Port of London Economic Impact Study

Report to the Port of London Authority

Spring 2020

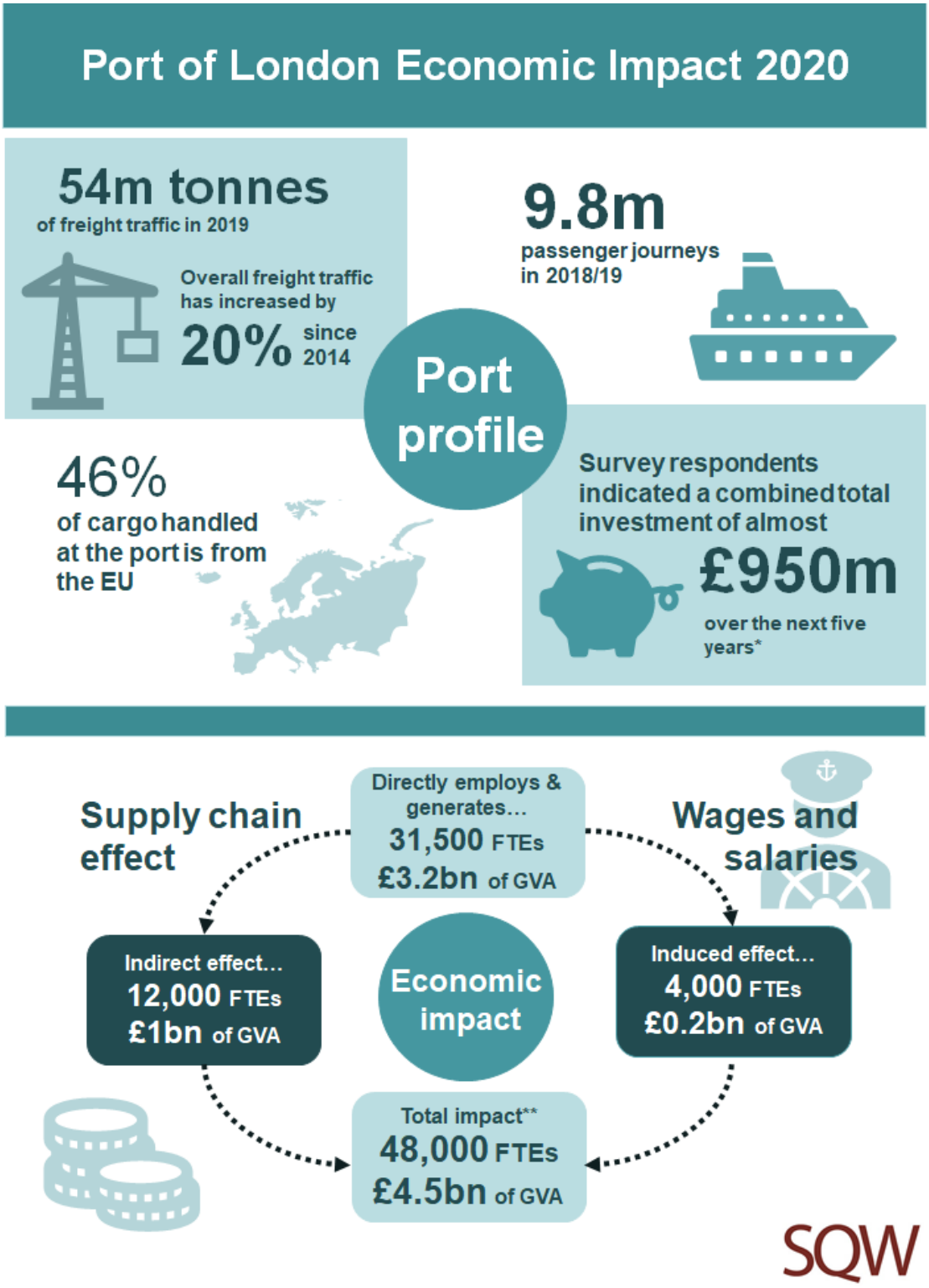
SQW

Contents

Contact:	Donald Ross	Tel:	0161 475 2108	email:	dross@sqw.co.uk

Approved by:	Bruce Macdonald Director	Date:	1 May 2020

Impact Summary



**Note that the volume of future investment is likely to be impacted by Covid-19*
***The 2015 study estimated a total economic impact of 43,500 FTEs and a GVA contribution of £4bn*

1. Introduction

1.1 The Port of London is the second largest port in the UK, handling 54 million tonnes of freight in 2019 and growing 20% over the past five years compared to an overall 3% fall in the freight tonnage handled by all UK major ports. The Port of London Authority (PLA) is responsible for operations on 95 miles of the River Thames and works to keep commercial and leisure users safe, protect and enhance the environment, and promote the use of the river for trade and travel.

1.2 In February 2020, the PLA commissioned SQW to update the findings from previous economic impact studies. The results are therefore a snapshot of activity just prior to the start of the Covid-19 pandemic in the UK and its economic effects.[1] These findings are intended to inform public and private decision makers about the value of the London port sector, and form part of the evidence base for the review of The Vision for the Tidal Thames – Thames 2035.

1.3 Defining the London port sector is complex because it includes businesses that cannot simply be identified by their SIC code[2], nor are the port sector businesses necessarily located in the immediate vicinity of the river. In previous studies, the economic impact analysis has been based on businesses identified by the PLA. This year, our approach has been to continue to use the PLA database to capture the larger-scale port activity, particularly that which is not defined easily by SIC codes (for example processors, HMRC activities, engineering, public agencies, insurers etc), but to also use data from Dun and Bradstreet[3] to capture other, generally smaller, port-related businesses located in riverside boroughs and districts. Together, these provide a comprehensive picture of port sector activity.

Study objectives

1.4 The main objective of the current study was to update the 2015 results as well as provide data on workforce characteristics and occupations, responses to decarbonisation, growth expectations and planned investments. Specifically, in relation to the economic impact, the study was to produce estimates of the:

- Contribution to UK/Regional Gross Value Added (GVA)
- Number of people employed (including both direct and indirect employment)
- Household income generated (wages).

1.5 These measures include the value of activities that are both directly and indirectly dependent on the port sector, and include impact derived from the wages and salaries received and spent by workers in the port sector.

[1] All survey respondents were asked for information as at the end of February 2020, i.e. before the impact of Covid-19
[2] Standard Industrial Classification (SIC) are used by government bodies such as Companies House and the Office for National Statistics to categorise the principal business activities of limited companies in the UK
[3] Dun and Bradstreet maintains a proprietary database of companies and tracks information including employment, turnover, sector and location

Study approach

1.6 As with the previous economic impact studies, the 2020 impact assessment involved a major telephone survey with port sector businesses. This was undertaken by Qa Research, who also conducted the surveys in 2008 and 2015. The work was carried out in the following stages:

- **Inception call:** to establish a clearly agreed basis for the study
- **Survey set-up:** the PLA provided a database of businesses involved in the London port sector. This was collated and cleaned for the survey, and the contact details updated where necessary. The PLA also sent out introduction emails from the Chief Executive asking businesses to participate in the study.
- **Questionnaire design** – research tools for both the detailed SQW interviews and the Qa telephone survey were designed and agreed with the PLA. These covered the economic impact questions along with questions around workforce and decarbonisation. In recognition of the challenges of securing the participation of businesses in surveys of this nature, the 2020 questionnaire was shortened, focussing on the key information needed to undertake the impact assessment and understand future investment plans.
- **Survey of London port sector firms** – every firm identified by the PLA was approached by either SQW or Qa Research to undertake the survey:
  - SQW undertook interviews with the larger firms, and particularly the port operators/processors and passenger transport firms
  - Qa undertook the telephone survey with other businesses on the database.
- **Analysis of Dun and Bradstreet data** – to ensure the best coverage of the port sector, we also purchased data from Dun and Bradstreet using SIC code definitions to identify other, relevant businesses located in riverside boroughs and districts.
- **Developing the economic model –** a model was constructed to calculate estimates of employment and GVA. This was designed to show the impacts across each borough and district, and to include multiplier effects. The model uses data for 2019/20 so does not need to adjust the figures for inflation. This approach is consistent with previous studies.
- **Presenting the findings** of the economic impact study in this report.

Port activities

1.7 We used the same six categories of port associated activity for the study as were used in 2015. These are shown in the table below.

Table 1-1: Definition of Port activities

Category	Definition
Boat yards and recreational craft	Boat yards and recreational craft services
Passenger and cruise related services	Passenger/cruise terminal operators, boat transport, passenger boat agents, cruise line ship transport, cruise line agents
Port and regulatory services	Regulatory services such as inspectorate, customs and immigration services
Port and ship supplier	Suppliers which are primarily devoted to port and shipping operations (line agents, shipping and forwarding agents, land transport contractors etc.)
Port operator and/or processor	Port and terminal operators with integral or adjoining processors
Ship and boat operator	Freight and support operators on the river

Source: SQW

1.8 Port and ship suppliers include a multitude of line agents, ship owners, ship brokers and cargo forwarders, civil engineers, shipwrights contractors, surveyors and marine engineers as well as road hauliers and rail terminals. A number of these activities are based inland, geographically concentrated in the boroughs and districts along the river but also dispersed in other areas of London, Kent and Essex.

1.9 Port operators and processors are located along the Thames from Wandsworth in south-west London to the mouth of the river. A number are primarily engaged in the handling and processing of imported cargo, whilst others undertake loading and unloading of containers from the ship onto a storage site for on-going distribution, mainly by road. A significant proportion of cargo traffic originates from and terminates at different jetties within the Port of London, primarily aggregates for construction projects up-river and waste for disposal down-river.

Geographical coverage

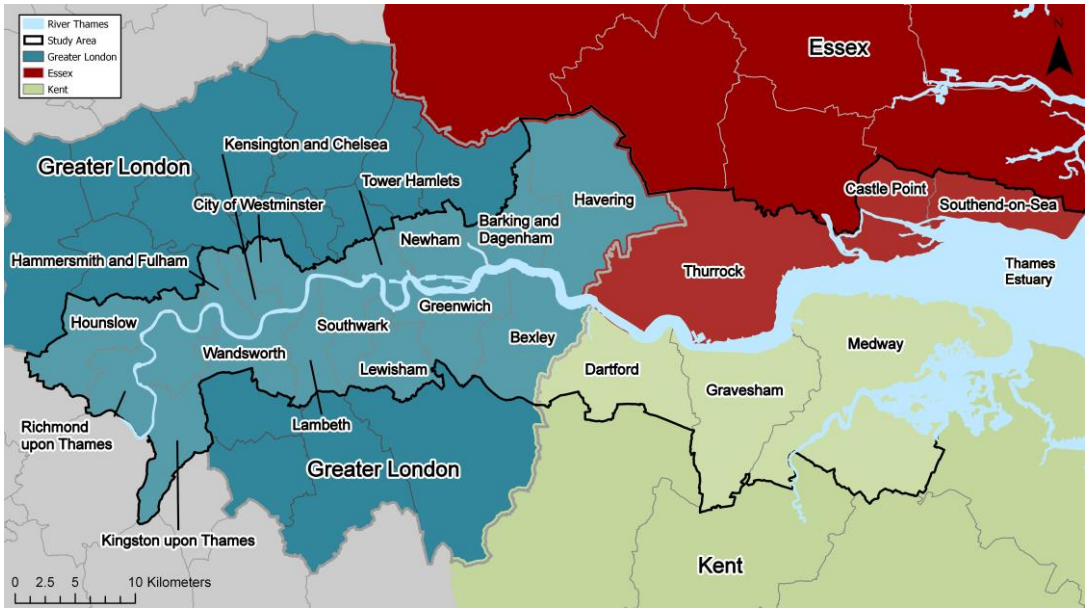
1.10 Consistent with previous studies, we have classified the results of the assessment across the six impact areas shown in Table 1-2 and illustrated overleaf in Figure 1-1.

Table 1-2: Primary and secondary impact areas

Primary impact area	Secondary impact areas	
• All riverside boroughs and districts from Teddington to the sea	• Rest of London • Rest of Kent • Rest of Essex	• Rest of UK • Overseas

Source: SQW

Figure 1-1: Primary impact area (all riverside boroughs and districts from Teddington to the sea)



Source: Produced by SQW 2020. Licence 100030994. Contains OS data © Crown copyright [and database right] [2019]

Report structure

1.11 The remainder of this report is structured as follows:

- **Chapter 2: Port Profile** introduces the Port of London and the profile of volume, value and types of traffic using it
- **Chapter 3: Impact Approach** provides an overview of the approach used to calculate the economic impact estimates
- **Chapter 4: Economic Impact** includes estimates of direct, supply chain and induced impacts in both employment and monetary terms
- **Chapter 5: Workforce and future development** examines the current workforce characteristics of port sector businesses, and their decarbonisation and development plans
- **Chapter 5: Conclusions** presents the key findings from the study

1.12 Both SQW and the PLA would like to thank all of the companies that contributed to the 2020 impact study. The time given to SQW and Qa Research by company representatives is both recognised and appreciated.

2. Port profile

2.1 To place the later economic impact estimates in context, this chapter introduces the profile of volume, value and types of traffic using the Port of London, and how this has changed over the past ten years. In the past five years, in particular, activity has grown rapidly

Summary

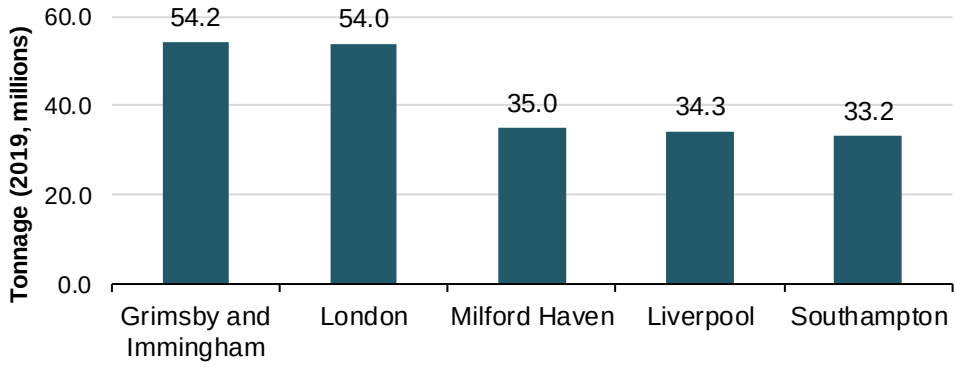
- The Port of London handles the second largest volume of freight traffic of any UK port. In 2019 it handled 54m tonnes of freight traffic, equivalent to 11% of the UK total
- Overall traffic has increased by around 20% since 2014, driven by a 44% increase in Lift on-Lift off traffic primarily associated with the additional berth capacity at London Gateway
- EU freight traffic has consistently been the largest source of traffic in the port, and accounted for almost half of all tonnage handled in 2018
- HMRC data shows that the major Thames ports were responsible for around £26bn of non-EU trade in 2019, split relatively evenly between imports and exports. In addition to trade with the EU, these ports are particularly important for UK trade with Latin America and Caribbean
- Significant volumes of passengers also use the Thames with around 10m journeys made per year
- Decarbonisation, digitalisation and the way the UK responds to both Brexit and Covid-19 will be important in shaping the future of the Port of London.

