IRELAND 2009

TRADITIONAL BUILDING CRAFT SKILLS

Assessing the Need, Meeting the Challenge

SKILLS NEEDS ANALYSIS OF THE BUILT HERITAGE SECTOR

Cover images

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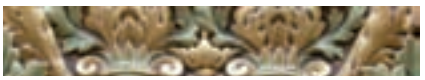
foreword



Maintaining and wisely using our older buildings not only preserves the past for the future, but makes a major contribution to the increasingly important sustainability, regeneration and climate change agendas. To respond to this we need a workforce equipped with the right knowledge and understanding of traditional building methods and materials, and the right practical skills to carry out appropriate repair and maintenance. Sadly, these once widespread skills declined in the latter part of the 20th century, which resulted in significant skills and knowledge gaps in this sector.

This report provides hard evidence on the current state of demand, supply and training provision within the built heritage sector across the whole of Ireland, and also provides an overarching strategy and Skills Action Plans (see Section 10) for both countries, to exploit and enlarge the pockets of excellent existing provision. In Northern Ireland, ConstructionSkills (Sector Skills Council for Construction), the Northern Ireland Environment Agency (NIEA), the National Heritage Training Group (NHTG) and others will work together to respond to the needs in the province. In the Republic of Ireland, the Office of Public Works (Oifig na nOibreacha Poiblí, the government's agency responsible for heritage sites), FÁS (Foras Áiseanna Saothair, the Republic's national training and employment authority) and their partners will similarly use the findings and their Skills Action Plan to respond to current and future demand.

To maximise resources it would be ideal if these bodies could share best practice with each other and the rest of the United Kingdom and vice versa. We need to involve a wide range of partners, including the Assembly and government departments in the two respective countries, employers and employers' groups, trade unions, heritage organisations, education and training providers, and funding bodies, to achieve this common objective.

On the basis of previous UK home country NHTG reports, we believe this unique piece of labour market intelligence is a key element in stimulating the revival of traditional building skills in both countries and promoting the cultural and economic value of our built heritage. This report comes at a time of economic downturn and major challenge, especially within the construction industry, but we need to ensure that we train and upskill the workforce in readiness for the eventual financial recovery. Care and conservation of our built heritage sits firmly within the repair, maintenance and improvement sector of the construction industry, but has different skills and knowledge sets. As custodians of our built heritage, we have a responsibility to insist that this work is carried out to the highest possible standard.

Help us to meet the challenge and make a difference to the built heritage sector.

Mike Moody
Chairman
National Heritage Training Group

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acknowledgements

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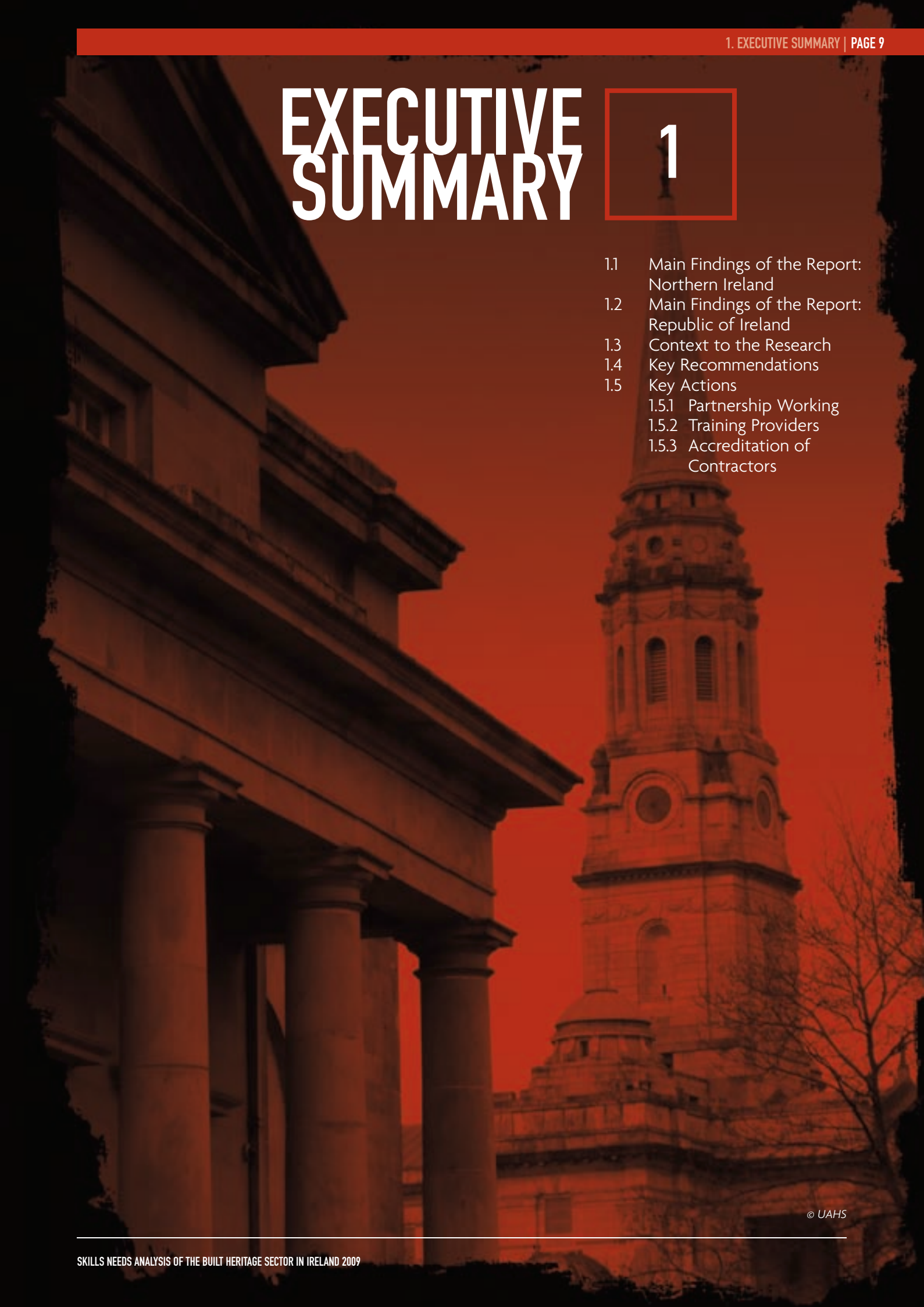
EXECUTIVE SUMMARY 1



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executive summary

1.1 Main Findings of the Report: Northern Ireland

	Demand	Supply	Manufacturers and Suppliers	Training Provision
Findings	Around 125,000 pre-1919 buildings Estimated spend in 2007 of almost £25m on conservation, repair and maintenance, expected to rise to £26.1m in 2010 Actual 2007 market for traditional building craft skills worth around £11m (using traditional materials), expected to rise to £11.8m in 2010 Small market reflects the boom in new build over the past few years Grants are important in conservation of historic buildings Current lack of demand due to cost, lack of knowledge and understanding of traditional building materials, and harm to pre-1919 buildings in using modern alternatives has led to inappropriate repair and maintenance Enough output in 2007 to sustain 570 full-time equivalents (FTE) working on pre-1919 buildings, and 260 with skills in the use of traditional materials; expected to rise to 600 and 270 respectively by 2010 Potential for traditional building craft skills is twice the current demand Lack of knowledge of traditional building materials and skills, cost and perceived lack of availability of traditional materials have led to inappropriate repair and maintenance Recent focus on new build at the expense of conservation Much less conservation culture exists compared to the rest of the United Kingdom	Currently over 1,800 people work in the pre-1919 built heritage sector (excluding self-employed) Only 5% of contractors undertook any work on pre-1919 buildings in last 12 months, on average only 25% of their work Vast majority are general builders; only 14% see themselves as conservation or heritage specialists Most consider themselves capable of working on listed buildings and have high regard for employees' skills Recruitment is moderately difficult; only a few long-term vacancies Contractors recruit skilled or partially skilled staff, but around 50% have staff on formal training programmes Of the members of the traditional building workforce, 100 were estimated to have required some form of training in 2007, including 20 needing top-up training in the use of traditional materials; numbers expected to remain constant over the next few years On-the-job training/work experience considered more important than college courses One-third interested in Heritage Skills NVQ Level 3 and in the HLF Bursary Scheme Subcontractors used by 66% in the previous 12 months; subcontractors easy to find Modern methods/materials easier than traditional materials; lack of specialist training and information means low awareness of the dangers of using modern alternatives Increased use of modern methods of construction to meet building and energy regulations at the expense of traditional materials	Main materials supplied: wood/timber, stone, glass, roofing tiles and slate Materials partly sourced from within Ireland and Great Britain, but timber products from further afield Around three-quarters of products supplied by those interviewed are traditional materials Only 11% regard themselves as specialist conservation or heritage suppliers Increased sales of traditional materials in the past 5 years because of higher awareness and greater affluence More difficulty experienced in recruiting skilled craftspeople compared to contractors, and most are in need of some training Skills of employees (including craftspeople) well regarded Mixed views expressed on competence/knowledge of traditional materials by stockholders, professionals and contractors Gap exists between proportion of traditional materials specified by professionals and actually used by contractors Training on some materials available only from manufacturers and product suppliers	Construction NVQ courses mainly provided through FE colleges Wood trades and bricklaying are most popular courses Three-quarters of trainees go into new build; almost all of the remainder go into repair and maintenance, and only 2% into specialist heritage work Almost no specialist conservation or heritage skills courses available Almost 60% of trainers thought to have traditional building craft skills Pressure from employers to design the syllabus to reflect need for modern building materials and techniques Most consider that current courses do not equip trainees to work on pre-1919 buildings, but optional traditional building skills modules welcomed on mainstream courses Lack of awareness among trainers of recent traditional building skills initiatives; under 50% aware of the Heritage Skills NVQ Level 3 Low awareness of NHTG Training the Trainers programme, but considerable interest in this Strong agreement that schools should include teaching on building and building materials Lack of opportunity for specialist/traditionally skilled craftspeople

1.2 Main Findings of the Report: Republic of Ireland

	Demand	Supply	Manufacturers and Suppliers	Training Provision
Findings	Around 175,000 pre-1919 buildings Estimated spend in 2007 of €186m on conservation, repair and maintenance, expected to rise to €207m in 2010 Actual 2007 market for traditional building craft skills worth around €107m (using traditional materials) and expected to rise to €116m in 2010 Grants are important in funding historic building conservation Enough output in 2007 to sustain 3,290 full-time equivalents (FTE) working on pre-1919 buildings, and 1,910 with skills in the use of traditional materials; expected to rise to 4,770 and 2,570 respectively by 2010 Potential for traditional building craft skills is just under half current demand Lack of knowledge of traditional building materials and skills, cost and perceived lack of availability of traditional materials have led to inappropriate repair and maintenance Protected structures legislation introduced in 2000, and the Irish Heritage Trust only introduced in 2006 Recent focus on new build at the expense of conservation	Currently 4,600 people work in the pre-1919 built heritage sector (excluding self-employed) Only 7% of contractors undertook any work on pre 1919-buildings in last 12 months; on average this forms one-third of their work Almost one-third (30%) of interviewees regard themselves as conservation or heritage specialists Almost all interviewees regard themselves as capable of working on protected structures and generally have a high regard for their employees' skills Recruitment is moderately difficult, with only a few long-term vacancies Contractors prefer to recruit skilled or partially skilled staff, and under 20% have staff on formal training programmes Of the traditional building workforce, 540 required some form of training in 2007, including 150 needing top-up training in the use of traditional materials; expected to rise to 790 and 210 respectively by 2010 On-the-job training and work experience seen as more important than college courses Almost 90% expressed interest in the Heritage Skills NVQ Level 3 (not currently available in Republic of Ireland) Almost 80% used subcontractors in the previous 12 months and had no difficulty in finding these Builders unaware of dangers of using modern materials on traditional buildings because of lack of specialist training and information Contractors find modern materials easier to use than traditional techniques	Main materials supplied are wood/timber, stone, glass, roofing tiles and slate Materials partly sourced from within Ireland and Great Britain, and timber products come from further afield Around two-thirds of products sold by those interviewed are traditional materials More than one-fifth (22%) regard themselves as specialist conservation or heritage suppliers Increased sales of traditional materials in the last 5 years due to higher awareness and greater affluence Mixed views regarding competence/knowledge of traditional materials by stockholders, professionals and contractors Skills of employees (including craftspeople) highly regarded Slightly more difficulty experienced in recruiting skilled craftspeople than contractors, and most are in need of some training A small difference exists between proportion of traditional materials specified by professionals and actually used by contractors Training on some materials available only from manufacturers and product suppliers	Level 2 training provided by Foras Áiseanna Saothair (FÁS) centres; levels 4 and 6 by Institutes of Technology Wood trades, plumbing and electrical courses are most popular Almost 80% of apprentices go into new build and almost all the remainder into repair and maintenance; only 3% go into specialist heritage work Almost no specialist conservation or heritage courses are available The majority (70%) of trainers are thought to have traditional building craft skills Pressure from employers to design the syllabus to reflect need for modern building materials and techniques Most consider that current courses do not equip trainees to work on pre-1919 buildings and would welcome optional traditional building skills modules One-third aware of Heritage Skills NVQ Level 3, even though this is not available in the Republic of Ireland Considerable interest in NHTG Training the Trainers programme as model for use in Republic of Ireland Lack of opportunity for specialist traditionally skilled craftspeople The few trainers that have links with schools agree that schools should include teaching on building and building materials

context to the research

1.3 Context to the Research

This first major primary research of traditional building craft skills in the built heritage sector for the whole of Ireland follows the first ever report of this series on the sector in England, *Traditional Building Craft Skills: Assessing the Need, Meeting the Challenge,* published by the NHTG in 2005.[1] Similar research reports in Scotland[2] and Wales[3] were published in January and July 2007 respectively, and the England 2008 review[4] and a UK-wide report on built heritage sector professionals[5] were published in April 2008. This latest report provides up-to-date statistical data on traditional building craft skills in Ireland, thus completing the UK-wide picture on this sector and extending the research to cover the Republic of Ireland. This data underpins the strategic planning and tactical delivery necessary to ensure a suitably skilled and qualified workforce for this sector of the construction industry is available now and in the future.

The research objectives were to:

- understand the place of traditional buildings in the cultures of each of the two countries
- understand the influence of legislation, conservation groups and building professionals
- analyse and quantify supply and demand in the sector and identify specific skills shortages
- assess the material supply chain and related skill issues for manufacturers and suppliers of traditional building materials
- assess current training provision
- inform the Skills Action Plans (see Section 10) and identify appropriate performance measures within an appropriate timetable agreed with major stakeholders.

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The research included structured quantitative interviews with:

- 87 stockholders
- 260 contractors
- 93 manufacturers and suppliers
- 80 architects and surveyors
- 57 training providers
- 11 conservation officers.

These were supplemented by 66 in-depth qualitative interviews with the stakeholder groups listed above and with conservation organisations and grant-awarding bodies.

key recommendations

1.4 Key Recommendations

- Without **active demand** for heritage building skills there will be little change in the current market, and this requires action directed towards all sectors of the construction industry and historic environment field, including improved education, publicity and information sources.
- Northern Ireland and the Republic of Ireland share **a common heritage in the built environment** and much of what has already been achieved has been characterised by cross-border co-operation, so continuing in this manner will have major advantages, not least in the potential for both economies.
- A real need exists in both countries to **increase public awareness of the value and importance of the built heritage,** with education essential to inform private property owners and government agencies of the dangers of using inappropriate materials on traditional buildings and the real whole-life and sustainability benefits of using compatible techniques and approaches.
- The **sustainability of conserving old buildings,** as opposed to demolishing and rebuilding, must be stressed in terms of retaining this sizeable part of the total building stock, integrating it with the rest of the built environment and saving non-renewable natural and physical resources.
- Proper **accreditation of building contractors, craftspeople and professional practitioners** is crucial for property owners, especially in the private sector where the majority of this work is undertaken, to help them make a more informed choice when engaging those who are suitably skilled and knowledgeable in this type of work and can undertake this to the required standard.
- Measures are needed to **improve statistical information on the built heritage stock,** which is currently difficult to access, consolidate and analyse.
- Increasing pressure to use modern methods of construction (MMC), especially in house building, in order to meet **new energy efficiency requirements** and the introduction of more modern systems may exacerbate the current training situation. This can be offset by including heritage modules within mainstream construction training, and highlighting the importance of using the existing building stock in minimising future carbon emissions.

key actions

1.5 Key Actions

The lead partners in this field need to continue to develop partnership working to ensure that the following key actions are implemented to address training and skills development for the built heritage sector in both countries.

1.5.1 Partnership Working

- Partnership between contractors, trade federations and associations, trade unions, craftspeople, training providers, major stockholders, heritage organisations, building preservation trusts and government is needed to **drive the recommendations within this report.** Ideally, this would work under a single inclusive organisation focused on the built heritage, which forms only part of the overall built environment in each country. The Building Limes Forum Ireland is an example of stakeholders working together across the country boundaries, and the NHTG in the UK is a model of partnership working that might be suitably adapted to support the work in Ireland.
- A formal **Partnership Agreement** between ConstructionSkills in Northern Ireland and the Northern Ireland Environment Agency (NIEA) is planned to help coordinate delivery of the Skills Action Plan for Northern Ireland (see Section 10), but this also requires the active involvement of the other heritage partners working within a Traditional Building Skills Working Group, and support for skills development from relevant Assembly departments.
- The Office of Public Works (OPW) and Foras Áiseanna Saothair (FÁS) already work closely together on built heritage sector training, and this cooperation needs to be increased, with the other heritage partners in the Republic of Ireland similarly coming together under a **Traditional Building Skills Working Group** to provide an overarching strategy and structure for delivery of the Skills Action Plan (see Section 10).
- Partnership working within each country will include **accepting the strategic vision and helping to deliver the Skills Action Plans** to address the issues within the report and improve the supply of skills within the sector to meet current and future demand.
- This will include **improved information, advice and guidance** on the built heritage and traditional building skills and materials for a range of stakeholders, including schools, colleges and property owners, to accurately inform the public of the need to use the right methods and materials, and suitably qualified and experienced practitioners.

