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Wood Packaging Study

Quantification of the Manufacture & Repair of Wood Packaging in the UK, 2012

A Study

for

TIMCON and the Forestry Commission



Forestry Commission



by

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Background to the Research:

This report quantifies the development of the packaging and pallets market in the United Kingdom to 2012 and provides a short statement on the prospects for 2013.

During 2012, manufacturers, pool operators and distributors have continued to experience weak demand from users, increased cost pressures from suppliers of energy, raw materials and services and depressed price levels for packaging and pallet products.

The representative body for the industry, TIMCON, has been working on a number of fronts to support its members; through technical initiatives, environmental lobbying and ensuring the industry is fairly represented over legislative issues.

This fourth Wood Packaging Study, co-sponsored by TIMCON, is part of the process to measure how the industry is performing against the commercial pressures it faces and serves to inform TIMCON in its supportive work on behalf of its members.

This study is also co-sponsored by the Forestry Commission which has a requirement to provide information to inform forestry policy. The packaging and pallets industry is one of the leading consuming markets for UK forest products, consequently the Forestry Commission has a keen interest in this market including the important need to understand how supply and demand is changing over time. .

The market information provided by this report is therefore used to inform the industry of the development of usage characteristics and trends; provide facts and figures for TIMCON in its work in the many different fields of activity in support of its members and by the Forestry Commission in pursuit of its policy and operational remit for woodlands in Scotland and England.

TIMCON and the Forestry Commission commissioned *timbertrends*, an independent analyst, to carry out this work during 2013.

Objectives of the Research:

To estimate the value and quantities of new pallets and packaging materials manufactured and repaired in the UK, leading to estimates of timber usage. This would involve providing:

1. Estimates of the value and quantity of
 - new pallet manufacture and repair in the UK
 - size of pallet
 - type (2-way/4-way)
 - heat treated (ISPM15)
2. Estimates of timber consumption by pallet and packaging manufacturers in the UK, including estimates of timber supply by country
3. Estimates of the productive capacity of ISPM15 heat treated and kiln dried pallet manufacture.
4. To provide an estimate of how the industry might perform in the coming year.
5. To investigate the differences between data supplied by the Office for National Statistics (ONS) and industry data with a view to reconciling these differences.

Scope of the Research:

The scope of the research involved engagement with manufacturers of pallets and packaging and pallet pool operators in the UK within TIMCON membership and Wood Packaging Material Marking Programme (WPMMP) members, less those already in TIMCON membership.

In order to investigate the differences between official statistics as supplied by the Office for National Statistics and that provided through industry sources, contact with ONS is designed to understand how differences occur and whether they can be reconciled.

Methodology:

The methodology adopted for this study involved questionnaires despatched to TIMCON and WPMMP members by e-mail and selected use of the telephone.

Two versions of questionnaires were devised for contact with TIMCON members and a similar questionnaire for use with WPMMP members. A more detailed questionnaire was despatched to TIMCON members who had previously responded to information requests and a shorter, less comprehensive questionnaire sent to previous non-respondents within TIMCON membership and WPMMP members.

Copies of these questionnaires can be found in Annex III of this report.

Measuring the supply of manufactured and repaired pallets and packaging in the UK required a careful and deliberate approach, because of the structure of the industry.

The market comprises many small firms, a good number of middle-sized firms, larger firms and a number of very large firms operating within the industry. The activities of these companies are not homogenous, with differing emphases on manufacturing and repair and also different ways of getting pallets to market. This is exemplified by the difference between manufacturers and pallet pool operators with manufacturers mostly selling their output while pallet pool operators rent pallets for use by customers.

The measurement of the industry and identification of the trends taking place has been enhanced in this 2012 report through a more precise estimate of the activities of TIMCON members. The availability of data from the three previous studies has enabled a refinement in the method of estimating company turnover. This has been effected by comparing current and previous responses to the survey conducted for these reports with information provided from the TIMCON membership database.

This, combined with revisions to company data and newly responding companies to the surveys has provided an improved measure of activity for 2012 and revisions to some of the data for 2011.

Further detail of the programme of work and methodology used can be found in Annex II to this report.

Executive Summary

In common with many industries and especially the many industries that use packaging and pallet materials, the packaging and pallets industry in the UK over the last few years has experienced lower levels of demand for its products, poor profitability compared to many other industries, increased costs, increased competition and new requirements to demonstrate compliance with regulations, such as the European Union Timber Regulation.

The turnover of packaging and pallets manufactured in the UK has fallen substantially since 2007 and industry turnover fell once again in 2012, by a little over 1%.

Falling revenues have been exacerbated by higher timber prices over the last three years and with timber costs representing around 70% of turnover, the industry's cost base has continued to come under pressure.

At a time when quantities are down, turnover is lower and costs are increasing, the industry has witnessed changes in the way pallets are recovered and re-used, especially in food and drink distribution. A higher frequency, generally, of re-use, although supporting the environmental credentials of the industry, has reduced the quantities of pallets returned for repair in the last two to three years and this has contributed significantly to the decline in pallet production and repair work.

A change has been detected in 2012 however; specifically in the supply of pallets.

For the first time since the inception of this series of Wood Packaging Studies, and probably for over five years, 2012 saw a rise in both turnover - albeit a tiny 0.2% - and in quantities (+3%) of pallet production and repair work.

This improvement consists of values and quantities well below the levels of five years ago, but it has come at a time when the UK economy was beginning to show signs of improvement and this improvement has continued in 2013.

The challenges the industry faces remain and optimism has before turned into further disappointment, as happened in 2011 when a recovery in 2010 was quickly extinguished.

This fourth Wood Packaging Study report has, nevertheless, detected better levels of activity and, through additional questioning of pallet manufacturers and pool operators provides an estimate of the possible increase in activity that may emerge by the end of 2012.

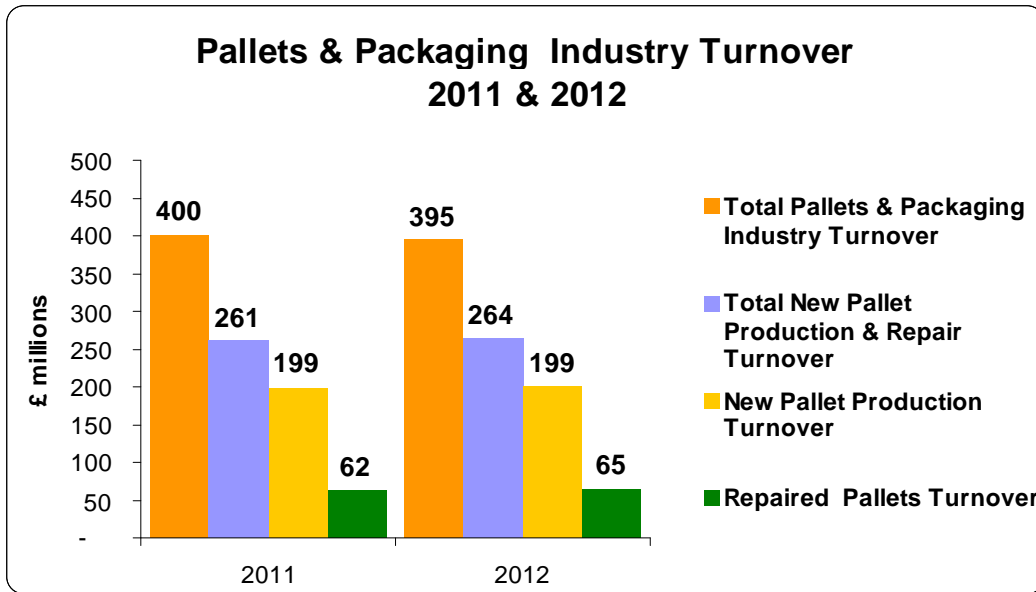
Although there remains a mixture of different views of how 2013 will end, the consensus indicates that an increase in the region of 3% for new pallet production will have taken place.

Pallets & Packaging Industry Turnover

Turnover of the pallets and packaging industry in 2012, comprising the production and repair of pallets, cases, boxes, crates, drums and other industrial packaging, was estimated to be £395 million. This was around £5 million less than in 2011 - a fall of just over 1%.

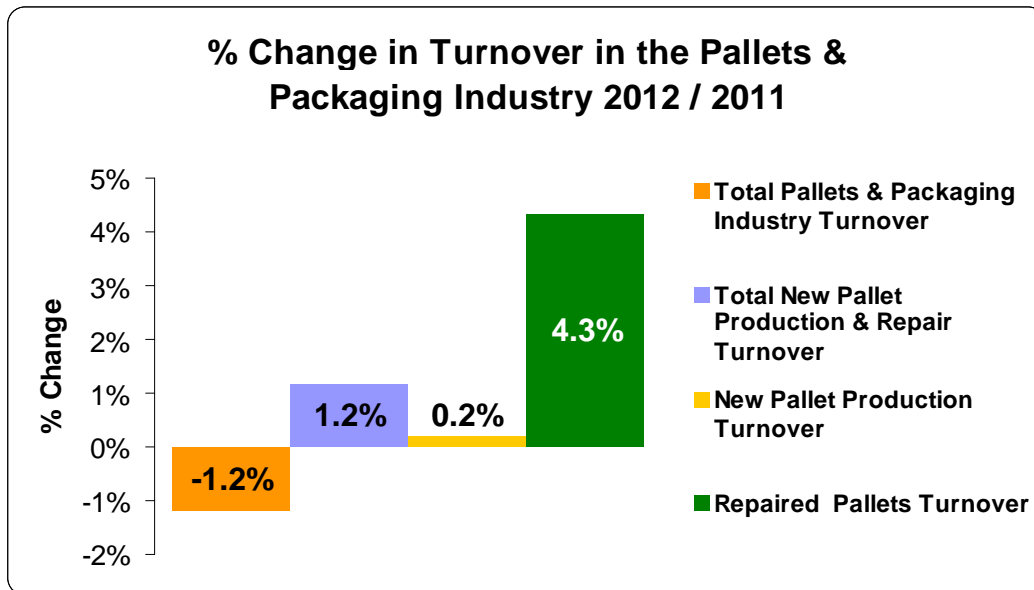
Specifically for pallet production and repair in 2012, excluding other forms of packaging, turnover was £264 million, an increase of 1% over 2011. This 1% increase was derived from a marginal 0.2% rise in the value of newly manufactured pallets and a 4.3% rise in the turnover of repaired pallets.

The charts below summarise.



As shown in the chart above for 2012, the value of repaired pallets of £65 million when added to the value of new pallet production of £199 million forms the total pallet turnover of £264 million which is included within the total pallets and packaging industry turnover of £395 million.

The percentage changes in 2012 for each category were as follows.

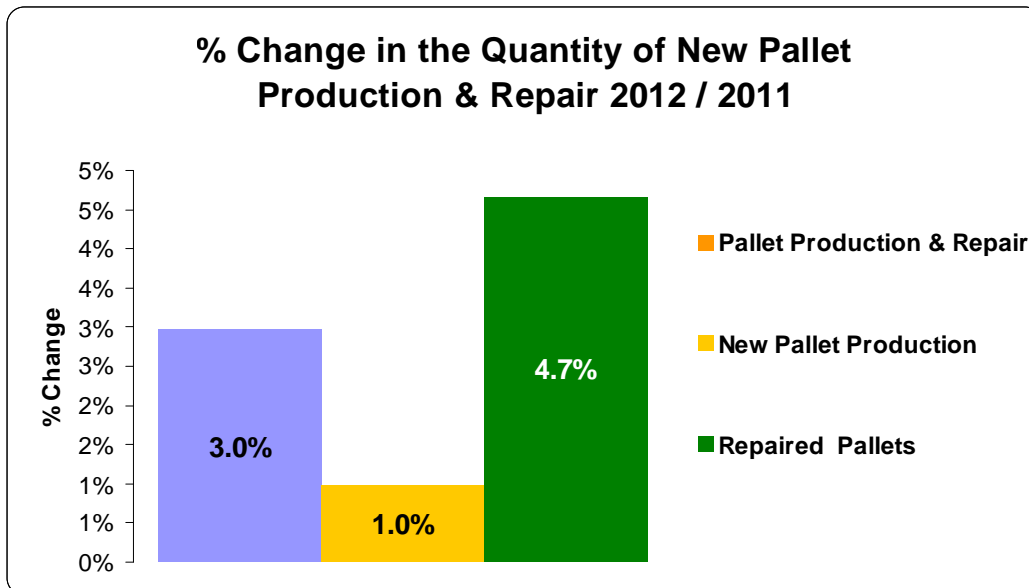
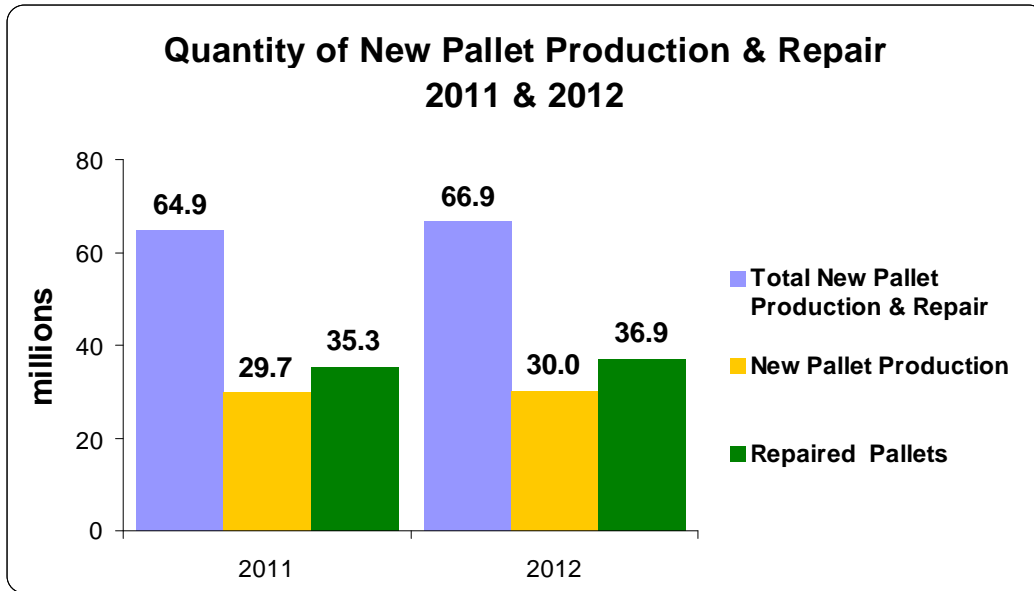


Quantity of Pallets Produced and Repaired

The quantity of both newly manufactured and repaired pallets increased in 2012 by 3%, to 66.9 million.

