

# 推動減碳淨煤創新技術產業化與國際合作

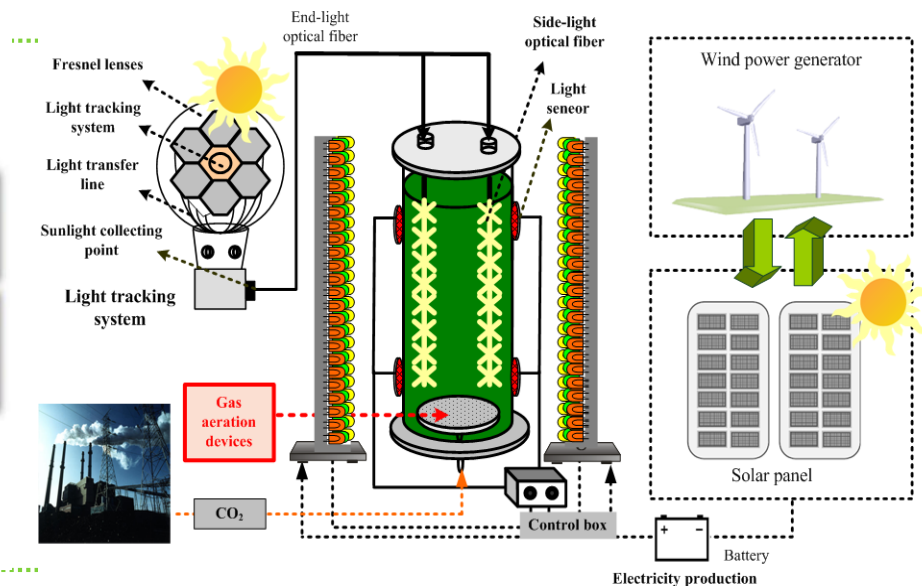
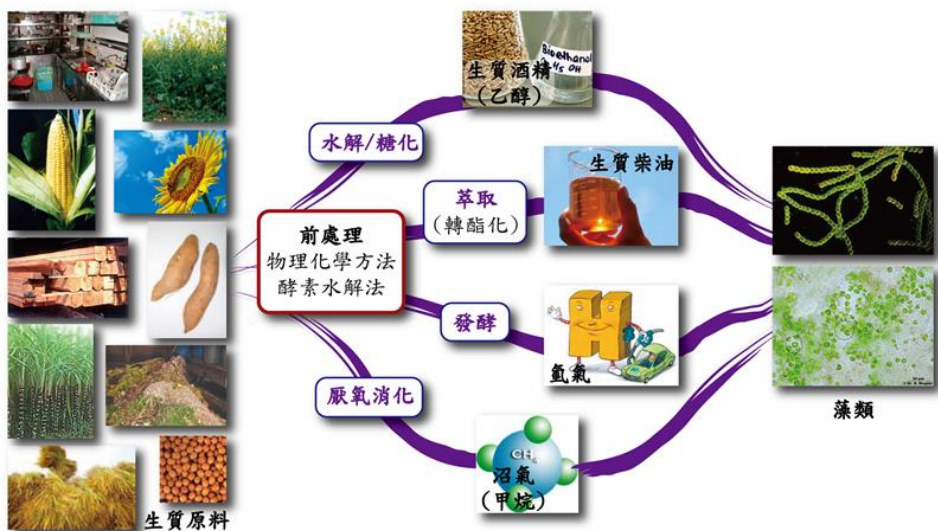
執行單位

國立清華大學動力機械工程學系

計畫主持人

洪哲文

- 本計畫將聚焦以日本及澳洲之CCSU技術發展為主要國際合作產業鏈結之重點區域，藉由新燃燒系統與觸媒、二氧化碳捕獲技術、薄膜減碳技術、及薄膜二氧化碳再利用技術四個子計畫的推動與合作，同時強化在低碳綠能與系統整合之跨領域國際合作與媒合，在最短優化時程及最少成本運用下，落實技術及產業本土化，提高能源國家型科技計畫成果的商業價值及產業化的成功率，達到安全、效率、潔淨三項能源政策目標。



- 本整合計畫的主要目的為審視與協助第二期能源國家型科技計畫減碳淨煤主軸中心的規劃，分析各國與跨國機構之能源研究合作模式，建立國際合作中心平台，充分運用國際合作能量來優化國內CCSU科技計畫之研發成果，同時引進國際先進技術或研究團隊，進行能源科技的媒合或洽商引進國外技術，促成實質合作，在最短優化時程及最少成本運用下，落實技術及產業本土化，提高能源國家型科技計畫成果的商業價值及產業化的成功率。
- 本計畫第三年將再集中盤點NEP-II研發成果中具有潛力之CO2創新薄膜分離產業化技術，協助國內相關產業進行新創輔導與技術整合，以其能快速培育國際人才，聚焦能源產業的國內外市場。運用國際合作方式(聚焦日本與澳洲)來槓桿國際薄膜分離技術，推動國內外產學研合作或技術移轉，媒合國內與國際相關技術研發。

