The global requirement of reduction in greenhouse gas emissions forces us to devise alternatives to fossil fuels as a source for both fuels and a large spectrum of chemicals. The objective of my talk is to discuss / propose some existing technologies on biomass conversion. I will discuss existing commercial & lab scale processes for value addition to biomass. In order to more effectively convert biomass into chemicals, catalysts would be required. I will provide a quick tour through one such class of catalysts that I have worked on previously - microporous materials & zeolites. I will discuss one reaction, the conversion of methanol-to-olefins, as an example of a classical use of such microporous materials. Then I will discuss the isomerization of glucose to fructose over Lewis acidic microporous materials as an example of the classes of reactions being worked on for using microporous materials in the growing biomass sector.