Volume of cargo

The Port of London handles the second largest volume of freight traffic of any UK port

2.2 The Department for Transport statistics show that the 54m tonnes handled at the port in 2019 was 11% of the total traffic at the UK's major ports. This is almost the same as at Grimsby and Immingham, but 18m tonnes more than the freight traffic handled at the next busiest UK port, Milford Haven (Figure 2-1).

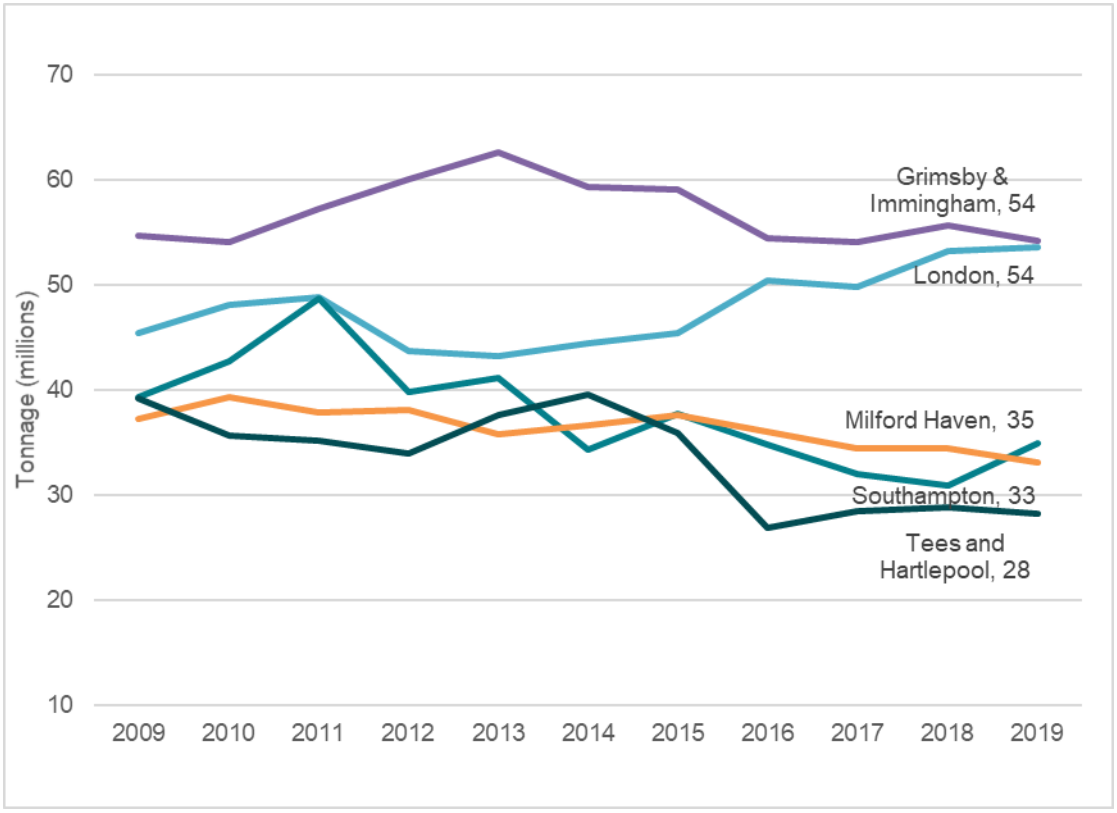
Figure 2-1: Top five UK ports by volume of freight traffic (2019)



Source: Department for Transport, Port and domestic waterborne freight statistics. Note: data for 2019 are provisional

2.3 As Figure 2-2 shows, the Port of London's importance in 2019 is consistent with previous years. The port has handled the second or third highest tonnage of the any UK port each year since the millennium. Despite fluctuations over the years caused by the financial crisis and closure of assets such as Coryton oil refinery and Tilbury Power Station, there were almost 6 million tonnes more freight in 2019 than in 2009. Figure 2-2 shows the volume of freight handled between 2009 and 2019.

Figure 2-2: Top UK ports by volume of freight traffic (2000-2019)

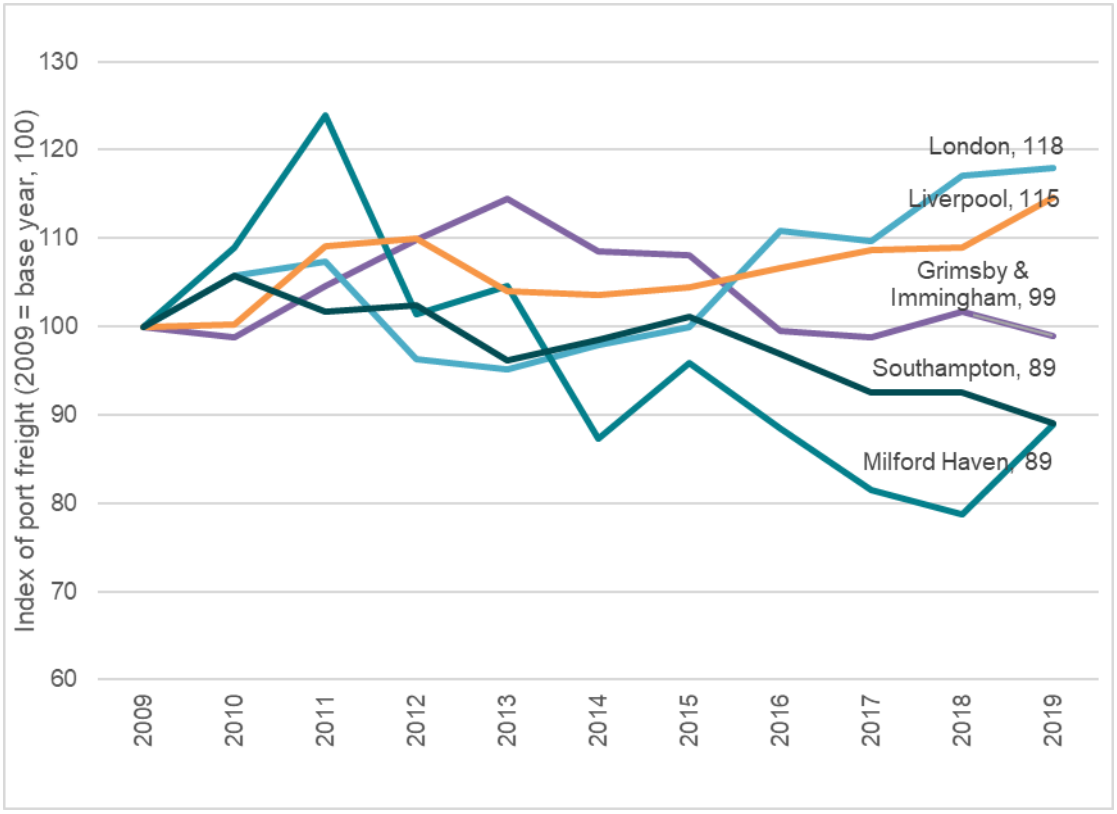


Source: Department for Transport, Port and domestic waterborne freight statistics. Note: data for 2019 are provisional

Since the financial crisis in 2009, tonnage has increased by 18%, faster than any comparator port

2.4 The rapid growth over the last ten years is shown using an index in Figure 2-3:. From 2009, the year of the financial crisis, growth in port freight tonnage has grown by 18% in London, and 16% in Liverpool, while Grimsby and Immingham has remained at around the same level. The growth in London is particularly impressive when set against the overall fall of freight tonnage of 3% across the UK's major ports over the same time period.

Figure 2-3: Relative change in port freight tonnes 2009 to 2019



Source: Department for Transport, Port and domestic waterborne freight statistics. Note: data for 2019 are provisional

Composition of cargo

2.5 Inwards traffic in liquid bulk is particularly important, with the port handling over 1.5m tonnes more of oil products in 2019 than 2014. The PLA provided data on the composition of cargo handled at the Port of London in 2019, and this is shown in Table 2-1. Overall traffic has increased by around 20% since the previous economic impact study.

2.6 There has been a 47% increase in inwards Lo-Lo (Lift-on Lift-off) traffic driven by a rise in all categories of freight units. This is primarily associated with the additional berth capacity at London Gateway. 'Other general cargo' was the only category to experience a significant percentage fall in inwards traffic, although this only represented a 0.3m tonne fall in volume; forestry products dropped almost 20%, whilst iron and steel products fell by 50%.

2.7 The volumes for outwards traffic at the Port of London are much lower than for inwards traffic. As with inwards traffic, the largest increases in actual and percentage terms was for Lo-Lo traffic. The next largest percentage decrease was for Liquid bulks (46%), although this only represents a fall of c.0.1m tonnes.

Table 2-1: Composition of freight traffic in the Port of London (2019, million tonnes)

	Inwards traffic				Outwards traffic			
	2014	2019	Change	% change	2014	2019	Change	% change
Liquid bulk	12.5	14.4	1.9	15%	0.3	0.2	-0.1	-46%
Dry bulk	11.1	13.6	2.5	22%	1.6	1.6	-0.0	-3%
Lo-Lo	6.4	9.4	3.0	47%	2.7	5.6	2.9	107%
Ro-Ro	5.8	5.7	-0.1	-1%	2	1.9	-0.1	-4%
Other general cargo	1.7	1.4	-0.3	-21%	0.4	0.4	-0.0	-9%
Total	37.5	44.5	7.0	19%	7	9.6	2.6	37%

Source: PLA

Types of cargo

2.8 Oil products is the largest single category of cargo handled at the Port of London. Looking in more detail at the DfT data on cargo descriptions shows that this is followed by other dry bulk (not including ores or agricultural products). The Port accounts for a disproportionately large share of UK traffic in these categories (relative to the overall 11% of all UK major port traffic). For example, it handles 18% of UK oil products going through major ports, and 24% of other dry bulk.

Table 2-2: Top 10 cargo descriptions at the Port of London (2018)

	Tonnage (millions) at Port of London	% of traffic at all UK major ports	Change in tonnage since 2015
Oil products	13.9	18%	3.13
Other dry bulk	12.6	23%	1.52
40' freight units	8.0	20%	1.89
20' freight units	3.7	18%	0.88
Rail wagons, shipborne port to port trailers, and shipborne barges engaged in goods transport	3.6	35%	0.12
Unaccompanied road goods trailers & semi-trailers	3.6	8%	0.11
Freight units >40'	1.8	29%	0.95
Agricultural products (eg grain, soya, tapioca)	1.3	11%	-0.44
Other liquid bulk products	1.1	10%	0.13
Ores	1.0	7%	-0.13

Source: Department for Transport, Port and domestic waterborne freight statistics, 2018

2.9 Compared to 2015, the Port of London now handles more tonnage in each category shown above apart from agricultural products and ores. The increase in oil products is particularly notable, with 40' freight units and other dry bulks seeing the next largest increases.

Origins and destinations

2.10 Almost half of the cargo (46%) handled at the port is from the EU. As one of the most significant UK ports, London deals with freight traffic from around the world. A further fifth is from other UK ports. Despite being relatively small in volume (just 1% of traffic in the port) the 0.5m tonnes of freight traffic to/from Australasia handled at the Port of London is 20% of the total Australasian traffic at UK major ports. Perhaps related to its position in the South East of the UK, the port also handles a higher percentage of UK major port traffic to/from Africa (15%) and a slightly lower percentage of American traffic (9%) than its overall 11% share of all traffic.

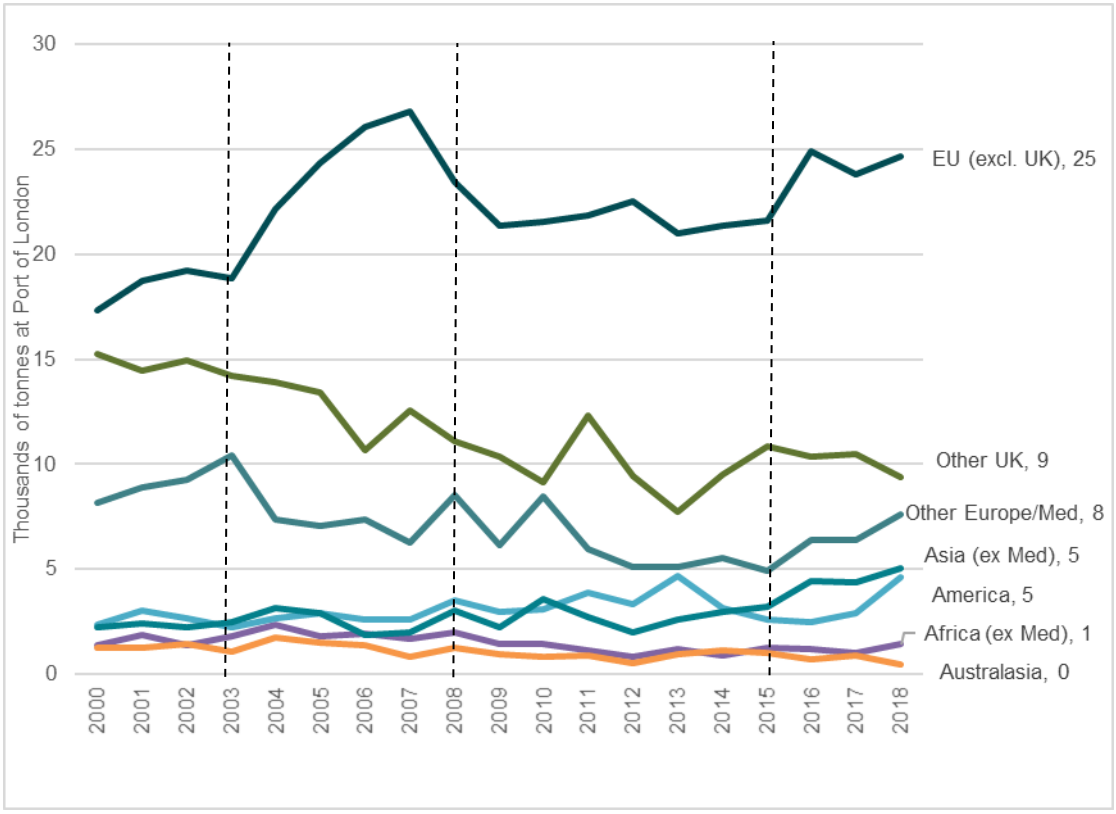
Table 2-3: Traffic by region (2018)

	Total tonnage (millions)	% of tonnage handled by Port of London	% of UK major port tonnage handled by London
EU (excl. UK)	24.7	46%	12%
Other UK*	9.4	18%	11%
Other Europe & Med	7.6	14%	12%
Asia (excl. Med)	5.1	10%	10%
America	4.6	9%	9%
Africa (excl. Med)	1.4	3%	15%
Australasia	0.5	1%	20%

*Source: Department for Transport, Port and domestic waterborne freight statistics. *includes Channel Islands and Isle of Man. Note: Port of London percentages may not sum due to rounding*

2.11 Freight traffic with the EU has consistently been the largest source of activity, by volume, and has increased in importance since 2000. The timeseries chart below shows that it has increased by 42%, whilst UK traffic - the next most significant source - dropped by 38%. Traffic from America and Asia (excluding the Mediterranean) also increased markedly (by 97% and 126% respectively), albeit from small bases.

