

Providing Inspection Services for Department of Education Department for Employment and Learning Department of Culture, Arts and Leisure



The Education and Training Inspectorate

Report of an Evaluation of

Provision for the Priority Skills Areas at Level 3

across the

Six Regional Colleges in Northern Ireland

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APPENDIX

1. INTRODUCTION

1.1 The report summarises the findings of an evaluation by the Education and Training Inspectorate (Inspectorate) of level 3 work on the National Qualifications Framework in the priority skills areas of construction and the built environment (construction), electrical and electronic engineering, information and communication technology (ICT) and computing, and mechanical and manufacturing engineering. The colleges' provision of priority skill area programmes funded by the Department for Employment and Learning (the Department) under the Apprenticeships NI programme was not included in the evaluation. The evaluation was undertaken by the Inspectorate during the second and third terms of the 2009/10 academic year. The inspection reports for each of the six colleges' provision across the four priority skills areas have already been published. This work builds on the previous inspection of level 2 provision in these areas that was undertaken during the 2008/09 academic year.

- 1.2 The main purposes of the evaluation were to inspect and report on:
 - the quality of the curriculum for each priority skill area;
 - the strategic planning for the provision;
 - the effectiveness of employer engagement and links with key stakeholders;
 - the quality of the provision for learning; and
 - the standards of students' work.

1.3 The evaluation also aims to identify best practice to help the further education sector implement strategies to meet the needs of students and the local economy. It will also inform the Department on the impact of its current policies regarding level 3 provision in these areas.

1.4 The priority skills areas inspected closely match five of the six skill areas that were identified by the Northern Ireland Skills Task Force in 1999 of being of vital importance to the Northern Ireland economy¹. Courses in these areas attract higher levels of funding than other courses under the Department's Further Education Recurrent Budget².

1.5 This summary report includes the main general findings to emerge from the evaluation, as well as specialist summary reports for each of the four priority skills areas.

- <u>Report of an Evaluation of Provision for the Priority Skills Area of Construction and</u> the Built Environment at Level 3 across the Six Regional Colleges in Northern Ireland
- <u>Report of an Evaluation of Provision for the Priority Skills Area of Electrical and Electronic Engineering at Level 3 across the Six Regional Colleges in Northern Ireland</u>
- Report of an Evaluation of Provision for the Priority Skills Area of Information and Communication Technology (ICT) and Computing at Level 3 across the Six Regional Colleges in Northern Ireland

¹ These are Construction, Electronics, Information and Communication Technology, Manufacturing, and Software Engineering. The other Priority Skill, Hospitality and Tourism was not included in the evaluation.

² These courses attract a weighted funded premium of up to 60%.

 Report of an Evaluation of Provision for the Priority Skills Area of Mechanical and Manufacturing Engineering at Level 3 across the Six Regional Colleges in Northern Ireland

1.6 METHODOLOGY

In each of the six colleges, a team of inspectors observed lessons reflecting a representative sample of full-time and part-time courses in each priority skill area. A total of 320 lessons were observed, including a small number of lessons provided to full-time students with weaknesses in literacy, numeracy, and ICT. The team also inspected a range of mandatory and optional units which aim to develop the students' technical and applied communication and numerical skills, as well as the wider employability skills of team-work and problem-solving. The inspection team met with college senior management teams, curricular team leaders and course teams, students, and a sample of employers. The inspectors examined relevant documentation for curriculum planning, employer engagement and quality assurance.

1.7 POLICY CONTEXT FOR THE PRIORITY SKILLS AREAS

The evaluation was undertaken at a time of considerable change for the further education sector in Northern Ireland, particularly in responding to the Department's strategic priorities and in meeting the needs of industry and the workforce during a period of economic uncertainty.

Overarching Department Strategies Relevant to the Priority Skills Areas

The main overarching and inter-related Departmental strategies influencing the planning and delivery of the curriculum across the further education sector over recent years have been the 'Further Education Means Business'³ and the Department's wider Skills Strategy⁴ which were published in 2004.⁵ They set a clear framework for the colleges to plan their provision more effectively to meet the needs of the Northern Ireland economy and its workforce.

Following an extensive review of further education in Northern Ireland, 'Further Education Means Business' set a vision for the sector to support economic development, as well as enhancing social cohesion and raising skill levels to support the economy. It was also the main driver for merging the then 16 colleges into six regional colleges in 2007. The aims were to create high profile colleges with 'leading edge' facilities, with good access for students in the main local campuses, for courses up to level 3, along with a more collaborative approach across the sector, for higher education provision. Although it is six years old, 'Further Education Means Business' is still the main strategic policy framework for the colleges of further education.

³ Further Education Means Business' March 2004

⁴ Skills Strategy for Northern Ireland November 2004

⁵ It is envisaged that the implementation of the 'Further Education

Means Business', will make a significant contribution to the delivery of the Skills Strategy.

The Department's Skills Strategy and the subsequent Implementation Plan⁶, 'Success through Skills', set out a vision of increased levels of productivity and social inclusion which would be achieved by increasing the skills levels of Northern Ireland's workforce, enhancing the 'knowledge base' of those entering the workforce, and addressing the employability skills of those not in employment. At the time of this evaluation, the Department was in the process of completing its consultation document of the Skills Strategy, Success through Skills 2⁷ which sets out key themes that are directly relevant to the priority skills areas - they are:

- understanding the demand for skills;
- improving the quality and relevance of education and training;
- improving productivity by increasing the skill levels of the workforce;
- tackling the skills barriers to employment and employability; and
- engaging stakeholders.

Within these overarching strategies, the main United Kingdom and Northern Ireland specific policy initiatives affecting curricular provision across the sector in these Priority skills areas are:

a) Employer-Led Mechanisms to Identify Skill Needs

The Department established six Workforce Development Fora working alongside the Northern Ireland Skills Expert group⁸ to develop more effective engagement across the sector with employers. The main role of each Workforce Development Forum (WDF) is to identify and articulate the skills needs for the local economy and encourage and promote a strategic response to those needs from existing local public and private sector training providers. In addition, the 'Success through Skills' Strategy, identified a clear role for the Sector Skills Councils in articulating specific sector skill needs across Northern Ireland.

b) The Review of Centres of Excellence

The Centres of Excellence (CoE) initiative, was introduced by the then Department for Higher and Further Education, Training and Employment to encourage colleges to support economic development. It provided funding to support collaboration between further education colleges and industry, though the launch of the Strategic Investment Fund in 2000. Under this Fund, colleges were invited to apply for capital funding to develop CoE across all of the priority skills areas. Following the establishment of the six regional colleges, the Department undertook a review of the CoE in June 2008. The Department, working through an Excellence for Industry Implementation Working Group, will implement the review's recommendations through the introduction of a revised excellence model.