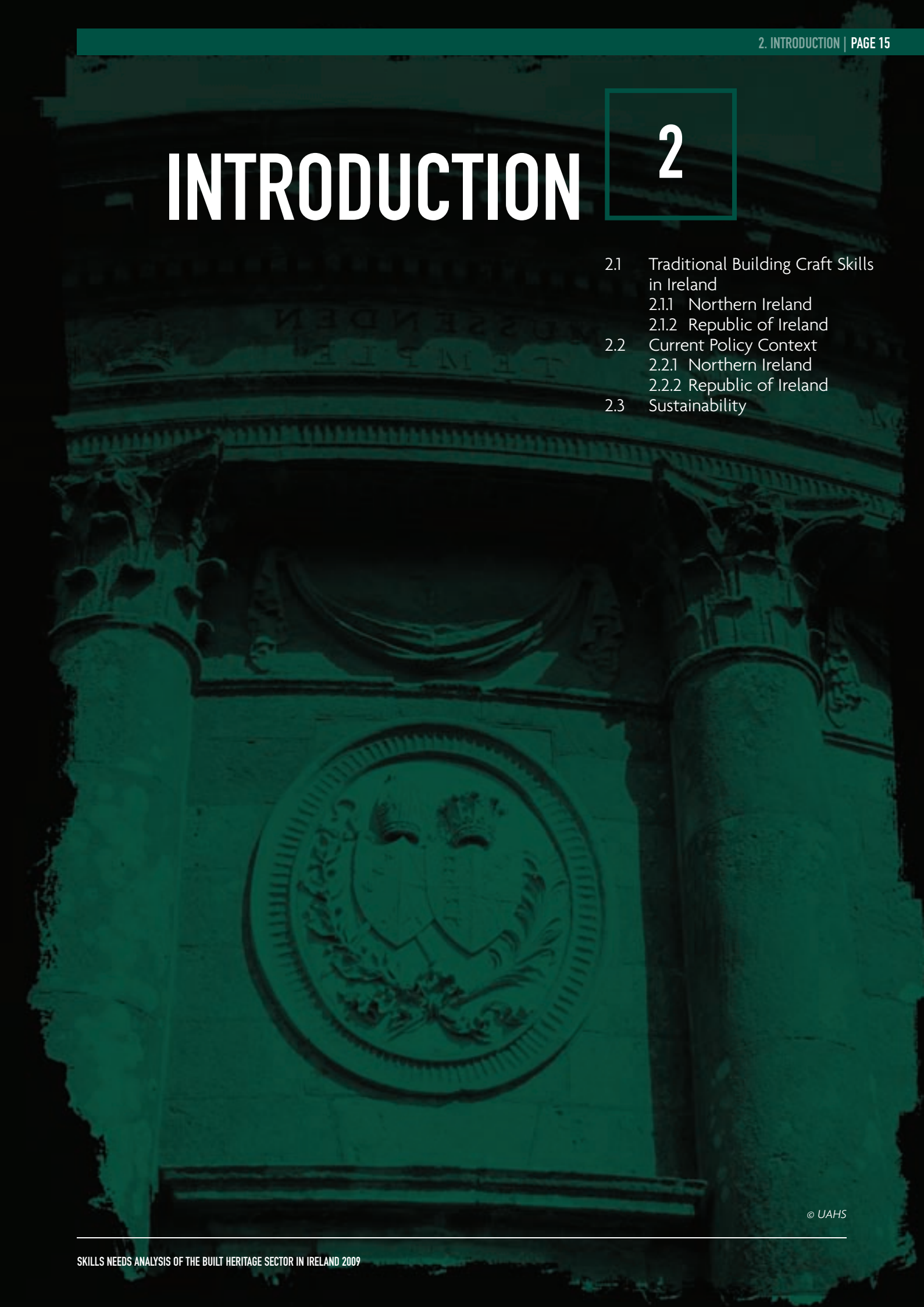
1.5.2 Training Providers

- Very little specialist conservation or heritage skills training exists in either country, and coordinated action is needed to increase awareness among trainers of the various **heritage building skills training initiatives** and **develop a network of appropriate training providers** to match demand in both countries.
- While different education systems exist in both countries, **awareness of and interest in the Heritage Skills NVQ Level 3 and the Heritage Lottery Fund Bursary Scheme for Masonry Conservation was high in the Republic of Ireland,** and FÁS may wish to consider developing similar training and modules from this qualification at Level 8.
- Similarly, the successful NHTG **Training the Trainers programme** needs much more publicity, and, as trainers from both countries expressed a keen interest in this, a programme can be devised and delivered in Ireland by those experts in the field there. This will improve the FE trainers' understanding and knowledge of conservation, repair, maintenance and restoration as part of their own continuing professional development (CPD).

1.5.3 Accreditation of Contractors

- A number of directories and information sources relating to built heritage contractors, material suppliers and professional practitioners exist, but **stockholders would benefit greatly from a single source which can be easily accessed and which carries some form of accreditation.** This could be accommodated on one website with signposting to other websites or publications.
- The NHTG unified, accredited **Heritage Building Contractors Register** currently under development for the rest of the UK should be extended to include Northern Ireland. The Irish Georgian Society's **Traditional Building and Conservation Skills Register of Practitioners** and the **Construction Industry Federation Register of Heritage Contractors** should be further developed and promoted within the Republic of Ireland. These registers should contain publicly available information on the companies, but also the conservation or heritage qualifications, competencies and experience of their employees to help users when selecting a contractor or craftsperson.
- **Conservation officers** provide information, advice and guidance to property owners and have a great deal of local knowledge. As this source is not particularly well known, especially in Northern Ireland, their role needs to be much more highly publicised, and unified information must be provided to them to assist in this process.

INTRODUCTION 2



introduction

Ireland has an inspiring historic architectural tradition, from the earliest settled inhabitants of the Mesolithic period (around 6000 BC) and their impressive range of megalithic remains, including passage tombs at Newgrange, Dowth and Knowth, the ring forts of the Celtic tribes of the late Bronze Age and the great monastic buildings, castles, medieval tower houses, classical plantation towns of mid-Ulster, to the Georgian and Victorian splendour of Dublin and Belfast respectively. This vital part of the cultural heritage is rightly celebrated and, together with Ireland's beautiful natural landscape, is a major attraction for inhabitants and tourists alike to enjoy. The villages, towns and cities create a sense of place but are also functioning parts of daily life for local people. These older buildings provide a glimpse of the imagination and physical abilities of previous generations to shape the landscape in which they lived from local materials. As with other countries, Ireland's built heritage is an evocative physical manifestation of its culture and identity, has an important role in linking the past with the present and future, and contributes to its education, social fabric and economic prosperity.

Although the typical rural cottages and farm buildings follow a familiar pattern, distinctive regional building styles exist throughout Ireland and have been fashioned by the available locally sourced natural materials and the regional and local vernacular building traditions. Many of these buildings were often constructed from non-durable materials and consequently did not survive, while many others have suffered the ignominy of falling into disrepair through neglect or missing tenants or owners, or through being demolished to make way for the widespread construction of new homes in rural parts of Ireland. In the larger towns and cities different styles of architecture evolved and, in the 19th century, reflected the move away from handmade to machine-produced materials, such as bricks, and more rapid building techniques to accommodate the increasing populations in the industrial centres. The surviving approximately 300,000 pre-1919 traditional buildings in Ireland form, therefore, a strong link with the architectural tradition of the past: these are buildings full of character with a distinctive nature, and they contribute to the rich fabric which is our built environment.

Historic properties within their local context are and should be highly regarded elements of our landscape. It is important that these are properly maintained and used or sensitively adapted for other purposes, and that appropriate protection through legislation and planning control exists to retain as much as possible of the historic environment. Another key ingredient is having the right knowledge and skills to properly conserve, repair, maintain and, where appropriate, restore such buildings. Unfortunately, many of these once common skills declined in the latter part of the 20th century, and the increased reliance upon modern methods of construction, which are entirely appropriate for new-build projects, has in the recent past supplanted the availability and use of traditional building skills and materials.

2.1 Traditional Building Craft Skills in Ireland

No single coordinating body responsible for traditional building craft skills exists in either Northern Ireland or the Republic of Ireland. However, the heritage agencies, heritage bodies, preservation trusts and groups have for some time supported the need to raise awareness of this important historic asset, and have provided information, advice and guidance to property owners, and financial support through grant aid or purchasing and conserving buildings as properties in care or for rental or resale using traditional building methods and materials.

An acute shortage of coordinated formal traditional building skills training provision and development exists in Ireland, with little opportunity for those who may be interested in gaining an understanding of the principles and practice of conservation, repair and maintenance. Most firms are general builders that move from new build to the repair, maintenance and improvement sector of the construction industry, and inevitably focus on the use of modern methods and materials without considering the consequences of these on traditional buildings. This provides little consumer protection to the private owner of a traditional building, and contractors and craftspeople with the necessary skills are badly needed through upskilling to meet the needs of the historic building market. However, by comparison with England, the market for traditional skills is not widely recognised in Ireland and, as we become more environmentally conscious and the need to reuse and adapt existing buildings becomes increasingly important, demand for traditional building skills will increase.

2.1.1 Northern Ireland

NIEA

The NIEA[6] has over 180 protected sites and monuments in state care. Ongoing routine care, conservation, repair and maintenance of these is provided by its 55-strong directly employed labour force set up in the late 1960s. It has a long-established tradition of training its own workforce. New young entrants follow a general apprenticeship up to National Vocational Qualification (NVQ) Level 3 in a main construction trade. They then further develop their knowledge and skills of ancient monument conservation repair by working on the job/work shadowing and attending short courses. The labour force also works on three scheduled monuments in private care in any financial year. The NIEA also provides grant aid for conservation and repair of traditional buildings (see Section 4.5.1 for details) and technical advice to owners of listed buildings, including guidance on proposed works and recommendations on historically correct materials and detailing. It has produced a number of publications and advice leaflets on the care and conservation of traditional buildings, and funded the joint publication *The Directory of Traditional Buildings Skills* with the Ulster Architectural Heritage Society (UAHS).

Heritage Lottery Fund Bursary Scheme for Masonry Conservation in Scotland and Northern Ireland

A masonry conservation bursary scheme is being developed and administered in Scotland and Northern Ireland by Historic Scotland in partnership with the NIEA. The £1m award from the Heritage Lottery Fund (HLF) to the Technical Conservation Group, and further funding from other bodies (Historic Scotland, Scottish Enterprise Glasgow), supports delivery of 170 training opportunities. This will be divided up into one-month satellite training bursaries to take up the new Scottish National Progression Award for the Conservation of Masonry, and one-year placements with other partners. The focus of the training is on traditional masonry construction and in particular repair and maintenance which is aimed at raising quality and standards in Scotland. The bursary scheme is one element in a much larger programme of £7m support from the HLF for a total of 10 bursary schemes, and the HLF provides further support for training within the heritage sector by requiring that all grants above £1m include the provision of an on-site training plan.[7]

Mourne Heritage Trust Homesteads Scheme

In 1997 the Mourne Heritage Trust[8] was established as a partnership of central and local government agencies and environmental, community, recreational, landowning and business interests to manage the Mourne and Slieve Croob Area of Outstanding Natural Beauty. The Trust is an independent body and a charity with four key areas: natural environment enhancement and protection; visitor management and visitor services; built and cultural heritage; sustainable tourism.

The Mourne homesteads project was established by the Mourne Heritage Trust in spring 2000 to seek ways of addressing the loss of traditional buildings in the countryside. It has two strands: the renovation of vacant traditional dwellings in the Mournes as affordable housing for full-time use by local people, and an education and training programme. In total seven traditional buildings were repaired and refurbished to a high standard for modern living using traditional building methods and materials and local building contractors, for which the project received several awards and was nominated for a prestigious Europa Nostra Award. The education and training programme is a cross-border project supporting traditional building skills training at all levels in the use of lime, traditional carpentry, thatching, stonemasonry and other rural building skills, and has delivered 27 courses to over 270 homeowners, architects and those involved in the building industry. *Traditional Buildings in Ireland: Home Owners Handbook,* written by Dick Oram and Dawson Stelfox, was published by the Trust in 2005 and provides practical information for similar traditional building repair projects.

Ulster Architectural Heritage Society

The UAHS[9] exists to promote the appreciation and enjoyment of architecture from the prehistoric to the present in the nine counties of Ulster, and to encourage its preservation and conservation. It is unique among Northern Ireland's non-governmental organisations (NGOs) in working to preserve the history and beauty of Ulster's historic buildings. Primarily concerned with the conservation of historic buildings, over the last 40 years the UAHS has established itself as a fearless campaigner for buildings of merit, an information resource on local architecture and a source of advice on conservation. Its campaigns led to the establishment of listed building legislation in Northern Ireland in 1972 and to the formation of the Historic Buildings Council, historic buildings grants, conservation areas and the public buildings record.

Since 2002 the UAHS has provided invaluable support to promote the care and conservation of traditional building through its project **Home and Dry,** which organises twice-yearly one-day sessions for homeowners, architects, contractors and others, with visits to buildings being conserved or practical hands-on demonstrations from traditional building practitioners. Course evaluation forms have provided a means of capturing the interest in older buildings from attendees, category of building they live in, difficulties encountered and other areas they would like to see covered in the future programme. The UAHS has with the NIEA recently organised a **Listed Building Owners Forum** aimed at raising awareness of the planning process, grant aid and the correct use of traditional building materials and skills.

Hearth

Hearth was originally established to restore modest dwellings of architectural significance in Northern Ireland for housing purposes by the Northern Ireland Committee of the National Trust and the UAHS. It now has two related bodies: Hearth Housing Association (formed in 1978), mainly financed from public housing funds to restore and manage buildings for letting to those on public authority waiting lists, and Hearth Revolving Fund (formed in 1978 and enhanced in 1989), which uses grants and private finance to restore listed buildings (in most cases in very poor condition or at risk of demolition), usually as dwellings. Since 1978 both bodies have restored around 140 buildings, thus providing high-quality housing and contributing to the preservation of the historic nature of many of the towns and villages of Northern Ireland. The architects, engineers, surveyors, builders and craftspeople engaged in these projects work to a consistently high quality, which is demonstrated by Hearth winning numerous conservation awards.

HLF Townscape Heritage Initiatives

A vital aspect of the sustainability agenda is an increased understanding of the important role that historic buildings can play in encouraging sustainable communities, especially in areas of economic deprivation, now a major government priority. This is recognised by the HLF's Townscape Heritage Initiatives (THIs), with individual THI grants worth up to £2m. These changes suggest that the built heritage sector, and the roles of those working within it, will be affected as planning and heritage protection laws are modified in order to promote sustainable development.[10]

An excellent example of a successful and awarding-winning THI exists in the £1.2m Draperstown and Moneymore project. This has reversed the decline of important historic buildings to provide much-needed public and community-based facilities, helped revive the commercial and retail parts of the two towns, created employment opportunities for local people and increased the communities'

understanding of their shared history and heritage. In Derry the Walled City Partnership Limited is at present implementing the £1.7m Walled City THI (Phase 1), an economic regeneration programme of repair and reuse of historic buildings which contribute to the historic townscape character of Derry. In total, 20 buildings within the historic city centre will have been completed by December 2008 under Phase 1, and 44 historic buildings have initially been identified as being eligible for funding under the THI Phase 2, which is programmed to commence in March 2009 and be completed by February 2014.

Waterways Ireland

Waterways Ireland[11] is one of the six North/South Implementation Bodies established under the British-Irish Agreement in 1999. It has responsibility for the management, maintenance, development and restoration of inland navigable waterways, principally for recreational purposes. Its website describes the waterways as being of ecological, archaeological, architectural, engineering and historic value, and Waterways Ireland is in the process of developing an environment and heritage policy, together with codes of practice, to protect the inland waterways and to ensure they are developed and managed in an environmentally sustainable fashion. This should create an opportunity for dialogue on using traditional building skills and materials on the structures within its care.

2.1.2 Republic of Ireland

International Council on Monuments and Sites (ICOMOS) Ireland

Founded in 1984, ICOMOS Ireland is an NGO that aims to foster wider appreciation of historic, architectural and cultural heritage, and promotes the application of theory, methodology and scientific techniques to the conservation of architectural heritage. ICOMOS Ireland is linked to ICOMOS International, which currently has 110 national committees in countries that are members of UNESCO. These committees bring together individual and institutional members and offer them a framework for discussion and an exchange of information. The membership base includes professionals, practitioners, supporters and organisations committed to the protection and conservation of the cultural heritage. ICOMOS Ireland focuses on establishing, maintaining and promoting internationally accepted standards of practice in the preservation, conservation and management of the cultural heritage.

In August 2008 the ICOMOS Ireland Sub-Committee on Education and Training produced a draft report for publication entitled *Sustaining Our Built Environment: Review of the State of Conservation Education and Training in Ireland,* which provides a review of the current situation ten years after ICOMOS Ireland's National Committee adopted the 1994 report on the state of education and training for conservation in Ireland. This review lists current training and initiatives in terms of materials conservation; crafts in the building industry; education and building professionals; scholarships, bursaries and grants; and training trainers and curriculum development, and it makes recommendations on all these for coordinated action. Many of these relate directly to issues in this report and should be integrated with the Conclusions and Recommendations in Section 9 and the Skills Action Plans in Section 10.

Office of Public Works

The Office of Public Works (OPW) is a state agency of the Department of Finance in the Republic of Ireland and was originally formed in 1831. The Heritage Services of the OPW is responsible for the conservation, maintenance, management and presentation of over 800 national monuments and historic properties in state care.

Heritage Council

The Heritage Council is a statutory independent body established under the Heritage Act 1995 and funded by the Department of the Environment, Heritage and Local Government (DoEHLG). Its role is to propose policies and priorities for the identification, protection, preservation and enhancement of the national heritage, which is defined as including built heritage such as architectural heritage; heritage objects such as art or documents; and natural heritage such as heritage gardens and wildlife habitats. One aim is, among others, to promote education, knowledge and pride in Irish heritage. It also administers grant schemes for owners of heritage buildings.

An Taisce

An Taisce, established in 1948, focuses on protecting the environment through education, conservation and participation. It is the only independent, non-statutory and charitable body in Ireland that is a listed prescribed body within the planning legislation, which means that it has to be consulted on certain planning applications that could impact on

Ireland's heritage assets. The organisation, with the participation of local communities, manages a number of built and natural heritage properties in Ireland. For example, it has recently, after great efforts, restored Tailor's Hall, which is the oldest surviving guild hall in Dublin and currently serves as An Taisce's headquarters.

Irish Georgian Society

The IGS is Ireland's architectural heritage society which, through education, grants, planning participation and fundraising, aims to promote conservation of and interest in notable examples of architecture and art in Ireland. Importantly, the IGS has its Traditional Building and Conservation Skills Register of Practitioners, the aim of which is to assist people undertaking conservation work on period properties in identifying craftspeople and professionals with good conservation expertise. The Society also offers grants for the conservation and restoration of heritage buildings and monuments, and promotes the use of conservation methodologies consistent with international best practice. (www.igs.ie)

Since 1999 and as part of the IGS Conservation Outreach Programme, the Society has held an annual Traditional Building and Conservation Skills in Action Exhibition to inform members of the public about the necessity and availability of traditional building skills. These exhibitions run in partnership with local authorities and are grant aided by the heritage council and DoEHLG.

Construction Industry Federation

The CIF is the leading representative body for contractors, representing several thousand companies covering businesses in all areas of the Irish construction industry, which are responsible for over 75% of the industry's turnover. It works to achieve the best possible economic and political climate so that construction can thrive.

The CIF *Register of Heritage Contractors*[12] includes details of skilled and experienced main building contractors and specialist contractors that provide traditional building craft trades for the conservation and restoration of heritage properties. The register was established to promote best practice in the heritage sector, as well as improving recognition of this sector.

FÁS

FÁS is Ireland's national training and employment authority. It promotes and provides training and employment opportunities and programmes for school leavers, postgraduates and professionals. This is achieved through a regional network of 66 offices and 20 training centres across the Republic of Ireland and support for community-based enterprises, to enhance the skills and competencies of individuals and enterprises so Ireland can further develop as a competitive, inclusive, knowledge-based economy. It also produces skills and labour market reports.

