

Case study report (Code NL3C)

The redevelopment of empty farm stables for commercial purpose

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Acronyms & Abbreviations

AGA	Annotated Model Grant Agreement
CA	Consortium Agreement
CO	Project Coordinator
DoA	Description of the Action
EB	Executive Board
EC	European Commission
EU	European Union
GA	Grant Agreement and General Assembly
KoM	Kick-off Meeting
PM	Person Month
PO	EC Project Officer
RIA	Research and Innovation Action
SAB	Stakeholder Advisory Board
WP	Work Package

Context

Short description regional context of the local context of the practice.

In the Netherlands, there are too many farm stables. Since 2000, the number of farmers who have livestock has been reduced by around 50% (Centraal Bureau voor de Statistiek [CBS], 2020; Lesschen et al., 2020). The reduction of the number of farmers who have livestock is a result of the continuous upscaling of the size of farms. This ongoing trend is not likely to change drastically over the coming years. Furthermore, the Dutch nitrogen crisis and a governmental focus on a more circular agriculture are likely to cause a further reduction of the amount of farm animals in the Netherlands (Ministerie van Landbouw, Natuur en Voedselkwaliteit [LNV], 2019, p.37; Stokstad, 2019). This means that many farm stables will no longer be used to house livestock (Gies et al. 2016; Gies & Naeff, 2019; Gies & Smidt, 2020). In the past decade, there is already an ever-increasing number of farm stables which are left empty. Since they hardly have any value for retired farmers, they may dilapidate or even serve as a location for illegal activities, such as an XTC-laboratory (Schotman, 2016; Backx, 2020). The empty farm stables thus make the Dutch countryside less beautiful and less safe.

The most problematic category of outdated farm stables is those that were built between 1965 and 1993. During this period, asbestos was a common material in constructing farm stables (Gies et al., 2016). This carcinogenic material is no longer allowed in Dutch construction. Farm stables which were built before 1965, which were generally made of more sustainable materials, often have heritage value. These stables are likelier to be redeveloped into housing or have already been demolished in an earlier period. Farm stables which were built from 1993 onwards are generally larger, healthier and more adaptable for modern techniques and stricter requirements on animal welfare. Hence, the farm stables from the period between 1965 and 1993 are the most problematic category of farm stables on the Dutch countryside. As more farmers retire, agricultural scale-up and a decrease of farm animals continue, it is likely that many of these farm stables will become empty (Gies et al., 2016).

The municipalities of Raalte and Boekel, in which the subcases of this promising practice are located, are both located in regions that already have a relatively high number of empty

farm stables and which are likely to experience a further drop in the need of farm stables over the coming decade (Gies & Naeff, 2019; Gies & Smidt, 2020). Boekel is located in the Northeast of Brabant, a region in the southeast of the Netherlands with traditionally many pig farmers and many mink farmers. Within the former category, many farmers are currently quitting their farm operations as a result of the Dutch policies to solve the nitrogen crisis (Van der Storm, 2020). In the latter category, all mink farmers have been forced to stop in response to perceived role of minks in spreading Covid-19. None of the mink farmers will receive permits to re-open again, since mink farming was already planned to be forbidden from 2024 onwards (Winterman, 2020). Hence, it is to be expected that a lot of farm stables in Boekel and the surrounding areas will lose their agrarian function.

Raalte is located in Salland, a region with traditionally a lot of dairy farmers. The municipality is also likely to see an increase in the empty farm stables during the upcoming decade (Gies & Schmidt). The quick reduction of the number of farms also leads to a loss of jobs and perspectives for both young farmers and young workers in the industries that used to make products for farmers. Therefore, it is important to investigate examples of the re-use of farm stables for other commercial objectives. If this is successful, it may create new opportunities for young people who live in or want to move towards rural municipalities.

This research report investigates the promising practice of re-using outdated farm stables for commercial purposes. It investigates the origins, development and effects of two sub-cases in which a former farm stable has been turned into a commercial property. Mouthoeve in Boekel is a former dairy farm which has been redeveloped into a commercial shopping mall. The Green East in Raalte is a former experimental pig farm which has been redeveloped into a Business and Research center for innovative start-ups in the circular economy. This research describes how the ideas for this re-use were developed, the obstacles in realizing the practice, the role of policies in this process, the impact on the local community and the amount to which they were successful in attracting young rural newcomers, the likely future developments of these sub-cases and their transferability to other places. The research is based on an analysis of grey literature, 23 interviews with relevant stakeholders, a feedback meeting in which relevant stakeholders who had not yet been interviewed could provide feedback and give additional input and a final public event in which the results of the

research were presented and discussed with relevant stakeholders and other people who were interested in the results.

This report categorically analyses the important elements in the assessment of the practice of re-using outdated, empty farm stables for commercial purposes. First, it describes the context in which this practice takes place, by looking into physical, economic, social, cultural, political and governmental aspects. Second, the report describes the origins of the practice by explaining the origins of the idea, the involved practitioners and the motivations behind each sub-case. Third, the role of other relevant actors and stakeholders is discussed and analyzed. Fourth, the report analyses what actually happens in the sub-cases by looking into the type of activities, the innovativeness, the transferability and the environmental aspects that result from the practice. Fifth, the synergies and networks which are created as a result of this practice are analyzed, by assessing the relationship of the practitioners with the local community, within their own business locations and with other stakeholders. Sixth, the report describes the role of policies and policy makers by analyzing the policies towards and the institutional support for each sub-case. Seventh, the impact and perspectives of the practice are described, by an assessment of the impact of both sub-cases on the revitalization and regeneration of the countryside and by analyzing their future perspectives. Finally, this report concludes with the most important lessons which can be drawn from this case study.