Figure 2-4: Trade by region, 2000-2018



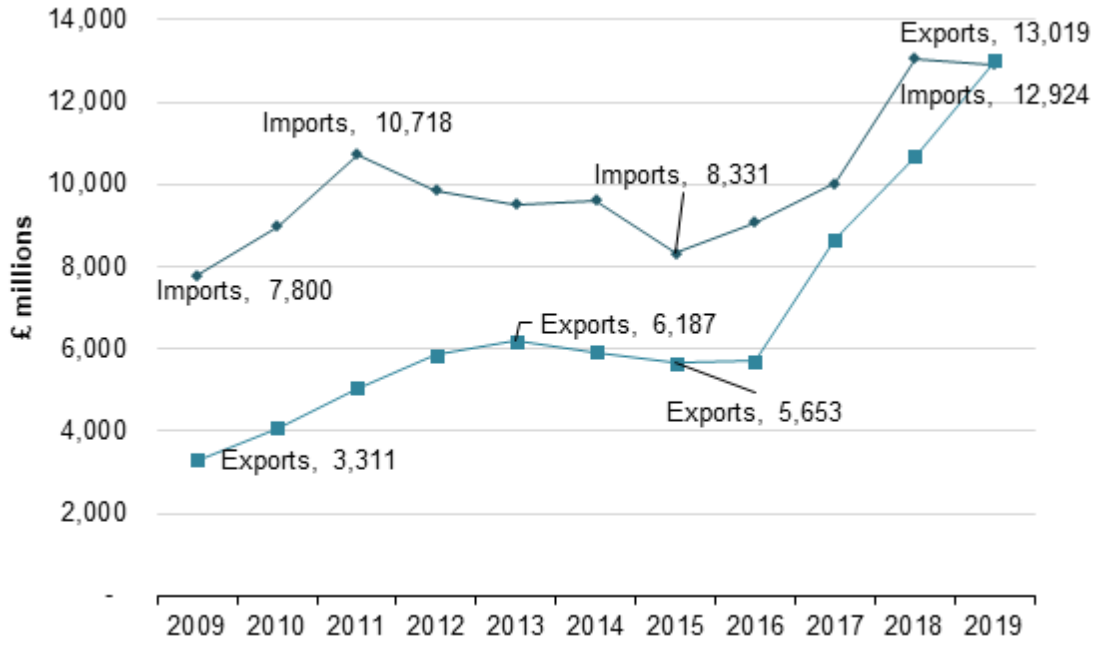
Source: Department for Transport, Port and domestic waterborne freight statistics, 2018. Note: dotted lines represent the years in which previous economic impact assessments were undertaken

Imports and exports

2.12 Data on the monetary value of trade passing through the Port of London is available from the HRMC. However, there are limitations. The following data is for imports and exports to/from non-EU countries only. It should also be noted that the HMRC uses a different definition of ports to that used by DfT. The following data covers the HMRC defined terminals of London (incl. Tilbury) and London Gateway.

2.13 The London terminals were responsible for around £26 billion of non-EU trade in 2019, split evenly between imports and exports. As the chart below shows, 2019 is the first year since 2000 that there has been such a balance of trade flowing into and out of the London terminals. Much of the change since 2014 has been accounted for by the opening of London Gateway, which registered almost £11bn of exports in 2019.

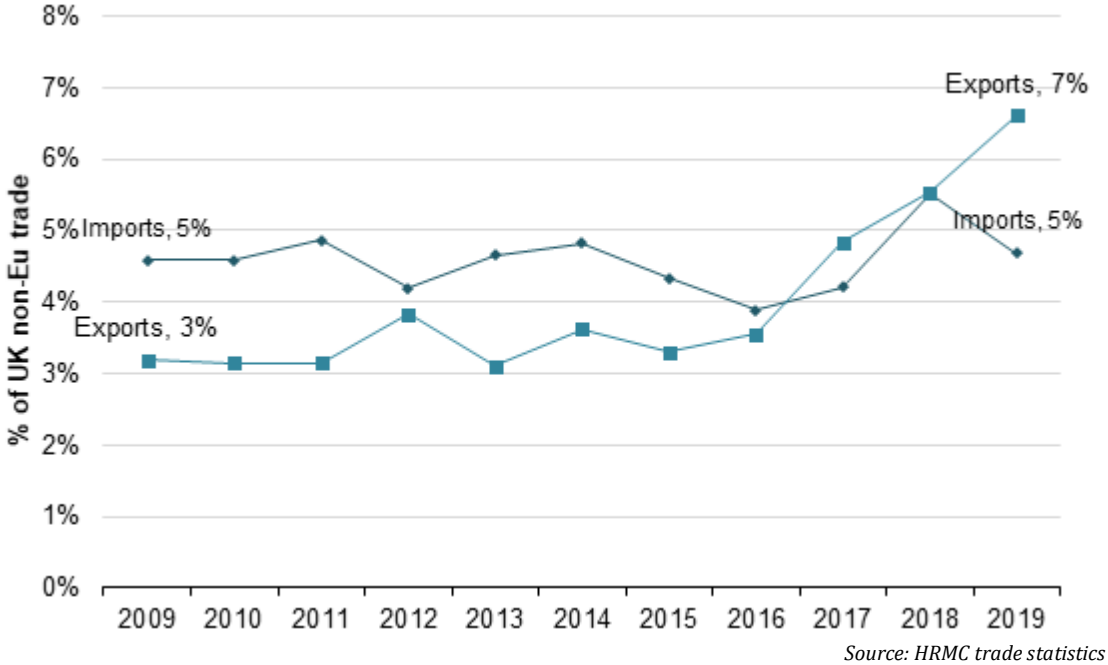
Figure 2-5: Value of non-EU trade accounted for by the London terminals (£m)



Source: HRMC trade statistics

2.14 The two terminals accounted for 5% of the value of the UK's imports from outside the EU and 7% of exports to non-EU countries in 2019. These proportions are both higher than 2000 when the values of imports and exports were both 4% of UK totals. The export value in particular is notably higher than at the time of the last study in 2014 when the ports accounted for around 4% of the UK total. In comparison, the major port of Grimsby and Immingham accounted for c.2% of the value of both the UK's non-EU imports and exports in 2019 which is a slight decline since 2009.

Figure 2-6: Percentage of the UK's non-EU trade accounted for by the London terminals



Source: HRMC trade statistics

2.15 The HMRC data uses different definitions of global regions to the DfT data which prevents a comparison between the two datasets. Nevertheless, the HMRC data reveals that the ports are particularly important for UK trade with Latin America and Caribbean, (around a third of UK total imports and exports by value to this region) and for exports to Sub-Saharan Africa (over a quarter of exports). The ports also account for over 10% of the value of UK imports and exports to the Middle East and North Africa.

Passengers

2.16 The Thames is not only used for cargo transport. Significant volumes of passenger journeys are also made on the river each year. Around 10 million journeys have been made in each of the past four financial years for which full data was available. The 2019/20 figures are only to February but the numbers in March may be low given the start of Covid-19 in the UK.

Table 2-4: Transport passenger journeys in London (2015/16 to 2019/20, millions*)

	2015/16	2016/17	2017/18	2018/19	2019/20*
River Bus	3.8	4.1	4.1	4.2	3.9
River Tours (inc charters)	4.8	4.7	4.1	4.4	4.3
Woolwich Ferrry	1.7	1.9	1.1	1.1	1.1
Total	**10.3**	**10.6**	**10.0**	**9.8**	**9.2**

*Source: Transport for London. *data up to February 2020*

2.17 The Gravesend-Tilbury ferry provides a link across the lower reaches of the Thames between Kent and Essex. Almost 130k passengers used the ferry in 2018.

Table 2-5: Passenger numbers on the Gravesend-Tilbury ferry

	May'17-Dec'17	Jan'18-Dec'18
Passengers	84,743	129,591

Source: PLA. Data for 2019 was unavailable at the time of writing

2.18 As well as river tours in central London, tours are also run further downstream. As the table below shows, almost 2,500 tours were run on this stretch of the river in 2018, with the tour to the Redsand Towers fort built in the Thames Estuary during the Second World War particularly popular.

Table 2-6: River tours on the Thames

	May'17-Dec'17	Jan'18-Dec'18
Rochester to Southend	220	633
Southend to Redsand Towers	-	1,066
Gravesend to Southend	-	161
Gravesend to Rochester	4	9
Gravesend to Greenwich	-	289
New Year's Eve	-	18
Rochester to Redsands	-	170
Southend to Rochester	-	128
Queenbrough - Southend	222	-
Total - provided	**446**	**2,474**

Source: PLA. Data for 2019 was unavailable at the time of writing

Future challenges and opportunities

2.19 Organisations working in the Port of London - and their supply chains – will have to adapt to changing contexts and market demand over the coming years. This includes issues such as the predicted growth in seaborne trade linked to the estimated doubling of international trade by 2031[4], the growing economic dominance of China and India[5], and the potential emergence of new Arctic shipping lanes resulting from climate change.[6] Decarbonisation and digitalisation are beginning to impact on the port sector, whilst the UK's responses to Brexit and Covid-19 will also be important in shaping the future of the Port of London.

2.20 Decarbonisation will become increasingly important to all companies operating in the Port of London. The International Maritime Organisation has set a total annual greenhouse gas emissions reduction target of at least 50% by 2050 compared to 2008 levels, with the UK Government setting its own net zero target for 2050. Section 4 presents the views of firms about their preparations and how they might achieve these targets.

2.21 The application of digital technology offers productivity gains – both for relatively low productivity 'traditional firms' unwilling/unable to use existing digital technology, and those at the forefront of the adoption of new technology through what is sometimes called TradeTech or ShipTech.[7] These technologies include automation and robotics, blockchain and cyber security.

2.22 Brexit is an important contextual factor. Large parts of the maritime sector depend on trade volumes, which in turn depend on the health and vibrancy of the UK economy. If the economy suffers because of Brexit, there will be a negative impact on the maritime sector, although

[4] Organisation for Economic Co-operation and Development (2016) The Ocean Economy in 2030
[5] Department for Transport (2019) Maritime 2050: Navigating the Future
[6] Government Office for Science (2018) Foresight: Future of the Sea
[7] PUBLIC (2019) Trade 2.0: How start-ups are driving the next generation of trade

there is uncertainty over how severe this could be.[8] The Government plans to create up to 10 freeports across the UK[9] may also influence the future balance of trade between UK ports.

2.23 Finally, this report was written during the Covid-19 global pandemic. It is too early to estimate the potential impacts of Covid-19 on global trade volumes and the future of businesses operating in the Port of London.

[8] Policy Exchange (2018) Brexit: Prospects for trade and Britain's maritime ports
[9] https://www.gov.uk/government/consultations/freeports-consultation

3. Impact approach

3.1 This section provides an overview of the approach used to calculate the economic impact estimates presented in the next chapter. The methodology is broadly the same as in previous studies, but we have also made a number of changes to strengthen the estimates given the challenges in undertaking the business survey.

Business survey

Survey coverage

3.2 The Port of London Authority provided an initial list of 297 businesses from their own contacts. SQW also reviewed the 440 businesses covered in the 2015 survey using Companies House records. Where they were no longer trading they were removed, as were duplicates or overlaps with the new PLA data. In total, this gave 455 businesses from PLA sources.

3.3 To obtain a more complete coverage of the port sector, we also used data from the Dun and Bradstreet company database. This provides estimates of employment and turnover. We used SIC code definitions (which are detailed in the Annex) to identify 362 additional, relevant businesses within the riverside boroughs and districts. This gave a combined total of 817 business sites.[10]

Survey process

3.4 One of the biggest challenges the study faced was securing businesses' and individuals' agreement to use their contact data. The PLA are not permitted to share contact details for specific individuals with SQW without first obtaining consent from the individuals, as required under GDPR. At the start of the study, businesses were sent an email from the PLA Chief Executive to encourage them to take part in the survey and ask for permission to share their contact details. After the initial email, thirty individuals provided consent, and all were subsequently interviewed either by SQW or Qa. Where consent was not obtained, businesses were contacted by using their generic telephone numbers, and asked to speak to the most relevant person.

3.5 The telephone survey was started on the 4th of March, but with the onset of Covid 19, the survey was halted on the 19th March 2020. Where interviews had been arranged for dates after 19th March, these were still completed. All of the businesses were contacted prior to the survey closing, but the restrictions imposed in response to the virus and the severe challenges for businesses at that time meant that it was not appropriate to try to pursue further interviews after the 19th March.

3.6 The Qa survey aimed to conduct 150 interviews and, over the shortened period, completed 41 interviews. Of the remaining 414, there were:

[10] The unit for the survey of Port operators and processors was the jetty or terminal operation site. If an operator had multiple sites in the study area, these were counted separately.

- 226 refusals
- 40 wrong numbers
- 21 duplicate contacts
- 77 were still 'live' contacts when the survey closed.

3.7 In total SQW conducted 18 of the planned 30 face-to-face interviews with some of the largest businesses operating in the London port sector. Initially these were done face to face, but most were subsequently conducted by video or teleconference at the request of consultees because of the coronavirus related restrictions. Table 3-1 shows the distribution of the 59 interviews.

Table 3-1: Survey coverage by category and interviewers

Port Sector	QA	SQW	Total
Boat yards and recreational craft	3		3
Passenger and cruise related services	5	1	6
Port and regulatory services (customs, immigration, police, health)	8	3	11
Port and ship supplier	8	2	10
Port operator and/or processor (includes shipping lines and line agents)	7	7	14
Ship and boat operator	10	5	15
Grand Total	41	18	59

Source: SQW. Note that the PLA has been included within the Port and regulatory services category

Economic impact

3.8 The results from the survey provide the primary source of information for the economic impact assessment. While the current Covid 19 challenges led to a lower survey response than in previous years, the use of previous survey results and the addition of the Dun and Bradstreet data has allowed us to build a more complete picture of the London port sector than previously. Using these different sources means that we have employment data for around half of all the businesses identified in the port sector.

