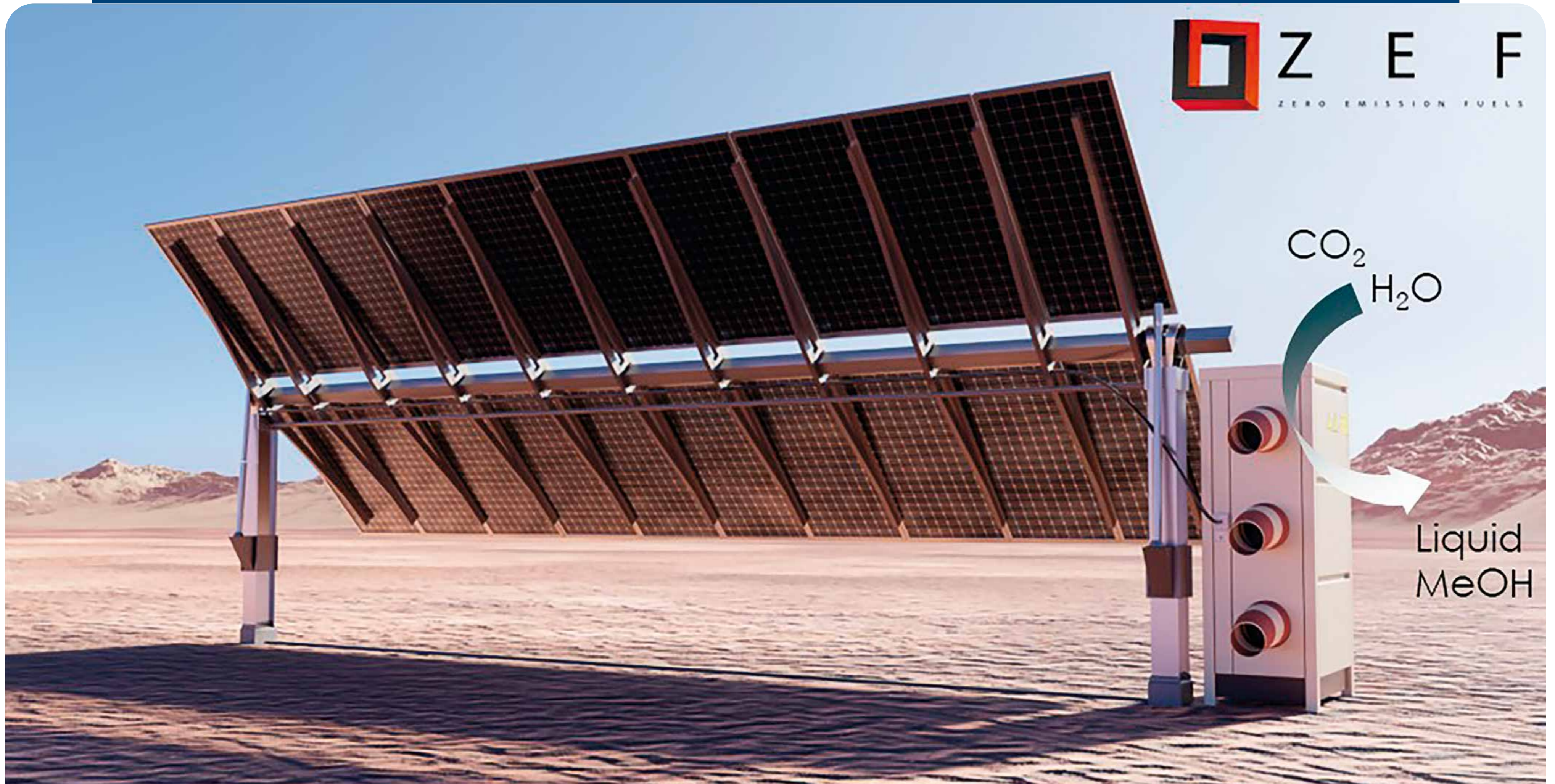


# ZEF Micro-plant



## Zero Emission Methanol from Air & Sun

The project utilizes the combined expertise of a consortium of organizations, including SMEs and research institutes. Start-up ZEF will coordinate the project and lead the development efforts, leveraging the support of multidisciplinary student teams. TU Delft contributes with advanced research facilities and expertise. Promolding brings its knowledge in high-tech plastics and automated production solutions. NPK provides industrial design expertise and production cost analysis. VDL Steelweld focuses on the design for manufacturing and assembly (DFMA) and the development of automated production lines. Boers & Co contribute to the design and assembly of fine mechanical components. TNO researches smart industry solutions for large-scale production. Vopak, Maersk, Chint and OQ will be consulted for market feedback.

The project will address key work packages: Direct air capture of CO<sub>2</sub> and H<sub>2</sub>O, CO<sub>2</sub> compression, methanol synthesis, distillation, integration of all subsystems economics & LCA analysis.