FÁS established a **Thatcher Traineeship** in 2006, which is one of a few courses provided by FÁS that equips its participants with traditional building craft skills and leads to a formal qualification. The traineeship is aimed at both school leavers and the unemployed, and provides foundation in the skills and practical experience required to gain employment in thatching. Completion of the traineeship enables the participant to become a qualified thatcher, and the achievement of the Further Education and Training Awards Council (FETAC) Certificate in Thatching provides access to further education and training in similar or related occupations.

Irish Heritage Trust

The IHT, a charity, was established in 2006 to care for historic properties, houses and gardens throughout Ireland and benefit the local communities through tourism, employment and providing places for pleasure and relaxation. The IHT recently acquired its first property, Fota House in Cork, and hopes to announce many more over the next few years (www.irishheritagetrust.ie).

2.2 Current Policy Context

Apart from the effect of the prevailing economic climate on the need for traditional building skills, there are national policies which impact on the built heritage sector and training needs, making it more important than ever to have up-to-date information on this sector. The effects of increased involvement in sustainability, regeneration, climate change and energy efficiency will also have a major impact on the supply of skills and the sensible environmental use of the building material supply chain.

2.2.1 Northern Ireland

Shaping Our Future: Regional Development Strategy for Northern Ireland 2025 offers a strategic, long-term perspective on the future development of Northern Ireland up to the year 2025. It has been prepared in close consultation with the community and seeks to define an agreed vision for the region and

to frame an agenda which will lead to its achievement. Chapter 10 discusses support for economic development and the need for education, training and lifelong learning (SPG-ECON 6), and this, especially ECON 6.1, fits with the aim of much of the craft skills training agenda, especially upskilling, career progression and opportunities for moving from further education to higher education. In chapter 12 ('Caring for the Environment') the strategic planning guideline SPG-ENV3 highlights the need to conserve the built environment. This includes the built heritage, safeguarding buildings of special architectural or historic interest, conserving the character of cities, towns and villages and the retention of vernacular buildings and industrial heritage features in urban and rural areas, all directly relevant to the objectives of the built heritage sector.[13]

In section 6 of the *Shaping Our Future: Regional Development Strategy for Northern Ireland (RDS), 2025. First 5-Year Review,*[14] a cross-border framework is presented to increase collaboration in three components: all island, regional and local. The built heritage sector and the key partners in this traditional building craft skills research could greatly benefit from this approach in sharing knowledge and training opportunities.

The *Northern Ireland Sustainable Development Strategy*[15] sets out the strategic objective 'To conserve, protect, enhance and sustainably re-use our historic environment'. This includes a key target of rescuing at least 200 structures on the Built Heritage at Risk Northern Ireland Register by 2016. Achieving this will require traditional building skills and, as this proposed measure is under the control of the NIEA, one of the main partners in this craft skills agenda, it should be possible to achieve this key target. Important aspects of this strategic objective include increasing the retention of historic fabric in listed buildings, and ensuring the 'protection and conservation of historic buildings and monuments through planning policy and Buildings and Monuments at Risk strategy'.


© Irish Georgian Society

Success through Skills: The Skills Strategy for Northern Ireland[16] of 2006 sets out the government's skills vision and how the Department for Employment and Learning will deliver this in partnership with other government departments, employers and employers' groups, individuals and trade unions, training and education providers, the voluntary sector and other agencies and the community. Many of the key strands of this strategic document accommodate the traditional building craft skills agenda, especially the need for labour market intelligence (which this report provides), improving the quality and relevance of education and training, and tackling the skills barriers to employment and work-based skills.

The NIEA Historic Buildings Grant Scheme[17] offers important financial support, with grant aid recently opened up to grade B2 secular listed buildings and the percentage that can be funded increased to 35% of eligible costs across the board. Maintenance can now be funded, and priority will be shown towards listed buildings on the Built Heritage at Risk Northern Ireland Register.

The NIEA NGO Grant Scheme[18] shows that grant aid is now available for building preservation trusts and other charities to acquire historic buildings at risk in Northern Ireland. This is done via a scheme administered for the NIEA by the Architectural Heritage Fund (AHF). It should assist in satisfying demand for suitable traditional building skills to undertake work to the required standard.

2.2.2 Republic of Ireland

The key driver for promoting the value and use of traditional building skills in the Republic of Ireland is Part

IV of the Planning and Development Act 2000,[19] which charges both planning authorities and owners with new responsibilities to protect their architectural heritage.

Planning authorities have an obligation to create a record of protected structures which forms part of the authority's development plan. They are obliged to preserve the character of places and townscapes that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest by designating them architectural conservation areas in their development plan. Development plans must include objectives for the care of protected structures and the preservation of the character of conservation areas.

Owners and occupiers are required to maintain protected structures, and planning authorities have additional powers to ensure that buildings are not endangered either directly or through neglect. They may seek a declaration from the planning authority with regard to works that would materially affect the structure's character. All such works require planning permission.

In order to embrace this framework, the government has taken the following measures:

- the National Inventory of Architectural Heritage has been set up to provide planning authorities with expert and independent data on buildings of value
- a grant scheme embracing best practice for the conservation of protected structures has been established (although the grants are administered by planning authorities at local government level, certain criteria are set centrally)
- conservation officers have been employed to assist the work of planning authorities and provide advice regarding protected structures. The protection of the architectural heritage is administered at both local and national level, though the protection of structures under the National Monuments Acts is administered at national level only.

The prescribed bodies in relation to the protection of the architectural heritage include the Minister for the Environment, Heritage and Local Government, the Heritage Council, the Arts Council, Bord Fáilte and An Taisce, whose role is to review developments that might impact on Irish heritage. They also must be sent notification of statutory steps relating to development plans and proposals to amend the record of protected structures.

2.3 Sustainability

Construction has a major environmental impact, and traditional buildings are also subject to the sustainability agenda affecting the industry. This is especially true in relation to the response to climate change and increased energy efficiency and use of natural resources, environmental impact and sustainable communities. In this regard, Northern Ireland Sustain and Build,[20] which is a portal offering open access to planning, building and environmental knowledge within the East Border Region of Ireland, might provide an opportunity for integrating the value of traditional buildings and traditional building skills and materials into the more mainstream thinking on sustainability.

In 2007 the UAHS published *Lose or Reuse: Managing Heritage Sustainably,*[21] which highlights the value of retaining traditional buildings in terms of sustainability and the economic benefits of retention. It includes a number of excellent case studies showing appropriate conservation, repair, reuse and regeneration of rural and urban buildings. There are clear environmental benefits of this approach and increasing evidence that pre-1890 public buildings have levels of energy efficiency that at least match, and sometimes exceed, those of the most sophisticated modern buildings.[22] Other buildings, particularly domestic dwellings, cannot match the energy efficiency of recent construction, but can often use energy-saving insulation in order to help them meet the efficiency standards demanded by the move towards sustainability.[23]

When environmental costs are calculated over a building's entire lifespan, traditional buildings often compare favourably with those of more recent construction; the energy put into existing structures should not be lost, as replacement will almost always be more environmentally costly in terms of carbon emissions than will refurbishment.

These issues are likely to become more prominent with the introduction of new EU legislation regarding Energy Performance Certificates (EPCs), which are expected to increase the demand for improved insulation of traditional buildings. Northern Ireland plans to achieve this with the recent introduction of Home Information Packs (HIPs), which must include an EPC. As of January 2007, in the Republic of Ireland all new dwellings require a Building Energy Rating (BER), with similar schemes being phased in for existing dwellings and for non-residential buildings.

RESEARCH OBJECTIVES & METHODOLOGY

3

research objectives & methodology

This section of the report describes the approach and methods used by the researchers to:

- understand the place of traditional buildings in the cultures of each of the two countries
- understand the influence of legislation, conservation groups and building professionals
- analyse and quantify supply and demand in the sector, and identify any specific skills shortages or skills gaps
- assess the material supply chain and related skill issues for manufacturers and suppliers of traditional building materials
- assess current training provision
- inform the Skills Action Plans and identify appropriate performance measures within an appropriate timetable agreed with major stakeholders.

3.1 Research Objectives

The research objectives closely mirror those of the other NHTG reports. As with the earlier research reports, the term 'traditional building skills' is used to refer to the skills required for work undertaken on all traditional buildings (pre-1919), from large-scale conservation and restoration projects to routine repair and maintenance. The alternative term 'heritage building skills' used in the NHTG *Heritage Building Skills* report of 2003 has been avoided as this is primarily associated with work on major or listed buildings, whereas this survey concentrated on the regular repair and maintenance work required by traditional buildings.

For the purposes of this study, the same 1919 cut-off date for all traditional buildings as used in the 2005 research is retained to comply with the categories used in the Northern Ireland House Condition Survey, the principal source of statistical information on the national building stock, and those used for households in the Republic of Ireland census.[24] The nearest equivalent to the House Condition Survey in the Republic of Ireland is the 10-yearly Irish National Survey of Housing Quality, published most recently in 2001, but the categories are broader, the oldest being pre-1941.

3.2 Research Methodology

The major focus was on primary research, that is, quantitative surveying of key stakeholder groups supplemented by a smaller number of in-depth interviews with selected stakeholders to add further depth of information to the quantitative research. However, a number of secondary sources have also been used to provide essential context, including CITB-Northern Ireland and CIF (Republic of Ireland) data on the construction industry.

3.3 Quantitative Research

A series of standardised questionnaires was developed with the input and guidance of the research steering group. These were based upon those used in the previous NHTG traditional building craft skills reports for England, Scotland and Wales for each of the following key stakeholder groups:

- stockholders and conservation organisations
- contractors
- building materials manufacturers and suppliers
- architects, surveyors and conservation officers
- training providers.

In addition, a new questionnaire was developed for conservation officers.

A total of 588 individual contractors, training providers, manufacturers and suppliers, stockholders, building professionals and conservation officers were interviewed for the quantitative surveys, between April and July 2008 (see Table 1). The work was carried out by telephone using trained interviewers and a standard format to ensure consistency of interviewing and recording.

3.4 Qualitative Research

Qualitative research was undertaken, mostly at the beginning of the research, to inform the quantitative questionnaires, provide specific information and insights into relevant issues, and understand the scope and composition of the built heritage sector in Ireland.

Information on the number of people working in this sector is subsumed within the broader construction industry, as national statistics in either country are not compiled separately. While information on the type of building worked on (dwellings, infrastructure) and whether the client is private or public sector is collected, this is not classified by building age. This lack of clear boundaries defining the extent of and numbers working in the built heritage sector means that the combined qualitative and

Table 1 Number of Interviews Conducted by Stakeholder Group

	Quantitative		Qualitative	
	Northern Ireland	Republic of Ireland	Northern Ireland	Republic of Ireland
Stockholders/organisations	45	42	8	13
Contractors	129	131	7	9
Manufacturers and suppliers	28	65	6	4
Training providers	32	25	2	3
Building professionals	27	53	3	3
Conservation officers	1	10	1	2
Grant-awarding bodies	0	0	4	1
Total	**262**	**326**	**31**	**35**

quantitative interviews are necessary, to gain a comprehensive understanding of this sector and its issues.

3.5 Geographical Boundaries and Currencies

The research was conducted to provide information on the sectors in Northern Ireland and the Republic of Ireland. Values are reported in the currency of the country to which the data refers. The decision was taken not to report in both sterling and euro, partly because doing so would add complexity to the data presented, but also because the rapid changes in the two economies at the time of writing affect the conversion rate and thus reduce its validity. Where it has been necessary to assume an exchange rate, for example in the demand calculations, this is explained in the text.

3.6 Target Groups

3.6.1 Stockholders and Organisations

For the quantitative element of the research, 87 stockholders were surveyed to provide an insight into the issues confronting owners of historic and traditional buildings (ranging from major structures, such as cathedrals and castles, to large country houses and smaller individual dwellings). A total of 21 qualitative interviews were also conducted, including a number with heritage organisations, such as the UAHS, the IGS and An Taisce.

3.6.2 Contractors and Trades/Craftspeople

Contractors were the major focus of the research, with a total of 260 quantitative interviews completed. The main sample sources were the CITB-ConstructionSkills register for Northern Ireland and the CIF listing for the Republic of Ireland. These were supplemented by lists of firms known to be working in the heritage sector. Fifteen contractors and craftspeople were interviewed in the qualitative stage (all known to be specialists in traditional building skills), and a personal interview was conducted with the CIF to understand more about the industry in the Republic of Ireland and compare this with practice in Northern Ireland.

3.6.3 Manufacturers and Suppliers

The manufacture and supply of traditional building materials is crucial for proper conservation, repair, maintenance and restoration of pre-1919 buildings, and this research is the first significant survey of this subject in Ireland. In total 10 in-depth qualitative interviews and 93 quantitative interviews were undertaken with a range of manufacturers and suppliers of traditional building materials (wood products, stone, slate, lime, stained glass, interior fittings, metalwork, bricks and thatch).

3.6.4 Training Providers

Training in Northern Ireland follows a similar pattern to that in the rest of the UK, with trainees undertaking day-or block-release courses at further education colleges leading to NVQs. There has been a major reorganisation of the FE sector in Northern Ireland in the last few years (see Section 8 for details). Two in-depth qualitative and 32 quantitative telephone interviews were conducted with the training providers in Northern Ireland.

The education and training provision in the Republic of Ireland is different from that of the UK. Craftspeople complete a seven-stage apprenticeship: phases 1, 2, 5 and 7 involve working with the employer; phases 2, 4 and 6 are college based. Phase 2 comprises a 20-week course at a FÁS training centre, with phases 4 and 6 being 10-week courses at an Institute of Technology (see Section 8 for further details). Three in-depth qualitative and 25 quantitative telephone interviews were conducted with training providers in the Republic of Ireland.

3.6.5 Building Professionals

In total 6 in-depth qualitative and 80 quantitative telephone interviews were undertaken with architects and surveyors known to be working on traditional building projects. In addition, data for Northern Ireland building professionals was taken from the specific UK-wide NHTG research report *Built Heritage Sector Professionals: Current Skills and Future Training Needs.*

Three in-depth qualitative and 11 quantitative telephone interviews were conducted with conservation officers in Northern Ireland and the Republic of Ireland to gain an understanding of their roles in the planning process, advising on the conservation of the built heritage and administration of grants for this purpose.

3.7 Interpretation of Results

The results of the quantitative research summarised in this report are mostly presented in the form of the proportion (i.e. the percentage) of respondents giving each answer. Unless stated otherwise it should be assumed that the base for the table or chart is all respondents in the relevant chapter. For example, for contractors the 'all respondents' base consists of the 260 interviewed in the quantitative research. Where a question was asked of only a subset of respondents, the base is stated in both the commentary and any accompanying tables or figures. In some cases a 'mean' value has been calculated, and this is shown as an 'average', with the word 'average' signifying the arithmetic mean value.

Extensive use of rating questions was used throughout the research to measure respondents' attitudes to various issues. In all cases a five-point scale was used, where 1 was the negative pole/lowest value and 5 the positive pole/highest value. In some cases, mean scores were calculated to aid analysis. On a scale measuring importance, for example, a mean score over 4 would signify that a particular attribute was important to the sample group as a whole. A score of 2 or less would signify that it was not important. A mean score of or around 3 indicates a broadly neutral response; this can be either because the majority of respondents gave a neutral response or because approximately equal numbers gave answers at either end of the scale.

DEMAND FOR TRADITIONAL BUILDING SKILLS: STOCKHOLDERS

4

demand

This section of the report estimates the actual size of the demand for traditional building craft skills. Firstly, the scope and nature of traditional buildings in Northern Ireland and the Republic of Ireland is outlined, using where possible existing datasets from a number of sources to quantify the number of pre-1919 traditional buildings within the built heritage sector. Stockholders of traditional buildings, that is, public and commercial owners and private dwelling owners, were also interviewed to provide quantitative and qualitative information to establish:

- the scope of conservation, repair, maintenance and restoration work undertaken on their properties during the past 12 months and expected in the next 12 months
- craft trades used in the past 12 months
- level of satisfaction with the quality of workmanship and waiting time for the work undertaken.

From this, the combined spend profile and specific skills required have been used to determine traditional building skills development in the built heritage sector and a basis for mapping future skills needs.

4.1 Historic and Traditional Buildings in Ireland

4.1.1 Overview

The built heritage is part of the historic environment and comprises a wide range of property types, from the large, well-known landmark buildings such as castles, cathedrals, churches, town halls and great houses to the more commonplace buildings such as farms, workers' cottages, terraced homes and outbuildings.

For many years, care of this in both Northern Ireland and the Republic of Ireland lagged behind that practised in Great Britain. In Northern Ireland, the First Survey of listed buildings started in 1972, after the passing of the Planning (NI) Order 1972, and lasted until 1994, with the first buildings being listed in 1974. The Protected Structures Register was introduced in 2000 in the Republic of Ireland. Since the introduction of these measures, however, great steps have been taken in both countries to conserve the built heritage and its surrounding environment, at first mainly by volunteer enthusiasts, notably the UAHS and the IGS, but more recently with the assistance of the two respective governments.

4.1.2 Northern Ireland

There are a number of large country houses, often in the care of the National Trust, but there are also many fewer rural cottages and small houses compared to Great Britain, mainly for historical and demographic reasons. In what is now Northern Ireland, the population fell from 1.6m in 1841 to 1.2m in 1901, but then began to rise again. By comparison, in England the population grew strongly over this whole period, doubling between 1801 and 1851 and again by 1901 to 30.5m. There was also growth in Wales and Scotland, although this was to a lesser degree.[25]

Furthermore, apart from the development of Belfast as a major industrial city in the 18th and 19th centuries, a large proportion did and continue to live and work in rural areas, whereas over half the population of England has lived in towns for almost 200 years. Rural housing has often tended to be of poorer construction quality and has not therefore lasted in the same way as the terraced houses found across towns in Great Britain.

Management of the historic built environment in Northern Ireland is more akin to that of Great Britain, with the National Trust playing a major role in the charity sector. The HLF, the NIEA and others such as the AHF provide funding for conservation, repair and maintenance of pre-1919 buildings in the same way as in the rest of the UK. Building preservation trusts and heritage trusts, such as the Mourne Heritage Trust and Sion Mills, also operate in the same way as their UK counterparts. The NIEA looks after national monuments and historic sites in the manner of the other three home-country heritage agencies, and also advises on the care of government buildings.

Listed Buildings

In Northern Ireland there are about 9,000 listed buildings and 1,704 scheduled (ancient) monuments:[26] many of these are based in the 59 conservation areas, which range in scale from city centres, through villages to small residential parks and streets. Listed buildings are organised on a regional basis with no central information source. The Northern Ireland Buildings Database, administered by the NIEA, holds information on 9,000 buildings.[27] This can be accessed from its website according to local authority or by a keyword search. There is no central record covering

all buildings, although the NIEA has recently introduced an online map where the locations of built heritage sites are displayed.[28]

The NIEA is now in the course of a second systematic survey of heritage buildings on the following basis:

- all buildings pre-1830 that remain in a reasonably unaltered form
- buildings constructed between 1830 and 1935 of definite quality and character, including the best works of principal architects
- outstanding buildings constructed between 1935 and 1965, including the very best works of principal architects.

