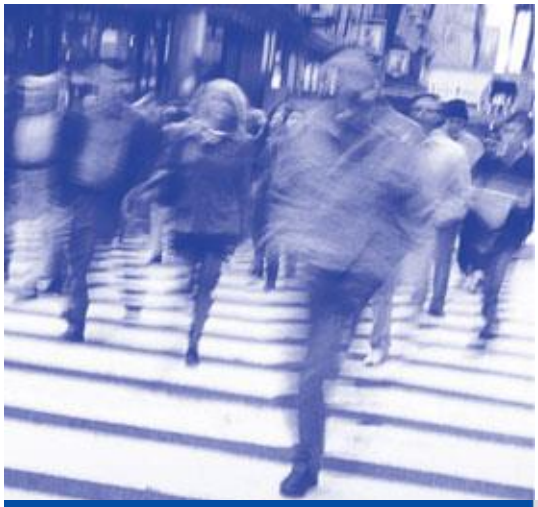


2020 CIVITAS
Cleaner and better transport in cities

PORTIS

4ABZ3

Freight Distribution Strategy

Deliverable No.:	4ABZ3 WD2
Project Acronym:	CIVITAS PORTIS
Full Title: Port Cities-Innovation for Sustainability	
Grant Agreement No.:	690713
Workpackage/Measure No.:	4ABZ3
Workpackage/ Measure Title:	
Freight Distribution Centre	
Responsible Author(s):	
Rab Dickson & Nicola Laird	
Responsible Co-Author(s):	
Date:	23 November 2018
Status:	Final
Dissemination level:	Public

THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION

THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

Abstract

Not Applicable

Project Partners

Organisation	Country	Abbreviation
Nestrans		

Document History

Date	Person	Action	Status	Diss. Level
01/08	Nicola Laird	First Draft	Draft	Internal
16/10	Nicola Laird	Second Draft	Draft	Internal
23/11	Nicola Laird	Final Draft	Final	

Status: Draft, Final, Approved, and Submitted (to European Commission).

Dissemination Level: PC = Project Coordinator, SC=Site Coordinator, TC=Technical Coordinator, EM=Evaluation Manager.

THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

Table of Contents

1. Introduction and Background

Given the importance of the oil and gas industry in Aberdeen, freight plays a very important role both in the city and across Aberdeenshire. This is characterised by the movements of both seafreight and roadfreight around the harbour and across the city.

Additionally, due to the location of Aberdeen, and its remoteness from the other major Scottish cities, freight in all forms also plays an important role for the movement of other goods. Approximately 27 million tonnes of goods, excluding oil and gas, was transported in the north east in 2016. Whilst the presence of the harbour plays a major role in these movements, much of the movement is local to the region - as a result of which 81% of freight is transported by road.

This density of roadfreight is notable given that, unlike any other Scottish city, some routes are made up of over 15% heavy goods vehicles (HGVs). This is particularly apparent on the southern entrance to Aberdeen towards the harbour where the concentration of freight is heaviest, with Wellington Road recording levels of HGVs that account for over 20% of all vehicles on that route.

Due to this, and in light of concerns over emissions levels, especially particulates (PM_{10}) and nitrogen oxides (NO_x) on Wellington Road, careful consideration is required over whether these freight movements are either required or desired in light of the new bypass due to open later in 2018. This will present a challenge given the unique geography of Aberdeen, the concentration of the retail units and the location of the main distribution centres already operating.

In light of these challenges, this document seeks to provide a high level list of objectives and actions in order to take forward a distribution strategy that will both improve major freight movements within Aberdeen and the surrounding region, as well as present options for improving ‘last mile’ distribution that will help to reduce the impact on communities along the routes that currently experience the heaviest freight presence, whilst conforming to the aims of the Regional Economic Strategy.

1.1 Aberdeen in 2018 & the Future

As of summer 2018, there are a number of major projects that will change the way traffic travels and moves around the city, and accesses Aberdeenshire. Whilst there are a number of opportunities that these will present, there are also a number of challenges. There are also a number of other features of Aberdeen, as well as current issues, that will need to be addressed in order to ensure that any actions taken regarding freight are successful.

Current conditions affecting Aberdeen and Aberdeenshire:

Situation	Opportunity	Challenge	How this will affect freight
Activity in existing harbour in the city centre. Probability of port user carrying out operations in both ports.	There is a new harbour being built outside the city centre. Recommendation is that operations in both ports will remain separate. Operators may take advantage of increased space in new harbour and move operations. Could look at potential consolidation strategies given the number of vehicles that access the harbour on a daily basis.	Despite the new harbour, a lot of traffic will continue to need to access the current harbour and its proximity to the city centre means any routeing strategy will have challenges in reducing unnecessary freight movements from some of the city centre routes.	Any routeing strategy that stops freight from crossing the city could have implications for those accessing the harbour enroute. Planned routeing via Wellington Road could cause greater issues on a road that is already seeing congestion and air quality problems.
Construction and activity at the new harbour. (Nigg Bay) Probability of increased traffic in area.	Although aims to attract new business rather than move existing business, there may be opportunity to route some of the road traffic away from the current harbour. Opportunity to look at potential consolidation strategies that benefit both harbours.	May increase road traffic travelling between harbours if both are served by freight operators. This may lead to additional traffic on both Wellington Road and potentially Victoria Road. May also create heavy freight traffic on routes that are currently less used in an attempt to bypass congestion on main	Banning of right turn out of harbour will stop vehicles from travelling through Torry, however it may also increase journey times for vehicles travelling between both harbours.

		routes to the new harbour.	
Congestion in and through Aberdeen. Potential to impact journey times (both positively and negatively).	AWPR will route some of the traffic out of the city centre as this will no longer be the main route through Aberdeen. The AWPR will also create more access points for hauliers that may be closer to their destination. For those bypassing the city they will no longer need to travel through.	No certainty over how much of an effect this will have. AWPR may not reduce some journey times for freight vehicles. Congestion still a serious issue on some corridors. Need to ensure that hauliers know of the benefits of new routes. Need to dissuade from current inappropriate routeing.	May increase journey times for hauliers if routes are changed – however there may also be opportunities to decrease journey times. Need to ensure that communication is transparent so that operators are aware of any changes, the effects and the possible benefits.
The location of businesses (including distribution centres/hauliers)	There may be an opportunity to create a central distribution point.	Majority of hauliers are concentrated on the south entrance to Aberdeen, close to the city centre. John Lewis has a large distribution centre within the city centre and the access for many retail units are not ideal for larger freight vehicles, due to the historic city layout.	Any changes to the routeing or access in the city centre could have a negative effect on hauliers as it will be more difficult to access stores and businesses. Routeing as a result of the AWPR may lead to journey times being longer for hauliers located in the south of the city if they cannot cross the city centre.