Context of the practice (Physically, Economically, Socially, Culturally, Politically, Governmentally)

The empty farm stables in the Dutch countryside are on the one hand a symptom of the changes in the agricultural sector, and on the other hand a surprising feature in a country where there seems to be a general lack of buildings. The empty farm stables may reinforce ideas on a deteriorating and depopulating countryside, even if this is not actually the reality of some rural areas. The Netherlands has in general a clear lack of available housing space for all sorts of functions. The government, political parties, scholars and social groups would like to increase the focus on creating more buildings to meet the urgent demand for functions such as housing and business parks. First, there is a clear lack of housing available,

with shortages estimated at 1,000,000 homes by 2030 (Boelhouwer, 2020). Second, in some areas, manufacturing companies are looking for space as well to locate activities (Vollebregt, 2020). To leave farm stables empty and in a deteriorating state, not only increases the likelihood of a less attractive countryside with more crime but is also hard to understand in a country which seems to be in need to re-use every available building for other purposes.

The empty farm stables and discussions on how to potentially re-use them go together with fundamental shifts in the Dutch rural economy. On the one hand, the number of farms and the number of people who are working in agriculture is continuously declining (CBS, 2020, Koster et al., 2020). Farms are still scaling up and many farm stables do not meet the requirements of today in terms of health, adaptability to modern techniques and animal welfare rules. These are the farm stables that are likely to become empty. Meanwhile, the rural economy is also diversifying. The number of companies in rural municipalities such as Boekel and Raalte is increasing (CBS, 2021). These companies also require locations, sometimes beyond the already available business parks and retail space. Empty farm stables may form an alternative for these companies.

The empty farm stables also show the social context of the Dutch countryside. The discourse of the countryside as declining is reinforced when outdated farm stables are left empty and deteriorate. Apart from the discourse, empty farm stables are also undermining the safety on the countryside. The liberal Dutch drugs policies and cuts on the budgets for rural policing have already attracted a huge number of criminals to the Dutch countryside (Wiegant, 2017). Empty farm stables are often used as drugs laboratories. Farmers are either harassed by criminals or, if they are in financial problems, see no other option than to cooperate with them (Schotman, 2016; Backx, 2020). This development is destructive for the livability of the Dutch countryside. If it becomes easier for farmers to re-use farm stables for other purposes, it may also help to reduce criminal activities on the countryside.

The empty farm stables also show the cultural-political debate on the future of the countryside. There are conflicting views on the function with the areas outside cities and villages should have. Originally, agriculture and, to some extent, nature conservation, have been the most important functions of these areas. The many farm stables and lack of other functions of the countryside showed the dominance of agriculture. Some want this situation to remain. Nonetheless, there are also arguments being made for increasing the number of

residents and/or businesses in areas outside of the cities and villages (Van Rossem, 2020; Van der Meer et al., 2021). The WP4 research also shows that Dutch young people have a clear preference for living in these areas. Currently, relatively strict rules often prohibit the re-use of empty farm stables for residential and/or business functions.

Finally, there is a governmental context for the empty farm stables. The exact policies on empty farm stables differ between provinces and, especially, between municipalities. Raalte and Boekel are relatively flexible in their policies and thus experimental in dealing with empty farm stables (Respondent [R]1, R2, R3, R4, R5, R8, R9, R10, R14, R15, R16, R17, R18, R19, R20, R21, R22). This also invokes discussions on whether it is fair to have flexible rules in one municipality and very strict rules in another. In small rural municipalities, favoritism from local politicians to certain citizens could be a risk of flexible rules for the re-use of empty farm stables (R11, R12).

Origin of the practice

Origin of the idea

The investigation into the practice of re-using empty farm stables for commercial purposes is based on two subcases: The Green East in Raalte, in the eastern province of Overijssel and De Mouthoeve in Boekel, in the southern province of Noord-Brabant. Although both subcases are based in empty farm stables, there are also some differences between them.

The Green East is based in a former experimental pig farm of Wageningen University & Research [WUR] and is located half a kilometer outside Raalte. After WUR ended the activities on the farm and decided to sell it, a local company bought the farm (R14, R15, R16, R22). This company, which is active in the glue industry, had just come up with an innovative idea to use glue in agricultural production and some other innovative business ideas in the agricultural sector. They were looking for a location for the research and development of their products. The empty farm stable of WUR, which had been used to do research before, immediately seemed a suitable location (R14, R22). However, it was too large for the activities which the local company had in mind. Therefore, it came up with the plan to attract other innovative businesses and/or start-ups from elsewhere who might be interested to rent office and/or laboratory space (R15, R16, R18, R21, R22). Moreover, the location could serve as a place for education to students from applied universities and vocational schools in the region. This plan was developed as The Green East, which opened in early 2018 and which indeed houses companies from entrepreneurs who were previously based elsewhere (R14, R15, R16, R22).

The Mouthoeve is based in the empty stable and outbuildings of a former dairy farm in the outskirts of Boekel. This dairy farm was located next to the residential area of Boekel, especially after new houses were built in the 2000s. Therefore, the municipality bought the farm in the early 2010s with the plan to give the initial farmer the opportunity to continue his activities at another farm, located further away from the village (R1, R2, R3, R5). In 2015, a local entrepreneur, who has a tree nursery, bought the farm and developed a plan to re-use it for catering services and a mall with craft shops. The idea was to attract new and existing entrepreneurs for whom the existing rent in the existing retail space in the villages and surroundings was too expensive to start-up a small shop. Mouthoeve was thus focused

on entrepreneurs who were looking for cheap and small retail space, preferably being specialized in a specific craft (R1, R3, R4). In early 2017, Mouthoeve was opened. Currently, it hosts 20 companies. For example, there is a craft nut shop, a flower shop and a hairdresser. Besides the shops, there are some other small companies, such as a yoga studio and a home furnisher. These are sometimes also located in the outbuildings of the former dairy farm (R1, R8, R9, R10).

Promoters, motivations/targets

The Green East was initiated by a local company with a development plan. This company bought the farm from WUR. Besides them, the Raalte municipality, Overijssel province and OostNL, a governmental agency which focuses on stimulating the economy in the eastern provinces were involved quite soon (R14, R15, R16, R22). These actors were necessary in making sure that the plan was within government rules and to attract other innovative businesses. The main motivation of the practitioner was to realise a useful and inspiring location for their own businesses and other innovative businesses, which would also attract young people to the region, either through educational activities or as employees of one of the companies in the building (R22).