3.9 Dun and Bradstreet data not only provides employment and turnover estimates for a large number of smaller port sector businesses, but also allows survey results to be cross checked. However, in some cases the employment and turnover estimates recorded in Dun and Bradstreet are global group figures, rather than for a single site. In these cases, we have used websites and Companies House records to adjust the numbers to more reasonable estimates. No other significant anomalies between the data collected through the survey and the data from Dun and Bradstreet were identified.

Impact model

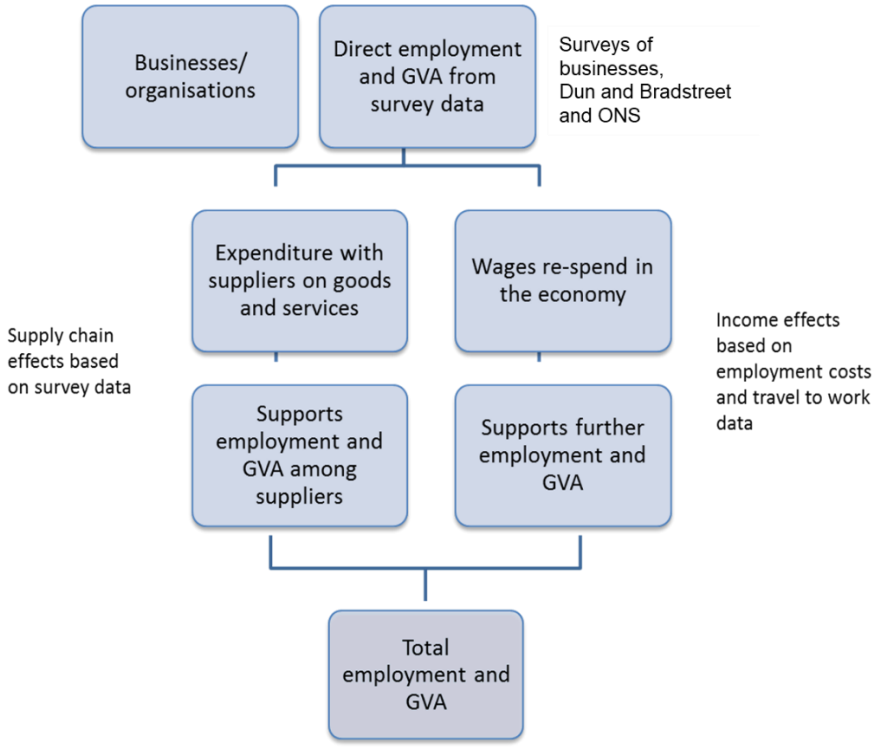
3.10 The study team developed a bespoke economic impact model which calculates estimates of employment and GVA. The model is workplace based, and thus employment and GVA are

assigned to the locations where the economic activity takes place, rather than the locations where the employees live.

3.11 The model provides estimates of GVA and employment directly generated by the London port sector businesses, and the 'knock on' effects these have for the rest of the economy. As shown in the graphic below, the model calculates estimates of:

- **the direct employment and GVA** supported by businesses and organisations in the port sector
- **the indirect employment and GVA** generated in the supply chain as a result of expenditure by port sector businesses on goods and services
- **the induced employment and GVA** supported through the spending of the wages earned by employees in the port sector.

Figure 3-1: Measures of economic impact



Source: SQW

3.12 Where necessary, published data sources are used to support the calculation of these estimates. This includes Annual Business Survey data on sectoral GVA per employee figures, and Census 2011 data on travel to work. In other cases, averages derived from survey responses and Dun and Bradstreet data are used to impute employment and turnover figures for businesses who did not respond to the survey. The commentary in the following chapter makes clear where public data sets and averages have been used.

3.13 Finally, the impact model contains the port sector and location of each business which allows the estimates to be disaggregated into the six categories of port sector business and the six impact areas presented in the Introduction.

4. Economic impact

4.1 This Section presents estimates for the London port sector's economic impact in 2020. The impacts are presented in employment and monetary terms and disaggregated across the different impact areas.

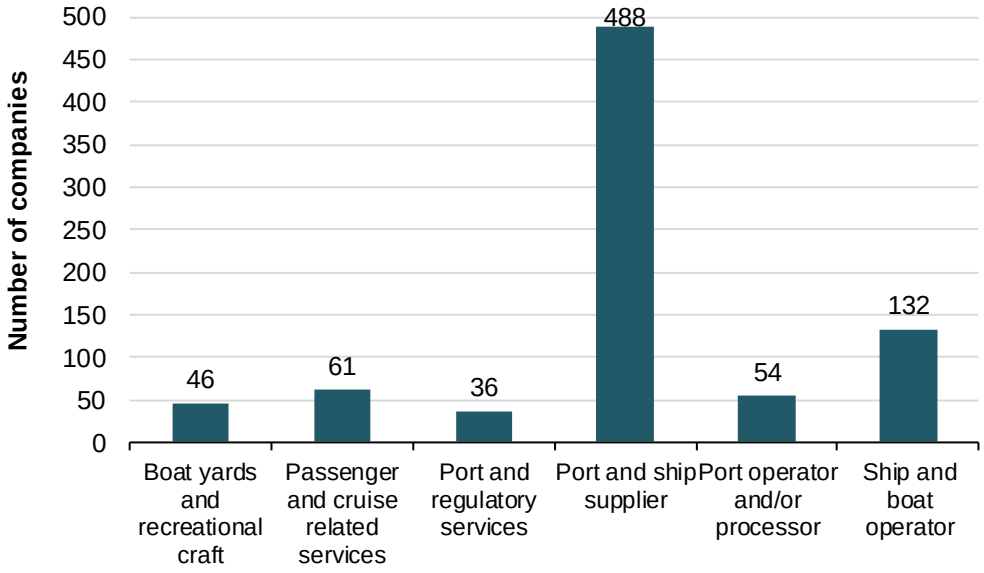
Summary

- The London port sector directly employs almost 31,500 FTEs and generates a direct GVA of around £3.2bn.
- When wider impacts, such as supply chain activity and the spending of wages are included it is estimated that around 48,000 FTEs and £4.5bn of GVA are dependent on the sector
- Just over 50% of the total impacts occur in the primary impact area (i.e. the 23 riverside boroughs and districts) with a particular concentration in Thurrock
- The economic impact has increased since the 2015 study, partly because of an increase in freight traffic at the port and partly because this study uses a broader population of firms to give more realistic and robust estimates.

Direct impact

4.2 Direct impacts are generated by businesses and other organisations operating in, or linked to, the port. As the chart below shows, the majority (60%) of these 817 organisations are port and ship suppliers. This category includes a diverse array of businesses providing supplies, operating as line agents, shipping and forwarding agents, land transport contractors, marine and maritime engineers etc. Ship and boat operators are the next largest category of business in the port sector.

Figure 4-1: Composition of the London port sector



Source: SQW

4.3 The impacts of these businesses are assessed in terms of employment and Gross Value Added (GVA). GVA is commonly used in economic impact studies and is a measure of the amount individual businesses, industries or sectors contribute to the economy. It is the difference between the value of goods and services produced by a company (output) and the cost of raw materials and other inputs which are used up in production of those goods and services (intermediate consumption).[11]

Employment

4.4 Where possible, direct employment figures are taken from responses to the 2020 survey. Where companies included in the contact database did not take part in the survey, the model uses the following hierarchy to estimate an employment value for them:

- Data from the 2015 survey or Dun and Bradstreet
- Average data for each category of firm, using two different methods:
  - For port operators and processors, the model uses tonnage data as the basis for the estimates in order to take account of the scale of the firms
  - For all other categories, a category specific average value based on data from the 2020 and 2015 surveys and Dun and Bradstreet data (excluding outliers[12]) was applied.[13]

4.5 Following this methodology, it is estimated that the London port sector supports around 31,500 Full Time Equivalent jobs (FTEs). The types of jobs this includes, and the characteristics of the workforce, are discussed further in Section 4.

Table 4-1: Direct employment in the London port sector

Category	Total direct FTEs
Boat yards and recreational craft	553
Passenger and cruise related services	2,561
Port and regulatory services	1,003
Port and ship supplier	12,171
Port operator and/or processor	10,612
Ship and boat operator	4,652
Total	31,553

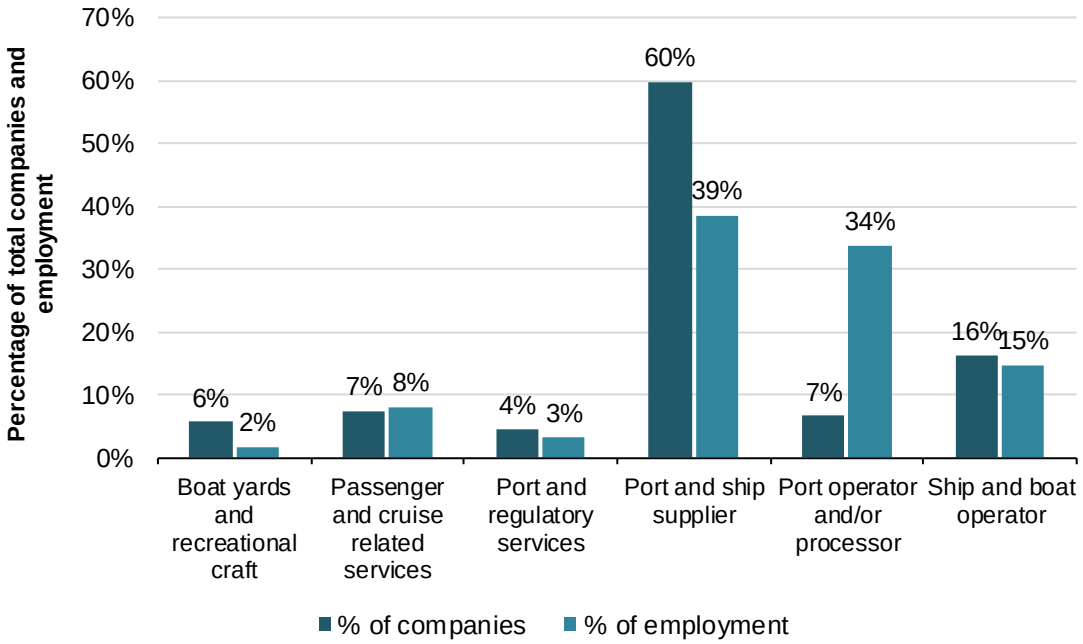
Source: SQW

4.6 Port and ship suppliers and port operators and processors make up three quarters of direct employment in the sector. However, as the chart below illustrates, Port and ship suppliers tend to be smaller companies as they account for a smaller proportion of employment than the proportion of overall companies they represent (39% and 60% respectively). Conversely,

[11] Annual Business Survey: Glossary of Terms, ONS
[12] An important factor in the analysis is that there are a number of companies with very large employment and/or turnover figures. In order to avoid distorting the averages applied by the model, data for some outlier firms is excluded from the calculation of averages. This is consistent with previous studies. Similarly, the PLA itself was excluded from the averages to ensures that the relatively large number of people employed does not influence the averages applied to the 'port regulatory services' category.
[13] Data from 2015 is used to increase the sample size and thus improve the robustness of the estimates.

Port operators and processors are larger, representing a higher proportion of employment relative to the number of companies.

Figure 4-2: Employment by category



Source: SQW

Gross Value Added

4.7 Around two thirds of the companies interviewed (40) were willing to disclose sufficient financial information to estimate their GVA. This has been calculated as the difference between the turnover of the business and the value of bought-in goods and services.

4.8 It is important to understand that while the methodology can provide broad estimates, it was very difficult for respondents to provide accurate answers to questions relating to financial information. This was especially the case for large companies where the site may be only one part of a wider national/international operation. For example, if turnover is only reported at group rather than site level.

4.9 Where no data was available, GVA figures were based on the employment figures presented and sector statistics on GVA per worker. To make the model as robust as possible, it applies ratios based on the SIC codes[14] held in the Dun and Bradstreet data. GVA for the remaining businesses is calculated by applying different GVA per worker figures for each category of business.[15]

4.10 The estimated contribution of the port sector to GVA is calculated to be over £3.2 billion. Reflecting the high proportion of employment they account for, businesses in the port and ship supplier and port operator and processor categories together contribute around 60% of this GVA. The London port sector's overall direct GVA and employment contributions are both higher than at the time of the previous study – see later in this Section for an analysis –

[14] Standard Industrial Classification (SIC) are used by government bodies such as Companies House and the Office for National Statistics to categorise the principal business activities of limited companies in the UK
[15] For example, businesses in the Ship and boat operator category are assigned the GVA per worker figure for the Water Transport sector

although it should be noted that there are some differences in methodology between the studies.

Table 4-2: Employment and GVA estimates

Type	FTEs	GVA (£m)	Average GVA per job (£)
Boat yards and recreational craft	553	57	103,000
Passenger and cruise related services	2,561	263	103,000
Port and regulatory services	1,003	85	84,000
Port and ship supplier	12,171	1,050	86,000
Port operator and/or processor	10,612	940	89,000
Ship and boat operator	4,652	825	177,000
Total	31,553	3,221	102,000

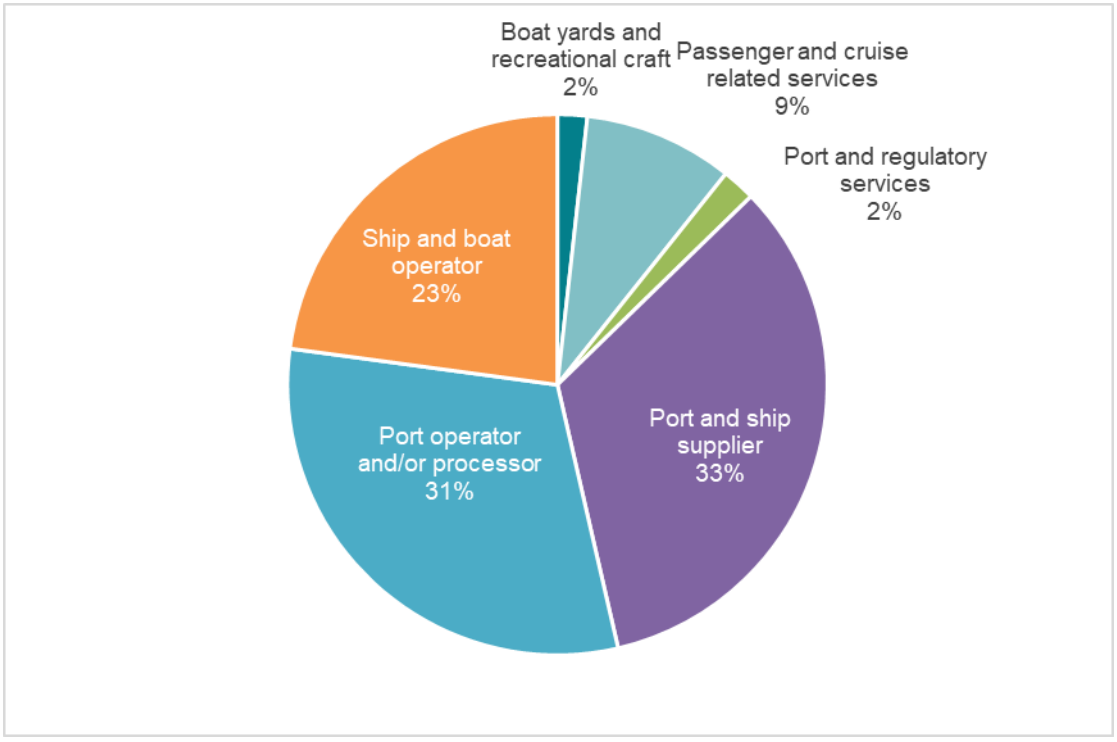
Source: SQW. Note: figures may not sum due to rounding

Wages and salaries

4.11 The table below provides estimates for the annual wages and salaries across each category of firm. This combines reported employment figures with sectoral employment cost per job figures derived from published ONS statistics, with the results adjusted to remove employer on-costs (pensions and National Insurance).