Current projects that will affect routeing and access:

Project	Opportunity	Challenge	How this will affect freight

Wellington Road Study	Measures to improve HGV efficiency are being considered for the route.	The route is required to meet a lot of needs and HGV measures may not form part of the recommended option package. The road may see an increase in freight traffic due to the AWPR and the planned hierarchy routeing strategy.	May create further congestion on a route currently used by freight and may lead to longer journey times on the route. If HGV measures are implemented, then this will likely see improvements in journey times and encourage freight drivers to use the route, rather than routeing through roads not recommended for freight.
Aberdeen Western Peripheral Route (AWPR)	Will allow vehicles to bypass the city of Aberdeen entirely. Will provide more access points to the city centre from Aberdeenshire (can travel around and access at nearest point rather than driving through the city).	May create more congestion on certain routes that are accessed by the AWPR. The journey times of HGVs have not been fully established. A journey around the AWPR rather than going through the city may lead to an increase in journey times. Will lead to an increase in fuel use due to being a longer route.	Freight vehicles may find increased journey times and fuel use on certain journeys. This may be a disincentive for them to use the AWPR and may lead to them choosing to continue to travel though the city centre. This may be compounded if traffic volumes and congestion ease in the city centre due to the AWPR.
City Centre Masterplan	May allow for improved HGV journey times on	Key aim is to reduce unnecessary vehicular traffic in the	The series of projects currently planned may limit

	certain routes, although this has not yet been highlighted. Should serve to reduce car traffic which may improve journey times in the city centre.	city centre, which may increase journey times. Traffic management may create issues with loading/unloading at businesses. This may lead to some vehicles unable to access businesses directly, or requiring to access via unsuitable roads (particularly around 'The Green').	delivery opportunities if freight is not given due consideration. This could provide issues in the future for vehicles accessing the city centre to load/unload. Restrictions in city centre access may also lead to journey time increases if routes are changed.
City Region Deal	Will provide a new access road in the south of the city in order to access the new harbour. May provide more opportunities for improvements in freight routeing and priority as part of the Strategic Transport Appraisal. Harbour project is primarily to achieve efficient movement of freight.	Access to new harbour may provide increased traffic on Wellington Road in the short to medium term. Any new road will take time to build. Current timescales are unknown but would be in a range of at least 5 years. This means that the opportunity to elicit behaviour change may have passed.	New Aberdeen South Harbour and access to it will be key considerations for the future development of the regional economy. Any access strategy will directly impact the movement of freight.
Roads Hierarchy	Aims to remove unnecessary vehicular movements through the city centre. This may present opportunities for freight vehicles that could reduce journey	As it aims to reduce unnecessary vehicular movements, this may affect freight – particularly those travelling across the city centre.	Although there are opportunities for freight following recommended routes, it is likely that this will lead to an overall increase in journey times as freight is routed

	times on previously congested routes. Will likely lead to signalling and routeing updates that may make certain movements easier for freight traffic if they are following the recommended routes.	The harbour will need to remain highly accessible, but restrictions to city centre access may create longer journeys in order to do so to/from the north.	away from crossing the city centre. This will particularly affect traffic entering the harbour from the north, and harbour traffic that then wants to continue north. May be difficult to enforce unless physical restrictions are made.

1.2 Previous Freight Work

A number of studies have already been completed regarding freight access, routeing and a proposed distribution strategy. A number of these studies are still relevant given that the key issues, opportunities and challenges remain the same.

- Freight Action Plan – The most recent version of this document was drafted in 2014 and set out a number of objectives that are still relevant for freight in the north east. These are:

  a) An economically competitive freight industry that supports the economy of the north east.
  b) A freight sector that can successfully respond to national and local environmental targets.
  c) A local and strategic transport network which enables the reliable and efficient movement of goods.
  d) Benefits for the north east freight industry which are realised through the ongoing development and delivery of wider transport and economic development initiatives.
  e) An engaged local freight sector provided with a platform to communicate freight issues, identify opportunities and propose solutions to benefit the north east.

  Whilst some work has been done to achieve these objectives, more work is required, particularly in light of the changes that Aberdeen and Aberdeenshire are currently undergoing with regards to infrastructure.

- Aberdeen Freight Distribution Strategy – This document was drafted in 2013 in order to complement the Action Plan. This strategy had a large focus on the air quality issues that Aberdeen faces, particularly around the harbour. A long list of potential short and long term actions were suggested through the strategy including reviewing

loading practices and idling, procuring low carbon vehicles, looking at Low Emission Zones (LEZs) and considering transport collaboration. It should be noted that physical consolidation centres were considered but then rejected as part of the study advising the 2013 strategy. This was due to the acceptability issues of such an endeavour, particularly with regards to cost and the potential for negative impacts on the surrounding area.

On the back of this strategy, the main action achieved was the implementation of the ECOStars programme. This aims to ensure that hauliers are using low carbon vehicles. With regards to the other potential actions, this strategy is good as a base for the new distribution strategy as many of the issues highlighted remain the same. It may also be worth revisiting some of the proposed actions that were previously rejected due to the advances in technology since this document was originally conceived. This is particularly with regards to the advances in low carbon vehicles, cycle couriers, telematics and routeing software. It should also be noted that since this document was published, the Scottish Government has made a commitment to have a LEZ in all four of Scotland's major cities by 2020. This requires consideration of how the freight industry might be affected by, and could respond to, the implementation of a LEZ in Aberdeen. In the 2018-19 Programme for Government, the Scottish Government pledged to increase spending on sustainable travel to "enable more businesses and consumers to switch to electric vehicles than ever before".[1] Following this there may be more opportunity to work with operators in supporting or trialling low-emission vehicles, particularly given the ambition of the Scottish Government to phase out all new petrol and diesel cars and vans by 2032.

