The UK housebuilding market 2016

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Key findings 2016

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK housing starts up to 185580</td>
<td>4.4%</td>
</tr>
<tr>
<td>Timber frame housing starts up to 52705</td>
<td>8.7%</td>
</tr>
<tr>
<td>Housing starts in England up</td>
<td>4.4%</td>
</tr>
<tr>
<td>Housing starts in Scotland down</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Housing starts in Wales down</td>
<td>-2.6%</td>
</tr>
<tr>
<td>Housing starts in Northern Ireland up</td>
<td>8.1%</td>
</tr>
<tr>
<td>UK housing starts by tenure</td>
<td></td>
</tr>
<tr>
<td>• Private sector up 7037</td>
<td>5.2%</td>
</tr>
<tr>
<td>• Public sector up 1853</td>
<td>4.5%</td>
</tr>
<tr>
<td>Timber frame housing share in the UK rose again to</td>
<td>28.4%</td>
</tr>
<tr>
<td>• Timber frame share in England rises to</td>
<td>22.8%</td>
</tr>
<tr>
<td>• Timber frame share in Scotland rises to</td>
<td>83.0%</td>
</tr>
<tr>
<td>• Timber frame share in Wales stable</td>
<td>30.7%</td>
</tr>
<tr>
<td>• Timber frame share in Northern Ireland grows to</td>
<td>17.4%</td>
</tr>
<tr>
<td>Timber frame including non-housing up to 55750</td>
<td>10.7%</td>
</tr>
<tr>
<td>Non-timber frame housing up to 132875</td>
<td>3.6%</td>
</tr>
</tbody>
</table>
Continued growth forecast

Our sector has made good progress again during 2016 with volumes holding up and showing slight growth in market share over 2015. This year we have had more member companies than ever provide us with information contributing to the production of this report. Thank you to the forty three companies who took the time to respond, meaning that 41% of the members contacted replied. As our sector becomes even more competitive it is important that all STA member companies complete the information questionnaire, so that we can offer the very best intelligence, not only to our members, but to the wider industry. Once again, the responses provided by our members covered 50% of the total volume reported for the timber frame sector.

Confidence remains high for those companies reporting, with forecast volumes expected to grow to 88,000 by 2021. This represents an ambitious year-on-year growth rate for timber frame of circa 10%. It should be noted that the Construction Products Association is taking a very much more cautious approach, predicting growth rates of as little as 2% to 3%. Were that the case the 2021 volumes would be a more cautious 66,000 timber frame starts in that year.

Skills shortages and the general uncertainty around Brexit continues as a cloud on the horizon, but at least in the short-term this is not denting the confidence in the numbers reported by member companies.

The 2016 Business Environment and beyond

- As reflected in the 2015 commentary, the post referendum political and business environments remain largely unclear. Brexit discussion are as yet, not sufficiently detailed, to give a clear picture to business as to the future we face.

- This continues to impact on the construction environment and, with the tragic events surrounding Grenfell, the rules around many aspects construction and the management of buildings is under scrutiny and debate.

- The value of sterling remains a concern, with a range of predictions regarding its short to medium term value ranging from sub one euro to the pound to 1.18 at best. This uncertainty is also reflecting on the sterling dollar rates with values ranging from the pound reporting a $1.17 to the dollar to a potential circa $1.4 dollars to the pound during 2018.

- The exchange rate will therefore continue to have an unpredictable impact on input costs, which will in turn impact on market confidence.

- The Timber Frame sector is ready and willing to lay down the necessary capacity to meet current and predicted demand, expected to grow to over 94,000 units by 2021. However, it is expected that the political and business environments will need to improve through greater clarity regarding the future of UK plc to realise this potential.

However ……… all is not lost

- The momentum created in our sector continues, and as illustrated in our key findings above, the will is there to be creative in design, engineering, manufacturing and the delivery of truly exceptional products to our customers.

- The benefits of timber frame continue to answer so many of the issues that concentrate the minds of government and public procurement of housing. Speed of build, environmental impact, life-time energy and cost performance make the compelling case for wood. All of these remain constant and increasingly underpin our ability to grow our share of the market for structural building applications in the UK market.

