



The Wiesbaden store will produce around 10,000kg of fresh fish and 800,000 pots of basil | Photo source Acme

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A ROOFTOP FARM TOPS THE SUPERMARKET OF THE FUTURE



ARCHITECTURE & DESIGN

A new market in Germany includes an aquaponics farm and a greenhouse

Spotted: Germany's second-largest supermarket brand REWE has teamed up with UK architecture firm Acme to develop the Wiesbaden Market, which sets new standards for locavore practices. The supermarket is topped by a rooftop farm that grows food to sell downstairs in the store.

The store features a large, open market hall, designed to showcase the locally farmed and prepared produce. An aquaponic farm is housed inside the building and a modular greenhouse is located on the roof. By growing food on-site, the store aims to reduce the carbon emissions produced in the growing, transportation, storage and distribution of food. The market is designed as a repeatable prototype. REWE intends to roll out the concept nationwide, with each store growing a specific type of food.

For example, the Wiesbaden store will produce around 10,000kg of fresh fish and 800,000 pots of basil. This may seem an odd combination, but the basil helps filter the water used in fish farming, and the fish faeces is used to fertilise the basil plants. The store is also designed to be simple to build and easy to adapt, using lots of simple wooden structures rather than a few highly engineered elements. The timber structures are modular, to allow them to be easily customised for different market sizes and configurations.

According to the architects, "Each local market should respond to its local material context. While the timber roof is the unifying element of the market, the spaces below the roof should be designed to root the building in its context." In Wiesbaden, the fish farms, storage, greenhouse, bakery and click & collect are grouped in two sections to allow the rest of the market to be opened up around a central atrium which brings in natural light.

At Springwise, we have seen a growing number of markets designed to incorporate various types of growing systems. Recent innovations include systems for growing vegetables in supermarket [parking lots](#) and in disused [office space](#).

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Takeaway:

In Europe, fresh food travels on average around 1000 kilometres from farm to shelf. REWE's concept store reduces this to a few feet, creating a close connection between grower and consumer. It also helps consumers to better understand and appreciate how their food is grown and processed. To encourage this understanding, the store includes a spiral staircase in the cafe so the public can access a viewing room and event space where the growing produce can be viewed up close. If these stores become more common, they may well promote a reduction in carbon emissions and more sustainable farming, and an appreciation of the need to eat locally.