- Wellington Road Study – This was a study that primarily looked at implementing bus priority on Wellington Road but considered HGVs as well due to the limited number of services serving the area. It considered the implementation of a Heavy Vehicle Lane on the southbound carriageway that would assist vehicles leaving the city. The study ultimately rejected the idea for a heavy vehicle lane due to the issues that would be caused by HGVs requiring turning access to the numerous industrial estates.

  Since this study was published, the requirements of Wellington Road have changed due to the building of a new school and the moving of business to other areas of Aberdeen. Additionally, the recent oil downturn has seen some reduction in HGV traffic on the route, although the proportion of HGV traffic in relation to other vehicles remains higher than elsewhere in Aberdeen. A full STAG (Scottish Transport Appraisal Guidance) Appraisal of options for improvements on Wellington Road is now underway, including consideration of combined bus and HGV lanes, road

[1] Scottish Government (2018), https://www.gov.scot/publications/delivering-today-investing-tomorrow-governments-programme-scotland-2018-19/pages/6/

capacity improvements and the prohibition of some right-turn manoeuvres.

Wellington Road is a particularly difficult route to tackle given that it has a number of competing interests amongst different transport modes, being a key corridor for commuting and freight, as well as having a number of retail units and a new school that are accessed by the road. However, given the requirements of Wellington Road as the major access road for freight in Aberdeen City following the opening of the second harbour and implementation of the proposed roads hierarchy, it is important that stakeholders are kept informed, and able to inform those undertaking the study in order to ensure that the interests of freight are considered.

- Lorry Parking Study – This document was produced in 2011 and looked at the requirements of lorry parking. Whilst it may require update and review, the majority of the issues considered in the study are still relevant and have been raised by operators who responded to the recent baseline survey, as well as those who attended the most recent freight forum. The study highlighted the number of lorries parking outwith the designated areas south of Aberdeen, and also focused on the lack of areas that have adequate facilities for drivers and where drivers feel secure.

  This is particularly relevant in the current climate as parking on the roadside is still an issue both in Aberdeen and Aberdeenshire, and Aberdeenshire Council are currently reviewing whether their lorry parks are adequately located, and whether they can be sustained.

  This was a matter discussed at the most recent freight forum meeting on 19th June 2018, with the majority of hauliers present unaware of what was available in Aberdeenshire and Aberdeen, and being dissatisfied with the facilities that are provided elsewhere in the UK. It should be noted that the majority of attendees of the freight forum are local companies who are unlikely to use local services but within both the forum and the 2014 freight action plan parking and facilities for drivers were acknowledged as being a regional issue. Members of the freight forum on 19th June also commented that the quality of parking and rest areas was a national issue, despite not being included as a topic of focus within the 2006 National Freight Action Plan by the Scottish Executive.[2] Within the recent survey of hauliers, undertaken as part of the baseline study, there was a mixed response as to the importance of availability of rest stops as a consideration for routeing[3]. However, having more rest facilities available to drivers of large vehicles was a comment received within the survey. Additionally,

[2] Scottish Executive (2006), https://www.gov.scot/resource/doc/154893/0041640.pdf
[3] Civitas (2018), http://www.nestrans.org.uk/wp-content/uploads/2018/04/Initial-Assessment-of-Freight-in-Aberdeen-Report.pdf

AECOM undertook a Lorry Parking Study for the Department for Transport in England, which highlighted some of the key issues for lorry parking across the country. It highlighted a number of factors including location of sites, potential for crime and lack of capacity, concluding that nationally "when provided with the right encouragement and information, such as affordable, high quality, well located and well signed facilities, there is potential for them to be encouraged to park on-site".[4] It did conclude that across England crime levels were higher in off-site locations than in on-site locations and that a key issue for those parking on-site was capacity. Given that in Aberdeen and Aberdeenshire there are a large number of drivers parking off-site when on-site rest areas are available, it would be beneficial to better understand the reasons for this and whether similar problems exist for off-site parking in the north east.

2. Vision

It is important to have a clear idea of the vision for freight in Aberdeen and Aberdeenshire. This will be informed by, as well as influence, the aims of both the Regional Transport Strategy as well as the Regional Economic Strategy.

The new Regional Transport Strategy is currently under review. The refreshed Regional Economic Strategy (2018 – 2023) was approved in June 2018 by Aberdeen City Council's City Growth and Resources Committee, and sets out the following vision:

• *Maximising oil and gas recovery and becoming a globally recognised hub for innovation and technology development with a strong, diversified and internationally-focused oil, gas and energy supply chain anchored in the region for the long term and playing a key role in energy transition towards a lower carbon energy system.*

• *Growing the region's food, drink, agriculture and fishing; life sciences; and tourism sectors and entrepreneurial environment to deliver a more balanced and resilient economy.*
• *Inclusive economic growth and investment in our key sectors and quality of place securing the future well-being of the city, the region, our communities and people*

Although not explicitly mentioned, achieving this vision will rely on a successful and efficient freight industry. Some of the key actions in the strategy also focus on the need for sustainability and discusses the requirement for low carbon vehicles in the city centre, particularly with regards to the implementation of hydrogen vehicles. Other key issues highlighted are the need for infrastructure improvements to be prioritised on the key routes in Aberdeen and Aberdeenshire, and the success of the new harbour.

As the Regional Transport Strategy (RTS) supports the key documents that shape Scotland and the North East, it is likely that it will mirror these aims. However, given that the new RTS is in the early stages of review, there is an opportunity for a new distribution strategy to help

4 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/580290/lorry-parking-full-report.pdf

shape the focus of the RTS, as long as it does not work against the main aims of the other key documents, being the National Transport Strategy (NTS) and the Strategic Transport Projects Review (STPR); both of which are also currently being reviewed.

The 2014 Freight Action Plan set out the following vision:

A transport system for the north east of Scotland which enables a more economically competitive, sustainable and socially inclusive society.

Looking at the current issues highlighted in other studies and strategies, this could be argued to still be a relevant issue today, although sustainability and low carbon may need to feature more prominently. To this end it is suggested that new vision for freight distribution in Aberdeen is set as follows:

To enable a freight network for the north east of Scotland that is both economically competitive and sustainable, and that supports a greener, healthier environment for both communities and operators.

This would be covered under three key themes being:

- Clean Air;
- Efficient Use of Resources; and
- Provision of appropriate and high quality resources.

