

# Developing the Rotterdam City Region Food System: Acting and thinking at the same time

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*Herb gardeners.* Photo by Rotterdamse Munt

**The city region of Rotterdam is located in the western part of the Netherlands, bordering the North Sea. It contains the municipality of Rotterdam and several neighbouring municipalities, with about 1.2 million inhabitants. Rotterdam hosts Europe's largest sea port as well as a large (inland-oriented) river port. Shipped through the ports into Europe (by barge, rail or lorry) are goods including food (e.g., exotic fruits and vegetables, juices, rapeseed and palm oil) and feed products (soybeans, grains, tapioca).**

The cheap import of feed ingredients into the EC through Rotterdam enabled the development of an intensive livestock industry (pigs and poultry) in the more rural parts of the Netherlands. The port area hosts a large industrial area (petrochemicals, etc.). Port-related food and feed processing (margarines, mayonnaise, peanut butter, beverages, flour milling, animal feed, etc.) is also located in the city region. Although the region is highly urbanised, close to Rotterdam we still find a variety of agricultural production areas, including arable crops (Midden IJsselmonde, Hoekse Waard), dairy (Midden Delfland, Groene Hart) and also Europe's largest

complex of greenhouse horticulture production (Westland and Oostland).

## Policy development

Given the international orientation of the Rotterdam city region, one may wonder where the city's interest in short food supply chains and regional food systems comes from. This section contains an explanation of the background and current outlook. In 2007, a Ministry of Agriculture innovation programme commissioned a small project for which a communications bureau in Rotterdam was to organise a brainstorm meeting on new relations between cities and agriculture. A variety of parties was invited, and by the end of the meeting it became clear that the city of Rotterdam did not know what to do with the discussion results. Some people decided to meet more often, and so they did, creating Eetbaar Rotterdam (Edible Rotterdam: ER), a self-proclaimed expert group on urban farming, that proactively started to organise events and presentations in order to put urban agriculture on the agenda. ER members included the communications bureau, some architects, a farm advisor, a researcher and, in a later stage, the owner of a restaurant serving local food. The municipality declared 2008 as the "Green Year" to highlight the importance of urban green infrastructure. The Rotterdam planning department reviewed its public green space policies and found that relatively few city dwellers use the large-scale recreation areas

around the city, while the green spaces within the city were evaluated as being too uniformly designed and too poorly maintained. At the final conference it was concluded that urban agriculture could provide an interesting perspective to solve these issues.

A think tank called Urban Farming (which in Rotterdam includes periurban farming) was set up to act as a platform for civil servants of various departments to facilitate urban farming initiatives and discuss policy alternatives. One of its activities was to organise network meetings to bring together urban farming initiatives; another was to formulate policy goals in interaction with the relevant executive councillors, especially the councillor responsible for public green space management. Keeping in mind its limited budgetary resources – but also recognising the power of food to help solve urban issues (such as obesity) – the municipal government did not develop an explicit food strategy, but rather tried to encourage bottom-up community initiatives and entrepreneurial initiatives. A five-point action plan was developed to (1) increase the visibility / accessibility of food growing in and around the city, (2) organise the short food supply chain (logistics, farmers' markets), (3) account for local food in public procurement, (4) improve the long-term economic perspective of periurban farmers, and (5) stimulate edible green roofs in the city centre. In 2012, a policy document was approved. Its focus was three priorities for urban agriculture: public health (healthy diets for Rotterdam citizens), economic viability (periurban and urban farmers as entrepreneurs) and spatial quality (urban agriculture to maintain green space in and around the city).

In 2013, the city established a Regional Food Council, a network organisation without a budget including stakeholders such as periurban and urban farmers, chefs, the owner of an organic supermarket, researchers, two mayors of neighbouring municipalities, educational institutes, the vegetable auction, and also a large multinational food company with several production facilities in the port area. Three focus themes were chosen: (a) short food supply chains, (b) education and (c) circular economy. In 2014, after local government elections, the coalition shifted towards a more conservative approach. Food is no longer such a social and/or ecological issue, but rather an economic one (fresh logistics, employment, education, etc.). The Food Cluster has been discovered to be the third most important cluster of economic activity in Rotterdam (after the port and the medical industry). The opening of the Markthal in 2014 (a covered market hall with more than 80 stalls) is an iconic architectural testimony to this new-found interest in food.