- Whilst the Farmer Review raises all of the issues that the construction sector suffers from, the timber frame sector by its very nature becoming an increasingly off-site manufacturing system, has the ability to address many of the issues head-on. We may not be able to control the external influences on our sector, but we can deliver continued improvement in delivered quality, service and improved productivity.

### Forecasts to 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Housing Starts</th>
<th>Timber Frame Housing Starts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Probable</td>
<td>Optimistic</td>
</tr>
<tr>
<td>2017</td>
<td>192,746 (+3.7%)</td>
<td>55,606 (+5.5%)</td>
</tr>
<tr>
<td>2018</td>
<td>199,600 (+3.6%)</td>
<td>60,042 (+8.0%)</td>
</tr>
<tr>
<td>2019</td>
<td>199,828 (+0.01%)</td>
<td>64,750 (+7.8%)</td>
</tr>
<tr>
<td>2020</td>
<td>203,120 (+1.6%)</td>
<td>68,777 (+6.2%)</td>
</tr>
</tbody>
</table>

If the ‘Probable’ estimates predicted are to be realised then timber frame will hold a 33.9% share of the market by 2020.
Message from the Chief Executive

I reported last year that I found myself making this introduction in one of the most exciting times in the history of the structural timber frame industry. At this moment, all roads seem to lead to structural timber frame as the building method of choice as the results of this report indicate. A year of consolidation, where we have seen our market share rise again to 28.4%, a more modest growth of a full percentage point over 2015 in a growing market, is impressive enough but if we add to this the traditional timber frame in housing figure and the fact that other sectors of the construction market are now considering the use of structural timber frame and other structural timber systems, i.e. CLT, Glulam and SIPs, it is obvious the whole sector is ‘on a roll’.

Housing continues to be a political hot topic with national and regional Government citing it as the number one priority. The recently released Farmer Review confirms this and introduces the new terminology ‘pre-manufacture’ used throughout the document, to replace offsite, prefabrication or modern methods of construction, emphasising that our form of construction is now in the spotlight and very much on the rise.

This opportunity requires the structural timber frame sector to unite as one, collaborate with all our stakeholders and totally integrate our design, manufacture and erect offer - this is what the Farmer Review recommends.

The three major timber related trade associations (TTF, BWF & STA) have come together under the CTI (Confederation of Timber Industries) to ensure this joined up approach is achieved with TTF leading on sustainability, the BWF on skills and the STA on value and growth. In addition the STA is working closely with both TRADA and the TRA, where appropriate, so as not to duplicate resource and share knowledge, further demonstrating the sector’s desire to collaborate.

The growth in market share is expected to continue to rise as this report indicates. Both the NHBC and LABC are reporting unprecedented levels of housing starts in structural timber frame and this looks likely to increase. Scottish Government is working with SFHA, Homes for Scotland, Sottish Innovation Centre and the STA in its effort to build 50,000 affordable homes in the lifetime of the current Parliament. In addition, STA has been working with the UK Governments All Part Parliamentary Group (APPG) for Wood and the Welsh Government in promoting the benefits of timber frame for house building and the sectors ability to deliver any additional volumes required.

As indicated throughout this report, structural timber frame is quickly becoming the building method of choice and therefore, the opportunity of a lifetime is upon us and it has to be grasped in the lifetime of the opportunity - NOW!

Andrew Carpenter, Chief Executive
Structural Timber Association
The UK home building market to 2016

Housing starts continue to rise

2016 proved another successful year for house building in the UK, with an 4.4% increase over 2015 being recorded in housing starts. Similarly, England too saw an increase of 4.4%, Wales fell back slightly by 2.6%, Scotland by 1.7% and Northern Ireland, continuing its recovery, recorded year on year growth of 8.1%.

This produced the fifth year in succession of growth from the post recession low of 2012, when UK housing starts were recorded at 114,000. Overall starts at 185,580 are 71,580 up from that low point. Clearly there is much ground to make up, but as referred to later the industry is poised to deliver any future demands placed upon it.

