

Press Release

SUSTAINABILITY IN RETAIL STARTS WITH REFRIGERATION:

EPTA'S LIFE- C4R PROGRAMME CONFIRMS THE BENEFITS OF A NATURAL APPROACH

Increasingly stringent international regulations are driving a massive **transformation** in the world of commercial refrigeration, both on a European level with the F-gas Regulation and internationally with the Kigali Amendment. **Epta**, a multinational group specialised in commercial refrigeration, has already achieved important milestones in the technological development of **HFC free** solutions. Among the projects promoted, one that stands out is the **Life-C4R**, co-financed by the European Union.

Francesco Mastrapasqua, Epta's Institutional Affairs Manager states: "The three-year **Life-C4R - Carbon 4 Retail Refrigeration** project was created to sensitise the scientific community, the component suppliers and the retail world's key players in the use of increasingly efficient solutions. One of the goals is demonstrating how HCFC and HFC refrigerants can be **completely replaced** with transcritical CO₂, **anywhere in the world.**"

The **patented FTE 2.0 Full Transcritical Efficiency** and **ETE Extreme Temperature Efficiency Systems** are recognised by the EU as simple and efficient systems and are at the very core of the **Life-C4R**. "The **Life-C4R Plan** is essential in validating the **FTE** and **ETE performance** in all climatic conditions, in **promoting their international diffusion** and in **certifying both** as global and reliable solutions for the **future of commercial CO₂ refrigeration**", states **Francesco Mastrapasqua, Epta's Institutional Affairs Manager** "The **data analysis** of the three Italian pilot projects and four replica prototypes in Romania and Spain, installed in collaboration with Epta Iberia and DAAS, will be presented during the **Life-C4R Project digital conference**, scheduled for 1 July." The event will be an opportunity to gain in-depth knowledge on the Plan's innovations, **lessons learned** and the advantages of the **FTE 2.0 and ETE technologies**, using the results collected in store by the **Retailers' themselves**.



You can participate by registering at the following link:
<https://blog.eptarefrigeration.com/en/life-c4r>

FTE 2.0 AND ETE: THE FUTURE IS NOW

FTE 2.0 represents the evolution of Epta's patented **FTE Full Transcritical Efficiency system**. It is recommended at any temperature and is therefore a must for obtaining maximum efficiency above 37°C. Simple, efficient, reliable and industrialised, **FTE** uses **flooded evaporators**. They allow for the difference between the evaporation temperature and the cabinet's internal temperature to be significantly reduced and therefore, for an **energy consumption 10%** lower than a traditional CO₂ system. This is a simple solution: Epta has mechanically added only a **multilevel liquid receiver** to the standard configuration. On the one hand, FTE reduces the compressors' discharge temperature, allowing for smooth functioning at high temperatures. On the other hand, it guarantees their perfect lubrication, favouring a longer life cycle of the component itself. FTE also guarantees **up to 20% lower installation and maintenance costs**. Finally, the FTE 2.0 version which is integrated into the rack, takes up **less space and reduces installation and start-up times**.

Best transcritical CO₂ solutions in warm and hot ambient conditions

Standard Transcritical CO ₂ system + FTE + ETE	Ambient temp >40°C
Standard Transcritical CO ₂ system + FTE ETE recommended	Ambient temp <40°C
Standard Transcritical CO ₂ system FTE + ETE recommended	Ambient temp <37°C
Standard Transcritical CO ₂ system FTE recommended	Ambient temp <30°C



ETE Extreme Temperature Efficiency allows for **100% cooling capacity to be reached even in the hottest climates**, both in industrial and commercial refrigeration applications. Recommended at temperatures between 30°C and 40°C, it **guarantees maximum savings over 40°C**, also in combination with FTE. In this case, the **transcritical CO₂** system is guaranteed to work perfectly at **any latitude**, even on non-booster systems and in **industrial refrigeration**. ETE's "secret" is contained in **the refrigerant temperatures' reduction** before its distribution to end users. As it leaves the air exchanger at a value close to the ambient temperature, the gas is **further cooled**. The system allows for an **almost total disappearance of "flash-gas"**, creating significant **energy savings** over time and **smooth functioning** even well above 40°C.

LIFE C4R COMES TO ROMANIA

DAAS, part of Epta Group, carries out the first Life C4R project in Romania at the Mega Image chain store in Sibiu, Transylvania. Mega Image is owned by **Ahold Delhaize**, a Dutch grocery retail company operating in the **US, Europe and Indonesia**.



The installation of an Eco2Small **rack** and the patented **FTE 2.0 Full Transcritical Efficiency system** is at the heart of the project for the Sibiu store. It responds to Clients' demands in reducing the supermarket's carbon footprint thanks to the monitoring and heat recovery system and the Costan refrigerated cabinets' high efficiency. This installation is designed to **reduce consumption by 10%** compared to an equivalent one with **HFC refrigerant**, therefore **saving 38,573 kWh/year**.

Epta. Advanced solutions for your store.

EPTA - a multinational Group specialised in commercial refrigeration operating at a worldwide level with its brands: **Costan** (1946), **Bonnet Névé** (1930), **Eurocryor** (1991), **Misa** (1969), **Iarp** (1983) and **Kysor Warren** (1882). Epta is positioned on the domestic and international markets as a turnkey partner able to manufacture and provide complete refrigeration systems through the integration of specific product lines such as: traditional refrigerator cabinets, vertical and semi-vertical chillers, vertical and horizontal freezers, plug-in units for Retail and F&B, medium and large capacity refrigeration systems and cold rooms. With its HQ in Milan, it has over 6,000 employees, it has several production sites both in Italy and abroad, a widespread technical and commercial presence all over the world, guaranteed by more than 40 direct branches.

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