Japan is one of the countries which have committed to Net Zero 2050 and we also aim to nearly halve our GHG emissions by 2030. Heat pumps are regarded as one of key decarbonization technologies for the heat demand in low-temperature in the industrial sector along with the building sector according to Japan's Long-Term Strategy under the Paris Agreement. In this context Japanese industry is active in the development of high-temperature heat pumps and thus we are involved in the Annex 58.

Central Research Institute of Electric Power Industry (CRIEPI) is a common research institute of electric utilities. CRIEPI is leading research and development for industrial heat pumps with a testing laboratory which can test various-type heat pumps up to 200 °C and 700 kW. CRIEPI acts in a wide range area such as technical development, performance evaluation, market survey, and extraction of issues for dissemination.

Mayekawa is one of the most advanced companies in manufacturing industrial compressors and are best known as MYCOM compressors. Since its establishment in 1924, Mayekawa makes use of thermal technology to expand its business lines into various fields such as the food industry, energy savings and chemical markets. In recent years, Mayekawa has accelerated the development of environmental sustainability using natural refrigerants in response to specific requirements and temperature such as NH₃/CO₂ cooling system, air cycle system and CO₂ heat pump.

Kobelco Compressors Corporation is a company which focuses on manufacturing, sales and services of compressors, parts of compressors and related products (including air-compressors, refrigeration compressors, heat pumps and energy-related equipment).

Fuji Electric is committed to thoroughly exercising synergies between its core power semiconductor and power electronics technologies. By combining high-quality equipment employing key devices with engineering services, optimal control technologies, and IoT technologies developed through frontline operations, we will make contributions to the creation of a responsible and sustainable society in industrial and social infrastructure fields.
Japan Electro Heat Center (JEHC) is actively leading the promotion and technological advancement of electro-heat technology, as a center of the industry in Japan, while striving for stronger networking and business foundation.

New Energy and Industrial Technology Development Organization (NEDO) is a national R&D agency, promoting technical development necessary for a sustainable society. NEDO is the Signatory Body of IEA HPT TCP

Heat Pump and Thermal Storage Technology Center of Japan (HPTCJ) is an industrial association which promotes heat pumps and thermal storage systems both nationally and internationally. HPTCJ is coordinating the activities of IEA HPT TCP in Japan.

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Most relevant ongoing or finalized R&D projects of the national team partners:

- **TherMAT (Thermal Management Materials and Technology Research Association)**, 2015 – 2022, Present project partners: NEDO, Panasonic, Mino Ceramic, Mitsubishi Heavy Industries Thermal Systems, Mayekawa, Hitachi, Furukawa, Mazda, Aisin, Marelli, Furukawa Electric
- **Energy conservation innovative technology development / Development of basic technology for an industrial high temperature heat pump system which can be an alternative to a steam boiler**, FY2009 – FY2012, Project partners: Mayekawa, NEDO
- Moonlight Project to develop energy conservation technologies, 1985 - 1992, Project partners: Kobelco Compressors Corporation, NEDO