The UAHS, in partnership with the NIEA, maintains the Built Heritage at Risk Northern Ireland Register, which was first established in 1993 to identify and record historically important buildings that appear threatened, and to highlight the vulnerability of historic buildings and act as a catalyst for their conservation, repair and reuse.

Buildings are classified in four grades:

- **Grade A:** buildings of national importance, including both outstanding grand buildings and the fine, little-altered example of some important style or date
- **Grade B+:** buildings that might have merited A status but for relatively minor detracting features such as impurities of design, or lower-quality additions or alterations; also buildings that stand out above the general mass of grade B1 buildings because of exceptional interiors or some other features
- **Grades B1 and B2:** buildings of local importance or good examples of some period or style; some degree of alteration or imperfection may be acceptable.

Traditional Buildings

Listed buildings form only part of the historic building stock, and there are many more pre-1919 buildings which remain unlisted. For the purposes of official surveys, all buildings dating from before 1919 are regarded as traditional structures. The basic source of information on domestic housing in Northern Ireland is the House Condition Survey.[29] This is a rolling survey of the housing stock conducted through a combination of householder interviews and physical surveys. The latest available figures, for 2004, suggest that there are just over 110,000 pre-1919 dwellings in Northern Ireland, representing 16% of the total housing stock (680,000) – this compares with 21% of the total housing stock in England and Scotland and one-third of the total building stock in Wales.[30] However,

in calculating the total number of pre-1919 buildings, the number of commercial and industrial buildings must also be taken into account. Official surveys ceased to record the age of these properties after 2000: using the calculation employed in all previous NHTG reports whereby housing represents 89% of all buildings, it is estimated that there are around 125,000 pre-1919 buildings in Northern Ireland.

4.1.3 Republic of Ireland

Again, while the Republic of Ireland has some surviving examples of great 17th- and 18th-century Anglo-Irish country houses and impressive Georgian houses and terraces in the major cities and towns, principally Dublin, many of the traditional buildings were small houses, rural cottage and farm buildings. Dublin is, of course, famed for its Georgian terraces, originally houses but now largely given over to businesses.

The population of the area which is now the Republic of Ireland fell from 6.5m in 1841 to 3.2m in 1901, largely because of the effects of death and emigration during the period of the Great Famine of 1845–88 (reduced by 2m in the space of a decade); it continued to fall to its lowest point of 2.8m in 1961. However, with the resurgence of the economy in the 1990s the population has increased in the last decade, as many Irish nationals returned to live and work in Ireland and there was an influx of migrant workers, many of whom have settled in both urban and rural areas. Emigration and the rise and fall of the population in the Republic of Ireland have always mirrored the economic times: with recession the population falls; with increased prosperity and economic buoyancy the population has risen.

Almost all the major historic buildings are in the care of the OPW, other than a number of religious buildings. The Republic of Ireland has no exact equivalent to the National Trust, although An Taisce, sometimes referred to as the Irish National Trust, owns a small number of buildings. An Taisce is primarily active in the planning field, ensuring that refurbishments and new developments are undertaken in such a way as to ensure conservation of historic buildings. In recent years, the Irish government set up the Irish Heritage Trust,[31] which plans to acquire historic places and sites and open these to the public.

Protected Structures and Buildings at Risk

Local authorities (which are under the DoEHLG) administer the Protected Structures Register, introduced in 2000 on a county-by-county basis, again with no central record. The scheme covers structures and artefacts such as railway lines, pumps and kerbing, in addition to buildings; as in Northern Ireland, some items date from much later than 1919. Owners and occupiers are required to ensure that buildings do not become endangered through harm, decay or damage. The Heritage Council also operates the Buildings at Risk scheme, while planning authorities operate a conservation grant scheme to assist with remedial works.

Traditional Buildings

The 2006 Census[32] records 10% of households as living in pre-1919 homes, less than the 16% in Northern Ireland and half of the percentage in England. The large-scale demolition of traditional buildings across large swathes of the rural areas to be replaced by modern homes has inevitably resulted in a massive loss of the built heritage.

According to the census, in 2004 there were 154,352 pre-1919 dwellings in the Republic of Ireland. Using the same calculation as for Northern Ireland and the previous NHTG reports, it is estimated that there are around 175,000 pre-1919 buildings in the Republic.

4.2 Survey Sample Overview

Stockholders interviewed in this research included local and national government, commercial and industrial businesses, religious and heritage organisations, and private property owners. The criterion for inclusion in this study was that in the 12 months prior to the interview the organisation concerned had had work undertaken on the pre-1919 buildings in its care.

In the qualitative stage in Northern Ireland, interviews were conducted with Hearth (buildings preservation trust and housing association), the National Trust, the Mourne Heritage Trust, Craigavon Borough Council, the NIEA (previously Environment and Heritage Service, Department of the Environment, Northern Ireland), Queen's University, one commercial owner and one private owner.

In the Republic of Ireland, qualitative interviews were conducted with the Irish Georgian Society, the Irish Landmark Trust, An Taisce, the Department of the Environment, the OPW, three religious organisations, Trinity College Dublin, and one commercial and one private owner.

The 45 Northern Ireland stockholders interviewed during the quantitative research were as follows:

- local authority (16)
- private heritage house (10)
- trust (6)
- stately home/historic site (5)
- place of worship (3)
- public sector i.e. museum (3)
- hotel (1)
- reform club (1).

In the Republic of Ireland, quantitative interviews with the following 42 stockholders were undertaken:

- private heritage house (24)
- hotel (5)
- local authority (3)
- stately home/historic site (3)
- OPW (3)
- place of worship (2)
- government department dealing with lighthouses and associated buildings (1)
- castle (1).

The pre-1919 properties of the stockholders interviewed in Northern Ireland were located in 22 local authorities, with the largest proportion (16%) in Belfast City. Properties in the Republic of Ireland were based in 24 counties, with the largest number in Dublin.

4.3 Ownership of Pre-1919 Buildings

4.3.1 Number of Properties Owned or Responsible For

Overall, the stockholders interviewed during the quantitative research in Northern Ireland owned or were responsible for management of 489 properties, while those in the Republic of Ireland took care of 402 properties (Table 2). It should be noted that a property may consist of more than one building, for instance a castle or large house may also include outbuildings such as stables and workshop.

Half of the stockholders in Northern Ireland and almost three-quarters in the Republic of Ireland had only one heritage property in their care. At the other extreme, a single large stockholder might have responsibility for a high proportion of the buildings, for example Sion Mills Trust, the National Trust and the NIEA in Northern Ireland, and the OPW in the Republic of Ireland. Excluding these disproportionately large owners, the average per stockholder in Northern Ireland was 5 pre-1919 buildings, just slightly more than the average of 4.4 in the Republic of Ireland.

The National Trust owns around 20 properties comprising 500 buildings, from cottages to mansions. An Taisce, sometimes described as the Irish National Trust although with very different resources and responsibilities, owns only 15 properties but claims to be the largest non-governmental owner in the country. (The Irish Heritage Trust was established in 2006 as Ireland's National Trust, but is only fledgling and currently owns one property.) This was borne out by the quantitative research; respondents with the largest numbers of buildings were all governmental.

4.3.2 Types of Buildings Owned or Responsible For

Half of the stockholders interviewed in Northern Ireland owned buildings in public use and two-fifths residential buildings, with around a quarter owning commercial/industrial buildings and a small number caring for religious properties and other types of building.

In the Republic of Ireland almost two-thirds owned residential properties, with 50% of these buildings used for commercial/industrial purposes; a third of respondents were owners

Table 2 Number of Pre-1919 Properties Owned/Responsible For

Properties	Northern Ireland		Republic of Ireland	
	%	No.	%	No.
1	51		71	
2	18		10	
3	9		5	
4	4		0	
5–10	7		5	
11–50	7		2	
51–100	2		5	
100+	2		2	
Total		**489**		**402**
Average		**10.9**		**9.6**
Average excluding the largest		**5**		**4.4**

of public buildings, while smaller numbers managed religious or other buildings.

4.3.3 Conservation Value of Properties

Two-fifths of respondents in Northern Ireland said their properties were both listed and based in a conservation area, with 50% saying that their buildings were listed but not in a conservation area.

Two-fifths in the Republic of Ireland stated that their buildings had protected structure status and were located in an architectural conservation area, with one-third saying that their buildings were protected structures only, whereas one-fifth of the Republic of Ireland respondents (twice as many as in Northern Ireland) claimed that their pre-1919 properties neither had protected structure status, nor were based in a conservation area.

4.3.4 Maintenance Approach

The concept of routine care and maintenance as being the best means of long-term preservation of older buildings is long established, and the value of this has long been recognised. Regular building repair and maintenance reduces the need for more costly repair and conservation and (where appropriate) restoration measures. As Maintain Our Heritage showed in its major report, *Putting It Off,* the regular moderate expenditures required to keep a building sound and watertight are probably more economical, and certainly less damaging to the integrity of the building, than dealing with the major structural failures that almost inevitably follow prolonged neglect.[33]

Unfortunately, this is very rarely put into practice and stockholders must often carry out substantial repairs that could so easily have been prevented by simple maintenance measures. This has a financial, physical and cultural cost, especially to more historic buildings and structures, when the irretrievable loss of original building fabric occurs. All stockholders were therefore asked whether their overall approach was to undertake routine planned maintenance or reactive repairs as and when problems arose.

To assist this process, the following abbreviated definitions were developed by the NHTG for the 2007 Scotland research[34] for work on pre-1919 buildings (based upon BS 7913, *Guide to the Principles of the Conservation of Historic Buildings,* 1998) to distinguish between routine *repair and maintenance* and *conservation and restoration:*

- **repair:** work to remedy damage without alteration/restoration
- **maintenance:** routine work to keep a building in good order
- **conservation:** actions to preserve the authenticity of a building as it exists without alteration
- **restoration:** reinstating details to return a building to a previous known state.

One-half of the respondents in Northern Ireland preferred to undertake regular planned maintenance, compared with a fifth in the Republic of Ireland. While only 3 of 45 stockholders in Northern Ireland combined regular planned maintenance with reactive repairs, this approach was preferred by 25% of the 42 stockholders in the Republic of Ireland. Reactive repairs as the only approach were undertaken by two-fifths of the Northern Ireland stockholders and 50% of those in the Republic of Ireland.

About three-quarters of all respondents (Northern Ireland and the Republic of Ireland) said that they either, always or usually always ensured that only suitably qualified or experienced craftspeople with heritage skills worked on their properties. Only one respondent in Northern Ireland, compared with 12% of the 42 stockholders in the Republic of Ireland, said that they never did this.

In Northern Ireland the NIEA focuses mainly on a programme of regular planned maintenance for their protected sites and monuments in state care, while the National Trust in Northern Ireland and the OPW in the Republic of Ireland follow a policy of combining regular maintenance, reactive repairs and conservation for their national monuments and historic properties in state care.

4.3.5 Government-Owned Housing

In Northern Ireland pre-1919 housing accounts for 2% of the publicly owned stock[35] and is under the control of the Northern Ireland Housing Executive. In the Republic of Ireland, public housing is under the control of individual counties, and estimates suggest that this again accounts for only 2% of the total pre-1919 building stock. Interestingly from a conservation point of view, in both countries, the age of the property has no bearing on the repair and maintenance undertaken, as pre-1919 homes are treated in the same way as all others, irrespective of their age.

4.4 Expenditure

4.4.1 Demand for Traditional Building Craft Skills

A fundamental purpose of any study of the market for traditional

building work is to estimate demand for skilled labour and training to ensure the rich building stock is properly cared for.

Because there is no separate classification for people or companies involved in heritage work and, not least, because most of the sector's workforce and firms operate across the modern and heritage divide, it is impossible to use official statistics or any formally generated statistics to derive employment figures for built heritage work or the training needed at any given time. For this reason a model has been developed to enable robust calculations of estimated demand.

This was first applied to the NHTG traditional building craft skills research in Scotland, then used in the NHTG Wales research, but was further refined for the review of NHTG England 2008 review report. This current research utilises the revised approach, with further modifications made on the basis of the research findings.

Essentially the model relies on the use of nationally verifiable data, recognised industry forecasts and externally calculated coefficients to develop a picture of labour demand from the value of the market, and from that provide an estimate of training requirements.

The value of the market for traditional building work is extremely difficult to estimate. However, market size can be estimated from a number of reliable sources on the basis of information provided during the survey by the building contractors themselves (as was also the case in the NHTG research across Great Britain), and through the use of nationally available statistics from construction industry output figures and national rates of industry growth provided by Experian in October 2008.

The estimates are founded on the total value of the construction market in Northern Ireland and the Republic of Ireland (Table 3, row A), from which the repair and maintenance

'It used to be more a question of repairs when necessary, but people are gradually seeing the light of planning regular maintenance as a better alternative.'

The National Trust

Table 3 Traditional Building Craft Skills Market

	Northern Ireland (£m)				Republic of Ireland (€m)			
Year	2007	2008 (e)	2009 (f)	2010 (f)	2007	2008 (e)	2009 (f)	2010 (f)
A: Total building market	2,213.6	2,045.6	2,084.8	2,148.0	37,131.3	30,559.0	29,913.2	32,814.7
B: Of which repair and maintenance output	415.3	422.4	428.5	434.7	7,711.5	8,007.8	8,268.4	8,604.9
C: Theoretical repair and maintenance output by those working on pre-1919 buildings	95.7	97.4	98.8	100.2	530.7	551.1	569.0	592.2
D: CRM on pre-1919 buildings, taking into account the proportion of work purely on pre-1919 buildings	24.9	25.3	25.7	26.1	185.7	192.9	199.2	207.3
E: CRM on pre-1919 buildings and using traditional materials	11.3	11.5	11.6	11.8	107.7	111.9	115.5	111.5

Note: (e) = estimated; (f) = forecast. CRM = conservation, repair and maintenance.

expenditure can then be derived by using overall market proportions from construction industry output figures. The repair and maintenance market is shown in row B.

Using the proportion derived from this current survey it is then possible to calculate an initial market value for work carried out by those involved in work on pre-1919 buildings (row C); see Section 5.3.1 for more detail.

However, the calculations need to take into account the fact that the values in row C represent all work undertaken by those involved with pre-1919 buildings; this includes the work undertaken on more modern buildings. The data must, therefore, be weighted to take account of the proportion of work done only on pre-1919 buildings, as detailed in Section 5.3.1 (26% in Northern Ireland and 35% in the Republic of Ireland).

When this weighting is applied (row D), a realistic and reliable value for work carried out on pre-1919 buildings is produced. It is equivalent to an average of some £24.9m per year in Northern Ireland and €185.7m in the Republic of Ireland (equivalent to around 6% and 3% of the national spend on repair and maintenance respectively).

Results from the survey allow a further stage of analysis which shows that 44% of work in Northern Ireland and 58% of work in the Republic of Ireland on pre-1919 buildings involved the application of traditional materials, much higher than the 30% in the NHTG England 2008 research report[36] and the 25% in the NHTG Wales report.[37] The market for conservation work involving the use of traditional building materials on pre-1919 buildings was around £11.3m in Northern Ireland and €107.7m in the Republic of Ireland in 2007, and is predicted to increase to £11.8m and €111.5 by 2010.

4.4.2 Future Labour Demand

ConstructionSkills has developed, through the ongoing programme of NHTG Traditional Building Craft Skills research, a coefficient to calculate the number of workers required to meet the forecast labour demand generated by each £1m of output. Using those coefficients directly relating to the trades in question, this equates to 23 workers per £1m of output, or in the case of the Republic of Ireland per €1.3m of output.

By applying this coefficient to the total value of the pre-1919 building market, a total labour requirement (Table 4, row F) is calculated. In 2007, therefore, around 570 full-time equivalent (FTE) workers were required to deliver work on pre-1919 buildings in Northern Ireland, and 3,290 in the Republic of Ireland. By 2010 that total would need to increase to about 600 and 4,800 respectively. Of course the actual size of the workforce required to deliver the forecast demand could be much larger because not all workers will spend 100% of their time working within a specific sector. Indeed, this research suggests that, excluding the self-employed, there are currently over 1,800 people working in the pre-1919 sector in Northern Ireland and 4,600 in the Republic of Ireland.

By applying the same approach to the market value of work being carried out on pre-1919 buildings and involving the use of traditional materials it is possible to derive a labour demand for those not only undertaking pre-1919 work, but also applying the skills necessary to handle traditional materials (row G), approximately 260 craftspeople throughout Northern Ireland in 2007 and 1,910 in the Republic of

Table 4 Workforce Demand in the Traditional Building Sector

	Northern Ireland (£m)				Republic of Ireland (€m)			
Year	2007	2008 (e)	2009 (f)	2010 (f)	2007	2008 (e)	2009 (f)	2010 (f)
F: Labour demand (by output) – contractors undertaking pre-1919 building work (Table 3, row D)	570	580	590	600	3,290	3,410	3,520	4,770
G: Labour demand by contractors using traditional materials (Table 3, row E)	260	260	270	270	1,910	1,980	2,040	2,570
H1: New workers	70	70	70	70	370	390	400	540
H2: New workers with traditional skills	20	20	20	20	100	100	100	130

Note: (e) = estimated; (f) = forecast.

Ireland. These are people with very specialist skills and/or extensive experience within the field.

This current research contained questions that revealed the proportion of the existing labour recruited in the previous 12 months. This proportion (7.2% in Northern Ireland and 5.1% in the Republic of Ireland) is lower than the equivalent proportions derived from the NHTG research across Great Britain (averaging about 11%), and is also less than national figures for inflows to the industry identified by the Labour Force Survey (LFS). The 2007 LFS shows that 11.8% of total employment in the construction sector was recruited in that year.

On the basis of these findings and for the purposes of this report, we have adopted a coefficient of 0.1135 (11.35% was the 14-year LFS average, 1994–2007) as a conservative average for recruitment for new workers required for pre-1919 work, and 0.072 (7.2%) for Northern Ireland and 0.051 (5.1%) for the Republic of Ireland for new workers required for pre-1919 work with traditional skills. When applied to overall labour demand (row F) a figure for new workers required for pre-1919 work can be derived (row H1). In 2007 this was 70 new workers in Northern Ireland and 370 new workers in the Republic of Ireland, and, on the basis of current predictions for industry output, the inflow of new workers for pre-1919 work will remain fairly constant until 2010. The equivalent figures for new workers required for pre-1919 work, but with traditional building skills, are shown in row H2.

4.4.3 Training Requirement

Additional workforce demand does not necessarily equate directly to the demand for training, as some of those joining the industry may be returning with relevant skills. Furthermore, demand for training related to pre-1919 buildings and traditional building materials will also be enhanced by the amounts of 'top-up' training required by the existing workforce in order to undertake different types of traditional work. This kind of additional training will usually consist of short courses and sessions, lasting between a day and a few weeks, designed to enhance the skills of those already working in the sector, rather than being full qualifications.