Individually, the quantity of newly manufactured pallets rose from 29.7 million in 2011 to 30.0 million in 2012, an increase of 1%.

The quantity of repaired pallets also rose in 2012, by approximately 5%, up from 35.2 million in 2011 to 36.9 million in 2012. These changes are shown in the following charts.

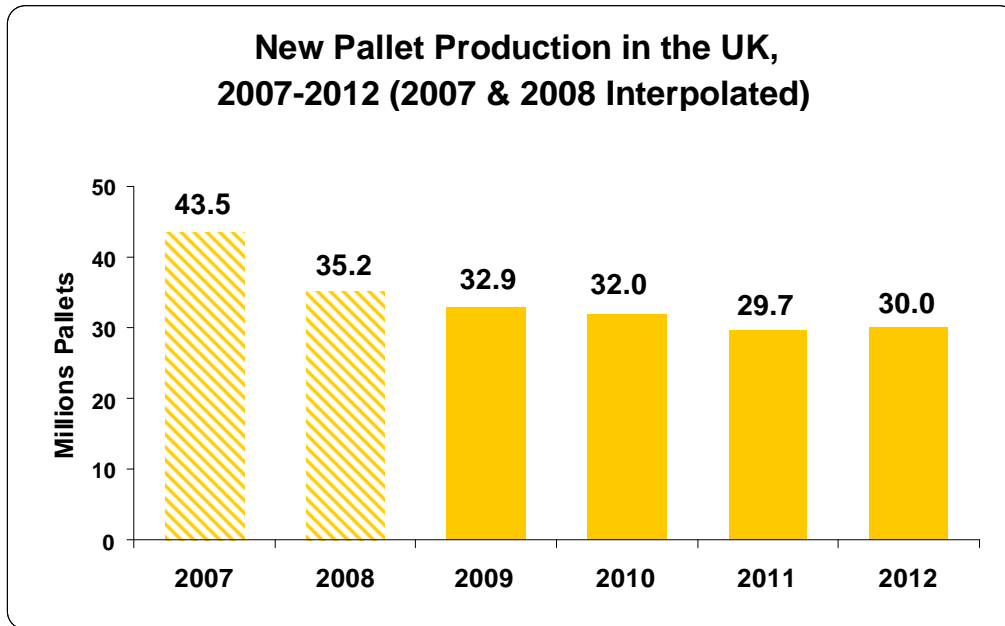


The small growth of 1% in the production of new pallets is estimated to be the first time in six years that the quantity of newly manufactured pallets has risen.

This series of Wood Packaging Studies commenced in 2010, reporting on the year 2009, therefore the quantities of newly manufactured pallets produced before that time have needed to be derived from the only other source of information available: the ProdCom data.

Comparisons between pallet production reported by ProdCom and the Wood Packaging Studies for the four years between 2009 and 2012 reveal an average difference of 44%; the ProdCom data being, on average 44% higher than the Wood Packaging Study estimates for new pallet production.

The quantities of newly manufactured pallets interpolated from the ProdCom data, by reducing the ProdCom quantities by the average difference between the two series over the four years between 2009 and 2012, provides an estimate for new pallet production that is consistent with the findings from the series of Wood Packaging Studies.



The reduction in new pallet production from 2007, from an estimated 43.5 million to the small increase recorded in 2012, is around 31% over the five year period.

Pallets & Packaging Industry Employment

The pallets and packaging industry employed an estimated 4,053 people in 2012, a small reduction on the 4,098 estimated to have been employed in 2011.

The 1,400 people employed in new pallet production in 2012 was slightly lower than the 1,418 employed in 2011.

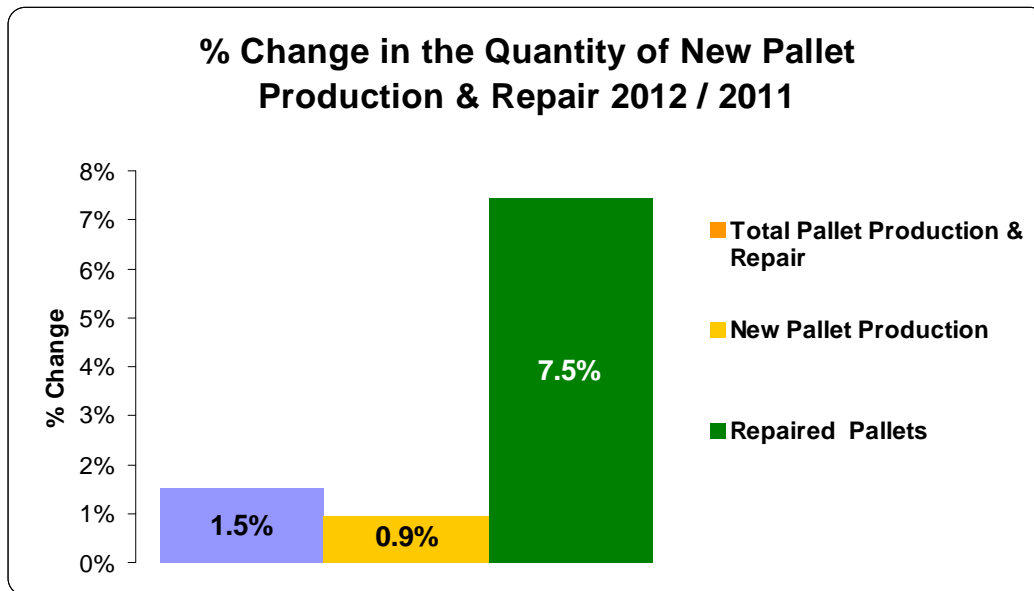
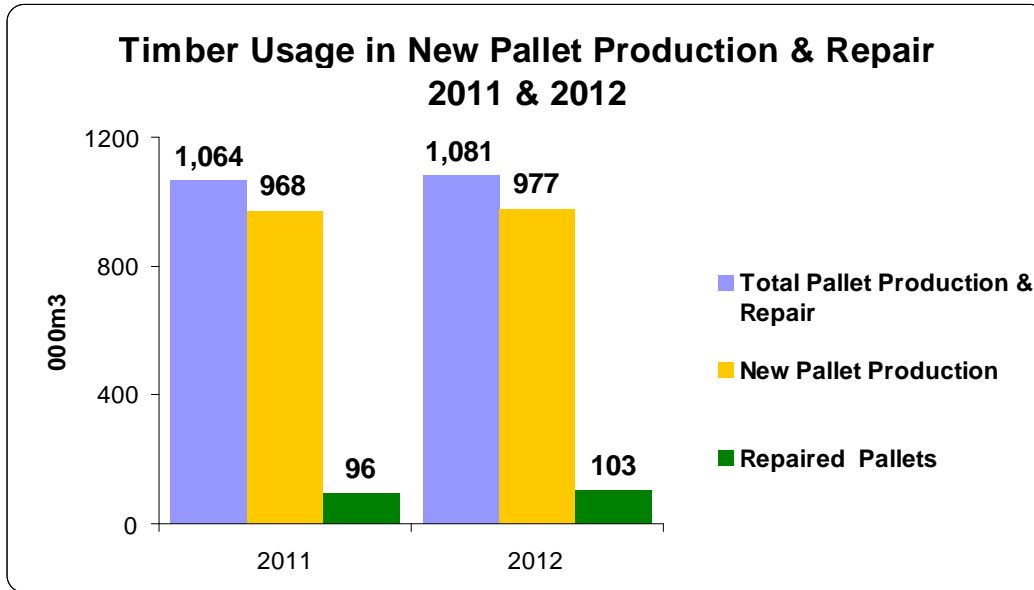
Pallets & Packaging Industry Timber Usage

The volume of timber and wood products (sawn softwood, hardwood and panel products) used by the pallets and packaging industry in 2012 was virtually unchanged from the volume consumed in 2011. A total of 1.51 million m³ was consumed in 2012.

Timber Usage in Pallet Production & Repair

The volume of timber and wood products used solely in pallet production and repair in 2012 increased by 1.5% to 1.08 million m³.

The volume of timber used for new pallet production in 2012 increased by around 1%, to 0.98million m³ while an additional 7.5% was used in pallet repair, taking the volume consumed to over 100,000m³ as shown in the chart below.



Heat Treated Pallets

A refinement in the way of calculating the total output of heat treated pallets in the UK in 2012 has led to a downward revision of the numbers produced. It is estimated that approximately 8.2 million heat treated pallets were produced in 2012 which was around 19% higher than the 6.9 million estimated to have been produced in 2011.

It is likely that this increase in the quantity of heat treated pallets was by virtue of the rising demand for kiln dried pallets. Heat treated pallets typically require 3 hours in a modern kiln while kiln drying takes up to 24 hours. By virtue of kiln drying, many pallets are also heat treated to the ISPM 15 phytosanitary standard.

In the last few years, consideration has been given to an extension of European phytosanitary ISPM 15 regulation, governing the use of heat treated packaging and pallets

throughout Europe, but TIMCON, in conjunction with the European pallets federation, FEFPEB, has been active in ensuring that any such extension is introduced in a managed and sustainable fashion – importantly, in a way that the European packaging and pallets industry would be able to effectively implement.

The likelihood of such legislation being introduced in the short-term has receded, yet despite this recognition of the low levels of risk of contamination associated with wooden packaging, the growth in the numbers of heat treated pallets, as shown above, increased strongly in 2012.

Findings:

The Pallets & Packaging Industry Turnover

The combined turnover of newly manufactured and repaired pallets rose in 2012 to a level of £263.9 million. This was 1% higher than the £261.4 million in 2011.

The turnover of **newly manufactured** pallets in the UK for 2012 amounted to £199.3 million in 2012 which was marginally higher than the £199.0 million in 2011.

The turnover of **repaired** pallets in 2012 was £64.6 million compared to £61.9 million in 2011, a rise of 4.3%.

As with previous Wood Packaging Studies, information provided by members of the Wood Packaging Members Marking Scheme enabled estimates to be made of the value of non-pallet packaging manufacturing. In 2012, the value of this non-pallet making activity was estimated have fallen by 5.6% to a value of around £131.0 million.

The market destinations of pallets and packaging is outside the scope of this study, however, it is possible that part of the decrease in turnover of non-pallet, or industrial packaging, may have been due to a fall of around 9% in the value of exports for this type of packaging in 2012.

The combined value of pallet manufacturing and repairs and non-pallet manufacturing in 2012 was estimated to be £394.9 million, down by 1.2% from the 2011 value of £400 million.

For many years, the only industry-wide measure of packaging and pallets activity in the UK was provided from ProdCom, delivered by the Office for National Statistics. This is a comprehensive data series of production of PRODUcts of the European COMmunity and is a European Union (EU) wide survey. This series covers around 3,866 products classified to around 234 industries in manufacturing, but also in service, repair and distribution industries.

Companies involved in the annual ProdCom Inquiry supply sales data for the products they manufacture, as well as non-manufacturing income. Within Division 16 of ProdCom which is concerned with sales of wood products is a sub-division, No: 16241133 which measures sales of flat pallets and pallet collars of wood and also sub-division No: 16241135 which measures sales of box pallets and load boards of wood, excluding flat pallets.

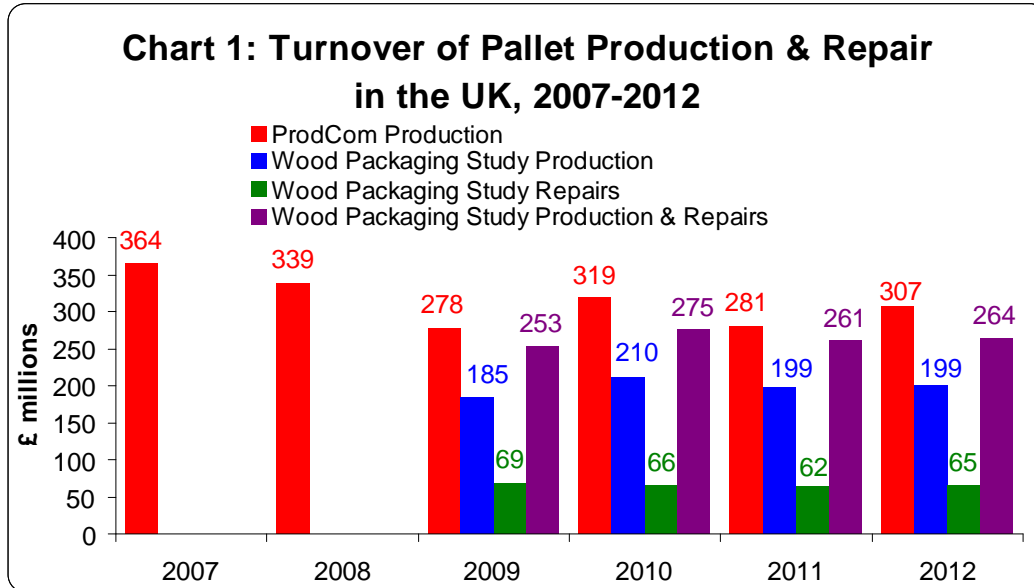
According to the provisional ProdCom estimates for 2012, the total turnover for flat pallets produced in the UK was £307.5 million and with box pallets added, £316.1 million.