4.12 The total annual salary of the London port sector is estimated as almost £1.35bn. As shown in the chart below, almost 90% this is accounted for by Port and ship suppliers, Port operators and/or processors, and Ship and boat operators.

Figure 4-3: Total salary (£m)



Source: SQW

Multiplier impacts

4.13 In addition to the direct impact, the London port sector generates wider economic activity through the supply chain, as well as spending of wages and salaries within the wider economy.

Supply chain effect

4.14 The supply chain effect (indirect effect) is the result of expenditure by port sector businesses on goods and services. This is estimated using the company survey data. However, the estimation is complicated by the trade between businesses within the sector. For example, port operators buy in services from other port sector businesses in engineering, cargo handling, ship brokering etc. Some of will this already have been included in the model as a direct impact on the port supplier companies.

4.15 To reduce this risk of double counting - and consistent with the 2015 and 2008 studies - two assumptions are made:

- Firstly, it is assumed that double counting is most likely to occur in the riverside boroughs where most port activities are clustered. On these grounds, all the impact of supply chain expenditure from within the riverside boroughs is excluded from the economic impact assessment
- Secondly, to avoid double counting the effect of port and ship suppliers, all of the indirect impacts resulting from the purchasing activities of this group have been excluded from the assessment.

4.16 To split the supply chain impacts geographically, the model uses survey responses from 2020 and 2015 to estimate the locations of the supply chain expenditure by each company.[16]

Wages and household spending effect

4.17 The wages and household spending effect (induced effect) is the additional economic activity brought about by employees in the port sector spending their wages and salaries on goods and services, some of which will be in the local economy.

4.18 The model calculates salaries received by London port sector employees living in each local authority area, taking account of employer on-costs and personal taxation, by using survey responses and Census 2011 Travel to Work data. Consistent with the 2015 study, the model assumes that 10% of disposable income is saved, 5% is spent overseas, leaving 85% spent in the rest of the UK. Of this, two thirds is spent within the region (i.e. 57% of total take home salary). These estimates are derived from the Household Expenditure survey and adjusted to reflect the scale of the Greater London economy, where the majority of spending will be made. Data from the Annual Business Survey is then used to estimate the number of jobs that this household expenditure supports.

[16] Data from 2015 is used to increase the sample size and thus improve the robustness of the estimates. We have used the average proportion of turnover that is GVA to calculate the proportion of indirect expenditure that is GVA.

Total economic impact

4.19 The total economic impact includes the direct impact, indirect impact through the supply chain and induced impact through household spending of wages. Overall, the total employment impact of the London port sector is estimated to be almost 48,000 FTEs, with a total GVA impact of c. £4.5bn[17] - see Table 4-3 and Table 4-4 below. These figures highlight the extent to which the total impact of the London port sector extends beyond its direct impact. The total GVA and employment contributions are both higher than at the time of the previous study – see later in this Section for an analysis – although it should also be noted that there are some differences in methodology between the studies.

Table 4-3: Total employment impact (FTEs)

Impact area	Direct	Indirect	Induced	Total
Riverside boroughs and districts	22,817	0	1,676	24,494
Rest of London	1,961	2,819	310	5,090
Rest of Kent	899	2,065	120	3,084
Rest of Essex	1,928	1,920	343	4,190
Rest of UK	3,531	5,160	1,774	10,466
Overseas	417	0	0	417
Total	31,553	11,964	4,223	47,740

Source: SQW. Note: figures may not sum due to rounding

Table 4-4: Total GVA impact (£m)

Impact area	Direct	Indirect	Induced	Total
Riverside boroughs and districts	2,264	-	82	2,345
Rest of London	183	242	15	440
Rest of Kent	149	178	6	332
Rest of Essex	237	165	17	419
Rest of UK	318	444	86	848
Overseas	71	0	0	71
Total	3,221	1,029	206	4,455

Source: SQW. Note: figures may not sum due to rounding

Geographical distribution

4.20 London port sector activity is most strongly concentrated in Thurrock in Essex – including the key clusters of activity at London Gateway and the Port of Tilbury - followed by Barking and Dagenham where Ford's engine plant is located. Westminster is the next most significant location because of the high number of businesses, particularly port and ship suppliers, based there (82) rather than being dependent on one very large employer. The table below shows the distribution of economic impact between all boroughs in the primary impact area. The table is ordered by total employment, and the ranking by GVA is very similar.

[17] Consistent with previous studies, direct overseas employment and GVA is included in the impact estimates but overseas indirect and induced effects are not reported

Table 4-5: Total employment and GVA impacts in riverside boroughs (ranked by FTE)

	Employment (FTE)	% of employment	GVA (£m)	% of GVA
Thurrock	8,072	17%	754	17%
Barking And Dagenham	3,959	8%	276	6%
Westminster	1,946	4%	220	5%
City of London	1,807	4%	152	3%
Tower Hamlets	1,377	3%	121	3%
Southwark	1,157	2%	149	3%
Medway	855	2%	91	2%
Gravesham	819	2%	84	2%
Havering	797	2%	58	1%
Newham	780	2%	162	4%
Bexley	630	1%	46	1%
Dartford	398	1%	34	1%
Hounslow	396	1%	49	1%
Wandsworth	348	1%	51	1%
Greenwich	343	1%	28	1%
Southend-on-sea	252	1%	25	1%
Castle Point	136	0%	15	0%
Kingston upon Thames	135	0%	9	0%
Richmond upon Thames	119	0%	11	0%
Kensington and Chelsea	114	0%	10	0%
Lewisham	85	0%	4	0%
Lambeth	56	0%	3	0%
Hammersmith And Fulham	46	0%	3	0%

Source: SQW

4.21 As was the case in 2015, just over 50% of the total impact occurs in the 23 riverside boroughs and districts. The primary impact area is surrounded by Greater London, Kent and Essex. In total, around 25% of the port sector's impact occurs in these neighbouring areas.

Table 4-6: Total employment and GVA impact across all impact areas

	Employment (FTE)	% of employment	GVA (£m)	% of GVA
Riverside boroughs and districts	24,494	51%	2,345	53%
Rest of London	5,090	11%	440	10%
Rest of Kent	3,084	6%	332	7%
Rest of Essex	4,190	9%	419	9%
Rest UK	10,466	22%	848	19%
Overseas	417	1%	71	2%
Total	47,740	100%	4,455	100%

Source: SQW

4.22 It is also possible to estimate impacts for London, Kent and Essex as a whole, i.e. including riverside *and* non-riverside districts. As shown below, the largest impact is in London, followed by Essex and Kent.

Table 4-7: Total employment and GVA impact in London, Essex and Kent

	Employment (FTE)	GVA (£m)
Whole of London	19,141	1,788
Whole of Essex	12,607	1,211
Whole of Kent	5,110	537

Source: SQW. Note: figures may not sum due to rounding

Comparison with previous studies

4.23 The table below compares the current impact with estimates from the 2008 and 2015 studies. Compared with the most recent study in 2015, the total employment impact is now 10% higher (equivalent to almost 4,300 jobs) and the total GVA impact is now 11% larger (an additional £425m).

4.24 Part of the reason for this increase is likely to be the rise in freight traffic in the port since the previous study. In addition, and as described earlier, the 2020 study uses a broader population of firms than previous studies to create a more robust economic impact assessment. The inclusion of these firms increases the overall estimated impact of the port sector, although by a relatively modest amount as they tended to be small businesses.

Table 4-8: Comparison of total impacts with previous studies

	Direct employment	Total employment	Direct GVA	Total GVA (£m)
2008	29,088	46,375	2,449	3,746
2015	27,107	43,455	2,733	4,029
2020	31,553	47,740	3,221	4,455

Source: SQW reports from 2008 and 2015

5. Workforce and future developments

5.1 This Section examines the current workforce characteristics of port sector businesses, their development and decarbonisation plans, the constraints on their operations and their future investment intentions. The review is based on a quantitative and qualitative assessment of the 59 responses obtained from the 2020 survey.

5.2 It should be noted that results from the survey are based on a much smaller sample than previous studies. As a result, care should be taken when interpreting changes between the surveys.

Summary

- In all but one of the six port business categories, the gender balance is weighted more heavily towards males than the area average. In addition, the workforce in survey respondent companies is also less diverse than the London, Kent and Essex average in terms of the proportion of employees that define themselves as disabled or from a BAME background.
- The port sector includes a variety of occupations and skill levels. Overall, roughly half of all roles are in shore-based offices, although this disguises significant variation between the different categories of employers.
- Similarly, skill levels vary between different categories of port business. For example, port operator and/or processors employ more manual workers, whilst port and ship suppliers employ the highest share of managerial and professional staff.
- Several survey respondents commented on the difficulty in recruiting individuals with appropriate skills, specifically those with technical skills, and specialised manual labour. Respondents were also concerned about an ageing workforce and the difficulties in recruiting young people.
- A third of the businesses surveyed had a formal plan to reach net zero emissions. Businesses identified the lack of suitable technology and the cost of switching to more carbon efficient technologies as the two major barriers to reaching net zero emissions.
- 72% of businesses surveyed expected their business to grow in the next five years. The extent of regulation was the most commonly cited barrier to growth.
- Investment of almost £950m is planned over the next five years; in new equipment but also in workforce development, land and property and/or introducing clean technology.

Workforce

Workforce occupations and skills

5.3 The survey shows that employees working in offices makes up 53% of all employment in the businesses interviewed (see Table 5-1). More relevant here is the breakdown by category of port sector business. For example, boat yards and recreational craft businesses had the largest share of workers involved in on-ship activity (67%), closely followed by passenger and cruise services (54%). Most jobs in the port and ship suppliers and in port operator and/or processors were on shore manual roles.

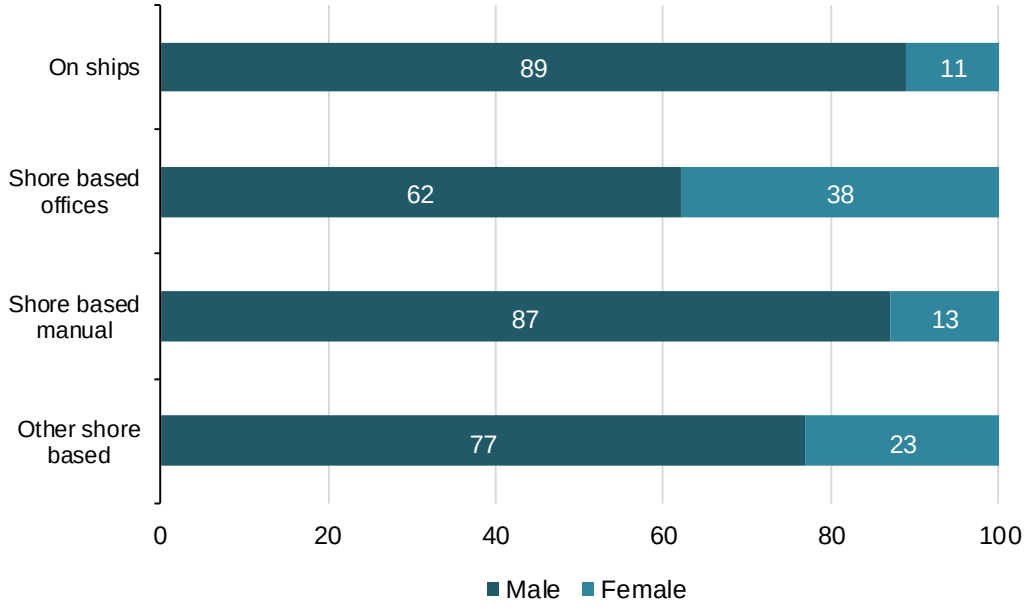
Table 5-1: Direct employment by activity – figures are weighted to show the percentages of employees in each category

	Jobs on board ships	Shore-based offices	Shore-based manual activity	Other types of shore-based jobs
Boat yards and recreational craft	67%	14%	19%	0%
Passenger and cruise related services	54%	8%	10%	28%
Port and regulatory services	4%	77%	18%	0%
Port and ship supplier	20%	32%	47%	1%
Port operator and/or processor	11%	31%	55%	3%
Ship and boat operator	48%	45%	5%	2%
Total	15%	53%	28%	4%

Source: SQW; n=57

5.4 Figure 5-1 shows that all these roles were male dominated (i.e. businesses employed more males than females). Employment in shore-based offices had the smallest gap between male and female employment (62% and 38% respectively) while employment on ships had the largest difference in male and female employment (89% and 11% respectively).

Figure 5-1: Direct employment by activity – gender split (%) – based on average percentage reported by businesses interviewed[18]



Source: SQW; n=57

5.5 The 2020 survey findings suggest that much of the employment in the sector is in skilled occupations; skilled manual (38%) and skilled non-manual (16%). Administrative employment accounts for 21% of jobs in the sector and those in managerial positions make up 22% of the total employment figure (see Table 5-2).

[18] These figures are the average proportions reported by the businesses interviewed and are not weighted by number of employees as in Table 4 1

5.6 The totals reflect the profile of business covered by the survey. Of more relevance are the figures for each category. For example, 61% of Port operator and/or processors roles are in skilled or semi-skilled manual work. Skilled non-manual roles dominate boat yards and recreational craft, and passenger and cruise related service roles (68% and 58% respectively). Administrative jobs are more prevalent in Port and regulatory services, and Ship and boat operators.

5.7 As a guide, the data from APS show how these categories compare with all sectors in London, Kent, and Essex. Sectors such as boat yards and recreational craft, employ higher than average proportions of skilled workers, while port operator and/or processors employ more manual workers.

