

Food District Oud-Mathenesse

Today in 2020, the city of Rotterdam is highly dependent on food-production outside of its municipality borders. For instance, tons of fruits are being shipped for months before arriving in the Fruit Harbour Rotterdam.

From the 502 ton of grains, 333 ton of vegetables and 252 ton of meat that the 7.000 residents in Oud-Mathenesse are consuming annually (*wateetnederland.nl*) only 5% is produced in the Rotterdam Region itself (*Metabolic, Circular Rotterdam 2019*).

Our food is part of a complex transportation chain. Starting from production and oversea distribution, storage, logistics to retail until it gets to the consumer and on our plate. The rising carbon tax will become an important game changer in this system: It makes a price difference for every item we are consuming depending on the amount of carbon dioxide emission it creates. But with the carbon tax the taxation on work is getting lower. That means producing food in cities becomes more affordable.

How will our future shopping list look like?

Food District Oud-Mathenesse is a research on how the global food-system functions today to design a self-sufficient and local approach for the city of the future. The Design is operating in different scale levels, from local bottom-up initiatives to neighbourhood-wide interventions.

Text Zoom ins

Fruit harbour (1)

- The Fruit Harbour in Rotterdam is today's global anchor for food distribution in Europe. Annually 22.000 tons of fruits arrive in M4H. With the rising carbon tax importing fruits becomes less price efficient, therefore the wharf focuses on the import of goods like coffee and cacao.

Large scale production (2)

- Vertical gardening is one of the local large-scale food production in the district. Crops like lettuce and chard and collard greens are the most space and energy efficient to grow here.
Water lentils can grow in a hydroponic system that is reusing water. The residues can be used in local biodigesters and become natural fertilizer for future growth cycles.

Local production **(3)**

- Importing fruits like bananas from overseas produces lots of emissions and makes them more expensive in the future. One way to minimise costs is growing all kinds of fruits ourselves. Therefore rainwater from the roofs can be stored and reused for watering glasshouses.

Community gardening **(4)**

- Small scale food production like community gardening functions as social activity for residents in the neighbourhood. People learn about gardening, maintain public space and start networking. Community gardens can be the first places of starting the development towards a self-sustaining neighbourhood.

Local Economy **(5)**

- Already today the Franselaan is the street where you can find most of the small and local shops in the neighbourhood. In the future, this place becomes a cluster for entrepreneurs in food-related industries - Like butchers, bakeries and restaurants that cook with locally grown food.

Market **(6)**

- The market becomes the cultural center for the neighbourhood. Small farmers and local entrepreneurs can sell their goods to the neighbourhood directly. It also becomes a place for cultural and religious festival activities like Eid al-Fitr.

Biomass **(7)**

Leftovers from public space maintenance can be used as biomass for heating. Sheeps from the nearby children's farm can be used as 'environmental friendly' version for grass-moving. Reed growing on the water banks are used as ecological building material.

Live Stock **(8)**

- The local pig farm is providing livestock for the neighbourhood. Every single resident of Oud-Mathenesse is annually producing 40 kg of biological kitchen waste that can be used to feed the pigs.

Self-sustained lifestyle **(9)**

- Every household in Oud-Mathenesse can become more self-sustained. Growing vegetables in your own greenhouse on top of your roof. Using solar energy to power the LED-lights in winter and trading self-grown fruits and vegetables with your neighbours. Every food that is getting too expensive to import could be grown easily under your own roof.

Responsibility **(10)**

- Small scale (live stock) farming can teach us to be more environmental friendly, and take responsibility in consuming and producing food.

Supermarket / Food Hub **(11)**

- A district like Oud-Mathenesse can never become fully self-sufficient on food as we will be still dependent on crops that is being grown outside Rotterdam. Grains and goods can be purchased from farmers directly, being stored within district inside the Food Hub and sold in the supermarket - this local distribution system is minimising transportation costs and makes it possible to sell goods fair priced for both producer and consumer.

Future shopping list **(12)**

- What's on the shopping list of 2030? A large amount of the food is produced locally in the neighbourhood. Healthy and good quality food becomes more affordable. Oud-Mathenesse has a strong network of local producers and consumers.