SCOTTISH TREES AND TIMBER SECTOR LABOUR SUPPLY AND FUTURE DEMAND

PROJECT REPORT - FEBRUARY 2017

1. INTRODUCTION AND BACKGROUND

This report sets out the results of a survey of private businesses in the trees and timber industries carried out by two consultants, Patrick McDaniel of RI Training and Claire Glaister of GR Forestry Consultancy, on behalf of Lantra and the Scottish Forest and Timber Technologies Industry Leadership Group (ILG).

Lantra is the Sector Skills Council for Scotland's land-based, aquaculture and environmental conservation industries. In partnership, they support the development and maintenance of a skilled workforce by promoting the benefits of (and opportunities for) investment in learning and skills development, promote the sector as a positive and rewarding career choice, celebrate the achievements of learners and help to ensure that learning and training provision address industry requirements and skills gaps. Importantly, Lantra also supports skills development for organisations and businesses working to protect and enhance Scotland's environment, impacting positively on biodiversity, wider land use interests and on prosperity and quality of life across rural (and urban) communities and helping to underpin sustainable development across the wider economy.

The Scottish Forest and Timber Technologies Leadership Group is the industry leadership group for Scotland's forest and timber sector. The Leadership Group advise Scottish Enterprise, Highlands and Islands Enterprise and the Scottish Government on matters relating to sustainable economic development and opportunities provided by the forest and timber industries in Scotland.

2. SURVEY PURPOSE & SCOPE

Recognising the importance of a skilled workforce to the sustainability of Scotland's forest and timber industries, the Leadership Group set up a Skills Group to develop a Skills Action Plan and oversee the identification and delivery of a range of activities to help influence learning provision and funding, attract new talent, support new entrants and develop the existing workforce.

One action was for the ILG, in partnership with Lantra, to review and agree terms of reference for a Labour Market Information study to enable them to identify key work areas.

In response, Lantra commissioned this research on skills, current labour supply and future demand for the trees and timber sector with private businesses.

3. CONCLUSIONS AND RECOMMENDATIONS

In order to assist with identifying the decisions required and next steps, the conclusions and recommendations drawn from the research on current labour supply and future demand for the trees and timber sector with private businesses are presented at the beginning of this report, with the findings from the research provided thereafter.

3.1. RECRUITMENT AND RETENTION

The industry is facing a potential labour crisis with an ageing workforce operating in most of the industry sectors. It needs to develop a quick solution for its current labour shortage as well as a more strategic longer term strategy to promote the forest and timber industries and stimulate a greater understanding of the industry and the opportunities it provides. An approach similar to that used by the Woodland Trust Scotland could be considered where effective and engaging marketing, with snappy campaigns, strong messages, visually appealing material based on a good knowledge of their audience has resulted in positive recruitment.

The difficulties highlighted by the industry as a whole in terms of recruiting staff who are fully competent, and that staff commonly leave one organisation to join a competitor, suggests that the industry is only managing to fill these positions by "recycling" the current workforce. If this continues and numbers recruited into the sector do not increase, there will come a point at which the level/options of recycling the workforce becomes unsustainable such that shortages in these roles become much more critical.

The use of and reliance on the contracting workforce was evident and significant and although not a specific criteria targeted by the survey, the feedback received has confirmed a known fact about the status of those working in the sector; particularly those in the harvesting sector. From the data provided, 74% of the workforce recorded by survey respondents are not on company payrolls but are contracted/self-employed subcontractors.

It is therefore important that the industry finds a way of recruiting and retaining younger people (both women and men) to work in the sector.

It is recommended that:
_____

1. Working with industry partners and a marketing organisation, the Skills Group clearly identifies its target audience/s and then develops/promotes a co-ordinated programme of public education and profile raising so that more people understand the component parts of the industry and the opportunities within it;
2. Working with organisations such as Equate Scotland, suggestions be actively sought from women working in the industry in order to highlight opportunities and challenges to recruitment;
3. The short term focus for any promotional activity should be to attract people from other industries such as the oil industry (engineers with transferable skills), the agricultural sector (machine operators with transferable skills) and at those people wishing to change careers and lifestyle;
4. Funding opportunities to support the recruitment and training for areas of skill shortage should be investigated and secured;
5. The Skills Group, working with industry, facilitates discussions between forest machinery manufacturers/supplies and college/education providers to investigate opportunities for offering machinery and training.

_____

3.2. THE STATUS OF TRAINING ORGANISATIONS AND QUALIFICATIONS

There is significant uncertainty amongst the industry over the role and status of Lantra, SSCs, SQA, NPTC and City & Guilds which has resulted in a lack of engagement with the education and training sector. In addition, there is uncertainty over the role and value of vocational forestry qualifications.

The language of current NOS and vocational qualifications that are available to support the implementation of national training initiatives, such as the Modern Apprenticeship programme, is alienating a large proportion of the industry such that some vocational qualifications are not as easily understood/recognised as the City & Guilds/NPTC Certificates of Competence. City & Guilds/NPTC Certificates of Competence and HSE approved certification are both valued and understood and are acknowledged as the qualifications required to practice in the sector. Engineering qualifications are similarly understood and valued.