The Mouthoeve was initiated by a local entrepreneur who wanted to both earn money and create something exciting for the village. Besides him, the Boekel municipality was the most important actor. This is because the municipality was both selling the property and had to decide whether the plan to create a location with shops outside of the village center would be allowed (R1, R2, R3, R4, R5). After the governmental permit and the reconstruction of the site, the shop owners were also involved in the development of the Mouthoeve (R1, R8, R9, R10). The practitioner had been looking out for a longer period for an opportunity to buy and redevelop a location which would combine catering services and shops, although he initially was thinking of a wellness related project. Creating something which would be reacted upon enthusiastically by most villagers was important for the entrepreneur. Besides that, he also wanted to live on or near the site and to make money out of it (R1). The municipality also allowed him to build a house next to the Mouthoeve (R1, R3).

Actors involved

Description of actors involved

The practice of The Green East has multiple actors with differing backgrounds involved. First and foremost, the local company which bought the farm and re-developed it into a location with laboratory and office space (R14, R22). Second, the companies which rent office and/or laboratory space at The Green East (R18, R18, R19, R23). Third, the municipality of Raalte, which has to decide on building permits and which types of business are allowed at The Green East (R14, R15, R15, R22). Fourth, the province of Overijssel, which makes guidelines for what is allowed outside villages and cities and which helps to attract suitable business through OostNL (R14, R15, R16, R17, R22). Fifth, the educational institutions in the region, which had to decide if and how much of their education they would organize at The Green East (R14, R22).

The practice of the Mouthoeve also has a wider group of actors involved. First, the local entrepreneur who bought the former dairy farm and re-developed it into a location with craft shops, a bar-restaurant and some other small businesses. Second, the retailers who are renting space at the Mouthoeve and their employees (R1, R8, R9, R10). Third, the villagers and surrounding inhabitants, who now have another business location in their village, which may both be a source of nuisance and an addition to the local services (R1, R3, R4). Fourth, the municipality of Boekel, which is in charge of permits and has to decide which types of activities are (not) allowed at the Mouthoeve (R1, R2, R3, R4, R5). Fifth, other local entrepreneurs, who may on the one hand be happy with an addition to the local business community, but on the other hand be afraid that new competitors settle in this new business location with small (craft) shops (R3, R11, R12).

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Style of activities promoted

Farming approach and activities promoted

Since this practice re-uses former farm buildings for commercial purposes, it is clearly related to developments in the agricultural sector. The practice acknowledges that the current trends in Dutch agriculture invoke a diminished need for farm stables. The scaling-up of farms and the diminished opportunities for animal-based farming means that throughout the country, there are abundant farm stables (Gies et al., 2016; Gies & Naeff, 2019; Gies & Smidt, 2020; Koster et al., 2020; Lesschen et al., 2020). Especially the older, outdated farm stables need to either be demolished or re-used for residential or commercial purposes. To maintain the countryside as a place of production and not just of consumption, it is interesting to re-use the farm buildings for commercial purposes (Koster et al., 2020). In some cases, these buildings seem suitable as a location for businesses that cannot find a place in business parks or within villages or cities. In these cases, the re-use of farm stables for commercial purposes is an interesting opportunity to strengthen the local economy and regenerate the countryside.

Both investigated sub-cases show examples of regeneration that would not have happened without the practice of re-using former farm stables for commercial purposes. Raalte, where The Green East is located, has the ambition to attract more highly educated young people or to enable local highly educated young people to find work in the region (R15, R16, R20). Therefore, it needs suitable jobs for these groups. The Green East attracted multiple promising businesses in sectors such as agrotechnology and pharmacy. These companies offer jobs for highly educated people and caused the re-location of multiple employees in or around Raalte (R21, R22). Hence, The Green East is actively contributing to the regeneration of the countryside. Moreover, the organized educational activities may motivate more qualified people to relocate in the region.

In Boekel, the Mouthoeve attracts young and female entrepreneurs who would not have started a business or located elsewhere if the Mouthoeve did not exist. The available retail locations in the village have higher rents because they are larger than the locations in the Mouthoeve. Furthermore, they have less flexible lease contracts. This turns out to be a threshold for beginning entrepreneurs who are not sure if they will succeed or lack

investments to cover the high costs of starting-up a business. For these entrepreneurs, the Mouthoeve proved a perfect location to begin their shop (R1, R8, R9, R10). Some of the shop owners in the Mouthoeve had been looking throughout the region for a perfect business opportunity and chose the Mouthoeve specifically (R8, R9). This means that the re-use of this former dairy farm stable for commercial purposes added businesses by young and often female entrepreneurs to the village which otherwise would not have opened. Moreover, the businesses in the Mouthoeve also offer jobs to employees from the village and/or the wider region (R1, R8, R9, R10). Therefore, the practice directly contributes to the regeneration in Boekel.

Attention for architecture and authenticity is an important aspect in the re-use of former farm stables for commercial purposes. If it has to attract multiple businesses and to contribute to regeneration, it seems important that people are proud to work in this location. Both The Green East and the Mouthoeve seem partly attractive because they focused on rebuilding the farm stables in an authentic way. Entrepreneurs and their employees in The Green East relate the attractiveness of the location to the beautiful surrounding and the combination of modern facilities with authentic details in the building (R9, R10, R14, R18, R19, R21, R22, R23). Multiple entrepreneurs in the Mouthoeve mention the beauty and specific atmosphere of the location, which distinguishes it from an ordinary shopping mall or Highstreet (R8, R9, R10). For these entrepreneurs, the unique character of the Mouthoeve was an important motivation to choose this as a location for their business.