With non-pallet packaging, (cases, boxes, crates and cable drums, in addition to pallets, but not casks, tubs etc) added to pallets turnover, the 2012 Prodcom total was £448.8 million.

The total turnover derived from the Wood Packaging Study for packaging and pallets for 2012, as revealed above, was £395 million, around 12% lower than the ProdCom total.

The revisions to data in the Wood Packaging Study have confirmed the differences between industry-derived data from the study and the ProdCom estimates. Reviewing the latest ProdCom data for 2012 and 2011, compared to the results from the Wood Packaging Study, the differences would appear to be widening. For 2012, the ProdCom measure of pallet industry turnover increased by 14% and the quantity of pallets produced rose by 21%. According to the Wood Packaging Study, pallets turnover increased by around 1% and quantities produced increased by 3%.

The value of pallet production in the UK as measured by ProdCom from 2007 to 2012 is shown in chart 1 below, alongside the turnover estimates from the Wood Packaging Studies conducted since 2009. The differences in turnover between 2009 and 2012 have been relatively consistent with the ProdCom totals between 29% and 35% higher than those from the Wood Packaging Studies.



Further dialogue with the Office for National Statistics (ONS) during 2013 has revealed that the ProdCom pallet series, described as 1624 1133 (CN 4415202) Flat pallets and pallet collars of wood, measures newly manufactured pallets and major repairs and refurbishment.

Previous dialogue with ONS also revealed that the turnover from pallet repairs – presumably those of a more minor variety not included above - would be classified to Division 33, which is a division dedicated to repair and maintenance and would not be counted within the production series 1624 1133.

Following representation made to ONS, with the full support of TIMCON, an investigation into the apparent differences between the two sources is being mounted by ONS.

ONS has agreed to contact industry to determine if a more precise set of questions on pallet manufacturing and repair might improve the data quality and possibly help to reconcile the differences between the two sources.

Further detail on the dialogue between industry and ONS is provided in Annex I of this report, but until such time as ONS complete these investigations, the industry continues to observe the official statistics as provided by ProdCom.

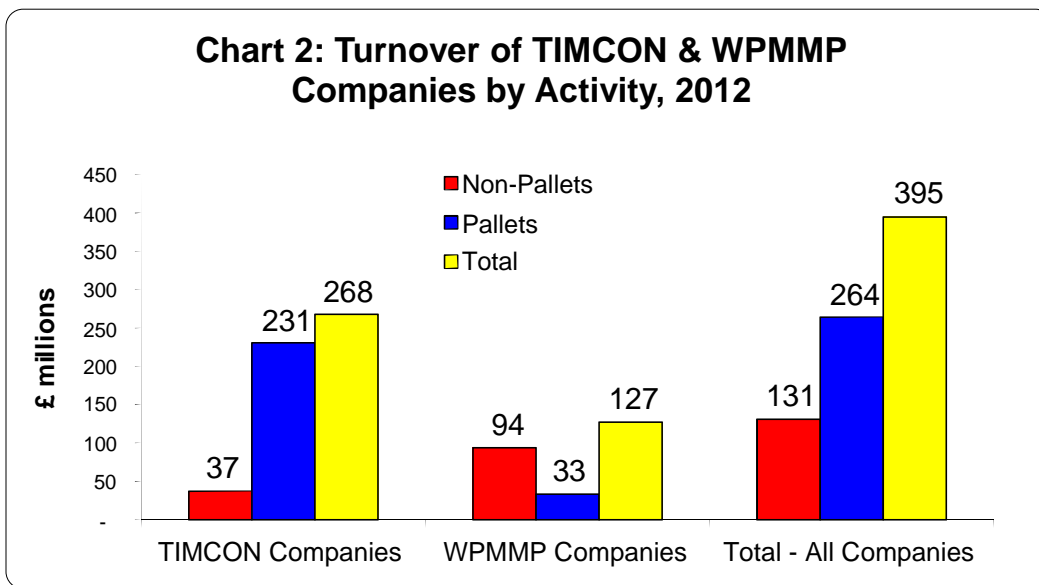
The Wood Packaging Studies consider a more detailed set of questions than the ProdCom series however and all further reporting of industry activity in this report is derived from the Wood Packaging Study for 2012 and studies for previous years.

The turnover estimate for pallets in the Wood Packaging Study includes estimates of the turnover of TIMCON member companies and those belonging to the Wood Packaging Material Marking Programme (WPMMP). Members of the Wood Packaging Material Marking Programme manufacture many forms of packaging and because of this diversity, quantities

cannot be measured effectively, although this report does, as provided above, measure turnover of these packaging materials. Some members of the Wood Packaging Material Marking Programme (not within TIMCON membership) also manufacture pallets and quantities produced have been estimated and are added to pallet production derived from TIMCON members.

The estimated turnover for all types of packaging from the Wood Packaging Study, as indicated above, was £395 million for 2012 broken down into TIMCON member companies' turnover of £268 million and the turnover of WPMMP companies, which was estimated to be £127 million. As indicated above, those companies within TIMCON membership that are also WPMMP members were excluded from the estimate for WPMMP companies turnover.

Chart 2 below shows the breakdown of different activity by TIMCON and WPMMP member companies.



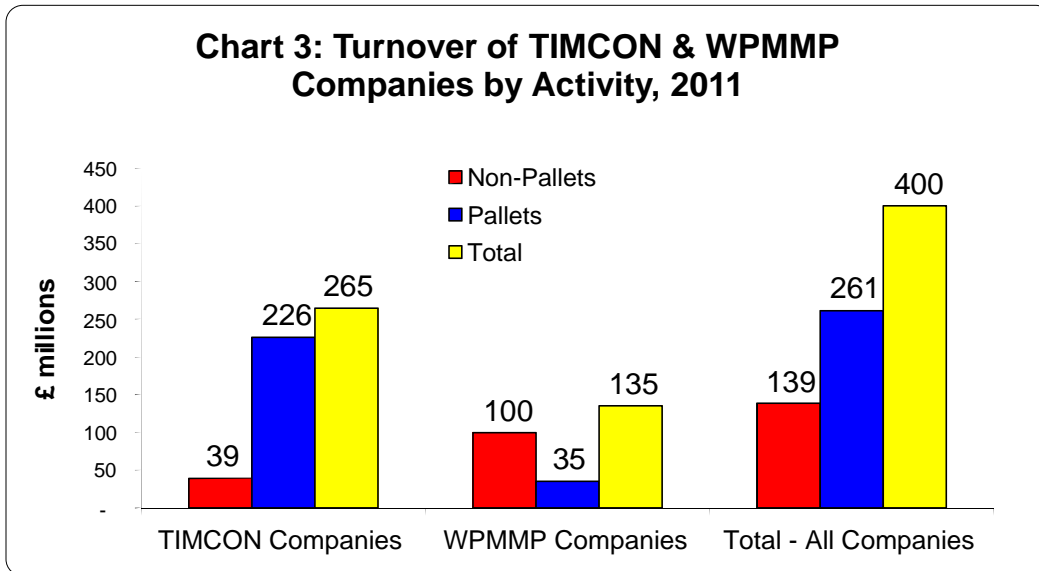
TIMCON member companies' turnover increased in 2012 by 1.3% to just under £268 million.

TIMCON companies' pallet turnover was higher by £4.7 million or 2.3%, while TIMCON companies' non-pallet turnover fell by £1.8 million, or 4.6%.

The turnover of WPMMP member companies was estimated to have also fallen in 2012 by just over £8 million, a decline of 6.0%.

As reported previously, by combining the sales of pallets and other packaging materials (non-pallets) the total packaging and pallets industry turnover in 2012 was £395 million, down by around £5 million, a fall of 1.2%.

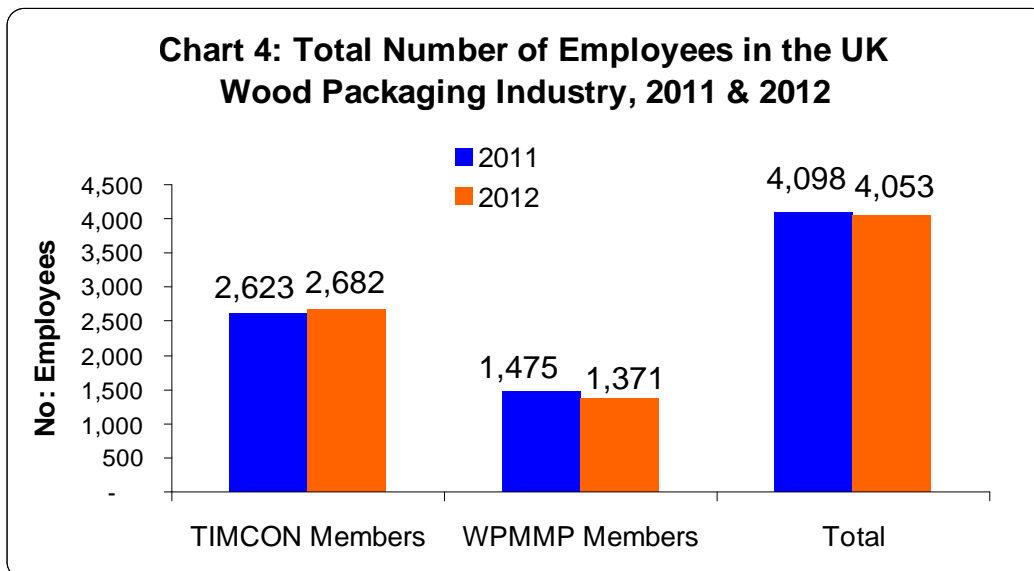
For ease of comparison, the turnover of TIMCON and WPMMP members for 2011 is shown below in chart 3.



Industry Employment

The number of people employed in the packaging and pallets industry is estimated to have fallen slightly once again in 2012.

The number of employees engaged by TIMCON members companies at 2,682 is slightly higher than in 2011. A more substantial decline in numbers employed by WPMMP members was estimated to have taken place in 2012 with a 7% drop in numbers to just under 1,400 people.

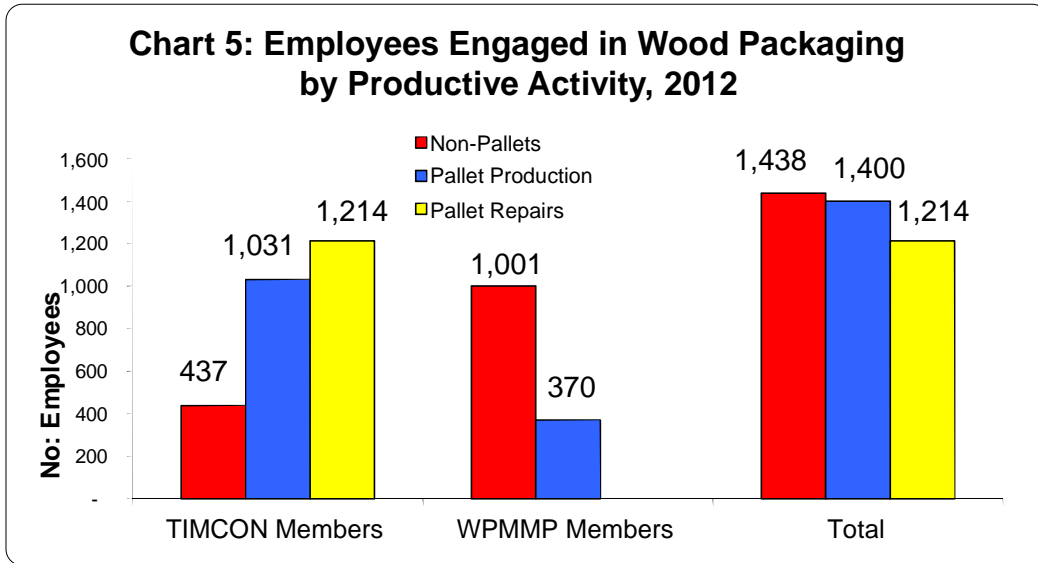


TIMCON member companies continue to account for around two-thirds of all employees in the packaging and pallet industry in the UK, which compares with the proportion of industry turnover accounted for by TIMCON members companies which was 68% of the turnover of the total pallets and packaging industry in 2012.

The measure of industry-wide average turnover per employee in 2012 of £100,500 is marginally higher than the 2011 measure of nearly £99,500 per employee, an increase of 1.1%.

A breakdown of employment by activity by TIMCON members companies and WPMMP companies reflects the different types of activities that each set of member companies were engaged in during 2012.

Chart 5 below identifies this breakdown of employment for 2012.



The numbers employed in all new pallet production, at 1,400 is 1.2% lower than the 1,418 people estimated to have been employed in 2011. Within this total, TIMCON companies employed 1,031 people which represented 74% of all employment in pallet production.

TIMCON companies account for virtually all employment in pallet repairs. Around 70 more people were estimated to have been employed in pallet repair activity in 2012 than in 2011, taking the total to a little over 1,200.

A small drop in numbers employed in the manufacturing of non-pallets by TIMCON companies was estimated to have occurred in 2012, reducing the number of employees to 437 from 460 in 2011. The largest fall in the number of employees was estimated to have taken place in non-pallet manufacturing (the manufacturing of wooden cases, drums etc.) by WPMMP companies in 2012. The numbers, based on reductions in turnover and the average turnovers per employee, are provided with the least confidence of any employee estimates because of the very wide spread of activities carried out in this market and the low response received from WPMMP companies to the survey conducted for this report.

