



# Thermochemical Fluids in Greenhouse Farming

## Multi-sector technologies

The stakes of agriculture (and horticulture) are well-known: produce more on less surface, with a smaller environmental and energetic footprint, a better quality, and a broader social involvement, considering sustainability in all its aspects. To achieve those challenges the symbiosis between nature and technology must be total to get the best from both worlds.

TheGreefa H2020 project embodies this union with an all-in-one technological package through a single process powered by low heat renewable energies. Moreover, the project deals with pre (heating, cooling and humidity control) but also post harvesting technologies, such as water recovery or food drying process.



**Meyer's Greenhouse equipped with TheGreefa technology**



**Herbs drying by dehumidification at Zhaw facility**

The three innovative integrated solutions developed in the project to address temperature control, humidity management and water conservation in enclosed greenhouses are not limited to indoor agriculture.

In fact, these technologies could be applied to any enclosed environment requiring dehumidification and temperature control. For this reason, other sectors that make extensive use of HVAC systems have been targeted such as building construction with air control.

Air conditioning is energy intensive and polluting, it contributes to global warming because of leaks or poor recycling of refrigerants, which are powerful greenhouse gases.

All sectors combined, TheGreefa could allow a significant reduction of the carbon footprint and the struggle against global warming. Its energy savings (gas, oil), its circularity (water), its use of solar heat (green energy) and ambient heat, translate into a low environmental impact.



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