Chart 1 below tracks these changes.

Chart 1 - UK housing starts
Actual 2005 - 2015
SOURCE: ONS

Housing starts by country

The number of housing starts in England remained at 83.1% of all UK starts during 2016. As referred to in our 2015 report, this is a trend that shows no sign of changing. Chart two illustrates this continuing trend.

Chart 2 - UK housing starts by country
Actual 2008 - 2016
SOURCE: ONS / STA

Growth in timber frame

The timber frame sector has largely had a year of consolidation, with overall market share seeing a 1% increase. In volume terms however, timber frame as a building system grew by 8.7% to an impressive 52,705 starts.

Chart 3 illustrated the 2016 changes in volumes across all of the countries in the UK.

Chart 3 - % Change in housing starts by country
2016 - 2015
SOURCE: ONS / STA

The growth in starts for England continues, and as the largest proportion of the total market, influences the overall picture in showing over growth for 2016, despite a small fall in both Scotland and Wales. Northern Ireland continued its recovery from a very deep recession in housing since the banking crisis. However the overall market in housing has slowed significantly as we proceed through 2017. Here the uncertainty around Brexit is most pronounced.

Chart 4 - % Change in new housing
2015 - 2016
SOURCE: ONS / STA

It is worthy of note that the 2016 performance of timber frame is slightly ahead of its previous high, of 51,000, reported for 2007.

The industry is naturally concerned about the possible impact on raw material input price inflation, largely as a result of exchange rates, in the immediate future.
Whilst it is aware of the significant opportunities opening up to timber frame, the lack of clarity around the direction of our political futures vis-à-vis Europe, is nonetheless unsettling. Government are to be encouraged to clarify the impact on business as soon as possible.

As referred to earlier, 2016 appears to have been a year of consolidation, with Timber continuing to make inroads by growing the overall volumes of activity along with breaking through the previous high water-mark for the number of units produced.

Whilst the number of starts for buildings of more than two storeys has fallen back from 28.8% of all starts in 2015, to 20.7% for 2016, it is still just ahead of the 2015 level reported of 20.4%

We reported last year that there is growing input price pressure on our sector, leaving the industry very exposed to a slowdown in demand as financial markets tighten lending against the additional backdrop of the affordability index worsening through 2015 and 2016.

### Chart 8 - Proportion of timber frame units by category
2008 - 2016
SOURCE: ONS / STA / NHBC

Non-housing applications have fallen significantly from over 13% in 2015 to 5.7% for 2016.

The impact of the changes by category reflected in chart 9, below bear this out.
The critical point of note for chart 9, is that ‘over two storey’ and ‘Non-housing’ bars are a relatively small proportion of the total numbers reported resulting in small changes show as significant percentage changes in any one year.

None of the respondents to the questionnaire have reported out of the ordinary movements in either over two or non-housing activities.

<table>
<thead>
<tr>
<th>% Growth</th>
<th>2016 - 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2 Storey</td>
<td>10%</td>
</tr>
<tr>
<td>Over 2 Storey</td>
<td>70%</td>
</tr>
<tr>
<td>Non Housing</td>
<td>60%</td>
</tr>
<tr>
<td>Total</td>
<td>50%</td>
</tr>
</tbody>
</table>

Although recording relatively small volumes Northern Ireland saw timber frame units grow to 1293, an increase of 194 on 2015 levels or 17.4% of all starts.

Only Wales showed a small fall, with 2094 starts being recorded, down from 2236 in 2015.

Chart 11 below illustrates this point.

Performance by country and region

2016 has continued to demonstrate how resilient the market for timber frame applications has become, by once again recording over volume growth. Whilst recognizing the small falls for both Scotland and Wales, the underlying performance for timber frame remains very strong. In Scotland timber frame has increased its overall volumes and grown market share to an outstanding 83% of all starts in 2016. At over four in every five starts in that market, timber frame is clearly the default building system in Scotland.

