



Green energy and storage for the production process of sea buckthorn

The Sanddorn GmbH Herzberg (SAND), one of the Europe's largest sea buckthorn processors, is enhancing its energy-intensive production with an intelligent energy concept. By integrating solar thermal energy, heat pump, and hot water storage tanks, all managed by a smart energy management system, it aims to significantly reduce the CO₂ footprint of transforming sea buckthorn berries into juices, oil, peels and seeds.

Storage INNOvations for Green ENERGY Systems

Decarbonization

Replacing fossil fuels with renewable energy sources and optimizing process water temperatures to minimize energy consumption.

Smart Energy Management

Implementing intelligent storage technologies to efficiently manage hot water tanks and heat pump operation, ensuring a consistent supply of the required pasteurization temperatures. The optimized operation strategy is guided by a DLR's custom-developed day-ahead forecasting tool.



Storage INNOvations for Green ENERGY Systems.

FOLLOW ON SOCIAL



This project has received co-funding from the European Union's Horizon programme under the Grant Agreement No. 101096992

Partners



Meet our demos

Demo site #1: Maia, Portugal, Industrial Park

Demo site #2: Soria, Spain, Microgrid Facility

Demo site #3: Huesca, Spain, Walqa Technology Park

Demo site #4: Herzberg, Germany, SAND production site

Demo site #5: Ikaria, Greece, Hydro-Pumped storage plant

Demo site #6: Geneva Canton, Switzerland, Public Transport services

**Demo #4
Decarbonization of sea-buckthorn processing plants**

Technical description and implementation

- 1. Analysis and optimization:** Evaluating and enhancing of the energy efficiency of sea buckthorn processing.
- 2. Concept selection and component procurement:** Identifying the optimal energy solution and sourcing key components, including solar thermal systems, heat pumps, and hot water storage tanks.
- 3. Installation and commissioning:** Integrating and deploying the selected components for seamless operation.
- 4. Long-term testing:** Conducting extended trials with the smart energy management system to ensure optimal performance and efficiency.