Table 5-2: Direct employment by occupation (%) – figures are weighted to show the percentages of employees in each category

	Managerial (including professional)	Administrative / secretarial	Skilled non-manual (e.g. pilots, drivers)	Skilled / semi-skilled manual (e.g. machinery operators)	Unskilled	Other
Boat yards and recreational craft	10%	11%	58%	16%	5%	0%
Passenger and cruise related services	10%	10%	68%	7%	5%	0%
Port and regulatory services	28%	26%	13%	31%	0%	2%
Port and ship supplier	29%	9%	23%	36%	0%	4%
Port operator and/or processor	18%	13%	7%	61%	1%	0%
Ship and boat operator	17%	34%	9%	32%	7%	1%
Total	22%	21%	16%	38%	1%	1%
London, Kent, and Essex average (2019)	13[19]	15[20]	42[21]	13[22]	9[23]	8[24]

Source: SQW; n=57and ONS Annual Population Survey

5.8 Table 5-3 below shows that a third of respondents employed apprentices, with a total of 268 apprentices across all businesses surveyed. Port operators and processors were the most likely to employ apprentices (54%), with port and ship suppliers the least likely (11%). Port and regulatory services employed the most apprentices (117) followed by port operator and/or processor businesses (71).

[19] Managers, directors and senior officials
[20] Administrative and secretarial occupations, and sales and customer service occupations
[21] Professional occupations, and associate professional and technical occupations
[22] Skilled trades occupations, and process, plant and machine operatives
[23] Elementary occupations
[24] Caring, leisure and other service occupations

Table 5-3: Proportion of businesses surveyed that employ apprentices

	% of businesses employing apprentices	No. of apprentices
Boat yards and recreational craft	33%	2
Passenger and cruise related services	33%	16
Port and regulatory services	33%	117
Port and ship supplier	11%	2
Port operator and/or processor	54%	71
Ship and boat operator	33%	60
Total	34%	268

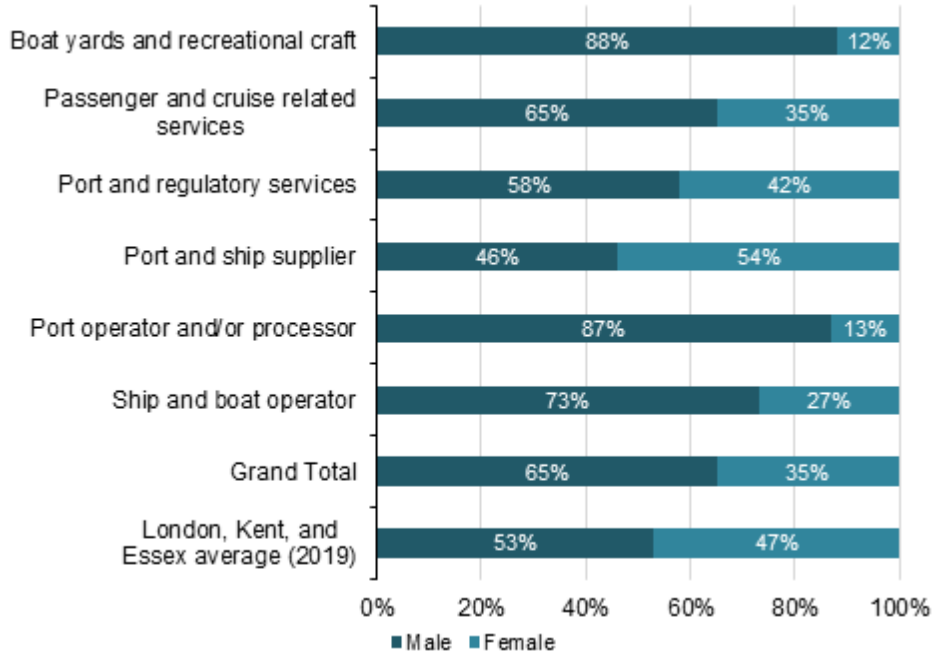
Source: SQW; n=58

Workforce characteristics

5.9 A number of workforce characteristics questions were added to the 2020 survey. The purpose was to provide an overview of the approximate breakdown of male and female employment within port related businesses, and information on the proportion of employees that define themselves as Black, Asian and Minority Ethnic (BAME) or disabled.

5.10 Interviewees were asked to estimate the proportion of males and females in their business. Table 5-4 shows the proportions in the workforce in each of the categories. Males accounted for 65% of total employment across all port related businesses surveyed while females accounted for 35%. Boat yards and recreational craft and port operator and/or processors had the largest difference between male and female employment. Data from the Annual Population Survey (APS) show that employment across all sectors in London, Kent, and Essex was more evenly distributed than that reported by survey respondents.

Figure 5-2: Gender balance (weighted by size of firms)



Source: SQW and QA survey n=59)

5.11 Across all port sector businesses surveyed in 2020, the businesses estimated that around 11% of employees defined themselves as BAME. The passenger and cruise businesses interviewed estimated that a third of their staff defined themselves as BAME. The figures were much lower in other categories. Data show that these figures are much lower than BAME representation across all sectors in London, Kent, and Essex.

5.12 Across all port sector businesses surveyed in 2020, 2% of employees defined themselves as disabled. Port and regulatory services businesses had the highest proportion of disabled employees (3%). The proportion of people that were defined as disabled across all sectors in London, Kent, and Essex was 14%.

Table 5-4: Approximate breakdown of workforce characteristics - figures weighted to show the percentages of the workforce in each category

	Male	Female	BAME	Disability
Boat yards and recreational craft	88%	12%	5%	0%
Passenger and cruise related services	65%	35%	33%	3%
Port and regulatory services	58%	42%	14%	3%
Port and ship suppliers	46%	54%	4%	1%
Port operator and/or processor	87%	13%	6%	1%
Ship and boat operator	73%	27%	8%	3%
Total	65%	35%	11%	2%
London, Kent, and Essex average (2019)	53%	47%	28%	14%[25]

Source: SQW; n= 59 and ONS Annual Population Survey

5.13 Port sector businesses were also asked to describe the age profile of their workforce. For many businesses, respondents thought their workforce was older than average, with the majority of employees aged between 30 and 50. Respondents commented on the difficulty in recruiting younger people, particularly into manual roles, which is causing the age profile of employees to continuously rise.

5.14 In terms of occupations, the roles that require professional training (e.g. health and safety officers or captains) are generally filled by older employees due to the length of time it takes to become fully trained and the value of experience. This is seen as being very hard to replace. Having said that, the increasing adoption of new technologies could make it increasingly attractive to recruit younger people.

Future developments

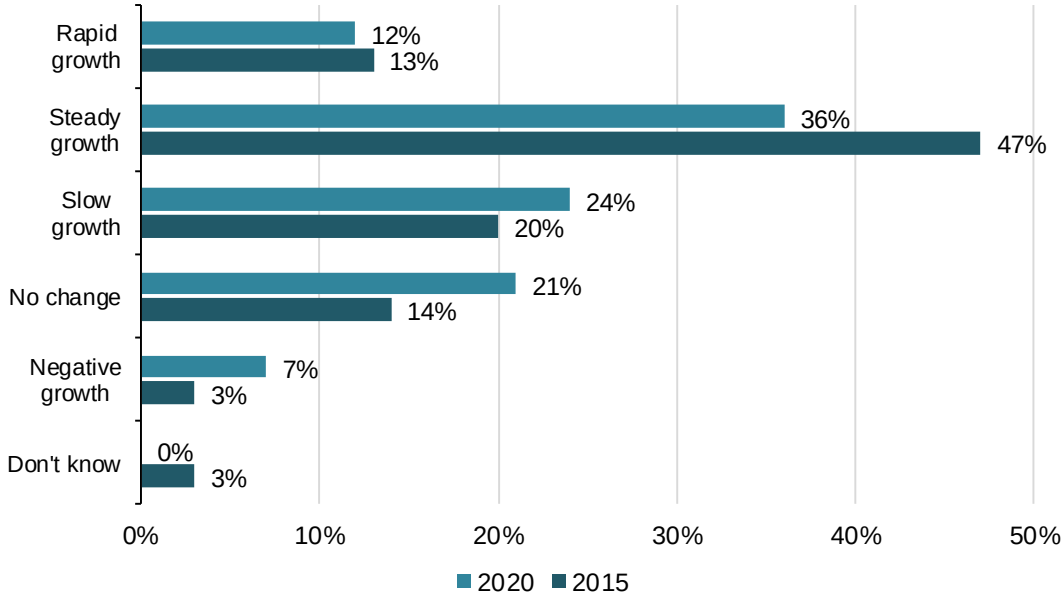
5.15 Port sector businesses were asked to describe the economic health of the Port of London and to identify the challenges and opportunities it is facing. Respondents generally thought that the Port was economically healthy and, matching the DfT statistics, had observed an increase in trade on the river over the past five years. However, respondents also foresaw challenges to the PLA arising from balancing the use of the river between commercial and leisure users whilst also protecting the environment.

[25] Disabled is defined as Equality Act core or work-limiting disabled

Future growth ambitions

5.16 Port sector businesses were asked how they anticipated their business would change in the next five years. Overall, 72% respondents anticipated at least some growth. Steady growth was the most common prediction and was expected by a third of respondents. However, as Figure 5-3 shows 80% of respondents to the previous study's survey anticipated at least some growth. The decline in the proportion anticipating steady growth is particularly noticeable.

Figure 5-3: Predicted growth in the next five years (% of all firms surveyed)



Source: SQW; n= 59

Barriers to growth

5.17 Port sector businesses were asked to indicate which factors might hold back future growth. The most commonly cited barrier was the extent of regulation (59% of firms), followed by competition and demand, skills issues and land and property (42%, 30% and 29% respectively). These barriers are examined in more detail in the next section.

Table 5-5: Operational constraints for surveyed firms (multiple response)

	Demand	Land	Skills	Finance	Regulations	Total
Boat yards and recreational craft	1	2	2	0	0	5
Passenger and cruise related services	1	2	3	2	4	12
Port and regulatory services	1	3	3	2	9	18
Port and ship supplier	6	1	3	2	5	17
Port operator and/or processor	5	4	3	1	9	22
Ship and boat operator	11	5	4	2	8	30
Total	25	17	18	9	35	104

Source: SQW; n= 59

Competition and demand

5.18 The future level of competition and demand was considered a barrier by 42% of the businesses interviewed. For some, this was about local competition and new operators becoming active, or just *"more people entering the market". A*nother said that they *"operate in an oligopoly where everyone has to race to the bottom or go bust"*.

5.19 For others it was wider economic factors in their markets that could be a barrier. This included how Covid-19 would impact on the global economy and levels of demand for businesses in the London port sector. For example, one business *"expects demand…to fall"*, and another that "*trading barriers between UK and EU will reduce the flows, but longer term it could be counterbalanced with new markets*".

Land and property

5.20 Land and property was a barrier to growth for 29%. This was frequently explained in relation to the cost of land and property in London. One said it was *"too expensive to invest especially with local competition"*, others that "*rates are too high*" or that *"there is a lack of availability"* and *"a lack of pier spaces"*.

5.21 The main barriers reported were the encroachment on port land by residential housing and the lack of land available within the port. One business warned that *"regeneration along the river might cause problems if new housing is built too close to factories".* And another that "*there is demand but the business can't gain access to the land they need due to the issues associated with gaining planning permission*". A similar point was that the "*cost of land and access to land in London is restrictive. To grow the Thames as a gateway you need infrastructure in place to support it e.g. rail-road berths"*. However, it was also noted that the PLA had bought the Peruvian and Royal Primrose wharfs to help ensure the availability of facilities for cargo handling in East London.[26]

Skills shortages and an ageing workforce

5.22 Almost a third of businesses (30%) reported skills as a barrier to growth. Issues around skills shortages fell into two categories: specific shortages in their discipline or in some cases geography; and replacing an ageing workforce.

5.23 Among those that faced specific shortages, one said that they were "*very specialised and finding suitable people willing to work the hours is difficult".* The location is also a problem for a number of these businesses, and they face competition from other industries for recruits. One said that they face "*a big skill shortage in their area"*, another that *"retaining particular skills was a problem".* Specifically, several survey respondents commented on the difficulty in recruiting individuals with appropriate technical skills, and specialised manual labour. Examples included: individuals with boat master licences, health and safety officers, boatmen, truck drivers, captains, river pilots, health and safety, electrical and mechanical engineers and welders.

5.24 To overcome these skills shortages, many businesses are investing in their own training programmes and apprenticeship schemes. Respondents also had concerns around the

[26] http://www.pla.co.uk/Port-Authority-buys-east-London-wharf

implications of Brexit and the UK's ability to tap into the EU labour market. One business said they "*had a relatively old workforce and need to keep young enthusiastic people with relevant STEM skills coming through the pipeline".* Another stressed the importance of "*ensuring employees have appropriate skills to adapt to technologically based innovation in transport".* One of the respondents said that *"the workforce is older, and it takes up to five years to fully learn the job".* Others reported successfully growing and retaining their own staff, running apprenticeship and internal training schemes and offering graduate training programmes.

Finance

5.25 Finance was less of an issue (reported by 15%) than the other barriers to growth. One business reported that "*there were relatively few banks and finances houses that deal with marine finances"* and, as a result, finance is extremely expensive. Another felt that *"finance was more an issue for their customers"*. Another stated that finance was a particular issue for the smaller companies: "*small companies haven't got a hope. Big companies are fine. Regulations are the same for everyone regardless of size. Big companies can take advantage"*. More widely, for the port development, there are changes being made to access to finance for the PLA itself including a wider remit to allow investment that benefits the port, rather than just portside infrastructure.

Regulations, including trade agreements and government changes

5.26 More than half (59%) of the businesses felt that regulation and trade agreements could impact on their growth. This was driven by a combination of Brexit uncertainty and perceptions of excessive red tape.

5.27 For example, one felt that it "*largely depends on how the government negotiates with the EU as there is lots of intra-European trade*". While another reported that "*politicians give no thought to how people will adapt. Too much box-ticking and a myriad of regulations (red tape), which is changing too fast"*. Another listed *"Brexit/changes in criteria/more paperwork/more costs"* as barriers, with the bureaucracy associated with seeking planning permission described as somewhat lengthy and 'tedious'.

5.28 There were several comments on the PLA. One business felt that they "*had made it too expensive for ships to go onto the Thames and be serviced*", whilst another noted the (sometimes restricted) availability of PLA sea pilots as a challenge. It was also reported that the PLA are *"becoming more bureaucratic"*. Other responses highlighted the Maritime and Coastguard Agency (MCA) legislation as becoming more stringent, and that with older boats it was harder to keep up with demands. This could make some boats inoperable.

5.29 Another interviewee pointed out that this "*is a highly regulated environment and can involve a number of agencies, for example opening up new wharves also requires consent from bodies like the Environment Agency which can take time".* There was also criticism of Government regulation changes in relation to the environment. An example was the change of support "*from low sulphur fuels, then biofriendly fuel, and now fully electric cars"*. These changes make it hard for companies to plan longer term investment and to forecast the volume of demand.

