

**Contract No:** FP7-SME-2012-314991

**Title:** An Innovative, Environmentally Friendly CO<sub>2</sub>/Lubricant Absorption Power System for Highly Efficient Power Generation from Low Temperature Industrial Waste Heat to Reduce Emissions and Costs **(ICARUS)**

**Duration:** 01/08/2012 – 31/07/2014

**Abstract:**

The aim of the ICARUS project is to create an absorption power generation technology for low temperature heat. This will enable to create a waste-heat power generation system for industrial (chemical, cement etc.) applications that can achieve an efficiency of up to 20% for electricity to be generated from industrial waste heat (<120°C) without affecting industrial processes. By doing this, the absorption power generation system to be created will offer greatly improved environmental performance due to improved efficiency and reduced CO<sub>2</sub> emissions at a cost that is affordable to the end-user. This will lead to significant economic and societal benefits to manufacturers.

The partner organizations are 4 SMEs from the UK, Turkey, Spain and Greece, a large cement producer (UK), a Cement Association (Turkey), and 3 Research and Technological Development performers from the UK, Estonia and Croatia.

The project will target up to 10 % of the EU manufacturing SMEs operating within the Chemicals and Cement Industry within a 5 year period, thus achieving direct estimated annual sales of over €100 million, ~700 new jobs and thus helping manufacturing SMEs to make annual average CO<sub>2</sub> emissions savings of up to 4,000 t p.a. per company.