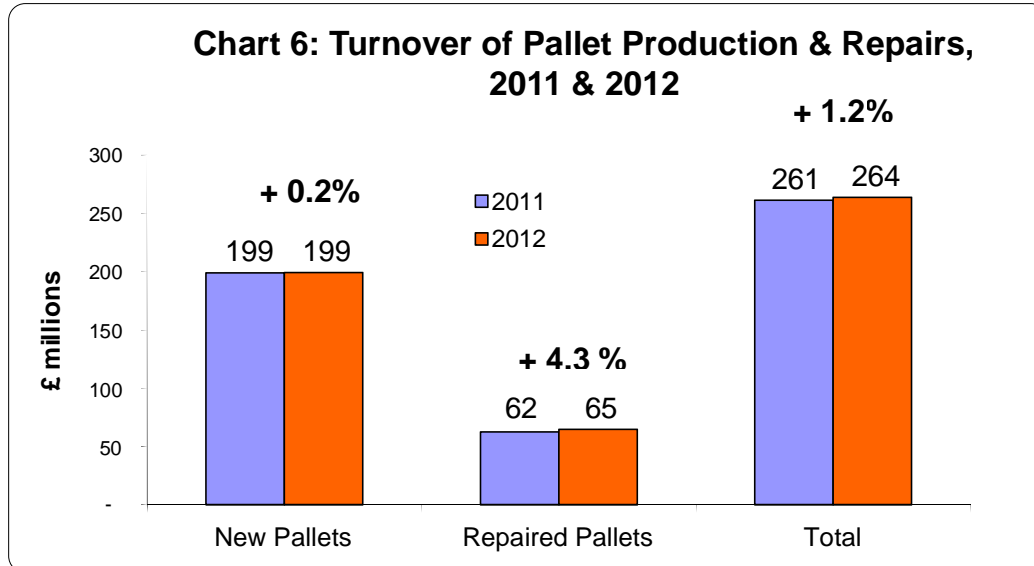
Pallet Production and Repair Values & Volumes

As shown in chart 2 earlier in this report, the turnover of pallet production and repair in the UK in 2012 was £264 million.

It is estimated that £199 million of the £264 million was accounted for by newly manufactured pallets and nearly £65 million by repaired pallets.

The combined increase in turnover of both newly manufactured and repaired pallets in 2012 of approximately £3 million from £261 million in 2011 was 1.2%.

The values and percentage change in newly manufactured and repaired pallets are shown in chart 6 below.

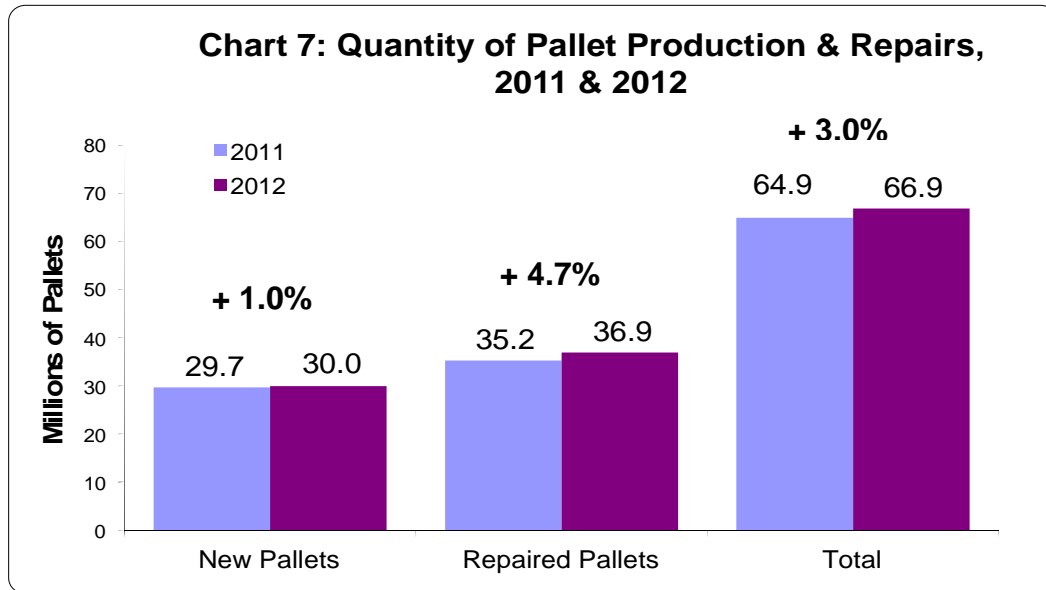


The marginal increase of 1.2% in value of the pallets industry in 2012 was driven by a 3% uplift in volume of pallets produced and repaired, but a 1.8% reduction in the overall average price for all pallet activity.

Both newly manufactured and repaired pallets experienced similar development in 2012.

The overall 0.2% increase in the turnover of newly manufactured pallets was derived from an increase in volume by 1%, but prices were fractionally lower (-0.8%) than in 2011. The 4.3% increase in the turnover of repaired pallets in 2012 was produced by an increase in volume of nearly 5%, but prices also were fractionally lower, down by 0.3%.

The volumes of each in 2012 are shown with the percentage changes in quantities chart 7 below.



The general trend of pallet usage since the recession in 2008 and 2009 has been downward.

The ProdCom turnover data from 2007 confirms this and the Wood Packaging Studies since 2009 have quantified this reduction in the overall level of activity.

In 2010, a modest recovery appeared to have begun with quantities and turnover higher than in 2008 and 2009. This improvement was short-lived however and in 2011, the downward trend continued.

In 2012, while the quantity of newly manufactured pallets was at similar level as in 2011, just marginally higher as shown in chart 7, growth occurred in the number of pallet repairs.

Pallet manufacturers and pool operators reported an increase in activity in 2012, at a time when the UK economy continued to struggle to achieve growth.

In 2012, UK manufacturing output (all manufacturing industries) was 1.7% lower than in 2011; the output of the fast-moving food and drinks industry was 2.7% lower than in 2011; the chemicals and chemical products industry reported a 7.2% drop in output and the output from the pharmaceutical industry was little better, down 6.1%. For all production industries in the UK, output was 2.5% lower.

The overall higher level of pallet activity, brought about by a tiny increase in the quantity of newly manufactured pallets and the larger rise in pallet repairs in 2012 therefore might appear incongruous.

This 2012 Wood Packaging Study reveals a 3% rise in all pallet activity and the 2012 ProdCom estimates an increase of 21% in the quantity of pallets produced and repaired

Further light on this counter-intuitive development in 2012 can be shed by viewing industry performance for the previous year, in 2011.

As reported in the 2011 Wood Packaging Study, quantities of newly manufactured and repaired pallets were lower by 9% in 2011 compared to 2010.

These reductions in volume took place in 2011 during a time when UK manufacturing output for the year was 1% higher and output of the food and drinks industry was also marginally higher, by 0.5%.

The year 2011 was a year of two very clear halves however with the first six months exhibiting good growth and the second six months, rapid decline.

By mid-year 2011, growth in manufacturing output was up by 7% and in food and drinks distribution, output was 10% higher. Therefore, rapid growth for part of the year was followed by rapid decline in output of these key industries.

Despite this volatility, pallet activity was lower in 2011 while key user industries were showing an overall small rise in output.

The reasons behind these lower levels of activity in 2011 were due to a continuing need of pallet users to control their distribution (and other) costs and the growing trend of 'managed recovery' in the pallet industry.

The higher costs of new pallets was encouraging pallet users to buy fewer new and make greater use of repaired pallets and the practice of 'managed recovery' where pallets are often being re-used rather than returned for inspection and repair was increasing.

This re-use of pallets for onward distribution of goods instead of returning used pallets to the pallet provider for inspection and either re-use, repair or scrapping had the effect of reducing the number of repairs taking place, resulting in the generally lower pallet activity reported in the Wood Packaging Study and in the ProdCom data for 2011.

The rapid decline in economic activity in the second half of 2011 continued into 2012 and the first half of 2012 saw depressed demand for goods (and services) in the UK economy. This resulted in lower demand for pallets, a reduced level of onward re-use (managed recovery) and consequently a higher availability of pallet returns and repairs. This higher level of returns also resulted in a greater degree of scrappage. The process of managed recovery often leads to pallets – which have been subject to greater usage – being returned in poor condition and beyond reasonable repair. This may also account for the marginal increase in new pallet production in 2012 as the pallet pool requires replenishment following scrapping.

Consequently, through these developments, an increase in pallet industry output took place in 2012.

This increase in pallet activity has to be weighed against the continuing cost pressures on pallet manufacturers and pool operators; the need to maintain a constant supply of serviceable pallets; the demand from wood-based panel manufacturers for raw materials (pallet end-life supply) and the growing environmental demands placed on pallet makers in the need to provide safe and pest-free products fit for purpose.

Estimates of Wood Utilisation in Pallet Production and Repairs

In the production of newly manufactured pallets, timber usage (softwood, hardwood and panel products) was estimated to have been 977,000m³ in 2012 (968,000 m³ in 2011) and for repaired pallets, timber usage was 103,000m³ (96,000m³ in 2011).

Substantially more timber is used in new pallet production than in pallet repairs and this is confirmed by the 90% level of all timber that was consumed for new pallet manufacturing in 2012.

As shown in chart 7 previously, a higher growth in pallet repairs took place in 2012 and this had the effect of increasing the quantity of wood used for repairs. In turn, this raised the proportion of wood used in repairs in 2012 to 10% of the total, from 9% in 2011.

Also shown in chart 7, the quantity of repaired pallets increased in 2012 by 4.7% and, consistent with the trend towards a higher incidence of major repairs, the amount of wood products used in pallet repair increased by 7.5%.

As a consequence, usage of wood products per repair rose in 2012 compared to 2011 by 2.7%. This raised the average usage per repair to 0.0028m³, up from 0.0027m³ in 2011.

The amount of timber used in new pallet production is over eleven times greater than the quantity used for repair. In 2012, the average usage per new pallet manufactured remained the same as in 2011, at 0.0326m³.

As noted in the previous section of this report, pallet makers are under price pressure from users, wishing to keep their own costs down and thereby generally depressing pallet prices.

Pallet makers are also under costs pressure from timber suppliers. This is particularly acute as wood accounts for a large proportion of pallet makers' costs. Typically, timber comprises 70% of a pallet maker's revenue, therefore timber price rises that cannot be passed forward to customers exert a depressing influence on pallet manufacturers' profitability.

Average import prices¹ for softwood have risen substantially over the last two to three years. An increase of 3% in 2011 followed a 19% rise in 2010. Although wood costs eased slightly in 2012, they remained historically high. Prices of UK supplied softwood tend to follow the price movements of imported softwood and with an increasing proportion of UK produced softwood used by pallet manufacturers, the cost of timber from all sources of supply has risen over the last three years.

Pallet manufacturers are therefore being squeezed from both sides: from customers resisting price increases and from timber suppliers passing on raw material price increases.

The differences in timber usage, alongside the proportions of newly manufactured and repaired pallets by industry turnover and quantities for 2012 and 2011 are shown below in charts 8 and 9 below.

¹ Derived from HM Revenue & Customs Trade Statistics

Chart 8: Proportion of Turnover, Quantity & Timber Usage by Pallet Activity, 2011

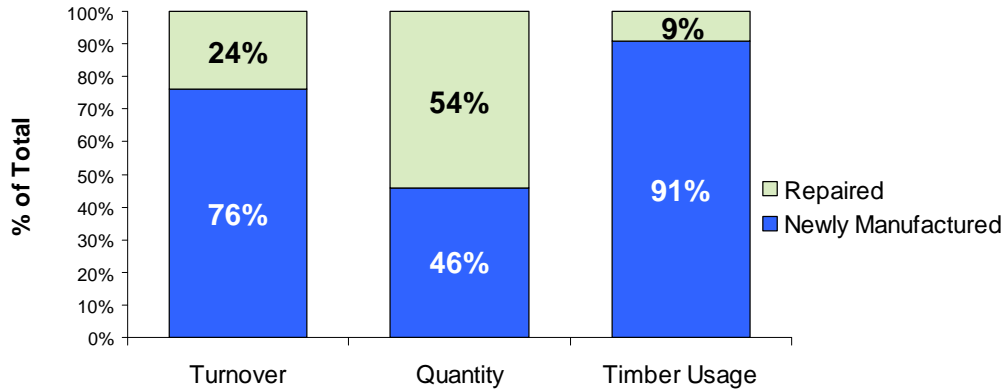
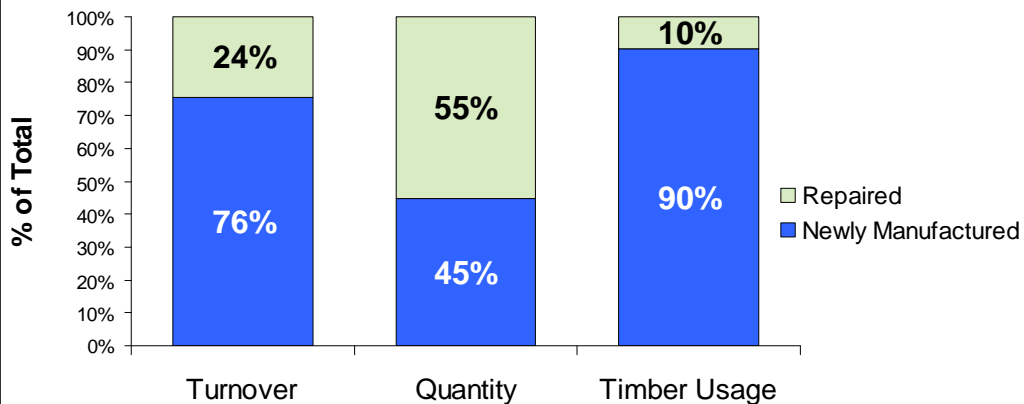


Chart 9: Proportion of Turnover, Quantity & Timber Usage by Pallet Activity, 2012



The very different characteristics between new and repaired pallets are clearly demonstrated in charts 8 and 9.

