

Report

**To improve the accuracy of
measuring the packaging and
pallets market in the UK; for use in
the programme of
“Improving Timber Utilisation
Statistics” in the UK**

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The Forestry Commission

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Introduction:

For many years there has been an increasing unease among the leading pallet manufacturing companies in the UK that the information provided by the Office for National Statistics (ONS) in publication PRA 20400 - as published in the PRODCOM (PROducts of the European COMmunity) - is inaccurate and misleading.

The specific weakness in the official PRODCOM statistics is the apparent inability of the data collection methods to distinguish between manufactured pallets (and other forms of packaging) and previously manufactured pallets that have been repaired, re-cycled or re-manufactured.

Within the declared PRODCOM totals there are believed to be repaired pallets, re-cycled pallets and also volumes supplied from non-manufacturers, as represented by companies mainly involved in the distribution of pallets.

This is an area where further work has been identified as having value in improving the accuracy of timber utilisation statistics, specifically in the packaging market, but also in helping to gain a more accurate assessment of timber utilisation in other non-packaging markets.

It was therefore decided to attempt to effect improvement in the data provided for the packaging and pallets market in the UK available from the PRODCOM series.

Objective:

To devise and execute a programme of work to facilitate improvement in the accuracy of PRODCOM data for the packaging and pallets market.

Achievements to Date:

1. The identification of the major areas in need of improvement within the PRODCOM publication PRA 20400 concerned with wooden containers and an assessment of their weaknesses, in terms of affecting the reliability of the work conducted for the Forestry Commission in the area of timber utilisation.
2. Correction of a specific mis-classification in section C of the flat pallets and pallet collars of wood, code PCC 20401133 within PRA 20400, which incorrectly attributed sales to "Carry-in/Carry-out" activity in this category.
3. Provision of the TIMCON membership list to ONS for the purpose of checking the currency and accuracy of the ONS survey sample for PRA 20400.
4. The drafting of a "Guidance Note" by TIMCON for use by pallets and packaging manufacturers in order to achieve a greater consistency in entering data onto the PRODCOM questionnaire.
5. A better understanding of the important distinction between the initial manufacturing of pallets and subsequent repair, maintenance and re-manufacturing activities by all parties involved. This will result in better use of

PRODCOM data by industry and provide ONS with knowledge to better interpret the result in this area from the PRODCOM Inquiry.

6. The drafting of a proposal by TIMCON, with support from ONS, to the European pallets and packaging association, FEFPEB, aimed at providing a convincing case to facilitate the lobbying of Eurostat in order to classify the pallets and packaging industry as both a manufacturing industry and as part of the to be formed 'repair and maintenance' industry - from 2009 onwards.
7. ONS have used the work of this project to demonstrate the effective use of PRODCOM data in industry.

Scope of the Work:

The scope of the work included confirmation of the nature of the problem with existing data.

This confirmation was supplied by the dissatisfaction expressed with the quality of the existing data supplied by the PRODCOM publication PRA 20400 by the trade association representing the pallets and packaging market in the UK: TIMCON.

Following contact with the leading members of the association representing the packaging and pallets industry and as noted in the report produced for the Forestry Commission in March 2007, "Improved Timber Utilisation Statistics 2005", support for an approach to the Office for National Statistics (ONS) to effect change was offered by TIMCON and the first task of this new work was to confirm that this support remained.

The main contact within the TIMCON organization was Paul Davidson, Chairman of Scott Timber, and through discussion, it was agreed that improvement was necessary in:

- i) the measurement of the manufacturing element presented in the PRODCOM series, and in
- ii) understanding the classifications of the various activities that pallet and packaging manufacturers undertake within PRA 20400.

Pallet manufacturers are involved in a number of different activities and the classification of these and how they could be better measured (by PRODCOM) were important considerations in the quest to obtain better pallets data.

Understanding how pallets and packaging data was collected and calculated necessitated making contact with the body responsible for the production of the PRODCOM data on pallets and packaging - PRA 20400 - the Office for National Statistics (ONS), based in Newport.

It was anticipated that contact made with TIMCON and ONS would result in discussion leading to changes in the way in which data on the pallets and packaging market was collected and analysed and ultimately reported.