5.30 This study was conducted during the early stages of the Covid-19 pandemic in the UK. Respondents were asked to give a 'pre Covid-19 position' in their answers on employment

and turnover etc., but the potential future impacts of Covid-19 were raised by several businesses; "*with what we're going through with this virus, who knows how it will change the government regulations on the way that cargo is handled?*" On the same subject another felt that *"Covid-19 has largely destroyed income, especially with the government reaction to it."*

Decarbonisation and Net Zero emissions

5.31 In light of the UK Government setting a net zero emissions target for 2050[27], businesses were asked whether they had a formal plan to reach net zero emissions. Two businesses reported that they have already achieved net zero emissions and around a third of respondents (19) have a formal plan to achieve net zero by 2050.

5.32 However, Table 5-6 shows that over half of the respondents (34) do not yet have a plan to reach net zero emissions. The majority of these (21) did not expect to have developed a formal plan within the next three years.

Table 5-6: Number of organisations that have a formal plan to reach net zero emissions

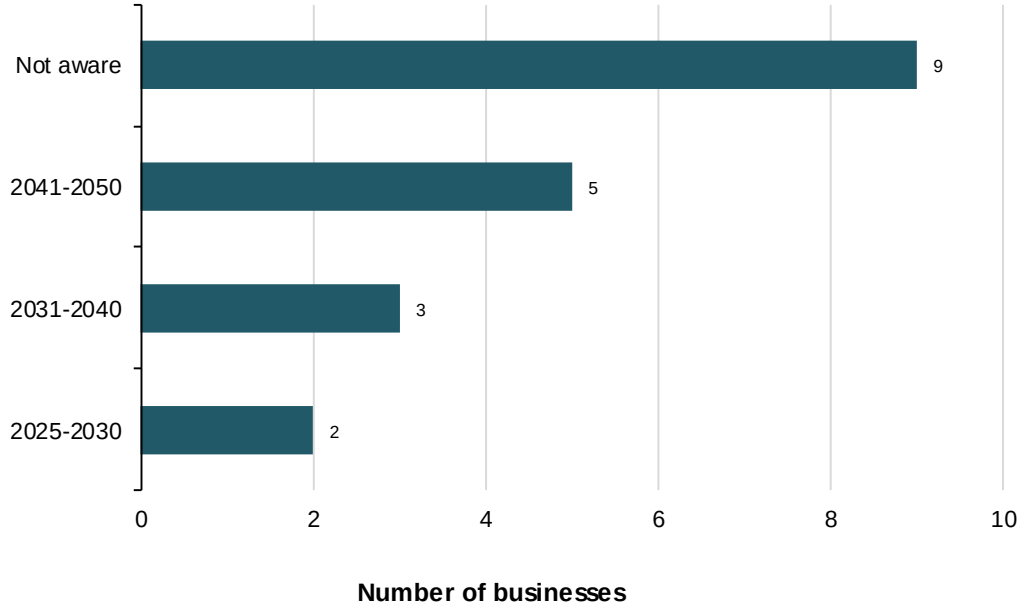
	Yes	Already net zero	No	Don't know	Total
Boat yards and recreational craft	1	0	2	0	3
Passenger and cruise related services	3	0	3	0	6
Port and regulatory services	4	1	5	2	12
Port and ship supplier	1	0	8	0	9
Port operator and/or processor	4	1	8	0	13
Ship and boat operator	6	0	8	1	15
Total	19	2	34	3	58

Source: SQW; n= 58

5.33 Amongst the 19 businesses with a formal plan, there was no overall pattern to responses on when they expect to achieve net zero emissions. As the chart below shows, it should be noted that nine respondents knew their company had a formal plan but were not aware of when their company expected to achieve net zero emissions.

[27] https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law

Figure 5-4: When those organisations with a formal plan have committed to reaching net zero emissions



Source: SQW; n= 19

5.34 Port sector businesses were asked to identify the main barriers to reaching net zero emissions. The most common barriers were technology maturity and cost. These are explained below, and the text box highlights some illustrative quotes from survey respondents.

5.35 Whilst a number of businesses are actively installing and using the most carbon-efficient materials and equipment whenever possible, the lack of suitable technology was seen as a prohibiting factor in reaching net zero emissions. For example, whilst technologies associated with electrifying vehicle engines on ships are developing, they are not mature enough for large vessels required to make long journeys. Respondents recognised the importance of using the most energy efficient equipment available, but many stated that with the current level of technology development, it was impossible for them to become net zero.

5.36 Furthermore, port sector businesses thought the cost of switching to more carbon efficient technologies – as and when they become available – would also be a barrier. A particular issue for the port sector is that the long lifespan of vessels and other equipment means that businesses who have recently invested in a carbon emitting technology are unable to afford the investment required to upgrade to net zero emissions alternatives. This applies across the port sector to business which own/operate ships, dockside loading and unloading equipment, road and rail haulage for onward transport, factories and processing plants located adjacent to terminals etc.

Barriers to achieving net zero emissions

"The ships we operate are all fuelled by hydro carbons – the vessels that we have cannot be retrofitted and it is too expensive [to buy new low emissions vessels]"

"A combination of investment cost, lack of clarity about particular enablers such as future fuel choices, and constraints of surrounding infrastructure such as electricity grid"

"Technology maturity is a big challenge. Our fleet will need to be retrofitted to get rid of diesel engines or scrapped and replaced with new low/zero emissions boats. However, the electric shipping technology is not yet ready to do this for all vessels."

"The biggest challenge is that the company has assets that last for 40 years – they do not know how to adapt ships or to retrofit them with 'cleaner' engines.

"We are dependent on the market being able to supply net-zero manufactured equipment"

Future investment plans

5.37 Survey respondents plan a combined total investment of almost £950m over the next five years. Despite the smaller sample size in the 2020 survey, these figures are higher than reported in previous surveys. They reflect a handful of major investments by large companies, as well as a range of investments made by smaller firms. The confidential nature of the survey means specific investments by individual businesses cannot be named. However, investments already announced in the public domain include: investment from Tarmac into an asphalt and ready mix concrete plant at Tilbury 2 (see below)[28]; and investment from Cory Energy into their new Riverside Energy Park.[29]

5.38 The table below highlights four major, recent and planned investments in port and related infrastructure: the expansion of port and logistics facilities at both Tilbury2 and London Gateway; and two new infrastructure projects where the PLA is acting as a key stakeholder during the construction phase. The latter two projects will also benefit businesses and their workforce living in the study's primary impact area.

Table 5-7: Major port and infrastructure developments in the Port of London

Tilbury2

The Port of Tilbury is a key site of activity for the London port sector. Recognising that the deep water terminal was nearing capacity and that its tenants wanted to expand, Forth Ports – the owners of Tilbury – saw the opportunity to develop a new terminal on the site of the old Tilbury Power Station.

Approved by the Secretary of State for Transport in February 2019, work was completed on the £250 million, 160-acre development in 2020. Tilbury2 includes the UK's largest unaccompanied freight ferry port for Roll-on/Roll-off cargo as well as a "Construction Materials and Aggregates Terminal" for

[28] https://www.tarmac.com/news-and-media/news/2019/october/tarmac-and-forth-ports-announce-new-construction-materials-terminal-at-tilbury2/
[29] https://www.coryenergy.com/news/government-grants-planning-permission-for-cory-energys-riverside-energy-park-development/#

handling and processing bulk construction materials, mainly for use in the UK housing market.[30] It also includes a rail freight terminal which can accommodate the trains 775m long.

In late March it was confirmed that Tilbury2 would begin operations in April 2020 despite disruption caused by Covid-19.[31] Once fully operational, Tilbury2 could support an additional 500 FTE jobs.[32]

London Gateway

The new deep sea port of London Gateway had only recently become operational at the time of the previous economic impact study. Three container berths are now operational and HMRC data shows that London Gateway handled almost £11bn worth of exports to non-EU countries in 2019, and received almost £6bn worth of non-EU imports. These figures can be expected to rise as DP World – the major Dubai based port operator which owns London Gateway - intends to develop a further three over the coming years.

There is also significant investment potential at the Logistics Park adjacent to the port. Some 9.25million sq ft of warehousing can be developed at the site, which has the potential to employ up to 10,000 FTEs. The Park is in its early stages of development and current occupiers include UPS, Lidl, Dixons Carphone, fruit importers SH Pratt Group and logistics firm Ziegler UK. All occupy buildings between 100,000 – 350,000sq ft. Full construction of the port and logistics park will take 10-15 years, but DP World has already invested over £1.5bn in developing these assets. [33]

Lower Thames Crossing

A ferry service currently operates between Gravesend in Kent and Tilbury in Essex. The Government has an ambitious plan to develop a new road link across the Thames between the two towns. With an estimated cost of £6.8bn, the crossing is expected to double road capacity across the Thames and take 22% of traffic away from the Dartford Crossing.[34] However, full planning permission is yet to be granted and there are concerns over the potential environmental impact of the scheme.[35]

Thames Tideway Tunnel

The 25km tunnel is an extension to London's sewer network. Tideway – a consortium of investors – started construction in 2016 and aims to finish the multi-billion pound project in 2024. The route runs under the Thames through central London and there are 24, mainly riverside, construction sites. Once operational, the tunnel will prevent raw sewage overflowing into the Thames, bringing ecological and health benefits.[36]

Source: SQW

5.39 The largest category of planned investment was in purchasing new equipment (29, 49% of firms), particularly amongst Port operator and/or processors and Ship and boat operators. This category covered a variety of investments with, for example, one business investing in '*new ships and reengineering ships'*, another in *'software and digital kit to improve communication systems'* and others in *'forklifts and lorries'* and *'passenger bridges, sea cranes etc.'*

[30] https://www.yourthurrock.com/2020/03/29/forth-ports-ready-brexit/
[31] https://www.thetimes.co.uk/article/tilbury-2-port-will-open-in-the-eye-of-a-storm-p9dbkzlw9
[32] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR030003/TR030003-000346-7.1%20Outline%20Business%20Case.pdf
[33] https://londongateway.blob.core.windows.net/n2cms/upload/PDF/The%20Definitive%20Guide%20v3.pdf
[34] https://highwaysengland.co.uk/lower-thames-crossing-what-is-the-lower-thames-crossing
[35] https://www.kentonline.co.uk/gravesend/news/listen-to-the-community-and-think-again-224484/
[36] https://www.tideway.london/the-tunnel/

5.40 Planned investments in workforce development and recruitment, land and property and/or introducing clean technologies were reported by around a third of respondents (20, 19 and 17 respectively).

- **Workforce** - this included increasing the workforce to cope with expected future growth, maintaining and strengthening current apprenticeship and internal training programmes. One respondent wanted to '*train staff in new skills to allow them to offer different and new services to clients*', with another noting the importance of '*investment in people so they fully understand technologies*' used on ship and on shore.
- **Land and property** – this was particularly common amongst Port operators and processors. Examples from all categories included expanding warehouse capacity, redeveloping boatyards, constructing new jetties and refurbishing offices.
- **Clean technologies** - respondents referenced the need to reach net zero emissions and, in one case, noted that this was '*now part of the procurement process*.' Examples included switching to biofuels, planning to purchase hybrid vessels, and more energy efficient plant and equipment.

Table 5-8: No of firms with plans to invest in the next five years (multiple response)

	Land	Workforce	Equipment	Restructuring	Clean technology	Other	Total
Boat yards and recreational craft	3	1	3	1	2	0	10
Passenger and cruise related services	1	1	3	0	1	1	7
Port and regulatory services	4	6	3	3	4	2	22
Port and ship supplier	1	5	3	1	1	1	12
Port operator and/or processor	8	5	10	2	6	1	32
Ship and boat operator	2	2	7	0	3	2	16
Total	19	20	29	7	17	7	99

Source: SQW, n=59

Summary

5.41 The table below summarises some of the main issues raised by businesses about their future and the Port of London as a whole.

Table 5-9: Summary analysis

Strengths	• Growth in the volume of cargo handled at the Port of London in contrast to static/declining volumes at other major ports • General expectation of growth amongst the business base • High levels of investment identified over the next five years in land and property, equipment, workforce development etc.
Weaknesses	• Limited availability (and high cost) of riverside development land because of competition from residential uses

	• Skills shortages in specific disciplines and/or geographic areas, and an ageing workforce • Perceptions of excessive red tape and uncertainty of regulatory changes as a result of Brexit
Opportunities	• Capitalise on the recently completed investment at Tilbury2, and plans at London Gateway, to continue to increase trade volumes • Decarbonisation presents an opportunity for businesses to innovate, adopt more efficient technologies and become more competitive • Broaden the skills and experience of the workforce by recruiting from a more diverse base
Threats	• Decarbonisation requires (potentially significant) levels of business investment which not all port sector businesses can afford • The next generation of talented individuals could be recruited by non-port sector businesses • Uncertain impacts of Brexit and Covid-19 on global trade flows and the UK economy

Source: SQW

6. Conclusions

6.1 The Port of London is one of the largest ports in the UK, handling 54 million tonnes of freight in 2019 and growing 20% over the past five years compared to an overall 3% fall in the freight tonnage handled by all UK major ports. Reflecting its status as a major port, London deals with freight traffic from around the world, with EU freight traffic particularly prominent. In addition, there are also significant volumes of passengers who use the Thames, with around 10 million journeys made per year.

6.2 This study estimates that the London port sector directly employs almost 31,500 FTEs and generates a direct GVA of around £3.2bn. When wider impacts, such as supply chain activity and the spending of wages, are included it is estimated that around 48,000 FTEs and £4.5bn of GVA are dependent on the London port sector. These figures demonstrate the scale of the port sector and the important role it plays in the economies of London, Essex and Kent. The total employment and GVA impacts of the port sector are presented in the table below.

Table 6-1: Total impact summary

	Employment (FTE)	GVA (£m)
Riverside boroughs and districts	24,494	2,345
Rest of London	5,090	440
Rest of Kent	3,084	332
Rest of Essex	4,190	419
Rest UK	10,466	848
Overseas	417	71
Total	47,740	4,455

Source: SQW

6.3 The port sector includes a variety of occupations. Overall, roughly half of all roles are office based, although this disguises significant variation between port sector businesses. In general, the workforce is less diverse than the area average, although again this varies by category of business. Some respondents commented on the difficulty in recruiting individuals with specific skills and were also concerned about an ageing workforce.

6.4 Looking forwards, a third of the businesses surveyed had a formal plan to reach net zero emissions. Businesses identified the lack of suitable technology and the cost of switching to more carbon efficient technologies as the two major barriers to reaching net zero emissions.

6.5 Port sector businesses interviewed were generally optimistic about the future, with 72% anticipating growth over the next five years and almost £950m of investment planned over this period.

6.6 Covid-19 poses a significant risk to this investment and the broader health of port sector businesses. The short-term reaction to Covid-19 will be important in shaping the future of the Port of London, as will medium and long-term responses to decarbonisation and the post-Brexit trading relationship with the EU.

Annex A: SIC codes used for Dun and Bradstreet

A.1 The table below presents the SIC codes that were used to purchase data from Dun and Bradstreet. Data was purchased for all the companies matching these SIC codes based in the 23 riverside districts and boroughs. The second column shows the number of businesses falling within each SIC code and included in the impact model.