In Table 5 the training requirements are based on two separate levels of calculation. Firstly, the numbers of

Table 5 Training Requirement of the Traditional Building Workforce

	Northern Ireland (£m)				Republic of Ireland (€m)			
Year	2007	2008 (e)	2009 (f)	2010 (f)	2007	2008 (e)	2009 (f)	2010 (f)
F: Labour demand (by output) – contractors undertaking pre-1919 building work (Table 3, row D)	570	580	590	600	3,290	3,410	3,520	4,770
G: Labour demand (by output) – contractors using traditional materials (Table 3, row E)	260	260	270	270	1,910	1,980	2,040	2,570
H: New workers	70	70	70	70	370	390	400	540
I: New workers requiring no training[a]	20	20	20	20	90	90	100	130
J: New workers requiring top-up training[a]	50	50	50	50	250	260	270	360
K: New workers requiring full training[a]	10	10	10	10	30	40	40	50
L: Existing workers requiring top-up training[b]	50	50	50	50	260	270	280	380
M: Total number requiring training	100	100	100	100	540	570	590	790
N: Top-up training requirement for contractors using only traditional materials	20	20	20	20	150	160	160	210

Note: (f) = forecast. [a] Based on statistics from the ConstructionSkills Employer Panel. [b] Based on statistics from the Northern Ireland Skills Monitoring Survey, 2005 (inferred for Republic of Ireland).

new workers needing (or not needing) full or top-up training have been calculated using proportions derived from the ConstructionSkills Employer Panel[38] (see rows I, J and K). Then the numbers of existing workers requiring top-up training for the use of traditional materials were calculated using data from the Northern Ireland Skills Monitoring Survey[39] (row N).

Demand for training illustrated in Table 5 is based, essentially, on existing predictions of the growth of the entire construction sector (Table 3, row A), but this may not represent the growth rate for work on pre-1919 buildings. There are strong indications – particularly from private stockholders – that there is a considerable backlog of work required on pre-1919 buildings. Many interviewees stated that they deliberately wait until work is absolutely essential before commissioning it, and that they recognise that the need for other work on their properties is already evident.

As was very clear from the NHTG research across Great Britain, it is likely that demand for traditional building craft skills will, at some point in the future, start to grow at a rate above overall industry growth levels, further increasing the demand for a properly skilled and trained workforce. However, as with all other construction activity forecasting, future demand and training need is greatly affected by the prevailing economic climate, which in a period of worldwide recession influences private sector confidence and spend. While the calculations provided in this section of the report are based upon reliable statistical information and transparent assumptions, a degree of caution must be exercised because these are based on demand forecasts, and as with previous economic downturns, it is important to train and upskill the workforce for the eventual upturn in economic prosperity.

4.4.4 Stockholders' Expenditure in the Last 12 Months

Stockholders were asked approximately how much money, including materials, labour and VAT they had spent on the upkeep of their pre-1919 buildings in the 12 months prior to the interview. However, the following figures should be taken as broadly indicative, rather than accurate calculations, as these are based on stockholders' top-of-mind estimations. It should also be noted that the figures include items which are not directly related to building conservation, for example professional fees, electrical services and other non-traditional items.

In Northern Ireland 43 stockholders provided a value for the work undertaken on their 483 pre-1919 properties totalling £28.6m, an average of £59,166 per property. However, it should be noted that at individual respondent level, 7 respondents had budgets in excess of a half a million pounds but the majority had spent far less; half of these spent under £50,000.

In the Republic of Ireland 36 respondents with 119 buildings spent €8.4m, an average of €70,309. Currency values have fluctuated in the last few months, so an exact comparison is difficult but, on a per building basis, this is a similar amount to that spent in Northern Ireland. Around half spent less than €50,000, with only two stockholders having budgets of over €1m. However, the single largest stockholder was not able to answer this question during the interview.

As might be expected, and in common with the NHTG Skills Needs Analysis reports, on average stockholders caring for public sector and commercial/industrial buildings reported higher average expenditures than those in other sectors. This is borne out by the fact that the NIEA usually has a budget of £200,000–300,000 per year, while in the 12 months prior to interview the National Trust spent on properties in its possession about £500,000 on general maintenance and £2m on substantial intervention. It plans to spend £750,000 on regular maintenance and £1.8m on intervention work in the next 12 months, and the amount is expected to grow even further in the future. The OPW estimated spend on its pre-1919 buildings at around €7m in 2006 (last available financial information).

Interestingly, those in Northern Ireland who had received grant aid spent more, on average, than those who had not. By contrast, those receiving a grant in the Republic of Ireland tended to spend less on average than those who did not receive grant aid. Spend is of course often related to available funding and available sources of grant aid are important is this respect. The NIEA operates a scheme in Northern Ireland awarding grants of up to £50,000 for civic structures in public use, whereas grants in the Republic of Ireland tend to be smaller and are not available for the public sector.

Respondents were also asked to indicate how their expenditure on heritage buildings in the last 12 months was divided between repair and maintenance and conservation and restoration. On average, the expenditure of the 45 stockholders in Northern Ireland in this survey was

almost equally divided between the two, while for the 42 stockholders in the Republic of Ireland, two-thirds of expenditure was spent on repair and maintenance, with the remaining third on conservation and restoration.

4.4.5 Expenditure in the Next 12 Months

Some 40 respondents in Northern Ireland representing 481 buildings were able to give an estimate of projected expenditure on repair, maintenance, conservation and restoration in the next 12 months at a value of £30.9m, an average of £64,283 per property (Table 6). This total is very slightly more (£900,000) than in the previous year.

The 40 stockholders in the Republic of Ireland (121 buildings) who responded to this question provided an estimate spend of €5.7m in the next 12 months, on average €48,080 per property. This is substantially down from the estimated figure of €8.4m at an average spend of €70,309 for the previous 12 months. This is in line with the expectation that demand in the heritage sector for contractors reported by the building professionals will fall in the next 12 months (see Section 7.4.4), and with the current economic downturn and slowdown in the construction industry in the Republic of Ireland, which was taking effect at the time of the interviews. It should also be noted that the respondent with responsibility for most buildings in the Republic of Ireland was unable to provide an estimated figure for forthcoming expenditure in the next 12 months. This inevitably affects the total gained from this small sample size, and again these figures are therefore indicative, rather than an absolute guide to likely spend, which is governed by a number of outside factors, including economic stability.

4.5 Funding

Grant funding is an important source of support for people responsible for the upkeep of pre-1919 buildings. Moreover, it can act as an agent of change, embracing best practice, as many funding initiatives include the use of traditional building methods and materials, and engaging a qualified consultant or architect, as a condition of the grant award. The grants awarded for particular projects can usually be used to cover not only the costs connected to the building work on heritage properties but also materials and fees for building professionals such as architects and surveyors.

A number of respondents in the qualitative interviews stated that lack of funding and budget overspend were among the main problems they encountered.

4.5.1 Funding Sources in Northern Ireland

The sources of funding in Northern Ireland are more varied in comparison with the Republic of Ireland and include:

- the NIEA
- government departments
- the HLF
- the AHF
- the Pilgrim Trust
- other charitable trusts and organisations.

The Historic Buildings Grant Aid Scheme

One of the principal sources of funding for people responsible for upkeep of listed buildings is the NIEA, which administers the Historic Buildings Grant Aid Scheme. This scheme has been designed to help owners meet the recognised additional costs required to repair listed buildings,

Table 6 Stockholders' Expenditure on Pre-1919 Buildings

	Northern Ireland		Republic of Ireland	
Expenditure	In the 12 months prior to interview	In the next 12 months	In the 12 months prior to interview	In the next 12 months
0	0%	4%	0%	70%
1–10K[a]	31%	31%	26%	29%
11–50K[a]	24%	24%	19%	17%
51–500K[a]	22%	13%	31%	21%
501K+[a]	16%	16%	10%	10%
Don't know	7%	12%	14%	16%
Total	**£28.577m**	**£30.920m**	**€8.367m**	**€5.721**
Average per property	**£59,166**	**£64,283**	**€70,309**	**€48,080**

Note: [a] £ (NI), € (RoI).

and retain their special character. In 2008 the budget for the scheme increased from £2.4m to £3.9m.[40]

For the first time since the mid-1980s, grant aid is now available for repairs to Grade B2 secular buildings as well as for all other grades of secular buildings. It is also available for churches of Grade B+ and above, as long as the grant is used for the physical repair and conservation and/or associated professional fees. The standard grant is set at 35% of the approved cost of work, although exclusions apply: thatching is grant aided at a higher rate of 75%.

The NIEA is also responsible for the *NGO Grant Scheme*, which aims to support conservation and repair of historic listed buildings that are at risk. It is available to charities to acquire historic buildings at risk (and which can then also apply for the standard repair grant under the Historic Buildings Grant Aid Scheme) and also to those seeking help and assistance in setting up a building preservation trust through a scheme administered by the AHF.

Heritage Lottery Fund

The largest funder of the UK's heritage, the HLF has an annual budget of £180m and awards grants ranging from £5,000 to £5m.[41] Between 1994 and 2004 it gave £56m in grant aid for historic buildings and townscapes, and £22m for repair of historic places of worship in Northern Ireland alone.[42] In 2007/08 the HLF awarded almost £5m towards heritage projects with a total value of £14.18m, consisting of 18 projects involving capital repairs and reuse of pre-1919 buildings in Northern Ireland, and requiring specialist skills. Projects included listed buildings, buildings in conservation areas, historic monuments and vernacular structures. This money was not necessarily spent in that financial year, however, as timescales are often much longer. In terms of actual spend, the HLF made payments to 38 projects in 2007/08, again relating to repair and reuse of pre-1919 buildings, amounting to £3.5. The HLF estimates that this grant spend was directed towards heritage projects which, over a period of time, had received total HLF grant investment of £9m towards project costs with a total value of over £33m.

The HLF assesses and monitors the extent that grants attract or lever funding from other sources, which consequently significantly enlarges the final sum invested in the care, conservation and preservation of Northern Ireland's built heritage.

The HLF focuses on conserving, sustaining and sharing heritage, and in this respect it operates several initiatives. Its main grant programme, Heritage Grants, offers grants of more than £50,000 for projects that relate to the national, regional or local heritage of the UK. The second scheme, Repair Grants for Places of Worship, as its name implies, is designed to help sustain and conserve places of worship that are at risk and in need of urgent repairs. Through its Townscape Heritage Initiative (THI), the HLF supports regeneration of conservation areas that are socially or economically deprived by revival of their heritage assets. The Landscape Partnership Scheme seeks to promote the area-based regeneration of rural areas of identified heritage merit. All these grant schemes have the potential either to promote the use of traditional skills or to directly support traditional building skills training with grant aid.

Department of the Environment (DoE)

The Planning Service, an agency within the DoE, has over several years operated a funding scheme with an annual budget of £500,000 per annum for conservation areas. This grant has been directed towards elemental repairs to historic buildings in conservation areas where a THI is in progress. The availability of this funding will reduce, on the basis of anticipated take-up of the Planning Service grant over coming years, but to date this has been a vital source of partnership funding for the HLF-funded THI schemes.

Architectural Heritage Fund

The AHF is a registered charity which strives to promote the conservation of historic buildings in the UK. During its 31 years of existence, it has offered grants and loans totalling over £100m and helped to revive over 1,000 historic buildings throughout the UK. The AHF provides financial assistance in the form of low-interest working capital loans available for conservation and repair projects. It also provides grants of up to 75% towards feasibility studies on projects thought likely to qualify for one of its loans. Loans and grants are available only for building preservation trusts and other charities. No information was available regarding the value of loans and grants provided by the AHF in Northern Ireland.

The other important area of AHF activity is the provision of information, advice and guidance. It has recently extended its Funding for Historic Buildings website

(www.ffhb.org.uk) to include Northern Ireland and Scotland; until recently it was confined to England and Wales. The site lists 71 potential sources of funding in Northern Ireland.

Pilgrim Trust

The Pilgrim Trust is another well-established funding body that supports the UK heritage sector. It was founded in 1930 with the aim of providing grants for some of the country's more urgent heritage needs. Guidelines for applicants on current policies for grant-aiding are reviewed every three years. The Pilgrim Trust's budget in 2007/08 was approximately £3m, but no regional or home country breakdown was available. The trust aims to devote 60% of its budget to activities connected to preservation, mostly of the built heritage but also of other objects of historic significance, and to the promotion of knowledge through academic research.

The Pilgrim Trust has contributed to Hearth and was a donor to the refurbishment of the Great Hall at Queen's University Belfast.

Other Funding Sources

Various other schemes operate in Northern Ireland: these include those under the Department for Social Development, the Department of Culture, Arts and Leisure, and the Northern Industry Tourist Board. Furthermore, a large number of charitable trusts and organisations exist which among other priorities provide funding for conservation of the built heritage.[43]

4.5.2 Funding Sources in the Republic of Ireland

The funding system in the Republic of Ireland consists of two major sources, the most significant being the local authority scheme and the other being Heritage Council funding. In addition, Relief for Expenditure on Approved Buildings assists those with responsibility for historic houses.

Local Authority Funding

Local authorities are the principal sources of funding for owners of historic buildings. They are allocated money by the DoEHLG, which currently administers the scheme, known as the Grants for the Conservation of a Protected Structure. This was launched in 1999 to support new legislation on protected structures. Grants under this scheme are awarded only for the conservation of privately owned structures listed on the Record of Protected Structures. In 2008 the DoEHLG allocated approximately €7m for this scheme, with another €4.4m allocated to the second scheme, the Civic Structures grants scheme.[44]

The standard grant for protected structures is 50% of the approved cost of works, subject to a maximum of €13,000. In exceptional circumstances the local authority may award a larger grant but this cannot exceed €25,000 or 75% of the approved cost of works, whichever is less. Grants for amounts below €1,900 are not eligible.

The fundamental objective of grant-aided conservation work should be to restrain the process of decay, without damaging the character of the structure or altering the fabric and features which make it of special interest. Important qualifying criteria also include the use of traditional methods and materials appropriate to the structure. Applications are assessed against the scheme of priorities that can be adapted by individual councils and that identify the most pressing needs.

Civic Structures Conservation Grants may be provided for buildings which are in public ownership or open to the public and considered to be of considerable architectural merit. Local authorities, civic trusts and other not-for-profit organisations are eligible. This scheme aims to help owners meet their legal responsibilities for the upkeep of protected structures under the Planning and Development Act 2000. The maximum grant for a structure under this scheme for 2008 was set at €50,000.

Heritage Council

The other principal grant provider is the Heritage Council (see Section 2.1.2 for details), which in 2007 allocated building grants worth €4.3m, the most important being the Buildings at Risk Grant Scheme. This aims to safeguard buildings which are at serious risk, but not yet in a ruinous state. The grants under this scheme are currently awarded only for roof repairs: out of 500 applications in 2007, 130 were awarded a grant. The grant usually amounts to 30% of the overall cost but, in some cases, can cover up to 50% of this, and can be used in conjunction with grants from other sources. Importantly, a property does not need to be listed on the Record of Protected Structures to be eligible for a grant.

The Heritage Council also administers, on behalf of the Department of Agriculture, Fisheries and Food (DAFF), the Rural Environment Protection Scheme (REPS) 4 Traditional Farm Buildings Grant Scheme, which aims to protect traditional farm outbuildings that are in agricultural use. In April 2008 the scheme was allocated an annual budget of €1m, and this is to continue over the next seven years.

Irish Georgian Society

Since 2002, the IGS has provided grant aid for the conservation and repair of 79 properties.

Relief for Expenditure on Approved Buildings

Under Section 482 of the Taxes Consolidation Act 1997, owners and/or occupiers of approved buildings/gardens can apply for tax relief in respect of expenditure incurred on their repair, maintenance or restoration, on the condition that the building/garden is open to the public. The eligible building/garden does not need to be listed on the Record of Protected Structures but does need to be approved by the DoEHLG as a building/garden which is intrinsically of significant historical, architectural or aesthetic interest.

Table 7 Grant Funding Received by Stockholders In Previous 12 Months

	Northern Ireland		Republic of Ireland	
	%	£	%	€
1m+[a]	27		20	
501K–1m[a]	0		0	
101–500K[a]	7		10	
51–100K[a]	7		10	
21–50K[a]	7		30	
11–20K[a]	20		30	
10K or less[a]	20		0	
Don't know	12		0	
Total (in 1000s)		**12,245**		**4,519**
Mean (per recipient)		**941,962**		**451,900**

Note: Base: all stockholders receiving grant in last 12 months (NI, 15; RoI, 10).

[a] £ (NI), € (RoI).

4.5.3 Funding Received By Stockholders

One-third of stockholders in Northern Ireland and one-quarter in the Republic of Ireland in this survey had received some form of grant assistance towards work on their pre-1919 properties in the 12 months prior to the interview.

Almost one-quarter of Northern Ireland respondents reported receiving a grant from the NIEA. Almost one-sixth of stockholders had received funding from the HLF/Lottery grants, with smaller numbers mentioning local authorities and a number of other governmental departments or non-governmental organisations.

In Northern Ireland a total of £12.2m was received (Table 7), with grants varying from as little as £1,500 to a massive £7m. One-quarter of the Northern Ireland stockholders who received funding in the past 12 months obtained a grant worth over £1m for work on pre-1919 buildings, primarily in the public sector.

The average amount of grant awarded per recipient in Northern Ireland was at least twice as large as that in the Republic of Ireland, and reflects the substantially higher amount of available grant-aid in Northern Ireland.

The National Trust receives grants from the NIEA worth 50% of the expenditure for work on grade A, B and B1 buildings on its 50 buildings, and receives grants worth 35% of expenditure for routine maintenance of 35 properties in its ownership.

In the Republic of Ireland a total of €4.5m was received, with the grants ranging from €23,000 to €2.5m. Most grants were awarded for work on public and residential buildings, with the two largest obtained for buildings in public use. Two main sources of funding for owners of pre-1919 buildings in the Republic of Ireland were local authority schemes and the Heritage Council. Smaller numbers of respondents were awarded grant aid from the Department of the Environment, and only a few other organisations were mentioned, by one respondent each.

4.6 Building Contractors

4.6.1 Factors Affecting Contract Awards

As Table 8 shows, work experience and skill levels were the key factors by which stockholders chose contractors to work on their pre-1919 buildings. Availability and cost were also fairly important, although considerably less so in Northern Ireland than the Republic of Ireland.

For some Republic of Ireland stockholders, proximity to work – mean score (MS) 3.1 – and formal qualifications (MS 3.0) were important, while Northern Ireland stockholders tended to view these as rather unimportant. Trade association membership/accreditation was perceived as rather unimportant by stockholders in both countries.

During the qualitative interviews, some respondents mentioned that they ask for a 'method statement' to be included in the tender, to make sure that the appropriate practices are used on the building. The statement indicates how the contractor intends to undertake the work, and it helps the stockholder to assess the impact of the work on the historic fabric, as well as providing the opportunity to intervene, if it is not adhered to. Other stockholders require the contractors to learn the appropriate building craft skills prior to starting work on a pre-1919 project.

4.6.2 Profile of Contractors Used

The majority of stockholders interviewed used general building firms for the work on their pre-1919 buildings, while a smaller number used predominantly conservation specialists. Very few used both types of firms.

Table 8 Importance of Factors Affecting Contract Awards

	Mean score	
	Northern Ireland	Republic of Ireland
Work experience on old buildings	4.5	4.6
Skill levels	4.5	4.8
Formal qualifications	2.6	3.0
Cost	3.7	4.2
Proximity to work	2.4	3.1
Trade association membership/accreditation	2.6	2.7
Availability to start work	3.8	4.1

Note: 1 = not at all important; 5 = very important.

