



DIGITISATION: ECONOMIC AND SOCIAL IMPACTS IN RURAL AREAS

TOWARDS URBAN AGRICULTURE IN 2030: TRANSITION PATHWAYS FOR OOSTERWOLD

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Introduction

This report describes the outcomes of two scenario workshops in Living Lab Oosterwold, The Netherlands as part of EU project Desira. Desira (Digitisation: Economic and Social Impacts in Rural Areas) is a H2020 project that aims to improve the capacity of society and political bodies to respond to the challenges that digitalisation generates in agriculture, forestry and rural areas.

This report is part of Work Package 3, which focusses on scenario development within 20 Living Labs across Europe to understand the possible future implications of digitalisation across three rural domains – agriculture, forestry and broader rural community development.¹

1. Living lab Oosterwold

Oosterwold is a peri-urban residential area in the province of Flevoland, The Netherlands that highly relies on self-organisation within a limited set of rules. At the moment, around 2000 people live in Oosterwold with plans to expand the residential area towards 45,000 residents into a ‘phase 1b and 2’ but this is still in early stages. One of the ambitions of Almere and adjoining municipality Zeewolde is that Oosterwold should provide 10% of the food basket of Almere city region in the near future. In order to achieve that, residents of Oosterwold need to dedicate at least 50% of their plot to urban agriculture. Oosterwold can therefore be seen as a pilot where the local government is experimenting with a self-organisational residential area where urban agriculture has a pivotal position. To facilitate residents in their self-governance and urban-agriculture efforts, land prices of residential plots are significantly lower compared to elsewhere in the Netherlands.

Since the first residents moved into their homes in 2016, urban agriculture has also taking shape. However, there is a need to support exchange of food in short food supply chains. That is where digital systems come in: how can digital technology support urban agriculture and community building in Oosterwold?

1.1. Living Lab participants

Living Lab participants include residents of Oosterwold, Oosterwold development authority (which formally coordinates the development and planning of the area), the municipality of Almere, short food supply chain initiatives, research and education representatives. For the scenario workshop, targeted invitation were sent to ensure participation of important stakeholders such as the municipality of Almere and initiators of food cooperatives in Oosterwold. Besides these targeted invitations, invitations were distributed through the Oosterwold online news letters and Oosterwold Facebook groups, to make sure we also reached residents beyond the ‘usual suspects’ (i.e. very active members of the community).

¹ See for a comparative scenario report: <https://desira2020.eu/work-packages-and-deliverables/>

There was some overlap between participants of the first and second workshop, but most participants attended one of the two scenario workshop. During each workshop, there was a representative of the Oosterwold development authority, at least 1 initiator of a food chain initiative and a mixed representation of Oosterwold residents.

We hired artists to visualise the discussion during both workshops with the living lab.

1.2. Timing of Scenario Planning (WP3) workshops

We organised two face-to-face workshops in Oosterwold. The first workshop was organised on the 21st of September and focussed on scenarios for the future of Oosterwold. The second workshop was organised on the 5th of October and focussed on transition pathways from the current situation towards the future vision. We concluded the second workshop with a discussion about roles for stakeholders and an action agenda for Oosterwold.

2. Scenario question

In the preparatory phase, the most important topics for our Living Lab in Oosterwold were discussed with a group of 5 people all connected to Desira and Oosterwold. Based on previous experience in Oosterwold and on the outcomes of the stakeholder interviews carried out in preparation of the scenario workshops, 3 main topics to be discussed during the Scenario workshop were agreed upon:

1. Urban agriculture;
2. Community building;
3. The role of digital technology in supporting urban agriculture and community building.

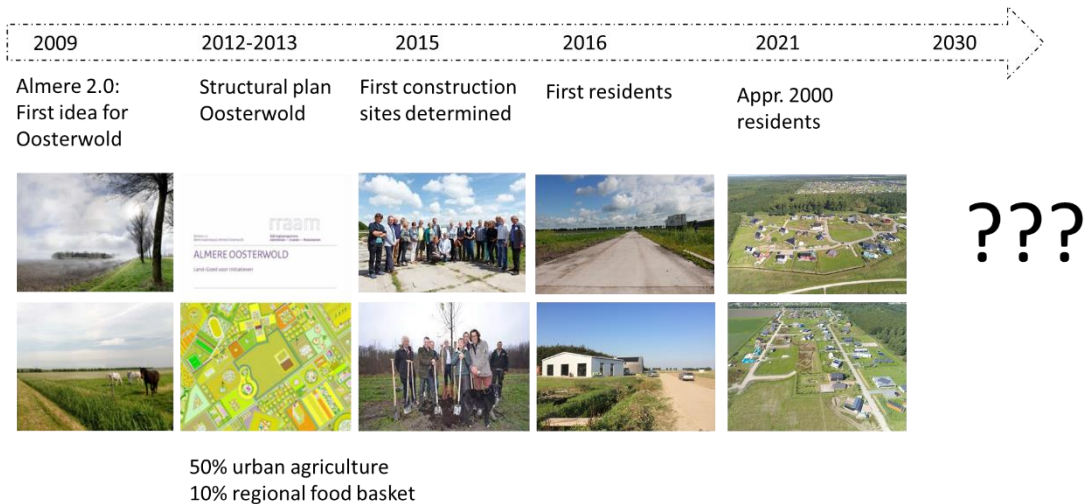
Self-organising urban agriculture and community building is the central element of Oosterwold and plays an important role in the every-day lives of its residents. Recently, the role of digital community has been a topic of discussion: how can digital technologies support and advance urban agriculture and community building? After agreeing on these three ‘ingredients’ for a focal question, the final scenario question was formulated:

What does the urban farming community of Oosterwold look like in 2030, and what role could digital systems play?

3. Relevant past events

3.1. Overview of relevant past events

Timeline Oosterwold



3.2. Description past event activity

Relevant past events were discussed during the preparatory meeting and presented on a timeline during both scenario meetings. The timeline starts from the first idea of Oosterwold as a self-governing, peri-urban residential area in 2009. We presented relevant events related to the development of Oosterwold and decided to present them on a timeline to show participant that a lot can change in about 10 years. The timeline is therefore not exhaustive, but captures major developments leading up to the current situation with approximately 2000 residents in Oosterwold. Starting from this current situation, we worked towards future visions for 2030 with workshop participants.

Participants did not provide any feedback on the timeline, except to mention that in reality the process of getting from the initial idea of Oosterwold as a self-organising peri-urban area to the current situation was of course not as straight forward as the timeline may suggest. In reality, this process is messy and stakeholders (including residents, institutions and municipality) need(ed) to find their way. A process that is completely different from other residential areas in the Netherlands.

4. Drivers Of Change (DOC)

Following the STEEP method allows for identification of drivers of change (DOC) regarding Societal, Technological, Economic, Environmental and Political developments. These DOC influence the development of Oosterwold.

4.1. Set of DOC

STEEP	DOC
Social	<ul style="list-style-type: none"> • Growth of Almere with 15.000 new homes towards 2030 --> rising number of new residents (from 2,000 (today) towards 45,000) • Oosterwold as a peri-urban area • Oosterwold as a self-organising area • Residents predominantly have an urban background, often with no sufficient experience or expertise in food production/processing • National housing crisis (high shortage of new homes)
Technological	<ul style="list-style-type: none"> • Use of digital platforms (e.g. Facebook) for exchange of food products between neighbours • Availability of fast fibre connection in the area • Supportive equipment for urban agriculture is mostly low-tech due to small plots
Environmental	<ul style="list-style-type: none"> • 50% of Oosterwold earmarked as urban agriculture • Transformation of 4,300 ha rural polder land into a hybrid rural-urban area towards 2030 • Fertile soil and good growing conditions • Average urban agriculture plot size Oosterwold between 500-2,500 m²
Economic	<ul style="list-style-type: none"> • Expected excess food production (due to number of new residents) • Mostly food produced for self-sustenance, no financial need/driver to sell surplus food (main income resident from elsewhere) • Focus in the area on short food supply chains (some residents) • National housing market crisis, i.e. shortage of new homes • Land prices in Oosterwold are low compared to rest of NL, but are rising

Political

- Oosterwold as a self-organising area
- Local Government requirement of 50% food production on each parcel in Oosterwold
- Local Policy goal: Oosterwold provides 10% of local food production
- National pressure (due to shortage of homes) at Almere to create and condense new build-up areas in Oosterwold

4.2. List of selected DOC

The initial list of DOC was reduced to a selected list of DOC that represents those developments that are both uncertain and have a high impact on the further development of Oosterwold.

External drivers
Housing market
Land prices
Demography
National policy and governance
Internal drivers
(self)organisation of Oosterwold
Type of area
Governance (local)
Digitalisation
Plot sizes
Food production
Community building

Drivers of Change were selected based on years of involvement with the development of urban agriculture in this area, complemented by stakeholder interviews and preparatory discussions between the workshop organisers.

5. Matrix

5.1. Matrix description

The matrix below describes the most important external and internal drivers that will influence the development of Oosterwold, with two plausible ‘extreme’ conditions for each driver. Halfway between these two conditions in the current situation, or business as usual, with some developments also imaginable between the business as usual description and the extreme condition at the end of the scale.