Table A-1: SIC codes used for Dun and Bradstreet

SIC code	Businesses
03.100 - Fishing	12
03.110 - Marine fishing	1
03.120 - Freshwater fishing	4
30.110 - Building of ships and floating structures	2
30.120 - Building of pleasure and sporting boats	16
33.150 - Repair and maintenance of ships and boats	8
50.000 - Water transport	5
50.100 - Sea and coastal passenger water transport	21
50.200 - Sea and coastal freight water transport	34
50.300 - Inland passenger water transport	3
50.400 - Inland freight water transport	2
52.101 - Operation of warehousing and storage facilities for water transport activities	2
52.220 - Service activities incidental to water transportation	71
52.241 - Cargo handling for water transport activities	4
52.290 - Other transportation support activities	88
77.340 - Renting and leasing of water transport equipment	15
77.341 - Renting and leasing of passenger water transport equipment	4
77.342 - Renting and leasing of freight water transport equipment	1

Source: SQW

Annex B: Businesses surveyed

B.1 We would like to thank all 59 businesses which contributed to this research – we are grateful to them for their time.

Company name	
ABPmer	Odgers Berndtson
Active Chartering.	One Stop Supplies UK
AJ and AP Thames & Medway Fresh Water	P & O Ferries
Alicat Workboats	Port of London Authority
Armac Shipping Services	Port of Tilbury London
Boluda Towage	Puma Energy
Brett Group	RNLI
Canal and River Trust	SCA Logistics
City of London	SEACON (SG)
Cory Riverside Energy	Seacon Group
Cosco Shipping Lines UK	Solent Stevedores
Damen Shipyards Group	South Dock Marina
Deme Group	Stema Shipping (UK)
DP World	T & L Sugars Ltd trading as Kentships
Dreadnought Shipping	Tarmac
Estuary Services.	Thames Clippers
GAC UK	Thames Gateway Marine
GP Shipping Thames	Thames Leisure / Swan Pier Company
GPS Marine	Thames Marine Services
HDS Personnel	Thames Shipping
Independent Maritime Advisors	Tom Bourne & Partners
Institute of Chartered Shipbrokers	Trans Euro Group
Inter Terminals UK	Transfennica
ISM Shipping Solutions	Turk Launches
K Cruises Trading	UK Major Ports Group
KL Shipping SIA	Uneek Forwarding
London Kayaking Co	Venues of Distinction
London Port Health Authority	Wavecrest
Medtow Marine	
Nash Maritime	
Navigator Terminals Thames BV	

Annex C: Questionnaire

Introduction

The Port of London Authority (PLA) has commissioned SQW, economic development consultants, to undertake an economic impact study of the Port of London. This research is important research for the PLA and also for local businesses. It will provide information to demonstrate how important businesses are to the local economy in terms of the jobs and income supported directly and through supply chains. The research will also be used to make the case for the port sector and increase awareness of its value within local and national government.

To maximise the detail and scope of information that consultees are willing to disclose, any company information will be treated as commercial in confidence. There may also be the opportunity to include a short (c. 0.5 page) case study about the organisation in the Final Report – these case studies will be shared with consultees to check for factual accuracy and only included in the report if permission is granted by the consultee.

Questions

[Where possible, import details from database for ease of confirmation for questions 1-4]

Q1. **Please may I first confirm the following details for your organisation ….?**

Name of respondent	
Position of respondent	
Company Name	
Borough / District	
Post code	

Q2. Do you directly employ people in on-terminal operations (i.e. cargo handling / storage / transport / processing)?

No, we do not directly employ any people in on-terminal operations (e.g. they may be a shipping line or a shipping agent)	A
Yes, we do employ people directly in on-terminal operations (e.g. they may be a terminal operator or provide services to shipping companies)	B

Port activities

If answered 'a' at Q2: READ OUT

To confirm you employ people in Port of London operations but not directly at a terminal. The rest of the questionnaire should be answered with reference only to:

- your operations in the Port of London
- the proportion of administrative employment that supports these operations

If answered 'b' at Q2: READ OUT

To confirm you employ people directly in operations in a terminal. The rest of the questionnaire should be answered with reference only to the largest terminal. This will include:

- terminal operations
- supporting activity elsewhere (i.e. at ancillary /secondary sites)
- the proportion of administrative employment that supports these operations

READ OUT for all: We are keen to understand your operations and how they are linked to the economic structure of the port.

Q3. Which of the following categories best describes your business? (Tick one only and then follow routing. All categories of respondent to re-join survey at Q12)

[Pre-populate answer to this question from contact list where possible]

Port operator and/or processor (includes shipping lines and line agents)	Q4 to Q6
Port and regulatory services (customs, immigration, police, health)	Q12
Ship and boat operator	Q12
Port and ship supplier	Q7
Passenger and cruise related services	Q9 to Q11
Boat yards and recreational craft	Q8

Port operator and/or processor details

Q4. What functions do you carry out in the port? (Tick all that apply)

Operating cargo terminal with on-site processing facilities (incl. all cargo modes)	
Operating cargo terminal without on-site processing facilities (incl. all cargo modes)	
Navigation Authority	
Other	

SQW interviews – Describe with more detail

Open response

Q5. What are the destinations of the goods you are handling?

Intraport (i.e within the Port of London)	Approx % of cargo weight
Other UK ports	Approx % of cargo weight
Inland UK	Approx % of cargo weight
International	Approx % of cargo weight

If international, go to Q6

Q6. Which of the following continents does this include? (Tick all that apply)

Europe (outside the UK)	
North America	
South America	
Africa	
Asia	
Australasia	

SQW interviews – Specific countries where possible

Open response

GO TO Q12

Port and ship supplier details

Q7. What functions do you carry out in the port? (Tick all that apply)

Ship agents / brokers / forwarders, cargo clearance and other container services	
Chartered surveyors	
Charts / navigational aids / hydrographic services	
Equipment suppliers	
Inspection services	
Marine consultants / marine engineers	
Rail and/or road transport	
Non-terminal warehousing / storage	
Port security	
Other (Specify)	

SQW interviews – Describe with more detail

Open response

GO TO Q12

Boat yards and recreational craft details

Q8. What proportion of your sales are accounted for by services for…

Boats used on the Thames	Approx % of sales
Boats used for UK coastwise travel	Approx % of sales
Boats used for international travel	Approx % of sales

GO TO Q12

Passenger and cruise related services

Q9. Which functions do you carry out in the port? (Tick all that apply)

Passenger/cruise terminal operators	
Passenger boat transport	
Passenger boat agents	
Cruise line ship transport	
Cruise line agents	

SQW interviews – More detail of services

Open response

Q10. What type of passenger services do you provide? (Tick all that apply)

River transport on the Thames	
Ferry services to other UK and international destinations	
Cruise services to other UK and international destinations	

If yes to river transport on the Thames go to Q11 otherwise go to Q12.

Q11. What proportion of your sales are accounted for by the following types of passengers... (Tick all that apply)

Commuters	Approx % of sales
Tourists	Approx % of sales
Cruise contracts	Approx % of sales

Employment

READ OUT: The economic impact of the port derives mainly from the size and quality of port related employment. We would be grateful if you could answer some questions about your workforce.

Q12. How many full time and part time employees are you currently employing at the site and the operations we are discussing? (*Note: this does not include your supply chain or casual/contract labour)*

Full time	*Enter number*
Part time (20 hours a week or less)	*Enter number*

Q13. In addition, do you employ any casual or contract labour? *Tick one only*

Yes	
No	

If answered no, go to Q16.

Q14. **Please can you provide an estimate of typical person days a week?** *(Enter the number in this question (even if it relates to only part of the year) and give the explanation in next question)*

Casual or contract labour	*Enter number of person days a week*

Q15. Please can you provide some detail regarding the pattern of causal/contract employment? (e.g. similar figure all year, highest in the summer etc.)

Open text

Q16. Do you employ any apprentices? If yes, how many?

Yes	*Enter number*
No	*Enter zero*

Q17. Household incomes are a major component of the economic impact of the port in the local economy. Would it be possible to give us an indication of your approximate annual employment costs (i.e. annual payroll plus employer NI and pension contributions)?

Annual employment cost	Enter value in £

Q18. Approximately what proportion of your employees live…

This Borough / District [pre-populate from answer to Q1]	*Enter percentage*
The rest of London	*Enter percentage*
The rest of Kent	*Enter percentage*
The rest of Essex	*Enter percentage*
The rest of the UK	*Enter percentage*
Abroad	*Enter percentage*

Workforce characteristics

READ OUT: We would like to understand the composition of your workforce in a bit more detail.

Q19. What is the approximate breakdown of male and female employment?

Male	*Enter percentage*
Female	*Enter percentage*

Q20. Roughly what proportion of your staff would define themselves as Black, Asian and Minority Ethnic (BAME)?

BAME	*Enter percentage*

Q21. Roughly what proportion of your staff would define themselves as disabled?

Disabled	*Enter percentage*

SQW interview – Please describe the age profile of your workforce (Probe for approximate percentage of staff: under 30; 31-50; 50 plus)

Are there any occupations with a particularly skewed profile?

Open response

Workforce occupations and skills

Q22. We would also be interested to know how many of your employees work on ships and in various types of on-shore jobs. Can you provide as with a percentage breakdown in terms of ...

Jobs on board ships	*Enter percentage (if greater than zero, at the end of Q22 ask Q23)*
Jobs in shore-based offices	*Enter percentage (if greater than zero, at the end of Q22, ask Q24)*
Jobs involving shore-based manual activity	*Enter percentage (if greater than zero, at the end of Q22, ask Q25)*
Other types of shore-based jobs	*Enter percentage (if greater than zero, at the end of Q22, ask Q26)*

Q23 - Q26 to be asked if respondent indicated this type of employment in Q22. All respondents return to survey at Q27 on occupational characteristics.

Q23. What is the approximate breakdown of male and female employment in jobs on board ships?

Male	*Enter percentage*
Female	*Enter percentage*

Q24. What is the approximate breakdown of male and female employment in in shore-based offices?

Male	*Enter percentage*
Female	*Enter percentage*

Q25. What is the approximate breakdown of male and female employment in jobs involving shore-based manual activity?

Male	*Enter percentage*
Female	*Enter percentage*

Q26. What is the approximate breakdown of male and female employment in other types of shore based jobs?

Male	*Enter percentage*
Female	*Enter percentage*

Q27. Can you provide us with a broad breakdown of the occupational characteristics of your workforce in terms of ... *(Note: categories are mutually exclusive. Employees should be classed in the role they spend most time in.)*

Managerial (including professional)	*Enter percentage*
Administrative / secretarial	*Enter percentage*
Skilled non-manual (e.g. pilots, drivers)	*Enter percentage*
Skilled / semi-skilled manual (e.g. machinery operators)	*Enter percentage*
Unskilled	*Enter percentage*
Other	*Enter percentage*

SQW interview – What are some of the key roles in these occupational categories?

Open response

SQW interview – What (if any) particular skills gaps and/or skills shortages does your business face? Probe for types of skills. Do they foresee any major labour market requirements or challenges over the next 5 or 10 years? And any actions to address etc

Open response

Value added and supplier linkages

READ OUT: We're keen to understand the value added of port and port-related operations – this is the return on capital and labour as a measure of economic impact. We'd also like to know a little about your supply chain linkages.

Q28. What is your approximate annual turnover at the site and operations we are discussing? *(Note: if terminal operators, ensure this covers terminal as well as directly associated ancillary sites and administrative office employment)*

Enter number	£
Don't know	

If answered don't know at, ask Q29.

Q29. Would you say it was… (tick one only)

Under £0.5m/annum	
Between £0.5-1m/annum	
Between £1-2m/annum	
Between £2-5m/annum	
Between £5-10m/annum	
Between £10-15m/annum	
Between £15-20m/annum	
Between £20-30m/annum	
Over £30m/annum *(if selected, please return to Q28 to try and get a reasonable estimate)*	

Q30. What proportion of your turnover does your expenditure on bought-in goods and services approximately account for? *(Note: This includes raw materials, fuel, components, accountants etc. and other sub-contracted activities where this is conducted by an agent on behalf of a client)*

Bought in goods and services as a % of turnover	*Enter percentage*

Q31. Of this, roughly what proportion do you purchase from companies that are based in…

This Borough / District [pre-populate from answer to Q1]	*Enter percentage*
The rest of London	*Enter percentage*
The rest of Kent	*Enter percentage*
The rest of Essex	*Enter percentage*
The rest of the UK	*Enter percentage*
Outside the UK	*Enter percentage*

If answered outside the UK, go to Q32. Otherwise go to 0.

Q32. **Which continents do your bought in goods and services come from?** (Tick all that apply)

Europe (outside the UK)	
North America	
South America	
Africa	
Asia	
Australasia	

Future developments

SQW interview - Overall, how would you describe the economic health of the Port of London – what are the biggest challenges and opportunities that it is facing?

Open response

Q33. Which of the following best describes how your business will change in the next five years? (Tick one only)

Rapid growth	
Steady growth	
Slow growth	
No change	
Reduction in level of business	

Q34. Can you indicate which of the following you think are most likely to hold back potential growth? (Tick all that apply and elaborate as necessary)

Level of demand and competition	Yes / No	SQW details
Land and property issues	Yes / No	SQW details
Workforce skills gaps, shortages and retention	Yes / No	SQW details
Access to affordable finance	Yes / No	SQW details
Regulations, including trade agreements and government changes	Yes / No	SQW details

Net Zero

Q35. Does your organisation have a formal plan to reach net zero emissions? (In light of the Climate Change Act requirement to reach it by 2050). (Tick one only)

Yes	
No	
Don't know	

If yes, go to Q36. If no, go to Q37. If don't know, go to Q38.

Q36. When has your organisation committed to reaching net zero emissions? (Tick one only)

2025-2030	
2031-2040	
2041-2050	
Don't know (i.e. they know their company has a plan to reach net zero, but the respondent doesn't know what date the plan aims to reach net zero)	

Q37. Do you expect to have a formal plan within the next three years?

Yes	
No	
Don't know	

Ask all

Q38. What are the main barriers to your business reaching net zero emissions?

Future investment

Q39. How much do you anticipate investing in total over the next five years?

Planned investment	£

If no planned investment, enter zero and close survey.

Q40. What areas do you plan to invest in within the next five years?

Land and property	Yes / No	SQW interviews to gather details
Recruitment and/or workforce development	Yes / No	SQW interviews to gather details
Purchasing new equipment	Yes / No	SQW interviews to gather details
Restructuring/rationalisation	Yes / No	SQW interviews to gather details
Clean technologies	Yes / No	SQW interviews to gather details
Other	Yes / No	SQW interviews to gather details

SQW interviews – Is there anything specific that (i) the PLA, (ii) Local Authorities, or (iii) Government departments could do to help support your growth or investment?]

Open response

[Thank and close]