In Northern Ireland the NIEA and the National Trust use contractors who have a wealth of experience of similar work and, while these contractors are often recommended by word of mouth, the NIEA visits them on site to assess their work and judge their experience and expertise.

As the National Trust in Northern Ireland does not employ any direct labour, it makes extensive use of local contractors, often recommended by the NIEA. It mostly employs general builders who have developed their specialist skills and knowledge over years of cooperation with the National Trust and through work on other historic buildings. If needed, contractors from the Republic of Ireland or Great Britain are engaged by the National Trust to work on their projects in Northern Ireland.

In the Republic of Ireland the OPW has its own direct labour, but also tends to use local specialist contractors, and in addition compiles lists of specialists and when necessary uses specialists from other countries, including the UK.

4.6.3 Perceptions of Contractors Used

As shown in Table 9, stockholders in Northern Ireland (MS 4.2) and the Republic of Ireland (MS 4.3) were generally satisfied with the quality of work undertaken on their buildings, with only 2% not very satisfied in each country. They were somewhat less satisfied with the time taken to start the work and complete the work, although the majority said they were satisfied. However, there is a marked difference in dissatisfaction levels in both countries, with 4% in Northern Ireland and 12% in the Republic of Ireland dissatisfied.

4.6.4 Contractors' Skills, Knowledge and Ability regarding Work with Traditional Building Materials

The overwhelming majority of stockholders rated contractors' skills to work on pre-1919 buildings either as good or fair (Table 10), with none in Northern Ireland and only 2% in the Republic of Ireland rating their skills as poor. Generally, stockholders rated contractors' knowledge of and ability to work with traditional materials as fair; only small numbers thought that their contractors' knowledge and ability were poor in this respect.

4.7 Craft Skills Used

4.7.1 Craft Skills Needed

Table 11 shows the traditional craft trades that stockholders used for work on pre-1919 buildings in the 12 months prior to the survey and those that they expected to use in the next 12 months. On average each stockholder used between six and seven skills.

The majority of the Northern Ireland stockholders used carpenters and joiners, painters and decorators, plumbers/leadworkers and general craftspeople in the last year. Over one-quarter also used bricklayers, plasterers, tilers and what have become regarded as more specialist craft skills such as glazing, random slating and stonemasonry.

The demand for the next 12 months remains largely unchanged in Northern Ireland, but drops in the Republic of Ireland to an average of 5.1, with all craft trades in less demand, with the exception of roofers, wood machinists, fibrous plasters, drystone wallers and blacksmiths.

Table 9 Satisfaction with Contractors Used for Work on Pre-1919 Buildings

	Mean score	
	Northern Ireland	Republic of Ireland
Quality of work	4.2	4.3
Time to start the work	3.8	3.9
Time to complete the work	3.8	3.9

Note: 1= not at all satisfied; 5= very satisfied.

Table 10 Stockholders' Rating of Contractors' Skills to Work on Pre-1919 Buildings, and Knowledge of and Ability to Work with Traditional Materials

	Mean score	
	Northern Ireland	Republic of Ireland
Skills	4.1	4.2
Knowledge	3.8	4.0
Ability	3.9	4.0

Note: 1= poor; 5= good.

Table 11 Craft Skills Needed

	Northern Ireland				Republic of Ireland			
	Last 12 months		Next 12 months		Last 12 months		Next 12 months	
	%	No.	%	No.	%	No.	%	No.
Painter/decorator	73		69		74		64	
Joiner	71		64		43		26	
General craftsperson	64		64		62		50	
Carpenter	62		58		74		60	
Plumber/leadworker	60		56		55		33	
Glazier	36		33		29		29	
Bricklayer	33		33		21		17	
Tiler	31		36		29		24	
Roofer (random/natural slates)	31		29		33		26	
Stonemason	29		29		33		31	
Plasterer (non-lime, non-fibrous)	27		22		14		12	
Plasterer (lime)	22		24		31		26	
Roofer (metalworker)	18		18		5		5	
Roofer (general)	13		11		31		19	
Cabinetmaker	11		13		26		17	
Wood machinist	11		13		5		7	
Plasterer (fibrous)	11		11		7		7	
Drystone waller	9		9		19		19	
Stone fixer	9		9		10		2	
Blacksmith	7		7		2		7	
Steeplejack	7		2		7		5	
Stone carver	4		11		5		2	
Gilder	4		9		12		7	
Thatcher	4		9		12		10	
Roofer (stone tiles)	4		4		5		0	
Woodcarver	2		9		5		5	
Stained glass worker	2		0		0		0	
Glass painter	0		0		0		2	
None	0		11		0		17	
Average trades used		6.6				6.5		
Average trades expecting to use				6.6				5.1

The majority of the Republic of Ireland stockholders used painters and decorators, carpenters and general craftspeople, with over a quarter mentioning joiners, stonemasons, glaziers, cabinetmakers, lime plasterers, tilers and slaters. Table 11 indicates that the demand for almost all trades would be somewhat lower in the next 12 months.

4.7.2 Skills Shortages

In order to establish the scarcity of each craft skill, all stockholders were asked whether they had found it difficult to find a suitable contractor with particular skills. In Northern Ireland, 7% mentioned bricklaying and 4% each said cabinetmakers, general craftspeople, joiners, plasterers, roofers and stonemasons. In the Republic of Ireland, general trades/craftspeople, joiners and stonemasons were each cited by 10% of stockholders as the hardest trades to find, with drystone wallers, glaziers and lime plasterers also mentioned.

4.7.3 Directly Employed Labour

In Northern Ireland the NIEA employs 55 in-house tradespeople and a number of conservation architects. The craftspeople are general builders who have acquired their traditional building craft skills

through learning on the job and in-house training courses. In addition, two of their apprentices have undergone training through a William Morris Craft Fellowship Scholarship. Despite employing a large group of direct labour, the NIEA also occasionally uses outside contractors for more specialised work, including major structural engineering.

In the Republic of Ireland the OPW also has a large in-house team of 280 trades/craftspeople who have access to a 'great pool of resources', and are encouraged to undertake further training in order to develop and upgrade their building craft skills.

Only a minority of the stockholders interviewed employed a workforce with traditional building craft skills (18% in Northern Ireland and 14% in the Republic of Ireland), and almost all of these were full-time employees. The average number of employees in Northern Ireland (4.5) was several-fold lower than the Republic of Ireland (22.3), which reflects the number of government organisations involved in the Republic of Ireland. Most stockholders in both countries described the employees as general builders/craftspeople who work on some old buildings, with only a small minority claiming that they were heritage or conservation specialists.

Northern Ireland stockholders with directly employed labour mostly employed the main trades, including carpenters, joiners, painters and decorators, and general trades/craftspeople. Smaller numbers also had cabinetmakers, glaziers, lime and fibrous plasterers, plumbers, roofers, stonemasons and thatchers working in-house.

The Republic of Ireland stockholders tended to employ larger numbers of in-house staff than did those in Northern Ireland. The range of skills employed was also wider, with the majority employing stonemasons, thatchers, carpenters, joiners, painters and decorators, general trades/craftspeople, bricklayers, and lime and other plasterers working in-house, with smaller numbers employing cabinetmakers, drystone wallers, glaziers, fibrous plasterers, roofers (general), stone carvers, tilers, woodcarvers and wood machinists.

Rating of Employees' Skills

Stockholders were asked to rate how skilled each tradesperson working in-house was in traditional building craft skills. In both countries, the majority of the stockholders employing direct labour rated their employees' skills as fairly good. The Republic of Ireland stockholders rated their employees' knowledge of and ability to work with traditional building materials as good and considerably higher than those in Northern Ireland (Table 12), where two respondents rated their employees' knowledge as fairly poor.

Recruitment and Retention of Staff

When asked what general employment policy stockholders followed when recruiting staff, the majority in Northern Ireland said that they employed only skilled staff not in need of training; the NIEA is an exception in its encouragement of crafts skills training. By comparison, the approaches in the Republic of Ireland were divided between employing skilled staff not in need of training, those in need of some training and apprentices.

Northern Ireland stockholders indicated that recruiting trades/craftspeople was difficult (MS 1.9), far more so than for those in the Republic of Ireland (MS 3.0), which may of course be because they tend to recruit only skilled staff. Joiners were the most difficult to recruit in Northern Ireland, and stonemasons in the Republic of Ireland. Only one stockholder in Northern Ireland said that he had experienced long-term outstanding vacancies (over 3 months) in his organisation, when he was recruiting a thatcher. The majority of those experiencing recruitment difficulties attributed this to skills gaps, while a smaller number pointed to skills shortages.

In terms of action to overcome lack of skills and knowledge required to work on pre-1919 buildings, the majority in Northern Ireland said they took no action, while those in the Republic of Ireland used a

Table 12 Rating of Employees' Knowledge of and Ability to Work with Traditional Materials

	Mean score	
	Northern Ireland	Republic of Ireland
Knowledge	3.5	4.5
Ability	3.9	4.3

Base: all stockholders with direct labour (NI, 8; RoI, 6). Note: 1= poor; 5 = good.

specialist subcontractor or sourced training for their employees.

A small number of staff left and were replaced within the directly employed labour forces (workforce churn), which resulted in slightly more employees joining in Northern Ireland at the end of the year and slightly fewer in the Republic of Ireland.

Training

Although none of the Northern Ireland stockholders had any staff involved in formal training, they used a range of sources of informal training in traditional building craft skills, but the key methods were working alongside and learning from more experienced colleagues, and training delivered by further education colleges. Smaller numbers also mentioned training provided by manufacturers and suppliers or by local authorities, as well as on-the-job/in-house training.

Two of the Republic of Ireland stockholders in this survey had between them 13 staff involved in formal training, all aged 25 or under. The most widely used methods of training were job shadowing; self-learning (books, CD-ROMs and other sources); short courses run by local authorities; training offered by private providers and other off-the-job training courses or formal instruction.

In terms of funding this training and skills development, the stockholders in Northern Ireland who provided some training paid for training from the organisation's own training funds/allowances; no one mentioned receipt of a grant or subsidy.

While almost all stockholders in the Republic of Ireland indicated that they were interested in developing their traditional building craft skills further (MS 4.0), the opinions in Northern Ireland were divided (MS 3.3), with some being very interested and others being neutral or not very interested. One-quarter of the Northern Ireland stockholders, and one-third in the Republic of Ireland, claimed that there was traditional skills training they would like to undertake or offer to their employees, but they were not able to do so. The main reason for both groups was lack of availability of suitable courses.

The majority of stockholders with directly employed labour had never heard of the Heritage Skills NVQ Level 3 qualification (available from September 2007). However, on this being described to them, half of those in Northern Ireland said they would like to register a member of their staff for this qualification. While this qualification is not offered in the Republic of Ireland, the stockholders there favoured a similar qualification.

4.8 Traditional Building Materials

4.8.1 Materials Used on Pre-1919 Buildings

Three-quarters of stockholder respondents said that they had a strong influence over the materials specified for work on their pre-1919 buildings, with the majority of the remainder claiming they had at least some influence.

All public and commercial stockholders were asked what proportion of work on their pre-1919 buildings involved only traditional materials, what proportion involved only modern materials and what proportion involved a combination of both. To assist with this process, the distinction between these was explained as follows: repairing sash windows rather than fitting plastic or softwood replacement units, using lime plaster rather than gypsum/dry lining, using quarried stone rather than concrete blocks and so on.

Figure 1 shows that stockholders in Northern Ireland were slightly less likely to use only traditional materials than those in the Republic of Ireland. Some 41% of stockholders in Northern Ireland said that they always used traditional materials, compared with 49% in the Republic of Ireland. In contrast, 35% in Northern Ireland never used traditional materials, a much higher proportion than the 20% in the Republic of Ireland. The largest proportion of traditional building materials used in Northern Ireland was on religious buildings, while in the Republic of Ireland it was on residential and public buildings.

Figure 1 Materials Used by Stockholders for Work on Their Pre-1919 Buildings

4.8.2 Factors Limiting the Use of Traditional Materials

Figure 2 shows large differences between the countries in terms of the factors limiting the use of traditional building materials.

From the Northern Ireland stockholders who did not insist on the use of traditional building materials more than 75% of the time, the most widely cited reason for not using larger amounts of these was that traditional building materials did not meet building regulations (29%), but this was not mentioned by any of the stockholder respondents in the Republic of Ireland. Similarly, the view of the Northern Ireland stockholders that traditional building materials were simply not necessary (24%) was held by twice as many as those citing this in the Republic of Ireland (12%).

Twice as many in the Republic of Ireland (24% versus 11%) cited lack of availability as a main reason for this, and cost was again cited by over twice as many stockholders in the Republic of Ireland (21% compared with 9%). Small numbers in both countries also considered that modern materials were better, and only a very small percentage thought modern materials were easier to use.

Of concern on the skills front is that one in ten of the stockholders in the Republic of Ireland believed that builders lack the skills to use traditional building materials, but this does not appear to be the case from the Northern Ireland stockholders in terms of the builders they used.

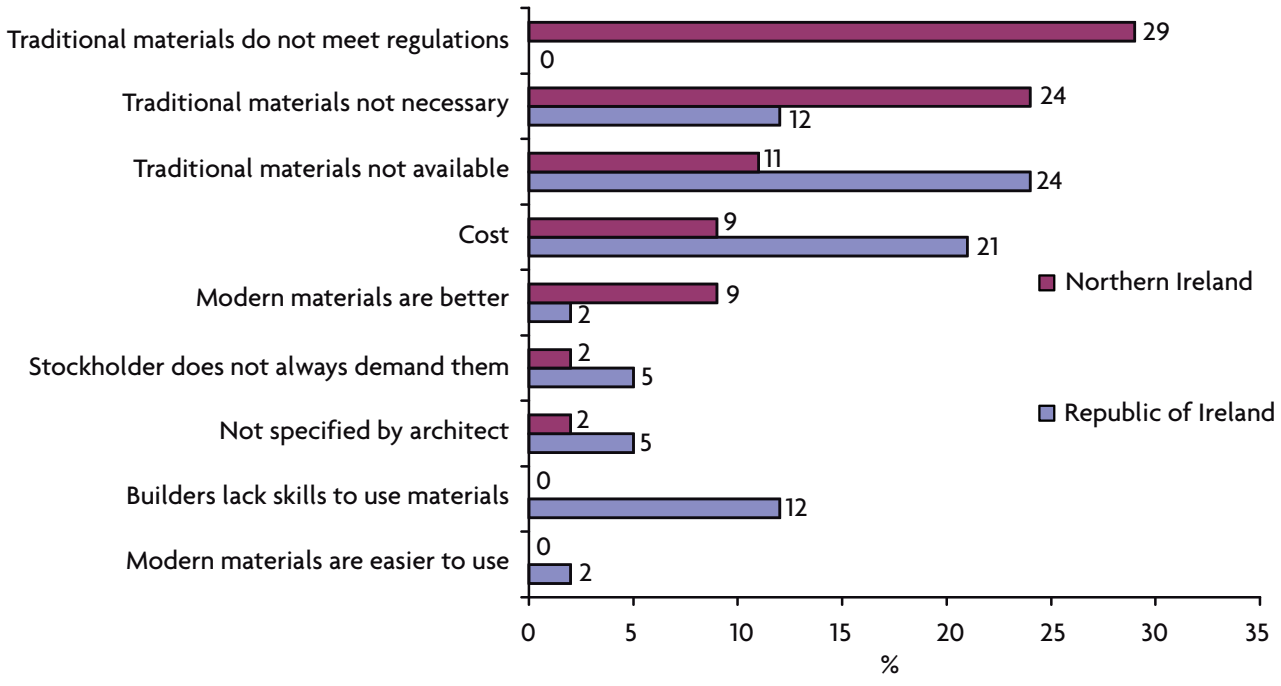
Reassuringly, from a client demand viewpoint for using the right materials, an overwhelmingly large percentage of the respondents in both countries appear to request the use of traditional building materials themselves.

4.9 Awareness of the NHTG and the HLF Bursary Scheme

About one-fifth of all the interviewed stockholders were aware of the National Heritage Training Group, but only about one-tenth had heard about its reports on traditional building craft skills in England, Scotland and Wales.

One-fifth of respondents in Northern Ireland and 14% in the Republic of Ireland said that they had heard of the HLF Bursary Scheme for Masonry Conservation in Scotland and Northern Ireland. Two-fifths (40%) in Northern Ireland expressed some interest in applying for the bursary scheme, and a similar number would be interested in assisting the scheme by offering a placement for a bursary holder. Although the Republic of Ireland is not included in this scheme, interest there was rather higher, with two-thirds (66%) interested in the scheme and/or in offering a placement.

Figure 2 Main Factors Constraining Greater Use of Traditional Materials by Stockholders



SUPPLY OF TRADITIONAL BUILDING SKILLS: CONTRACTORS

5

supply

This section of the report assesses the supply of skilled trades and craftspeople available to undertake the conservation, repair, maintenance and restoration of historic buildings. Qualitative and quantitative interviews were undertaken with contractors and sole traders to gain an insight into the following interrelated aspects of the composition of the current workforce:

- numbers of employed and self-employed workers in the built heritage sector
- outstanding vacancies and recruitment difficulties
- quality and availability of the requisite skills, and the levels of retention of trades/craftspeople as indicators of skills shortages or skills gaps
- inflow and outflow between the built heritage sector and the wider economy
- attitudes to and support for training.

5.1 The Construction Industry in Ireland

The construction industry is a significant sector in both the UK and the Republic of Ireland in terms of its financial and social contribution. Indeed, the industries in both nations have until 2008 enjoyed 14 years of strong growth. However, the UK and Irish economies are currently undergoing a marked slowdown due to a combination of domestic and global economic circumstances which have dampened prospects for growth in 2008 and 2009. As a result the construction industries in both nations are experiencing a degree of contraction.

5.1.1 Northern Ireland

Within the UK construction industry, contracting is responsible for an estimated output of £83bn[45] (constant 2000 prices), which accounts for around 8% of GDP. The employment of some 2.4 million people[46] in the contracting workforce and a further 386,000 in professional services[47] (e.g. architects, engineers, surveyors and planners) is equivalent to about 9.5% of the total UK workforce. The vast majority of enterprises within the UK are small, with some 90% employing fewer than 10 employees.[48] There are also very high levels of self-employment, with well over a third of the UK construction contracting workforce, some 883,000 people, in this category.[49] By comparison, self-employment within the professional services sector is less widespread, accounting for a quarter (25%) of the workforce and being very much focused around the activities of architects and chartered surveyors.

In terms of occupational structure, craft trades and manual workers are the dominant group, accounting for some 60% of the total construction sector workforce. The remaining 40% comprise managers, office staff and those employed in professional services such as architecture, surveying and structural engineering.

In terms of output and employment, the construction industry in Northern Ireland makes a 3% contribution to the total UK construction output and employment. In 2007 output exceeded £2.2bn[50] (constant 2000 prices) and the workforce is estimated to be 83,700 strong.[51] The performance of construction in Northern Ireland over the longer term has been relatively poor, partially as a result of the province's instability, which has discouraged private capital investment and most non-essential public investment, but also partially as a result of the construction industry boom within the Republic of Ireland. This is illustrated by the fact that total construction output in Northern Ireland during 2007 was 1% lower than it was in 1993, compared to an increase of 38% across the UK as a whole.

