indirect gasification consists of the physical separation of the gasification and combustion stages. Heat is transferred between both reactors. Indirect gasification allows the production of N₂-free gas with total conversion of the biomass. Some examples of indirect gasification technologies are SilvaGas (Batelle, USA), FICFB (TUV, Austria) and MILENA (ECN, Netherlands).