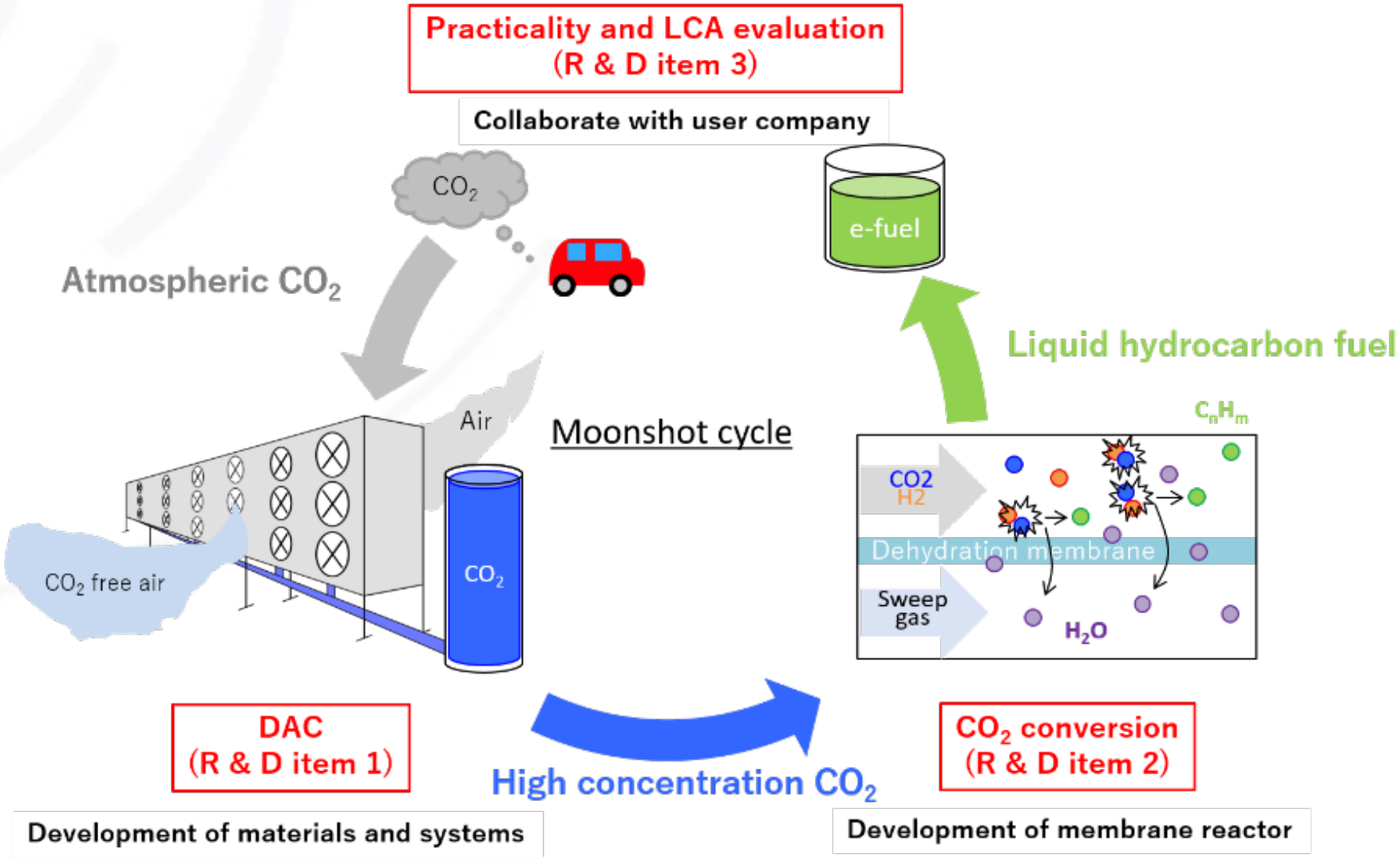
【機密性２／関係者限り】

Development of Highly Efficient Direct Air Capture (DAC) and Carbon Recycling Technologies

