DCOOL. DECARBONIZATION OF COOLING SYSTEMS IN BUILDINGS. DEVELOPMENT OF IEC SYSTEMS THROUGH ADDITIVE MANUFACTURING TECHNIQUES AND USE OF RECYCLED POLYMERIC MATERIALS.

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DECARBONIZATION OF COOLING SYSTEMS IN BUILDINGS

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Summary

The DCOOL project provides innovative solutions for the decarbonization of building cooling systems, increasing the energy efficiency of building cooling systems, promotion of the circular economy using recycled polymeric materials and the improvement of the quality of life of people and society in general.

The DCOOL project aims to contribute significantly to the decarbonization of air-cooling systems in buildings by developing low-cost, ultracompact indirect evaporative cooling systems, IEC, manufactured with recycled polymeric materials. DCOOL project carries out the optimization of the heat and mass transfer process of the wet channels of IEC systems, the development of prototypes of IEC systems built using additive manufacturing techniques from recycled polymeric materials and the life cycle study of the IEC system and its comparison with traditional HX equipment.

The DCOOL project aims to help boost the industrial sector of air conditioning systems, with the incorporation of IEC technology manufactured by additive manufacturing and recycled/recyclable materials.

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