Background

This is a report compiled by the British Plastics Federation (BPF) to help discern the skills and training needs forecast for the Plastics Industry. The report itself is based on a survey conducted during late 2015 and early 2016 by the BPF’s Central Education & Skills Committee, to help better understand the skills gap in the Industry and to ensure the BPF has a sound grasp of future training requirements.

The survey received over 117 responses from various sectors of the Plastics Industry representing more than 53,700 employees, including many SMEs but also several large businesses as defined by the Government. The responses included those who have no apprentices through to those who employ over a thousand of them. Further to this, information provided came from many companies whose own board members and/or directors have come from apprenticeship backgrounds, as well as those who have not. The data collected has been displayed graphically where possible in this report. Please see below for contact details related to this study.

Matt Davies – Industrial Issues Executive

Contact Details

Francisco Morcillo – Industrial & Public Affairs Manager
Tel: +44 (0)20 7457 5037
fmorcillo@bpf.co.uk
www.bpf.co.uk

Philip Watkins – Education & Skills Committee Chairman
Tel: +44(0)1892 831 890
p.watkins@uk.gabriel-chemie.com
www.gabriel-chemie.com

Stephen Hunt – Membership Services Director
Tel: +44 (0)20 7457 5044
shunt@bpf.co.uk
www.bpf.co.uk

Matt Davies – Industrial Issues Executive
Tel: +44 (0)20 7457 5048
mdavies@bpf.co.uk
www.bpf.co.uk
Key Findings

This summary lists some of the Key Findings from the report, including important statistical points realised within it.

- 53.6% of Respondents had at least one board member who was an apprentice
  This highlights the importance of apprenticeships and that those who undergo apprenticeships are not limited in their ability to progress

- Skills training seen as most important for apprenticeship levels 3, 4 & 5
  This shows that the value of skills training is seen to increase with the higher level of apprenticeship, an expected trend due to the increased technicality of higher level apprenticeships

- 78% of Respondents recognised a gap between current training offered and what employers want
  This highlights the need for better training and courses to ensure the future of apprenticeships and to narrow the skills gap

- Skills & Qualifications to validate skills are seen as some of the most important requirements of training
  This finding reiterates the importance of training and its benefits to staff

- 83% respondents saw short courses as a valuable means of narrowing the skills gap
  This shows the importance of short courses as well as long courses, possibly due to their ability to be integrated more easily into an apprenticeship working schedule

- Half of respondents want 'Hands on staff who are operational'
  Due to the nature of most of the work within the Industry, this statement highlights that a majority of respondents need practical staff and therefore training that supports this

- Issues attracting skilled staff include salary, lack of advanced courses available and awareness of the industry
  This statement helps to shed light on some of the issues in attracting skilled staff; showing that the competitiveness of the salary compared to other industries and the awareness & availability of courses are some of the key issues hindering the influx of skilled workers

- 84% respondents understood what is involved in taking on apprentices
  This shows that the majority of respondents already understand what is needed for taking on an apprentice, and that the correct support structures are what is needed to benefit and support apprenticeships within the industry

- 'Clear Guidance on what training courses are available' was seen as the best help among respondents in deciding what they need for training.
  This shows that demystifying the skills landscape is important for employers within the industry, in order to support apprenticeship schemes, ensure their continuation and ultimately narrow the skills gap within the Industry
1. Apprentices

The respondents of the survey represent a total of 53,703 employees. From that number a total of 1,971 are apprentices which accounts for 3.7% of the total work force.

Respondents are planning to recruit a total of 778 apprentices in the next 2 years.

The survey indicates that, of the 117 companies responding, a total of 52 companies have at least one current Board Member/Director who was previously an apprentice; this accounts for 53.6% of the companies.

<table>
<thead>
<tr>
<th>Total employees</th>
<th>Number of apprentices</th>
<th>Apprentices in the next 2 years</th>
<th>Companies with Board Members/Directors prev. apprentices</th>
</tr>
</thead>
<tbody>
<tr>
<td>53,703</td>
<td>1,971</td>
<td>778</td>
<td>53.6%</td>
</tr>
</tbody>
</table>

2. Training Needs

The survey asked the importance of training needs at various levels of apprenticeship; the data shows a clear trend amongst companies that as the level of apprenticeship increases, so too does the importance of skills training within that particular level. Analysing the data shows that for:

**Level 2** apprenticeships, 39% of respondents saw training as extremely important compared with 12% finding it not important;

**Level 3** apprenticeships, 56% of respondents saw training as extremely important compared with 6% finding it not important;

**Level 4/5** apprenticeships, 56% of respondents saw training as extremely important compared with 14% finding it not important.
3. Training Gaps

Companies were asked about the gap between the current skills training offered/available to apprentices versus what training employers would like to see being implemented within the Industry. This data shows a clear message that the majority of companies who answered the survey feel that current training levels are insufficient for apprenticeships. Analysing the data shows that:

78% of respondents recognised a gap between what training is currently offered and what employers want (22% did not recognise a gap)

4. Requirements of Training

This was a text based question, with respondents providing their own three requirements from training in no particular order. The six most common results have been tabulated with an analysis of the results carried out subsequently.