It is recommended that:
_____

6. Overseen by the Skills Group, Lantra, together with other educational sector organisations, develops promotional activities that enable the industry to engage with and gain an understanding of the different organisations and the roles they play in supporting their education and training;
7. Industry, supported by Lantra and SDS, review the language of the NOS and related vocational qualifications and, using the style format and content of the current City & Guilds/NPTC Certificates of Competence as a guide, translate them into a language that is understood by industry;
8. Lantra communicate these revised qualifications so that they match industry training needs at management, supervisor, technical and operative levels;
9. Industry oversees the development, promotion and delivery of a series of further customised, short training courses, seminars and workshops to meet industry needs.
_____

3.3. EDUCATION AND TRAINING SYSTEMS

The existing education and training provision is not providing for the training needs of the whole industry and needs to deliver more work-ready graduates. There is an insufficient linkage between the education and training sector leading to shortages in appropriate training and a mismatch between the outcomes achieved by students and the requirements of industry.

It is recommended that:
_____

10. An audit of the training provision that supports the forestry industry is completed to identify its strengths and weaknesses and opportunities for development;
11. Lantra and other industry partners should build on the experience gained from this project to help facilitate stronger links between the forestry industry and education sector;
12. Industry and education sectors should better define each other's understanding of "work-ready" in order to clarify what is required of/expected by both sectors;
13. Existing education and training providers submit details of their external short courses to the Skills Group for review and promotion;
14. Working with SDS, Lantra, training providers and other educational sector partners, the Skills Group identifies effective means of promoting the availability of short courses to the sector;
15. The Skills Group identifies a mechanism for capturing and collating the training needs of the forest and timber technologies industries;
16. The Skills Group investigates opportunities for either increased collaboration between the forest and timber technologies industry and existing machinery ring network or the establishment of a standalone forestry "machinery ring" as a source of local training provision.
_____

3.4. INDUSTRY BASED IN-HOUSE TRAINING

In-house training undertaken within the industry is mostly completed informally on the job. For many businesses, training plans and records are primarily used to meet legislative and quality assurance requirements rather than to specifically support workforce development.

The cost of delivering in-house training can be prohibitive, especially when training people how to operate expensive harvesting and extraction machinery. Few companies have a formal training department with trained trainers and training resources to support the development of staff.

A number of companies have however initiated their own in-house programmes to develop their potential workforce (e.g. mentoring, undergraduate/graduate programmes and offering sandwich year placements) or only using known contractors to undertake the work required.

It is recommended that:
_____

17. Lantra work with the industry to develop their in-house training capabilities so that they are better placed to plan, implement and record the development of the workforce;
18. The industry approaches the Scottish Government to help finance the in-house development of machine operators;
19. The Skills Group work with and encourage those who have developed their own in-house programmes to share their experiences in order for good practice to be identified and used to inform other training and qualification provision.

_____

3.5. MEETING FUTURE NEEDS

The industry has historically been adaptable and able to deal with change driven by external events and influences and as such, is in a position where it is well placed to be able to meet future needs.

The industry is forecasting business growth and that this will be facilitated both by technology and people but an increase in the workforce will need to be recruited to facilitate this growth.

It is felt likely that Brexit will impact on business growth but that it is too early to say if it will provide opportunities or possible constraints. It will depend on the deal that is finalised and the way the UK and Scottish Governments manage the change.

It is recommended that:
_____

20. Skills Group partners and industry organisations maintain an active involvement in Brexit negotiations so that any impacts on the workforce can be identified, discussed and minimised.

_____

4. SURVEY METHODOLOGY

The survey methodology comprised the following phases: -

PHASE 1 - DEVELOPMENT

During Phase 1 the research tools were created (questionnaire) and the approach to the research process finalised. During this phase, a potential target group of forest and timber technology businesses were identified representing a cross-section of the sector and encompassing the following range of businesses: -

- Chartered surveyors
- Education sector
- Equipment manufacturers/suppliers
- Forest machinery suppliers
- Forest management companies
- Forestry consultants
- Forestry investment advisers
- Forestry training providers
- Government/Agencies
- Harvesting contractors
- Landowners & estates
- Primary and secondary processors
- Third sector organisations
- Timber hauliers
- Trade Associations/representative organisations
- Tree planters

PHASE 2 - IMPLEMENTATION

During the implementation phase a range of different research methods were used including face-to-face meetings, telephone based interviews and a group workshop.

- Face-to-face/telephone interviews were completed with 22 forest and timber technologies businesses to assist with the completion of the questionnaire. As well as gathering responses to the questionnaire, this method of engagement also encouraged a wider discussion on wider skills issues and opportunities.

- A small group meeting was organised to further support the data collection process. It was targeted at the 70 members of the Highlands and Islands Forest Industry Cluster (HIFIC) and was kindly organised by The Scottish School of Forestry, Inverness College, UHI. This group meeting provided an opportunity for industry representatives to identify and discuss common issues that were seen to be impacting on their business and highlighted some shared concerns about current and future skill requirements.

