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SURFLOGH WP 6 BUSINESS MODELS

Eelde Case Study: The Intercept Business Model

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CASE STUDY 5: EELDE URBAN CONSOLIDATION CENTRE, NORTHERN NETHERLAND

1. Introduction/Background

The case study surrounds the establishment and subsequent development of an urban consolidation centre (UCC) at Eelde in the north of the Netherlands. Using funds provided by the Surflogh project, this was instigated by the province of Drenthe in partnership with the Royal FloraHolland (Eelde), who own a major distribution centre in the form of a flower auction at the location. The hub was situated just off the A28 motorway, which is the main road linking Groningen to the south of the Netherlands. Established in May 2018, the hub was initially piloted on a six-month trial basis, a period subsequently extended until its closure in July 2019.

2. Drenthe Province/Groningen Area

Drenthe province is located in the north of the Netherlands, with the largest towns being Assen and Emmen. In 2019, the province had a total population of 493,449 and a total area of 2,680 km^2. Most of the province is made up of sparsely populated rural areas, with the land mainly used for agricultural purposes. Tourism is also an important industry, with its hundreds of kilometres of cycle paths attracting a large number of tourists every year. Its close location to the German border means that it has also attracted many Dutch and German multinationals to the area.

3. Policy Framework

In the Netherlands, there exists clear demarcation in terms of policy setting and implementation. At the national level, central government set strategic policy targets, but it is generally left to individual regional/local authorities to implement and monitor. In terms of last mile deliveries, by far the most significant piece of legislation is the Green deal ZES ('Zero Emission Stadslogisiek'). This is a national agreement between government, carriers, suppliers and transport organisations. This sets a zero emissions target for 40 Dutch cities and is due to come into force in 2025. Groningen is one of the 40 cities. As a consequence, the Municipality of Groningen is working on a new policy document, containing new transport regulations starting in 2025, including zero emission zones, vehicle access restrictions and time window restrictions.

In terms of current policy measures, the only restrictions in place are with regards to time restrictions, more specifically a time window 5:00 AM – 12:00 PM is applicable for the main shopping areas in the inner-city centre. The reality however is that the window does not present a problem; when local transport companies were asked about the impact of these times on their operations, it appeared that most had fixed daily routes and the time window did not make their process less efficient nor did it increase costs. Most of their customers demand delivery in the morning, hence the impact of such measures appear to be very limited. Only when electrical vehicles would (need to) be used, then operating costs are likely to increase.

4. Goederenhub Groningen-Eelde

The 'Goederenhub Groningen-Eelde' (freight hub) was officially opened in June 2018, and as such was the first operational Surflogh pilot, with the warehousing facility provided by the Royal Flora Holland (Eelde), at their site next to Groningen Airport. The aim was to initially focus on final mile deliveries to the city centre of Groningen, but at the time of launch it was hoped that this would quickly expand as a logistics hub for the whole of the Groningen-Assen region in the north of the Netherlands. As such, the hub was also seen to be well located to potentially benefit from the general development of the regional airport.

The hub was located at the provincial border of Groningen and Drenthe, some 10 kilometres south of the city of Groningen, just off the A28 highway, and next to the main artery canal and Groningen Airport Eelde. The choice of location was to enable the hub to be extremely accessible for larger lorries and trucks, and hence offer a viable alternative as it would enable hauliers to avoid the traffic congestion of Groningen City Centre. Cargo would therefore be bundled and consolidated so that the last mile of delivery was carried out as green and efficiently as possible, with cleaner forms of transport and a reduction of traffic movements. For this part, a 3.5t van was leased over the duration of the pilot. In doing so, the hub would potentially play a central role in the Green Deal signed by the region to realise zero-emission city logistics by 2025. A further key element in the hub's operations was the provision of intermediate storage services that would allow transport companies and suppliers to drop off their freight during the whole day, thus allowing more flexibility in their operational planning than when solely restricted to the time window for entering the city.

Soon after establishing the Groningen-Eelde Freight Hub, it became part of the umbrella organisation 'Goederenhubs Nederland' (GN) which aims to develop a country-wide network of logistic hubs in the Netherlands. GN is made up of a group of independent green city hubs that provide freight services in all of the major Dutch cities, enhanced by national cooperation. Through the establishment of strong partnerships and networks with stakeholders, the hub aimed to work towards tangible and innovative solutions for freight flows to the City of Groningen.