New pallet production accounted for just over three quarters (76%) of all pallet turnover in 2012, the same as in 2011, but less than a half of the quantity produced and repaired.

Repaired pallets accounted for 55% of all pallets produced and repaired in 2012, slightly higher than in 2011.

Repaired pallets accounted for 10% of timber used in 2012, again, slightly more than in 2011.

Turnover, Quantities & Timber Usage of Pallet Production and Repair

The estimates of turnover, the quantities produced and the volumes of timber products consumed by the pallets and packaging industry, as shown in the charts of the previous section of this report, were derived from a number of sources. A survey was conducted among TIMCON and WPMMP member companies in 2013 to gather data on the year 2012 and data from the TIMCON membership database were also used to verify and refine the estimates used to measure the different types of activity. To supplement these estimates, individual contact was made with selected pallet manufacturers and pool operators to gauge activity levels for 2012. These estimates for 2012 and 2011 are shown below in tabular form.

Table 1: Pallet Turnover, Quantity and Timber Usage, 2011 & 2012

	Pallet Turnover - £000s		Pallet Quantities - 000s		Timber Usage - 000m3	
	2011	2012	2011	2012	2011	2012
WPMMP Pallet Production	34,361	31,916	4,321	4,280	150	141
TIMCON Pallet Production	164,604	167,406	25,360	25,692	818	836
Total Pallet Production	198,965	199,323	29,681	29,972	968	977
TIMCON & WPMMP Pallet Repairs	61,952	64,631	35,251	36,890	96	103
All Pallets Manufactured & Repaired	260,918	263,954	64,932	66,862	1,064	1,081

The changes in each type of activity between 2011 and 2012 shown in table 1 above are quantified in table 2 below.

Table 2: Pallet Turnover, Quantity and Timber Usage, Percentage Change 2011 & 2012

	Pallet Turnover - % 2012/2011	Pallet Quantities - % 2012/2011	Timber Usage - % 2012/2011
WPMMP Pallet Production	-7.1%	-0.9%	-5.8%
TIMCON Pallet Production	1.7%	1.3%	2.2%
Total Pallet Production	0.2%	1.0%	0.9%
TIMCON & WPMMP Pallet Repairs	4.3%	4.7%	7.5%
All Pallets Manufactured & Repaired	1.2%	3.0%	1.5%

From the data in table 1, it is possible to derive average values and usages per activity and identify the percentage changes that have occurred between 2012 and 2011. These are shown in table 3 below.

Table 3: Pallet Values and Material Usage and Percentage Change 2011 & 2012

	£/Pallet		% Change	m3/Pallet		% Change
	2011	2012		2011	2012	
WPMMP Pallet Production	7.95	7.46	-6.2%	0.0347	0.0330	-4.9%
TIMCON Pallet Production	6.49	6.52	0.4%	0.0323	0.0325	0.8%
Total Pallet Production	6.70	6.65	-0.8%	0.0326	0.0326	0.0%
TIMCON & WPMMP Pallet Repairs	1.76	1.75	-0.3%	0.0027	0.0028	2.7%
All Pallets Manufactured & Repaired	4.02	3.95	-1.8%			

The increase in turnover in 2012 of 1.2% for all pallet manufacturing and repair (Table 2) was derived from the 3.0% increase in quantities of production and repairs (Table 2) and the reduction in average prices of 1.8% (£ per pallet % change in Table 3).

As previously reported, pallet manufacturers had difficulty in pushing through price increases for their products in 2012 and the changes in average values in table 3 above confirm this.

Pallet Sizes

As in previous Wood Packaging Studies, information was sought on the quantity of manufactured and repaired pallets of the two most common sizes, 1000mm x 1200mm or 1200mm x 1000mm and 800mm x 1200mm.

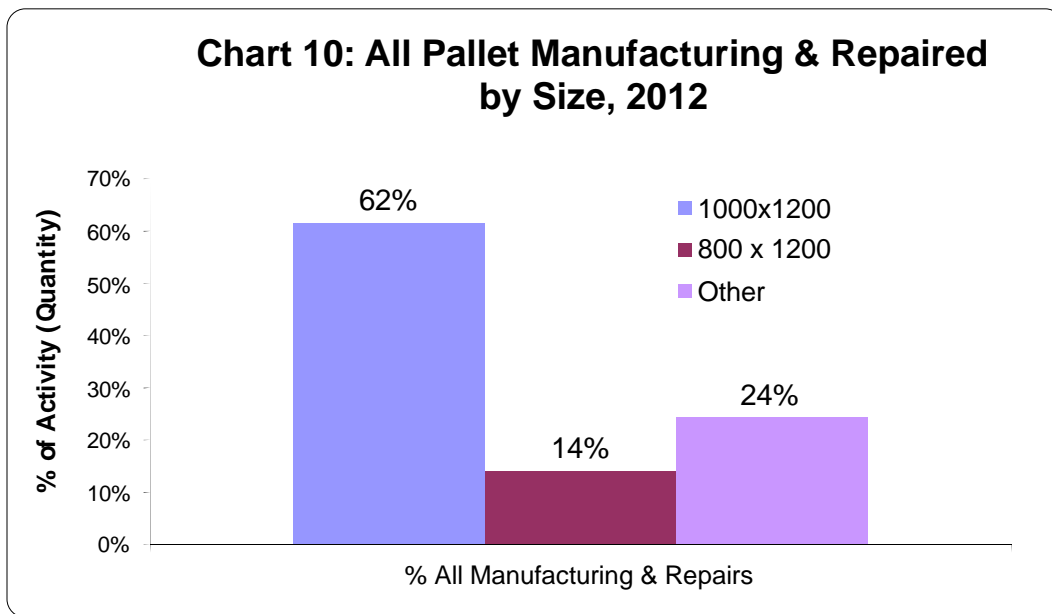
It should be noted that some respondents were unable to provide complete data on pallet sizes, therefore the findings presented here are potentially less reliable than some other data provided in this report.

In 2012, 66.9 million pallets were manufactured and repaired of which, 62%, or over 41 million were of the 1000mm x 1200mm size compared to 61% in 2011.

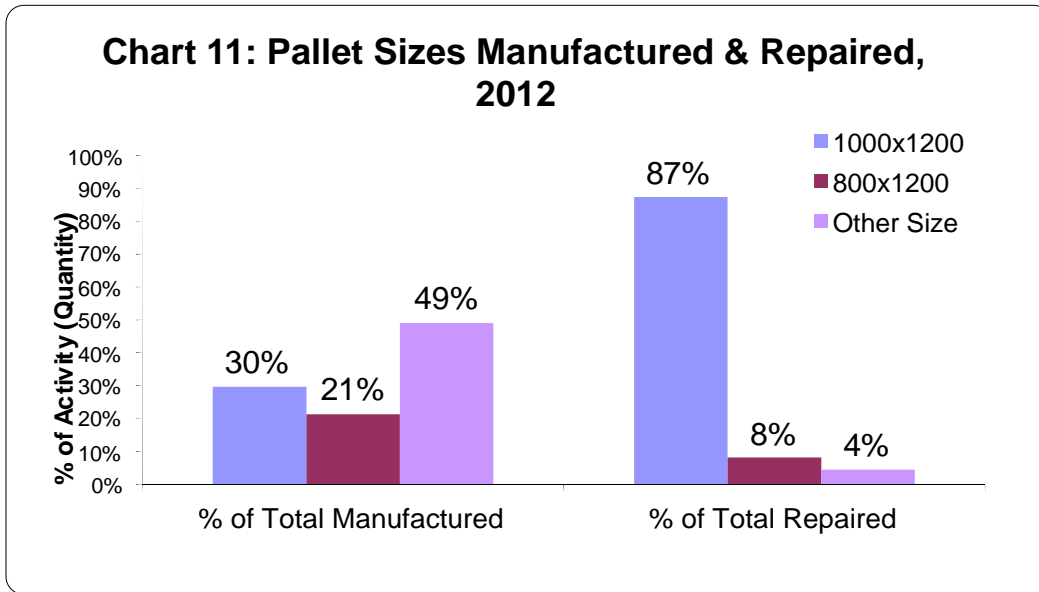
A little over 9 million pallets of the 800mm x 1200mm size were manufactured and repaired in 2012, which represented 14% of the total, again little changed from the 15% of the 2011 total.

The quantity of all other pallet sizes - other than sizes 1000mm x 1200mm and 800mm x 1200mm – was over 16 million in 2012, or 24% of the total, slightly down on the 25% in 2011.

These data are presented graphically in chart 10.

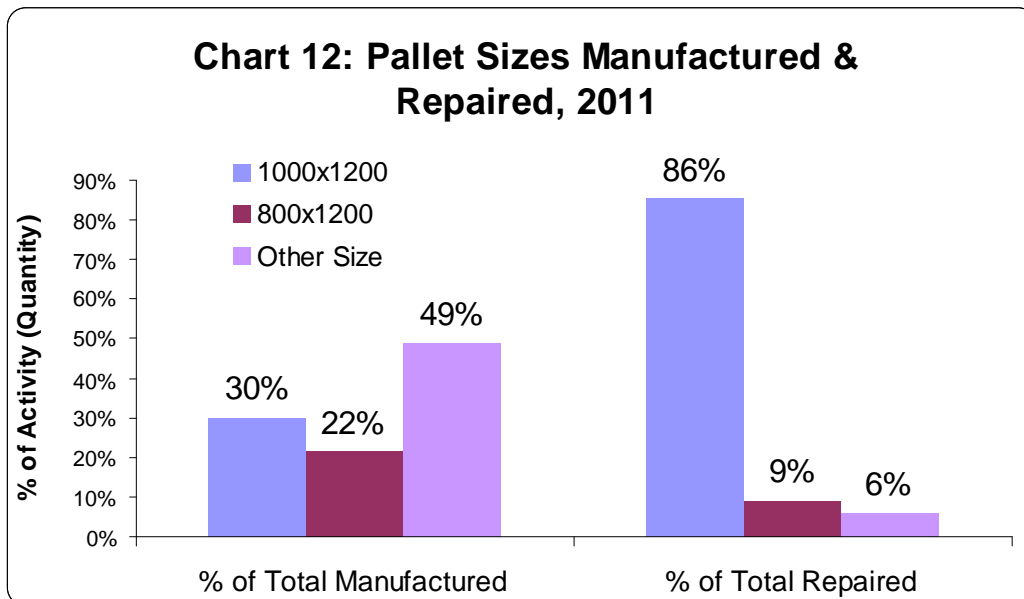


Within these totals, differences in the size of pallets by newly manufactured and repaired pallets were estimated and are shown in chart 11 below with comparative results for 2011 shown in chart 12.



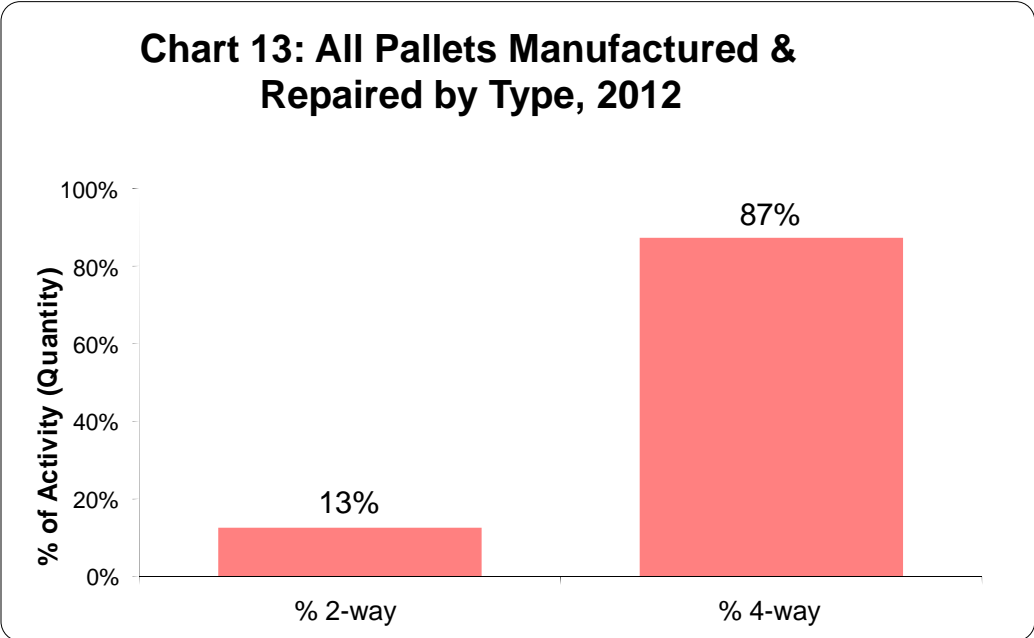
The manufacture of new, standard sized pallets of 1000mm x 1200mm and 800mm x 1200mm (combined) accounted for 51% of all new pallets in 2012, compared with 52% in 2011.

In pallet repair, the majority were of the 1000mm x 1200mm size, comprising 87% of the total of all repaired pallets in 2012.



