

HEAVY VEHICLE RESTING AND STOPPING AREAS ON E18



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Observation in Turku – Vaalimaa corridor

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Foreword

The report was compiled based on responses to a survey of exploring E18 route development sites and bottlenecks. The survey was aimed to truck drivers in the Varsinais-Suomi area. The results could be assessed in advance, but the surprise was the wide attention received by the resting areas. There are not enough high-quality stopping and resting places on the route E18. Areas suitable for heavy traffic breaks have declined and replacement areas have not been built. The worsening problem is now constantly raised in the debates in the industry and transport sector. Possibility in the future could be cooperation with state and commercial actors.

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1. Introduction - Need for break and resting areas

There is a shortage of parking and service areas suitable for heavy traffic on the E-18. The problem has been known for a long time and over the years the situation has gradually deteriorated. At the same time, the amount of heavy traffic has increased over the past four years by slightly less than 10% on the main thoroughfares and, accordingly, the number of users of break points during the night by almost 20%. [1.]

Resting areas are limited on the highway network and there have been increasing restrictions on heavy traffic parking on the street networks. Now when amounts of economy transportations are growing the availability of heavy traffic resting areas and driver services connected to these areas has become an increasingly big problem.

Legislation of resting period define the need for resting places. Decisions on legislation are taken at EU level and national legislation is based on these EU level decisions. To obey these regulations parking can take place only in suitable locations. More areas are needed for rest breaks for shorter and longer periods.

Driving and rest time legislation, as well as road safety, require drivers to take breaks at certain intervals of time. The cost effectiveness of transport chains also requires timeliness in breaks and updating, for example, on arrival at ports or destinations. For taking breaks, areas suitable for parking are required.

According to the regulations, the daily driving time shall not exceed 9 hours. After four and a half hours of driving, the driver must take a break of at least 45 minutes. As part of longer transport chains longer breaks are causing the driver to stay in the car. Key to taking a long night break is the safety of the area (both for vehicle, driver, and cargo). Just at night, many break places are overcrowded.

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2. Challenges

The growing problem is that industrial and logistics areas do not have places for short-term resting or trailer parking. There is no space on the property of customer companies and street side parking may also be prohibited when the cross-section of streets is rated for roadway only. Municipalities should take a heavy traffic parking needs better to account in industrial and logistics area. Frequently the easiest and most affordable way to implement parking spaces for new and for existing industrial areas is a parking lane at the edge of the street. [1.]

In the planning zones the problem is also the size of the supply plots. There is often no space to add parking spaces, even if there is a commercial interest. Key to heavy traffic in the zoning of gas station plots located, In the agglomeration formulas, the problem is also the size of the supply plots. The parking itself should be considered either the size of the gas station plot itself or next to it. [2.]

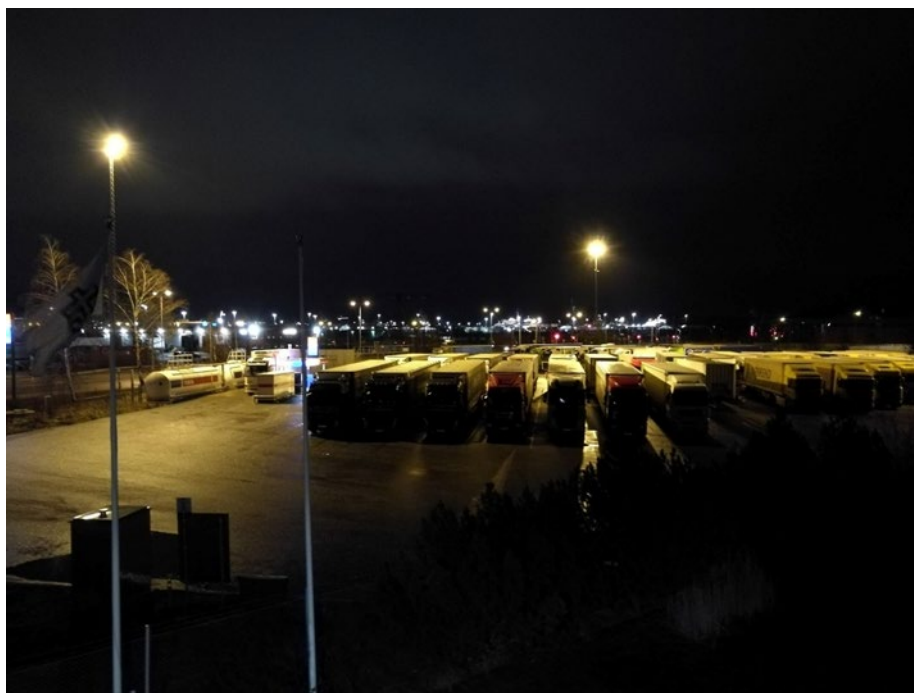
The state has its own role as an administration of the playing field for long-distance transport and operator of the transport infra. The main challenge in solving the problem is the discovery of suitable land, and here municipalities and cities and their zoning play a key role. [2.]