Innovation introduced/innovation transferability

This practice is mostly innovative because it gives new and surprising functions to former farm stables. In the Netherlands, there are quite strict planning rules on what type of activities are allowed in what type of locations and buildings (Needham, 2014). In most cases, re-using a former farm stable for commercial purposes would not be allowed. In most municipalities, shops should be located in designated areas in the city and village center. Businesses should be located in designated business parks, especially if they are producing goods (R6, R7, R13, R17). These conventional ideas make it difficult to re-use a former farm stables for commercial purposes. There are exceptions, such as group accommodations,

agrarian contracting companies and caravan storages, which are sometimes located in former farm stables outside villages or towns. However, the types of businesses that are located in The Green East and Mouthoeve are unlikely to get a permit in most Dutch municipalities (R1, R2, R3, R4, R5, R6, R15, R16, R17). Boekel and Raalte are both known regionally for their alternative and more flexible approaches on permits (R7, R17). These municipalities and the entrepreneurs of the investigated sub-cases are innovatively altering the existing status quo on the functions of former farm stables. This makes them useful locations to test the feasibility of the re-use of empty farm stables for commercial purposes. The investigated practice seems quite transferable. It seems likely that there are more opportunities for the re-use of empty farm stables for commercial purposes. This could also go beyond the standard use as group accommodation, agrarian contracting company or caravan storage (R1, R5, R16, R20, R21, R23). The Dutch agrotechnological sector is at the forefront of the upcoming global changes in agriculture and the number of start-ups in the Netherlands keeps increasing (Koster et al., 2020). In combination with the renewed popularity of rural areas as a place of residence, this may open opportunities for the re-use of empty farm stables for commercial purposes. Meanwhile, the success of Mouthoeve shows that former farm stables are a good location to host (craft) shops, especially if this is combined with a bar-restaurant (R1, R9). This formula could also work in other villages than Boekel. If regional and local governments become more flexible, the practice of re-using empty farm stables for commercial purposes may thus expand.

However, the effects of this expansion are unlikely to have a large impact on the problem of empty farm stables. In fact, there is already a surplus of office and retail space (Ossokina et al., 2017; Remøy & Street, 2018). This makes it unlikely that a wide re-use of empty farm stables for commercial purposes is feasible (R6, R7, R13, R17). The enormous amounts of (upcoming) empty farm stables could only slightly be reduced by the specific and contextual opportunities for a successful re-use for commercial purposes. Demolishment and re-use for residential purposes are the likely destination for the vast majority of empty farm stables (Gies et al., 2016; Gies & Naef, 2017; Gies & Smidt, 2020; R13, R17). Nonetheless, it would be helpful in certain cases if commercial re-use is an option. This requires a different approach from regional and local governments than what is currently conventional. They have to be supportive when giving permits and consider whether the potential

environmental damage of commercial activities in a former farm stable outweigh the continuation of agricultural pollution or deterioration.

Environmental issues

The re-use of empty farm stables for commercial purposes has both positive and negative effects on the environment. The practice causes that the use of existing buildings is prolonged and less new buildings are being built (R13). Besides that, it makes it likelier that outdated farm stables will no longer slowly deteriorate. Instead, they are refurbished in such a way that environmentally unfriendly materials such as asbestos are being removed. Furthermore, feasible opportunities for commercial re-use may lead to a reduction of the livestock in the Netherlands, which may reduce environmental pollution.

The latter two advantages are clearly visible at The Green East. When the local company bought the experimental pig farm, there were two very old and environmentally unfriendly stables left (R14, R15, R16, R20, R22). A local pig farmer used to lease these stables. However, the new owners decided that these stables were not creating a good atmosphere for their innovative business environment and that they were making it more difficult to expand the office spaces in the future. Consequently, the lease contract was not renewed and the owner of The Green East unilaterally decided to demolish the outdated farm stables, which had a lot of asbestos in the construction (R14, R22). Normally, this would be a costly operation for a farmer and would only happen if the government would subsidize. In this case, the new owners paid to demolish the stables and later received a permit to connect two office spaces, between which the former stables were located, instead (R14, R22). Local citizens are happy because they now have less nuisance from the pig farm and a more beautiful landscape (R15, R16, R20).

However, there are some negative environmental effects of this practice too. First, the settlement of more businesses outside business parks and village or town centers may increase the amount of traffic in remote rural areas. This would lead to more pollution (R6, R7, R13). Second, this practice may lead to more buildings in the areas outside villages and towns. Without the opportunities for commercial re-use, it is likely that more empty farm

stables will be demolished. The wider options to re-use farm stables, may lead to less open space in a country which already has a lot of buildings (R13, R21).

Synergies and networking

Relationships with local community

A successful re-use of farm stables for commercial purposes requires a good relationship with the local community. Without that local support, a municipality is unlikely to apply rules flexibly enough to give a permit (R1, R22). Therefore, it is understandable that both subcases seem to have a good relationship with the local community. In the example of The Green East, local villagers, entrepreneurs and politicians seem to be proud of the project (R15, R16, R20, R21, R22, R23). As businesses in The Green East are attracting highly educated employees and are working on a more circular and/or healthier economy, it makes sense that most people support the project. Moreover, The Green East has been created by a successful family business from the village, who already had strong contacts with the local population, entrepreneurs and politicians. Nevertheless, the newly attracted businesses, who are the actual rural newcomers, describe that they feel very welcome and supported in Raalte (R18, R19, R21, R23).

The Mouthoeve also has a relatively good relationship with the local community in Boekel, despite some initial doubts among certain villagers. Both the owner and local entrepreneurs describe that these doubts considered the feasibility of Mouthoeve as a place where shop owners could make money (R1, R8, R9, R10, R11). Moreover, local retailers had concerns about the creation of a new shopping street in a village which was already experiencing shop vacancies. The low rents at Mouthoeve were also likely to give potential competitors an unfair advantage (R11, R12). After Mouthoeve actually started, these concerns diminished or evaporated. Most local citizens seem proud of such a beautiful location in their village, which has also strongly increased their opportunities to buy local (R1, R2, R3, R4, R5). Most entrepreneurs experience not too much competition from the (craft) shops at Mouthoeve, as they are focusing on different target groups (R3, R11, R12). The flower shop used to have competitors in the village center, but it is so popular among the local community that its competitors struggle to attract enough customers (R8). Despite initial doubts, there seems to be sufficient support for the development of Mouthoeve in the local community of Boekel. This is important as it helps the entrepreneurs in Mouthoeve attract local clients,

while allowing the local population to enjoy the potential benefits of having this innovative shopping center in their village.