Assumption	Condition 1		Business as usual		Condition 2
External drivers					
Housing market	Crisis in housing market cools down	Enough opportunities to build houses elsewhere in Almere	Soaring housing prices, national housing crisis		Severe housing crisis, Oosterwold has space that needs to be utilised effectively
Land prices	Land prices in Oosterwold are lowered		Land prices in Oosterwold have increased, but are still lower than elsewhere in NL	Land prices in Oosterwold are further increased	Land prices in Oosterwold are aligned to ‘regular’ land prices
Demography	All new residents have a rural background and extensive agronomic knowledge		Residents with predominantly urban background and little agronomic knowledge		All new residents have urban background and no agronomic knowledge
National policy and governance	Centralised (de-decentralised) policy: national governance of spatial planning		Decentralised governance with responsibilities: local governance of spatial planning		
Internal drivers					

(self)organisation of Oosterwold			Oosterwold as a self-organising area		Oosterwold as a 'regular' urban area, organised and regulated by formal authority
Type of area	Oosterwold as a rural area	Oosterwold as a peri-urban area with open landscape	Oosterwold as a peri-urban area	Oosterwold as a peri-urban area with closed landscape	Oosterwold as an urban area
Governance (local)	No governmental interference; laissez faire attitude		Little governmental interference; few rules such as 50% of plots used for food production	Increased governmental interference; stricter rules	Strict -topdown- governance; Oosterwold no longer a self-governing pilot
Digitalisation	Value chain and community building set-up around active digital technology networks	Digital technology used for interaction and basic demand and supply	Use of basic digital technology (e.g. Facebook groups)		Abandonment of digital technology
Plot sizes	Plot sizes of UA in Oosterwold larger 500-2,500 m ²		Plot sizes of UA in Oosterwold between 500-2,500 m ²		Plot sizes decrease (e.g. because of rising land prices); less food production per plot possible
Food production	More than 50% of individual plots are used for food production and professionally distributed to Almere city region		50% of individual plots should be used for food production, food mainly produced for Oosterwold residents, no professional distribution		Some individual plots still used for food production, many have outsourced food production to professionals or totally abandoned the food production at their plot

Community building	Close cooperative community around urban food production		Some community building starting up, people are still finding their way and settling in	Fragmented community around urban agriculture	No community around urban agriculture
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5.2. Defining the 4 scenarios selected

Based at the aforementioned DOC we defined two axes along the lines of two important characteristics of Oosterwold area: the type of area in terms of landscape and the way the area is governed (degree of self-organisation and role of the local government). These two axes produce four fields, or scenario's (see next). Scenarios 1 and 3 were selected by the participants of the first scenario workshop as most inspiring, yet, controversial to explore.

Scenario 1: Oosterwold in an open landscape with self-organisation

Main characteristics of this scenario are Oosterwold as a peri-urban area, with an open landscape. Governmental interference is limited; Oosterwold is a self-organising area. Oosterwold is also mainly self-sufficient in terms of food production with a close community around urban food production. Surpluses of locally produced foods are sold through short supply chains to Almere city region. To support food production within Oosterwold, digital technology is used for interaction between food suppliers (residents) and to locally coordinate supply and demand.

Scenario 2: Oosterwold open landscape with strict governmental regulation

This scenario is characterised by an open landscape, with Oosterwold being a peri-urban area with more rural characteristics but without self-organising governance. Food production thus is a centrally organised activity. The community around urban agriculture is fragmented. To ensure good quality food production and steady supply stream, governmental interference is tightened. There is basic use of digital technology (e.g. Facebook groups) to facilitate interaction between residents and share tips and tricks for food production.

Scenario 3: Oosterwold in a closed landscape with stricter governmental regulation

This scenario is characterised by Oosterwold as a more closed, more densely (traditionally) build-up area, leaning more towards an urban atmosphere with high-rise buildings combined with urban agriculture. Driver is the national housing crisis, i.e. land prices increase resulting in smaller plots and a closed landscape. New residents don't all have agricultural knowledge or interest in urban agriculture. Many new residents have outsourced food production to professionals or even abandoned, nevertheless still some individual plots are used for food production. Community building around agriculture is fragmented. Digital technology is used by professionals for precision farming and residents use apps to coordinate the food production process and share knowledge. Self-organisation of the area is ended, the local authorities strictly coordinate the development of the area. They employ surveillance officers to ensure that residents adhere to the rule of using 50% of plots for agriculture.

Scenario 4: Oosterwold in a closed landscape with self-organisation

In this scenario, the national housing crisis and rising land prices forces new residents to build on smaller plots. Main characteristic of this scenario is a closed landscape, with smaller plots and a densely built environment that resembles a 'regular' urban area. However, Oosterwold is still a self-organising area with little governmental organisation. Individual contributions to agriculture therefore also become smaller. However, there is a close community around urban food production and digital technology is used to strengthen community building and digital technology facilitates exchanging knowledge about food production.