5. Critical Elements in the Goederehub Groningen Eelde Operation

Unlike the other case studies developed as part of the Surflogh project, the critical elements behind the operation of the Goederehub Groningen Eelde are presented in terms of the positives arising out of, and the areas for reflection which emerged, during the course of the 15 month period over which the pilot operated.

5.1 The Positives

5.1.1 Advances in UFT Policy Maturity

Probably the most significant positive arising out of the Eelde pilot was with reference to policy development in the area of freight transport, and specifically, urban freight transport (UFT) policy maturity. This is a theoretical framework put forward by Kiba-Janaik (2017) in order to assess the level of urban freight policy maturity in a given city. The framework has been subsequently developed further during the second stage of the Surflogh project, and represents five levels of policy maturity, ranging from low to high, and subsequently defined as 'pure market', 'policy appeasing', 'policy focus', 'aspirant' and finally 'proactive'. One key aspect that emerged out of the discussions of the policy framework, was that whilst prior to involvement in Surflogh and its related activities, Drenthe had probably started at a maturity level of Policy Appeasing, through participation in the project and the wider engagement in it, it was probably more at the level of Policy Focus. As a consequence, the authority was now far more actively engaging in freight related initiatives.

5.1.2 Strengthening of collaboration across municipal boundaries

Collectively under the banner of 'Top Dutch', Drenthe work in a loose relationship with both Groningen and Friesland looking at regional transport issues concerning the northern part of the Netherlands. Indeed, it was because of this relationship that led to the joint involvement of Drenthe and Groningen in the Surflogh project. Through the Eelde pilot, this has led to a strengthening of the relationship between the two provinces, and certainly with regards freight transport issues, a better understanding of the importance in the future of the need to take joint policy actions. As a result, this has led to further collaborations in other logistics related areas, specifically exemplified by:

- Collaboration with logistic experts based at the University of Groningen (Rijksuniversiteit Groningen) and NHL Stenden University of Applied Sciences (Stenden Hogeschool) located at Emmen.
- The major logistic companies operating in the Northern Netherlands are now actively involved in an ongoing dialog about future logistics developments
- Logistics has now become a major topic at regional level 'Regio Groningen Assen' (2 provinces and 8 municipalities).

5.1.3 Important lessons learned from the running of the pilot

It was only through establishing the pilot that a clear visibility of the challenges that it faced were gained, and the key ones coming out of that are detailed below. Without the pilot, these would have remained as unknowns. In the interim, the 2025 ZES regulation has not gone away, and very useful experience has been gained going forward.

5.2 Areas for Reflection

5.2.1 Understanding the local logistics market/top down approach

In terms of greening logistics, most of the initial drive/direct concern is being driven by the issues around climate change, and hence is largely policy driven. Potential solutions to such problems therefore, are largely developed within the public sector. Focus on the (specific) last mile however produces what could almost be termed a chicken and egg issue, certainly with regard to existing urban logistics in the form of small road hauliers (SRH). Olsson and Woxenius (2014) carried out a survey of SRHs in Gothenburg, and found that a high number of SRHs had very high load factors, with close to 70% having load factors of 70% to 100%. Maes and Vanelslander (2012) found similar results in Belgium, where freight intermediaries confirmed that for last mile deliveries, the majority are outsourced to SMEs with a limited number of vans and trucks. The main issue driving load factors is very high competition levels within the road freight industry (Cowie, 2018), thus in order to maintain a sustainable business, high utilisation is key. This in itself represents consolidation. Furthermore, loads are generally made up of a combination of city centre retailers, suburban home deliveries and other intermediary deliveries, hence 'consolidation' is not exclusively over a singular 'last mile', i.e. suburb to centre, but rather a combination of 'last miles'. Such is the delicate nature of profit margins however, that removal of that aspect of the SRHs operation (through for example a UCC), would probably render the SRH economically unsustainable. This would also explain the extremely low stated demand levels for any form of consolidation facility found by Regan and Golob (2005) from local and short haul truckers in California, i.e. they already consolidate.