Work To-Date

In order to help inform this distribution strategy, a number of initial surveys and baseline reports were conducted, using previous research, findings from other locations and stakeholders.

2.1 Baseline Report

This report considered all of the previous studies to-date, as well as a number of distribution strategies and consolidation studies that were conducted elsewhere in Scotland and the rest of the UK.

One of the key findings in this report was the challenge of physical consolidation, with the model being a challenge to set up, promote and make successful. This is particularly due to the challenges that both Aberdeen and other locations have faced working with the retail industry, who are resistant to external consolidation.

The baseline report also noted a difficulty in obtaining specific and accurate data without large scale dedicated feasibility studies. It was commented that in Aberdeen there is limited ongoing data available on corridors of interest, and operator responses to the survey were also limited.

Whilst the report highlighted that there are a number of options that could be taken forward to aid distribution, there is more work to be done in order to assess what the options would look like and what would be most suitable for the region, and where.

2.2 Survey

The stakeholder survey was sent out to help inform the baseline report and the results formed the additional baseline report, Initial Assessment of Freight in Aberdeen, published in March 2018[5]. Although the engagement level was relatively low and was mainly represented by local hauliers, it did provide a lot of information regarding routeing and the interests of hauliers. However, it should be noted that this only provides a snapshot and further engagement will be required.

One of the most interesting findings was that the responsibility for routeing falls primarily to drivers. This will have implications for any actions that are taken forward.

[5] Civitas (2018) http://www.nestrans.org.uk/wp-content/uploads/2018/04/Initial-Assessment-of-Freight-in-Aberdeen-Report.pdf

2.3 It is also interesting to note that the vehicles listed by the hauliers who responded to the survey were primarily Euro V or higher. Given the focus on low carbon emissions this is significant as it means that the majority of freight vehicles that were included in the responses are already as clean as they can be for diesels. However, given the small sample size, this cannot be assumed as the standard for the region. Additionally, no 'zero emission' vehicles were listed in the response and survey comments indicate that further work will be required in order to increase enthusiasm and understanding of the capabilities of low emission vehicles and to encourage uptake by local hauliers, possibly through a series of local trials. Given Aberdeen City's focus developing hydrogen as a viable energy source in the north east, this may be a viable alternative to electricity in LGV trials and has already been arranged with one operator. **Freight Forum**

Within the north east Scotland, there is recognition of the importance of freight issues. In order to better consider these issues, the North East Freight Forum was established in 2010 and has been meeting on an ad-hoc basis since then. The forum consists of a number of local hauliers and is chaired by Eddie Anderson, Managing Director of ARR Craib.

In recent years engagement with the freight forum has been reducing. This, along with the survey responses follows a continuing issue of relatively low engagement from the freight industry and associated stakeholders – particularly amongst retailers. The majority of organisations currently engaging with both already use clean vehicles and are members of ECOStars. Current engagement is very valuable as the companies who do work with the freight forum are positive in their relationship with the other partners and are vocal in wanting to see quality and efficiency improvements in the north east. However, a different approach may be needed in order to encourage collaboration with more stakeholders moving forward.

At the most recent freight forum meeting, lorry parking facilities were highlighted as a key concern. Whilst the AWPR is of interest to hauliers and they can see the benefit from it, they are still cautious about the effects on freight routeing and are unwilling to dedicate themselves to using it until the benefits are proven, given the cost to their businesses if it leads to longer journey times and increased fuel use. Regarding which of those two are more important was agreed to be dependent on the contract type as both are used.

There is a question as to whether the forum in its current format is fit for purpose. Consideration could be made regarding alternate models for the forum, taking examples from elsewhere if applicable. It could also be considered as to whether a more formal freight quality partnership, similar to what is currently ongoing for buses through the Bus Alliance, could be implemented. This would depend on whether such a format was both suitable and desirable amongst stakeholders.

There is little evaluation available of the success of previous freight partnerships, although a study was published in 2010.[6] This study focused on what did and didn't work from a number

[6] Green Logistics (2010),

of FQPs that were developed in the UK in the early 2000s. Similar to what has been found in Aberdeen and Aberdeenshire, partnership working was the biggest gain with the most common output being the development of freight maps and meetings between all partners. Similarly too the biggest challenge and the perceived failing within the majority of FQPs surveyed was the difficulty in maintaining interest and momentum, as well as funding and resourcing challenges

Although published in 2010 by the Department for Transport, the Freight Best Practice guide to setting up a Freight Quality Partnership[7] has a lot of good advice on setting up, running and maintaining a successful quality partnership. It recommends regular and consistent dialogue with clear objectives of the partnership being the focus of any meetings and an understanding of what each partner can bring to the partnership, with examples. Whilst logical these factors could help to be revisited in order to rejuvenate and relaunch a freight quality partnership that meets the current needs of all stakeholders.

In addition, the 2010 guide suggests a wider range of stakeholders than what is currently represented in the North East Freight Quality Partnership. This includes more representation from the retail sector, the airport and the parcel sector, as well as possible representation from the public, environmental charities and/or the police. London has a number of active Freight Quality Partnerships that should be considered in regard to their engagement and success. The Central London FQP has a large variety of stakeholders covering the parcel sector, retail groups, chartered institutes and consultants, in addition to public sector authorities and representatives for freight. The group meets four times a year and the meetings are focused around a specific agenda of defined projects and locations of interest. There is a core representative steering group that has a capped membership although the current freight issues meetings are open to all interested parties. All meetings are chaired by an independent organisation to ensure impartiality[8].

2.4 Freight Advisor

A freight advisor was contracted in early 2018 in order to help further engagement with stakeholders and help shape the objectives and actions of the distribution strategy. To-date, the advisor has undertaken initial work to get more engagement from stakeholders and has sought to determine where the current gaps are.

Discussions with stakeholders are ongoing but wishes for greater communication and a desire for engagement are clear themes emerging. Consideration is being given to the creation of

http://www.greenlogistics.org/themesandoutputs/wm9/downloads/FQP%20report%20Westminster%20Uni%20June%202010.pdf

[7] Department for Transport (2010), http://www.northeastfreightpartnership.info/bestpractice/Publications/Developing%20Skills/FQP%20Set%20Up.pdf

[8] CLFQP Terms of Reference (2014), https://www.centrallondonfqp.org/central-london-fqp/publications-reports/

'focus groups' to allow more a more segmented approach and to provide further opportunities for engagement and feedback.