Pallet Types

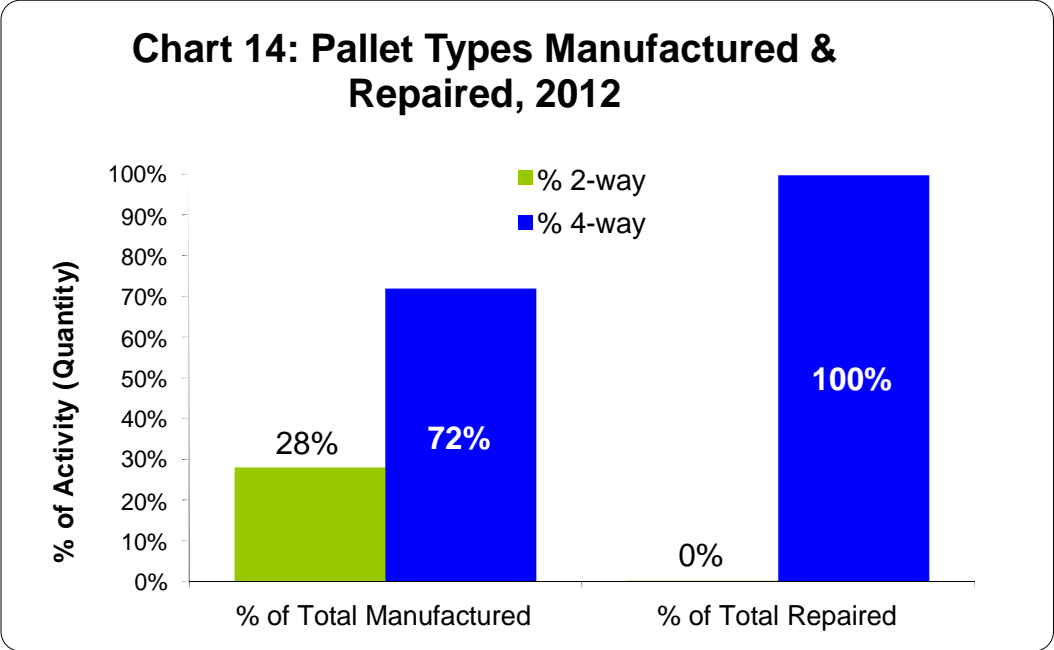
In 2012, little change took place in the proportions of 4-way and 2-way entry type with 87% of all manufactured and repaired pallets accounted for by the 4-way variety. The percentage of 4-way pallets in 2011 was 86%. The comparison between 2-way and 4-way pallet production and repairs is shown in chart 13 below.



Of the 66.9 million pallets manufactured and repaired in 2012, around 8.5 million were of the 2-way type and over 58 million pallets were of the 4-way type.

The small change in the mix of the two types of pallet was reflected also in the change by type for newly manufactured and repaired pallets.

These differences in pallet type by productive activity are shown in chart 14 below.



As previously mentioned, the measurement by pallet size and type are considered to be best estimates based on the poorer response to these questions in the survey conducted for this report.

Timber Consumption & Source of Supply

The pallets and packaging industry in the UK is a significant user of timber and wood products. According to the Forestry Commission's publication, Forestry Statistics 2013, providing data on forestry and wood products to 2012, the pallets and packaging industry remained one of the leading user markets for sawn softwood, accounting for around a third of the output of the larger sawmills in the UK.

Through estimating the supply of softwood by smaller sawmills and imported softwood consumed by pallet manufacturers, the consumption of softwood by the packaging and pallets industry in the UK amounted to around 1.3million m³.

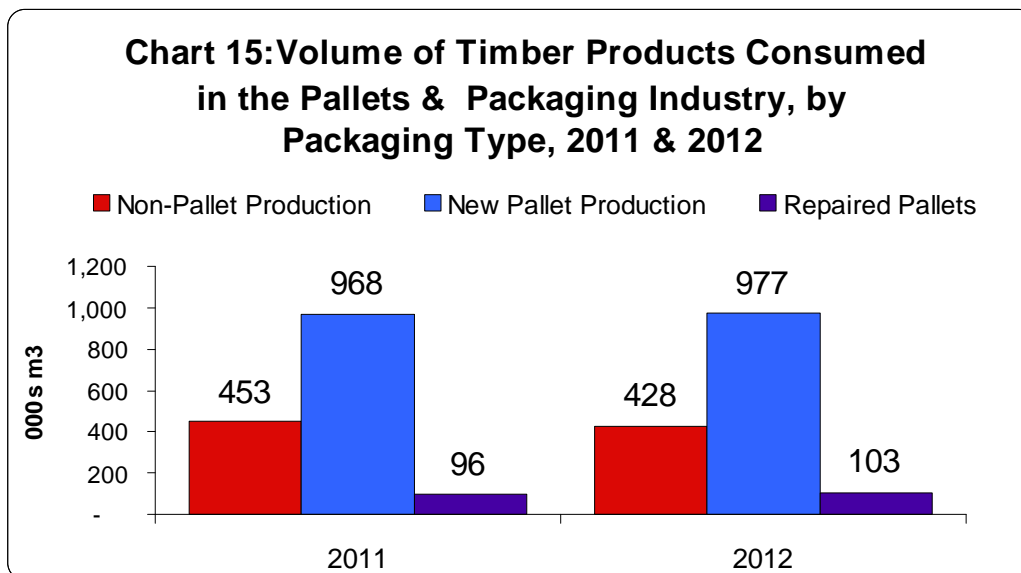
Specifically for pallet making and repair, it is estimated that just over 1 million m³ was consumed in 2012.

There are timber products other than softwood used in the manufacturing and repair of pallets and with the addition of these other products, mostly hardwood (e.g. aspen, alder, birch mainly from the Baltic States), plywood (mostly for non-pallet packaging) and composite pallet blocks, the volume of **all wood products** consumed by the pallets industry in 2012 was estimated to be nearly 1.1 million m³.

The remainder of wood material consumed is supplied for other packaging materials, such as boxes, cases and drums.

This non-pallet activity is estimated to have used a little over 0.4 million m³, culminating in a total of approximately 1.5 million m³ of timber products consumed in 2012.

This volume is identified by activity type and shown in chart 15 below with comparative data for 2011.



Overall, consumption of timber and wood products fell marginally, by 0.6% in 2012.

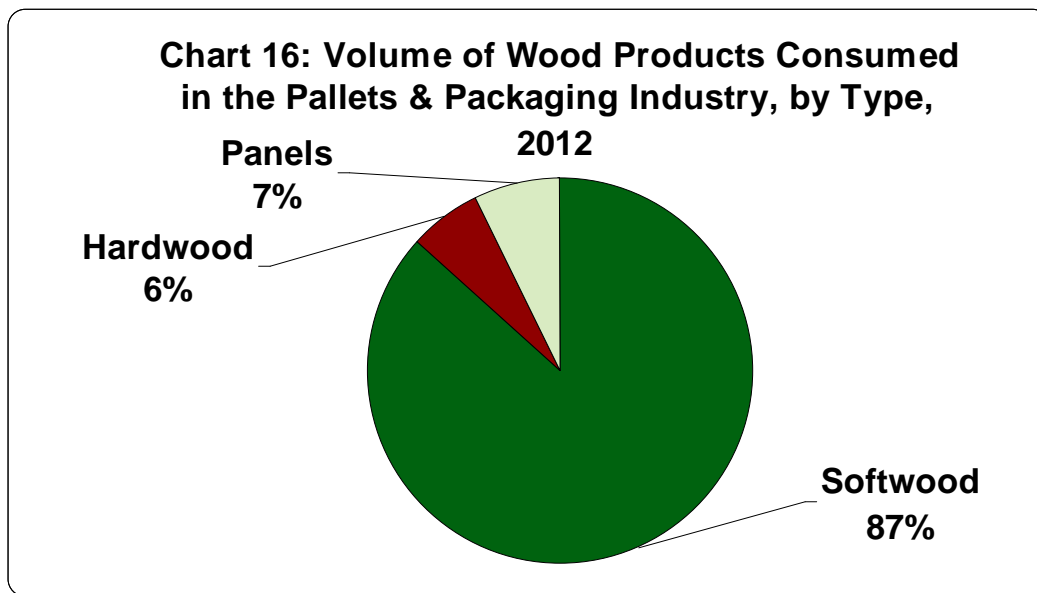
This small reduction was due entirely to lower activity in non-pallet production which was over 5% lower by volume.

As provided in the tables earlier in this report, wood usage for new pallet production rose by nearly 1% to 0.977 million m³ and by 7.5%, to 0.103 million m³ for pallet repairs.

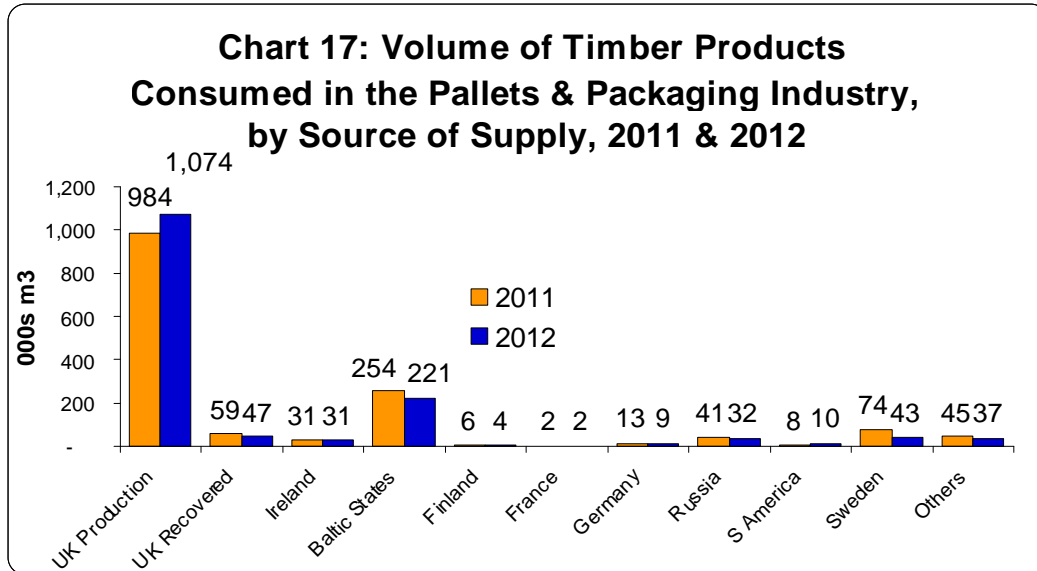
The 9,000m³ increase in timber used for new pallet manufacturing in 2012, although relatively small in relation to total usage, resulted in an increase in the share of timber usage for this activity to 64% from 63% in 2011.

Softwood remains the most popular timber product used in the pallets and packaging industry, accounting for 87% of all timber and wood products consumed in 2012 (86% in 2011). Hardwood volumes, mostly from the Baltic States, were slightly lower in 2012 and accounted for around 6% of all timber consumed, down from 8% in 2011.

The percentage breakdown of the 1.51 million m³ of timber products consumed in 2012 is shown in chart 16.



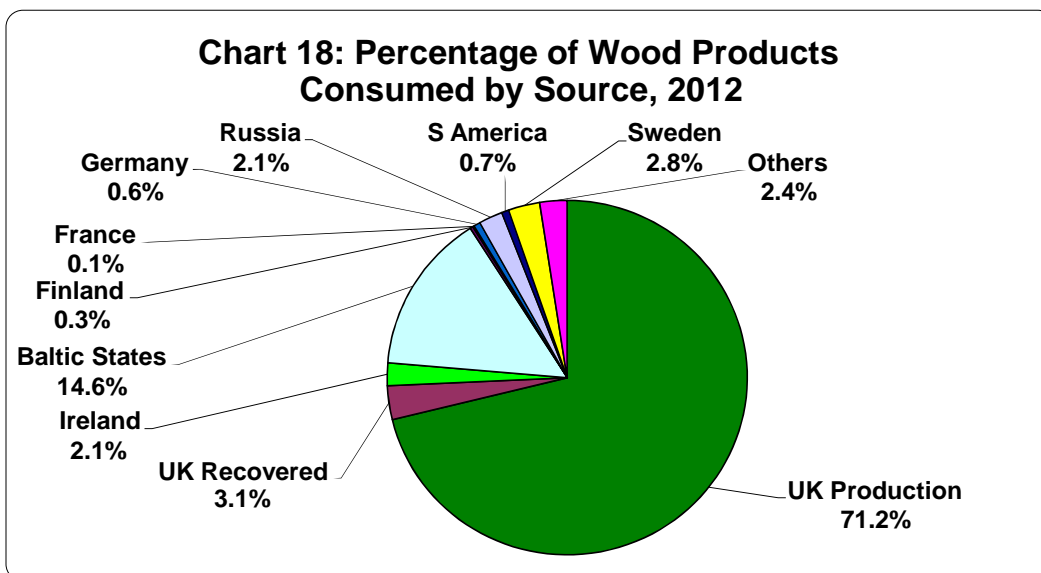
This series of Wood Packaging Studies has confirmed the trend of increasing usage of UK sourced material and this continued in 2012. The changes in volume by source of supply between 2011 and 2012 are described in chart 17 below.



The highest growth in timber usage by source in 2012 was the 9% increase of UK produced timber. Although the use of UK recovered timber was a little lower in 2012, the combined share of these two sources of supply accounted for nearly 74% of all supply in 2012, up from an estimated 69% in 2011.

A collection of other countries supply timber into the pallets and packaging market with the Baltic States, led by Latvia, supplying more than all the other countries combined. Sweden and Russia supply mainly to the non-pallets market and the only other supplying country of note is Ireland.

The breakdown of supply in percentage terms from all main sources is shown in chart 18.