Putting all of these issues together, this would suggest that key to success in urban freight logistics is in understanding the structure of existing supply chains and attempting to consolidate over a diverse range of deliveries rather than solely based on a final central destination area. At present however, and based on the experience at Eelde, green logistics may find it very difficult to service such a market given limitations in terms of vehicle ranges.

5.2.2 Importance of a Critical Mass

Whilst the need to establish a critical mass in terms of a client base is recognised in the academic literature (see for example Morganti and Gonzalez-Feliu 2015; Triantafyllou et al 2014), this is one of the main issues coming out of virtually all of the Surflogh pilot initiatives. This would further suggest that whilst recognised in the literature, its importance is nevertheless considerably understated.

In terms of the Eelde hub, it was roughly estimated that in order to produce a viable critical mass, what was required was a city around 4 times the size of Groningen to achieve it. This is strongly related to distribution channels, where UCCs have only a limited scope to penetrate certain sectors, specifically the de-centralised sector (Allen et al, 2000), hence small independent shop owners.

This does lead into the issue as to whether this would change with the 2025 regulation, however experience with the Eelde project suggests this will still be difficult, as a major issue would be the cost of an electric van, and even under such a situation this may still prove to be too expensive to deliver a commercial return. What would need to change is the rate of innovation, particularly with reference to vehicle range.

5.2.3 Freight as a 'private' good

Whilst all goods that are purchased can be viewed as 'private' goods, in other words, are purchased for the sole benefit of the individual consumer, in the provision of freight services this idea appears to be particularly strong. To put in basic terms, the individual operator feels a very strong personal/corporate responsibility to ensure that all items in their possession are delivered to the final customer, and hence is extremely reluctant to delegate (on whatever terms) this function to a third party. This is reflected in the results of surveys carried out by Regan and Golob (2005) and Holguín-Veras et al. (2008), in which both estimated carrier's willingness to participate in UCC initiatives to be very low, in the range of 16%-18%.

This issue was very evident in the Eelde case, where it was found to be very difficult to get competitors to collaborate in any form, even as in this case, where it would have been cheaper to use the service of the UCC. What also emerged in the course of the pilot is that whilst operators are unwilling to collaborate with such 'open' initiatives, they do nevertheless continue to work together in their own established collaborative networks. What this strongly suggests is that some form of collaboration in last mile logistics is possible, with the potential key to unlocking it through the prior building of strong stakeholder/partnership relationships.

5.2.4 Solutions need current problems in order to work, not future ones/top down approach

It would be very easy to put forward as the main reason for the failure of the Eelde pilot that what it represented was a solution without a problem to solve, but such a conclusion would not only be superficial but also undervalue the efforts of those involved. In some respects, the pilot was 'opportunist' in its establishment, in that it represented a collaboration between a number of partners who all at that point had something to contribute. Specifically a major agricultural player with spare warehousing space (Royal FloraHolland) and a local authority with a logistics problem (zero emissions in 2025). What this led to was a top down approach to the establishment of the hub. Whilst experience elsewhere on the Surflogh project strongly indicates that in order to succeed, such initiatives should be established from the bottom up, in this case the expectation was that the bottom would come up to meet the top due to the pending zero emissions regulations. The reality however was that that never happened.

As a consequence, what the hub represented was a solution to a future problem, and the key lesson which emerged is that certainly within the freight sector, operators will wait until an issue becomes a current problem before addressing it, and not transgress over time to overcome or lessen the impacts beforehand. Why this is the case is difficult to say, but is probably strongly related to the competitive nature of the sector, hence in order to remain competitive, all efforts are focused on current issues, not future ones.

6. Closing Discussion and Summary

The Eelde hub was the first of the Surflogh pilots to be set up, and came about as a collaboration between the Royal Dutch Flower Auction, Drenthe Province and Groningen City authorities. In some senses it was a 'situational' happening, i.e. was brought about by the situation, and in some respects it could be argued it was too far ahead of its time. Whilst it was believed that transport companies and other couriers would begin to take measures in preparation for the on-coming 2025 ZES regulation, the reality is that no such action occurred, and in many respects, the existing logistics

provisions will continue until clear action is required. It may well be at that point that we see a UCC established by an existing provider, but that will be an entirely commercial operation.

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APPENDIX 1 – SURFLOGH BUSINESS MODEL CANVAS