3. Safety issues

There is currently no guarded and fenced heavy traffic break points in Finland. Crime and vandalism on transport might be a future problem here too. For daily and weekly rest there is need for controlled and locked areas for driver to have possibility to leave from the vehicle. Often insurance does not compensate for damage if the truck has been left unattended.

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Picture 1. Parking area near Turku Seamen Church for heavy equipment.

Safety requirements for break and resting areas may also be highlighted in Finland in the future. In Finland, traffic crime is not yet a major problem; fuel theft occurs most. (SKAL Transport Barometer 1/2015). Crime has recently increased in the surrounding areas of Finland e.g., Sweden and will increase over time in Finland. Customers of transport companies require the use of safe break points (lighting, services, monitoring).[3.]

4. Service needs

High service break points for heavy transport are mainly private road and gas stations. Parking spaces are on a private plot and intended primarily for a cafe and

store customer use and for short-term parking. In commercial operators' interests are usually not to build heavy transport parking fields.

The report of Linea Konsultit Ltd refers to a survey conducted by SitoWise Ltd which interviewed representatives of different gas stations. According to interviews, heavy traffic is an important group of customers for fuel distributors. But building bigger truck parks and maintenance itself is not a very good business. There is need to find new concepts for truck parks which can develop operations in gas station. In addition, truck drivers should utilize other areal service providers available. For safety, the area should be lit and fenced or guarded. It is also good if there is a refueling facility in connection with the rest area. [3.]

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5. Observation in Turku – Vaalimaa corridor 2020

The aim was to make observations on transport infrastructure, traffic fluency and safety. The reviews were allocated into segments. The observable journey is from the port of Turku and Naantali to the truck park at Valimaa border station. The driving distance accumulates in one direction approximately 368 kilometers. Break points and terminals for heavy traffic were examined on the route.



Picture 2. Resting areas and harbors by segments.

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Examine the state and traffic volumes of the E18 highway from the truck cabin and explore the accessibility of a few stopping points and the state of services, especially from the perspective of professional drivers. Data from the report has been collected by interviewing professional drivers in resting and stopping areas on E18.

Reviews were carried out in three groups of three people on the road E18 between Turku and Vaalimaa. In addition, four groups detailed the operation of the ports from land

GROUP I

Segment 1. Turku harbor / Viking Line In freight, the driver must be accompanied by the registration number or the booking number of the unit to be checked, as well as a valid identity card (passport, driver's license, ID card), with them the driver receives the ticket and the cabin card.

Freight Check-In starts about 90—120 min before the ship leaves.
The unit should be on site for 60—90 min before the port. Later arrival at the port is possible, but the forwarding shop must be connected to the Viking Line by telephone or email.

Potential ADR/ electricity-requiring loads may require a specific location on the ship, so these may have a tighter arrival time than that of normal units. Special transport should also be well placed on shore in order to guarantee these units a place from the ship.

Unless the unit comes ashore at least an hour earlier to port, the unit may therefore be removed from departure and replaced by the unit from the waiting list. An unconcealed trip to when the unit does not air to port may result in the unit's forwarding company receiving a “No Show” bill as a reminder to cancel non-realized overruns.



Picture 3. Heavy traffic vehicles queuing at the Turku harbor check-in.