⁶ 'Success through Skills' February 2006

⁷ Success Through Skills 2: The Skills Strategy for Northern Ireland Consultation Document June 2010

⁸ In 2006, two areas of particular economic significance, ICT and financial services, were identified by the Skills Expert Group. As a result of the workings of the ICT Future Skills Action Group a small project team was established and tasked with developing an action plan to address the immediate skills needs of the industry.

c) The Innovation Fund: Employer Support Programme

The Innovation Fund: Employer Support Programme was launched by the Department in 2008 to enhance the colleges' economic engagement with employers, including prospective foreign direct investor clients and expanding companies in the priority skills areas. In the three year period, 2008/09 to 2010/11, colleges were asked to submit bids to secure funding out of the £3 million annual budget that was made available to the sector⁹. The Fund has, and will be used, to support colleges' engagement with local employers, entrepreneurial activity as well as improving cross-border collaboration in the development of an 'all island workforce,' particularly in border areas. More recently the focus of the programme has been on fostering cross-college collaborative approaches and/or supporting small to medium-sized enterprises (SMEs) during the economic downturn.

d) The Vocational Qualifications Reform Programme

The main aim of this major United Kingdom wide programme is to create a vocational qualifications system that responds to the skills needs of learners, employers and to increase the skills levels of the existing workforce. At the heart of the new vocational qualifications system is the Qualifications and Credit Framework (QCF), which, from December 2010, will be the only recognised and regulated framework in England, Northern Ireland and Wales for vocational qualifications. The QCF will be made up of unit-based credit rated qualifications that will provide learners with the flexibility to build up and achieve a full qualification over time. When it is implemented, it will have a major impact on curriculum planning and course design for full-time and part-time students across the sector. Under the programme, employers through their Sector Skills Councils will have a greater role in determining the qualifications required in their sectors, through their Sector Qualifications Strategies.

e) The Entitlement Framework

The main aim of the Department of Education's Entitlement Framework is to provide pupils aged 14-19 access to a high quality, wide and relevant curriculum which will meet their interests and aptitudes. By the year 2013, all post-primary schools will be required to ensure that their pupils have access to a minimum of 24 courses at key stage (KS) 4, and 27 courses post-16; one-third of these courses should be applied(professional and technical). Building on the Vocational Enhancement Programme, which was managed in the period 2004-2008, by both Departments, the funding of the provision now lies with schools.

f) Essential Skills Strategy

The aim of raising the literacy and numeracy skills of the Northern Ireland workforce has been a priority of the Department since the Essential Skills Strategy¹⁰ was implemented in 2002, and was identified as a key component of the 'Success through Skills' Strategy. Although the strategy was originally introduced to raise the literacy and numeracy skills of the adult population, it was later expanded to address the skill needs of 16-19 full-time students on further education and work-based training programmes. Since August 2009, the Department's Essential Skills programme has been widened to include the essential skill of ICT, with the aim of increasing the digital and technical literacy skills of the workforce.

⁹ The actual spend each year was £1.4million in 2008/09 and £2.7 million in 2009/10

¹⁰ 'Essential Skills for Living' Strategy April 2002

g) Careers Strategy

Following extensive consultations with key stakeholders, both the Department and the Department of Education implemented the strategy and implementation plan in January 2009. The main aim is to develop an all-age strategy to improve the quality and range of independent careers education, information, advice and guidance services in schools and colleges of further education.

The Success through Skills 2 Consultation Document has taken due cognisance of two major pieces of work that have direct relevance to the four Priority skills areas:

• The Report of the Science, Technology, Engineering and Mathematics (STEM) Review

The Review ¹¹was commissioned by both the Department and the Department of Education to make recommendations to promote STEM education in Northern Ireland. It highlighted the need to increase participation rates in STEM subjects to support economic development. The Review also highlighted the significant under representation of female students in key STEM subjects; the gender imbalance was particularly evident in engineering with very small numbers enrolled on these courses. Although it could be argued that the identification of the priority skills areas is now somehow dated, all four areas in this evaluation, are designated as STEM subjects in the Review.

• The Matrix Report

The Matrix Report ¹² which was led by industrialists and academics, and facilitated by the Department of Enterprise Trade and Industry, set out the vision to support innovation in science, technology and research and development over the next two to ten years. The report highlighted five technical areas of the highest economic significance to the Regional Innovation Strategy for Northern Ireland. They were advanced engineering (transport), advanced materials, agri-food, ICT, and life and health sciences. Nearly all of the priority skills areas in this evaluation have some relevance to these five areas. The report also stated that single sector approaches were no longer sustainable in meeting the challenges of an increasing global economy and that there was a need to implement inter-disciplinary and cross sector approaches.

1.4 THE VALUE OF LEVEL 3 QUALIFICATIONS IN THE PRIORITY SKILLS AREAS IN A PERIOD OF ECONOMIC UNCERTAINTY

Within each of the priority skills areas, appropriate level 3 professional and technical qualifications are General Certificate in Education (GCE) Advanced level equivalent qualifications, with well-defined career pathways to higher education, and/or employment, including apprenticeship training. The further education sector plays a significant role in opening up progression pathways to these level 3 courses for school leavers with lower levels of academic achievement through the provision of relevant full-time level 2 programmes. Increasing the number of 16-19 year olds and existing workers with level 3 professional and technical qualifications are important drivers in raising productivity levels and economic growth for the regional economy. Research from the United Kingdom Commission for Employment and Skills ¹³found significant returns in earnings and wages for

¹¹ The Report of the STEM Review September 2009

¹² The First Report of Matrix: The Northern Ireland Science Industry Panel October 2008

¹³ The Economic Value of Intermediate Vocational Education and Qualifications December 2009

workers attaining level 3 vocational qualifications; these were particularly significant for those attaining level 3 technician qualifications. The qualifications are important proxies for skill levels that are valued by employers at recruitment and also equip workers better to adapt to change. Colleges offer significant added value to these qualifications when the curriculum provides students good opportunities to develop their employability skills. These skills are enhanced when students can apply their learning across a range of industry relevant activities, work creatively on challenging tasks, as well as developing their team working, problem solving and wider technical and applied literacy and numeracy skills.