Findings:

The first two important steps in the programme of work for this project were:

1. Problem clarification and definition
2. Formulation of a case (justification) leading to actions for improvement.

Work conducted previously in the area of timber utilisation¹ had revealed a lack of confidence with official data in the measurement of the pallets and packaging market in the UK.

This concern was expressed by leading members of the pallets and packaging industry during research conducted for the work concerned with timber utilisation.

The third important step in the programme of work was:

3. Execution of agreed actions.

Initially however, the nature of the problem needed to be identified.

Problem clarification and definition

Following analysis of the PRODCOM publication PRA 20400, including identification of its components, the relative importance (in terms of size of turnover) of the different constituent parts of the pallets and packaging industry were ascertained.

Running parallel with this analysis, discussion with leading members of the pallets and packaging industry took place to determine the main issues and concerns with the published data.

The composition of the industry and the coverage of the PRODCOM data in PRA 20400 is provided later in this report.

The many different types of product (shown on pages 9 and 10 of this report) measured by PRA 2040 are condensed into the following categories:

Table 1: Principal Products within PRODCOM PRA 20400

PRODCOM Code	Product Category
PCC 20401133	Flat pallets and pallet collars of wood
PCC 20401135	Box pallets and load boards of wood EXCLUDING: - flat pallets
PCC 20401213	Cases, boxes, crates, drums and similar packings of wood EXCLUDING: - cable drums
PCC 20401215	Cable-drums of wood
PCC 20401250	Casks, barrels, vats, tubs, and coopers products and parts thereof of wood INCLUDING: - staves

The total size of the industry as measured by UK manufacturers sales in 2006 and as defined in table 1, was in the region of £438 million of which, flat pallets and pallet collars of wood, code PCC 20401133, accounted for two-thirds of the total. The remaining proportions were: 4% for box pallets and load boards, code PCC 20401135; 21% for cases, boxes, crates, drums, code PCC 20401213; 5% for cable-drums of wood, code PCC 20401215 and the remaining 3% by casks, barrels, vats, tubs, and coopers products, code PCC 20401250.

¹ “Improved Timber Utilisation Statistics, 2005”, An Updated Study for the Forestry Commission – March 2007.

The PRODCOM series publishes a quality measure for each product category (as defined by each product code in table 1 above). This is in the form of an estimate of the standard error of the sample used in collecting the data for any given product. In addition to the results received from those companies surveyed, PRODCOM estimate the sales of the non-sampled companies and those companies which have never responded to the inquiry. The estimated total of product sales is then calculated. A statistical process designed to calculate the 'closeness' of an estimate to the expected industry total (or population) is made and expressed as a 'variance' of the sampling distribution of those companies that provided information. The standard error is the positive square root of this variance. This allows a test of the statistical significance of the totals derived from the sample.

To quote explanatory notes provided on the PRODCOM data by the Office for National Statistics, the department responsible for the provision of the PRODCOM series, *“roughly speaking the smaller the standard error, the better the estimated total, i.e. a small standard error means that the actual population total is likely to be very close to the estimated total. Similarly, a large standard error would indicate that the actual total could be very different from the estimated total”*.

The explanatory note continues, *“to aid comparison and interpretation, the standard error is also expressed as a percentage of the product’s estimated total sales. This quantity is sometimes called the coefficient of variation and it allows the standard errors to be put into context”*.

The standard error can be used to construct a confidence interval. According to the ONS, if the coefficient of variation is usually less than 30%, it is possible to predict to a 95% level of confidence that the population (the industry) total is within 2 standard errors of the estimated total.

As an example, if the standard error estimate of an industry sample was £3 million from an estimated industry total of £20 million, the co-efficient of variation would be 15% (£3 million / £20 million).

Therefore, in this example, if the population (industry) total is within 2 standard errors (£6 million) it can be stated that to a 95% level of confidence, the population (industry) total is between £14million and £26 million (£6 million from the estimated total of £20 million).

Such estimates have been made for PRA 20400, which has enabled an assessment to be made of the relative accuracy of the data provided.

The initial work for this report was based upon the quality measures provided by ONS for the latest year available at the time, which was 2005. However, data for 2006 has subsequently been made available and these are also used in this report.