### Urban agriculture in and around Rotterdam

While the Rotterdam food policy was being developed, several urban agriculture initiatives and also some other established initiatives started to see themselves through the lens of urban agriculture. One of the biggest urban agriculture initiatives in the Netherlands started in Rotterdam in 2012. Uit Je Eigen Stad (From Your Own Town) is a 2.3 hectare commercially operated farm at an abandoned rail yard in the port area ([www.uitjeeigenstad.nl](http://www.uitjeeigenstad.nl)). It includes open field vegetable growing, hoop houses, a

greenhouse for indoor vegetable growing and fish farming (aquaponics), mushroom growing, chickens, a farm shop, a restaurant, and conference facilities. The farm was established with a loan from a social housing corporation as a strategy to claim a place in the transformation of the area from industrial port to residential housing. Part of the capital raised was crowdfunded. In 2014, in order to professionalise that rather important revenue-generating part of the operation, ownership of the farm was partially transferred to a restaurant owner.

Stadslandbouw Schiebroek (Urban Agriculture Schiebroek) is a network of urban gardens for residents in a social housing neighbourhood (<http://stadslandbouwschiebroek.blogspot.nl/>). The initiative is coordinated by a very experienced allotment gardener, and was commissioned by a social housing corporation in 2011 to improve the quality of life in the neighbourhood. Most of the gardens are situated in public green spaces. As the social housing corporation is withdrawing its financial support, participants increasingly also engage in catering, farmers' market sales, etc. Another initiative with social objectives is the Voedseltuin (Food Garden, [www.voedseltuin.com](http://www.voedseltuin.com)), since 2011 also located in the Rotterdam port area. Here a group of volunteers work together with unemployed individuals who are invited to acquire basic skills towards reintegration into the labour market. They produce organically grown food for the nearby food bank. The garden is developing into a park-like space which fits into the transformation of the port area. New initiatives are also emerging: in 2014, Rotterdamse Munt ([www.rotterdamsemunt.nl](http://www.rotterdamsemunt.nl)) started an open field herb garden in a deprived neighbourhood, inviting women from different ethnic backgrounds to participate in gardening. The herbs produced are sold to local restaurants and also served as fresh teas at the garden's beautiful terrace.

### Short food supply chains

Short food supply chains are on the rise in Rotterdam. Since 2007 Rotterdam has hosted a farmers' market/local food festival ([www.rotterdamseoogst.nl](http://www.rotterdamseoogst.nl)), originally held once a year but gradually increased to its present frequency of every other week. Willem en Drees ([www.willemendrees.nl](http://www.willemendrees.nl)) is a grocery wholesaler specialising in local food that is also sold in Rotterdam – see also the article on page 51. Another internet shop is Rechtstreex ([www.rechtstreex.nl](http://www.rechtstreex.nl)). They collect products from farmers in the region and distribute to pickup points in the neighbourhood where a district manager arranges for delivery to consumers. Rechtstreex is also one of the initiators of Fenix Food Factory ([www.fenixfoodfactory.nl](http://www.fenixfoodfactory.nl)), a place where makers of artisanal food products are together transforming an abandoned warehouse in the redeveloped port area into an ultra-hip food market. After the Markthal ([www.markthal.nl](http://www.markthal.nl)) opened, a number of new short food supply chain initiatives were established, including – though this went bankrupt within three months – a cooperative (Buutengeween) of dairy and arable farmers as well as fishermen from the Goeree peninsula. Two cooperative initiatives from greenhouse growers and open field growers offering both vegetables and fruits also entered the Markthal: Natuurlijk! (<http://natuurlijkmarkthal.nl/>) and Vers van de Teler ([www.versvandeteler.nl](http://www.versvandeteler.nl)).