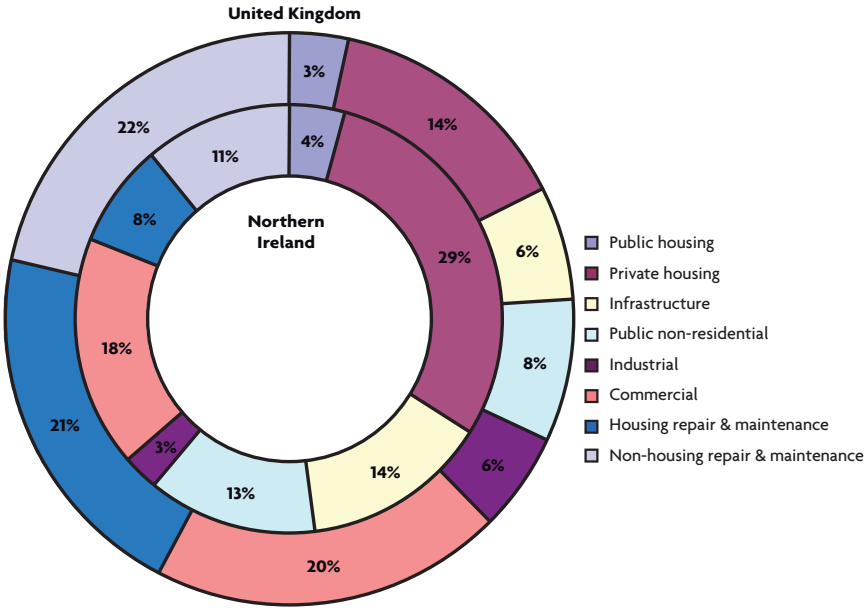
The overall composition of the construction workforce in Northern Ireland is broadly comparable with that in the UK as a whole, but with some notable differences. Northern Ireland has higher proportions of wood trades, bricklayers, plasterers, roofers, and specialist building operatives. Conversely, it also has proportionately fewer floorers, glaziers, and painters and decorators. In this respect the workforce can be seen to reflect the nature of activity within the sector, particularly in new-build housing, which places a fairly heavy reliance on the four main craft trades (wood, bricklaying, plastering, and painting and decorating).

Self-employment in Northern Ireland is comparable to that across the rest of the UK – 38% compared with 37%,[52] although it is much higher across the four main craft trades (50%), and is particularly high among bricklayers (56%) and plasterers (66%). There is a strong tendency for career progression in construction to lead towards self-employment, particularly in the main construction trades, where the financial rewards are perceived as being greater. While this offers significant benefits to main

contractors in terms of drawing labour together as and when required, it presents a significant challenge in terms of ensuring workforce development, to both the individuals moving to self-employment and the ability for the industry to provide sufficient opportunities for those wishing to join the industry.

There is one further difference between the industry in Northern Ireland and the wider UK industry which is of considerable significance to the built heritage sector. As shown in Figure 3, when the industry's output is broken down into sub-sectors, it is found that the proportion of work devoted to repair, maintenance and improvement (RMI) activity is significantly smaller in Northern Ireland compared with the UK as a whole – 19% compared with 43%. This could be in part due to the legacy of the conflict, both as a direct result, when buildings were damaged beyond repair, and indirectly, by having discouraged investment in its built environment for a prolonged period. The extent

Figure 3 Construction Industry Output by Main Sub-sector, UK vs. Northern Ireland, 2007



Source: Department for Business, Enterprise and Regulatory Reform; Department of Finance and Personnel Northern Ireland; ConstructionSkills.

of this disparity is no less apparent when compared with the shares of the other UK countries, with RMI accounting for approximately 45% of total output in England and 38% in both Wales and Scotland. This underlines the importance that new build has played in the growth of construction activity in Northern Ireland, but also explains (in part) the relatively low numbers working within RMI (and the built heritage sector).

Since Northern Ireland has a proportionally smaller stock of pre-1919 buildings compared with England, Scotland and Wales, it might be assumed that the share of output on RMI (by value and volume) would be lower. However, the share is so much lower it would suggest that there is a fairly significant volume of latent demand, and that in the long term the steadily increasing prosperity across the UK (including Northern Ireland) will lead to increased expenditure on RMI, making this a potential growth area for the construction industry. Indeed, RMI is forecast to be an area of growth despite the wider slowdown. According to interim Construction Skills Network forecasts,[53] RMI output will increase by 2.0% in 2008, and by an annual average of 2% up to and including 2013.[54] The central forecast suggests that construction output will decline sharply in 2009 before a more gradual recovery in 2010/11, reflecting an upturn in residential construction.

Despite falling levels of output in some sectors of the market, but particularly new-build residential construction, the industry will continue to grow over the long term, and in that respect the workforce will need to expand beyond the current number within Northern Ireland and across the UK as a whole. What this means for construction is that the sector needs to retain capacity, even through the forecast downturn, to ensure future growth in a sustainable manner. As a result, but particularly within the context of RMI growth, there remains a significant skills and training need both for the construction industry in Northern Ireland, with some 1,000 new recruits needed each year until 2013, but also in traditional building craft skills, which will require about 7.5% of the required new entrants.

5.1.2 Republic of Ireland

Accounting for about 20% of GDP the value of output in the construction industry is estimated at some €37.8bn[55] in 2007 (constant 2006 prices), although this figure is expected to fall back in 2008 by about 20%.

The construction sector workforce in the Republic of Ireland employs some 255,000 persons, of whom

approximately 72,500 (28%) are self-employed.[56] Construction industry employment is equivalent to about 12% of total employment in the Republic of Ireland. A further 102,000 are considered to be in indirect employment, covering manufacture and distribution of building materials, plant hire and a proportion of construction-related employment in the professional services sector.[57]

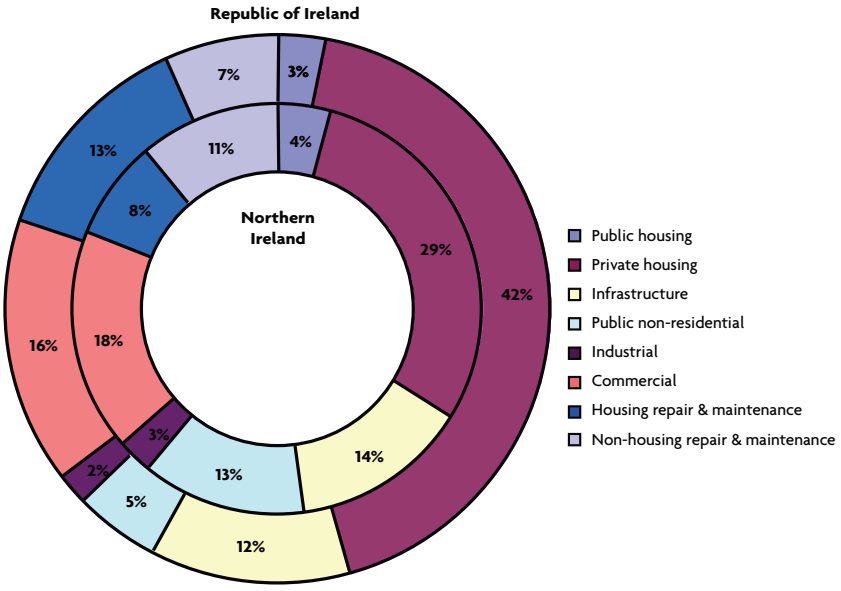
Despite the levels of self-employment within construction in the Republic of Ireland being proportionately smaller than those in Northern Ireland (or the UK as a whole), there is compelling evidence to suggest a similarly strong tendency for career progression in construction to lead towards self-employment, particularly within the current economic climate. While overall construction employment fell by 26,800 (9.5%) between 2007 and 2008, the number of self-employed increased by 1%.[58] Thus, it appears that self-employment may have provided a buffer at a time of attrition, with unemployed workers choosing to set up their own businesses, often in repair and maintenance.[59]

The supply structure in the Irish construction sector shares many characteristics with that of the UK in that it is highly fragmented, with a large number of small- to medium-sized companies, many of which specialise in repair and maintenance activities and operate on a regional basis. The construction industry in the Republic of Ireland is dominated by small firms, with companies of 1–4 employees accounting for close to 100,000 workers, or two-fifths (39%) of total construction employment.[60] Indeed, just 12–15% of the estimated 6,000 construction firms employ more than 20 people.[61] The fragmented nature of the construction industry in the Republic of Ireland is further complicated (as it is in the UK) by the practice of larger contractors employing specialist subcontractors rather than expanding their own labour force. It is estimated that around 42% of total construction output is undertaken by contracting firms employing more than 20 people, with the remainder being undertaken by smaller firms.[62]

In terms of occupational structure the overall composition of the construction workforce in the Republic of Ireland is broadly comparable to that in Northern Ireland (and indeed the UK as a whole); craft workers are the dominant group, accounting for some 65% of the total construction sector workforce. The remaining workforce is split fairly evenly between construction professionals (20%) and building and civil engineering labourers (15%). Closer inspection of occupational groupings, particularly within the craft trades, reveals some notable differences in comparison with Northern Ireland. While the main trades are proportionally similar between the Republic of Ireland and Northern Ireland, the former has a significantly higher proportion of labourers, 17% in the Republic of Ireland compared with 6% in Northern Ireland. This might be seen as a further reflection of the itinerant nature of the workforce.

Construction output in the Republic of Ireland has until 2007 been heavily influenced by growth in residential construction, particularly private sector new-build. In this respect it differs significantly from the profile of construction activity in Northern Ireland. As shown in Figure 4, when the industry's output is broken down into sub-sectors, it is immediately apparent that the

Figure 4 Construction Industry Output by Main Sub-sector, Republic of Ireland vs. Northern Ireland, 2007



Source: Department of the Environment, Heritage and Local Government, Republic of Ireland; Department of Finance and Personnel Northern Ireland; ConstructionSkills.

proportion of work devoted to new-build private residential construction activity is significantly smaller in Northern Ireland when compared with the Republic of Ireland – 29% compared with 42%. However, in many other respects the two industries exhibit marked similarity, none more so than in the relatively low proportion of repair and maintenance work.

The extent of the over-reliance of the economy on new-build housing became evident in 2007, and the full impact has become apparent in 2008. The housing market in the Republic of Ireland is currently experiencing weak demand, rising stock levels, low sales rates, increased cancellation rates and falling house prices. These characteristics imply a market in transition, as the adjustment to more 'normal' supply levels takes place. However, figures published by the DoEHLG suggest that there is a moderation in the pace of RMI investment in 2008, which should result in a period of sustained albeit modest growth, and this despite an overall decrease in overall output. The total investment in RMI projects (residential and non-residential) is forecast to rise by 3.4% in 2008.[63] The central forecast suggests that construction output will decline sharply in 2009, with some recovery in 2010 reflecting an upturn in residential construction volumes. Again, as indicated in Northern Ireland, the emphasis in the current downturn should be the retention of capacity in the industry to ensure future growth can be achieved in a sustainable manner.

In the context of RMI growth alone, there are significant and identifiable skills and training needs both for the construction industry in the main and in traditional building craft skills, and the latter require both new entrants and a programme of upskilling.

5.2 Building Contractors Working on Pre-1919 Buildings

5.2.1 Survey Sample Overview

A key aim of this part of the research was to establish the level of activity among contractors in terms of work on pre-1919 buildings, so only those that had undertaken such work in the previous 12 months were included in the interview programme. In fact, only 5% of the contractors contacted in Northern Ireland and 7% in the Republic of Ireland had worked on a pre-1919 building in the past year, a much lower proportion than encountered in the previous NHTG research (England 42%, Wales 43%, Scotland 35%). Because of this, it was necessary to contact a very large number of contractors in order to achieve a robust sample size; indeed all contractors on the lists provided by CITB-Northern Ireland for contractors in the province and the CIF for the Republic of Ireland were offered the opportunity to participate.

In Northern Ireland a total of 3,219 contractors were approached, but it was not possible to contact 614 of these (no reply, no longer in business, not able to speak to the appropriate person, etc.), leaving 2,605 successful contacts and, of these, only 129 (5%) were eligible for interview. In the Republic of Ireland, 2,676 contractors were approached, with 744 unsuccessful attempts leaving 1,932 successful contacts, but of these only 131 (7%) were eligible for interview.

Table 13 Total Number of Employees, including Directors (Building Contractors)

	Northern Ireland		Republic of Ireland	
	%	No.	%	No.
101–500	0		5	
51–100	3		9	
31–50	5		9	
21–30	6		11	
16–20	6		9	
11–15	9		15	
8–10	11		15	
6–7	9		6	
3–5	25		15	
1–2	26		6	
Average number		11.0		33.9
Total workforce		1,422		4,447

Although previous NHTG reports have distinguished between sole traders (1–2 employed in the firm) and contractors (3+ employed), an initial investigation indicated that, in Northern Ireland, those classified as sole traders often had more than one other employee working within the firm and, conversely, that many of those classed as contractors employed at most only one other person. Furthermore, the distinction between contractor and sole trader is not made in the CIF listing for the Republic of Ireland. It was therefore decided to treat all respondents as a single group termed 'contractors', and analyse the size profile as part of the research.

It can be seen from Table 13 that a major difference exists between the size of building contractors' companies in Northern Ireland and the Republic of Ireland, with an average of 11 employees per firm in Northern Ireland and 34 in the Republic of Ireland. Over 50% of the Northern Ireland contractors have 5 or fewer employees, compared with only 21% for the Republic of Ireland contractors. The difference is even more pronounced among the smallest firms, with 26% in Northern Ireland having 1 or 2 employees compared with only 6% in the Republic of Ireland. At the other end of the scale, 5% of the Republic of Ireland contractors have over 100 employees and just under a fifth (18%) employ between 31 and 100, whereas only 8% of Northern Ireland contractors have 31 or more employees. In both countries the overwhelming number of employees are full time: 1,366 in Northern Ireland and 4,402 in the Republic of Ireland.

The largest sector in Northern Ireland, general building, has on average around 11 employees (in line with the industry as a whole); wood trade companies are slightly smaller, with an average of 7 employees (Table 14).

In the Republic of Ireland, however, the three largest craft occupations all have fewer employees than the average for the construction industry as a whole (30 for wood trades, 21 for general builders and 16 for roofers), because of the industry average being inflated by a small number of very large companies.

5.2.2 Main Activities and Range of Trades

Carpentry and joinery is the most common craft occupation for over half the firms interviewed in both Northern Ireland (52%) and the Republic of Ireland (62%), with general building, brickwork, plastering and roofing the next most important.

Table 15 shows that, although the overall pattern is the same in both countries, firms in the Republic of Ireland tend to operate more trades, at an average of 4.3 compared to 3.6 in Northern Ireland, reflecting the rather larger size of the Republic of Ireland contractors.

The pattern follows that seen in England where joiners (56%), carpenters (51%) and bricklayers (52%) were most often mentioned, followed by plastering and dry lining (43%), general building work (38%) and general roofing (38%).

When asked about their main trade, around one-fifth of the survey in both Northern Ireland (19%) and the Republic of Ireland (20%) stated this was general building. Joinery was the next most common in Northern Ireland (16%) compared with 11% in the Republic of Ireland, where roofing was more important (13%). Around 14% in Northern Ireland and 20% in the Republic of Ireland said they had no main trade.

5.2.3 Contractors' Views of Employees' Skill Levels

The profile of companies employing skilled trades/craftspeople follows a similar pattern, with joiners, carpenters and general craftspeople most prevalent (Table 16). Those employing trades/craftspeople

Table 14 Company Size by Main Trades Surveyed

	Northern Ireland			Republic of Ireland		
Main trades	Number of firms	Number of tradespeople	Average size of firm	Number of firms	Number of tradespeople	Average size of firm
Wood trades	21	148	7.0	15	444	29.6
General building	25	274	11.0	26	533	20.5
Roofing				17	279	16.4
All trades	**129**	**1,422**	**11.0**	**131**	**4,447**	**33.9**

Table 15 Trades Practised by Contractors Interviewed

	Northern Ireland			Republic of Ireland		
	Trades practised		Main trade (%)	Trades practised		Main trade (%)
	%	No.		%	No.	
Joinery/carpentry	52		16	61		11
General building work	43		19	54		20
Brickwork	38		3	53		5
Plastering	38		4	52		3
Roofing	33		4	50		13
Stonemasonry	26		2	47		8
Lead/metalwork	31		2	37		1
Painting/decorating	29		7	31		6
Glazing	27		1	29		4
Thatching	4		2	6		2
Tiling	0		0	2		2
Plumbing/heating	17		16	1		1
Natural stone quarrying	0		0	1		1
Damp proofing	1		1	0		0
Gilding	1		0	0		0
No main trade			14			20
None – all subcontracted	2		2	1		1
Average number of trades		**3.6**			**4.3**	
Wood trades		**3.3**			**3.7**	
General building		**5.1**			**4.9**	
Roofing					**4.0**	

were asked to rate their skills on a sliding scale ranging from 1 (not skilled) to 10 (highly skilled). Almost all received high scores of 8 or more.

5.2.4 Membership of Trade Organisations

As shown in Figure 5, more contractors in the Republic of Ireland report their membership of a trade organisation than in Northern Ireland, which is partly due to the sampling method, as the CIF register was the major source of the interviews in the Republic of Ireland. In Northern Ireland, the main source was the CITB Levy Register.

In addition, however, the findings also reflect the generally larger size of contractors in the Republic of Ireland. Within Northern Ireland, 81% of the largest firms belong to a trade organisation compared with just over half of the smallest. The main organisations mentioned by contractors were the National House-Building Council (NHBC), the Construction Employers Federation (CEF) and CITB in Northern Ireland (though it is not a trade organisation) and CIF in the Republic of Ireland, with a small proportion mentioning Homebond.

Only 12% of contractors interviewed in Northern Ireland were listed on any heritage building contractors register, compared with 36% in the Republic of Ireland (Table 17). For Northern Ireland the UAHS was mentioned by 6%, with 2% being on the Irish Georgian Society register. In the Republic of Ireland

Figure 5 Membership of Trade Organisation

Table 16 Percentage of Building Firms with at Least One Employee with a Specific Craft Skill, and Skill Levels of Employees

	Northern Ireland			Republic of Ireland		
	Firms with specific craft skill		Skill level of employees (mean score)	Firms with specific craft skill		Skill level of employees (mean score)
	%	No.		%	No.	
Joiner	47		8.6	46		8.8
General craftsperson	42		8.5	59		8.5
Carpenter	42		8.7	66		8.8
Bricklayer	34		8.4	42		8.8
Roofer (general)	27		8.6	44		8.8
Roofer (random/natural slates)	27		8.7	41		8.9
Leadworker	26		8.2	35		8.6
Painter/decorator	23		8.4	24		8.8
Plasterer (non-lime, non-fibrous)	22		8.5	41		8.8
Roofer (stone tiles)	22		8.6	35		8.8
Tiler	22		8.8	31		8.6
Plasterer (lime)	18		8.6	40		8.9
Roofer (metalworker)	18		8.6	30		8.9
Glazier	14		7.7	16		8.8
Cabinetmaker	12		8.3	24		8.6
Plasterer (fibrous)	13		8.8	28		8.8
Stonemason	13		8.3	39		8.8
Drystone waller	12		8.0	31		9.1
Wood machinist	9		8.7	15		8.7
Stone fixer	7		7.9	29		8.8
Woodcarver	5		8.9	4		9.0
Glass painter	3		8.3	4		9.0
Steeplejack	2		9.3	4		9.0
Scaffolder	2		9.0	1		9.0
Blacksmith	2		8.5	2		9.3
Stone carver	2		9.5	9		8.3
Gilder	2		9.5	7		8.1
Thatcher	2		10.0	3		9.3
No trade employees	**9**			**7**		
Average number of trades		**5.4**			**8.0**	

Note: Very small sample involved. It can be seen that there are more craft skills in this table than trades listed in Table 15, because the main trades have been classified in more detail: for example, roofing has been split into stone, slate, metal and other.

just under one-fifth (19%) of those interviewed were members of the CIF Register of Heritage Contractors, with 14% mentioning the Irish Georgian Society. As with trade organisations, larger firms are more likely to be listed on a register than small contractors or sole traders.