Chart 12 illustrates the north v south divide in purely volume of starts. This statistic just illustrates the population drift to the South opening up a split of circa 60/40 in favour of housing starts to the south of the Midlands.

Chart 13 breaks this regional split further by taking the NHBC regional registrations as an indicator of Timber frame housing activity.

Overall timber frame starts are shown as being 19,923 in the South and 15,253 for the North.
This survey has again, as it does every year, rely upon data supplied by a number of bodies, including the Communities and Local Government department (DCLG), the NHBC and other industry commentators including the Construction Products Association (CPA) who have informed elements of the analysis through its recently published ‘Construction Industry Scenarios 2017-2019’. This analysis provides a solid basis from which to identify and predict trend in the industry. The information contained should therefore be considered as a ‘best estimate’ distilled from what information is available. It should also be noted that this year’s survey has strengthened the data base as the number of contributors again increased, with hard data being collected from some 35 respondents, 33% of those surveyed. An additional eight companies contributed through discussion around the questions asked in the survey. Overall then, we have had input from 43 companies or 40% of those surveyed. These businesses account for the manufacture of circa 51% of all of the timber frame activity reported by STA member companies. This has provided a strong baseline from which to estimate the overall market, so we are confident that the overall volumes and market share are an accurate reflection of the timber frame market in 2016.

Market breakdown by dwelling type
2016 has carried on the trend of the last two years, with another year of growth in total volumes. Chart 14 illustrates the overall trend and the changes for the year 2015. A notable change in mix during 2016 has been the increase in the number of detached houses being built up 10,800 or 23% over 2015. Detached housing starts have therefore doubled in volumes since 2010. Semi-detached volumes have also increased significantly, recording 46,800 starts in 2016, up from 36,500 in 2015. An increase of 28%. To balance these increases terraced starts have fallen 10,000 units, or 24% and flat development fell back slightly by 2,100 or 4.2%
The trend confirms that timber frame has once again outpaced the overall market, by growing at twice the market rate; 8.7% timber frame growth to 4.4% market growth.

Chart 16 - Timber frame market share by dwelling type
2012 - 2016
SOURCE: ONS / NHBC

Chart 16 indicates the continued trend growth across all property types. In the case of flat development the 2015 surge has fallen back more in line with recent year-on-year growth. In that case the 2016 share for apartments at 19.9% is still ahead of that recorded for 2014 at 19.4%.

Building by tenure (public and private)
Housing starts across the UK for both the private and social housing sectors are shown in chart 17, indicating the split of housing starts across the UK for both the private and social housing sectors.

Chart 17 - UK housing split by country
Private v Social
SOURCE: ONS / NHBC

This chart illustrates the huge impact that English housing starts has on the total UK market.

It also highlights the opportunity the English market provides to timber frame, making continued inroads through volume growth a real imperative in growing market share.

Chart 18 - Overall UK housing split by house type
2016
SOURCE: ONS / NHBC

The following two charts 19 and 20 show housing starts split for both private and social housing respectively.

Chart 18 - Overall UK housing split by house type
2016
SOURCE: ONS / NHBC

Chart 19 - 2016 Private sector timber frame housing
Split by house type
SOURCE: NHBC

It will be interesting to note how these proportions change as the expected increase in the building of social housing kicks over the coming years.
Housing market forecasts to 2020/2021

The numbers are optimistic, but uncertainty is the ‘elephant in the room’

We reported last year that mixed messages had been received when looking at the optimism that individual companies demonstrated towards the next three years or so. This trend continues through 2016, on the one hand positivity about the current real levels of demand, but worry and lack of certainty because of the lack of clarity about the future economic performance of UK plc. The sector is only too well aware of the impact on construction that results from a cooling in the economy. The continued issue of all things Brexit is not helping the confidence levels of decision makers and risk takers in the sector.