Table showing the top six responses (in no particular order)

<table>
<thead>
<tr>
<th>Skills &amp; Qualifications</th>
<th>Polymer/Materials Knowledge &amp; Skills</th>
<th>Health &amp; Safety Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Plastics Process Knowledge</td>
<td>Production Engineering</td>
<td>Management Development</td>
</tr>
</tbody>
</table>

This question looks at what employers hope to gain from training their staff. As expected a majority of respondents want to see qualifications and skills attained during the training (with the qualifications helping to serve as proof of skills learned).
In terms of skills, companies highlighted the importance of technical polymer knowledge and theory, but also applicable practical process skills. Further to these answers, popular entries included understanding of the particular role within the business.

Employers also saw a benefit in Health & Safety knowledge being acquired, whilst additionally sales and management skills were suggested. This shows a core value of training to be the upskilling of workers and qualifications (e.g. degrees/HNCs/Apprenticeship level qualifications) to demonstrate both the practical and technical skills required, whilst also other aspects of a company that could affect the employee being of importance in developing a multi-faceted individual.

5. Short Courses

This question asks respondents about how they value Short Courses for training apprentices within the Industry in their ability to narrow the perceived skills gap. The answers to the question show a clear notion that overall, respondents feel these shorter courses for training various levels of apprentices are of value and therefore should continue to be a part of the skills training programme to help narrow the skills gap going forwards. Analysing the data we see that:

83% of respondents see a value in short course training as a viable tool for narrowing the skills gap. (17% did not see a value)

Following on from the previous analysis, respondents were then asked about their own use of Short Courses within the last two years. Comparing the majority yes answer with the previous question, it shows that the value perceived within Short Courses is largely based on employer’s experience in already utilising them with their current apprentices. Analysing the data we see that:
71% of respondents have used Short Courses training within the last two years. (29% have not)

Companies were also asked what they would like to see offered in terms of short courses. The six most common results have been tabulated with an analysis of the results carried out subsequently.

Table showing the top six responses

<table>
<thead>
<tr>
<th>Process (Practical) Training</th>
<th>Basic Polymer Knowledge</th>
<th>Health &amp; Safety Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of the Specific Role within the Business/Industry</td>
<td>Engineering Skills Training</td>
<td>Management Skills Training</td>
</tr>
</tbody>
</table>

This question looks at what employers would like to see in terms of short term training courses. Looking at the answers it is clear that theoretical and practical courses are desired, as well as those combining a mixture of the two. Common answers are found for basic polymer knowledge (theory) as well as skills-based courses where practical learning is undertaken (i.e. mixing techniques / extrusion techniques).

The results show a desire within the industry for a variety of courses; those where practical skills can be progressed; those where theoretical knowledge can be progressed (including basic knowledge, materials knowledge and process learning); those involving an element of understanding the industry and the particular role the employee is in and also those that provide continued learning throughout an apprenticeship and/or career. Further to this the answers given again somewhat highlighted a desire for courses outside of the mainstream to compliment core learning also, with sales techniques, computer skills and management training also being desired.
6. Type of Staff Required

Companies were asked what kind of staff employers are after, to help determine the most desirable attributes that an employer would wish a skilled worker and/or apprentice to possess when entering the Industry. The data shows the most popular attribute as ‘Hands on staff who are operational’, suggesting practicality as most important to the industry compared with technical knowledge. ‘Plastics Engineers with commercial understanding & some basic polymer knowledge’ was the second most popular choice again suggesting that although technical knowledge is desired (basic polymer knowledge), practical engineering capabilities are most important overall to companies. Analysing the data shows that for:

“People with basic polymer knowledge”, 18% of respondents saw this as the best phrase to describe what staff they are after;

“Hands on staff who are operational”, 50% of respondents saw this as the best phrase to describe what staff they are after;

“Plastics Engineers with commercial understanding & some basic polymer knowledge”, 32% of respondents saw this as the best phrase to describe what staff they are after.

Companies also highlighted that the skills desired ultimately were also dependent on the sector within the industry. With increasing demands within the supply chain requiring technical information, although practical skills are still the most desirable, the position of the apprenticeship within the supply chain would ultimately affect which skills were desired most (i.e. sales or R&D would require more technical skills, as opposed to an operator who would require more practical engineering skills).
7. **Issues Attracting Skilled Staff**

Companies were asked about the biggest issues in terms of attracting skilled staff. The six most common results have been tabulated with an analysis of the results carried out subsequently.