The standard errors for the two product categories that comprise 88% of all UK manufacturers' sales - flat pallets and pallet collars of wood, code PCC 20401133 and cases, boxes, crates, drums, code PCC 20401213 - were, as a percentage of sales, 6% and 15% respectively.

With a 95% level of confidence, a range of values can therefore be determined for each product category. For flat pallets and pallet collars of wood in code PCC 20401133, it can be stated, with a 95% level of confidence, that the value of sales in 2006 was between

£260 million and £328 million. This is calculated by placing twice the standard error (£16.9 million x 2) either side of the estimate total of £293.9 million.

Applying the same principle to cases, boxes etc., in code PCC 20401213, it can be stated, with a 95% level of confidence, that the value of sales in 2006 was between £64 million and £121million. Clearly, with such large standard errors, the range of possible values is also high.

A request was made of ONS to compare the declared quality measures for wooden packaging in PRA 20400 with the rest of the PRODCOM series. This would provide a useful comparison to determine if the wide range of possible values in the two key wood packaging markets were materially different to other industries.

The support and cooperation given by ONS confirmed that ‘pallet data’ as provided through PRODCOM by ONS was substantially more variable than the PRODCOM series in its entirety.

The co-efficient of variation (the standard error as a percentage of sales) was calculated from 2002 to 2005 for all of the 4,500 products across 250 industries to provide - expressed as a percentage of sales - the following comparisons with flat pallets and pallet collars of wood, code PCC 20401133 and cases, boxes, crates, drums, code PCC 20401213 as shown in table 2.

Table 2: Comparison of Key Wooden Container data with All PRODCOM data

	Standard Error as a % of Sales				
	2002	2003	2004	2005	2006
Flat pallets and pallet collars of wood PCC 20401133	7.47	2.44	7.52	6.44	5.75
Cases, boxes, crates, drums etc PCC 20401213	18.76	22.90	25.92	8.32	15.33
The PRODCOM Series	0.40	0.43	0.53	0.42	na

The interpretation given from table 2 is that ‘pallet data’ is substantially more variable and therefore more susceptible to error than the aggregated totals for the entire PRODCOM series. It should be noted however that the very low standard errors for the entire PRODCOM series are as a result of efforts made by ONS to eliminate sampling errors in key products which are often made by very large firms. The success in doing this produces the low sampling error averages as shown in table 2. The significantly higher standard errors recorded in the pallets and packaging market is, according to ONS, not unusual in markets where there are a large number of smaller firms.

In order to increase the precision of sampling in the pallets market, the ONS sample size would need to be increased. One of the difficulties in increasing the sample size would be the greater involvement of very small companies (companies of greater than 20 employees are fully enumerated within the existing PRODCOM sample) which might conflict with the desire of ONS to reduce the (paperwork) burden on small businesses.

For ONS to succeed in making improvements to the precision of sampling for the annual survey, an increase in the sample size would be necessary providing greater coverage of those firms with between 10 and 19 employees, or a re-evaluation of the policy of reducing the burden on very small businesses would be required.

The implication of relatively high standard errors for the work in the area of timber utilisation is profound.

With a wide range of possible sales values (a wide variance between estimates) for flat pallets and pallet collars of wood, code PCC 20401133 and cases, boxes, crates, drums, code PCC 20401213, the manufactured volumes of each type of container are also likely to vary substantially.

To demonstrate this, in 2006, PRA 20400 for flat pallets and pallet collars of wood, code PCC 20401133 gave a volume in numbers produced of 74.7 million. With a standard error (in value) of the proportion shown, this would, if converted to provide a possible range of volumes produced, result in volumes in 2006 of between 67 and 83 million units.

The average usage of sawn softwood per pallet, when applied to this range of volumes, consequently results in a wide range of possible sawn softwood volumes used. Not all the pallets produced each year utilise new purchases of sawn softwood, but for the purposes of demonstrating the problem of estimating timber usage using the current data source of PRODCOM, it is assumed that all pallets produced in 2006 used newly purchased sawn softwood. Therefore, sawn softwood usage in 2006 in the flat pallets and pallet collars of wood, code PCC 20401133, based on the range of the calculated variance, would have been between 2.01 million cubic metres and 2.49 million cubic metres.