Synergies enabled

Within the investigated locations, quite some internal synergies are developing. In The Green East, businesses with comparable interests and necessities are located together (R14, R19, R21, R22). Since the businesses are active in different sectors, they are not direct competitors. However, agrotechnology and/or protein processes are part of most companies. Furthermore, many of these companies need laboratory space and specific facilities which The Green East offers. According to one of the entrepreneurs, this proved very useful in the Corona lockdown. Sometimes, specific materials were delivered which needed to be refrigerated. When company employees were absent due to Corona restrictions, employees of other companies would place these materials in the fridge. They did so because they had sufficient knowledge about the type of delivered products themselves. Hence, the right procedure was followed, and the delivered products were not spoiled (R19). Although the Corona lockdown has also diminished opportunities for social events, it is likely that these things will develop in the future (R14, R18, R19, R21, R23). This shows that there is a clear internal synergy between most companies within The Green East. They seem to be close enough to help each other out if necessary but are working in different markets, which makes sure that they are not competitors to each other.

The entrepreneurs in Mouthoeve have a strong internal synergy. In consultation with the owner, they developed an own retailers association, of which they are all members (R1, R8, R9, R10). This association organizes activities such as a Ladies' night and decorates Mouthoeve in the Christmas period. There is even a Mouthoeve coin which consumers can buy or use as a gift and which can be used only in Mouthoeve shops. The association was created to make sure that entrepreneurs within Mouthoeve cooperate and are able to channel their concerns professionally to the owner of Mouthoeve. Apart from organizing activities, the association has a say in which types of entrepreneurs are attracted to vacant shops. If a new entrepreneur is active in the same market as an existing entrepreneur, the association could decide against allowing this new entrepreneur. Such a decision would be

made together with the owner. As a result, the retailers association helps to avoid potential conflicts between entrepreneurs working at Mouthoeve (R1, R8, R9, R10). Besides the association, entrepreneurs also describe that they are used to forward customers to each other when they think that they may be interested in their products (R8, R9, R10). There is thus a clear synergy between the entrepreneurs at Mouthoeve. The fact that they are located close to each other, cooperate in promotional activities and have an organized voice when issues with the owner arise, helps them to grow stronger.

Networking established

Local networks are also important in this practice, especially for rural newcomers. The Green East received local support from the beginning onwards. Some entrepreneurs are part of the local business association (R20, R22). Moreover, both the province of Overijssel and the municipality of Raalte are supportive of The Green East and regularly try to help by attracting potential entrepreneurs through OostNL or by showing some flexibility when applying rules (R18, R19, R22). Most entrepreneurs in Mouthoeve have also become part of the local business association. This has led to stronger connections between the new shop owners of Mouthoeve and the existing shop owners in the village center. The popularity of Mouthoeve among the local community improved as a result of this (R8, R9, R10, R11, R12). Besides that, there are close ties between the owner of Mouthoeve and the municipality of Boekel. In case of potential problems, they have always created a workable solution together (R1, R2, R3, R5). The connection of the rural newcomers in these cases to established networks of entrepreneurs and governmental actors helps them to strengthen their business and integrate with the local community and regional structures which they became part of.

Policies and institutional supports

Policies activated; constraints; change/need of new policies

Both examples are supported by their local municipalities, which themselves are known for their flexible approach towards building rules and permits. The municipality of Raalte was immediately supportive of the plans for The Green East. It was helpful when providing the permit to refurbish the former experimental pig farm for commercial purposes and this is still the case when new permits are required (R14, R15, R16, R17, R22). The supportive approach can also be related to the net contribution of The Green East to the area. A pig farm with relatively few jobs and quite some pollution has been replaced by a multi-company building in which innovative businesses are creating jobs for highly educated employees (R16, R20, R21, R22). The most recent permit allowed to demolish two old pig stables without any subsidies and to create a new building where the current businesses can expand their operations (R14, R18, R22). This means that even more jobs will be developed. From this viewpoint, it makes sense that the local and regional government are supportive of the practice.

Meanwhile, the institutional support from educational institutions in the region has been disappointing for the businesses in The Green East. Initially, it was the plan that students from these institutions would visit The Green East regularly to get practical lessons on topics such as agrotechnological innovations (R22). However, this turned out to be complex and it was not profitable for the organizing entrepreneurs (R19, R22). Hence, the educational activities have been reduced. Currently, the cooperation with educational institutions is rather related to providing internships (R22). This shows that not every plan from the initial phase of The Green East has been realized successfully. The educational activities proved complex. Not only were there concerns on the profitability, but there were also different approaches to the educational aspect for the entrepreneurs in The Green East. For some of them, this was an important opportunity. For other entrepreneurs, regularly having many students at the premise would disturb them while they were working, without having a direct positive impact on their business operations (R14, R18, R19, R21, R22). Hence, the lack of progress of the educational activities may also have prevented internal disagreements between the different entrepreneurs at The Green East.

The developments at Mouthoeve exemplify the approach of the municipality of Boekel, which is regionally well-known for its lack of or flexible approach towards rules (R1, R2, R5, R8, R9, R13). The municipality, who were also selling the former dairy farm, were immediately positive about the plan and were quite helpful when they provided permits for the type of allowed shops (R1). Initially, there were stricter rules on the amount of retail shops and the amount of 'craft' shops that were allowed at Mouthoeve. For example, most shop owners had to regularly organize workshops in the beginning to fit within the permit. Afterwards, these rules became less strict. It is currently no longer required to regularly organize workshops. Such activities have therefore diminished. The entrepreneurs of Mouthoeve are happy about this flexible approach, which according to them makes Boekel an attractive municipality to start a business (R1, R8, R9, R10). There are only some concerns about the high costs when permits have to be altered (R1, R9). In general, the flexibility of the municipality seems to make Mouthoeve a possible and suitable place to start up a business.