In terms of future planning it is imperative that existing sources of data are maintained with secure and robust access for stakeholders. Additionally, it may be desirable to conduct a review of existing data collection and ensure that it meets future requirements.

The freight advisor has also been active in seeking local LEV opportunities and this may shortly see some initiatives take place.

A key thread of the work of the advisor has been in sourcing contacts in the parcel sector. This has been identified as a good sector in which to focus on distribution as they are currently wide ranging and can be fragmented in their approach. This has been identified as a good starting point with potential for collaboration between drivers in using last mile solutions such as ‘green’ shared vehicles for deliveries, the potential for utilising ‘locker systems’ at locations just outside the city centre, and the potential to have collaboration between distributers, either physically or virtually. It is likely that this will form the initial pilot of any actions identified in the freight distribution strategy, although consideration will also need to be made for the other haulage industries which make up a large section of the freight traffic, particularly HGVs.

3. Objectives

Considering the objectives of any new freight distribution strategy is key to ensuring success. The 2013 freight distribution strategy highlighted the following objectives:

- Understand the pattern of deliveries within the city and edge of centre area. This includes location, vehicle type, timings of deliveries, frequencies, load types and sizes.
- Understand the key factors that determine this pattern of deliveries, such as business need, haulier requirements, or external factors such as loading restrictions.
- Determine the principal problems and opportunities that arise from the pattern of deliveries.
- With the aim of seeking to reduce air pollution and carbon emissions, assess options to improve the efficiency of these deliveries, and reducing any adverse impacts. Assessment to include feasibility, cost, and impact against economic and environmental criteria.
- Recommend a range of policy measures and specific implementation actions that could be undertaken to improve the efficiency, and reduce the environmental impacts of deliveries in the city centre, and edge of city centre.
- Develop specific proposals such that they may be included in future bids for Scottish Government air quality funding.

It should be noted that these objectives focused more on the creation of a freight distribution strategy, rather than objectives within the distribution strategy, or what the strategy hoped to achieve – aside from reducing air pollution and carbon emissions. Despite this, these objectives are still key to understanding the requirements of freight and the main issues faced by hauliers and local authorities in managing freight, particularly with regards to ‘last mile’. Due to this, these objectives will underpin any work on a new distribution strategy and will form the background objectives to forming an action plan. Additional to these however are the main themes of achieving the previously mentioned vision for freight distribution in the north east, which will have their own set of key objectives to achieve in order to ensure efficient and economically buoyant freight practices that promote and support clean air practices for a vibrant and healthy city centre.

3.1 Clean Air

Air pollution is an ongoing concern for Aberdeen City in particular, with three air quality management zones identified in the following locations:

- Wellington Road;
- City Centre, including King Street, Union Street and Market Street; and
- Anderson Drive.

All three of these locations are on key freight corridors, with Market Street and Wellington Road being on the main access route to the harbour. With the ongoing review of the Roads Hierarchy, which seeks to remove unnecessary vehicular traffic from the city centre, and the potential for a Low Emission Zone in Aberdeen, it is important to consider objectives that

complement these projects without disproportionately disadvantaging the freight industry, as this will have an economic disbenefit.

As such, the following objectives under the theme of 'Clean Air' are proposed:

- ***Encourage the use of low emission freight vehicles in the north east.*** This will consider both the use of Euro Class V or higher vehicles, with an aim of having all vehicles in the air quality management areas using at least Euro Class V vehicles by the time any LEZ may be implemented. Additionally, this will also focus on creating opportunities for freight operators to use zero emission vehicles to complement Aberdeen's vision as being an 'energy city' and the aim of the Regional Economic Strategy for introducing more hydrogen vehicles.
- ***Encourage the use of low carbon last mile solutions for operators and delivery companies.*** This will primarily consider vehicles and companies running vehicles in densely populated areas such as the city centre, with the aim of reducing the number of motorised vehicles used in local deliveries
- ***Facilitate the positive and successful implementation of any Aberdeen City LEZ.*** This would primarily be through ensuring that stakeholders are considered in any LEZ action plans, given the important role freight is required to play in Aberdeen, due to the importance of delivering goods and the close proximity of the harbour to the city centre.
- ***Deliver a routeing strategy that ensures freight vehicles are not unnecessarily travelling through Aberdeen City or other towns in the region.*** This will be delivered in line with the Roads Hierarchy. Currently Aberdeen and a number of towns in the region are on key freight routes. With the AWPR and future proposals to dual the A96, many locations will no longer require vehicles to pass through them. This will reduce freight movements to access only and aims to reduce HGV presence in Aberdeen.

3.2 Efficient Use of Resources

Economic buoyancy is core to the Regional Economic Strategy. As such, it is key that the resources provided to and by freight operators are managed as efficiently as possible. This is to ensure that companies are able to keep costs low without affecting service. With the opening of the AWPR, there will be options for greater efficiency in some journeys. Adoption of the Roads Hierarchy however may risk increased costs if routes are made longer as a result of restrictions and closures in the city centre. It is important that this is offset as much as possible by the creation of new opportunities and solutions for transporting goods in Aberdeen and Aberdeenshire.

To enable this, the following objectives under the theme of 'Efficient Use of Resources' are proposed:

- ***Work to increase collaboration in the industry.*** This will primarily consider partnership working with and between operators so as to reduce the barriers to

working that hauliers and local authorities currently experience. An improved Freight Quality Partnership will be considered under this, with work to identify how this would best work to ensure representation from all stakeholders. This will aim to open communication with parties currently not partaking in the current Freight Forum, building the foundations to allow for more consolidation opportunities in the future.

- ***Encourage the use of alternative last mile solutions in deliveries for operators, particularly those in the parcel sector.*** This will be achieved through considering alternative methods of delivery as well as opportunities for consolidating deliveries at local pick up points that are convenient for users. This will aim to reduce freight movements in the towns and cities, and also improve air quality where deliveries are either necessary or preferable.

  Work to improve consolidation of goods, particularly regarding movements accessing the harbour(s). This will be achieved through looking at opportunities in both physical and virtual consolidation, learning from lessons learned in recent studies and trials. This will aim to reduce the number of movements on the key harbour routes, thereby reducing congestion and improving air quality on these routes.