5.3. Identify the 2 pathways that will be defined in more detail

Scenario 1 "Room for everyone" and 3 "Manhattan with rules" were further explored, defined and depicted with the attendees in the workshops. The visualisations of both scenarios are presented below:

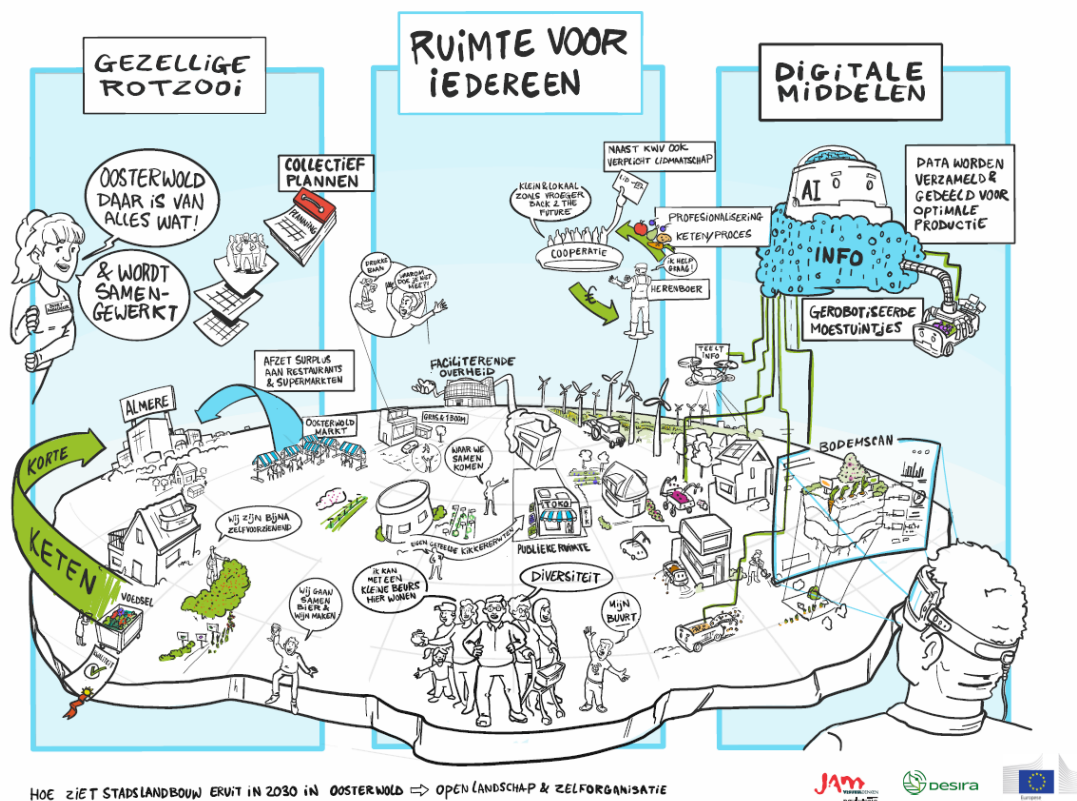


Figure 1: Visualisation of scenario 1 "Room for everyone"

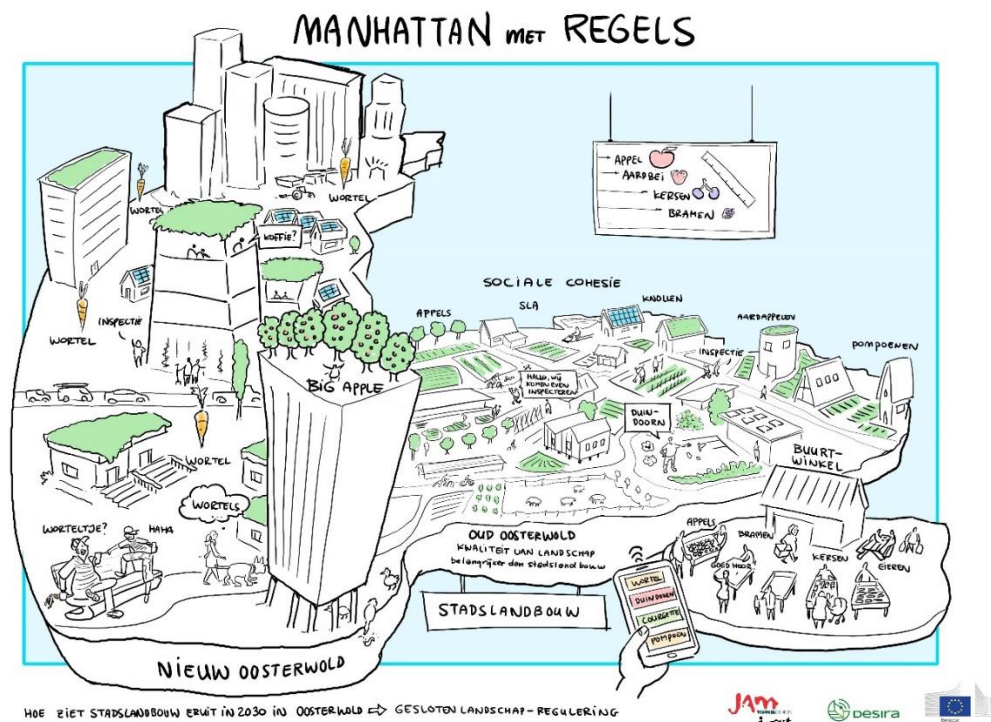


Figure 2: Visualisation of scenario 3 “Manhattan with rules”