For 2005, the possible range for sawn softwood utilisation was even greater, at between 2.10 million cubic metres and 2.67 million cubic metres. The figure supplied in the timber utilisation report for 2005 was 2.34 million cubic metres.

Clearly, with improved sampling and data collection within the PRODCOM series on wooden containers, the ability to estimate sawn softwood usage more precisely could be achieved.

Although the problems with pallets and other wooden container data had been confirmed through this analysis, the underlying reasons for the lack of confidence in the PRODCOM data needed to be understood.

In discussion with Paul Davidson, Chairman of Scott Timber, one of the leading pallet manufacturers in the UK and also a leading member of TIMCON, the pallets and packaging trade association, it was believed that the PRODCOM inquiry into this area was not taking full account of the differing activities within the industry.

Paul Davidson highlighted a number of areas for investigation which included ascertaining where in the PRODCOM inquiry the measurement of new pallet manufacture, the re-cycling of pallets, the re-manufacture of pallets, the repair of pallets and the rental of pallets takes place.

The suitability of the questionnaire used in the PRODCOM inquiry was also discussed and it was considered necessary to establish whether pallet manufacturers were provided with sufficient clarity to consistently answer the questions posed.

Consequently, these discussions resulted in the identification of a number of issues that required clarification.

With completion of the first step in the programme of work - of clarifying and defining the problem - the next important step of formulating a case or justification for improvement was required.

The cooperation from and input provided by ONS and TIMCON enabled a number of data problems to be identified, but in order to determine whether these problems could be resolved, a meeting between the parties involved: ONS, TIMCON and *timbertrends* (the project consultant) was required.

The meeting took place at the offices of the ONS in Newport and the main issues to be discussed were:

1. Determination of whether companies in the ONS sample are bona fide pallet and packaging and not distributors or other non-manufacturing companies.
2. Review the PRODCOM sample composition (if possible) to determine the nature of the companies involved in the PRODCOM survey and to detect any weaknesses that may exist, e.g. possible disproportionate numbers or 'weight' of turnover of firms within the various employee bands.
3. Review the PRODCOM questionnaire for PRA 20400. (This to help determine if the 'right' questions are being asked or the correct guidance is being provided).

A short paper outlining the issues for discussion at this meeting was provided to the parties concerned prior to the meeting in Newport and is re-produced below for reference.

Issues for Discussion

1. Comparison of the ONS sample with the TIMCON membership list to help confirm that selected companies in the ONS sample are bona fide pallet manufacturers.

The sample of companies selected to provide data for PRA 20400 is stratified by number of employees, as follows:

No: of Employees	Total of All Businesses	Total Sampled
1-9	333	5
10-19	88	34
20-49	58	58
50-99	21	21
>100	6	6

Encouragingly, ONS reported that all wooden container manufacturers employing 20 or more people formed part of the PRODCOM inquiry. Although the market is highly fragmented, the companies employing 20 or more people are likely to account for a majority of the industry turnover.

Nearly 40% of companies employing between 10 and 19 employees were included in the PRODCOM inquiry, but only 5 companies employing less than 10 employees contribute data to the PRODCOM inquiry. The low number of sampled companies in the smallest employee band is because of the requirement within the PRODCOM Inquiry to limit the burden on small businesses.

The sampling frame is taken from the Inter-departmental Business Register (IDBR) and purportedly only includes manufacturing companies.

The IDBR listing of industries / products from which companies are selected for PRA 20400 is as follows:

20.40 Manufacture of wooden containers

- 4640 Barrels made of wood
- 4640 Box pallet
- 4640 Boxes made of wood
- 4640 Boxes made of wood (wirebound)
- 4640 Buckets made of wood
- 4640 Bungs made of wood
- 4640 Cable drums made of wood
- 4640 Cask heads made of wood
- 4640 Casks made of wood
- 4640 Chests made of wood
- 4640 Churns made of wood
- 4640 Cigar box made of wood
- 4640 Cock made of wood
- 4640 Collapsible box made of wood
- 4640 Containers made of wood
- 4640 Cooper's products
- 4640 Cooper's products reconditioning
- 4640 Cooper's wood
- 4640 Crates made of wood
- 4640 Drums and similar packings made of wood
- 4640 Egg box made of wood
- 4640 Fish boxes made of wood
- 4640 Hoops made of wood
- 4640 Kegs made of wood
- 4640 Packing cases made of wood
- 4640 Pallets, box pallets and other load boards made of wood
- 4640 Staves made of wood
- 4640 Stillage made of wood
- 4640 Suitcases made of wood
- 4640 Tea chests made of wood
- 4640 Travelling trunks made of wood
- 4640 Tubs made of wood
- 4640 Tuns made of wood
- 4640 Vats made of wood
- 4650 Wire and cable drums made of wood