It is true to say that, looking back at recent years performance, businesses involved in the Structural timber arena have seen much improved business performance, with ready demand for its services. It is not unusual to find such contrasting sentiments in the marketplace, as it has been a general rule that as real confidence grows, businesses project this into the future. The uncertainty around the future translates into ‘well we are doing ok at the moment, but we are really not sure about next year and beyond’

The commentators on the industry are also taking a cautious line, citing a number of macro economic indicators and the evolving government policy, not least around Brexit remaining vague at best, as reasons to predict a sluggish future through to 2020. The Construction Products Association are predicting overall growth in housing starts of 7.7% over the three years 2017 to 2019. This projection suggests that housing starts will not break the 200,000 mark until after 2021. In contrast, the Office of National Statistics is suggesting that this threshold will be reached by 2019.

In looking at 2016 in isolation, it was clearly another excellent year as housing starts topped out at 185580, with timber frame enjoying a sterling year with starts peaking at just short of 52705.

Timber frame has once again accounted for a significant share of the overall growth in housing starts reported and for 2016 the underlying rate of growth was 8.7%. There were an incremental 6660 starts of which timber frame accounted for 4225 or 63.4% this is a very encouraging result and should serve as a real benefit to further promoting timber frame as a building method.

Chart 21 - UK housing starts
2008 - 2016 Actual & forecast to 2020
SOURCE: ONS / STA / CPA

The issue of confidence has resulted in a sector that sees current order books looking healthy, but business owners/commentators are reluctant to commit with any certainty to anything beyond the remainder of 2017. That said the sector, whilst cautious is forecasting growth of 26.7% from 2016 through to 2020, with volumes predicted to reach 66,777 units in 2020.

Chart 22 - Relative growth of timber frame & other methods of construction
2005 - 2016
SOURCE: ONS / STA / CPA

Timber frame growth was 8.7% year on year 2016 over 2015, recording 52705 from 48460 in 2015, with non-timber frame growing by just 2% in the same period i.e. 130,230 to 132,875. Chart 22 illustrates the longer-term trend from 2008 to 2016 inclusive.
The relative confidence in the growth of timber frame to non-timber frame becomes more evident when viewing the forecasts predicted by STA members, compared to other industry commentators. Whilst it is clear that forecasts are simply that i.e. a best guess, when viewed against the trend over recent years including the immediate post-crash market; then timber frame is trending positively and gaining market share.

Chart 23 illustrates the opposing views in predicted growth trends for timber frame and other building materials.

Chart 23 - Development of timber frame and other methods of home building
2008 - 2016 & Forecast to 2020 - probable
SOURCE: ONS / STA

Given the uncertainty referred to in the report we have added chart 24 to illustrate further the range of positions on forecasting through to 2020. It shows the best position reported by STA members and compares that to the CPA trend for housing starts ‘CPA Construction Industry Forecasts 2017-2019’.

Chart 24 - Forecast trend options
2017 - 2021
SOURCE: STA / CPA

The apparent confidence of STA member companies continues to be over-shadowed by the point reported for 2015 including:
• The UK position on Europe
• The impact of sterling’s fall and its impact on the competitiveness of the timber frame sector
• Rising import costs
• The growing possibility of interest rate rises
• The impact of ‘help to buy’
• The rate at which social housing starts grow as RSL’s roll out a programme of renewal.

The value of the pound has not fully recovered its losses from 2015 and is currently trading at circa mid $1.35, although during 2017 it has range from a low of $1.17 with a possible high of circa $1.40 during 2018. Similarly the sterling euro rate remains in the €1.08 to circa €1.15 during 2017. Such volatility makes decision making difficult and this is not predicted to change until UK Government policy becomes clearer.

That said, chart 25 below continues to record year on year growth, which amplified the points made about apparent contradictions in the messages we get fed from the marketplace.

The STA have continued to work promoting Structural Timber to both UK Government, The Welsh Assembly, Scottish Government, The Northern Irish Assembly along with both the private house-builders and RSL’s. This work has continued to produce positive results for our members and plays a significant part in supporting the growth reported by member companies.

It will be ever more important that STA members complete and return the information requests to inform the production of this report. The higher the proportion of companies responding the better the over quality and reliability of the data is.