In total, 47 questionnaires were issued across of range of forestry and timber technologies businesses, as highlighted in *Figure 1. Survey recipients by business type* below.
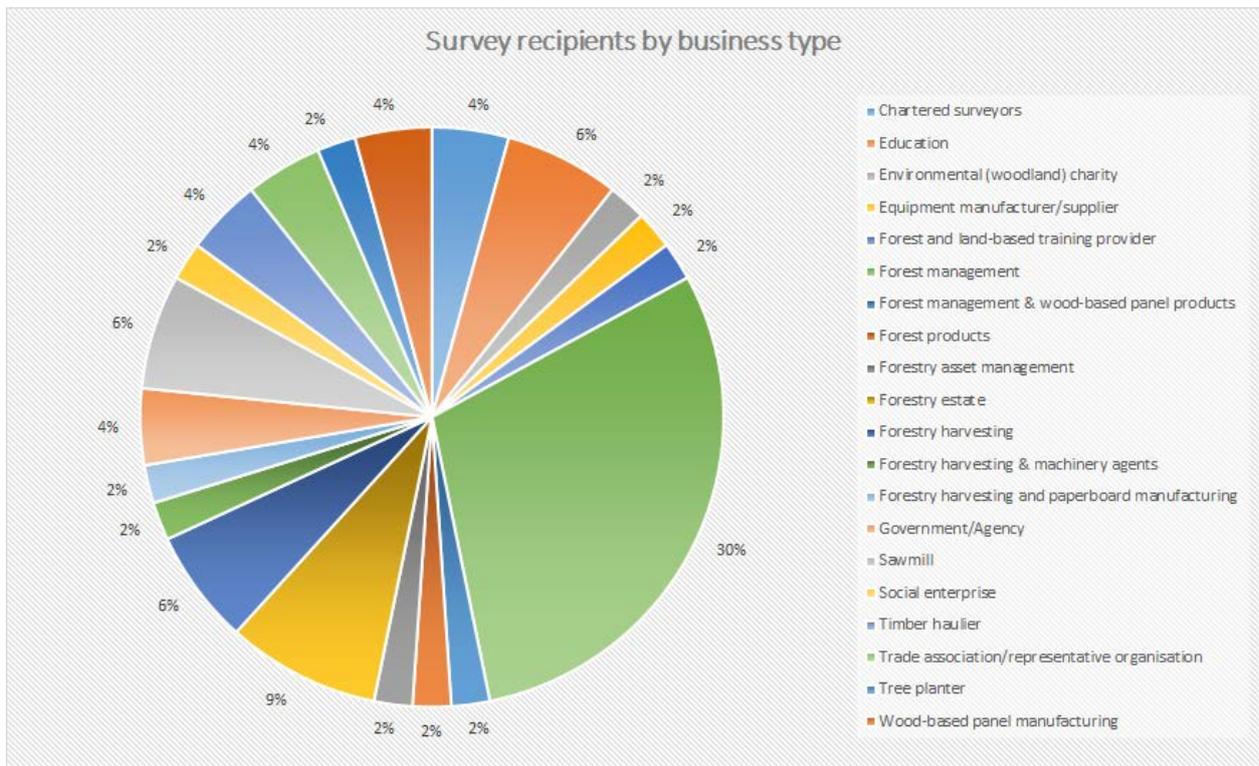

Figure 1. Survey recipients by business type

PHASE 3 - ANALYSIS AND REPORTING

The final phase of the research involved a desk top analysis of the collected data leading to the publication of this report.

4. FINDINGS

The results from the research are presented below. The report is formed into five main areas reflecting the following sections of the research questionnaire: -

1. **Business Background**
2. **Business Workforce**
3. **Training and Development**
4. **Factors driving business change**
5. **The Future**

4.1. BUSINESS BACKGROUND

This section of findings identifies the types of business that participated in the research.

4.1.1. BUSINESS TYPE

Figure 2. Survey respondents by business type below highlights the range of businesses across the forest and timber technology industry who responded to the survey. Whilst the overall number of responses is low (18), these represent a total of 38% of survey recipients and provide an even coverage across a wide cross-section of sectors.
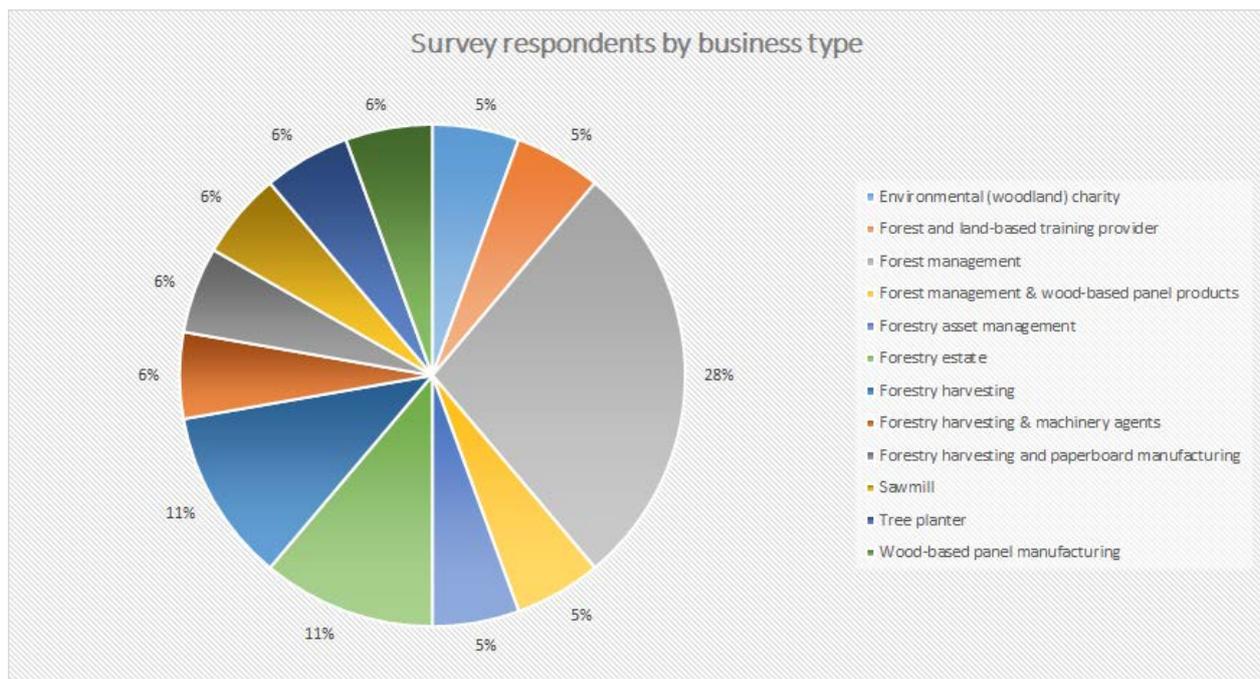