The table below provides a summary of these scenarios in terms of community building, urban agriculture and digital technology:

	Manhattan with rules	Room for everyone
Community building	<ul style="list-style-type: none"> - Contrast between 'new' and 'old' residents - 'new Oosterwolders' see 'old Oosterwold' more as a recreational area - Community stores are important place where people meet 	<ul style="list-style-type: none"> - Aimed for social diversity among residents (income, age, ethnicity, etc.) - Public spaces for people to meet, facilitated by local government - Collective planning and collaboration among residents - External support for professionalisation
Urban agriculture	<ul style="list-style-type: none"> - Larger role for law enforcement around urban agriculture - 'new Oosterwold' more uniform in terms of type of crops and higher food production - 'old Oosterwold' lower yields, higher emphasis on landscape - Agriculture in 'old Oosterwold' outsourced to professionals 	<ul style="list-style-type: none"> - Focus on self-sufficiency; including diversity of crops - Focus on production for own community, excess is distributed via short supply chains to Almere - Investment in local products for multi-cultural background - Mandatory subscription to food cooperation - Professionals are hired for hard-to-cultivate spaces (e.g. between wind mills)
Digital technology	<ul style="list-style-type: none"> - App to monitor what is grown where and what can be sold - Digital technology as tool to communicate and coordinate who grows what - 'Manhattan farmers' work with precision farming 	<ul style="list-style-type: none"> - Soil scans to monitor soil for optimal land use - Use of small-scale robotics to reduce labour and increase self-sufficiency - Knowledge sharing through app and knowledge platform - Digital platforms to coordinate food production process

5.4. Methodology used to identify pathways

To identify the pathways, we worked with a timeline (shown below) running from 2021 to 2030. The top part of the timeline was dedicated to the first scenario (Manhattan with rules) and the bottom to the second scenario (Room for everyone). For each scenario, the artist drew a couple of major headlines based on the discussion during the first workshop. Then, we asked participants to answer two main questions (in two rounds, using sticky notes and stickers):

1. **Who** does **what** on the way to the 2030 scenario?
2. Which developments / interventions / elements on the timeline do you find **desirable** versus **undesirable**?





Figure 3: Impression of the timeline after the second workshop

For each round, participants were first asked to individually write their input on sticky notes after which we discussed the content and let participants explain what they wrote down and why. As facilitators, we challenged participants to specify their input and thus encourage the discussion about why some developments were seen as desirable and others as undesirable. Based on the input on the timeline and the associated debate, we constructed an action agenda that can help stakeholders to reach a desirable smart urban agriculture community for 2030.

6. Scenarios for 2030

6.1. Name Scenarios

The scenarios were titled:

1. Manhattan with rules
2. Room for everyone

‘Manhattan’ in the first scenario title refers on the one hand to the more densely built residential area (closed landscape) in this scenario, but also to the size of ‘phase 2’ (the area where the second phase of houses in Oosterwold will be built) which happens to be roughly the same size as Manhattan. ‘With rules’ implies that self-organisation is abandoned.

'Room for everyone' refers to room in the literal sense; an open landscape with large plots but also in the figurative sense; this scenario allows for diversity among residents (e.g. residents with a smaller budget).