Chart 25 - Timber frame % market share of new housing
2005 - 2016
SOURCE: ONS / STA

We referred to the most recent industry report commissioned by the UK Government and produced by Mark Farmer in our 2015 report; ‘Modernise or Die’, published in October 2016 largely identifying the same issues as its predecessors, namely:
• Low productivity
• Low predictability
• Structural fragmentation
• Leadership fragmentation
• Low margins
• Dysfunctional training funding and delivery model
• Workforce size and demographics
• Lack of collaboration and Improvement culture
• Lack of R&D and investment in innovation
• Poor industry image.

As we reported last year these issues remain pertinent to our sector and provide an ongoing opportunity for structural timber. Through innovation in off-site manufacture, driving productivity and enhancing the skills sets of those employed in it, structural timber can truly sit centre stage in the UK housing marketplace.

Production capacity and utilisation of timber frame manufacturing 2016 to 2020

The industry is managing to deliver any demand put upon it through careful management of its existing capacity. This will continue to be the case through the next three to four years as businesses assess what is in their best interests as the prevailing economic conditions unfold. Rather than reflect the usual high level single point forecast we are reflecting the uncertainty in the wider economy by proposing two but there are a range of possible volumes predicted for the next three to four years.

At best these numbers give added weight to the uncertainty regarding the future and the consequences for the market resulting from the issues referred to in this report.

With this in mind we have taken the options above and provided two possible trends, chart 27 below showing a ‘possible’ outcome assuming that the STA member company predictions are close to realised, suggesting sales of over 88,000 units from a capacity of 94,000 in 2021.

Chart 26 - Sales in units forecast growth 2016 - 2021 - Two scenarios

Chart 26 shows the predicted Timber Frame housing starts 2017 to 2021, using the 2016 actual as a baseline. It compares these forecast numbers with Construction Products Association (CPA) predictions through to 2019 and extrapolated to 2021.

It is clear to see that taking the wider economy and the factors impacting on it results in a much more cautious approach to forecasting. For example, if we take the STA member company data and assume that the sector will deliver the CPA levels of activity in 2017, then we would see a growth rate in timber frame in 2017 of circa 4%, rather than the predicted 20% reported by STA members.

Chart 27 - Timber frame Production v Capacity

2015 - 2016 Actual & 2017 - 2021 forecast

Chart 28 suggests the more ‘probable’ result of circa 66,000 timber frame housing starts in 2021 from a capacity of 82,500. In both cases we have assumes an industry standard capacity loading of 80%. At this level businesses are able to respond to spikes in demand without placing their manufacturing capability under undue pressure.

There is clearly a disconnect arising out of the differing views of the medium-term future. The businesses reporting, continue to see a positive picture based upon current demand profiles. The CPA forecasts are based on the wider economic conditions, current and anticipated, as the issues of Government monetary policy (interest and exchange rates) and the those of Brexit unfold over the next year to eighteen months.

Chart 28 - Forecast capacity

2017 - 2021

The capacity utilised in 2016 was 82%, confirming that the sector is catching up on its installed capacity. We have therefore used 80% as our reference loading in predicting decisions to be made in managing capacity over the next four years.
The balance between available capacity and the sectors ability to respond is a sensitive balance between the timing of capital investment decisions, their cost and the ultimate profitability of the sector. The feedback from STA member companies highlights this issue as one of major concern.

This balance is made all the more important when considered along with the comments of earlier regarding the major drivers of economic activity e.g. exchange rates and the potential to ‘import cost’ into the sector, with the spectre of Brexit a constant ‘stone in the shoe’

Whilst companies cannot individually change those external factors that weight heavily upon them, they can act to optimise the performance of their own internal processes, the relationship they have with both clients and suppliers and through the STA influence the decision-makers at a political level to support our industry.

We can in part help ourselves by adopting all of the most appropriate tools to ensure we are as productive and consequently as profitable as we can be. As we reported last year, we would encourage member companies to continue the drive to upskill at all levels in our businesses and to seek out and take up the best practice tools and techniques of LEAN manufacturing and construction to drive these productivity improvements.