Among the other shop owners in Boekel, there seem to be more complaints about the way the municipality dealt with Mouthoeve. Some think that the flexibility was also necessary since the municipality had to sell an outdated dairy farm on the edge of a village (R12). The fact that new shops were allowed inside Mouthoeve conflicts with the stricter local visions on where shops are normally allowed. The municipality wants other shops to stay in or relocate to the village center, where a huge area redevelopment is about to take place (R2, R3, R4, R5). For some local entrepreneurs, the contrasts between this policy and the generous permits at Mouthoeve show that the municipality is fickle. Furthermore, they fear that the expensive area redevelopment in the village center will lead to higher rents in shops (R11, R12). Consequently, the gap between rent prices in the village center and in Mouthoeve becomes so large that it will lead to more empty shops in the village center. The municipality and the entrepreneurs at Mouthoeve are much less concerned about this (R1, R2, R4, R5, R10). These differing views also reveal an important risk of the institutional flexibility in Boekel. Once certain entrepreneurs get the feeling that their competitors can profit from flexibility while they cannot themselves, the trust of some entrepreneurs in the local government could evaporate. If a municipality has flexible planning rules and an individual approach to permit applications, it seems important to at least be as transparent

as possible on how and why they make certain decisions. This could prevent rumors among the local community that the municipality is giving unfair advantages to certain entrepreneurs.

Institutional support

There has been some indirect or direct institutional support at both locations. The Green East has received some regional funding which was specifically focused at rural development. Furthermore, the OostNL governmental agency helped to attract potentially interested entrepreneurs (R16, R17, R18, R19, R22). Mouthoeve has not received direct financial support from institutions. However, as part of the final permit to redevelop the former dairy farm, the new owner also received a permit to build a house for himself on the premise. This would normally have been a difficult procedure but could now be considered as a trade for the purchase and redevelopment of the former dairy farm (R1, R3). Although financial support from institutions helped to realize the projects, especially in the case of The Green East, it does not seem to have been essential. The motivations of the main practitioners were not just financial, and it is thinkable that they would have developed their plans even without financial support or an extra permit from institutions. However, the political support for their projects was essential for the realization (R1, R22). This shows that financial support from institutions may help the commercial re-use of empty farm stables, but it is the political support in a complex spatial planning context which eventually leads to the realization of plans to redevelop an empty farm stable for commercial purposes.

Impact and perspectives

Impacts of the practice on rural revitalization

Both examples seem to have a positive impact on the revitalization of the countryside. The Green East has the clearest positive impact. The location and the businesses which are active at The Green East are clearly an addition to the local business landscape (R15, R16, R20). Potentially interesting businesses which may create many highly qualified jobs are now coming to the area. This also clearly widens opportunities for highly educated young people to either stay in Raalte or to come to this area (R14, R18, R19, R21, R22, R23). As a result, the countryside in the municipality of Raalte is partly revitalized as a result of the establishment of The Green East.

Mouthoeve also seems to have quite a positive effect on the revitalization of the countryside. The livability of the village improves now that more diverse shops are available (R2, R3, R4, R5, R11, R12). Young and female entrepreneurs, who may normally not have found the budget or opportunity to begin a shop, received these opportunities at Mouthoeve, with its low rent and more flexible lease contracts. As a result, the village of Boekel becomes a more attractive location to settle as a young entrepreneur (R8, R9, R10). There are thus some positive impacts. However, they are relatively marginal and unlikely to be shown in statistics on the municipal level. Compared with The Green East, the entrepreneurs at Mouthoeve are less likely to create enormous amounts of jobs or totally alter the prospects of the area. This is because shops are unlikely to grow enormously, whereas start-ups in the agri-food or medical sector may become huge employers in the future.

Impact on rural regeneration

Both examples seem to make their region more attractive for young people and hence to support the regeneration of the countryside. Businesses in The Green East are clearly attracting young highly-educated people to the village and the wider region of Overijssel. Without The Green East, it is very unlikely that such talents would have come to the region (R14, R18, R19, R20, R21, R22, R23). If businesses at The Green East grow much larger and go

beyond the start-up or scale-up phase, they will be invited to continue the activities at a regular business park in the municipality. This makes it possible for them to produce higher volumes of products. Meanwhile, new start-ups can use the vacant space in The Green East to become the next successful business in Raalte (R15, R16, R18, R19, R20). This means that if the The Green East maintains its current level of success and becomes even larger, it may provide Raalte with a continuous stream of young and talented people, which will clearly help to regenerate the area.

Mouthoeve also has a positive impact on the regeneration, albeit to a lesser extent. Mouthoeve helps to make Boekel a more attractive village for people who are looking for a place to live and/or work. The unique opportunity to start a (craft) shop in such an authentic location under such good pre-conditions may attract more entrepreneurial young people (R4, R11). However, the jobs which are created at the Mouthoeve are not highly-educated. They are helpful for local young people who are looking for a decent job but will most likely not attract people from far away (R1, R8, R9, R10). The relatively short distance between Boekel and other towns in the region, such as Uden and Veghel, also enables people from these larger settlements to just work in Boekel, without having to move there. In these cases, the newly created jobs do not translate into more inhabitants. However, the population in Boekel is currently growing quickly and the area seems to regenerate successfully (R1, R4, R5). Mouthoeve may thus support a small form of rural regeneration, without having enormous impact.

Future perspectives

The future perspectives for both practices are quite positive. The Green East seems to have the brightest future. The available office and laboratory space is all being used. Moreover, there are already tenants for the spaces in the new building which will be built in the following years. So far, not everything developed as the owner would have hoped, with the educational activities as clear disappointment. However, The Green East turns out to be a popular location for settling innovative businesses with a huge potential (R14, R18, R19, R22).

The increased governmental focus on a transition towards a more circular agricultural sector and circular economy is likely to increase opportunities for the types of businesses that are active in The Green East (LNV, 2019). As a result, the location is likely to remain popular and to attract further innovative businesses in the future. It is also likely that some of these current start-up businesses will grow larger and relocate elsewhere in the municipality, at another empty farm stable or a business park (R18). This expansion would further increase the number of jobs for highly educated people in the Raalte area and meanwhile allow new businesses to locate at The Green East.