2. Review the PRODCOM sample composition (if possible) to determine the nature of the companies involved in the PRODCOM survey and to detect any weaknesses that may exist, e.g. possible disproportionate numbers or 'weight' of turnover of firms with less than 10 employees.

In order to confirm or discount one possible cause of the weakness of data within PRA 20400, the manufacturing credentials of the companies forming the sample for PRA 20400 would need to be verified without prejudicing the confidentiality of either the

PRODCOM Inquiry or the information held by TIMCON, the pallets and packaging Association

3. Review the PRODCOM questionnaire for PRA 20400. (This to help determine if the 'right' questions are being asked or the correct guidance is being provided).

A possible cause of weaknesses in the PRODCOM data might be revealed through reviewing the annual PRODCOM Inquiry form (questionnaire) to determine if the key activities of remanufacturing, repairing, recycling and renting are able to be reported by companies responding to the questionnaire.

The impending changes for the 2008 PRODCOM Inquiry, where a separate industry classification of "Repair and Maintenance" is to be incorporated, would need to be taken into account in any review of the questionnaire and the responses given by industry.

A further three issues were identified that fell outside the scope of the meeting with ONS and these were:

1. Determine TIMCON's view of the probable size of the pallet rental, repair, recycled and distribution activity in the UK (This to help define the manufacturing only or manufacturing proportion in the UK).
2. Check the aggregated sales value of TIMCON Members (and/or other estimates of market size) and express as a % of PRODCOM data. (This to help understand the representative nature of the PRODCOM data).
3. Determine (manufactured) pallet unit costs (This to compare against PRODCOM's cost data). Also determine cost/price ranges for rentals, repaired and recycled pallets.

These items, although identified as possible activities to help understanding were not items for discussion at the meeting held with ONS, but item 1 above has subsequently been progressed between *timbertrends* and TIMCON.

Actions for Improvement

The meeting held at the offices of ONS in Newport addressed each of the issues raised and the following actions resulted.

1. A list of TIMCON members and their sales for the year 2006 to be made available to ONS by TIMCON in order to review the accuracy of the data held by PRODCOM.
2. ONS is to verify the accuracy of reporting for the 2006 report in the "Carry in / Carry out" category for PCC 20401133. This was required because of the high proportion, at 15%, of the total accounted for by this category. The "Carry in / Carry out" activity results from goods (manufactures) that are made by companies not normally classified within the specific industry being measured. This would occur where pallets made by a company classified to another industry (e.g. furniture manufacture) are counted by PRODCOM (which covers **all** manufacturing) and added to the total of all pallets made in the UK through the "Carry in" category to PRA 20400.

3. Due to the addition of “Repair and Maintenance” as a separate (from manufacturing) activity within PRODCOM from 2008, representation is to be made to the European pallets federation, FEFPEB, to request lobbying of Eurostat at the European level to attempt to have repaired pallets included as a “Repair and Maintenance” category for data collection.
4. Due to the belief that some companies contributing to PRODCOM incorrectly record sales of remanufactured and possibly re-used pallets in the total for sales of newly manufactured pallets, TIMCON is to devise a short guidance note (explaining what information is required for the various parts of the PRODCOM Inquiry form) for inclusion in the PRODCOM survey round for 2008 or 2009 (for the collection of 2007 or 2008 data).
5. As a second stage process to point 1 above, identification of those pallet manufacturers outside of the membership of TIMCON is recommended to take place. This information could be provided to ONS for comparison and possible improvement of the PRODCOM sampling frame for PRA 20400.

Since the meeting with ONS in Newport, the following has taken place.

Paul Davidson has obtained agreement from his association executive to supply ONS with TIMCON membership details, allowing for item 1 above to be actioned.