As we did last year, once again we refer to the most recent commentary on the construction sector, The Farmer Review and it makes compelling reading. It identified the areas where the construction sector can/must improve. We commend this approach and strongly believe that the businesses who are first to positively respond to the challenge, will in turn create for themselves a more productive, profitable and therefore sustainable business in these uncertain times.

The table and Chart 29 illustrates the impact of a changing mix of the companies returning their survey questionnaires. In 2015 we had 123 companies included in the industry size chart. For 2016 this has grown to 173 businesses, but this year the size is skewed towards smaller businesses.

<table>
<thead>
<tr>
<th>Company Size - Units</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 99</td>
<td>59</td>
<td>94</td>
</tr>
<tr>
<td>100 - 399</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>400 - 999</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Over 1000</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>123</td>
<td>173</td>
</tr>
</tbody>
</table>

The impact of a larger number of small to medium size companies contributing to the total picture has suggested that these played a larger part in growing overall volume sin 2015 than might have been expected.

Whilst scale provides the opportunity for greater cost efficiency, an industry sector with a larger small to medium sector (SME’s), has the potential to produce higher volumes more quickly to the market, ensuring that the timber frame sector can respond very quickly to growing demand for off-site manufactured, fast built, energy efficient, high performance homes.
The companies who did respond account for 50.2% of our business, making it difficult to ignore the optimism being shown by the sector.

As with 2016 the major concerns facing the industry remain as for 2015. Exchange rates are still pretty volatile, demand is no less vague in the medium term and Brexit remains unresolved. That along with markets responding to a world of increasing uncertainty, making any long term strategic planning challenging. So the list remains as mentioned on a number of occasions throughout the report, namely:

- The impact of Brexit and post referendum sentiment both at government and from the business community
- The effect on sterling for both of its major currency partners (the $ and the €)
- The lack of appropriate skills in the industry
- The on-going challenges to construction outlined in yet another industry report, the Farmer Review
- The risks of imported cost into the sector just as it is regaining traction in the overall market
- The political backdrop on the global stage creating uncertainty in the global financial markets.

To offset all of the above the sector has advantaged unmatched by any other construction sector in terms of the points made earlier:

- The environmental credentials of 'wood' it captures CO₂ as it grows, its processing releases relatively small amounts back into the environment
- The speed of build to wind and watertight
- The whole life energy performance for both the environment and the consumer
- An industry sector that is quick to respond and can add capacity relatively rapidly as demand grows.

In addition the Structural Timber Association plays a major role in the advocacy of timber frame and engineered wood products (EWP) in the market place. It engages enthusiastically at every opportunity with government departments and is increasing invited to participate or comment on the future of construction.

As reported last year the improvements in the provision of technical information, including bulletins, advice notes, practical guidance such as ‘Site Safe’ and design and build technical documents are answering the information needs of many and differing skills of those engaged in the sector.

The work of the STA is making a real difference to the sector as it strives to amplify the professional way in which member companies go about their business, through encouraging and persuading clients to only use ‘STA member companies’ for their projects.

The STA, as reported last year is working closely with British Woodworking Federation (BWF) and the Timber Trades Federation (TTF), under the umbrella of the Confederation of Timber Industries (CTI), to act more effectively as a single voice in promoting the further use of wood based products in the construction industry. This is clearly to be welcomed and speaks volumes for the benefits of partnering and collaborative working.

**Estimated timber frame manufacturing sector size**

For 2016 we have attempted to indicate the overall size of the manufacturing capability in terms of revenues. Chart 31 indicates values from 2016 through to 2021.

![Chart 31 - Predicted revenues for the timber frame manufacturing sector](source: STA)

These estimates are based on the sector growing in line with STA member company returns to the annual survey.

As with our earlier comments these estimate are more ‘possible’ than ‘probable’.

**Timber frame manufacturing - number employed estimates**

We have similarly estimated the numbers employed in the sector, focusing only on direct manufacturing. This take no account of the wider jobs created or engaged in the total supply-chain from forest to building/construction finishing trades.

![Chart 32 - Number of employees](source: STA)