6.2. Scenario narratives

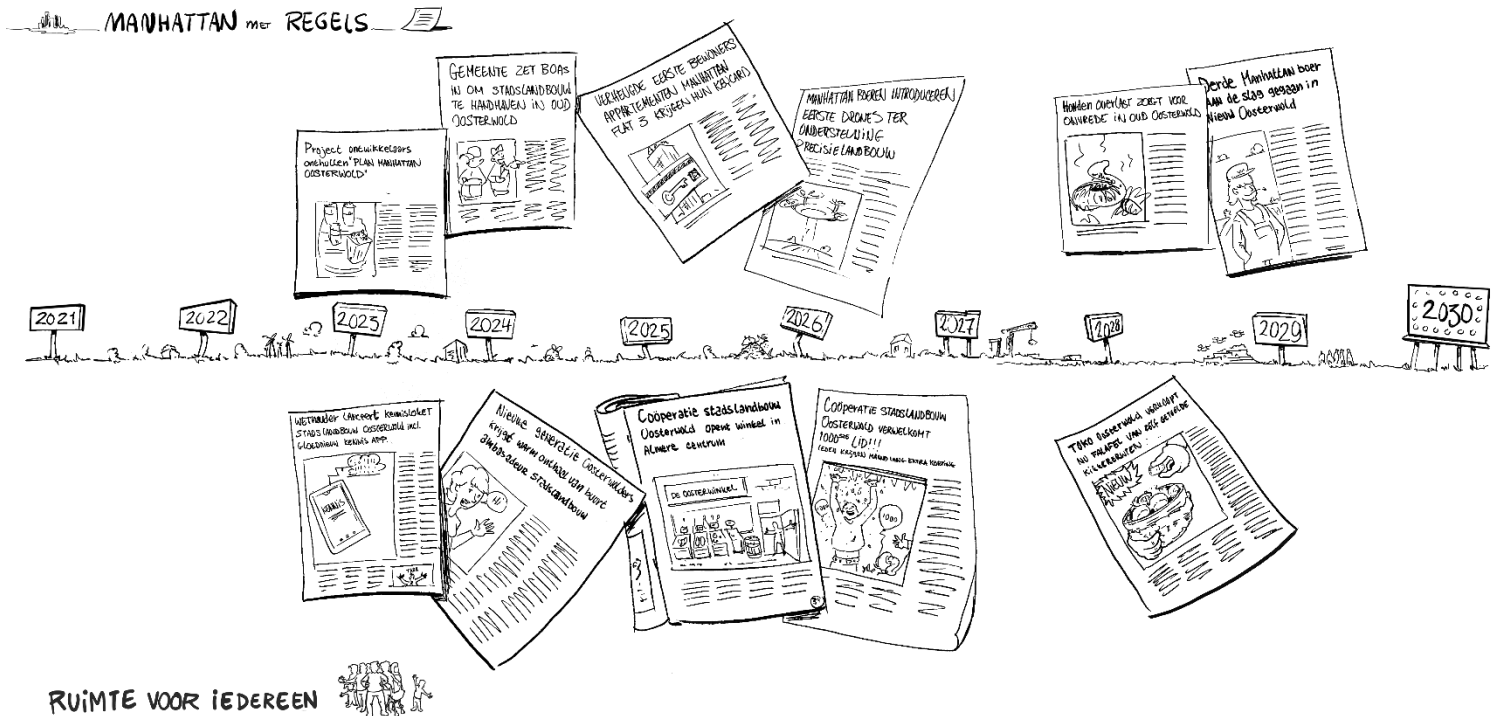


Figure 4: Sketch that was used during the second workshop: a timeline for both scenarios with some main headlines on the way from 2021 to 2030.

Both narratives are written from the perspective of 2030. The narratives should not be interpreted as best case and worst case scenarios necessarily. In some respects the two scenarios even show overlap, as for example in the application of digital tools to facilitate the communication between residents. Instead, the scenarios can be interpreted as plausible future visions for Oosterwold that were agreed upon by participants.

Manhattan with rules

In 2021, after the first planning phase for Oosterwold was finalised, the second planning phase was the start of 'New Oosterwold' as we know it today. The second planning phase changed the course of New Oosterwold, which is why the landscape of Oosterwold changed immensely over the past 9 years. Due to increasing land prices and national pressure to build more affordable housing, the municipality of Almere decided to develop New Oosterwold in a more -traditional- urban way, with a new skyscraper district in Oosterwold. Between the high-rise buildings, the plans for New Oosterwold still included an important role for urban agriculture. To the regret of residents in Old Oosterwold, the new plans revealed that the municipality and investors have teamed up to build skyscrapers directly next to the open landscape of diverse houses and tiny houses of Old Oosterwold. In 2023 the following article went viral:



Project developers reveal plan for 'Manhattan Oosterwold'

The role of the municipality became increasingly important in Oosterwold. Old Oosterwold was also influenced by stricter regulations, even though it was known to be highly independent of the municipality before 2022. To facilitate the growth of the local food supply chain, it became compulsory to each new resident to participate in urban agriculture workshops. First, there were no penalties for the omission of participation. The core idea of the compulsory workshops was to encourage the village to grow together and become better in agriculture. During the workshops, residents also learned how to use the then newly developed app "Growing Oosterwold". Initially, the app was developed to support the communication between residents and to exchange experiences. The change also applied to land ownership in Old Oosterwold, as people are obliged by law to use 50% of their parcel for urban agriculture from 2024 onwards. Not everyone could adapt to these changes immediately. The municipality gave people the chance to adapt until the summer of 2024. From summer 2024 onwards surveillance officers checked on the residents and their effort to grow crops in their gardens. If they failed, a penalty followed soon.