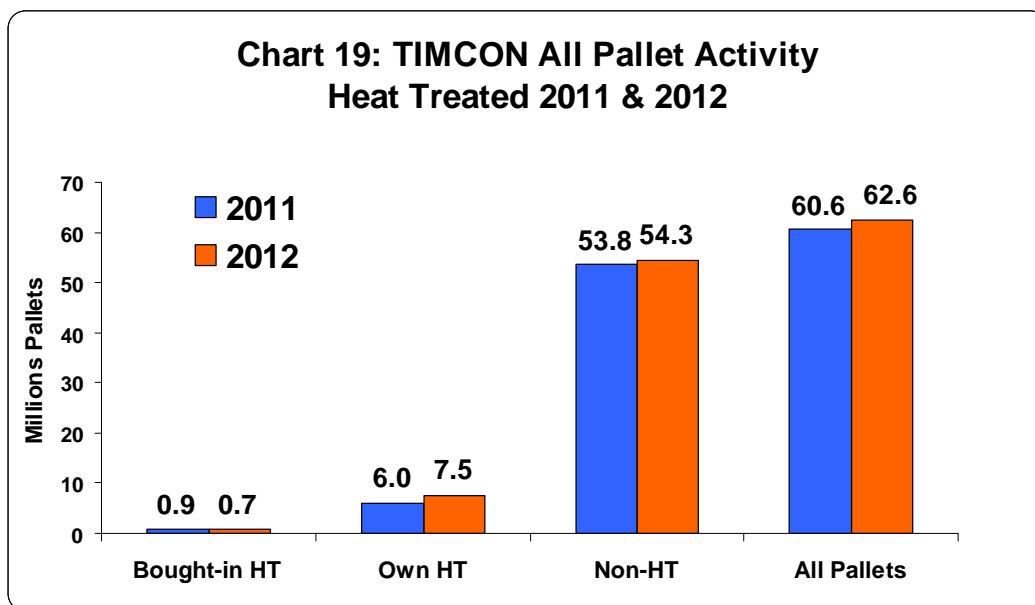
Heat Treatment and Kiln Drying Capacity in the UK

Previous Wood Packaging Studies have attempted to quantify the supply of heat treated pallets in the UK and the report for 2011 revealed that around 10.6 million heat treated pallets were supplied by TIMCON member companies.

As previously noted, information provided for the current study has enabled improved estimates to be made of new pallet production and repairs and these improvements have resulted in a better estimate of the number of heat treated pallets produced and repaired in 2012 and previously.

Using the latest information, in 2012, the number of heat treated pallets supplied is estimated to have risen to 8.2 million from 6.9 million.

The revised breakdown of heat treated and non-heat treated supply is shown in chart 19.



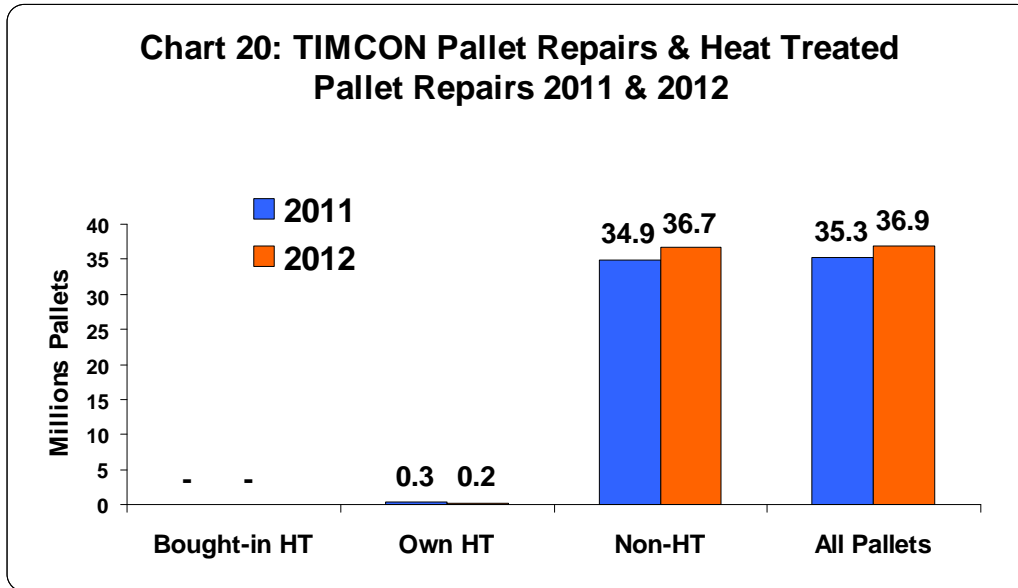
The number of bought-in heat treated timbers used in pallet manufacture by TIMCON companies fell a little in 2012 compared to 2011 as own (in-house) heat treated output increased from 6.0 million to 7.5 million.

The total of 8.2 million heat treated pallets represented around 13% of all pallet making and repair for the year.

The increase in the output of newly manufactured pallets by TIMCON members in 2012 over 2011 was just over 1%, but the rise in new heat treated pallets in 2012 was 25%.

As noted in last year's report, the trend towards more kiln dried pallets is partly responsible for the rise in heat treated pallets supplied to market as, by virtue of kiln drying, many pallets are also heat treated.

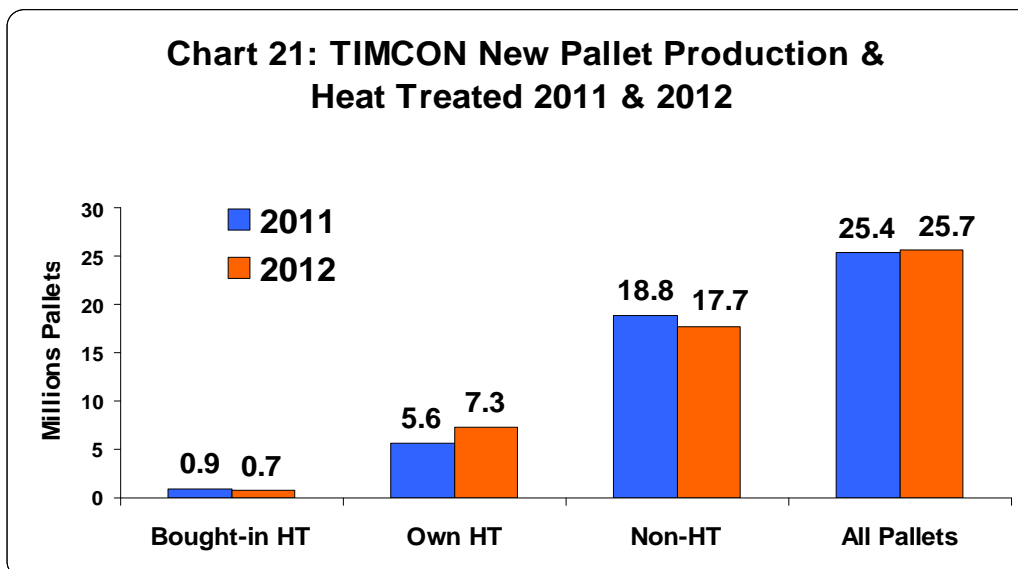
The totals shown in chart 19 were derived from the combined quantity of heat treated newly manufactured and repaired pallets. However, only a very small proportion of repaired pallets receive any heat treatment before returning to use and this is confirmed in chart 20 below.



The continuing possibility of EU regulation, designed to help eradicate the spread of pest infestation in pallets, would have a main focus on newly manufactured pallets, therefore it is important to understand the extent to which new production is currently heat treated.

The development of heat treatment has been recorded through the Wood Packaging Studies in the last three years and it was estimated that in 2010, around 24% of all new pallet production by TIMCON members was heat treated, rising to 26% in 2011 and in 2012, this proportion had climbed to 31% of the total.

This development, by quantity, is shown in chart 21 below.



The proportion of the output of newly manufactured pallets (heat treated and non-heat treated) by TIMCON members with kilns (approximately a third of the membership) increased a little in 2012, rising to 63% of the total from 62% in 2011.

The 8.2 million heat treated pallets (production and repairs) represented around 35% of the output of TIMCON member companies with kilns which is an improvement on the 6.5 million heat treated pallets produced in 2011 which represented 30% of the output from these companies.

The ability to raise output beyond these levels is uncertain.

As described previously, pallet users are demanding more kiln dried pallets and with much longer kiln usage cycles required for kiln drying, the capacity to heat treat pallets and packaging is severely reduced.

The dilemma of wanting to react to market demand for kiln dried pallets and simultaneously needing to respond to the growing requirement to manufacture heat treated pallets to ISPM 15 remains unresolved.

In 2012, 8.2 million heat treated pallets were supplied by TIMCON manufacturers with kilns out of a total of 18.8 million supplied by these manufacturers.

As shown in chart 21, a total of 25.7 million new pallets were produced in 2012 by all TIMCON manufacturers, therefore, if TIMCON manufacturers with kilns were able to increase their entire current output to be heat treated, this would leave a further 7 million pallets requiring the supply of heat-treated timbers.

It was stated in last year's Wood Packaging Study - and is repeated here - the increase in supply of heat treated and kiln dried pallets and packaging over the last three years and the likely further increases in coming years is proof positive that the pallets and packaging industry is responding to the increasing demands placed upon it by its customers.

Prospects for 2013

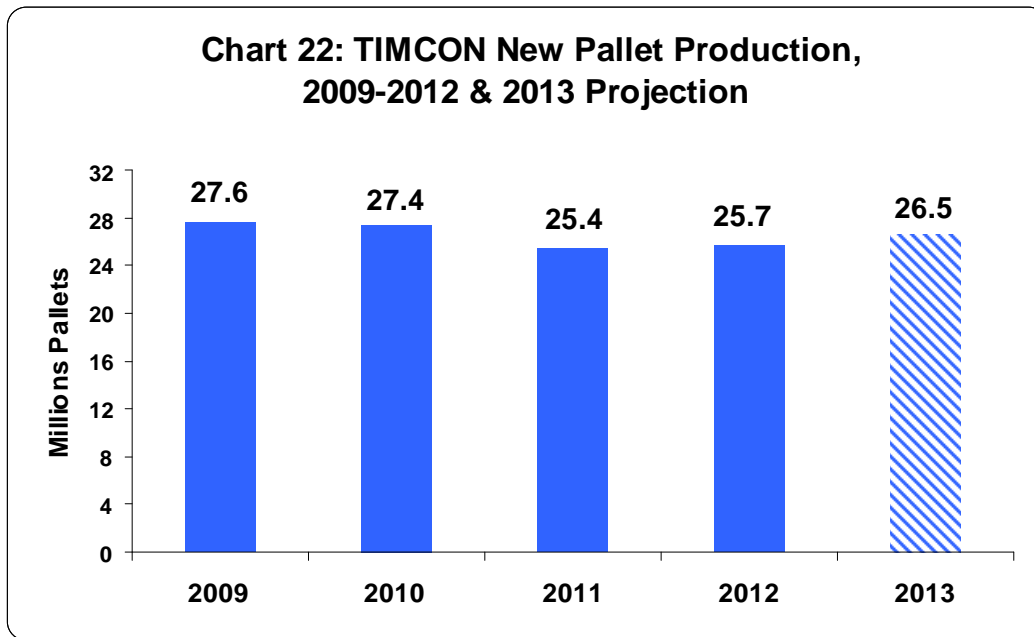
Respondents to the survey conducted for this Wood Packaging Study were asked to predict how their business might perform in the coming year.

A weighted average, thereby reducing the impact of the very large companies, was derived which indicated that the respondents believed that in 2013 there would be a growth in the production of new pallets in the region of 3%.

The total of new pallet production by TIMCON members in 2012 was 25.7 million which, should a 3.2% growth, as predicted, be realised, would result in a total of 26.5 million in 2013.

This question was restricted to TIMCON members and therefore the volumes shown are only for TIMCON production, however, should a similar growth occur in the repair sector and in non-TIMCON pallet making, the total quantity of newly manufactured and repaired pallets would rise from 66.9 million in 2012 to 69 million in 2013.

The development of TIMCON members' new pallet production from 2009, following revision of the 2011 data, is shown in chart 22 below.



Annex I

Investigation into Pallets Data provided by ONS

As reported earlier in the main findings section of this report, the Wood Packaging Study has confirmed the differences between industry-derived data and ProdCom estimates.

The total turnover derived from the Wood Packaging Study for packaging and pallets in 2012 was £395 million, around 12% lower than the ProdCom total of £448.8 million.

According to the provisional ProdCom estimates for 2012, the total turnover for flat pallets produced in the UK was £307.5 million and with box pallets added, £316.1 million.

With non-pallet packaging, (cases, boxes, crates and cable drums, in addition to pallets, but not casks, tubs etc) added to pallets turnover, the 2012 Prodcom total was, as shown above, £448.8 million.

Reviewing the latest ProdCom data for 2012 and 2011, compared to the results from the Wood Packaging Study, the differences in turnover and quantities produced between the two measures would appear to be widening.

According to ProdCom, the measure of pallet industry turnover for 2012 increased by 14% and the quantity of pallets produced rose by 21%.

In contrast, the Wood Packaging Study estimated that industry turnover increased by only 1% and quantities produced increased by 3%.

Therefore, significant differences exist for 2012 between the two measures.

Industry representatives were highly sceptical of the 21% uplift in the quantity of pallets produced in 2012 as declared by ProdCom.

Quantity measures between ProdCom and the Wood Packaging Studies have also differed significantly during the period these studies have been undertaken.

Between 2009 and 2012, the ProdCom pallets industry quantities have differed to the Wood Packaging Study estimates by between 34% and 49% over these four years.

Aware of the types of activity measured by ONS and the different types of company serving the industry (from large to small pallet manufacturers, pool operators and other pallet makers not in TIMCON membership) TIMCON members were requested to confirm whether a ProdCom Inquiry form had been requested from ONS.

Although only a third of the membership responded, a small number of significant companies confirmed that no such request had been made, throwing doubt on the composition of the sample of companies that form the ProdCom estimates.

This suggests that omissions in the ProdCom sample might account for incorrect estimates?

Worryingly, if the known large companies are excluded from the estimates in the Wood Packaging Study, the differences between ProdCom and the Wood Packaging Studies become more pronounced.

Following representation made to ONS, with the full support of TIMCON, ONS has agreed to re-contact its sample of pallet making companies in order to conduct an evaluation into the possible expansion of the questions within the ProdCom Inquiry form to take account of the differences between new pallet production and pallet repairs.

It appears that ONS has counted some repair work as new production which has falsely inflated the ProdCom turnover figures, but has not taken into account other repair work which has yielded a lower quantity than the Wood Packaging Study estimates.