Figure 2. Survey respondents by business type

4.1.2. BUSINESS PLANNING

Respondents indicated that a variety of methods were used for developing the business; these ranging from regular strategic planning, identification of niche markets, geographic expansion, new acquisitions and incremental (organic) growth. At the workshop, the group recognised that one of the key strengths of the industry was its ability to plan and that it has always been dynamic, willing and able to adapt and manage change.

4.2. BUSINESS WORKFORCE

This section identifies key aspects of the research findings linked to the workforce characteristics of the participating businesses.

4.2.1. JOB ROLES, RESPONSIBILITIES AND QUALIFICATIONS

From the survey results it is possible to identify a wide variety of job roles that go to form the forest and timber industries and that link specifically to the different sectors. It is important to note that the diversity of job roles is greatest at an operative level and that at a management level, these differences are less obvious.

The data collected has been presented as two cohorts; the first showing the roles and responsibilities for the identified operative level roles as they pertain to the various sectors and then for the management roles, as specified for the industry as a whole.

4.2.1.1 OPERATIVE LEVEL

The operative level roles below have been identified specifically to the industry sector in which they form a part.

Forestry establishment

Role	Responsibilities	Qualifications held
Ground preparation (mounding)	Machine operation, site preparation	Certificates of Competence HSE approved certification (e.g. first aid, lifting and handling etc.)
Planter	Planting trees	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)
Fencer	Fencing tree enclosures	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)

Forestry harvesting

Role	Responsibilities	Qualifications held
Harvesting operator	Machine operation, cutting timber	Certificates of Competence HSE approved certification (e.g. first aid, lifting and handling etc.)
Forwarder operator	Machine operation, removing timber	Certificates of Competence HSE approved certification (e.g. first aid, lifting and handling etc.)
Chainsaw operator	Cutting and processing trees with a chainsaw	Certificates of Competence HSE approved certification (e.g. first aid, lifting and handling etc.)
Haulier	Transporting machinery	HGV driver certification HSE approved certification (e.g. first aid, lifting and handling etc.)

Primary and secondary timber and timber product processing

Role	Responsibilities	Qualifications held
Machine operators	Timber and timber product processing	HSE approved certification only (e.g. first aid, lifting and handling etc., no qualifications available or required
Electricians	Electrical equipment maintenance and repair	Electrical SVQ qualifications HSE approved certification (e.g. first aid, lifting and handling etc.)
Engineers	Equipment maintenance and repair	Engineering SVQ qualifications HSE approved certification (e.g. first aid, lifting and handling etc.)
Administration	Business support administration	General business administration

Hauliers

Role	Responsibilities	Qualifications held
Drivers	Hauling timber, machines and equipment	HGV certification, HSE approved certification (e.g. first aid, lifting and handling etc.)

Forestry Estates

Role	Responsibilities	Qualifications held
Forester	Forestry	Certificates of Competence HSE approved certification (e.g. first aid, lifting and handling etc.)
Gamekeeper	Part time forestry role linked to deer control, wildlife/habitat grant work	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)
Wildlife Manager	Part time forestry role linked to deer control, wildlife/habitat grant work	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)
Wildlife guide	Part time forestry role linked to wildlife/habitat grant work	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)
Factor	Part time forestry role linked to wildlife/habitat grant work	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)
Countryside ranger	Part time forestry role linked to access management, education, resource protection etc.)	None identified other than HSE approved certification (e.g. first aid, lifting and handling etc.)

4.2.1.1 MANAGEMENT LEVEL

Compared to operative level roles which could be classified by sub sector (e.g. machine operator, tree planter, engineer, fencer etc.,), management roles were described more generically and have therefore been identified for the industries as a whole.

Role	Responsibilities	Qualifications/Professional Memberships held
Senior executive	Business strategy planning and policy. Management of business.	PhD, MBA, BSc, HND, FICFor, MICFor, MIOSH, NEBOSH, D32/33, NPTC, FISA or none specified
Project management	Running the business on a day to day basis. Managing productions processes, contracts etc. Develop and maintain client relations. Provide technical advice. Engage contractors and manage contract operations	BSc, HND, HNC, MICFor, FISA or none specified
Supervisor/foreman	Supervise contract operations and subcontractors, implement and maintain production operations, manage on-site health and safety and environmental requirements	MA, BSc, HND, HNC, NPTC, FISA or none specified
Forestry-technical	Support staff with specialist technical input	PhD, MSc, BSc, HND, MICFor, MIOSH or none specified

4.2.2. INDUSTRY AGE PROFILES

As part of the research, data was collected for the age profile of the workforce in respect of the different roles. The tables below are a summation of these profiles and also include qualifying comments provided by the respondents. As a result of way the information was collected and the variety of different responses received, it is not possible to draw any definite conclusions from this data; the figures should only therefore be seen as an indication of the overall situation.