The Economy

Following a decade of unprecedented economic growth up to 2008, the effects of the global downturn and ongoing economic uncertainty have adversely affected employment prospects in Northern Ireland. In the short-term, the prospects for those entering the labour market directly from colleges, as well as for those who have been recently made redundant and the non-employed seeking work, will be extremely challenging. This will be compounded with the future planned reductions in public expenditure. Nevertheless, it can be argued that over the longer- term, future private sector export-led growth will depend on an abundant supply of well-qualified technician workers in these priority skills areas, with specific STEM skills. Although Northern Ireland's unemployment rate is still below the United Kingdom average the growth in unemployment over the last year is more pronounced here than in other parts of the United Kingdom. For the period March to April 2010, the seasonally adjusted unemployment rate¹⁴ was 7% which was just below the UK average of 7.8%. Within these figures, there has been a more significant growth in youth unemployment which has increased by 4.1% over the last year in Northern Ireland. The significant downturn in the construction industry is a particular concern, with a year on year increase in unemployment rates of 12.9%.

2. SUMMARY OF MAIN FINDINGS

2.1 OVERALL EFFECTIVENESS

- The overall effectiveness of the provision in these priority skills areas is variable; it is very good in one college, good in three, and satisfactory in two colleges. Within the priority skills areas, the quality of the provision ranges from outstanding to inadequate; the majority (63%) of the programmes are good or better and the remaining ones are mostly satisfactory. The quality of the provision in electrical and electronic engineering is good or better in five colleges and in ICT and computing it is good or better in four colleges. In construction and mechanical and manufacturing engineering, only three colleges have good or better quality of provision.
- The quality of the provision in the five colleges who had been awarded CoE status in their previous legacy colleges is inconsistent, ranging from satisfactory to outstanding. The quality of the provision is very good or outstanding in only four of the ten CoE across the sector. Colleges with CoE status face challenges in sustaining high quality education provision within the original campus settings, and/or sharing best practice across the different campus locations.

¹⁴ The Department of Enterprise Trade and Investment July 2010 Monthly Labour Market Report

2.2 PROVISION

- Most of the colleges provide a good range of full-time level 3 courses in nearly all
 of these priority skills areas in their main campuses. In construction, electrical
 and electronic engineering, and mechanical and manufacturing engineering,
 enrolment levels, however, are low in some campuses. In two colleges there are
 gaps in the provision of full-time courses in mechanical and manufacturing
 engineering, with no provision in at least one of their main campuses.
- The provision of two year part-time craft and technician courses in nearly all of the priority skills areas is inadequate. The gaps are particularly evident in ICT and computing and in mechanical and manufacturing engineering. Moreover, the colleges have not implemented innovative approaches to promote these courses effectively.
- The provision of one year or short part-time up-skilling level 3 courses, including bespoke courses for industry varies across the priority skills areas, and across the colleges. There is a good provision of these courses in electrical engineering, though enrolment levels vary significantly across the sector. The provision of these courses in construction is underdeveloped in most of the colleges. In ICT and computing, it ranges from satisfactory in four colleges to inadequate in two colleges. The provision in mechanical and manufacturing engineering is inadequate in most colleges with very low student enrolments, which are limited to level 3 courses in computer aided design (CAD) and welding.
- Although the range of part-time bespoke courses is limited, the evaluation identified pockets of good practice in four colleges, where courses have been developed to meet the needs of workers and industry.
- There is a significant gender gap with few female students recruited to full-time and part-time courses; the promotion of these courses by the colleges is mostly inadequate.

2.3 LEADERSHIP AND MANAGEMENT

- Those colleges with experienced senior managers who have a strong track record in leading major whole-college STEM initiatives are better placed than the other colleges in raising standards across these priority skills areas.
- With the exception of two colleges, the curriculum planning across these areas is too fragmented, and as a consequence, links across the priority skills areas have not been exploited sufficiently and have resulted in gaps in provision and the underutilisation of resources. Strategic approaches to project management that are utilised by two colleges make a valuable contribution to coherent planning and in the resourcing of these priority skills areas.
- Much more needs to be done to foster collaborative arrangements in these priority skills areas across different campuses. Opportunities for inter-college collaboration are mostly underdeveloped.
- Middle managers who lead these priority skills areas have significant responsibilities in leading course teams effectively, especially when they manage provision across different campus locations; this can hinder effective course planning and curriculum development.

- The majority of colleges have well-qualified staff to manage and deliver courses in these priority skills areas. Two of the colleges face challenges in deploying experienced staff to meet the needs of their own students as well as delivering courses to industry and in providing courses to local post-primary schools.
- Although quality assurance arrangements are implemented systematically, they are not sufficiently honed to identify and respond to weaknesses in the provision, particularly in relation to leadership and management, course design and in teaching and learning.
- The quality and management of specialist physical resources varies significantly across the sector; they are good or better in two colleges. In the other four colleges, there are variations in the quality of these resources across the priority skills areas, and/or the different campus locations.
- Two colleges have well- informed strategies to support economic engagement; in the remaining colleges this key part of their work is inconsistent with examples of good practice in at least one priority skill area that are not shared effectively across the other areas.
- There are examples of where a number of projects funded under the Innovation Fund: Employer Support Programme have helped support economic engagement and have enhanced the level 3 curriculum in these priority skills areas. The range of programmes developed at level 3 to respond to identified skill needs from the six WDFs, however, are very limited.

2.4 QUALITY OF PROVISION FOR LEARNING

- Across the colleges, there is a variation in the quality of the curriculum for students. In four colleges, students have good opportunities to develop relevant technical and practical skills, for example through well-planned workshop activities and through project work. In the other two colleges, these opportunities are either limited or vary significantly across the priority skills areas. This has an adverse affect on the students' learning experiences and on their standards of work.
- Most courses have a good blend of mandatory and optional units to develop the students' technical literacy and numeracy skills.
- College admissions criteria vary significantly and are not applied sufficiently rigorously. There are examples of where students who do not have relevant academic qualifications or interests are enrolled onto full-time courses.
- The quality of teaching and learning in the majority (69%) of the lessons is good or better and a significant minority (30%) are very good or outstanding. A minority (27%) of the lessons are just satisfactory. There is a wide variation in the quality of teaching and learning across the colleges.

- Much of the discrete provision for literacy and numeracy does not provide a suitable framework for full-time students to develop the necessary skills required for their main professional and technical units. In contrast, through their professional and technical units, students have good opportunities to develop and apply their technical literacy and numeracy skills, where most can competently undertake complex tasks which, in most cases, are more demanding than those undertaken within the discrete provision for literacy and numeracy.
- Although, most of the lecturers make use of information and learning technology in their lessons, in too many instances, insufficient use is made of the more interactive features of educational technology to engage and motivate students in their learning.
- Although students have good access to specialist careers information, advice and guidance services in nearly all of the colleges, more needs to be done to integrate this into the students' main vocational units and through their timetabled tutorial programmes.
- The use of work-related learning to enhance the students' knowledge and understanding of the world of work is inadequate in nearly all of the colleges.
- At the time of the evaluation, the colleges were planning changes to their curriculum for full-time courses to meet the requirements of the QCF. Across these priority skills areas, there was little evidence of colleges making use of the QCF to develop new up-skilling or re-skilling courses to meet the needs of industry and the workforce.

2.5 STANDARDS AND OUTCOMES

- The standards of the students' work across the priority skills areas are mostly good in four colleges. In the other two colleges, while there are pockets of good practice, the standards of work in most of the priority skills areas are just satisfactory or inadequate.
- Well-planned project work relevant to the needs of industry can significantly enhance the standards of students' work.
- Achievement rates vary significantly across the colleges and across the different priority skills areas. Achievement rates for part-time courses are mostly higher than on full-time courses, where high levels of student drop out are a key weakness in a significant minority of courses.

3. MAIN FINDINGS

3.1 PROVISION

According to information provided by the Department, the number of full-time students enrolled on level 3 courses in these priority skills areas declined by 16% over the last three years, from 2,157 to 1,819 students, particularly in construction where enrolments fell by 28%. In 2009/10 the majority of students (53%), were enrolled on ICT and computing courses, 28% of students were enrolled in construction courses and just under 20% of

students were enrolled on engineering courses¹⁵. In contrast, part-time enrolments, ¹⁶over the same period, increased by 19% from 4,095 to 4,857 students. In 2009/10, 47% of students were enrolled on ICT and computing courses and 25% of students were enrolled in construction courses, with 28% enrolled on engineering courses.

There is a good provision of full-time level 3 courses in nearly all of the priority skills areas in most of the colleges' main campuses, with few gaps in the provision across the sector. In mechanical and manufacturing engineering, however, two colleges have no full-time provision in at least one main campus. Enrolment levels in some campuses in construction, electrical and electronic engineering, and mechanical and manufacturing engineering are low.

The main provision of full-time courses in these priority skills areas is Edexcel National Diplomas that are provided by all of the colleges. Most colleges offer the National Certificate as a partial achievement for those students who are struggling to meet the academic demands of the National Diploma course. Two colleges, in addition to their National Diploma courses, offer the Applied GCE Advanced level course in ICT. These GCE courses are not recognised by employers as meeting their needs, and they do not provide appropriate progression pathways to university courses. With the exception of a unique combined National Certificate in mechanical engineering and a National Award in motor sports, and a National Certificate in civil engineering with a Diploma in mineral extractives that are both offered in one college, there are few examples of innovative changes in the full-time provision to meet the changing needs of students and employers.

The academic achievements of the students enrolling on full-time courses vary significantly across the sector, particularly in construction and in engineering. In two colleges, just under a third of the students enrolled do not have four General Certificate of Secondary Education (GCSE) passes at grades A* to C, including English and mathematics, and are struggling with the academic demands of the course. In one college, the entry criteria in construction is set at only two GCSE passes at grades A* to C which in unsatisfactory. In order to widen access to full-time courses, another college has a well-designed full-time course in construction which combines the First Diploma level 2 gualification with units from the National Certificate as a bridging course for those students who do not meet the minimum entry requirements for a level 3 course.

The provision of two year day-release and/or evening only part-time technician courses in nearly all of the priority skills areas is inadequate, particularly National Certificate courses. These gaps are particularly evident in ICT and computing, and in mechanical and manufacturing engineering, where the small numbers of students recruited infill with trainees undertaking ApprenticeshipsNI programmes. Although the provision of these courses is more extensive in construction and electronic and electrical engineering, enrolment levels in most of the colleges are low. More generally, the colleges have not implemented flexible attendance or online learning delivery modes to promote and support these courses effectively.

The provision of one year or short part-time up-skilling level 3 courses, including bespoke courses for industry varies across the priority skills areas, and across the colleges. All of the colleges offer a good range of craft up-skilling courses in electrical engineering, though enrolment levels vary significantly across the colleges. The provision of craft up-skilling courses in construction, including level 3 CAD courses, is underdeveloped in most of the colleges. Four colleges offer a satisfactory range of part-time industry relevant vendor

¹⁵ Due to differences in coding arrangements across the sector, it is difficult to separate electronic and electrical engineering, and mechanical and manufacturing engineering programmes ¹⁶ this includes two year courses and short courses,

qualifications in ICT and computing in computer networking, and software development, and the provision in the other two is inadequate. The provision of part-time courses in mechanical and manufacturing engineering courses is inadequate in most colleges with very low student enrolments, which are limited to level 3 courses in CAD and welding. Across nearly all of the colleges, there are shortfalls in the provision of part-time courses in computer numerical control systems, hydraulics and pneumatics, programmable logic control systems and robotics. More generally, the overall provision of up-skilling courses is more widespread on level 2 courses than on level 3 courses.

There are examples of good practice, where colleges have responded effectively to meet the needs of industry. In mechanical and manufacturing engineering, two colleges have developed bespoke National Certificate up-skilling courses for maintenance engineers who work in two large local employers. Two other colleges have well-designed level 3 bridging courses for craft workers in construction and electrical engineering wishing to progress to higher education.

There is a considerable gender gap in all of the priority skills areas; the numbers of female students enrolled on full-time and part-time courses is very low. None of the colleges have implemented coherent policies to widen female participation rates on these courses. The evaluation identified one example of good practice, where a college offers level 2 courses in construction to significant numbers of female pupils in local post-primary schools, as a means of promoting the priority skill area. Overall, however, the marketing and promotion of these courses to potential female students, is inadequate.

Across the colleges, there was little evidence of innovative programmes at level 3 to meet the specific needs of those migrant workers who wish to up-skill their professional and technical skills.

Five of the colleges have at least satisfactory or better provision with post-primary schools to help them meet the aims of the Entitlement Framework and to promote STEM courses to pupils. Most of the provision is offered at level 2 to pupils at KS4 in construction and engineering. One college that monitors carefully the progression of these students has reported that these programmes enhance recruitment to their own level 3 courses. Although the provision of post-16 courses to local schools at level 3, is much more limited, there is evidence of good use of the National Award in construction and engineering in five of the colleges.

3.2 OVERALL EFFECTIVENESS OF THE PROVISION

The overall effectiveness of the provision in these priority skills areas is very good in one college, good in three, and is satisfactory in two colleges. Given the Department's commitment to ensuring high quality education and training, and that the colleges are mostly the sole suppliers of craft and technician courses in these priority skills areas, the weaknesses in the overall quality of the provision need to be addressed as a matter of urgency by those colleges with only satisfactory provision.

Within the priority skills areas¹⁷, the quality of the provision varies from outstanding to inadequate. The quality of the provision in electrical and electronic engineering is good or better in five colleges and in ICT and computing, it is good or better in four colleges. In mechanical and manufacturing engineering, and construction, only three colleges have good or better provision, and this is a particular concern.

¹⁷ See Table 1

Overall Effectiveness in Each Area	ICT and computing	Construction	Electrical and Electronic Engineering	Mechanical and manufacturing engineering
Outstanding	1	0	1	0
Very Good	1	1	1	1
Good	2	2	3	2
Satisfactory	2	3	1	2
Inadequate	0	0	0	1
Unsatisfactory	0	0	0	0

Table1: The Quality of Provision in Each Priority Skill Area

Five of the six regional colleges had been awarded CoE status in their legacy colleges¹⁸; within these colleges, there is a total of ten CoE across these priority skills areas. The quality of the provision across the CoE is inconsistent, ranging from satisfactory to outstanding; only four of the ten CoE have very good or outstanding provision¹⁹. The colleges face challenges in sustaining the high quality of provision within the original campus settings, and/or sharing best practice that exist in the CoE across the different campus locations. Although the quality of the provision is mostly better in the CoE, the evaluation would support the Department's decision to review and revise the CoE.

Table 2: Quality of Provision in the	Ten Centres of Excellence	

Overall Effectiveness of Each CoE	ICT and Computing (including Software Engineering)	Construction	Electrical and Electronic Engineering	Mechanical and manufacturing engineering
Outstanding	1	0	0	0
Very Good	1	1	0	1
Good	0	1	1	1
Satisfactory	2	1	0	0
Inadequate	0	0	0	0
Unsatisfactory	0	0	0	0
Total	4	3	1	2

Within the priority skills areas, the key characteristics of very good or outstanding quality of provision include, well-developed and productive industrial links, effective and innovative curriculum planning and collegial work across the different campus locations, consistently high expectations backed up with strong teaching and learning and standards of work, and effective pastoral support for students. The main recurring weaknesses in those priority skills areas where the quality of the provision is satisfactory or inadequate, include undue variations in the quality of the provision across different campuses, inadequate sharing of good practice, inconsistent teaching and learning approaches and shortfalls in the management and deployment of human and capital resources to support students in their learning.

 $^{^{18}}$ There were three CoE in construction, two in ICT and computing, and mechanical engineering, and one in electronics.

¹⁹ See Table 2

3.3 LEADERSHIP AND MANAGEMENT

The quality of leadership and management of the priority skills areas was very good in two colleges, good in one, and satisfactory in three colleges.

The colleges have significant variations in the management structures and reporting systems across these priority skills areas. The evaluation has not identified one management structure that works more effectively than the others, but it did find features of good practice that result in raising standards and improvements in the quality of the provision for learning. A key enabler of success is having one or more people on the senior management team. with a strong track record in leading and managing whole-college STEM or technology curriculum initiatives, and in securing additional funds to raise capacity in these areas from the Department, the European Union and from industry. The evaluation found examples, where this can enhance the strategic planning for the provision in these priority skills areas, or revitalise provision in the college that has become tired or outdated. In one college, for example, a senior manager who has managed technology courses to good effect over many years has played a significant role in both developing good practice in supporting economic development and promoting high standards of work across the college. Through the use of well-implemented strategic project management approaches, proactive steps have been taken to make the curriculum more economically focused, and in capacity building to meet the needs of industry. This has been supported with successful bids to lead economic engagement projects under the Department's Innovation Fund: Employer Support Programme, as well as securing funds from industry. In another college, a manager responsible for the STEM curriculum has helped revitalise provision in one professional and technical area, particularly with the deployment of a new course team, which has significantly improved the quality of the provision. In addition, to expand its provision, this college has reduced fees for students enrolling on STEM courses.

A key challenge facing management teams in meeting the needs of students and industry is exploiting key connections across these priority skills areas, particularly in realising synergies of existing good practice that may exist in one or more priority skills areas. The evaluation found fragmented planning of the curriculum in four of the colleges across these areas. Key elements of electrical and electronic engineering, for example, are managed in different college departments or schools. As a consequence, potential links between electrical and electronic engineering, and the other priority skills areas have not been explored fully, resulting in gaps of provision, and limited opportunities for innovation and creativity in course design. In addition it results in the underutilisation of physical resources, including renewable energy and specialist computer networking facilities. Appropriate action by the colleges to exploit these gaps would help them respond to the key recommendations in the Matrix Report, as well as fulfilling the Department's Public Service Agreement targets for the priority skills areas²⁰.

Within the priority skills areas, there is evidence of increasing collaboration between course teams in the planning and delivery of programmes across different campus locations. Nevertheless much more needs to be done to realise more fully the benefits of larger units of management, particularly in sharing good practice and widening student access to specialised resources across different campuses, as well as addressing weaknesses in the quality of provision that existed in the previous legacy colleges. Although some lecturers work across different campuses, there are few opportunities for them to undertake curriculum development work across the college. One college has made effective use of internally funded curriculum development projects to bring about whole-college

²⁰ Under the Programme for Government, the Public Service Agreement target is for the sector to increase the proportion of further education enrolments in the priority skills from 25% in 2005/06 to 28% in 2010/11.

improvement. Another has recently introduced Skills Competitions to foster collaborative work by students and staff across different campuses. Key challenges that still have to be met include the need to address variations in the quality of the provision in the same priority skill area across different campuses. The evaluation also found little evidence of effective collaboration across the sector to share best practice in curriculum design and in the sharing of resources to meet the needs of students.

Middle managers in these priority skills areas have complex and challenging roles, with high levels of accountability, line management responsibilities, coupled with heavy teaching workloads. These challenges are compounded when they manage their provision across a number of campus locations, as well as meeting the needs of industry, and managing courses that are provided in local post-primary schools. In most instances, middle managers have insufficient time allocated by senior management teams to plan their curriculum or to share and develop good practice across the different campuses.

Action to Promote Improvement

All of the colleges have in place detailed quality assurance systems, based on the Inspectorate's quality improvement framework. These procedures are typically led by a quality manager, who is either a member of the senior management team, or who reports directly to a senior manager. For most colleges, too much weight is attached to self-evaluation procedures, which results in the production of considerable paper documentation, at the expense of identifying and responding to key weaknesses in the quality of provision, particularly in relation to leadership and management, course design and in teaching and learning. In two of the colleges, for example, there was a significant variation in the findings of the Inspectorate and the whole- college self-evaluation reports. Across nearly all of the colleges, insufficient cognisance is taken of the findings of students and key stakeholders, including employers, to inform their self-evaluation process.

Staffing and Continuing Professional Development

In four of the colleges, there is a sufficient deployment of well-qualified and experienced lecturers to manage and deliver programmes across these priority skills areas. In the other two colleges, there are shortfalls in the deployment of lecturers in one or more priority skills areas, due to long absences and other commitments. In one college, significant numbers of experienced engineering lecturers are deployed to deliver bespoke training courses in industry as well as teaching in post-primary courses. In trying to meet these different priorities, the college has not been able to deploy sufficient numbers of experienced lecturers to deliver courses for their own students. A number of full-time courses were co-ordinated by inexperienced lecturers and the wide deployment of part-time lecturers across different campuses had an adverse affect on communication and curriculum One college has, through the appointment of staff with recent industrial planning. experience, made good progress in revitalising the curriculum and delivery of the courses in construction, and electrical and electronic engineering. In another college, significant numbers of engineering lecturing staff are coming towards the end of their teaching career which in turn will provide challenges to the management of the college in sustaining the good provision. There is a need to ensure that college senior management teams align their human resource planning more effectively to their planned curriculum offer to ensure they have the capacity to meet the needs of all their learners.

Staff development programmes in most of the colleges are well-managed. Staff development is a feature of good practice in two colleges, where they invest significantly in raising the technical and professional expertise of the lecturing staff; this is well-matched to curriculum development in the colleges. In one college, for example, staff in mechanical and manufacturing engineering, have good opportunities to enhance their skills through

industrial placements, employer partnerships, and specialised training courses to match the needs of local employers. With the exception of the Learning and Skills Development Agency Northern Ireland 'Lecturers into Industry' programme, funded by the Department, and where lecturers are involved in delivering training courses in industry, the opportunities for lecturers in most colleges to up-date their professional and technical skills in most colleges are inadequate.

With the exception of one college, there are insufficient opportunities for literacy and numeracy tutors to participate in joint staff development activities with professional and technical course teams in order to share best practice in teaching and learning approaches. In one college, senior managers have supported significant staff development with a firm focus on developing effective pedagogic practices underpinned by innovative use of technology enhanced learning (TEL). As a consequence, all of the tutors collaborated well to develop and share resources through the college virtual learning environment and the quality managers fostered strong, collegiate, co-operative practices. These professional practices were further enhanced by peer, classroom observations to promote and share good practice.

The Quality and Management of Physical Resources

The guality and effective management of specialist physical resources available to students is a key determinant of the colleges' capacity to deliver good or better education and training in these areas; it is particularly relevant in mechanical and manufacturing engineering which requires significant investment in workshops and equipment. The recent investment by the Department in new college facilities has resulted in major improvements in the quality and range of physical resources across all of these priority skills areas. The quality and range of specialist physical resources in two of the colleges is good or better across all of these areas, particularly where they have been enhanced with additional investment from the colleges' own budgets, and/or from the private sector. In the other four colleges, there are variations in the quality of these resources across the priority skills areas, and across the different campus locations. In mechanical and manufacturing engineering, two colleges have made effective use of their strong links with industry to ensure that their specialist resources match current practice in industry. In one of these colleges, however, students in three campuses have inadequate access to the outstanding resources that exist in the main campus location. In this college, there are also shortfalls in the range and quality of resources in the other priority skills areas, which are having an adverse affect on the curriculum for students. The evaluation has identified examples of where ineffective management of specialist resources also has an adverse impact on the students' learning experiences, particularly in construction, and mechanical and manufacturing engineering. In one college, the extensive resources in mechanical engineering are underutilised by students, and the students have no access to experimental laboratories. Although the college estates are well-maintained in four colleges, the specialist classrooms and workshops in one or more campuses in two colleges are in a poor state of repair and present a negative image of these priority skills areas.

Economic Engagement

Two colleges have well-developed strategies to support economic engagement across these priority skills areas. In both colleges, the strategies were well-informed, and were linked effectively to the changes in the wider economic environment, including sustainable technologies and planned infrastructure investment programmes. A common thread in both colleges was the further development of extensive links with industry that had been gained over a lengthy period of time in one or more legacy colleges. In addition, action had been taken to up-skill the expertise of the lecturing staff, through innovative approaches. In one college, this included the deployment of research lecturers funded under the Department's

Innovation Fund: Employer Support Programme. They have been successful in developing partnerships with industry and stakeholders to help local employers develop their workforce, and to promote STEM programmes. In addition, their work has led to improvements in curriculum design, particularly in wind turbines and sustainable energy. In the other colleges, the range of programmes to support industry is inconsistent, with examples of good practice in at least one priority skill area that were not shared effectively in the other areas.

Nearly all of the colleges have well-developed links with local and regional employers, and sectoral bodies. They are particularly strong at senior management level or through dedicated whole- college business support units. These links have a more positive impact on the range and quality of the provision, when senior managers draw on the skills and expertise of those STEM middle managers and course teams who have well-developed links Examples of good practice include the extensive links that a college with industry. manufacturing engineering course team have with large employers, sector bodies and equipment manufacturers, which have resulted in the development of a wide range of bespoke training programmes for local and international employers, and in the development of a more relevant curriculum for full-time students. In another college, a course team, with the assistance of an industrial liaison office employed by the college, has developed strong links with local employers. These links have led to improvements in the curriculum for fulltime students, including the decision to add vendor qualifications as an enhancement which greatly enhances the employability skills of the students.

The evaluation identified examples of good practice, where those colleges who have been leading or have participated on projects funded by The Department's Innovation Fund: Employer Support Programme have helped to enhance their levels of economic engagement, as well as having a positive impact on curriculum planning for level 3 students. These are particularly evident on the Carbon Zero, Innotech, Open Source and the Enterprise, Incubation and Innovation projects.

Although all of the colleges have WDFs in place, there were few examples of changes in their level 3 provision across these priority skills areas to meet identified skill needs. Examples of good practice include a bespoke National Certificate up-skilling course for maintenance engineers for a large employer, and in two colleges the provision of new level 3 craft construction courses.

3.4 QUALITY OF PROVISION FOR LEARNING

Quality of the Curriculum

Across the colleges, there is a variation in the quality of the curriculum for students. In four colleges, students have good opportunities to develop relevant technical and practical skills, for example through well-planned workshop activities and through project work. In the other two colleges, these opportunities are either limited or vary significantly across the priority skills areas. In these colleges, the curriculum in one or more area is unbalanced; it is mostly theory- based and assessment driven. This results in high levels of student dissatisfaction, and it does not equip them with the wider range of communication and problem solving skills they need to progress to relevant employment or higher education. It is important that senior management teams in their curricular planning ensure that students have sufficient opportunities to develop these wider skills through regular access to specialist workshops and materials laboratories. These are expensive courses to resource sufficiently if students are going to develop the range of skills required by industry. One constraint, however, is that these specialist resources are used extensively in other programmes including, the Department's Programme Led Apprenticeships, and through school links programmes.

Nearly all of the colleges offer good progression pathways to full-time level 3 courses through their level 2 programmes in these Priority skills areas. The colleges provide good progression routes for those students who complete their level 3 courses to part-time and full-time higher education courses.

There is a significant variation across the colleges, in the use of additional qualifications to enhance the students' employability skills. Full-time students in three colleges supplement their main programme with vocationally relevant qualifications or vendor qualifications in one or more of the priority skills areas. The relevance of these additional qualifications, however, is variable. In the best practice the students value these additional courses as a means of developing relevant wider professional skills to support their employment prospects. In one college, students take four industry recognised vendor qualifications that significantly enhance their employment prospects in computing and electronics. In too many instances, however, the choice of additional qualifications is unclear or arbitrary, particularly where they replicate elements of the students' main programme of study, and offer little added value to their work.

Full-time students with weaknesses in ICT, literacy and numeracy are provided with appropriate opportunities to undertake discrete timetabled support in line with the Department's requirements and policy guidelines.

Most of these courses have an appropriate blend of mandatory and optional units to enhance the students' opportunities to progress to higher education. Most of the colleges provide full-time students, for example, optional units in advanced mathematics to facilitate progression to relevant university courses. In construction, however, two of the colleges do not provide students with adequate opportunities to undertake units in further mathematics and structural mechanics to enable them to progress to undergraduate courses in civil engineering.

There are significant variations within and across the colleges in their admissions arrangements onto full-time courses in these priority skills areas. Approximately half of the colleges have well-developed procedures to ensure that those students with the appropriate interests are recruited to courses through pre-entry interviews and/ or by the use of aptitude tests. In the remaining colleges, these arrangements are ineffective, or are not applied consistently, particularly when the colleges offer conditional offers to students on a 'first come first served' basis without an initial interview by the course tutors.

At the time of the evaluation, all of the colleges were in the process of planning changes in their curriculum offer for the 2010 academic year to meet the requirements for the emerging QCF. Most of the planning focused around changes to the full-time curriculum to include a more flexible offer of level 3 qualifications. A key constraint was the delay for some sectors in getting approval from the regulatory authorities to award these new qualifications. Overall, there was little evidence of innovative work in making use of the QCF to develop new part-time courses for existing employees.

The Quality of Teaching and Learning

Across the priority skills areas, the quality of teaching and learning ranges from outstanding (6%) to inadequate $(4\%)^{21}$ and none is unsatisfactory. It is good or better in the majority (69%) of lessons and 30% are either very good or outstanding. A minority (27%) of the lessons are just satisfactory. There is a wide variation in the quality of teaching and learning across the colleges. In one college, 82% of the teaching is good or better and half of the

²¹ See Table 3

lessons are very good or outstanding. In another college, just over half of the teaching is good or better, and only 15% of the lessons are very good or outstanding. The main features of the very good or outstanding lessons include, effective planning and learning approaches that are matched to the different ability levels of the students, the effective use of a wide range of teaching methods to encourage students in their learning, and an appropriate balance between theoretical work and challenging practical activities. In these lessons, the students are well-informed about their progress, and are motivated in their learning tasks. Recurring weaknesses in satisfactory or inadequate lessons include excessive transcription of information by students, limited teaching strategies, lack of participation by the students in their learning and insufficient relevance to current industrial practice.

The quality of teaching and learning of most of the provision for literacy and numeracy for full-time students was either just satisfactory or inadequate. In literacy, for example, there is insufficient joint-planning of work with vocational tutors. In numeracy, only a small minority of the provision is contextualised and the pace of learning is slow. The quality of the students' learning experiences is much better in the professional and technical units which help develop the students' wider applied and technical literacy and numeracy skills. There is little evidence from the evaluation that the discrete provision for literacy and numeracy provides the students with a suitable framework for progression to equip them with the technical communication and numerical skills they require in their main professional and technical units.

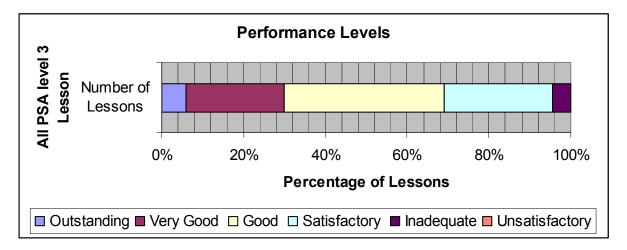


 Table 3: The Quality of Teaching and Learning

Four of the colleges are well-equipped with information and learning technology resources including interactive whiteboards, computer hardware, specialist software applications, and computer networks with good connectivity. In the other two colleges, the range of up-to-date systems is very limited and much of the equipment is in need of refurbishment. The network in one of these colleges is particularly slow in two main campuses, which hinders the effective use of information and learning technology by students and lecturers. Although, most of the lecturers make use of information and learning technology in their lessons, in too many instances, insufficient use is made of the more interactive features of educational technology to engage and motivate students in their learning. In a significant minority of the lessons, students spend excessive periods of time transcribing notes from multi-media presentations. A recurring weakness in a significant minority of the lessons is the under-use of the college virtual learning environments, and the excessive use of college shared-drive platforms. In a minority of colleges, effective use of information and learning technology. In one college, its well-managed Information and Learning Mentors' programme has been

particularly successful in raising the professional skills of lecturers to make effective use of the more interactive aspects of educational technology. Across the sector, there were few examples of good practice in making use of information and learning technology to support part-time students outside the college. In one college, however, course teams in construction and electrical engineering make good use of the college virtual learning environment to support students on craft courses who travel considerable distances to the college.

Assessment

The assessment arrangements are at least sound across nearly all of the priority skills areas. In most courses, completed assignments are returned promptly to students, and the progress of student cohorts is well-tracked by course teams. The evaluation identified a small number of programmes where assessment was poorly managed by the course teams; tasks were not sufficiently challenging and internal verification arrangements were weak. Overall, much more work needs to be done to enable course teams to work collaboratively across campuses in the design and moderation of coursework assignments. A small number of course teams across the priority skills areas have taken appropriate action to reduce the assessment burden on students, for example, by making use of integrated assignments. For most areas, however, assessment planning is discrete and unit-based, which results in an excessive assignment workload for students; in many instances with an unnecessary overlap across their assignments. This is compounded when students are not provided with assessment schedules to avoid bottlenecks in their work. Across the priority skills areas, examples of good practice include the use of industrial liaison committees to quality assure assignment briefs and the effective use of marking for improvement to raise the standards of students' work.

Careers Education Information Advice and Guidance

Students have good access to specialist careers information, advice and guidance services in nearly all of the colleges, particularly for those wishing to apply for higher education courses. While these services are mostly well- managed, more needs to be done to integrate this into the students' main vocational units and through their tutorial programmes. Many of the full-time students interviewed report that they have a very limited understanding of the full range of career pathways that were open to them on successful completion of their courses.

The use of work-related-learning, including work-experience, industry-based project work, site visits and guest speakers to enhance the students' understanding of the world of work is inadequate across nearly all of the colleges. There is evidence of more effective use of work-related learning on full-time higher education programmes, than on these level 3 courses. Most of the colleges report that they face difficulties in organising relevant work-placements for level 3 students, particularly in construction. The evaluation however has identified examples of good practice where effective use is made of work-experience to enhance the quality of the students' learning experiences. In one college, all of the year 1 students in construction participate on a block-release work-experience programme, which is based on the good links that course teams have developed with local employers, and it also allows students opportunities to plan their own work-placements. These placements are complemented with a wide range of site visits to employers. In the same college, full-time students in ICT and computing in one campus, undertake two weeks work-experience which

is linked to their project work. In another college, curriculum managers through the college's Business Innovation and Development Unit have worked effectively to enhance the students' employability and enterprise skills through an Enterprise Champions programme. This has been particularly effective in the development of collaborative work for students across different campuses in the college, for example, through the use of mock interview skills and site visits.

Student Support

The student tutorial programmes in nearly all of the colleges are not sufficiently well-organised to support students effectively in their learning, particularly in reviewing their progress and setting targets for improvement. Across most colleges, the timetabled tutorial sessions are used mostly by students to catch up on their course assignments. With the exception of two colleges, electronic or paper-based student learner agreements provide little added value in helping students plan their work effectively. In some cases, course teams made more widespread use of other online reporting tools that they had developed to track the progress of their students. In the best practice in one college, students have access to a well-designed tutorial system, which gives good coverage to personal and social development. In this college, students in ICT and computing through their class tutorials develop their employability skills through team building and inter-campus competitions. The college through its student support service has excellent arrangements in place to support students at risk of withdrawing from their courses.

3.5 ACHIEVEMENT AND STANDARDS

The standards of the students' work across the priority skills areas are mostly good in four colleges. In the other two colleges, while there are pockets of good practice, the standards of work in most of the priority skills areas are just satisfactory or inadequate. There is evidence that well-planned project work can contribute significantly to higher standards of work, particularly when students have good opportunities to apply their technical and problem solving skills to develop solutions to industrially relevant activities. More generally, the creative use of industry relevant tasks in teaching and learning both raises the standards of the students' work, including their literacy and numeracy competencies, and their progress in their professional and technical units. In the best practice, effective planning by course teams, can stretch and challenge students in their professional and technical units, where they have good opportunities to go beyond the minimum standards, with the more able students targeting Distinction grades in their work. The recurring features of satisfactory or inadequate standards of work are low tutor expectations, lack of challenge in set tasks, and where most students are only aiming to attain the minimum pass criteria. This frequently resulted in poor levels of student motivation and attendance in the college.

Most of the students achieve good standards of work in literacy and numeracy within their professional and technical units. There is evidence of students significantly enhancing their technical literacy and numeracy skills in their professional and technical units. This is particularly evident in numeracy where students competently complete complex tasks which are frequently more demanding than the content of the discrete numeracy provision they undertake.

Most students who complete their programmes achieve their target qualifications. There is, however, a significant variation in retention rates for full-time courses in each priority skill area. Retention rates for full-time construction courses, for example range from 29% to 71%. Retention rates for a significant minority of courses across the priority skills areas are 50% or less and result in unsatisfactory levels of student achievement. Although retention rates on part-time courses also vary significantly across the sector, they are well above the norm for full-time courses.

4. CONCLUSION AND KEY PRIORITIES FOR DEVELOPMENT

The provision of high quality education and training in these priority skills areas is a key driver in raising the skills levels of the Northern Ireland workforce, and meeting the Department's policy objectives. The overall effectiveness of the provision across the colleges and across these areas varies significantly. In order to improve the quality of the provision across these priority skills areas the colleges need to:

- develop more innovative approaches to promote and deliver part-time courses to meet the needs of the workforce to enhance their skill levels to meet the needs of industry;
- promote these courses more effectively, to female students, where enrolment levels are insignificant;
- ensure that the students enrolled on full-time courses have the relevant academic qualifications and interests to meet the challenges of the courses;
- foster more collaborative approaches to identify and exploit key connections across these priority skills areas in order to meet gaps in provision and to make more effective use of specialist physical resources in these areas, and to respond effectively to the needs of industry;
- develop more collaborative planning across the sector and within the colleges to widen student access to high quality specialist physical resources, particularly expensive advanced manufacturing equipment;
- make more effective use of the existing expertise of those lecturers and curriculum leaders with a strong background in STEM in curriculum planning, and in developing courses that meet the needs of industry and the Northern Ireland workforce;
- ensure that human resource strategies are aligned more closely to curriculum planning, particularly where course teams work in industry, and in post-primary schools;
- provide all full-time students with good opportunities to develop their technical and practical skills and to undertake work-related learning tasks, to enhance their employability skills;
- take action to address provision that is satisfactory or inadequate, particularly in construction and mechanical and manufacturing engineering where only half of the colleges have good or better quality provision; and
- implement coherent strategies to improve student retention rates on those full-time courses with low levels of achievement.

APPENDIX

LISTING OF COLLEGES INCLUDED IN THE EVALUATION

Belfast Metropolitan College Northern Regional College North West Regional College South East Regional College South West College Southern Regional College

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