3.3 Provision of Appropriate and High Quality Resources

The movement of freight is key to the economic vibrancy of Aberdeen City and Aberdeenshire. Given the relative remoteness this region faces compared to other areas in Scotland, efficient movement of freight is necessary both for business and for ensuring that the region is well stocked with necessary goods. Additionally, freight and timber movements play a big role in the north east of Scotland and it is necessary to ensure that hauliers involved in these are provided the necessary resources. Appropriate and high-quality resources, particularly with regards to the provision of adequate rest areas, is necessary to ensure that hauliers continue to be attracted to the area. To enable this, the following objectives under the theme of 'Provision of Appropriate and High Quality Resources' are proposed:

- ***Work to improve the provision and condition of rest sites in the north east.*** This will aim to review the current provision or rest sites and whether they are appropriate and will aim to improve this provision where necessary. This will also aim to provide a voice for hauliers in the north east to lobby for consistent facilities across Scotland and the UK.

THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

4. Action Plan

Following the development of the objectives, a number of potential actions have been proposed. Any actions will need further consideration and review in order to ensure that the most appropriate ones are taken forward. This will likely require further study into the problems and opportunities Aberdeen and Aberdeenshire face. The actions currently proposed provide a high level look at what could be done, using the results of work already completed within the Civitas Portis project as well as the results from previous studies. Although done a number of years previous, the existing freight studies for Aberdeen highlight key issues that are still relevant today and as such these studies are still deemed valid for consideration regarding any future actions and proposals considered.

The proposed actions that are being considered under the Civitas Portis project are included below. These should be considered alongside the actions identified in the 2013 Distribution Strategy[9], as this document provides more detail regarding the opportunities, issues and risks surrounding each proposed action.

[9] Freight Distribution Strategy (2013), http://www.nestrans.org.uk/wp-content/uploads/2017/02/Aberdeen_Sustainable_FreightDistibution_Strategy_26-02-2013.pdf

Themes	Objectives	Possible Actions	Opportunities & Risks
Clean Air	***Encourage the use of low emission freight vehicles in the north east.***	Consider current loading practices and restrictions, and whether these could be adapted to provide priority access to low emission vehicles. Need to assess feasibility of such actions and current legislation.	Opportunity: May reduce congestion in towns and the city centre. Risk: May negatively impact companies unable to utilise low emission vehicles. May negatively impact other vehicles. Will require collaboration with ACC Traffic Management and Road Safety team. Solutions that could have highest impact may not be feasible or permissible within current legislation.
		Implement a trial of low emission freight vehicles. This is currently ongoing, with Siemens due to trial a retrofitted hybrid hydrogen/diesel van. Opportunities for other companies to look at similar trials is currently being explored.	Opportunity: May help to show the positive impacts of using low emission freight vehicles and help to mitigate fears and concerns around their use. Risk: May highlight any failings in low emission freight vehicles, particularly if there are concerns that cannot be resolved/mitigated for. Risk that despite trial there may not be an appetite for further uptake of low emission freight vehicles.

	Encourage the use of low carbon last mile solutions for operators and delivery companies.	Look at the potential for implementing preferred routeing for low carbon vehicles in the city centre.	Opportunity: Reduce congestion and emissions in the city centre. Encourage more operators to use low carbon vehicles. Risk: May lead to worse congestion/emissions elsewhere.
		Implement a trial of cargo bikes, hydrogen bikes or electric cargo bikes for last mile deliveries.	Opportunity: Could improve health of drivers and reduce congestion in city centres. Risk: May not have a good uptake for trial. Cycle infrastructure not sufficient at moment to encourage uptake on a large scale.
	Facilitate the positive and successful implementation of any Aberdeen City LEZ.	Maximise the potential of the AWPR to encourage vehicles to avoid crossing the city centre.	Opportunity: Reduce congestion. Risk: Unless there are benefits to avoiding crossing the city centre there will be dissatisfaction. Unless restrictions are put in place there may not be the shift in routeing that is desirable.
		Discourage vehicles from crossing the city centre through physical or alternative measures.	
	Deliver a routeing strategy that ensures freight vehicles are not unnecessarily	Maximise the potential of the AWPR to encourage vehicles to avoid crossing the city centre, or from travelling through nearby towns.	

