membrane technologies. The project involved industrial partners such as BP, Colacem and Fujifilm as well as many startups (Figure 2) [5].

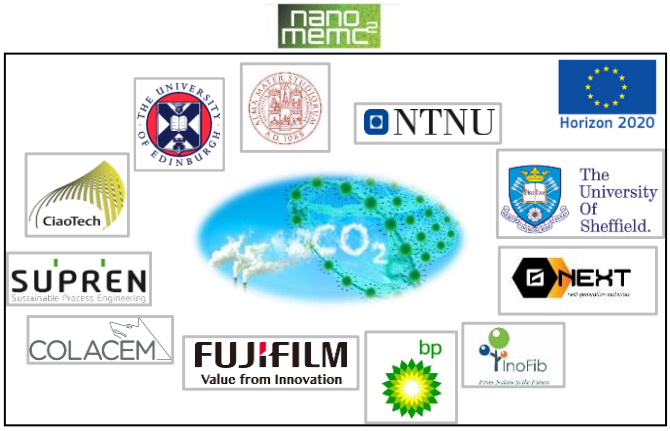

Figure 2. The consortium of the H2020 NANOMEMC^2 project for capture of CO_2 with membranes, coordinated by DICAM UNIBO (www.nanomemc2.eu)

The LEAP consortium based in Piacenza is leading the CLEANKER project, aimed at reducing the emissions in the cement industry by using the calcium looping capture technique. The core activity of the project is the design, construction and operation of a CaL demonstration system in the cement plant operated by Buzzi Unicem sited in Vernasca (Piacenza, Italy) [6].

The Sotacarbo Clean Energy research center [7] is also a main National driver of initiatives in the whole CCUS chain, such as in the ECCSEL European shared research infrastructure facility [8] and through the CCS Summer School organized every year in Carbonia for PhD students [9]. Furthermore, the Center contributes to the storage research studies with the Sulcis storage project [10].

ENEA is also part of the ECCSEL research network and partner of the most important CCUS projects in Europe.

The above mentioned ones are just some examples of the Italian excellence and leading positions in the research in CCUS. Support to projects to develop technologies that make CO_2 capture economically viable is required.

8. CONCLUSIONS

The deployment of CCUS in the CTS requires a rapid scale-up from today's levels, with only around 33 million tonnes of CO_2 (Mt CO_2) currently captured each year [1].

Innovation for CCUS, especially in power generation, needs to achieve cost reductions, improve the efficiency of CO_2 capture, and expand the collection of available CCUS technologies.

Support to projects to develop technologies that make CO_2 capture economically viable is required.

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