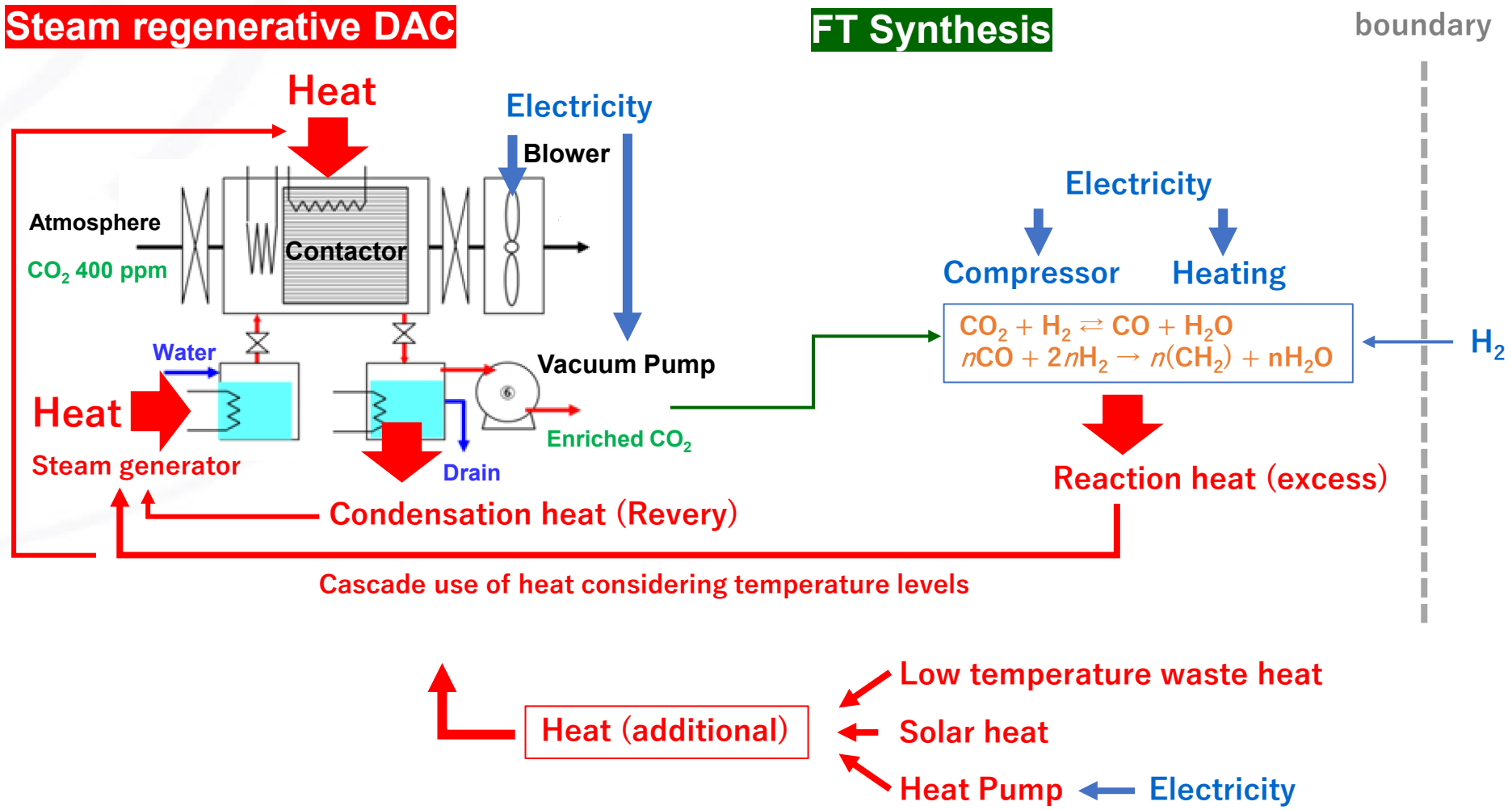
5th October 2022

Akio Kodama

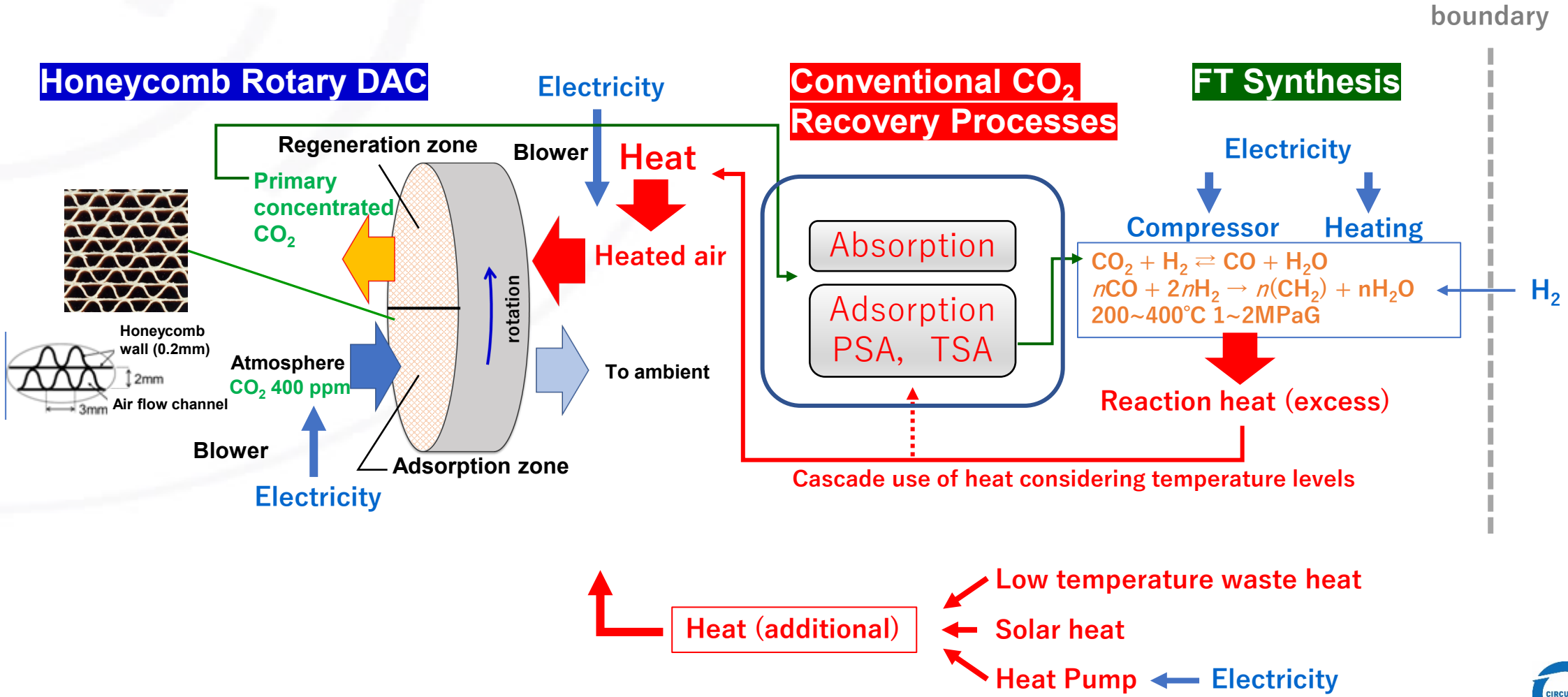
Project Overview



Steam regenerative DAC + FT synthesis



Honeycomb Rotary DAC + Conventional Processes



To accurately apply the LCA to our DAC-U

- An inventory analysis of the proposed DAC and FT synthesis process is essential as a preliminary preparation for the LCA of the DAC-U system. R & D should be accelerated so that inventory analysis can be performed.

- The amount of heat that is insufficient in the proposed DAC-U will be provided by low-temperature waste heat or solar heat. It is unclear how to evaluate CO_2 emissions from waste heat utilization. Its temperature level should be considered in the evaluation but established rules cannot be found. In this respect, exergy should be a more accurate metric for heat utilization than enthalpy.