

### CO<sub>2</sub> TC vs CO<sub>2</sub>-HFC cascades in warm ambients

Chiara Tognoli, Arneg, provided an analysis of two systems installed in similar supermarkets at ATMOSphere Europe in Berlin, Germany in September.

The first system is a CO<sub>2</sub> transcritical one with an ejector (in a 10,000 m<sup>2</sup> supermarket) and the other is a CO<sub>2</sub>/HFC cascade (in a 9,500 m<sup>2</sup> supermarket). Both were installed in northern Italy.

The energy performance of the system was measured during the period August 2016 to August 2017, with conditions reaching 40°C in summer.

The CO<sub>2</sub> TC ejector system was found to save 9% over the twelve-month period with 60,300 kWh/year saved, which translates into a €10,800 annual saving for the end user compared to an HFC-CO<sub>2</sub> cascade. ■ [Charlotte McLaughlin](#)