The future of Mouthoeve seems also quite positive, despite some serious concerns. During the first years, the concept has proven to be successful, against the expectations of some villagers. Most of the businesses in Mouthoeve seem able to make a good living out of their activities and are happy to stay in the future (R1, R8, R9, R10). However, there were also quite some shops that failed and this led to a quick turnaround of entrepreneurs. This could also be related to the low rent and flexible lease contracts, which might have made it 'too easy' to start a business at Mouthoeve (R1, R8, R9). The future success relies on a few factors. First, it is important that a good catering entrepreneur takes over the bar-restaurant, which is central in the concept of Mouthoeve. Especially after the Covid lockdown, the bar-restaurant should re-open strongly. Second, future trends among consumers will be important (R1, R9, R10). The Covid lockdown may have altered shopping patterns towards more online and less physical shopping (Sheth, 2020). This would be negative for the shop owners at Mouthoeve. However, it could also be that people will only go shopping when they have a nice and unique experience. In that scenario, Mouthoeve does have a bright future. It is easy to reach for most customers and offers a unique shopping experience with authentic craft shops (R1, R4, R5, R8, R9, R10). In any event, Mouthoeve is offering more to the village than the previous dairy farm would have done and is thus likely to remain a place which strengthens the image, livability and business climate in Boekel.

Conclusion

Based on this research, the redevelopment of empty farm stables for commercial purposes could in some cases be a good opportunity. The huge amount of empty farm stables in the Netherlands, which is protected to grow even further over the following years, asks for a wide range of solutions (Gies et al., 2016). Commercial redevelopment could be one of these solutions. Compared to a potential state of decay, with all the problems that come with such a state, both The Green East and Mouthoeve are having a profoundly better impact on their respective areas. They are attracting new entrepreneurs, creating jobs and/or improving the livability of the countryside. It is therefore understandable that most interviewees were enthusiast about the subcases, even if they were not themselves involved.

There are, however, serious limitations to the applicability of commercial redevelopment of empty farm stables. First and foremost, there already seems to be an over-supply of retail and office space in the Netherlands, for which the need has been decreasing over the past years. Moreover, Covid-19 is likely to accelerate this trend (Remøy & Street, 2018; Sheth, 2020). It thus seems unlikely that there will be high demand for a widespread commercial re-use of the huge amount of Dutch empty farm stables. This is already shown in the province of Noord-Brabant, where the provincial government tested the demand for commercial re-use and found that this was very limited (R7, R13). In case the demand would grow higher, this is likely to increase shop and office vacancies in other locations. Consequently, the widespread commercial re-use of empty farm stables would move the vacancy problem partly from farm stables to rural retail and office spaces, without doing much for the livability of the countryside.

Second, there are some serious planning issues involved in providing the permits for commercial re-use of empty farm stables. Most governmental institutions, even the relatively flexible municipalities of Boekel and Raalte, prefer to plan to concentrate shops in city or village centers, businesses on business parks, residents within settlements and farming in the areas outside settlements. They fear that a mixture of these activities would create multiple problems. It would reduce planning advantages of combining likewise activities in specific places. If farmers, residents, shop and business owners have their activities very close to each other, this may incite conflicts between them, while the

countryside clutters (R2, R3, R4, R5, R7, R13, R15, R16, R17). For these reasons, governments will be very reserved with permitting an increase in commercial activities in empty farm stables and only allow this when it is a very good solution which fits the local context.

There are some contextual situations which may support a commercial re-use of empty farm buildings. First, it requires a local entrepreneur with tacit knowledge and a good network among the local community and institutions. A person who understands the local context may be able to convince local stakeholders to support his or her idea and give permission to go beyond the normal policies of not allowing too much commercial activities outside settlements. Second, it helps if the empty farm stable already had a special status or is causing other problems. In these cases, it may be easier for governmental institutions to be flexible when giving permits. At The Green East, it was helpful that their premise had already been used as experimental pig farm. It already had a function as research center, which meant that this did not need to be added in the permit (R14, R16, R22). At Mouthoeve, the empty farm stable was a general thorn in the side of the municipality. It was located next to the Boekel settlement and owned by the municipality, which made it quite costly. This may have helped the municipality in being flexible in the process of the permit (R1, R3, R5). Third, it helps if a plan for commercial re-use goes hand in hand with local ambitions. If a municipality or local businesses are already thinking of concentrating certain types of businesses in a specifically agrarian location, this could be an argument to commercially redevelop an empty farm. For example, The Green East coincided with a local ambition to attract start-ups in the agro-food sector. Fourth, it helps if municipalities keep close contact with initiators and are relatively flexible in dealing with the permit application. For example, the initiator of Mouthoeve did not think that nearby municipalities would have supported him in his plans (R1). Fifth, it is very helpful if a narrative could be construed around a commercial redevelopment of an empty farm stable. This immediately increases the attractiveness to potential rural newcomers. At Mouthoeve, the authenticity of the building and uniqueness of the shopping experience makes the location attractive for both new entrepreneurs and customers. It also increases the pride of local citizens of the project (R1, R4, R5, R8, R9, R10, R11). These local contextual situations may thus help to generate a commercial re-development of an empty farm stable.

Future research could focus on three topics. First, it would be interesting to see how the commercial re-use of empty farm stables works in other countries. Are there equal planning issues? And how large is the demand for this solution in dealing with the problem of empty farm stables? Second, it would be interesting to find out how successful this commercial re-development of Dutch empty farm stables is in the long run. The investigated subcases in this research seem promising practices that are relatively successful. But how successful will these and other examples of commercial re-use of empty farm stable be in ten years? And what happens with plans in municipalities which are less flexible than Boekel and Raalte? Third, it would be interesting to investigate what combinations of solutions works best to solve the problems with empty farm stables in the Netherlands. This research suggests that redevelopment for commercial purposes is one of the solutions, albeit only in very specific contexts. Earlier research in Work Package 4 already showed a high demand among young people to live in larger housing outside settlements, whether cities or villages. So what is the potential for redevelopment of empty farm stables for residential purposes? How many empty farm stables should be demolished to keep the countryside attractive enough and avoid huge numbers of farms dilapidating in certain areas? And is it wise to become more flexible or better to maintain the current strict approach to what functions are allowed in empty farm stables? Research on these topics will likely create further knowledge which could help the Netherlands and countries with comparable problems to deal with the increasing number of empty farm stables.