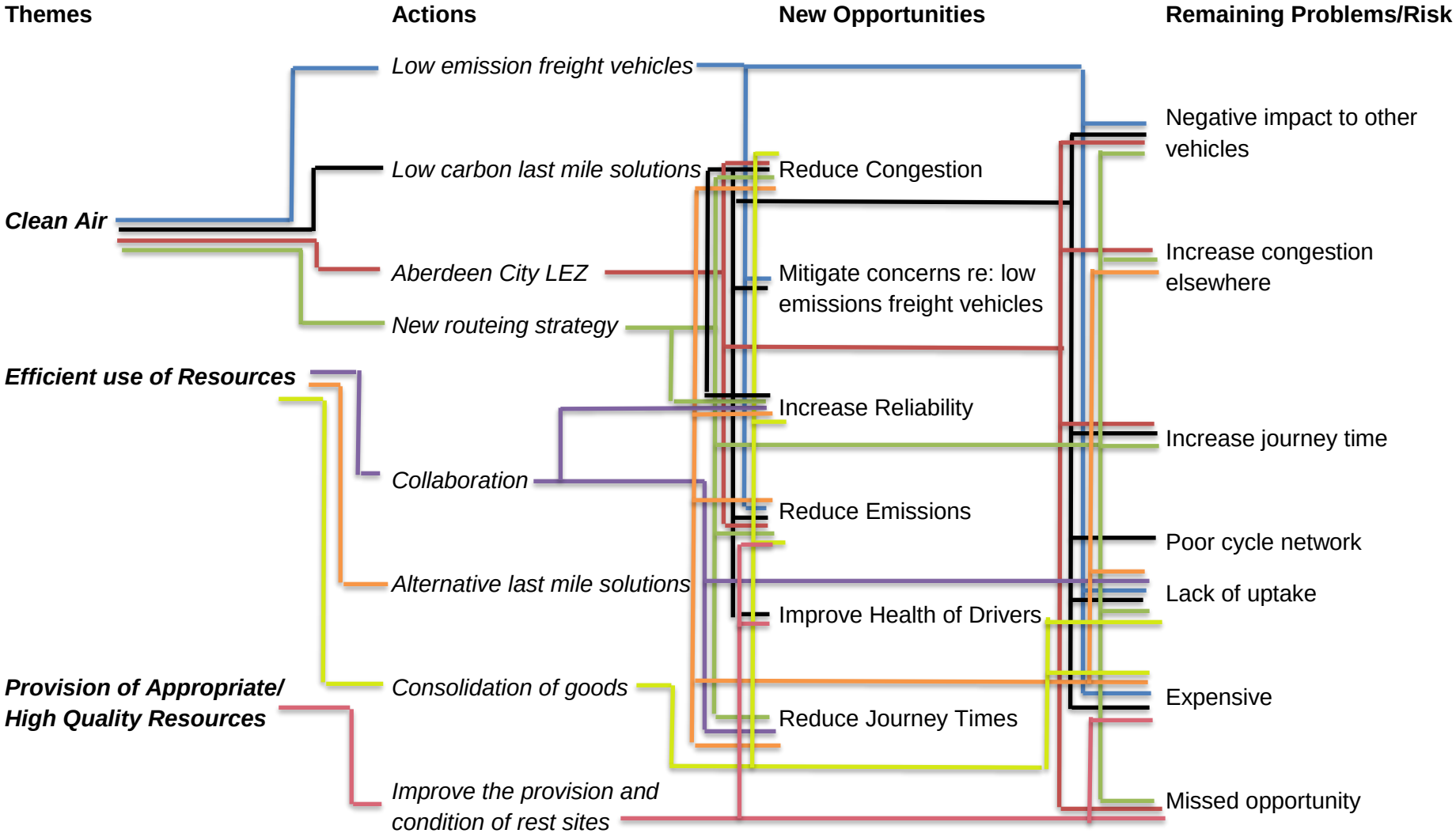
	travelling through Aberdeen City or other towns in the region.	Discourage vehicles from crossing the city centre and other town centres through physical or alternative measures. This will likely be in partnership with the City Centre Masterplan.	
		Develop a new route map that advises of the recommended routes based on local considerations.	Opportunity: Informs the necessary parties. Risk: May not be used. May not be provided in the correct or most desirable format. May be expensive to ensure it is available in all formats that are of use to operators and drivers.
		Feed into the roads hierarchy to ensure good priority for freight on recommended routes in order to reduce any negative impact of restrictions on other routes.	Opportunity: Will ensure that freight is at the forefront of considerations and that other risks are mitigated. Risk: Competing demands may not allow all considerations that should be made for freight. By the time the hierarchy is completed the opportunity may have been missed to influence decision making by drivers.
		Ensure any signing strategy is clear, particularly for freight vehicles travelling distances that may make them unfamiliar with local routes.	
	Work to increase collaboration in the industry.	Look at opportunities to launch an improved Freight Quality Partnership that better meets the need of all stakeholders.	Opportunity: Could help to provide a better voice for operators and ensure that needs are met. Could provide a two way

Efficient Use of Resources		Seek engagement with stakeholders who are currently not involved in the current partnership, but who could benefit or where engagement could provide benefit to other stakeholders.	engagement that is beneficial to all stakeholder. Risk: May continue to not be well used and may not be able to engage with stakeholders who are already missing from the Forum.
	Encourage the use of alternative last mile solutions in deliveries for operators, particularly those in the parcel sector.	Investigate opportunities for providing larger lockers in convenient locations outside of city and town centres as an alternative to home deliveries. A possible location would be in association with park and ride facilities.	Opportunity: Reduce congestion near city centres. Risk: May increase congestion in other locations. May not be well used. There are certain restrictions on what you can and can't do with existing P&R sites so preferred opportunities may not be feasible. Need to purchase land/gain planning permission for new locations, which may be difficult to justify and/or obtain.
		Investigate opportunities for providing a valid alternative for own vehicle use by contractors by providing opportunities for attractive rates in using car club vehicles for deliveries. This would require making more car club vehicles readily accessible in a number of locations and	Opportunity: May improve air quality if more energy efficient vehicles were used. May improve efficiency if vans are provided that are bigger than what is currently being used by some drivers.

		would potentially require agreements to be make directly with the businesses.	Risk: May exceed the current car capacity available in the car club scheme. May not be well used. May cause additional expense for drivers if not supported by companies.
		Investigate opportunities for providing more delivery options for consumers, both in the first instance and for redelivery. In addition to locker banks this could also include other pick-up locations. This could include investigating opportunities for increasing the availability of same day deliveries by retailers – by delivering items bought physically from stores to a convenient location near to the customers home in order to encourage greater use of public transport.	Opportunity: Could improve efficiency and reduce traffic in certain areas and at certain times – particularly if people used cars less to access retail areas. Risk: May not be well used. May be difficult to implement as requires agreement of businesses. May increase congestion at peak times for those collecting parcels after work. May increase congestion if vehicles are needed to complete same day deliveries to locations whilst people are shopping – may not be any more efficient that each person using their car, unless deliveries to areas could be consolidated, which could prove unwieldy. Unlikely to impact car usage on its own.
	Work to improve consolidation of goods, particularly	Look at opportunities for virtual consolidation, to reduce traffic entering the city centre.	Opportunity: Could reduce congestion.

	regarding movements accessing the harbour(s).	Look at opportunities for physical consolidation that stops larger vehicles from entering the city centre. Would also look at opportunities for consolidating any items that require transport between the two harbour sites.	Risk: May not be well used if collaboration cannot be facilitated.
Provision of appropriate and high quality resources	***Work to improve the provision and condition of rest sites in the north east.***	Undertake a survey of rest sites – both official and unofficial that are frequently used, and the experiences of drivers travelling within the region.	Opportunity: Will identify where improvements are required and where rest areas could be best placed. Risk: May be unable to act on findings. May still find rest sites are underused or facilities are misused. Difficult to get necessary information as local operators who engage with the Forum are less likely to use local rest areas. Also, consideration is required as to how to secure capital and revenue finding to set up these sites and keep them going.
		Look at the feasibility of moving rest sites to more appropriate locations if necessary – particularly with access to the AWPR	
		Look at the feasibility of using current park and ride sites as alternative rest sites for drivers.	Opportunity: Could provide required facilities in attractive locations at a low cost. Risk: Site and planning permission may not accommodate for this change of use. Difficult to keep facilities open overnight without having a staff member on site.