Role	Age profiles	Qualifying comments from respondents
Forest operatives	18 - 80	There was only one 18 year old and one 80 year old with the majority this group of workers being over 50 years old. All the respondents identified this as a concern going forward.
Timber and timber product plant - operatives	30 - 60	Within this range the majority are 40 years old plus. All the respondents identified this as a concern going forward.
Timber and timber processing machine engineers	27 - 62	The majority of engineers are around 35 years old.
Senior managers	32 to 68	The majority of these managers are in their 50s.
Project managers	23 to 62	No additional comments
Supervisory staff	20 to 67	No additional comments
Forestry technicians	30 to 56	No additional comments

The majority of those interviewed see the lack of younger people in the industry as a major concern, especially for its medium to long term development. Employers are extremely worried about an ageing workforce and indicated the significant risks associated with older machine operators becoming unfit and, as a result, susceptible to illness. Respondents indicated that the implications, if a high production machine operator went off sick, would be catastrophic. One stated that "it would be bad enough if one of my main operators went off for two weeks with a virus but just think what would happen if one of them had to get a hip replacement! That would be a machine lying idle for months".

4.2.3 EMPLOYED STATUS

The use of and reliance on the contracting workforce was evident and significant and although not a specific criteria targeted by the survey, the feedback received has confirmed a known fact about the status of those working in the sector; particularly those in the harvesting sector. From the data provided, 74% of the workforce recorded by survey respondents are not on company payrolls but are contracted/self-employed subcontractors. One harvesting company, for example, stated that of a workforce of 80 machine operators, 72 (90%) are classed as self-employed contractors. In terms of forest management/harvesting/processing businesses, two companies cited that of a total workforce of 2,196, 1,650 (75%) were sub-contractors.

4.2.4. GENDER

As shown in Figure 3. Job roles by gender below, from the responses submitted, 85% of job roles are being undertaken by men, highlighting the dominance of men in the sample of the forest and timber technologies workforce included in this survey.

Of all those organisations who responded, only the environmental (woodland) charity had a higher percentage of women (52%) than men (48%) in its workforce. A greater percentage of men than women were recorded as carrying out the majority of job roles with the exception of non-trees & timber tasks, where 59% of professional/technical (e.g. legal, marketing, accounts) and 77% of administrative roles were held by women.
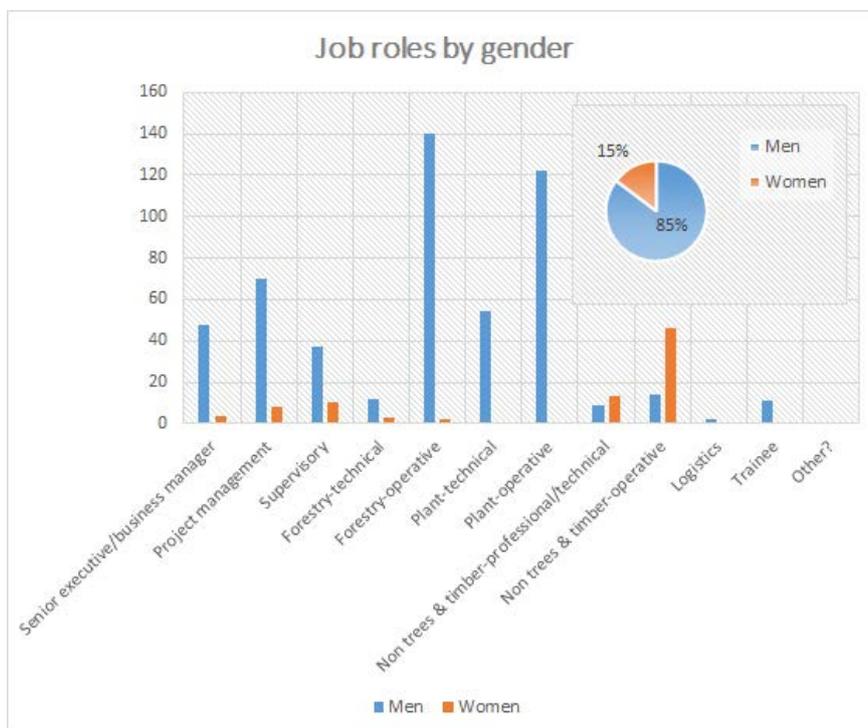

Figure 3. Job roles by gender

4.2.5. NATIONALITY OF EMPLOYEES

From the survey it is possible to identify that the industry employs a range of different nationalities. As well as Scottish nationals, English and Welsh workers are also employed and in addition, a number of people originate from mainland Europe including those from Poland, Germany, Latvia, Czech Republic and Ireland. The survey identified that a high proportion of the planting activities are undertaken by teams of Latvians.

4.2.6. STAFF RECRUITMENT AND RETENTION

In terms of turnover of staff, 57% of respondents highlighted that they don't have a high turnover of staff. In forest management businesses, the highest turnover was reported in forest worker/contractor roles, for the harvesting sector, in forest machine operators and project management staff and in the timber and timber product sector, in mechanical fitters. This latter turnover was attributed to a local shortage of skilled engineer/fitters, the very transferable nature of these skills and a high demand for these skills from non-trees and timber industry businesses. Three respondents also reported difficulties in recruiting roles based in remote locations. One forestry contractor reported that he had recently lost a young person because of the travel requirements associated with the work, with the employee citing that travelling for an hour or more to the site was not acceptable to them.