Based on our own observations and the very uniform feedback from drivers, Viking Line's Turku port is going very smoothly when vehicles have arrived in the loading area; however, the length of the lane received some feedback on its small size. Road works in the harbor area cause congestion both when entering the port, and especially when exiting. Cars get out of the ship in line and especially for drivers, for whom the harbor area is not familiar, there may be great challenges in finding a way out. However, the problem is temporary and should go away once the road works are

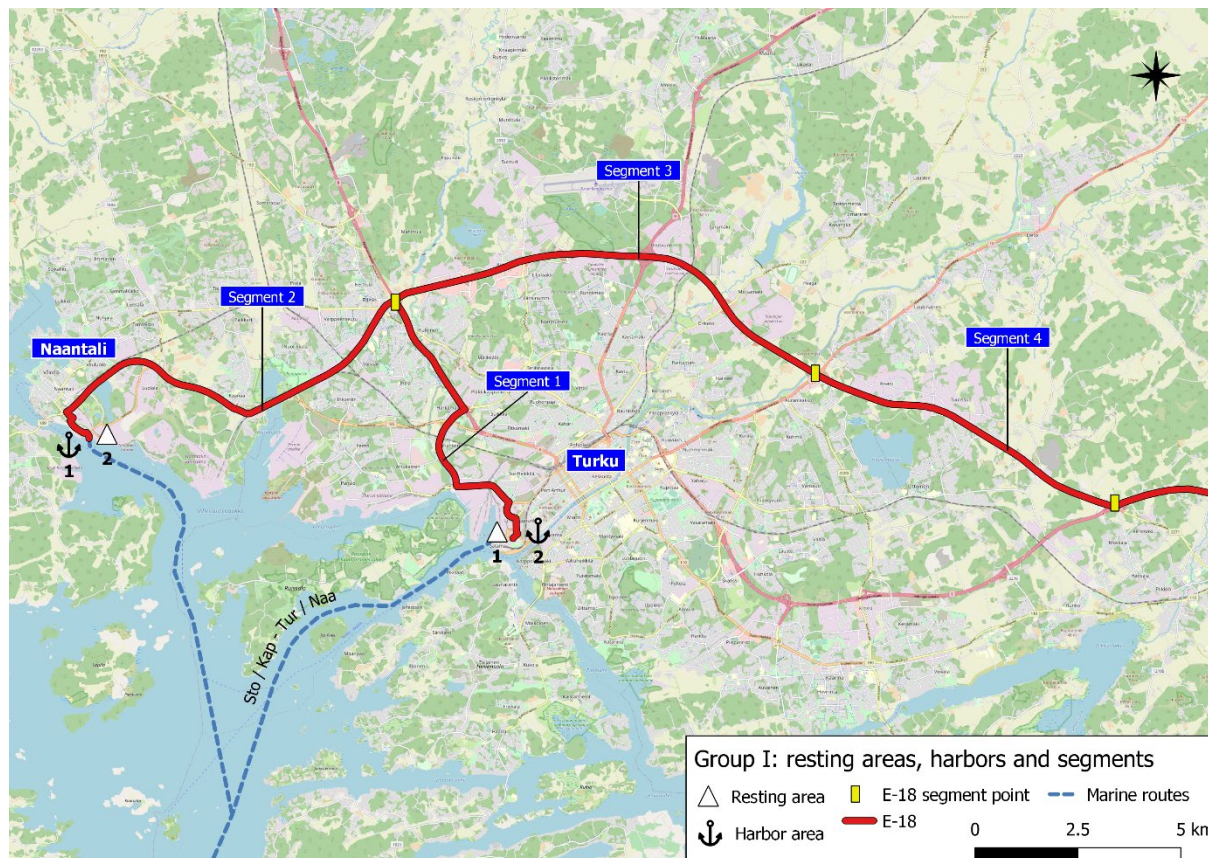
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completed. With this, entering and leaving port will be very likely to become easier in the future.

There could be room for improvement in break and rest places. With the feedback that we have received, and even a long cycle, looking for pause spots and sightings, it is obvious that drivers would wish for them more or an increase in existing capacity. A break point just in the vicinity of the harbor, a sailor next to the church, appeared to be popular with foreign drivers. The break point was also absolutely full. There is probably not enough capacity to meet demand.

The main problem with rest places of the terminal and its surroundings are the transport arrangements when entering the terminal. The road works in the harbor area, and the train track along make it difficult to reach the terminal. The passage is also complicated by the fact that only one route can run by heavy vehicles to the Port of Turku (more than 15 m) in the center of Turku is prohibited. Upon reaching the terminal, cars enter the port area relatively quickly to wait for the ship to enter. When loading as well as unloading a ship, the largest bottleneck in time is the loading of bulk trailers, as well as unloading.



Picture 4. Group I, resting areas, harbors and segments.