			Site could be misused or vandalised if not staffed.
		Assist freight operators with lobbying to the relevant parties to ensure that a consistent standard of rest areas is provided nationally.	Opportunity: Could assist local operators who are having issues elsewhere. Risk: May not be effective.


Themes
Actions
New Opportunities
Remaining Problems/Risk
Clean Air
Efficient use of Resources
Provision of Appropriate/ High Quality Resources
Low emission freight vehicles
Low carbon last mile solutions
Aberdeen City LEZ
New routeing strategy
Collaboration
Alternative last mile solutions
Consolidation of goods
Improve the provision and condition of rest sites
Reduce Congestion
Mitigate concerns re: low emissions freight vehicles
Increase Reliability
Reduce Emissions
Improve Health of Drivers
Reduce Journey Times
Negative impact to other vehicles
Increase congestion elsewhere
Increase journey time
Poor cycle network
Lack of uptake
Expensive
Missed opportunity

THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION

5. Next Steps

These possible actions have, as yet, not been fully assessed with regards to their suitability for implementation. The next stage would be to take these actions, as well as the long list of actions originally identified in the 2013 distribution strategy and provide a full assessment of them. This would require in depth analysis and study and would likely need to be done by an external party.

There are some actions that will need to be progressed and that could be progressed internally. These include those regarding Freight Quality Partnerships, routeing where it relates to ongoing projects and the vehicle and bike trials. Some of these are already being progressed and will be dealt with separately.

Moving forward the proposed action plan is as follows:

Freight Routeing and Distribution Strategy					
OBJECTIVE	START DATE	END DATE	DESCRIPTION	RESPONSIBILITY	DEPENDENT ON
T1: Clean Air					
Deliver a routeing strategy that ensures freight vehicles are not unnecessarily travelling through Aberdeen City or other towns in the region	01/11/2018	01/01/2019	Detailed assessment of projected movements to both harbours	Freight Advisor	
	01/11/2018	01/03/2019	Feed into Road Hierarchy study	FIG	
	01/02/2019	01/03/2019	Identify preferred HGV routeing/parking/restrictions	Nestrans/Freight Advisor	AWPR/Baseline/Roads Hierarchy
	15/02/2019	15/03/2019	Consult with stakeholders of HGV routeing/parking/restrictions	Nestrans/Freight Advisor	Identify proposed routes
	15/03/2019	01/04/2019	Agree preferred HGV routeing/parking/restrictions	Nestrans	Consulation
	01/04/2019	30/04/2019	Produce online and paper maps for distribution	Nestrans	Agree routes
	10/04/2019	15/05/2019	Engage with 4ABZ2 on any software implementations	Nestrans	Agree routes
	30/04/2019	01/06/2019	Publish and distribute maps	Nestrans	Produce maps
	30/04/2019	01/06/2019	Ensure any signing strategy is clear	ACC	Agree routes
Encourage the use of low emission freight vehicles in the north east	01/11/2018	30/04/2019	Trial of Clean Vehicles - Siemens	ACC	
	01/11/2018	31/12/2019	Explore other opportunities for clean vehicle trial	ACC/Freight Advisor	
	01/01/2020	01/03/2020	Produce evaluation report analysing success of clean vehicles trial	ACC/Nestrans	Clean vehicle trials
	01/11/2018	01/02/2019	Produce update to report analysing current loading practices and restrictions	Nestrans/Freight Advisor	
	01/01/2019	01/02/2019	Approach ACC Traffic Management and Road Safety to look at feasibility of any interventions to loading	Nestrans	
Encourage use of low carbon last mile solutions for operators and delivery companies	01/11/2018	01/01/2020	Engage with LEZ project regarding low carbon routeing	Nestrans	
	01/11/2018	01/02/2019	Document any case studies regarding preferred routeing for low carbon vehicles (including bikes)	Nestrans/Freight Advisor	
	01/02/2019	01/10/2020	Explore opportunities for last mile bike deliveries in the private sector	Nestrans/Freight Advisor	Case studies
Facilitate the positive and successful implementation of an Aberdeen City	01/11/2018	01/10/2020	Feed into the City Centre Masterplan	Nestrans	
	01/11/2018	01/05/2019	Feed into the Wellington Road corridor study		

T2: Efficient Use of Resources					
Work to increase collaboration in the industry	01/01/2019	01/03/2019	Consult with stakeholder on requirement for future FQP	Nestrans/Freight Advisor	
	01/02/2019	01/09/2019	Agree scope, objectives and participation of new FQP	FIG	
	01/07/2019	01/11/2019	Write updated Terms of Reference for new FQP	Nestrans	Agree FQP
	01/11/2019	01/12/2019	Launch new Freight Quality Partnership	FIG	Terms of Reference
Encourage the use of alternative last mile solutions in deliveries for operators	01/01/2019	01/01/2020	Approach local delivery branches regarding potential for delivery drivers to use car club vans for deliveries	Nestrans/ACC/ Freight Advisor	
	01/07/2019	01/12/2019	Assess whether more delivery opportunities are feasible/of interest	Nestrans/Freight Advisor	
	01/07/2019	01/12/2019	Investigate interest and opportunities for providing larger delivery lockers in convenient locations outside city.	Nestrans/fFreight Advisor	
Work to improve consolidation of goods, particularly regarding movements accessing the harbour(s)	01/11/2018	01/06/2019	Assess the feasibility of creating a consolidation centre in partnership with Aberdeen Harbour Board	Nestrans/Freight Advisor	
	01/04/2019	30/11/2019	Investigate possible virtual consolidation opportunities	Nestrans/Freight Advisor	
T3: Provision of Appropriate and High Quality Resources					
Work to improve the provision and condition of rest sites in the north east	01/01/2019	01/04/2019	Undertake a survey of on-site/off-site rest areas	Nestrans/Freight Advisor	
	01/04/2019	01/07/2019	Assess feasbility of altering rest site locations	Nestrans/LAs	Survey
	01/04/2019	01/07/2019	Assess feasibility of using current park and ride sites as rest sites	Nestrans/LAs	Survey
	01/11/2018	01/03/2019	Assist operators in lobbying for a consistent national standard for rest areas	Nestrans/Freight Advisor	

This action plan currently covers undertaking feasibility of all proposed actions. Once considered, a fully revised Freight Action Plan will be developed to discuss individual findings and any actions or projects moving forward. This will be developed in partnership with all partners and stakeholders.