<table>
<thead>
<tr>
<th>Salary</th>
<th>Negative Plastics Industry Perception</th>
<th>Lack of Skilled Staff Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Advanced Courses Available</td>
<td>Awareness of the Industry</td>
<td>Location of Manufacturers</td>
</tr>
</tbody>
</table>

Many companies commented on the competiveness of the salary, explaining that it was difficult for the Industry to match the salaries of other manufacturing industries, making the roles less desirable to potential employees.

The negative perception of plastics in general and the Industry was also seen as a limiting factor to recruitment of skilled workers.

Further to this, it was highlighted that there are more technical roles available than skilled staff available; this was explained in part by the lack of advanced (e.g. degree level) polymer engineering courses available, as well as the lack of promotion of manufacturing and also apprenticeships at school level. This has led to a potential lack of awareness amongst skilled students about the opportunities within the industry, compounding the lack of skilled workers available to companies.

Location was another popular answer, with companies suggesting that the locations of manufacturers were limiting the opportunities for more available staff.

Finally, companies cited the lack of Government support (through endorsement of courses and promotion of the industry) as another factor in limiting the worker pool available to the Industry.

In terms of the negative effects of current skills issues on business within the next 10 years, companies showed overwhelmingly that they are at least concerned about the effects, with many of them going further to suggest they are extremely concerned. This highlights the importance of further understanding the current skills gap and the need to put measures in place to reduce it. Analysing the data we see that:

- **43%** of respondents were *Very Concerned* with the potential negative effects on business;
- **49%** of respondents were *Concerned* with the potential negative effects on business;
- **8%** of respondents were *Not Concerned* with the potential negative effects on business.
Funding Options Available for Training

Companies were asked about their understanding of the funding options available for training staff. The majority of respondents appear to not fully understand what funds are available to them to assist with training up staff at various levels. Analysing the data we see that:

72% of respondents *did not* have a clear understanding of funding options available, compared with 28% who *did*.

---

**Percentage of Companies Concerned with the Negative Effect of Skills Issues on Their Business in the Next Ten Years**

![Bar Chart]

**Percentage of Companies Understanding the Funding Options Available for Training**

![Bar Chart]
9. **Requirements Involved in Taking on an Apprentice**

This question looks at the understanding that employers have as to the requirements and work involved in taking on an apprentice. The data shows that despite confusion around funding sources and uncertainty around future skilled workers, the majority of companies understand what taking on an apprentice entails. Analysing the data we see that:

84% of respondents *understood* what is involved in taking on an apprentice. (16% did *not*)

![Percentage of Employers who Understand What is Involved in Taking on an Apprentice](chart)

10. **Trailblazer Apprenticeship Standard**

This question gauges the awareness of the new Trailblazer apprenticeship standard. The data shows that the majority of companies are unaware of the new standard. Analysing the data we see that:

71% of respondents *were not* aware of the new Trailblazer apprenticeship standard.

![Percentage of Respondents who are Aware of the new Trailblazer Apprenticeship Standard](chart)
11. Support and Funding for Training

This question looks at the knowledge companies within the Industry possess in identifying where to get help and support from with regards to being highlighted what training is currently available. The responses show that a majority of companies are not aware of where they can get assistance. Analysing the data we see that:

70% of respondents were not aware of where to get help with regards to signposting to what training is currently available.

Following the previous analysis, assesses how many companies are aware of financial support mechanisms for training within the Industry. Similar to the last few questions on awareness of support, help and funds for training, again we see a trend of the majority of companies being unaware of where to go to access this financial support. Analysing the data we see that:

72% of respondents were not aware of where to go to access financial support mechanisms to assist in training.
12. Decisions on the Needs for Training

This question analyses what companies feel would help them best in deciding what training to provide for staff. Looking at three different statements, the answers were not mutually exclusive and therefore multiple entries could be given. Overall the majority of companies saw ‘Clear guidance on what training courses are available’ as the best help for them. However companies also viewed knowing ‘What training nationally is being undertaken’ as important, with ‘An understanding of how we as an employer are benchmarked against others in the industry’ also supported by many companies as helpful to ascertaining training needs. Analysing the data shows that for:

“Clear Guidance on what training courses are available”, 48% of respondents saw this as the best help in deciding what they need for training;

“An understanding of how we as an employer are benchmarked against others in the industry”, 23% of respondents saw this as the best help in deciding what they need for training;

“What training nationally is being undertaken”, 29% of respondents saw this as the best help in deciding what they need for training.

Additional comments were also submitted for this question, with companies highlighting that encouragement from outside the industry and in the materials recovery industry as important to supporting training. Further to this, companies highlighted that a Government standard training scheme and regular updates on training options from an industry body would serve to help improve training. Companies also commented on analysing properly the skills gap as important to determine what training needs are required for each role within the industry. Some companies also alluded to the importance of all three statements above as having importance in assisting training and ensuring training standards are high.