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Appendix 1. Topic list (Translated from Dutch)

- Open
- Thank participant for participating
- Show, check and fill in participation form
- Origin of the practice
- Origin of the idea
- Involved people/organizations
- Motivations/goals
- Description of local context
- Most important obstacles and conflicts during start-up phase
- Main benefits of the idea
- Description of investigated practice
- Description of activities performed
- Innovative components
- Environmental aspects
- Employment (amount)
- Economic aspects (how successful)
- Conflicts/challenges
- Internal conflicts
- External conflicts (also with opponents in/and local community)
- Local networks (components)
- Relation to local context (compared idea origin)
- Benefits
- Disadvantages
- Who is important and has a role in rural renewal?
- Advantages and disadvantages of policies
- Overall relationships with governments on multiple levels
- Political content developments
- Bureaucratic and procedural developments

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- Impact of practice and perspectives
- Social, ecological and economic impact
- Economic effects at local/regional level
- Environmental effects (including landscape quality) at local level
- Effects on social cohesion (quality of live)
- Effects at the political level
- Effects on gender roles
- Future perspectives
- Likely future developments fort his practice
- New, likewise initiatives
- Transferability to other contexts
- Closure
- Other important respondents who should be interviewed
- Explanation further use data for this research and express thanks

Appendix 2. The List of interviews

Code	Interviewee (Pseudonym)	Role	Date	Place
NL3C/Int.1	R1	Practitioner/Owner Mouthoeve	11.12.2020	Boekel
NL3C/Int.2	R2	Civil servant Spatial Planning Boekel Municipality	14.01.2021	Boekel
NL3C/Int.3	R3	Civil servant 'involved Mouthoeve' Boekel Municipality	19.01.2021	Teams
NL3C/Int.4	R4	Civil servant Permits Boekel Municipality	14.01.2021	Boekel
NL3C/Int.5	R5	Alderman Boekel Municipality	14.01.2021	Boekel
NL3C/Int.6	R6	Civil servant Spatial Planning North Brabant Province	21.01.2021	Teams
NL3C/Int.7	R7	Civil servant Spatial Planning North Brabant Province	25.01.2021	Teams
NL3C/Int.8	R8	Practitioner/Shop owner Mouthoeve	11.12.2020	Boekel
NL3C/Int.9	R9	Practitioner/Shop owner Mouthoeve	11.12.2020	Boekel
NL3C/Int.10	R10	Practitioner/Shop owner Mouthoeve	14.01.2021	Boekel
NL3C/Int.11	R 11	Local entrepreneur, board member entrepreneurs' association Boekel	26.01.2021	Teams
NL3C/Int.12	R12	Local entrepreneur, board member entrepreneurs' association Boekel	26.01.2021	Teams
NL3C/Int.13	R13	Programme leader, empty farm stables, North Brabant Province	27.01.2021	Teams
NL3C/Int.14	R14	Employee of Main practitioner The Green East	15.01.2021	Raalte
NL3C/Int.15	R15	Civil servant Spatial Planning Raalte Municipality	28.01.2021	Teams
NL3C/Int.16	R16	Alderman Raalte Municipality	28.01.2021	Teams
NL3C/Int.17	R17	Civil servant Spatial Planning Overijssel Province	26.01.2021	Teams
NL3C/Int.18	R18	Practitioner/Entrepreneur The Green East	06.01.2021	Teams
NL3C/Int.19	R19	Practitioner/Entrepreneur The Green East	07.01.2021	Teams
NL3C/Int.20	R20	Local entrepreneur, board member entrepreneurs' association Raalte	15.01.2021	Raalte
NL3C/Int.21	R21	Practitioner/Entrepreneur The Green East	15.01.2021	Raalte
NL3C/Int.22	R22	Practitioner/Main Entrepreneur The Green East	15.01.2021	Raalte
NL3C/Int.23	R23	Employee of practitioner/entrepreneur The Green East	15.01.2021	Raalte

Table 1. Interviews

Appendix 3. Basic statistical data

	Boekel 2019	Boekel 2009 (2013 from education level onwards)	Raalte 2019	Raalte 2009 (2013 from education level onwards)
Area (square kilometer)	34.5 km ²	34.5 km ²	172.3 km ²	172.3 km ²
Population	10,588	9,692	37,511	36,891
Population density (per square kilometer)	307	281	219	215
Resident population by age group	0-14: 1,738 15-64: 6,869 65+: 1,981	0-14: 2,094 15-64: 6,308 65+: 1,290	0-14: 5,913 15-64: 23,526 65+: 8,072	0-14: 6,908 15-64: 24,169 65+: 5,814
Outmigration last year:	367	254	1,100	1,114
Newcomers last year:	555	292	1,319	900
Occupation rate	72.3	70.2	72.5	71.1
Unemployment rate	2.5	3.3	2.5	3.2
15-25 years unemployment rate	5.4	8.6	5.5	8.0
Education level 15-75 years by rate:		2013 numbers from now onwards		2013 numbers from now onwards
Low-level:	33	35.5	27.6	31.2
Medium-level:	44.2	47.7	48.7	47.9
High-level:	22.8	16.8	23.7	20.9
Number of enterprises in municipality	1180	1020	3160	2615
Total occupation by productive branch:	Total: 3,500	Total: 2,800	Total: 14,800	Total: 13,600
Agriculture:	400	300	300	200
Industry & Energy:	600	300	3,300	2,900
Commercial services:	1,300	1,000	6,900	6,200
Non-commercial services:	1,200	1,200	4,300	4,300
Number of enterprises by productive branch:	Total: 1,180	Total: 1,020	Total: 3,150	Total: 2,620
Agriculture	215	205	550	510
Industry & Energy:	300	245	445	380
Trade & Catering:	215	190	675	580
Transport, information & communication:	65	65	165	135
Finance & Real estate:	110	105	300	265
Business services:	150	120	635	460
Culture, recreation & other services:	125	90	380	290

Table 2. Basic statistical data for practice locations (Boekel and Raalte municipality)

Source: Netherlands Statistics (2021)