In the newspaper of 12.06.2024 the following was written:

Municipality sends surveillance officers to enforce rules around urban agriculture in 'Old Oosterwold'

As investors started to make more concrete plans about the skyscrapers in Oosterwold, residents tried to boycott the construction of these sky-high apartment complexes as not appropriate to the intention of Oosterwold. They requested that apartment buildings should not be higher than 3 floors. However, the municipality did not support these wishes by the people of Old Oosterwold. Rapidly, the village of

Oosterwold welcomed their new residents who started living in the apartments, as could be read in the newspaper in 2025:

Delighted first residents of new apartment building receive their key-cards

When the new residents came to the neighbourhood the social dynamics of the village changed. Residents of Oosterwold found it hard to break the social barriers between the old and the new inhabitants of Oosterwold. At the same time, people in Old Oosterwold grew more and more 'forgotten' crops, which were sold at the local market and were also delivered to the city of Almere. Digital technologies played an increasingly important role in the local food supply. However, not only the people of Old Oosterwold grew crops. In New Oosterwold, conventional farmers started to grow crops, which were sold to supermarkets in Almere. The new farmers were given the name 'Manhattan farmers' as their fields are located directly next to the skyscrapers. Since the year 2026, more and more digital technologies were used and farmers increased their efficiency by implementing precision technology.

In 2027 the newspapers reported:

'Manhattan farmers' introduce first drones to support precision agriculture

In 2027, the buddy-system was implemented to connect the people from Old Oosterwold and New Oosterwold. As we know today, this programme was no success and the gap between the two parts of the village remains until today. The introduction of the buddy-system showed that the interest of the two parts of Oosterwold differs immensely. The municipality received many complaints from people living in Old Oosterwold, who perceived the dog walking people from New Oosterwold as a disturbance. Even though the people in Old Oosterwold complained about the dogs, the municipality thought that the problem was rather the social discrepancy between the people in Old Oosterwold and the dogs' owners. The issue thus shed light on the social gap between the two parts of the village. Therefore, it was not surprising that the following article was published in 2028:

Disturbance by dogs leads to unrest in 'Old Oosterwold'

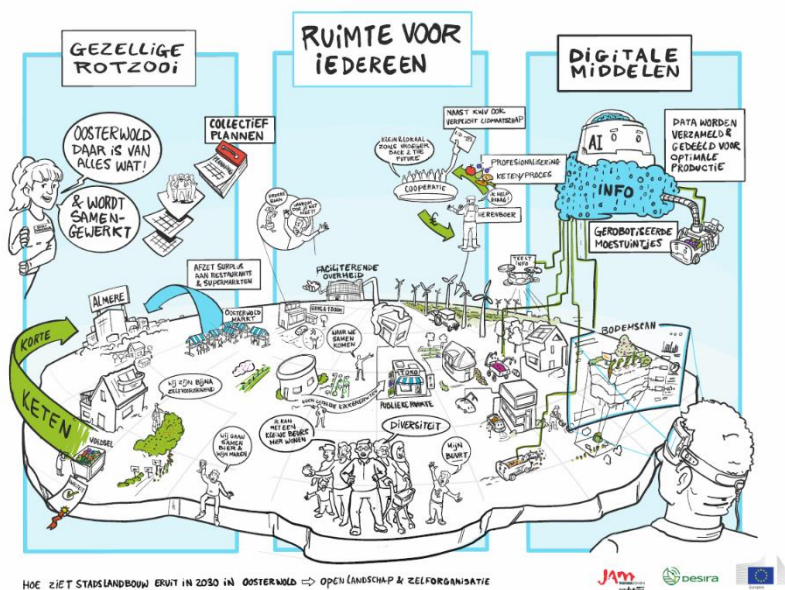
Only recently more and more land was converted into arable land used to grow potatoes, onions and beets. Because of the growing population of Almere, the demand for intensified farming also increases. This year, a new farmer started her business in Oosterwold, and is now the third Manhattan farmer in Oosterwold. This could be seen in the article that made the news last year:

Third Manhattan farmers starts in Oosterwold

Nowadays, in 2030, we see that the increasing involvement of the municipality has led to a more structured and more effective form of urban agriculture in Old Oosterwold. Even though the community is profiting because of these developments, there is much resistance from some people in Old Oosterwold. They complain about the role of the municipality and protest because the initial idea of Oosterwold was to organise the village independently. Moreover, some people are not willing to engage in projects to bring together people in Old Oosterwold and New Oosterwold, which is why the social gaps of the villagers will remain a problem in the future. Nevertheless, between the build-up block of New Oosterwold a thriving farmer community produces enough food to feed 10% of Almere city region. The farmers are digitally connected with the residents of their area and feel part of this urban community.