ONS has investigated a possible anomaly in the reporting of the product category for flat pallets and pallet collars of wood, code PCC 20401133, as identified in item 2 above and reports that a mis-classification on the business register had taken place and that steps had been taken to correct this.

TIMCON intends to make representation to FEFPEB, as outlined in item 3 above, following resolution of the issues in item 4 above.

The PRODCOM questionnaire consists of three main sections, A, B and C. Sections A and B are designed to record the main manufacturing data of each company and the PRODCOM questionnaire for sections A and B can be found in Annex I (Sections A and B) and Annex II (Section C) to this report.

TIMCON has furnished its members with guidance over the placement of the main manufacturing information on the PRODCOM questionnaire. This is provided in Annex I of this report.

ONS consider that the Eurostat guidance on maintenance and repairs provides a useful contribution to this discussion. It states that, *“Maintenance and repairs involving major reconstruction of the product being repaired or maintained should be entered as production”*.

Further interpretation by ONS suggests that if there is major reconstruction of a pallet to recondition it, then it should be reported under the relevant PRODCOM Commodity Code (as production). If it is not a 'major' refurbishment, and if it is bought in and sold on, then it is merchanted goods, unless it is a refurbishment on behalf of the customer.

TIMCON's view is that the definition of a re-manufacture (or major re-construction as defined above) is appropriate when more than 25% of a pallet requires replacement. This would involve stripping the pallet to component level. In practice, it is not believed that pallet manufacturers would be able to distinguish between different types of repair, re-furbishment or 'major re-construction' and this would continue to cause difficulty in recording whether the process carried out should be placed in section A or other sections of the PRODCOM questionnaire.

It is hoped that representation made by TIMCON to the European body FEFPEB to have wooden packaging classified as a 'repair and maintenance' industry, in addition to a manufacturing industry, will help to clarify where 're-manufactured' pallets and other types of packaging should be recorded.

The fifth action from the meeting held at the offices of ONS in Newport was to identify those pallet manufacturers outside of the membership of TIMCON to help facilitate the possible improvement of the PRODCOM sampling frame for PRA 20400.

This could be achieved through the purchase of industry lists from recommended company list brokers. The cost of purchasing suitable lists is believed to be in the region of £250.

If it is decided that the purchase of a comprehensive industry listing of pallet manufacturers would be a cost-effective method of enhancing the sample used by ONS and for use in TIMCON's own marketing and research activities, the cost could be shared between the interested parties.

Outstanding Issues:

The majority of the programme of work to facilitate improvement in the accuracy of PRODCOM data for the packaging and pallets market has been completed and some of the more immediate objectives achieved, but the full fruits of this work will not be realised until 2009 or beyond.

The outstanding issues from this work are:

1. The decision to request the dual existence of the pallets and packaging industry as both a manufacturing industry and a repair and maintenance industry at a European level is one that TIMCON needs to consider in the coming months.
2. The decision to purchase industry lists for the further enhancement of the PRODCOM sample for PRA 20400; for the marketing and research activities of TIMCON and for possible use by the Forestry Commission needs to be made.
3. Investigation into the possibility of increasing the sample size for PRA 20400 through greater inclusion of those companies with between 10 and 19 employees

Conclusions:

A number of conclusions can be drawn from the work conducted for this report; which require further consideration.

The two main areas where potential errors in PRA 20400 can be reduced are in the verification of manufacturing companies in the ONS sample and in the improvement in the understanding of where to record various activities in the PRODCOM Inquiry form by pallet and packaging manufacturers.

The provision of the TIMCON membership list to ONS will help verify that a (high) proportion of the companies within the ONS sample (that are required to be manufacturers) are indeed manufacturers and also permit the identification of those companies that may be included in the ONS sample that are not manufacturers, but distributors or some other non-manufacturing entity. This activity is to be conducted within the strict guidelines on confidentiality that ONS must adhere to and the information will be used only for the purposes of making improvements where required of the ONS sampling frame in wooden packaging markets.

It also believed that the guidance note issued to members of TIMCON by TIMCON will facilitate greater accuracy in the recording of manufacturing activity on the PRODCOM Inquiry form.

Each of these actions will help improve the accuracy of the information supplied to ONS, and consequently, a greater degree of confidence in the data provided by PRA 20400 should be held by industry.