This apparent inconsistency is removed however, once the repair quantities of pool operators are removed from the Wood Packaging Study estimates. This results in ProdCom quantity estimates also being much higher than those from the study and being consistent with the higher turnover estimates.

The possibility exists that the Wood Packaging Study has underestimated industry turnover and quantities of pallets produced and repaired, but this conclusion is inconsistent with the data from the TIMCON database. The greater possibility is that the ProdCom estimates have been based on incorrect assumptions.

Until ONS has completed its evaluation it is not possible to substantiate this claim.

It is hoped that, once the ONS evaluation is complete, the results will lead to a ProdCom Inquiry and a sampling process more aligned to industry practise, thereby providing a more precise ProdCom measure of the pallets industry in the UK.

Annex II

Programme of Work & Methodology

The programme of work included the following processes:

1. Formulating and seeking approval for the survey questionnaires
2. Production of the questionnaires
3. Compiling the survey sample
4. Writing and seeking approval for the covering letter to accompany the survey questionnaire
5. Building the survey and analysis database to be used in the despatch and receipt of questionnaires
6. Despatch of the questionnaires to the survey samples
7. Receipt, checking and input of data to the analysis database
8. Chasing selected companies for response
9. Analysis and interpretation
10. Writing of the draft report
11. Production of the final report
12. Re-engagement with ONS to investigate differences between ProdCom data and findings of the Wood Packaging Studies.

The approach to and the methodology used for this 2012 Wood Packaging Study was very similar to that used for previous studies, in order to facilitate meaningful comparisons between the years.

The structure of the pallets and packaging manufacturing and repairs industry is different from many of the industries that operate in the UK economy. The market comprises many small firms, a good number of middle-sized firms, larger firms and a number of very large firms operating within the industry. The activities of these companies are not homogenous, with differing emphases on manufacturing and repairs and also different ways of getting to market. This is exemplified by the difference between manufacturers and pallet pool operators, with manufacturers mostly selling their output while pallet pool operators rent pallets for use by customers.

Consequently, the research methodology adopted for this work required a different approach from usual stratified research sampling methods used in markets where there is less differentiation between companies.

There was also the important consideration to safeguard the results of the Wood Packaging Study from revealing – through detailed analysis – the likely individual response provided by the very large companies.

Consequently, the same approach as developed previously was employed which aimed to deliver information that was representative of the market; not skewed towards the few very large companies and at the same time protecting individual company data from view.

In order to encourage a higher response from the TIMCON membership, a shortened questionnaire was sent to those companies that had not previously responded to this series of Wood Packaging Studies.

All questionnaires used for this work are shown in Annex III.

The survey data was supplemented by the addition of data from the TIMCON membership database which allowed estimates of turnover (among other features) to be made for the entire TIMCON membership – but specifically, for manufacturing members of TIMCON, as opposed to supplier members.

The calculation of turnover of TIMCON members was made by taking the mid-point of each turnover band and simply aggregating the turnover of companies in each band to arrive at a notional total of turnover for the TIMCON membership.

Where companies responded to the survey, their individual actual data was then reintroduced to the analysis, with the mid-point turnover figure for these individual companies withdrawn from the notional total. Consequently, a highly representative turnover figure could be derived, notwithstanding that some companies would fall below the mid-point turnover mark while others would be above that mark.

This process of ‘adding-back’ individual survey results to the mid-point aggregate turnovers for each band has resulted in good estimates from which to establish the detailed analysis that followed.

Data from some of the responses received in 2013 for this 2012 study allowed a number of revisions to estimates made in the 2011 report and a higher degree of precision in estimation for 2012 to take place.

Annex III

Survey Questionnaire 1

Forestry Commission



This short survey form provides you with the opportunity to add your information to that of other organisations involved in the pallets and packaging industry. The results of this work are intended to measure the industry's capabilities opposite possible new EU legislation and help direct packaging, plant health and industry policy in the UK. The results will also help to understand trends in the market and enable companies to measure individual performance.

A confidential survey of TIMCON & Wood Packaging Material Marking Programme members on behalf of the Forestry Commission and Timcon. Individual company data will not be seen by Timcon members, Executive Committee or the Forestry Commission.

E-mail Survey Form - Please input the required information in grey, yellow, green and brown boxes and save this form on your server/computer. Then click on the e-mail address survey@timbertrends.org below, and attach the saved file to your e-mail and send.

Where the question requires a percentage answer precise calculation is not necessary; **you only need to give your best estimate** from your everyday knowledge of your business.

Questionnaire relates to activity in	2012
--------------------------------------	------

		Wooden Packaging Activity (carried out by yourself)		
Q1 - Quantitative Data	Measure	New Wooden Packaging Excluding Pallets	New Wooden Pallet Production	Recycled Wooden Pallets (Repaired, Newlife, remanufactured)
a. Sales Turnover per activity in £	£			
b. No. Employees engaged per activity	Number			
c. Quantity of wood packaging items processed per activity	Number of units			
d. Timber consumption of all sources and types	Cubic Metres			
Q2 - % Produced by Type	Measure	New Wooden Packaging Excluding Pallets	New Wooden Pallet Production	Recycled Wooden Pallets (Repaired, Newlife, remanufactured)
a. 2-way entry	% of Q1c	N/A		
b. 4-way entry	% of Q1c			
Q3 - % Produced by Size	Measure	New Wooden Packaging Excluding Pallets	New Wooden Pallet Production	Recycled Wooden Pallets (Repaired, Newlife, remanufactured)
a. 1000 x 1200 or 1200 x 1000	% of Q1c	N/A		
b. 800 x 1200	% of Q1c			
Q4 - Repaired Wooden Pallets by Type	Measure	New Wooden Packaging Excluding Pallets	New Wooden Pallet Production	Recycled Wooden Pallets (Repaired, Newlife, remanufactured)
a. Repaired (less than 33% of components replaced)	% of Q1c			
b. Remanufactured (Newlife or remanufactured pallets from reclaimed wood. More than 33% of components replaced)	% of Q1c			
Q5 - Timber Consumption by Source	Measure	All Wooden Packaging		
a. UK Production	% of Q1 d			
b. UK Recycled/Recovered	% of Q1 d			
c. Republic of Ireland	% of Q1 d			
d. Baltic States	% of Q1 d			
e. Finland	% of Q1 d			
f. France	% of Q1 d			
g. Germany	% of Q1 d			
h. Russia/Belarus/Ukraine	% of Q1 d			
i. South America	% of Q1 d			
j. Sweden	% of Q1 d			
k. Other - specify	% of Q1 d			
Q6 - Percentage of Wood consumption by type	Measure	All Wooden Packaging		
a. Softwood (softwood species, e.g. pine, spruce)	% of Q1d			
b. Hardwood (hardwood species, e.g. beech, ash, birch, alder)	% of Q1d			
c. Manufactured Wood (OSB, Plywood, Composite Blocks etc.)	% of Q1d			
Q7 - ISPM15 Capacity & Kiln Drying	Measure	All Wood Packaging		
a. How many serviceable kilns do you have?	Number			
b. What is the usual number of charges of Heat Treated wooden packaging that you complete in 24 hours?	Number			
c. What is the maximum number of charges of Heat Treated wooden packaging that you could complete in 24 hours?	Number			
d. What is the maximum number of charges of Kin Dried wooden packaging that you could complete in 24 hours?	Number			
e. Approximately, how many days a week are your kilns in use?	Number			
f. (separate from kiln drying) that you could produce per day, using current kilns?	Number			
g. What is the maximum number of kin dried pallets that you could produce per day, using current kilns?	Number			
h. How many of these kilns are currently in use?	Number			
i. Are older kilns being replaced? If Yes, how many pallets (maximum) did these kilns hold?	Number			
Q8 - ISPM15 Activity	Measure	New Wooden Packaging Excluding Pallets	New Wooden Pallet Production	All Recycled & Reused Wooden Pallets
a. What percentage of the wooden packaging activity that you carry out is carried out with bought in heat treated wood in accordance with the ISPM15 standard?	% of Q1c			
b. What percentage of all of the wooden packaging activity that you carry out is treated by you to ISPM15.	% of Q1c			
Q9 - How Do You See 2013?	Measure	New Wooden Packaging Excluding Pallets	New Wooden Pallet Production	All Recycled & Reused Wooden Pallets
Please place a plus or minus sign or before your % number or 0 for no change				
7(i) Will total sales (quantity) increase/decrease/no change	%			
7(ii) Will ISPM15 sales (quantity) increase/decrease/no change	%			

When completed, please save to file and then click on the address here, attach the form from the file just saved to return your form directly to Nick Moore at the e-mail address:

survey@timbertrends.org

Company Name:

Survey Questionnaire 2

Forestry Commission



A confidential survey of TIMCON & Wood Packaging Material Marking Programme members on behalf of the Forestry Commission and Timcon. Individual company data will not be

This short survey form provides you with the opportunity to add your information to that of other organisations in the pallets and packaging industry. The results of this work are intended to measure the industry's capabilities opposite possible new EU legislation and help direct packaging, plant health and industry policy in the UK.

The results will also help pallet and packaging suppliers to understand trends in the market and help companies to measure individual performance.

E-mail Survey Form - Please input the required information in the brown boxes and save this form on your server/computer. Then click on the e-mail address survey@timbertrends.org below, and attach the saved file to your e-mail and send.

Please note that you only need to give **your best estimate** from your everyday knowledge of your business.

How many newly manufactured pallets did you produce in 2012?	quantity	<input type="text"/>
What was the Sales Turnover from new pallet manufacturing in 2012?	£	<input type="text"/>
Approximately, how many pallets did you repair in 2012?	quantity	<input type="text"/>
What was the Sales Turnover from pallet repair in 2012?	£	<input type="text"/>
How many serviceable kilns do you have?	quantity	<input type="text"/>
What is the usual number of charges of Heat Treated wooden packaging that you complete in 24 hours?	quantity	<input type="text"/>
What is the <i>usual</i> number of charges of Heat Treated wooden packaging that you complete in 24 hours?	quantity	<input type="text"/>
What is the <i>maximum</i> number of charges of Heat Treated wooden packaging that you could complete in 24 hours?	quantity	<input type="text"/>
What is the <i>maximum</i> number of charges of Kiln Dried wooden packaging that you could complete in 24 hours?	quantity	<input type="text"/>
Approximately, how many days a week are your kilns in use?	quantity	<input type="text"/>
What is the maximum number of heat treated pallets (separate from kiln drying) that you could produce per day?	quantity	<input type="text"/>
What is the maximum number of kiln dried pallets that you could produce per day, using current kilns?	quantity	<input type="text"/>
Have you or will you invest in new kilns in 2013? If Yes, how many?	quantity	<input type="text"/>
If you invest, how many (standard) pallets would the kiln(s) hold?	quantity	<input type="text"/>
Are older kilns being replaced? If Yes, how many pallets (<i>maximum</i>) did these kilns hold?	quantity	<input type="text"/>
How much timber did you purchase in 2012 for pallet manufacturing?	cubic metres	<input type="text"/>
How much timber did you purchase in 2012 for pallet repairs?	cubic metres	<input type="text"/>
How many newly manufactured cases, crates, drums, boxes etc did you produce in 2012?	quantity	<input type="text"/>
What was the Sales Turnover from the manufacture of cases, crates, drums, boxes etc in 2012?	£	<input type="text"/>
How much timber did you purchase in 2012 for the manufacturing of cases, crates, drums, boxes etc ?	cubic metres	<input type="text"/>
Do you see your sales increasing or decreasing in 2013 and by how much in % terms?	% increasing	<input type="text"/>
	% decreasing	<input type="text"/>

When completed, please save to file and then click on the address here, attach the form from the file just saved to return your form directly to Nick Moore at the e-mail address: survey@timbertrends.org

Company Name:

Survey Questionnaire 3

Forestry Commission



A confidential survey of TIMCON & Wood Packaging Material Marking Programme members on behalf of the Forestry Commission and Timcon. Individual company data will

This short survey form provides you with the opportunity to add your information to that of other organisations in the pallets and packaging industry. The results of this work are intended to measure the industry's capabilities opposite possible new EU legislation and help direct packaging, plant health and industry policy in the UK.

The results will also help pallet and packaging suppliers to understand trends in the market and help companies to measure individual performance.

E-mail Survey Form - Please input the required information in the brown boxes and save this form on your server/computer. Then click on the e-mail address survey@timbertrends.org below, and attach the saved file to your e-mail and send.

Please note that you only need to give **your best estimate** from your everyday knowledge of your business.

How many newly manufactured pallets did you produce in 2012?	quantity	<input type="text"/>
What was the Sales Turnover from new pallet manufacturing in 2012?	£	<input type="text"/>
Approximately, how many pallets did you repair in 2012?	quantity	<input type="text"/>
What was the Sales Turnover from pallet repair in 2012?	£	<input type="text"/>
How much timber did you purchase in 2012 for pallet manufacturing?	cubic metres	<input type="text"/>
How much timber did you purchase in 2012 for pallet repairs?	cubic metres	<input type="text"/>
How many newly manufactured cases, crates, drums, boxes etc did you produce in 2012?	quantity	<input type="text"/>
What was the Sales Turnover from the manufacture of cases, crates, drums, boxes etc in 2012?	£	<input type="text"/>
How much timber did you purchase in 2012 for the manufacturing of cases, crates, drums, boxes etc ?	cubic metres	<input type="text"/>
How much of the timber you purchased in % terms was heat treated to meet ISPM15?	%	<input type="text"/>
How much of the timber you purchased was kiln dried?	%	<input type="text"/>
Do you see your sales increasing or decreasing in 2013 and by how much in % terms?	% increasing	<input type="text"/>
	% decreasing	<input type="text"/>

When completed, please save to file and then click on the address here, attach the form from the file just saved to return your form directly to Nick Moore at the e-mail address: survey@timbertrends.org.

Company Name: