



A

MODERN APPRENTICESHIP

IN

Industrial Applications

FRAMEWORK DOCUMENT
FOR
SCOTLAND

AT SCQF Level 5

Semta

Amended March 2018

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Modern Apprenticeships in Scotland

What are Modern Apprenticeships?

Modern Apprenticeships offer those aged over 16 paid employment combined with the opportunity to train for jobs at operator, craft, technician and management levels.

Who develops them?

Modern Apprenticeships are developed by Sector Skills Councils (SSCs). SSCs consult with employers and key partners in their sector to produce an apprenticeship training programme, which meets the needs of employers.

Who are they for?

Modern Apprenticeships are available to employees aged 16 or over. Employees need to demonstrate to their employer that they have the potential to complete the programme. All Modern Apprentices must have a demonstrable need to acquire significant new knowledge and skills to fulfil their job role. The Modern Apprenticeship framework selected for the employee must be the most appropriate learning programme generally available to that individual, providing such knowledge and skills.

What's in a Modern Apprenticeship?

In Scotland, there are more than 70 different Modern Apprenticeship Frameworks, for a wide range of sectors and they are all designed to deliver a training package around a minimum standard of competence defined by employers through the relevant SSCs. There are four different levels of Apprenticeship in Scotland: SCQF 5 (SVQ 2), SCQF 6/7 (SVQ 3), SCQF 8/9 (SVQ 4) and SCQF 10 (SVQ 5). They all contain the same 3 basic components:

- A relevant SVQ (or alternative competency based qualifications)
- Core Skills
- Industry specific training

Details of the content of this specific Modern Apprenticeship are given in the next section.

Modern Apprenticeships in Industrial Applications

Many reports have highlighted the fact that whilst Scotland has higher skills and qualification levels than many of our global competitors, our productivity continues to be lower. This is illustrated both in the Scottish Governments Employability and Skills: Taking forward our National Conversation – “The central challenge to raising Scotland's future economic performance and living standards within the economy is to improve our productivity performance. Productivity levels in the Scottish economy (based on output per hour worked) currently lie below a number of other OECD countries. Raising our productivity performance will enhance the competitiveness of Scottish firms and help to ensure that the Scottish economy is well-placed to seize the future growth opportunities which arise as the global economy recovers” and Future skills Scotland: The skills content of jobs in Scotland and the rest of the UK – “A number of commentators have noted that, relative to the rest of the UK, Scotland's workforce is relatively skilled - at least as reflected in the qualifications held by its workers. However, in contrast, productivity in Scotland remains below the UK average.”

Employers see the need for this across a range of levels and have asked for the creation of a Modern Apprenticeship at SCQF level 5 for people working in process operations. This is clearly not just an Engineering Modern Apprenticeship but is required for employees who are/will be manufacturing/production focussed or work in the industrial arena where there is a need to improve productivity.

The Industrial Applications Modern Apprenticeship (MA) will directly target the needs of employers to raise their productivity whilst helping employees and the wider Scottish Economy as a whole. To ensure a high degree of quality and consistency is maintained across the Scottish Landscape only approved Training Providers will be authorised to deliver, this is standard practise in other engineering MA's. Semta's original research indicated that there will be a net requirement of approximately 1,500 people at SVQ SCQF Level 5 between 2013 and 2016 across our sector.

Whilst this is targeted largely at manufacturing type industries, input from employers across the industrial spectrum has indicated that this framework would be suitable for their needs. This includes supply chain employers in the Oil & Gas, Life Science and Food & Drink sectors.

BIT Pathway (2015) Background

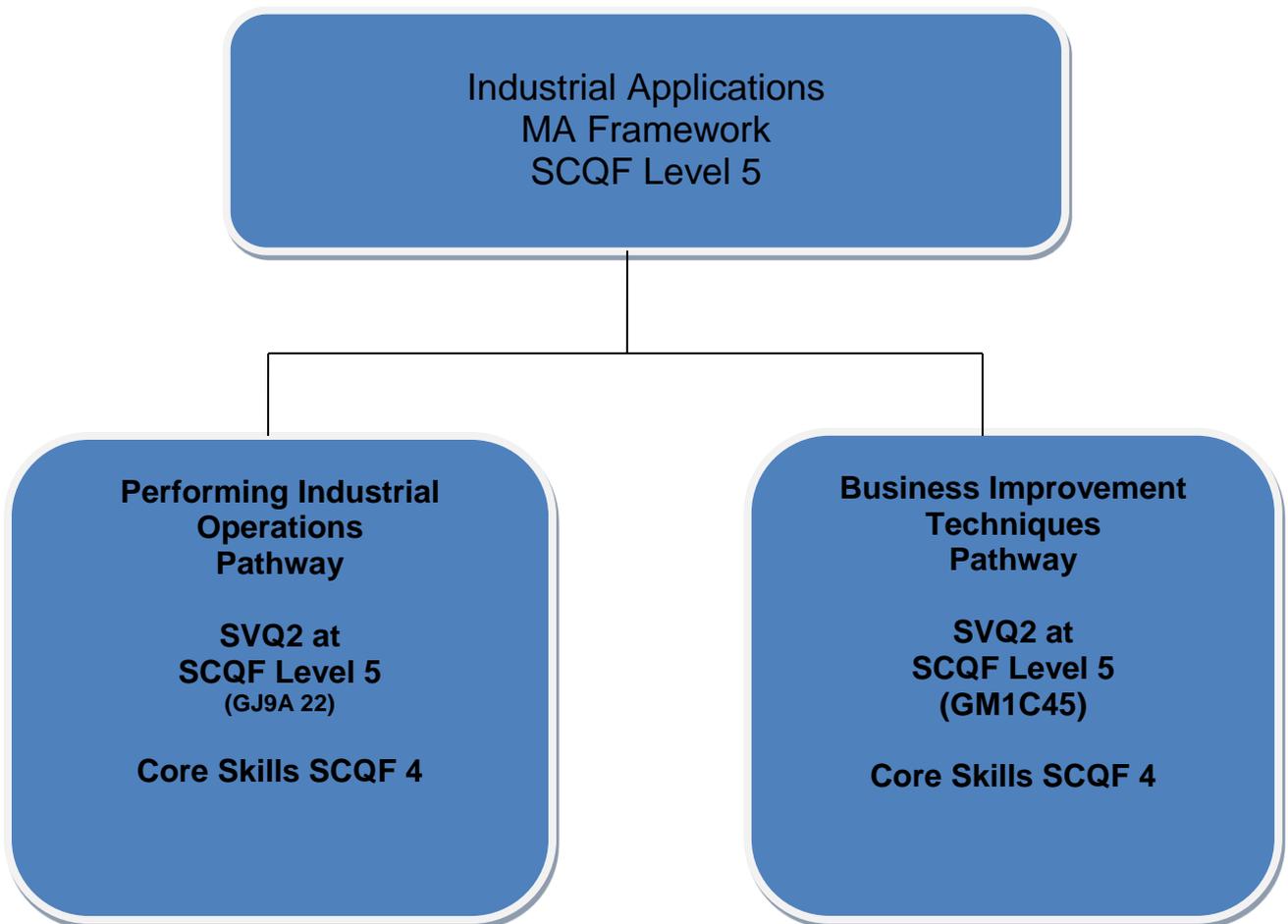
The increasing demand for business to be competitive and create a lean operating environment to increase and maximise productivity as highlighted in the initial rationale above has become a priority, and the need to improve quality and process operations within the advanced manufacturing sector has seen organisations appoint specific personnel to job roles to support these outcomes. Post launch of the Industrial Applications framework, Semta has been actively promoting this framework during the last 12 months with those Employers and identified Providers on initial consultation, including extending the centre approval for many to actively deliver this framework through Semta's robust Modern Apprenticeship Centre Approval arrangements.

However It became apparent during the promotion and active direct engagement with Employers that there was an increasing demand and feedback from those engaged, for Semta to consider a B-IT (Business Improvement Techniques) Modern Apprenticeship at SCQF Level 5, and that Employers and Training Providers were active in delivering this training in this discipline for many companies already. Many Employers cited that whilst Performing Industrial Operations was suited to a percentage of the their operative staff there was a growing need to support specific operative roles that were wholly focused on process and quality improvements, as more and more Employers were introducing and sustaining Lean Manufacturing programmes into their business and this was seen as critical to continuing success and expansion. We continued to gather this feedback from our activities and based on our evidence set out intentions to seek project bid funding from UKCES to develop this interest further. Also we sought further guidance and concluded on advice that we should seek to incorporate it as a pathway into our Industrial Applications Modern Apprenticeship Framework rather than create an independent new framework.

This framework with the addition of the new pathway will help employers have a better qualified and more productive workforce, and at the same time provide a stepping stone for many people who might otherwise not get on to the qualification skills ladder. The introduction of the B-IT pathway in the Industrial Applications MA will increase the number of registrations and uptake of the framework as a whole by increased flexibility for semi and skilled operatives and give young people and adults links to Further Education (FE), Approved Industry Training, SQA Awarding outcomes in recognised qualifications and a framework that that has been quality assured externally and is recognised by those in the sector.

Summary of the Framework

Diagram showing the contents of the Modern Apprenticeship in Industrial Applications at SCQF Level 5



Duration

It is expected that apprentices following this framework will take between 12 to 18 months to complete. Whilst there is no mandatory time to be set aside for off-the-job training, centres will be expected to deliver off-the-job training as required for candidates to gain the commensurate knowledge to support their functional roles and their competency across the chosen pathway units.

Mandatory outcomes

SVQ or alternative competency based qualification

One of the following must be achieved:

- SVQ2 Performing Industrial Operations at SCQF Level 5 (GJ9A 22) EAL
- SVQ2 Business Improvement Techniques at SCQF Level 5 (GM1C45) EAL

Core Skills to be separately certificated

- | | |
|--------------------------------------------|-------------------------------------|
| • Communication | SCQF Level 4 Award No F426 04 (SQA) |
| • Working With Others | SCQF Level 4 Award No F42N 04 (SQA) |
| • Problem Solving | SCQF Level 4 Award No F42J 04 (SQA) |
| • Information and Communication Technology | SCQF Level 4 Award No F42E 04 (SQA) |
| • Numeracy | SCQF Level 4 Award No F42A 04 (SQA) |

Enhancements

None

Optional Outcomes

Additional SVQ Units/Qualifications/Training

Whilst there are no other mandatory requirements for this framework some employers may find it beneficial to consider the Career Enhancement Programme <http://www.equatescotland.org.uk/news/helping-female-engineers-and-their-employers-realise-their-full-potential> It is designed to help women in traditionally male dominated industries further their careers, by analysing their current position in the workplace and identifying objectives for future progression.

Additionally it is suggested that employers and candidates consider appropriate qualifications or training prior to or as part of this framework. This could include qualifications such as PMO/PEO at SCQF Level 4 or other basic skills off-the-job courses which could aid in using hand tools correctly or demonstrating understanding of safety and regulations for example. The uptake of these will further improve completion rates.

The Framework

Duration

It is expected that apprentices following this framework will take between 12 to 18 months to complete. Whilst there is no mandatory time to be set aside for off-the-job training, centres will be expected to deliver off the job training as required for candidates to gain the commensurate knowledge to support their functional roles and their competency across the chosen pathway units.

Mandatory Outcomes

SVQ(s)/ CBQs

Each apprentice is required to achieve one of the following qualifications:

- SVQ2 Performing Industrial Operations at SCQF Level 5 (GJ9A 22) EAL
- SVQ2 Business Improvement Techniques (Process Improvement) at SCQF Level 5 (GM1C45) EAL

All Scottish Modern Apprenticeships must contain relevant Scottish Vocational Qualifications (SVQs) or Competency Based Qualifications (CBQs). SVQs and CBQs are work-based qualifications based on National Occupational Standards of competence (NOS) drawn up by representatives from each industry sector. They are made up of units – normally between six and ten – which break a job role down into separate functions reflecting the different kind of activities that a job requires. SVQs and CBQs are available at a range of levels – although most are at SCQF Levels 5, 6 and 7 (SVQ Level 2 and 3). When someone has achieved an SVQ or CBQ, there is a guarantee that they have the skills and knowledge needed to be competent in their job role.

Core Skills

Each apprentice is required to achieve the following core skills:

Communication	SCQF Level 4 Award No F426 04 (SQA)
Working with others	SCQF Level 4 Award No F42N 04 (SQA)
Problem Solving	SCQF Level 4 Award No F42J 04 (SQA)
Information and Communication Technology	SCQF Level 4 Award No F42E 04 (SQA)
Numeracy	SCQF Level 4 Award No F42A 04 (SQA)

Core Skills need to be separately certificated to achieve this framework

Core Skills are skills and abilities which everyone needs in their work. This is true for every job in every workplace. Core Skills also feature in National Qualifications such as Standard Grades and Highers and from 2,000, Scottish candidates have been issued with a Core Skills profile on their Scottish Qualifications Certificate. Candidates who have already been certificated as achieving Core Skills at the levels given above – either in the workplace or at school or college - do not need to repeat these Core Skills as part of the Modern Apprenticeship Framework.

Enhancements

There are no Mandatory Enhancements for this Framework

Optional Outcomes

Whilst there are no other mandatory requirements for this framework some employers may find it beneficial to consider the Career Enhancement Programme <http://www.equatescotland.org.uk/news/helping-female-engineers-and-their-employers-realise-their-full-potential> It is designed to help women in traditionally male dominated industries further their careers, by analysing their current position in the workplace and identifying objectives for future progression.

Additionally it is suggested that employers and candidates consider appropriate qualifications or training prior to or as part of this framework. This could include qualifications such as PMO/PEO at SCQF Level 4 or other basic skills off-the-job courses which could aid in using hand tools correctly or demonstrating understanding of safety and regulations for example. The uptake of these will further improve completion rates.

Registration and certification

This Scottish Modern Apprenticeship is managed by Semta. The SSC is the first point of contact in Scotland for any enquiries in relation to the Framework content. Contact details:

Semta
Unit 2 – Orient Centre
Greycaine Road
Watford
Hertfordshire
WD24 7GP

0845 6439001

The SSC will register all Scottish Modern Apprentices undertaking this Framework. **All Modern Apprentices must be registered with the SSC within 4 weeks of starting their apprenticeship via the MA 2 online system.**

For framework information, rejection notices and delivery of printed certificates please contact Semta on 0845 6439001 or certification@semta.org.uk

All Modern Apprentices must be registered onto the MA online 2 system at <https://modernapprenticeships.org/web/> at the beginning of their apprenticeship.

Training providers must apply for the apprenticeship completion certificate via the MA 2 online system.

The certification body will look at each claim, when they are received in “Awaiting Certificate” section of the online system. Once authorised a certificate will be issued and dispatched. If a claim is rejected due to insufficient or incorrect evidence the training provider will be informed via an email that is automatically generated by the system.

The MA online support team can be contacted on 0300 303 4444 or maonline@fiss.org

In the case of MAs who receive funding, it is acceptable for the Skills Development Scotland Training Plan to be used on the condition that it includes all relevant information as set out in the MA Training Plan (Appendix 3).

The SSC will issue a Modern Apprenticeship Certificate of Completion to those Modern Apprentices who have completed the mandatory outcomes of the Framework. Before a certificate is issued, training providers must submit evidence to the SSC that the mandatory outcomes have been achieved. This will be in the form of scanned electronic copies of certificates from awarding organisations up loaded via the MA 2 online system.

Requests for registration and certification should be made to the SSC at the address above via the MA 2 online system.

SSC Service level

The SSC undertakes to confirm the registration of candidates in through the established electronic system and receipt of the relevant Training Plan and Training Agreement. Each candidate will be issued with a unique registration number.

The SSC also undertakes to issue Certificates of Completion within 10 days of receipt of the appropriate evidence that a candidate has completed the outcomes as stated in the framework.

Recruitment and selection

The recruitment and selection of Modern Apprentices is primarily the responsibility of the employer. However, the following guidance is given:

- Employees may enter a Modern Apprenticeship from the age of 16. There is no upper age limit.
- The Modern Apprenticeship is designed to attract high quality people to the industry. Achievement of academic qualifications is one way of assessing the suitability of applicants. However it should be stressed that no persons should be deterred from applying for a Modern Apprenticeship because of a lack of formal educational qualifications. As well as traditional qualifications such as Standard Grades and Highers, employers should also be aware of newer vocational qualifications or vocational activity undertaken outside an academic institution, such as volunteering activity.
- The following factors may also influence the selection process:
 - performance during a formal interview process
 - references
 - relevant work experience
 - trial observation period
- Employers should be aware of the nature, relevance and quality of foreign qualifications and make appropriate allowances concerning entry requirements.
- In order to promote and maintain the high status of the Modern Apprenticeship within the industry all literature distributed for recruitment purposes should emphasise the high standards of achievement expected of the candidate.
- Employers may wish to contact the SSC for advice and guidance on recruitment and selection.

Most employers have their own recruitment and selection procedures. Many also work closely with their Training Provider Partners in the process when reviewing and selecting Modern Apprenticeships candidates. Many Group Training Associations have good integrated procedures supporting employers which work consistently well.

Whilst there are no specific sectorial requirements for entry on to this Modern Apprenticeship, individual candidates may find it useful to have undertaken basic skills off-the-job courses, which could aid in using hand tools correctly or demonstrating understanding of safety & regulations. Therefore candidates are likely to require some mandatory safety training either pre-employment, or have access to safety training through their immediate employer, or any specific pre-employment training programmes arranged for the Industry.

Equal opportunities

Modern Apprenticeships should ensure that there is equality of opportunity for all and any barriers (real or perceived) are addressed to support anyone seeking to enter employment to undertake the Modern Apprenticeship.

All MAs supported by Skills Development Scotland must conform to any contractual requirements on equal opportunities. All employers of Modern Apprentices should have an Equal Opportunities policy statement.

Health and Safety

All aspects of health and safety at work must be recognised within the delivery of this Modern Apprenticeship Framework and all statutory requirements be adhered to. It is a key aspect of the induction period of the Modern Apprenticeship that apprentices are fully informed both of the regulations and that they and their employers are bound by these regulations. Modern Apprentices should be made aware of their rights and duties with regard to health and safety.

All Modern Apprentices supported by Skills Development Scotland will be required to satisfy the adequacy of SDS's Health and Safety policy and systems.

Contracts

The following three contracts are essential to the successful outcome of the Modern Apprenticeship programme:

1. Contract of employment signed by the employer and the Modern Apprentice.
2. SSC Training Agreement - this agreement outlines the basis of the modern apprenticeship, refers to the contract of employment and includes Health and Safety responsibilities. A sample SSC Training Agreement is set out in Appendix 3.
3. SSC Training Plan - this plan outlines the selected outcomes and the expected duration of the apprenticeship. In cases where funding is offered by SDS, the SDS Training Plan will be sufficient on condition that it contains all relevant information as set out in the Sample Training Plan at Appendix 3. Training Plans may be modified to reflect changing circumstances; however it is essential that the SSC is notified of any changes.

Employment status of Modern Apprentices

It is important that the sector offers genuine employment and career prospects to those people it wishes to attract through Modern Apprenticeships. Accordingly, **all apprentices must be employed for the duration of the apprenticeship.**

All Modern Apprentices must have a demonstrable need to acquire **significant new knowledge and skills** to fulfil their job role. The modern apprenticeship framework selected for the employee must be the most appropriate learning programme generally available to that individual, providing such knowledge and skills.

Terms and conditions of employment

In order to compete with other sectors offering Modern Apprenticeships, attractive packages will need to be developed by employers in the sector. The terms and conditions of employment for individual Modern Apprentices will be agreed between the employer and the apprentice and should form the contract of employment.

Training and development

Delivery

Training delivery can take many forms under the Modern Apprenticeship system. Some organisations may become approved SVQ Assessment Centres; others may join a consortium or use peripatetic assessors. Some large employers will be able to complete all the training and development in-house, but most employers will find that some of the training and development will have to take place away from the normal workplace. In particular the underpinning knowledge requirements are often more suited to delivery by outside training providers which might include:

- private training organisations
- colleges / universities
- other employers

Such knowledge could be delivered through training courses or through open/distance learning packages.

The option of sharing training and assessment resources amongst a cluster of employers (or across the divisions of a larger employer) will be particularly appealing to those firms which do not have the resources to provide all of the training and development. Assessment can be provided by these bodies, but the assessors and the training centre must be approved by the awarding bodies for the SVQ and Core Skills where appropriate.

List of Training Providers

The original framework submission provided for the framework is initially to be communicated and marketed only to those Training Providers (around 50) who have a track record in delivering the Engineering MA frameworks across the length and breadth of Scotland and there is a continuation of that activity as an on-going strategy. However over the last 12 months a significant amount of Employers and Training partners using the framework have supported the inclusion of a Business Improvement Techniques (B-IT) Pathway in addition as the qualification was already being delivered and Employers were keen to have it recognised within an MA framework.

Semta hold an up to date list of training providers who it regularly supports and promotes Engineering related frameworks and disciplines; Semta can supply a list of those providers on request.

In support of the above, further consultation in 2014/15 has been undertaken and in addition to Semta's 50 approved Modern Apprenticeship centres, the support of the Providers and Employers mentioned below additionally support the introduction of the B-IT Pathway and they are currently actively engaged in the SVQ delivery already.

Further Education Colleges already approved and currently delivering B-IT to Industry partners include Forth Valley, Fife College, Ayrshire College, Borders Training, with industry partners including GSK. PepisCO already deliver to other UK sites and are committed to delivery in Scotland post consultation with SDS and Semta and Fife College. Also Scotrail have successfully piloted the B-IT components with training partner Qualitrain and are keen to extend the programme to include new employees and new role recruits in the B-IT pathway.

Delivery of Training for the Modern Apprenticeship in Industrial Applications

Work-based training

Delivery and assessment method

Training delivery can take many forms under the Modern Apprenticeship system. Some organisations may become approved SVQ Assessment Centres; others may join a consortium or use peripatetic assessors. Some large employers will be able to complete all the training and development in-house, but most employers will find that some of the training and development will have to take place away from the normal workplace. In particular the underpinning knowledge requirements are often more suited to delivery by outside training providers which might include:

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The option of sharing training and assessment resources amongst a cluster of employers (or across the divisions of a larger employer) will be particularly appealing to those firms which do not have the resources to provide all of the training and development. Assessment can be provided by these bodies, but the assessors and the training centre must be approved by the awarding bodies for the SVQ and Core Skills where appropriate.

In relation to the B-IT Pathway the expectation is that delivery will take place directly within Employer workplaces and that knowledge and theory will form part of training inputs whilst gaining the qualifications components.

Skills required by training providers delivering the training

Providers should have access to staff/ assessors with commensurate experience and be technically competent in the specific work area of assessment and training and meet the terms of their chosen awarding organisation for the components that underpin this framework. It is expected that Assessors and internal Verifiers will hold the required up to date qualifications for the purpose of assessment and up to date Industry experience.

Delivery of underpinning knowledge (if no formal off-the job requirement)

Apprentices will acquire underpinning knowledge through a number of mediums, although not all providers will use the same arrangements. Employers working with Training Providers and FE Colleges may arrange for formal off-the-job training or arrange either day release or block release as required. Some employers are likely to use their own in-house training arrangements and facilities where available. In addition to these arrangements some providers will use open learning and distance materials, working with partner institutions to develop materials as appropriate.

In relation to the B-IT pathway there is no formal requirement for off-job-training, candidates will be required to gain their knowledge through their achievements and progression of their SVQ, employers FE and training providers will be expected to take and make the necessary arrangements for this to be successfully imbedded in their programmes of training delivery.

Off-the-job training

Details of off-the-job training (please state if not applicable)

There are no formal requirements set out within this framework for a separate period of Off-the-Job Training. Organisations will using a variety of methodologies to deliver the underpinning knowledge and understanding related to the SVQ units of Competence as detailed in ' Delivery of Underpinning knowledge'

Delivery and assessment method

There is no requirement for separate Assessment of knowledge, understanding and off-job elements. This will be assessed as part of Assessment of overall SVQ units

Exemptions

This is not applicable to this framework

The SSC training plan

The plan is required to identify:

- 1 The selected Framework outcomes, specifying whether or not separate certification of the Core Skills is being sought
- 2 A summary of the Modern Apprentices' accredited prior learning
- 3 A timetable for achievement of the selected Framework outcomes, linked to regular progress reviews

The Training Plan should take into account any relevant previous training and development, education or work experience. Not all Modern Apprentices need have different plans, but many will vary. Moreover as reviews take place and circumstances change so the plan itself can be modified.

However any changes must:

- be subject to the quality provisions of Skills Development Scotland (if the MA is being financially supported)
- comply with the stipulations of this Framework
- meet the needs of the employer and apprentice.

A sample Training Plan is provided at Appendix 3 of this document; however, for those Modern Apprentices funded by SDS area office, it is sufficient to submit the Skills Development Scotland Training Plan on condition that it covers the same information required in the MA Training Plan.

Consultation Process

Initial Consultation on the Original framework

Initial discussions on the need for this type of Framework began in 2011 when a number of Blue Chip employers such as BAE and Rolls Royce began to ask for the introduction of a Level 2 MA Framework for the sector to support their activities. Numerous discussions and meetings were held and feedback gathered and various iterations of a possible Framework solution were examined, proposed, and rejected. The considerable support and information gained during this period was used when the consultation process for this version began in January 2013.

Consultation events were held with Semta's existing Engineering MA Training Provider network (of almost 50 approved providers) at 3 separate locations in East, West, and North of Scotland. Training Providers (some of which are employers such as BAE) were asked for their own feedback and to engage with the employers they currently work with to provide feedback on the proposed title, qualification structure, and Core Skills level. Subsequent group meetings with employers e.g. Aerospace Skills Forum and other stakeholder's employers groups such as CEED/SDS and FAMES were held to gather additional feedback on the proposed Framework. Group sessions were also held with Training Providers such as EKGTA and (as was) Kilmarnock College's own employers. Finally a much wider one to one consultation exercise across the length and breadth of Scotland with employers was undertaken to ascertain what shape the framework would take, and the likely demand.

Whilst Semta are now comfortable with the structure and demand for this framework, we have continued to make it clear during the consultation that this is not an Engineering MA but a progression route available to that Framework should it be required by people with skills in quality and process operations.

Employers who have indicated support for this Framework embrace a range of large and SME organisations including: Rolls Royce, BAE Systems, Babcock International Group, Castle Precision Engineering, Thales, Weir Group, Raytheon, Steel Engineering, BA Regional Aircraft, Spirit AeroSystems, Bartlett's, Scotrail, Howarth Switchgear, LifeScan, Honeywell, Selex Galileo, Clyde Union Pumps, MB Aerospace, GE Caledonian, James Walker Devol, Brush Barclay, Ardagh Glass, OKI, BioFilm, Philips Lighting, Scrimsign, Archibald Young, Wedge Group Galvanising, Highland Galvanizers, Alexander Dennis Ltd, Fleming Innovative Plastics, Jabil Circuits, Fergusons, Pyramid Windows and Doors, CMS Enviro, Chesapeake Packaging, United Biscuits, Grants Distillers, Fujifilm, and DSM.

One large employer stated "This framework would provide a route for roughly 20 – 25 apprentices registered per year as we would be able to use the rigging and lifting units to support our core activity". Medium and Small employers quoted "After speaking to my production management team and my MD, the Modern Apprenticeship in Industrial Applications is something that we would be very interested in taking part in. We have a number of employees who have been with the company a long time who are just as skilled, if not more than the machinists who are time served, we want to be able to give these guys a chance to better themselves and get a qualification. We are one of the few manufacturing companies left in our area and we need help to better our workforce" and "Some of our employees have come from the NEET group whilst others have been with us a while but are not fully proficient. The introduction of this modern apprenticeship would allow us to ensure both sets have the correct core skills and necessary vocational skills to make them more productive and effective. We are a relatively small player in the supply chain of larger Scottish employers like Allied Vehicles, and need to become more productive to ensure job security and allow growth" respectively.

The consultations concluded that the level of Core Skills being suggested was appropriate and that there should be no academic component within this framework. This latter point was raised by many employers who felt that this would help satisfy their demands that there was a clear distinction between candidates who had completed an Industrial Applications MA and an Engineering MA. Additionally the vast majority of employers wanted this framework to be predominantly delivered on the job with the exception of one of the mandatory units. The exception to this was those employers who wanted to use the framework for office based job roles such as project planning assistants or CAD assistants, and the qualification structure was modified to meet these requirements.

Employers identified a wide variety of job roles where they would use this framework. These would include but not be limited to: technical operators, process operators (basic treatment of metal or plastic products electrolytically

with chromium, zinc, copper, cadmium or other metal to provide protective or decorative surfaces or to build up worn surfaces), “green button” pushers (loading and unloading CNC machines but not programming or engineering), project planning assistants, CAD assistants, manufacturing operators (“to enable them to complete simple planned preventative maintenance tasks or minor breakdown repairs”), metal workers (simple repetitive bending and cutting type work), maintenance operative assistants, basic machine operatives (simple repetitive punching, notching, and shearing), plastic fabricators (mix various ingredients called for by the formula they are following and subsequently cut the plastic material to the specified measurements with knives, cutters, shears, saws or routers depending on the most appropriate tool or equipment).

In terms of demand, given the preponderance of SMEs who may only recruit one person every 3 or 4 years at this level, forecasting uptake is more difficult. However, given the involvement of a number of large employers we are comfortable in expecting a minimum demand of around 50 candidates in the first year, increasing to over 100 per year as the framework becomes widely available and is promoted by Semta and the large Training Provider network across the length and breadth of Scotland. In addition with the inclusion of B-IT pathway the framework allows for more roles within organisations to be in scope in terms of frameworks outputs.

B-IT (2015) pathway consultation

Some of the information above formed part of the initial evidence and support for the introduction and redevelopment of the Industrial Applications Modern Apprenticeship Framework. The original submitted evidence remains valid in respect of updating the framework and the now proposed addition of a Business Improvement Techniques (B-IT) Pathway. In addition to contacting many of the Employers and Training Providers listed below in the initial consultation, further face to face meetings and an event on the 24th June 2015 (attendees are listed below) has supported the inclusion of B-IT pathways in both Quality and Process routes. Employers including Wincanton, ScotRail and PepisCo support the inclusion of this pathway with these companies already actively training in Business Improvement Techniques, and the inclusion of this pathway allows for formal recognition of training and development being undertaken and productivity gains within these companies. They have in total indicated some 100 possible apprentice starts on the B-IT pathway next year if it was available. These companies also run similar B-IT apprenticeship programmes in England with very successful outcomes and have indicated that they would like be able to duplicate this in Scotland for consistency and to aid the movement of B-IT skilled employees. The addition of a B-IT pathway also widens the scope and use of this framework for employers and employees and provides for an opportunity to engage large cohorts of employees in a skills and development Modern Apprenticeship programme.

As highlighted above, evidence was gathered and gained through direct Employer engagement when promoting the existing Industrial Applications Framework. Semta used a number of other methods to engage Employers and stakeholder groups in Scotland. Our strategy included using Social Media, providing information and feedback via our Website, Facebook and Twitter. In addition Semta e-mailed directly some 800 plus Employers extracted from our CRM system covering all Employer sizes and geographical locations in March - May 2015. From the responses Semta visited a number of companies for 1:1 consultation and direct feedback on the addition of the new pathway. Semta additionally communicated our intentions and sought feedback from our 52 approved Modern Apprenticeship Centres which includes 20% employers and 12 Regional Colleges in May 2015. Below is a list of Companies, Training Providers and Colleges that formed part of our larger consultation exercise and responded directly to Semta in support of the consultation and inclusion of the B-IT (Business Improvements Techniques) pathway. Overall Semta received responses from 40% of our Modern Apprenticeships centres and also one third of the 12 regional Further Educational Colleges that were contacted. In addition 15 face to face Employer visits were carried out, see below for the list. Further evidence was received from SDS Employer support team during their direct engagement with employers.

Consultation Questions asked were:

- Do you use Business Improvement Techniques in your business?
- Do you have specific job roles or functions related to B-IT?
- If a modern apprenticeship in B-IT at SCQF L5 was available would you recruit employees to the scheme?
- How many possible apprentices would you take on if the MA B-IT pathway was available?

Direct responses of interest came from the following:

Wincanton (also attended event)
Scotrail
Alexander Dennis (also attended event)
Forth Valley College (also attended event)
Fife College
MetTECH (also attended event)
Ayrshire College (also attended event)
Borders Training (also attended event)
MIEMid Training (also attended event)
West Scotland College (also attended event)
Qualitrain
PepisCo
GSK (via Ayrshire College)
GBR Dupont
Rolls Royce
Serimax
RWG (Rolls Wood Group)
Castle Precision
Score Ltd (Peterhead Group Training responded on behalf of Score as they undertake their apprenticeship training)
Plexus
Mainetti
Scottish Leather Group (via SDS)
Rearo (via SDS)

Face to Face meetings to discuss the B-IT pathway with:

PepisCo (via contact with SDS and Fife College)
Wincanton
Alexander Dennis
Forth Valley College
Ayrshire College
West of Scotland College
Borders Training
GBR Dupont
MetTECH
Castle Precision
RWG (Rolls Wood Group)
Plexus
Mainetti via Borders Training
HSPEC Engineering
Serimax

The consultation and evidence from the event previously mentioned concluded that the level of Core Skills being suggested within the framework was still appropriate for the new pathway and that there should be no academic component within this framework. This latter point was raised by many employers who felt that this would help satisfy their demands that there was a clear distinction between candidates who had completed an Industrial Applications MA and an Engineering MA.

Additionally the majority of employers wanted this new pathway to be predominantly delivered on the job and that qualifications and contents of B-IT supported this approach. Those already delivering the content were doing so directly within the work environment and the knowledge aspects are also delivered on site and as part of SVQ outcomes.

In relation to, Employers have clearly identified the following job roles and functions as specific outcomes for the B-IT pathway:

- Materials Handler - Ensuring part-machined or assembled products are delivered at the right time and place for further machining or assembly operations. Delivery accuracy is key as well as taking waste out of material movements
- B-IT Administration Operative - Office-based administration role involving continuous improvement of manufacturing processes leading to higher quality, reduced cost, and reduced lead times (delivery)
- B-IT Quality Control Operative - Monitoring quality in the manufacturing process, generating statistical and graphic data to measure and ensure continuous quality improvement
- B-IT Shopfloor Process Operative - Analyses assembly techniques to optimise the process, improving quality, cost and delivery

Extracts from the Original Industrial Applications Consultation that remain valid

Whilst Semta are now comfortable with the structure and demand for this framework and pathways, we have continued to make it clear during the consultation that this is not an Engineering MA but a progression route that is available to that Framework should it be required including the proposed pathway for BIT which are incorporated at Higher level in the Engineering Framework and Technical Framework

Those employers who indicated their initial support for the original performing industrial operations pathway which embrace a range of large and SME organisations including: Rolls Royce, BAE Systems, Babcock International Group, Castle Precision Engineering, Thales, Weir Group, Raytheon, Steel Engineering, BA Regional Aircraft, Spirit AeroSystems, Bartlett's, Scotrail, Howarth Switchgear, LifeScan, Honeywell, Selex Galileo, Clyde Union Pumps, MB Aerospace, GE Caledonian, James Walker Devol, Brush Barclay, Ardagh Glass, OKI, BioFilm, Philips Lighting, Scrimsign, Archibald Young, Wedge Group Galvanising, Highland Galvanizers, Alexander Dennis Ltd, Fleming Innovative Plastics, Jabil Circuits, Fergusons, Pyramid Windows and Doors, CMS Enviro, Chesapeake Packaging, United Biscuits, Grants Distillers, Fujifilm, and DSM have communicated that lean manufacturing techniques are critical and place increasing importance on them within their business to remain competitive.

In terms of demand, given the significant number of SMEs and the introduction and growth of Lean Manufacturing into the sector it is likely that recruitment to specific job roles will increase. Therefore given the involvement of a number of large employers already involved in B-IT training we are comfortable in expecting a minimum demand of around 100 candidates in the first year for this new pathway and increasing year on year as the framework pathway becomes widely available and is promoted by Semta to the large Training Provider network across the length and breadth of Scotland.

Other stakeholders:

Awarding organisations are already committed to offering the range of qualifications required for the additional pathway within this framework and the B-IT SVQs have been extended for use until 2017. In addition Semta has a commitment to review the B-IT national occupational standards (NOS) to ensure they remain up to date and current as part of our 2015/16 UKCES contract and subsequently Awarding organisations commitment for new replacement SVQs post 2017, supporting the longevity of the framework and new pathway. Furthermore the B-IT pathway proposal has been communicated to the ESLG (Engineering Scottish Leadership Group), SMAS (Scottish Manufacturing Advisory Service) and STUC members (Scottish Trade Union Council) ASLEF; BFAWU; Community; GMB; Prospect; RMT; TSSA; UCATT and Unite. To date the union members have raised no concerns with the new pathway proposal.

Career progression

Following completion of the Modern Apprenticeship, candidates should be able to achieve progression in areas such as:

It is anticipated that progression will be available from this Modern Apprenticeship to other MA Frameworks and a range of further vocational and academic qualifications. We believe that this framework may also provide the first step on the ladder for many people who are currently in employment but have little or no formal qualifications, thus actively promoting continuous learning and the Scottish Governments perspective that vocational education should be both lifelong and prestigious and is supportive of the introduction of both Foundation and Advanced apprenticeships in the sector.

Horizontal Progression: Progression to College for full time/part time study, or Company in-house training or other Engineering frameworks where achievements allow for part recognition (all of which could then lead to Vertical Progression).

Vertical Progression: Progression to other higher level Frameworks for Engineering at SCQF level 6/7 or the Engineering Technical Framework at SCQF level 8 including Careers Skills to further enhance promotion and career prospects.

It is envisaged that a Professional Framework will become available in the Advanced Manufacturing sector. Success in this framework will be a progressive step towards that objective for candidates who have an interest in pursuing learning at a higher level.

Appendices

APPENDIX 1

Stakeholder Responsibilities

Many organisations and individuals share the responsibility for ensuring that the Modern Apprenticeship programme is implemented to the highest possible standard. They include:

- Awarding Organisations
- Employers
- Modern Apprentices
- Modern Apprenticeship Group (MAG)
- Sector Skills Councils (SSCs)
- Skills Development Scotland (SDS)
- Training Providers

Role of the Sector Skills Councils

SSCs are responsible for developing Modern Apprenticeship Frameworks and are required to work with employers in their sectors to ensure that all Frameworks meet the needs of employers in their sectors.

For details on your sector's SSC, follow the link to the Federation for Industry Sector Skills and Standards website <http://fisss.org/>

Role of Skills Development Scotland (SDS)

MA frameworks are used by employers as part of their workforce development to train new employees and up-skill existing members of staff. They can be (and often are) used regardless of whether financial support is available from the delivery body who currently provides a 'contribution' towards the cost of delivery. However, only approved MA Frameworks will be eligible for funding support from Skills Development Scotland who should be contacted to establish the availability and level of support for each MA Framework.

Further information is available from: <http://www.skillsdevelopmentscotland.co.uk/our-services/modern-apprenticeships.aspx>

SDS provides advice and guidance to individuals on the range of Modern Apprenticeships and training providers available. Individuals are signposted to opportunity providers who offer training in the vocational areas of interest.

Responsibilities include:

- Supporting the Modern Apprentice with on-going Career Planning advice
- Signposting candidates to suitable vacancies
- Promoting the Modern Apprenticeship route on the Skills Development Scotland website
- Facilitating recruitment events that bring together jobseekers and opportunity providers

Role of the Awarding Organisations

A significant proportion of the Modern Apprenticeship is based on the assessment of the apprentice against SVQs/CBQs or SVQ/CBQ units. These qualifications are accredited by the SQA Accreditation and the Office of the Qualifications and Examinations Regulator (Ofqual) and are offered by Awarding Organisations.

It is the responsibility of the Awarding Organisations to ensure that centres are approved, that assessors and verifiers are suitably qualified, trained and monitored, and that all of the assessment criteria of the SVQs/ CBQs and SVQ/CBQ units are fully met.

Role of the Training Provider

The role of the training provider is important to the success of the Modern Apprenticeship. A training provider can be a further education college, a private or voluntary training company or in some cases the employer themselves or employer partnerships.

Training Providers are responsible for:

- Confirming an appropriate MA programme for candidates
- Agreeing the training needs of the candidates
- Agreeing roles and responsibilities for on the job training
- Agreeing where off the job training will be required and defining roles and responsibilities for this with relevant parties
- Ensuring trainee/candidate has access to the best quality training opportunities available
- Ensuring that the Modern Apprentices and employers fully understand the principles and processes of competence-based assessment
- Registering of MA candidates with the relevant SSC (and Skills Development Scotland if appropriate)
- Compiling and agreeing assessment schedules/assessment plans
- Judging performance evidence
- Completing assessment records
- Reviewing candidates progress at regular intervals
- Submitting records and evidence for moderation
- Advising the Modern Apprentice who to approach for support, advice, encouragement and in case of complaint

Role of the Modern Apprenticeship Group (MAG)

MAG is an independent group drawn from key stakeholders involved in the management and delivery of the Apprenticeship programme in Scotland.

MAG is responsible for:

- Approval and re-approval of Modern Apprenticeship Frameworks
- De-approval of Modern Apprenticeship Frameworks
- Encouraging best practice across Modern Apprenticeship Frameworks and sectors

Role of the Employer

Employers' responsibilities include:

- Paying all Modern Apprentices in accordance with company policy and in line with current legislation
- Agreeing roles and responsibilities for on the job training

- Agreeing where off the job training will be required and define roles and responsibilities for this with relevant parties
- Highlighting opportunities for the Modern Apprentice to demonstrate competence
- Meeting with Trainers, Assessors, Verifiers and the Modern Apprentices to review progress
- Witnessing candidate performance and verifying evidence
- Releasing Modern Apprentices for college/off-the-job training in line with training plan
- Ensuring the experience, facilities and training necessary to achieve the outcomes of the training plan
- Supporting and encouraging Modern Apprentices and rewarding achievement
- Taking responsibility for the Health & Safety of Modern Apprentices

Role of the Modern Apprentice

Modern Apprentices have the same responsibilities to their employer as any other employee. In addition they have a range of commitments to their training programme.

Modern Apprentices' responsibilities include:

- Observing the company's terms and conditions of employment
- Agreeing a training/development plan with all parties involved
- Undertaking development in line with agreed training plan
- Attending meetings with trainers, assessors and verifiers as required
- Attending college/off-the-job training where required
- Providing evidence of competence
- Developing a collection of evidence (portfolio) and retain ownership of this throughout
- Behaving in a professional manner throughout

APPENDIX 2

Modern Apprenticeship Centres (MACs)

Modern Apprentices may only be registered through organisations approved by the SSC to deliver this Framework. Such approved organisations are called Modern Apprenticeship Centres (MACs).

The MAC may be the employer of the apprentice or a separate organisation such as a training provider, further education college, a private or voluntary training company or in some cases the employer themselves or employer partnerships.

In order to be approved, organisations must make a formal application to the SSC, seeking approval and establishing that the centre satisfies the following criteria:

Either

- 1 be approved by an appropriate Awarding Body as a centre for the assessment of the relevant SVQ/CBQ (and Core Skills if these are being separately certificated)

or

- 2 be capable of demonstrating a contractual relationship with another approved centre for the assessment of those units for which the MAC does not have approval from an appropriate Awarding Body.

In addition

The SSC will maintain a database of MACs for the delivery of the Framework within Scotland, which will be available to employers and others.

Organisations wishing to become MACs who have yet to obtain the necessary Awarding Body approval for assessment should first contact the Awarding Body direct.

Organisations wishing to be accredited with SQMS (or other appropriate quality system) should contact Skills Development Scotland.

In addition to the assessment of the Modern Apprentice against the relevant standards set by the selected Framework outcomes, the MAC has responsibility for:

- Entering into a formal training agreement with the employer and Modern Apprentice
- Registering Modern Apprentices as candidates for the relevant SVQ/ CBQ (s) and other selected units with the appropriate Awarding Body
- Registering Modern Apprentices with the SSC via the MA 2 online system at <https://modernapprenticeships.org/web/>
- Applying for the final 'Certificate of Completion' on behalf of Modern Apprentices via the MA 2 online system
- Informing the SSC of any material alterations to Modern Apprentices' training plans or desired changes to the selected Framework outcomes.

APPENDIX 3



MODERN APPRENTICESHIP SAMPLE TRAINING AGREEMENT

This Training Agreement is entered into by:

Name of Employer:	
Name of Modern Apprentice:	
Name of Modern Apprenticeship Centre:	

The **Employer’s responsibilities** are to:

- 1 employ the modern apprentice subject to the employer’s usual terms and conditions of employment;
- 2 provide the modern apprentice with the facilities, training and work place opportunities necessary to achieve the selected Framework outcomes specified in the apprentice’s personal training plan;
- 3 pay the modern apprentice an agreed salary which reflects the obligations of the employer and the opportunities for the apprentice;
- 4 in the event of the employer becoming unable to retain the modern apprentice after completion of the apprenticeship, to use reasonable endeavours to secure employment elsewhere;
- 5 in the event of the apprenticeship being terminated prematurely by either the employer or modern apprentice for any reason other than dismissal for unsatisfactory performance or misconduct, to use reasonable endeavours to secure employment and continuation of this apprenticeship elsewhere;
- 6 operate a formal Health and Safety policy and undertake the necessary legal and contractual responsibilities for health and safety of the modern apprentice; and
- 7 operate an Equal Opportunities policy which meets all legal requirements.

The **Modern Apprentice’s responsibilities** are to:

- 1 work for the employer in accordance with the agreed terms and conditions of employment;
- 2 undertake training, attend courses if required, keep records, and take assessments to be determined by the employer and/or Modern Apprenticeship Centre, and carry out such work as may be required in order to achieve the selected Framework outcomes specified in the apprentice’s personal training plan;
- 3 be diligent, punctual, behave in a responsible manner and in accordance with the requirements of Health and Safety legislation relating to the apprentice’s responsibilities as an individual; and
- 4 promote at all times the employer’s best interests.

The **Modern Apprenticeship Centre’s responsibilities** are to:

- 1 agree the content of the modern apprentice’s personal training plan as confirming that the selected Framework outcomes and training plans meet the criteria of this modern apprenticeship
- 2 contract with the employer to provide the training and assessment necessary to enable the modern apprentice to achieve the selected Framework outcomes specified in the apprentice’s personal training plan; and
- 3 use its best endeavours to ensure that the employer provides the modern apprentice with the facilities, training and work place opportunities necessary to achieve the selected Framework outcomes specified in the apprentice’s personal training plan.

This agreement to be signed by all parties:

Employer		Date:
Modern Apprentice		Date:
Modern Apprenticeship Centre		Date:



MODERN APPRENTICESHIP TRAINING PLAN

The Modern Apprenticeship Centre

Name:
Address:
Telephone:
Contact:

The Modern Apprentice

Full name:
Home address:
Work address:
Date of birth:

The Employer

Name:
Address:
Telephone:
Contact:

Skills Development Scotland office

Name:
Address:
Telephone:
Contact:

Framework selected outcomes
Mandatory outcomes

SVQ/ CBQ Level <i>(please identify level)</i> <i>(List mandatory and optional units)</i>		Tick units being undertaken	SCQF Level	SCQF Credit Points
SVQ/ CBQ level <i>(please identify level)</i> <i>(List mandatory and optional units)</i>				
Enhancements				

Core Skills <i>(Include details of the minimum level required)</i>		Tick units being undertaken	SCQF Level	SCQF Credit Points
1	Communication			
2	Working with others			
3	Numeracy			
4	Information and communication technology			
5	Problem Solving			

Optional outcomes

Additional units (if any) <i>These are optional and should reflect the individual training needs of the Apprentice</i>		Tick units being undertaken	SCQF Level	SCQF Credit Points
	(specify unit)			

Summary of Modern Apprentice’s accredited prior learning:

If you require assistance in completing this form, please contact:

SEMTA
Unit 2 – Orient Centre
Greycaine Road
Watford
Hertfordshire
WD24 7GP

0845 6439001