As shown in **Figure 4. Reasons for leaving** below, when staff leave forest management/harvesting businesses, most stay in the forest industry but move to a similar role with another company (competitor). Businesses in the timber and timber product sector however reported that staff leave the sector as they can get better money in a similar job out with the forestry and timber technologies industries. Retirement was the only other response given.
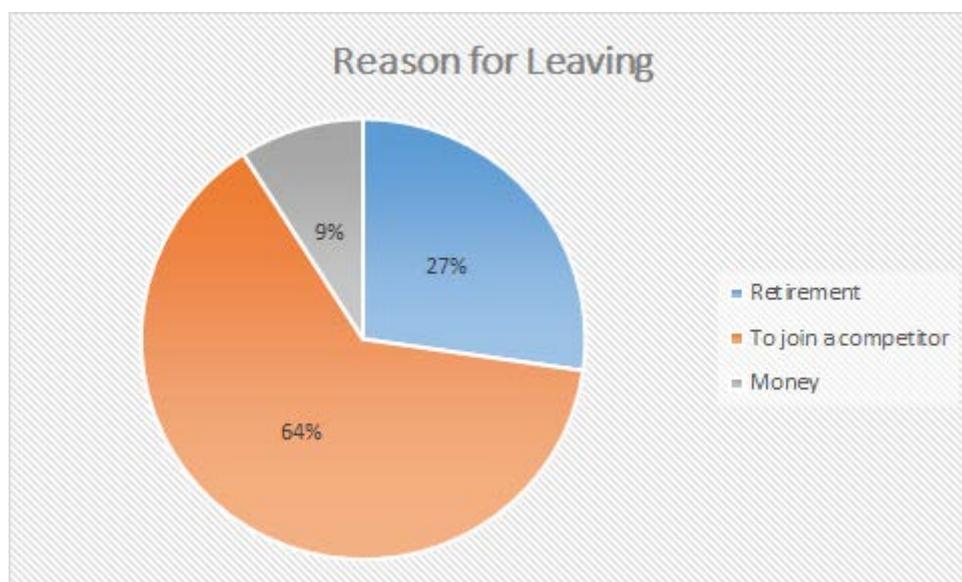

Figure 4. Reason for leaving

In terms of the ease of recruitment, 50% of those who reported a low staff turnover also reported no difficulty in recruiting staff who were fully competent although they recognised that as their turnover of staff is low, this could be more a result of not needing to recruit in recent times than of there being a good pool of potential employees from which to recruit.

61% of respondents indicated that it was not easy to recruit staff who were fully competent, citing the requirement for one role to carry out multiple tasks, the specialist nature of the job and competing offers as key reasons.

In the forestry sector, roles that were reported as difficult to fill were predominantly in project management (e.g. forestry manager/harvesting manager), with supervisory (e.g. site managers) and forestry operatives (e.g. forest workers/contractors) also being reported by three organisations.

A number of respondents highlighted that recruitment has become more difficult because of the influence of Brexit. Prior to the vote, currency exchange rates encouraged skilled Europeans to come and work in the UK but following the fall of the pound since the vote, coming to work in the UK is considered far less attractive with the result that numbers of potential workers have dwindled.

In terms of how employees are recruited, respondents highlighted a range of methods including organisation websites, e-portals and internally, forestry publications, technical papers and industry bodies (e.g. ICF), local press, word of mouth, Job Centres, colleges and universities, social media (Facebook, Twitter), specific recruitment sites (e.g. www.environmentjobs.co.uk and www.s1jobs.com) and through staff progression (e.g. apprenticeship programme/sandwich year placements).

The method used for recruitment varied according to the role, with specialist roles (e.g. Utilities) advertised in Job Centres, project management roles predominantly through organisation website, trade press and industry organisations and supervisory/operatives roles by word of mouth and in the local press.

Generally in respect to recruitment, the overall impression gained from the survey was that it not easy to recruit people with right skills and knowledge as they are in short supply.

One contractor also reported that when recruiting experienced operators, despite having the relevant skills, they don't always have the right attitude for the work and do not care about health and safety, the environment, wildlife or anything else other than their wage packet at the end of the week.

4.2.6 CHALLENGES FACED WHEN RECRUITING STAFF

The survey questionnaire asked people to identify some of the main challenges being faced in respect to recruitment.

A common theme that was felt to restrict recruitment was the way in which the industry is perceived. The consensus of the workshop group was that industry does not sell itself very well and that even in areas local to forestry-based business, there was a general lack of knowledge by the general public of the scale and complexity of the industry on their doorstep and of the opportunities this presented; for example, the job of a machine operator is well paid and is becoming very hi-tech with the growing requirement for integrated IT systems supporting the operation of the machinery.

In addition, respondents commented that they felt there is a perception that the practical hands-on jobs associated with forestry and tree work are not sufficiently valued and as such are not being promoted to younger people. They also expressed concern that the focus of schools seems to be to push brighter children to higher level qualifications (e.g. degrees) instead of recognising the potential offered by more practical careers.

Other concerns were expressed when trying to recruit to higher level management positions. It was felt that some applicants were seen as time wasting and just 'fishing' and were not really serious about taking on the work, hence time was being wasted in respect to recruitment activities etc.. This time wasting even occurred when using recruitment agencies.

The indirect cost of recruitment and subsequent training was also highlighted as a major problem, particularly with the recruitment of machine operators. With the high running costs of machinery (estimated at £1,000.00/day), the cost of providing in-house support to develop the skills required to be a competent machine operator is prohibitive. Respondents indicated that it is very costly to use machinery for training new staff as it is likely that the machines will be running at less than optimum speed and hence losing money. Many of those interviewed felt that access to external funding to supplement this type of staff development would be an important contribution that would help to address staff shortages.