Room for everyone

Even before the second phase of the planning period in Oosterwold was scheduled, residents of Oosterwold started a cooperative to coordinate selling surplus vegetables at supermarket Plus in Almere. Community building became a more important and more central part of living in Oosterwold. By 2022, there were weekly meetings where residents visited each other and told the community about their plans and obstacles. The yield of urban agriculture increased, which is why in 2022 surpluses of vegetables and fruits grown in the gardens of Oosterwold were delivered to the local food bank. To improve communication and knowledge sharing within the community, the council launched a knowledge platform with a corresponding app called “Oosterwold Connect”, as reported in a news article in 2023:



Council launches knowledge platform urban agriculture including brand new knowledge app

As a result of knowledge sharing and experience, yields from urban farming increased every year. As part of the self-organising character of Oosterwold, residents organised themselves and elected coaches to support in varying topics, such as agriculture and water management. These coaches were part of the Oosterwold community and supported through mandatory subscription to the cooperation. In this way, the cooperation could be run professionally and urban agriculture became a more prominent part of living in Oosterwold. Furthermore, an article in the local newspaper in April 2024 presented the newly elected ambassador for urban agriculture:

New generation Oosterwold residents warmly welcomed by ambassador for urban agriculture

The ambassador has the role to go door-to-door and talk to residents about their successes and obstacles regarding the agricultural use of their gardens. The ambassador also hosts training sessions to improve the quality of products. This new generation of residents became more diverse in terms of ethnic and cultural background, age, and experience with agriculture. One task of the ambassador was to welcome people from all backgrounds to Oosterwold and get them up to speed in both the community and practices around urban agriculture. The local food market grew more and more in 2025, becoming more diverse as a result of representation of more cultural backgrounds. The yields were firstly used for own consumption and then either sold at the local food market, centered at the public community place, or at the small supermarket of Oosterwold.

Cooperation for urban agriculture opens store in Almere centrum

The quality of the food supply chain of Oosterwold had now become increasingly professionalised. Simultaneously, the app “Oosterwold Connect” was connected to the existing knowledge platform

and became the main communication and knowledge tool to adapt the supply and demand of food production from the residents of Oosterwold. The app helped to reduce fluctuations in the supply of different vegetables and fruits. Residents of Oosterwold accepted the remaining fluctuations which are caused by the semi-professional nature of their system. The village became known for their flexible handling of the local food market. However, communication tools used by the community did not reach all residents. They communicated via the knowledge app, Facebook, the website and the newsletter. However, some residents were not connected to these (digital) platforms. Traditional aspects of community building through shared public spaces and membership of cooperations therefore still remained important. In 2026 the following headline reached the news:

Cooperation urban agriculture welcomes its 1000th member

The cooperation for urban agriculture was the biggest cooperation in Oosterwold at that time. However, several other cooperations with more or less the same goals evolved alongside. This overload of cooperations was perceived as an obstacle for effective communication by the residents. New residents came to Oosterwold, bringing new ideas with them which they wanted to bring into action. A recurring issue was the lack of rules for the amount of vegetables and fruits that should be grown by the residents. Residents discussed possibilities to exclude 'free riders' and select new inhabitants based on their ideas of their participation in urban agriculture. However, since the residents wanted to keep the self-organising nature of Oosterwold with a high degree of freedom, they decided to not act upon this idea.

International food store ('toko') in Oosterwold now sells falafel made from self-grown chickpeas

The headline above reached a national newspaper in August 2028. Since the Oosterwold community is known for its open-mindedness and openness towards diversity, more and more people with varying ethnic backgrounds and people with lower incomes took residence in Oosterwold. The opening of an international food store showed that there was increasing demand for international food products by the residents of Oosterwold.

As of today in 2030, Oosterwold remains a unique area within the Netherlands where a self-organising community grows their own foods and tries to make room for people with all kinds of different backgrounds. Of course there are still some quarrels between neighbours and disagreements about what should be produced each year, but overall there is a thriving community around urban agriculture that uses digital technology to increase the sense of community and share knowledge about urban agriculture in a local food chain.

6.3. Conclusion

After elaborating the two transition pathways, we concluded the second workshop with a discussion about action perspectives for different stakeholder groups. This discussion was centred around the question: What can different stakeholders do to reach desired aspects of both pathways and avoid undesirable aspects of the pathways? To answer this question, we constructed a table with agreed upon actions and connected the actions to a stakeholder who could be (or in some cases volunteered to be) responsible.

Action	Stakeholder
Connect to a food bank to donate surpluses of food	One of Oosterwolds' residents was willing to take the initiative
Cooperation to facilitate and coordinate cultivation	Food cooperative that is starting up at the moment, they are working on a digital tool to facilitate this action
A "how-to" workshop around urban agriculture	Municipality, experienced residents, integrate in digital tool food cooperative
Clearer communication around urban agriculture <ul style="list-style-type: none"> through different channels, e.g. digital platform of food cooperative 	Municipality (already at purchase of land)
Processing facilities	Municipality, investment by residents

This concluding action plan shows that much of the conversation within Oosterwold (and therefore during the scenario workshop) is focused on the core of Oosterwolds' identity: urban agriculture and community building in a self-organising context. As a final reflection, we can therefore conclude that digital technology is primarily seen as a means through which Oosterwold can achieve its goals around urban agriculture and community building. Participants saw a promising role for digital technology, especially to support knowledge exchange, connect people to each other and as a way to coordinate a more professional food supply chain within Oosterwold and between Oosterwold and Almere city.



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