## Closing urban loops

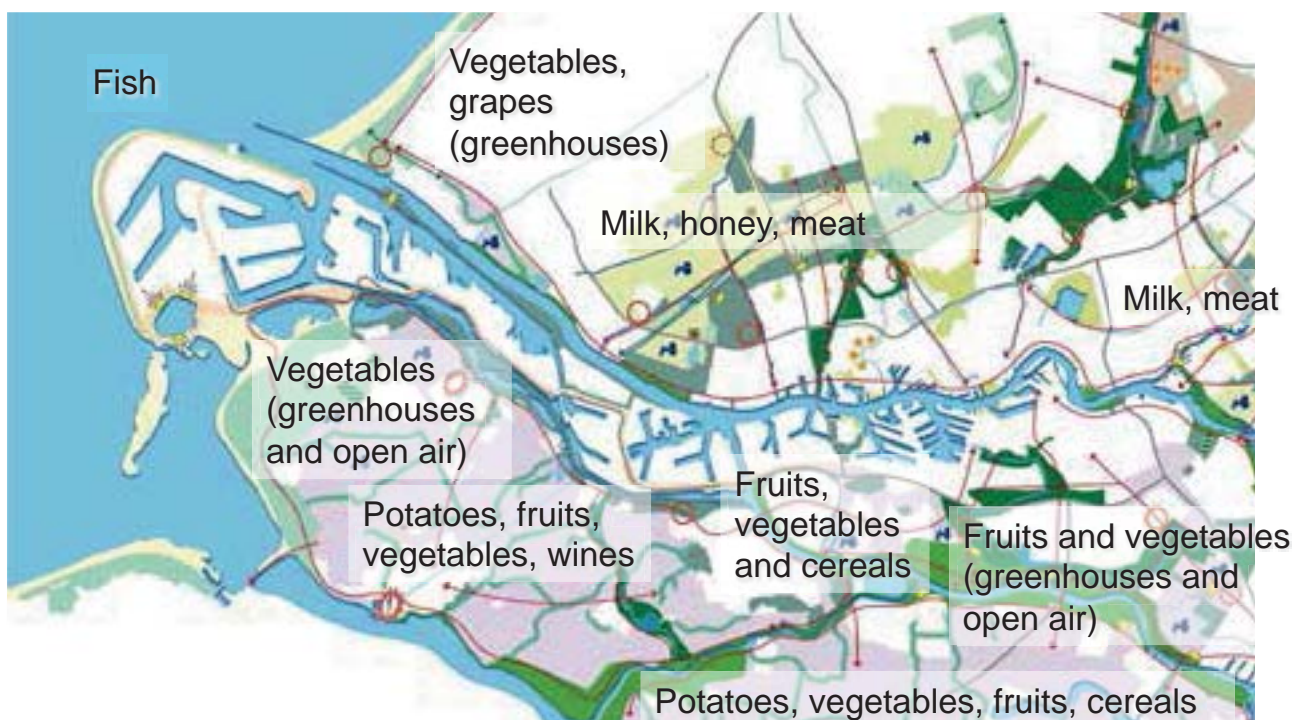
One aspect of urban farming is to prevent and reuse urban biogenic waste streams. One example of this type of initiative is HotspotHutspot (<http://hotspothutspot.nl/>), a chain of pop-up restaurants (the “hotspot”, a cool place to hang out after school) where children learn how to cook a meal from scratch using produce from container urban gardens and leftovers from an organic wholesale market. The restaurant (the “hutspot”, the name of a traditional Dutch stew) serves three-course healthy meals at the price of a Big Mac to a variety of target groups including people with low incomes. The restaurant now has four locations, mainly in deprived neighbourhoods of the city. Another example is RotterZwam ([www.rotterzwam.nl](http://www.rotterzwam.nl)) – see UAM 28), a business growing oyster mushrooms and shiitake on coffee waste in an abandoned indoor tropical waterpark, close to the centre of Rotterdam. The coffee waste (which would otherwise be incinerated) is collected from local cafes by cargo bike; after it has been used as a medium to grow mushrooms, enzymes can be harvested from the mycelium to be used, for example, in bioplastics. Also appearing in Rotterdam are communal composting initiatives, such as the “compost lane” at the Zuiderhof allotment garden complex in the south of the city. Here allotment gardeners collectively compost their own green waste, thus both reducing the cost of having it taken away by the city and avoiding the expense of buying compost to fertilise their allotment gardens (Cerrato 2014). The city is now trying to streamline community composting initiatives, and also piloting separate green waste collection in order to shift from incineration to composting. As well, on a large scale, CO<sub>2</sub> emitted from some industries in the Rotterdam port area is being purified and transported to the Westland greenhouse area, where it is used to enrich the air in order to stimulate crop growth ([www.ocap.nl/](http://www.ocap.nl/)). Finally, there are experiments on recovering the fresh water from urban

sludge, cleaning it, and reusing it to water the plants in the greenhouse area ([www.delftbluewater.nl/](http://www.delftbluewater.nl/)).

## Multifunctional use of the land

Another aspect of urban agriculture is its location in the urban landscape. Inside the city, most urban agriculture initiatives have temporary status; many hope that urban development will resume after the crisis, and land owners – including the city – are not (yet) willing to sacrifice building locations for urban food production. This temporary status for urban agriculture projects prevents large investments, both financial (bank loans or venture capital) and physical (soil improvement, infrastructure development) (EZ 2014). At the fringe of the city, however, a change in perspective does seem to be taking place, due on the one hand to the crisis and on the other hand to the fact that urban dwellers have come to value local food production. In 2013, Rotterdam changed the zoning designation of a large piece of land (480 hectares) bought from farmers north of the city: Polder Schieveen. In 2009 this polder was designated to become a business park, including new nature reserves. This plan, however, led to opposition; also, during the financial crisis it became clear that there was no need for more business parks in the region. The city changed the designation of the polder again to become an “urban agriculture zone”, a multifunctional agricultural production zone. Over the past couple of years, the land had been extensively used by farmers who were bought out awaiting further development. The new zoning included food production orientated to the city and due respect to the recreational and educational values of the peat meadow landscape as well as its biodiversity. The city invited parties to submit innovative proposals. One party that gained a place in the polder is a herdsman who herds his flocks of sheep on greens in and around Rotterdam (<http://maoosthoek.nl/>). The proposal is to build a winter stable for the sheep and a visitors’ centre with a shop, restaurant,

*Regional products from Rotterdam.* Illustration by: City of Rotterdam



education facilities, and so forth.