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Picture 5. E8 road bridge site.

Evening departure:

Arriving at the port at about 6 pm was calm and only 2 heavy transport vehicles were on the scene. Passenger car traffic was low and did not affect arrival in the port area. Some of the heavy traffic was already in the line to check in for Viking-Line. Traffic was smooth and heavy traffic arrived totally in the evening departure about 60 vehicles plus those who were already lining up to board the ship.

Segment 2. Naantali harbor

The segment starts at the port of Naantali, where the starting point was the car park of the port of Finnlines. The section has a length of 10.3 km and ends at the Raisio E8 interchange.

It's easy to find the harbor with clear signs. There are only parking lots for those waiting to be loaded, there is no extra space. We left the planned schedule ahead of time because the car park started filling up the Finnlines' customer lane and we felt it best to get out of the way.

The departure was from the port of Finnlines at 10:06 and we reached the end of the segment at 10:18. Travel time on the section was 12 min and we drove at the speed allowed by the restrictions. Traffic was smooth, if minimal, and security intervals held. There were clear signs on the way, the road markings were bright and the markings were clear. We felt the route was safe.

Segment 2. Halfway through the segment, speed varied due to heavier vehicle at about ± 5 km/h. Most of the heavy traffic exited Auranlaakso in the direction of 10 roads. Easy to join the ring road from the Raisio exit.

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Picture 6. Evening ship queues

Segment 3. In the closing stages of the segment, roundabouts caused a rubber band effect when there were many heavy vehicles in a row. Due to the sites, driving lanes were cramped at some points.

Segment 4. Joining from bypass road 1 to the road, the acceleration lane was short, which is even too short for a passenger car. Traffic very smooth, impeccably reached the entire segment. Traffic lights as well as signage for the most part digital, showing, for example, the sluice in the second lane of tunnels or the site in front that we didn't have. Road 4-lane mixed traffic.

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GROUP II

Segment 5. Traffic is smooth, there was little traffic. Upgrading speed limits and warnings, height limits under bridges. Calm traffic. Old-fashioned snippet and lots of bends. Outer traces a lot.



Picture 7. Group II, resting areas, harbors and segments.

Segment 6. At the beginning, a three-lane motor traffic road, becomes two-lane. Good and clear road, clear signage.

Segment 7. Partly a three-lane road, as a third bus lane. Very smooth traffic and well-maintained roads.

Segment 8. Kehä (motorway) III newest section, three-lane motor transport road. Looks good!

Segment 9. Clear signs and two wide lanes, automatic speed control.

GROUP III

Traffic is smooth on the E18 highway and the larger fleet can quickly reach the Raisio interchange at Naantali. There were no incidents on the way and the condition of the road itself was not worrying. Some coating damage occurred more on the section between Helsinki-Vaalimaa. Guiding signs to gas stations and junctions is predominantly clear and informative. Due to COVID-19 and trade sanctions against Russia, traffic volumes on a stretch of road may be lower than in normal circumstances and research would be well done again, when pandemic is over. This would provide a better understanding of the impact of traffic on E18 highway traction. The biggest problem was the lack of parking lots for heavy equipment and the lack of additional services associated with it.



Picture 8. Group III, resting areas, harbors and segments.

Segment 10. There was some commuter traffic near Porvoo, but towards the end of the segment near the Koskenkylä exit, there was almost no other traffic. Our speed remained at 80km/h and there were no incidents on the way that should have been reacted to, for example, by slowing down or braking. The motorway was in a good condition, though basic improvements would be worth making.

Segment 11. Traffic very little, road condition ok, though not perfect. The road coating was worn. But Scania was able to bang the speed allowed by the restrictions.

Segment 12. Traffic fluency very good due to the low volume of traffic. In some places road need new coating. Road markings good. A few professional drivers in traffic and occasional passenger cars. Traffic signage clear and in good condition. Speed steady at 82 km/h, though once we slowed down and gave way as a heavy vehicle joined the road.

RESTING AREAS

3. ABC Tammisilta

ABC Tammisilta, part of the ABC chain in Paimio, offered breakfast and a takeaway table. The gas station also had “showers for all customers” as a service, a small grocery store and motorhomes were permitted to stay at a parking plot.

4. Piihovi ABC

According to the driver, the area is good and well planned, in the evening time parking is minimal. Evening parking challenging due to lack of space, services according to the driver are good and functional.