Each of these actions will not reduce the variability of the estimates provided by PRODCOM however. From discussion and further communications with ONS, it is clear that the wide variation in the estimates of sales for many smaller and fragmented industries containing relatively high proportions of smaller companies is not uncommon in the PRODCOM series. The difficulty in accurately measuring the size of such markets therefore remains. Without increasing the size of the sample of wooden container manufacturers in the UK, estimates of the size of the market will continue to experience high standard errors and suffer the potential for wide variation in the estimates of sales.

Value of the Work Done:

This project will, once all outstanding issues have been resolved, serve to provide ONS, TIMCON, the Forestry Commission and other interested parties with 'better pallets data'.

For the purposes of ONS,

- more reliable data will be available for inclusion to the PRODCOM PRA 20400 publication on wooden containers
- this more reliable data will make an enhanced contribution to the compilation of the UK's data on Gross Domestic Product.
- this work has been used to demonstrate the value that industry places upon ONS outputs.

For the purposes of TIMCON

- improved data in PRA 20400 will provide TIMCON members with greater confidence when measuring industry and individual company performance
- better guidance will make the task of completing the annual inquiry easier and more valuable
- the possible expansion of measuring repair and maintenance activity (as a separately reported activity to manufacturing) could provide pallet and packaging manufacturers with better market intelligence and also give the industry persuasive arguments over the environmental benefit that accrues from this recycling and re-manufacturing activity.

For the purposes of the Forestry Commission

- improved data on the pallets and packaging market in the UK will provide a more accurate assessment of the utilisation of timber in the UK
- more accurate assessments of timber usage will provide value to the Forestry Commission in its forecasting and resource planning activities
- through the value of this work, the Forestry Commission can demonstrate its full support and practical assistance given to industry, from forest management, planting, harvesting, production, through to manufacturing, distribution, recycling and re-use.

Continuing Weakness and Possible Future Steps:

Although the work for this report has led to actions designed to make improvements to the measurement of the pallets and packaging market in the UK, there remains a continuing weakness in the ability to use the data for the purposes of measuring timber utilisation in the UK.

There also remains a weakness in the data for the purposes of TIMCON, where it wishes to measure the incidence of the different activities of manufacturing, repair, re-cycling and distribution of pallets and other forms of packaging.

The lobbying of FEFPEB to attempt to have pallets and packaging repair activity (as opposed to manufacturing) classified as a separate activity with its own PRODCOM Inquiry may result in a better measurement of repair and maintenance and by definition, manufacturing also, but this is likely to be a longer-term achievement.

A more immediate solution would be for a separate assessment – outside of the PRODCOM Inquiry – of the incidence of repair, maintenance and re-cycling conducted among a representative sample of wooden packaging manufacturers in the UK.

From such an assessment, it would be possible to estimate more closely the extent of original manufacturing in this market (and hence determine the annual usage of newly purchased sawn timber) and consequently also measure each of the other types of pallet making, repairing and re-cycling activity. The initial reaction to conducting a separate assessment from TIMCON has been positive and future work to improve the measurement of timber utilisation in this specific market - possibly through the joint action of interested parties – requires further consideration.

ANNEX I

Guidance issued by TIMCON to its manufacturing members.

The following is an extract from a letter sent to TIMCON members.

Annual PRODCOM Inquiry from the Office for National Statistics (ONS)

You may have recently received a questionnaire from the ONS asking you to provide statistical data on the pallets and cases that you supply. It is a legal requirement that you complete this form.

Timcon has become aware that there may be confusion about how the data for new, repaired and recycled pallets should be entered and have sought guidance from the ONS on the correct completion of the forms.

- New pallets that you manufacture (including those made entirely from reclaimed materials) should be included in section A - Products.
- Used pallets that you have repaired and resold should also be included in section A - Products.
- Used pallets outsourced and sold without any repair being necessary should be included in section C – Merchantable Goods.
- Repaired Pallets that remain your customer's property should be included in section C - Work Done.

Unfortunately the current classification does not distinguish between new pallets from repaired used pallets. Timcon has discussed this with ONS how this situation can be improved and been advised that we need to make representations at European level. Timcon will be undertaking this over the next few months.