# International collaboration and industrialization on carbon reduction and clean coal innovative technology

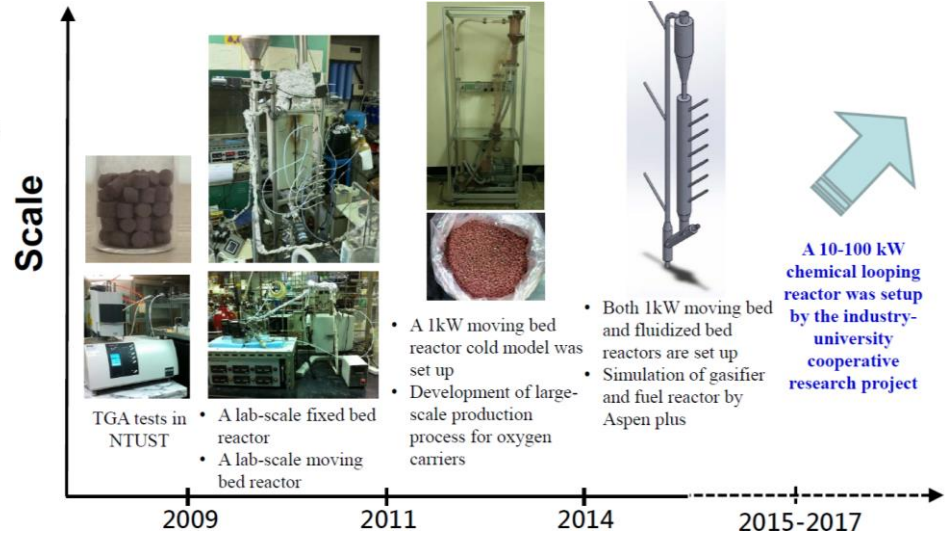
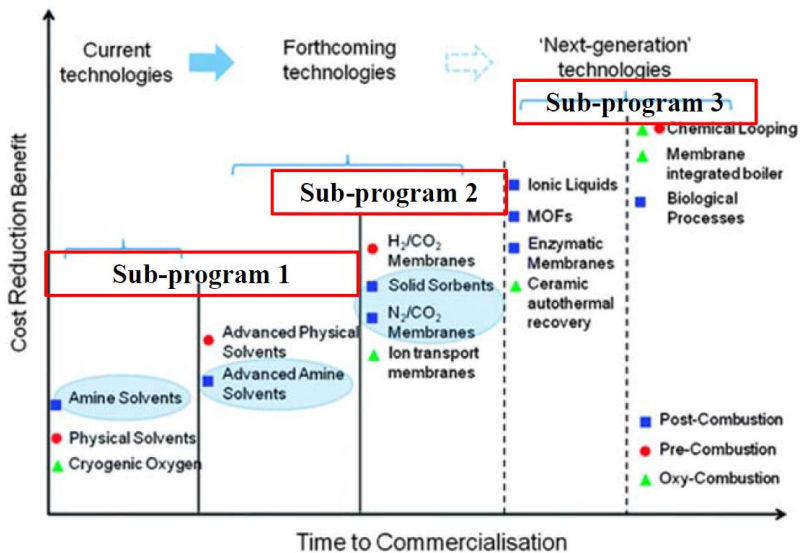
Execution Unit

Department of Power Mechanical Engineering, National Tsing Hua University

Project Director

Prof. Chu-wen Hong

- The international collaboration with Japan and Australia, especially the innovative membrane technology, will be focused. Through the implementation of this integrated project, we can use the minimal cost to introduce the excellent research work of CCSU in Taiwan to the top research teams and industries in the world as well as to increase the visibility and competitiveness of their core technologies in a short time. In addition, this international cooperation project will increase the commercial values of the developed energy technology as well as the success of technology transfer to industries.



- Carbon dioxide capture, storage and utilization (CCSU) is the promising core technology for Carbon Reduction and Clean Coal Focus Center and worth undergoing international collaboration. The main purpose of this project is to design a strategy for international cooperation on CCSU technology to assist the research projects supported by the NEP-II to create the visibility and commercial values of the developed CCSU technology and to transfer the technology to industries.
- The implementation process will involve the communication and coordination with PIs of the NEP-II projects, international agencies, research institutes and various industries through international conferences and visiting. In this integrated project, 4 sub-projects focusing on new combustion system and catalyst, CO<sub>2</sub> capture technology, CO<sub>2</sub> reduction by innovative membrane technology and CO<sub>2</sub> utilization technology will be performed.