5. Haukanpesä

Cramped park, good food, no extra services for drivers.

6. ABC Lohja

To get to the parking space, you have to drive three 90 degree turns, the time for this driving brought you about 5 minutes and about 2 more miles of travel. Professional drivers get to the break point with the HTC combination. There were 15 tracks for heavy traffic parking spaces. HTC without gridlock can be well accessed. Not guarded. Marks-intangible places are also parked very often.

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Picture 9. Truck park, ABC Lohja.

7. Kultagrilli

Truck driver comment: *“Good stopping place. I like easy exit stops. For example Lohja ABC and Teboil Kivihovi are difficult to exit and reach. Usually, the yard is filled with cassette cars. I favor bigger stations only for 24 hours to rest.”*

Arriving in the Kulta grilli yard is really easy. The yard is practically closed on the E18 motorway, which makes entering and exiting infinitely easy. The yard is very small. There are no clear parking markings in the yard.



The yard can accommodate about a few full-backs and several half-backs depending entirely on how others have driven into the yard. When you drive to the yard, you must think about where to park so that the others can still get away. At certain times like coffee time and lunchtime the yard is pretty full. With a combination of HCT, you can get to drive well and exit at that break point, but it all depends on how much other cars are in the yard. The stop takes about a minute of the time away.

Picture 10. Kultra grilli parking space.

8. Neste, Keimolanportti

Signs for the maintenance company Neste Keimolanport were of low quality, poorly placed and small quality. The heavy traffic parking lots were occupied by foreign drivers. Restaurant/cafe services, “accessible toilets”, and a Neste store were listed as the services offered.

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9. Vuosaari, harbor

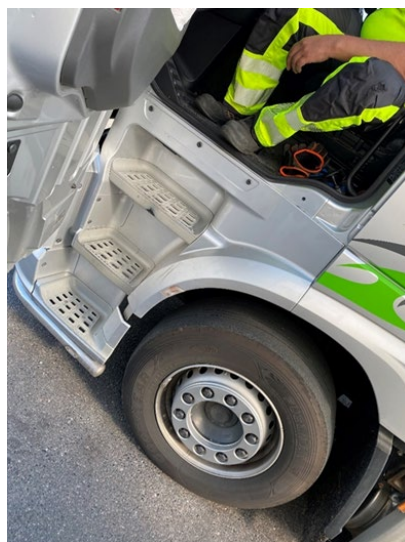
Easy to come to the parking area and leave. There would seem to be very much of space during the daytime. Tank positions just fine from a lot of different companies. Drivers say that restaurant (open for 24 hours) would be a good addition to existing services, with one lunch restaurant only open during the daytime.

10. Neste and truck park Sipoonlahti

Little parking space, not many additional services, general look bad.

11. Shell, Porvoo

The break point is relatively far from the E18 road, but the road of the break point to the parking space is relatively easy. The parking space has 3 seats for full trailers and 4 seats for halves. Locations are 2 h of waiver parking and Shell is open 24 h, which is a good fit for charters.



Picture 11. One of the interviewees from Porvoo Shell.

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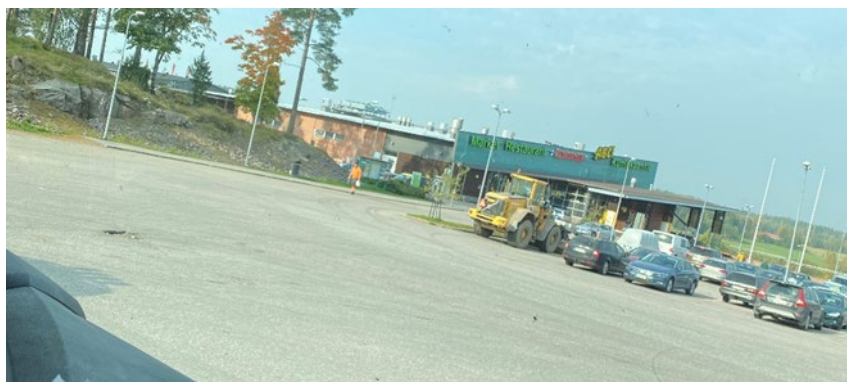
12. Grilli Herkules, Porvoo

Cramped park, good barbecue services, no extra services for drivers.

13. ABC Loviisa

Break room for charters, sauna, no overnight stay, really lots of parking space, easy to get to, yard a bit bumpy.

