

Petrol PLAZA

Q&A with Q1 Energie: “Smart stores can play a crucial role”

We sit down with Frederick Beckmann, CEO of Q1 Energie, to learn more about their new smart store concept in Osnabrück, Germany. We discuss the new customer journey, the value of innovation and characteristics of the store.



Q1 Energie has opened a new smart store concept located at the Osnabrück Science Park that offers customers a seamless shopping experience. The AI-powered store called Q1 Shop & Go is the first

standalone c-store opened by the German energy player, which has a network of 200 service stations and is always looking to innovate.

The offer includes fresh snacks such as sandwiches, wraps, salads, chilled drinks, and a coffee-to-go range in just 20 square meters of retail space. The site is open 24/7 and can be accessed via app or card with no checkout process. Customers can provide feedback through the official Q1 Shop & Go website to encourage the company in developing the format further.

Q. How did this project come about? What are the characteristics of the smart store?

A. We have always wanted to be a technology driver in our industry. We started looking into autonomous technology back in April. In October 2022 we started scouting the right partners to get the first pilot on the road. We've now built an AI-based smart store equipped with sensors and video data. It's a medium-sized container store located at a previously underserved community location – the science and technology park didn't have any grocery or convenience offerings. The store has low entry barriers and a fully automated check-out.

Q. Q1 Enegie is quite a dynamic company. How does this project expand your business portfolio?

A. It's not the first venture outside of the fuel retail world. We are operating EV chargers. We have a stake in the SmartCityHouse – a start-up accelerator in Osnabrück where we research new ventures around energy, mobility, retail, and logistics. Together with our partners, we launched 14degrees, a platform to trade GHG quotas in Germany. We are very focused on innovation. This is the first convenience offering outside of a station.

Q. Smart stores are currently going through a stage of rapid development – we see new formats popping up all around the world. How did you choose the model?

A. There are many different types of smart stores, and there is space for different solutions to be successful. We wanted to design Q1 Shop & Go with the most progressive technologies available, which is grab & go. This offers the highest level of convenience and automation. We wanted to push the boundaries of the market with this concept and see where it goes. With this kind of technology and offering we can have the deepest learning of smart store technology. This is a completely different customer experience. This will be a long learning process about a new customer journey.

Q. What role can these stores play in the mobility ecosystem of tomorrow?

A. We still have to find out how elements such as customer acceptance, technological advancements, and labour availability evolve. From our point of view, smart stores can play a very crucial role in the mobility ecosystem of tomorrow as completely autonomous and hybrid. They must enable retailers to have high-quality propositions to its customers.

Q. What are the next steps for this project?

A. I'm looking forward to the learning we will get over the next months about the operating model. In the future, after understanding which is the best customer journey, and the improvement we make, we will be able to understand how we can implement this in our network and how to build the future of convenience retail.

Q. There are few categories that are a challenge for unmanned stores. For example, alcohol and fresh food.

A. We sell alcohol from the age of 18. Customers can buy it after age verification via app. We are also testing fresh food. It's a small product offering we want to increase but today it's still a bit of a challenge to get these products to a store in one delivery. An evolution of the complete supply chain needs to happen to develop this business.

Written by Oscar Smith Diamante