To the south of Rotterdam there is a large piece of arable farmland (600 hectares) designated to be transformed into a new nature reserve that includes recreation as well: het Buitenland van Rhoon (<http://www.buitenland.nl/>). Over the years, however, resistance to this transformation has built, from farmers and rural dwellers. These opposers have been increasingly successful in allying themselves with urban parties who either prefer the arable land to stay the same or advocate multifunctional land use, food production for the city of Rotterdam and also farm-based recreation, education, biodiversity, etc. This would mean a de facto urban-agriculture type of zoning (the term “urban agriculture” has been used and misused in the debate). In 2014, a court ruling vindicated the original transformation plan (to create new nature and recreation) but a citizens’ initiative supporting existing farmers was mobilised to bring the case to the attention of the national parliament. The struggle continues to this date. At the border of this contested area lies a social care farm ([www.debuytenhof.nl](http://www.debuytenhof.nl)) with apple and pear orchards, a market garden, a flower garden, a wood workshop, Hungarian wool pigs, beef cattle, a tea room where one can also have lunch, and a farm shop run by volunteers.

## Conclusions

The city of Rotterdam is gradually building a “food policy”, step by step, acting and thinking at the same time. There was no grand plan from the municipal government, the city reacted to bottom-up initiatives that came into existence without much support from official policy. Gradually, urban agriculture was picked up in the policy discourse, but never with large budgets to support it. The city facilitates initiatives by helping with licenses, access to markets, etc. It should be noted that Rotterdam hosts a wide range of rather entrepreneurial examples of urban agriculture: Uit Je Eigen Stad, HotspotHutspot, RotterZwam, Rechtstreex, Buijtenhof, etc. This may be seen as a rather unique feature of the Rotterdam urban agriculture scene.

Food is, indeed, a theme that cuts across many domains. It includes aspects of social participation, physical public space maintenance, climate mitigation and adaptation, healthy diets, etc. It is therefore unclear where it belongs in the city administration, which budgets with which accountability criteria can be allocated to initiatives. Although urban agriculture entered the local policy debate through urban green space, this characterisation is too limited, as it also contributes to poverty alleviation, social health, quality of urban living, and more. The think tank Urban Farming and the Food Council are trying to create a “communicative space”, a place where diverse stakeholders can meet and discuss ambitions and aspirations informally, without regard for formal positions. Departmentalisation still exists, however. Cooperation between different branches of government and between different councillors remains difficult at times. There have been some moves recently to merge various departments (city planning, urban green space management and city development). Urban agriculture may benefit from this process, as it may be taken into account more integrally in urban economic and social development strategy.



*Children learn how to cook a meal from scratch.*  
Photo by Hotspot Hutspot

For several years, urban agriculture initiatives were unofficially condoned. Once initiatives become professionalised, however, those responsible want them to be formally recognised in order to build a stable operation (land tenure, use conditions, etc.). Ironically, though, official recognition can also be counterproductive. When an initiative is not yet formally recognised, or when it is recognised as an “artistic” project, there is also no formal enforcement of rules and regulations (licenses, etc.). When an initiative is officially recognised it must also comply with all kinds of rules and regulations that may not be designed with urban agriculture in mind.

If the creation of short food supply chains, the closing of urban nutrient, energy and water streams, and the multifunctional properties of food production in the metropolitan landscape are simultaneously taken into account, an urban food system can be built that is more than just a collection of individual projects. If the connections are there, and if they are well maintained, the Rotterdam food system will be more sustainable and more resilient. The polder Schieveen landscape can be maintained so much more easily if it is connected through short food supply chains with urban markets (e.g., selling meat from the sheep to urban consumers). Urban agriculture initiatives such as Uitjeeigenstad or Rotterdamse Munt can be maintained so much more easily if they can sell their produce under affordable conditions in the Markthal. If water, nutrients, and organic matter can be recovered from urban waste streams, and if they are returned to fertilise the urban farm land – only then can we maintain its productive capacity for generations to come.

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