Truck driver comment: “Evening parking space completely blocked, shower is most often untidy, nice plus would be that on the side of the big road there would be the number of free heavy equipment parking spaces for digital display.”



Picture 12. ABC Loviisa parking space.

14. ABC Majakka

According to the driver, the parking space is good and well planned, the evening time parking is minimal. Compared to Sweden and Norway, Finland has good break places.

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15. ABC Amiraali, Kotka

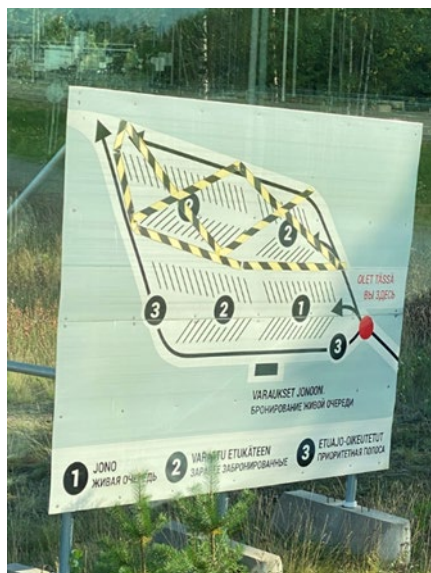
Parking space of heavy equipment are low in number, the area can accommodate 5-10 vehicles, depending on the length of the vehicle. Drivers' break modes minimal, washing possibilities are not offered. The parking space is perhaps a little cramped for heavy equipment.

16. Hotel Leikari

A little bit old, otherwise very good. Heavy equipment parking space is good and spacious. Parking space can be harder to get if you're on the move with a longer calculus to than a 25-foot full-back.

17. Vaalimaa truckpark

When we arrived at Vaalimaa, we first received a major setback, where we felt that we were first timers had no clear signage about where we should go to the Vaalimaa truck park. First, we took the third exit and we got to the wrong address.



We arrived at an empty, in our view, large truck park, from which we found no way out after discovering this proved to be a false parking lot. We called the Vale Border Patrol and explained what we're doing and why we're there and we're in the wrong place. They advised us to go back to where we came from, which is the wrong way and take another connection from the rotation. Consequently, in a slight violation of the traffic rules, with the permission of the Border Patrol, we turned back and found our way to the great truck park in Vaalimaa.

Picture 13. A false parking space guide sign.
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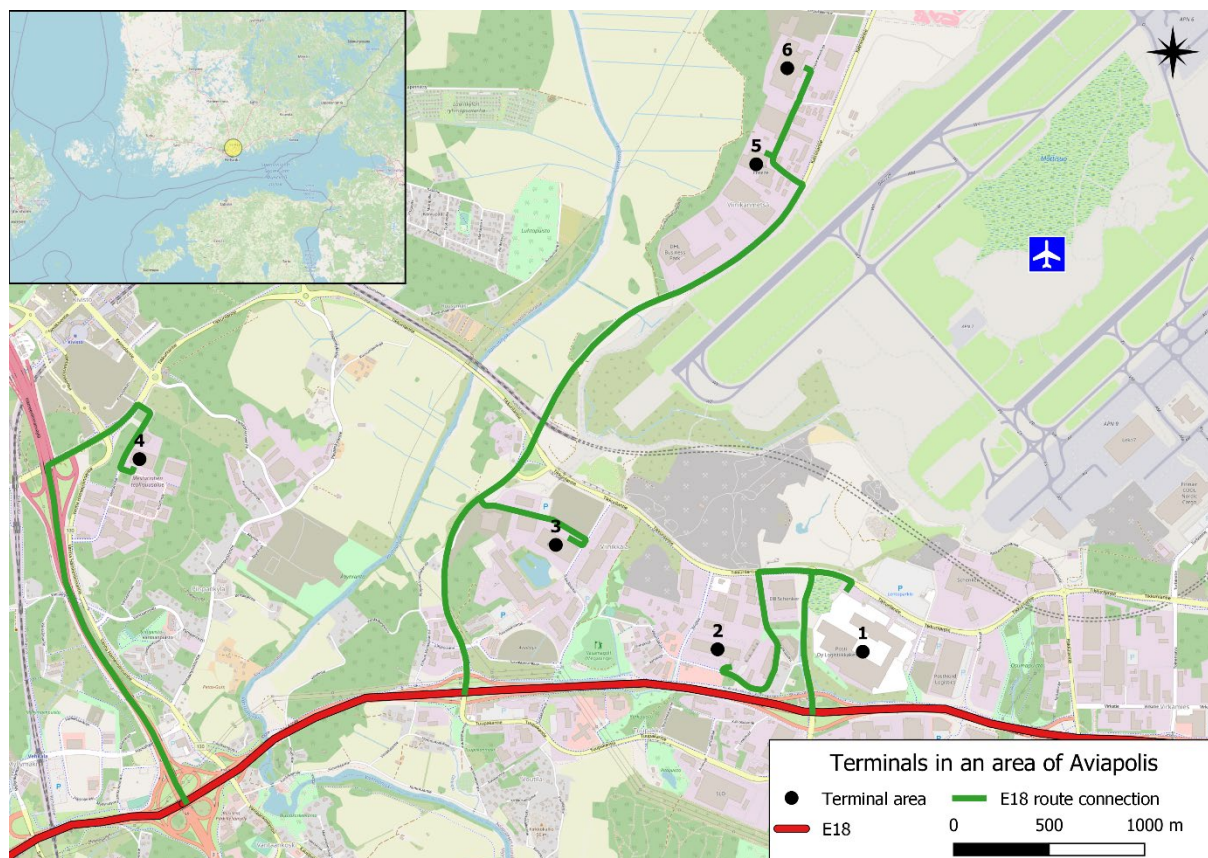
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The truck park would appear to have break and sanitary facilities for drivers. Space is thus in the corona during the very fire. At rush hour, the truck park might be crowded. At the Ra-Jan-crossing station, we didn't spot the queue. A guide-tau-read Goswift appliqué was advertised at the truck park to book a place for yourself in a truck park.