Difficulties in promoting confidence in the sector that the work is available was also cited as a challenge for recruitment. In addition, a number of respondents indicated that that the long hours of lone working and increasing regulation and associated risks were recruitment challenges.

Lifestyle choice was also seen as important factor in recruitment as to work in forestry, there is a requirement to work away from home in rural and often very remote areas. At the workshop, it was felt that the Government's focus towards recruiting young people is not appropriate to the needs of the industry; a lot of young people do not want to live and work in remote rural areas due to the social limitations compared with modern city life. It was therefore felt that focusing on the recruitment of slightly older individuals who are looking to change careers would be more beneficial.

4.3. TRAINING AND DEVELOPMENT

This section identifies key aspects of the training and development processes employed by the participating businesses.

4.3.1 TRAINING AND CERTIFICATION

For the most part and across all sectors, training and development of new staff is delivered through a combination of both informal, in-house training and external courses.

Some of the larger companies reported that they use annual appraisals, training plans and other management systems as a means of identifying their training needs. Typically training plans and records were held where there is either a regulatory or quality assurance requirement to do so.

Figure 5. Training records and **Figure 6. Training plans** below highlights that a greater proportion of respondents (75%) keep training records compared to those who develop training plans (44%). It should be noted too however, that 3 businesses indicated that whilst they develop training plans for most of their workforce, they do not do so for senior executives/business management roles.

Figure 5. Training records

Figure 6. Training plans

Structured formal training is commonly used to support mandatory requirements (e.g. forklift, lifting and handling, first aid etc.) and is delivered by external providers (e.g. City & Guilds/NPTC, Lantra Awards, FISA).

Some respondents either indicated that as their businesses/roles are specialised, they would expect to have to provide training to most new staff or that all education and training requirements would be organised in-house.

One business expressed concern that their internal training was not as good as it should be however, this due to a lack of in-house training capacity and inexperience of working with/training young people.

Survey respondents also expressed concern over the general lack of local training provision. For example, a timber product company highlighted that Barony College had previously offered an SVQ in sawmilling but that despite this being well received, the course folded before it could be completed.

A number of respondents saw a need for more training to be delivered by the education sector in order to help offset the loss of the Forestry Commission's training branch as an industry training provider.

4.3.2 EDUCATION AND TRAINING SYSTEMS

Variable responses were given regarding the current *education system* (e.g. colleges and university programmes), though there was some commonality of view that forestry courses no longer meet industry needs as more practical and business management skills are required. Respondents highlighted that pre-college experience and sandwich years had previously been a prerequisite for entry onto/progression within some courses and that this provided a good opportunity to combine theoretical knowledge and understanding with the practical skills that are needed to work effectively in the sector.

One contractor commented that when the colleges had delivered training in the past the quality of the trainees was not of an acceptable standard and as such the 'qualified' trainees were not employable. Linked to this it was felt important that the college should be working more closely with local employers to ensure that the skills delivered to students were appropriate to the job role.

Another concern expressed was that within the education sector there is too much of a focus on degree level qualifications and that the university route is promoted above others as a way of becoming more employable. The concern/perception is that college/university courses no longer focus on basic forest management skills (e.g. silviculture/mensuration etc.) or on the skills areas that are actually carried out on the ground/required in the workplace, these including the following: -

- Commercial forestry
- Contract management
- Finance/business
- IT - GIS, Excel
- Machine operation
- Engineering
- Driving
- Logistics
- Grants & licences
- Non-forestry legislation and funding

Responses also suggested that the industry needs more "work-ready" graduates and a more effective bridge between academic qualifications and industry practice.

A number of companies cited that they are seeking to address these issues either by only employing suitably qualified staff (e.g. MICFor), initiating their own in-house programmes to develop their potential workforce (e.g. mentoring, undergraduate/graduate programmes and offering sandwich year placements) or by using known contractors to undertake the work required. Suggestions were also made that an apprenticeship-type approach would be beneficial.

Concerns were also expressed at the lower number of graduates coming through the education system, a reduction in choice of academic institutes offering forestry and a fall in the pure science content of current programmes.

With regard to the shortage of machine operators cited by a number of respondents, a majority felt that there is a lack of resources available to support forest machine operator training and as result, the availability and quality of the training is not what it should be. It was felt that the colleges/training providers need to be in a position where they can offer machine training to the standard required by industry.

A model of college-led provision was suggested as it was highlighted that businesses cannot afford to train machine operators on-the-job as this would result in circa £300K machines not working at full capacity while the operator was being trained. To achieve this, respondents recognised that the education system would need to be fully resourced and should work more closely with the machinery and equipment manufacturers.

It was also felt that there could be an opportunity to develop on-line learning materials to support the development of machine operators, thus providing opportunities for individuals to develop their skills and knowledge locally and reduce the need to travel to college.

In terms of the *training system* for the existing workforce, for the most part, responders cited that training needs are best met by short, customised courses covering specific subject areas; these being delivered both in-house and by external agencies. A number of companies reported that they would seek to source the latter through organisations such as the ICF and whilst a number indicated that they have previously gone to the Forestry Commission to source such courses, they reported that this no longer appears to be an option (or that only very limited courses are available).

A number of respondents expressed concern that some technical training courses (e.g. forest machine operator training, ATV driving, spraying, tractor driving, chainsaw refreshers/quad bikes) are very difficult/impossible to source and/or that industry-led training initiatives (e.g. FISA courses) have taken a long time to implement due to training capacity issues. Concern was also expressed that some CPD-type courses aren't always at the right level to meet business requirements.

Frustration has also been expressed at the lack of a co-ordinated (on-line) resource which would enable businesses to look for, book and pay for courses that they required.

Whilst some specific comments were made on the current education and training system, what was apparent from survey responses was a general lack of understanding of the education and training system as a whole, the organisations involved and their roles and responsibilities and of the qualifications themselves.

In respect to the organisations involved, whilst respondents were aware of the terms Lantra, SSCs, SQA, NPTC, City & Guilds etc., there was uncertainty over the role each has and of their status in the education system. It was recognised during discussions that this uncertainty has impacted on the take up of training opportunities.
Specifically with regard to vocational qualifications and the NOS on which they are based, concern was expressed over the language that is used. Much is seen as 'jargon' and although supposedly being aimed specifically at the sector, it does not use terms that people can either understand or relate to their businesses or areas of work. As a result, there is generally a low level of knowledge of these qualifications across the industry as a whole.

There was also a feeling expressed by respondents that there is too much change in respect to qualification titles and requirements which again has led to uncertainty and confusion and a negative impact on potential take-up.

With the City & Guilds/NPTC Certificates of Competence however, this confusion is not as apparent; those interviewed can recognise what tasks are being described in the qualification, what needs to be done to achieve it and hence why the Certificates are relevant. It is perhaps not surprising therefore that the industry recognises Certificates of Competence much more widely than other vocational qualifications and that these are prerequisites for a wide range of operational activity and common used, particularly across operative levels.

4.4. FACTORS DRIVING CHANGE

When asked to identify factors which are driving change in the business and which could impact on training needs, the following responses were given: -

- The lack of training opportunities and funding to encourage and support entry into the industry;
- The pace of technological change and the increasingly important role of technology within all job roles;
- Unpredictability of the Government's attitude to woodland creation
- Expanding timber production;
- The increasing demand for/availability of timber for the sawmilling, processing, construction and biofuel sectors;
- The general lack of trained machine operators and the age and of current operators;
- The cost of machinery and finance;
- Investor interest in UK forestry;
- Changes in and uncertainty about exchange rates;
- Regulation (e.g. environmental, health and safety, fundraising).

4.5. THE FUTURE

This section identifies how the future is perceived by the participating businesses.

4.5.1. FUTURE BUSINESS GROWTH

Over 70% of respondents stated that they are forecasting business growth and that this would be facilitated both by technology and people. 69% of respondents however indicated that they do not have the workforce at present to facilitate this growth and would require increases of between 10 - 50% in certain roles within their organisations.

4.5.2. FUTURE WORKFORCE REQUIREMENTS

At an industry-wide level, future shortages were highlighted in the following key roles which, with the exception of forest managers, are primarily focused at the operative level: -

- Forest machine operators
- Forest managers
- Chainsaw operators
- Sawmill operatives
- Engineers
- Hauliers/drivers
- Planting contractors
- Maintenance contractors

In addition to the job roles above and the skills needs highlighted in **Section 4.3 Training and Development** above, respondents also cited communication, interpersonal skills, safety awareness, organisation, prioritisation and subject specific skills as being future requirements for either their own organisation or for the industry as a whole.

4.5.3. EDUCATION AND TRAINING

Respondents recognised that there is a need for significant investment in the current education and training system to be made in order to make it fit for purpose and capable of supporting the industry effectively.

4.5.4. THE IMPACT OF BREXIT

With regard to the impact of Brexit, many respondents suggested that it was too early to say and that it could provide either opportunities or possible constraints depending on the deal that is finalised.

In the short term however, impacts on the *forest management* sector have widely been seen as positive (strength of the pound/investor confidence etc.). Conversely, In the *timber technologies* sector, the resultant higher costs for imported supplies were reported as having a negative impact. Similarly, respondents from the *contracting* sector reported that Brexit has already had a negative impact on their businesses as they have lost some of their skilled European workforce as a result of negative exchange rate changes as these have made it much less profitable to work in the UK.

Medium to longer term, concerns over the impact on Brexit focused, not surprisingly, on the availability of grant funding - for woodland creation and wider industry initiatives - the associated timescales for implementing the changes and any instability that could be caused as a result. Questions were posed on whether the Scottish Government be able to provide the same level of support.

Concerns were also expressed that the level of planting could also decline as a result of a smaller workforce being available; at present, many planting jobs are undertaken by Latvians who may be required to leave the UK.

From the forestry harvesting sector point of view, another concern expressed was associated with the reduction in the value of the pound. Given most forestry machines are manufactured in Europe, it was highlighted that this could result in machines becoming even more expensive.

Whilst not Brexit-related, concern was also expressed over the future status of Forestry Commission Scotland.

The impact of Brexit on recruitment showed a high degree of variability with some respondents identifying this as a potentially significant issue (either on their own direct recruitment or that of the contracting resource), one respondent highlighting it could result in some consolidation of the sector, thus freeing up suitable qualified and experienced staff and others citing that they anticipated it would cause either no or a minimal effect.

It was felt again by the majority of those who responded that it is too early to say and could go either way - providing either opportunities or possible constraints – and would depend on the deal that is finalised with regard to the employment of foreign workers. That said, for those who already employ European workers, it was recognised that Brexit could make things worse because there could be even fewer immigrant workers available to undertake work.

A number of respondents did suggest that Brexit could result in an economic gain to the Scottish economy overall; if businesses were no longer able to employ non-UK personnel, the money earned would stay in the local economy.