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TERMINALS, in Aviapolis area



Picture 14. Terminals in an area of Aviapolis.

1. Posti Terminaali, Tikkurila

Deep interface, no backhand option before gate, lots of room for trucks, and client/personnel seats a lot. Lots of round-trip traffic.

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2. Kaukokiito, Vantaa

The exit from the E18 road was effortless, but the journey to the terminal was a bit long. When we arrive at Vantaa we find it to be a large terminal. The courtyard is fenced through and passage in and out occurs from gates with camera surveillance. So you can't get in without ending up in surveillance. In addition to the terminal itself, at the back we see storage hangars, which also have piers and an outdoor platform for long goods. I'm sure there are at least a hundred pieces of piers with a quick glance. The yard looks easy to operate with any combination. You can straighten the front of the piers even with a long combination, even if the adjacent platforms are reserved. You can drive around the yard, and you have enough space if you must make the combinations and vary.



Picture 15. Kaukokiito loading platform.

3. WIHURI OY, Vantaa

Deep interface, no backhand option before gate, lots of room for trucks/trucks, and client/personnel seats a lot. Lots of round-trip traffic.

4. Transmeri Logistics, Vantaa

The terminal was closed to outside the gates, so we visually explored the terminal yard, visible from behind the fences to the road. The 31-metre HCT cannot fit in the yard, according to our estimation, but the full trailer could accommodate, though an accurate estimate of access to the yard was “I wouldn't go scratching it”. Judging by the statement, the yard is quite small for long transports. The terminal is most likely intended for delivery trucks and semi-trailers. The route to Transmeri Logistics is not suitable for HCT combinations.

5. KWH Freeze & LTP Logistics, Vantaa

Exiting the E18 is successful well, with two traffic lights directing traffic in the direction of the terminal. The speed limit ranged between the 60 km/h. The road was two lane bi-directional. Among the traffic, there was some passenger car traffic in addition to freight. The terminal area was fenced off with no working gate. The terminal was old and the yard was partially cramped. In the yard outside the terminal gates, you can snatch HCT, on the inside half. Loading platforms, we saw about 10 pieces. The signage was poorly, hard to perceive as a first timer where to go. Instructions of the area were perhaps the biggest pain threshold.

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6. Kesko KV2

Kesko's KV2 terminal, was behind the gates and we didn't cradle to go try our luck, if we could have explained at the gates ourselves in. The terminal was also surrounded by trees and therefore we didn't see the courtyard. However, a 31-metre full trailer combination was going into the area, and given Kesko's own stock, you'd think the yard had very room for the HCT fleet as well.

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