5.3 Work Carried Out on Pre-1919 Buildings

5.3.1 Proportion of Work involving Pre-1919 Buildings

The majority of those surveyed in both countries described themselves as general builders rather then conservation or heritage specialists.

As shown in Table 18, contractors in the Republic of Ireland undertook a rather larger proportion of pre-1919 related work than did their Northern Ireland counterparts. Very few companies deal completely in this form of work; in Northern Ireland some 63% said that it accounted for under a quarter of

Table 17 Listing on Registers of Heritage Builders

	Northern Ireland (%)	Republic of Ireland (%)
Ulster Architectural Heritage Society	6	1
Construction Industry Federation	2	19
Irish Georgian Society	2	14
County list	0	5
Invest Northern Ireland	2	0
Construction Industry Training Board in Northern Ireland	1	0
Department of the Environment/Northern Ireland Environment Agency	2	0
National Trust	1	1
Irish Slating and Tiling	0	1
World Monument Foundation	0	1
Irish Heritage Contractors	0	2
An Taisce	0	2
Conservation register (no more specific answer)	0	1
Irish Professional Conservators' and Restorers' Association	0	1
Office of Public Works	0	1
None	88	64

** Note that in the 2005 report, 'roofer slate, tiles' was categorised as one single craft (21%) rather than as separate crafts as designated in the most recent research.*

Table 18 Percentage of Firms' Work Involving Pre-1919 Buildings in Previous 12 Months

	Northern Ireland (%)	Republic of Ireland (%)
100%	3	5
76–99%	2	8
51–75%	6	10
50%	13	10
26–49%	13	15
11–25%	17	19
6–10%	20	17
Up to 5%	26	16
Mean	26.2	35.2
Wood trades	34.9	44.3
General building	27.4	31.0
Roofing		28.0

Figure 6 Repair and Maintenance vs. Conservation and Restoration

their work, as did 52% in the Republic of Ireland. This has a major implication for the conservation, repair and maintenance of the built heritage stock, as the contractors are untrained or inexperienced in this type of work.

Perhaps not surprisingly, those in the wood trades did slightly more pre-1919 work than the average, with roofing contractors doing substantially less.

Regarding the split between repair and maintenance and conservation and restoration (Figure 6), there was rather more emphasis on repair in Northern Ireland and on conservation in the Republic of Ireland. In terms of craft occupations, wood trades in both countries and roofing contractors in the Republic of Ireland tended to be more involved in conservation work. General building contractors in the Republic of Ireland and Northern Ireland, as well as plumbing contractors in Northern Ireland, tended to be involved more in repair and maintenance.

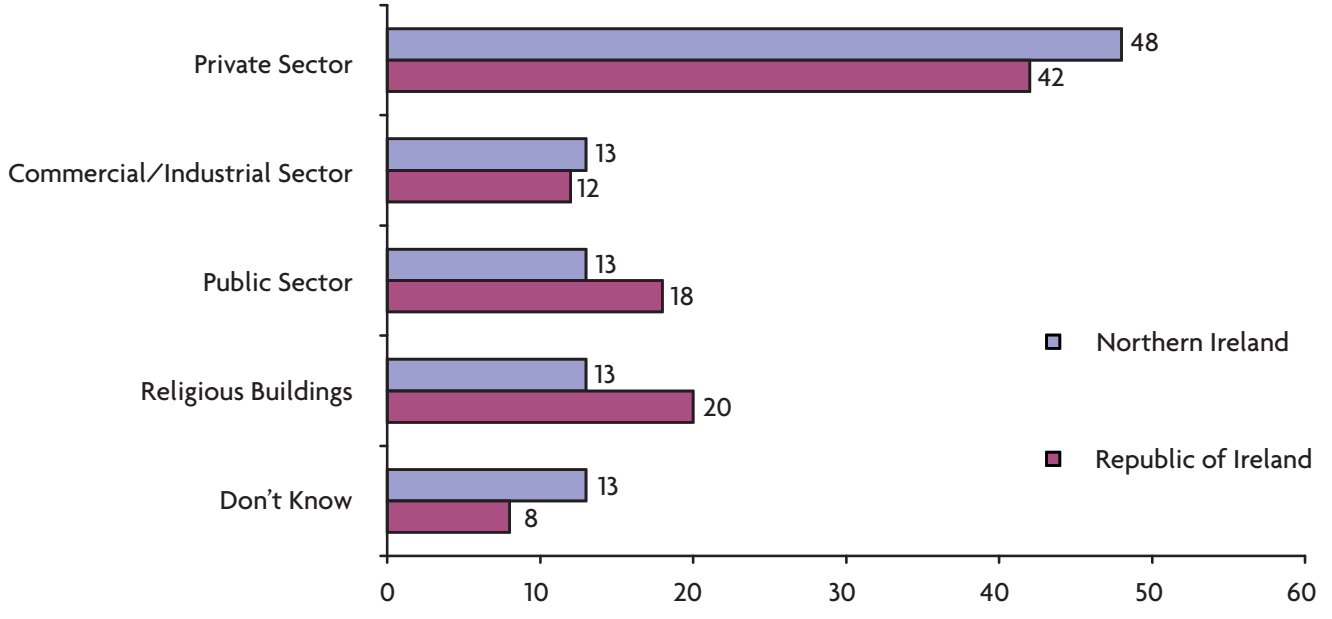
5.3.2 Types of Buildings Worked On

Figure 7 shows that the private sector accounts for the highest proportion of work carried out on pre-1919 buildings, with the remainder spread broadly across the three other sectors, commercial, public and religious, with these patterns similar for both countries. This is very similar to the findings in the NHTG England 2008 review report,[64] and while this was a little harder to interpret in Scotland and Wales, the private sector was the main area of activity in both countries.

5.3.3 Geographic Range of Work

From the 129 Northern Ireland contractors in the survey, 58% only ever work within the province, and of these 67% work on pre-1919 buildings. The remaining 42% of the contractors also work within the Republic of

Figure 7 Types of Building



Ireland, with 33% of these working on pre-1919 buildings. By contrast, only 19% of the 131 Republic of Ireland contractors in the survey ever work in Northern Ireland, and of these only 15% undertake work on pre-1919 buildings in the six counties.

Clearly this is primarily a geographical issue and, while the whole of Northern Ireland can be regarded as being geographically close to the Republic of Ireland, and although some parts of the midlands and northern counties of the Republic of Ireland are close to Northern Ireland, much of the country is some travelling distance away. Cork to Belfast is for example 260 miles, thus making it inconvenient for contractors in Northern Ireland to work in the southern counties of the Republic. Not surprisingly, larger companies in the Republic of Ireland are more likely to work in Northern Ireland than are small firms.

5.3.4 Confidence in Ability to Work on Pre-1919 Buildings

Regarding their confidence in working on Grade A and Grade B listed buildings, the overwhelming majority of the respondents in Northern Ireland felt that they would have the confidence to work on either type of building (82% for Grade A, 86% for Grade B and 79% for both grades). In the Republic of Ireland this was even higher, with a massive 98% feeling confident in their ability to work on protected structures – but this is quite different from actually having the ability to do so.

5.4 Workforce Management

5.4.1 Recruitment

Just under half of all contractors had recruited staff in the previous 12 months, with the numbers being similar in both countries. This is similar to the levels reported in the NHTG England 2008 review and Wales 2007 report but below the 63% reported in Scotland. Larger companies are more likely to have recruited than smaller firms.

When considering numbers of recruits, excluding trainees and apprentices, firms in Northern Ireland recruit fewer employees on average in comparison with those in the Republic of Ireland (average 1.0 and 1.8 respectively), again reflecting the larger size of the firms in the latter. As shown in Table 19, the average number of trainees and apprentices recruited during the last 12 months is, however, about the same in both countries (0.7 in Northern Ireland and 0.6 in the Republic of Ireland). Recruitment levels are generally lower than reported in the NHTG 2008 England review, where, on average, each contractor recruited 2.6 trained employees and just under 2 trainees but higher than in Wales, where the average was 0.9, including both skilled workers and trainees.

Table 19 Staff Recruited in Past 12 Months

	Number of staff recruited, excluding trainees and apprentices				Number of trainees and apprentices recruited			
	Northern Ireland		Republic of Ireland		Northern Ireland		Republic of Ireland	
	%	No.	%	No.	%	No.	%	No.
11+	2		2					
6–10	5		5					
5+					1		3	
5	*		5					
4	0		3		4		1	
3	5		4		5		4	
2	5		8		8		7	
1	10		9		17		14	
None	73		62		65		70	
Don't know							1	
Mean score (all recruiting)		**2.2**		**4.0**		**1.5**		**1.3**
Mean score (all respondents)		**1.0**		**1.8**		**0.7**		**0.6**
New recruits (total number)		**134**		**236**				
Trainees (total number)						**89**		**75**

** less than 1%.*

Of the Northern Ireland contractors interviewed, 29% recruited skilled staff in need of no training, 43% recruited staff in need of some training and 20% employed trainees. Thus under one-third are recruited with the skills to work in the sector and be immediately productive for their employer. These figures suggest that either there is a clear preference for employees that require part-time training and in-company work experience in order to develop their skills in the way that the employer prefers, or that there is a shortage of the required skills, and employers have no choice but to undertake supplementary training.

In the Republic of Ireland numbers employing staff in need of no training (39%) or some training (48%) were somewhat higher but fewer employed trainees (18%), so a larger number of work-ready recruits with the underpinning skills and knowledge are therefore employed. However, the higher number of those needing further training and the lower number of trainees suggests a widespread policy of on-the-job training for those with basic skills to become skilled in the employer's working practices.

These figures can be compared with the findings in England, where 30% of contractors recruited staff who were already fully trained, 58% looked for new employees in need of some further training and only 12% recruited trainees. In Scotland, employers were also keener to take on skilled or semi-skilled staff than trainees, but in Wales 44% recruited trainees as opposed to 28% fully skilled and 33% semi-skilled trades/craftspeople. In this study in Ireland, no particular patterns of recruitment policy emerged according to company size.

5.4.2 Ease of Recruiting Skilled Trades/Craftspeople and Vacancies

Experience varies regarding the ease of recruiting skilled trades/craftspeople, with around a third each saying this was easy or difficult, and the remainder unable to comment (Table 20). Although a high proportion of contractors in the Republic of Ireland found recruitment very easy, the overall pattern for recruitment was similar for both countries.

General building workers were easier to recruit than specialist trades/craftspeople in both Northern Ireland and the Republic. Specialist woodworkers were the most difficult to recruit in Northern Ireland (11% of contractors have difficulties, in particular with joiners), while in the Republic of Ireland the most difficult groups to recruit tended to be roofers and stonemasons. Some 12% of contractors in the Republic of Ireland and 10% in Northern Ireland had difficulties when looking for lime plasterers. At least 6% of respondents in Northern Ireland mentioned bricklayers, stonemasons, plumbers, and fibrous and other plasterers as being difficult to recruit, while in the Republic of Ireland leadworkers, carpenters and glass painters were mentioned most.

Only a very small number in either country had long-term unfilled vacancies (over 3 months). These were mainly in roofing and joinery, but general trades/craftspeople were also mentioned in Northern Ireland, and blacksmiths and glass painters were mentioned in the Republic of Ireland.

Table 20 Ease of Recruiting Traditional Trades/Craftspeople

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
Very easy (5)	9		15	
Fairly easy (4)	19		21	
Neither easy nor difficult (3)	16		18	
Fairly difficult (2)	17		20	
Very difficult (1)	16		15	
Don't know/not applicable	23		11	
Mean score		**2.8**		**3.0**
Wood trades		**2.4**		**3.0**
General building		**3.2**		**3.2**
Roofing				**2.7**

Table 21 Number of Trades/Craftspeople Leaving a Firm in Last 3 Years

	Northern Ireland		Republic of Ireland	
	%	No.	%	No.
21+	1		10	
11–20	2		6	
6–10	4		10	
3–5	19		18	
2	8		8	
1	14		8	
None	51		37	
Don't know	1		3	
Average number		**2.0**		**9.6**
Total (trades/craftspeople)		**254**		**1,219**

Table 22 Number of Trades/Craftspeople Leaving a Firm in the Last 3 Years As a Proportion of the Total Workforce

	Proportion of firms losing trades people, %	Number of trades people	Departures as proportion of total workforce (outflow), %
Northern Ireland			
Main trades			
Wood trades	52	24	16
General building	48	44	16
Plumbing	43	24	10
Roofing			
All trades	**49**	**254**	**18**
Republic of Ireland			
Main trades			
Wood trades	67	84	19
General building	62	138	26
Plumbing			
Roofing	59	104	37
All trades	**63**	**1,117**	**25**

5.4.3 Loss of Skilled Trades/Craftspeople

As shown in Table 21, on average, firms in Northern Ireland had lost 2 trades/craftspeople in the previous 12 months compared to almost 10 in the Republic of Ireland, which may be because companies there tend to be larger. Half (48%) of the contractors interviewed in Northern Ireland had lost a skilled craftsperson, as had 60% in the Republic of Ireland.

The greatest outflow of trades/craftspeople (departures as a proportion of the total workforce) was from general building and wood trades in Northern Ireland and from roofing in the Republic of Ireland, where the figures for general building and wood trades were also high (Table 22). The overall outflow in the Republic of Ireland (25%) was substantially higher that that in Northern Ireland (18%).

Most commonly in both countries, people moved to a competitor firm after leaving (Table 23), but around 10% of those who left a company in the Republic of Ireland were now unemployed or not working. Some 8% in Northern Ireland became self-employed or started up their own business, with a much lower figure for this in the Republic of Ireland; smaller numbers left the industry altogether or retired.

5.4.4 Sector Inflow and Outflow

Table 23 also shows that the total outflow among those interviewed was only 63 in Northern Ireland, but 798 in the Republic of Ireland,

Table 23 Reasons Trades/Craftspeople Left Their Firm in the Last 3 Years

	Northern Ireland			Republic of Ireland		
	Firms affected (%)	Tradespeople leaving (No.)	Outflow (%)	Firms affected (%)	Tradespeople leaving (No.)	Outflow (%)
Moved to competitor firm	26	172	12	23	411	9
Now self-employed	5	19	1	5	10	*
Left the industry	5	7	*	5	36	1
Retirement	7	13	1	15	41	1
Left employment altogether	4	6	*	13	147	3
Other (including dismissed)	14	37	3	29	574	13
All respondents	**49**	**254**	**18**	**63**	**1,219**	**27**

** less than 1%.*

which equates to around 21 a year in Northern Ireland and 266 in the Republic of Ireland. Encouragingly, the majority of those leaving their employer in the last 3 years remained within the industry.

Companies in Northern Ireland reported having recruited a total of 223 new employees in the last 12 months, and those in the Republic of Ireland, 311. The net inflow was therefore 202 in Northern Ireland (14% of the total workforce) and 43 in the Republic of Ireland, representing only 1%, and must be a concern in terms of recruitment and retention of skills within this sector. This needs to be considered in terms of the economic situation in each country, and may also be the effect of the economic downturn and slowdown in construction experienced in the Republic of Ireland in 2007/08 and before the current economic downturn in the UK of 2008.

5.4.5 Charges and Wage Rates

When asked if they charged more for work on pre-1919 buildings, 24% of the contractors from Northern Ireland and 38% from the Republic of Ireland charged their clients more, but reassuringly the remaining 76% in Northern Ireland and 61% in the Republic of Ireland (only 1% said it did not apply to them) did not charge more than for other types of building work.

The result from Northern Ireland is in line with that described in the NHTG England 2008 review, where 79% said they did not charge extra for work on pre-1919 buildings. The reasons for the additional charges were not discussed in detail during the interviews, but it seems likely that the shortage of firms involved in work on pre-1919 buildings might offer an opportunity for premium pricing. In addition, contractors may feel it necessary to charge more because of the potential for predictability problems, which are less likely in new build on a greenfield site than on an older building.

Similarly, 20% of the contractors from Northern Ireland and 34% in the Republic of Ireland paid their employees more for work on old buildings, which corresponds closely with the percentage of those charging clients more, so most of the additional cost appears to have been passed on to their employees in wages. This may reflect increased pay for the higher skill level required for this type of work and also the fact that the workers are likely to be older and more experienced. This finding is rather different from England where under half of those charging a premium paid higher rates to employees.

5.5 Skills Issues in the Directly Employed Workforce

5.5.1 Skills Shortages and Skills Gaps

In addition to the general skills profile of the directly employed workforce, it is necessary to assess any current *skills shortages* and *skills gaps* affecting the contractors and hence the wider sector.

Skills shortages are defined as the inability to recruit people with appropriate skills at an appropriate wage. The symptoms of *skills shortages* include long-term unfilled vacancies and understaffing. The knock-on effects of this can include longer working hours and high overtime rates. Company performance can also be affected, including capacity to bid for and fulfil new work.

Skills gaps are defined as missing knowledge and competence of existing staff. These gaps can lead to reduced performance, quality and safety. Skills gaps may result in lower productivity and profitability, reduced output quality and longer snagging, and a below-par health and safety record.

All respondents who reported difficulty in recruiting trades/craftspeople (131 in total from 260) were also asked whether they considered this to be due to skills shortages or *skills gaps*. Among contractors 77% in Northern Ireland and 81% in the Republic of Ireland considered their recruitment difficulties to be due to a lack of skills among applicants, which equates to a skills gap. However, 46% in Northern Ireland and 29% in the Republic of Ireland said that skill shortages were the cause. Figure 8 shows that 27% in Northern Ireland and 17% in the Republic of Ireland considered that both factors played a role in recruitment difficulties, with only a small number attributing this to neither reason.

5.5.2 Response to Skills Shortages and Skills Gaps

The main response to skills shortages and skills gaps was for employees to learn on the job (around a quarter each in Northern Ireland and the Republic of Ireland), while around one fifth in both countries overcame this by subcontracting to someone with the necessary skills. Of great concern is that only 9% in Northern Ireland and 14% in the Republic of Ireland sourced training as a solution to their recruitment difficulties, as the contractors' preference was for recruiting a trained workforce (see Section 5.4.1). If such employees were not available they made do or, in a small number of cases, sought advice/information from other people or from the Internet for specific jobs.

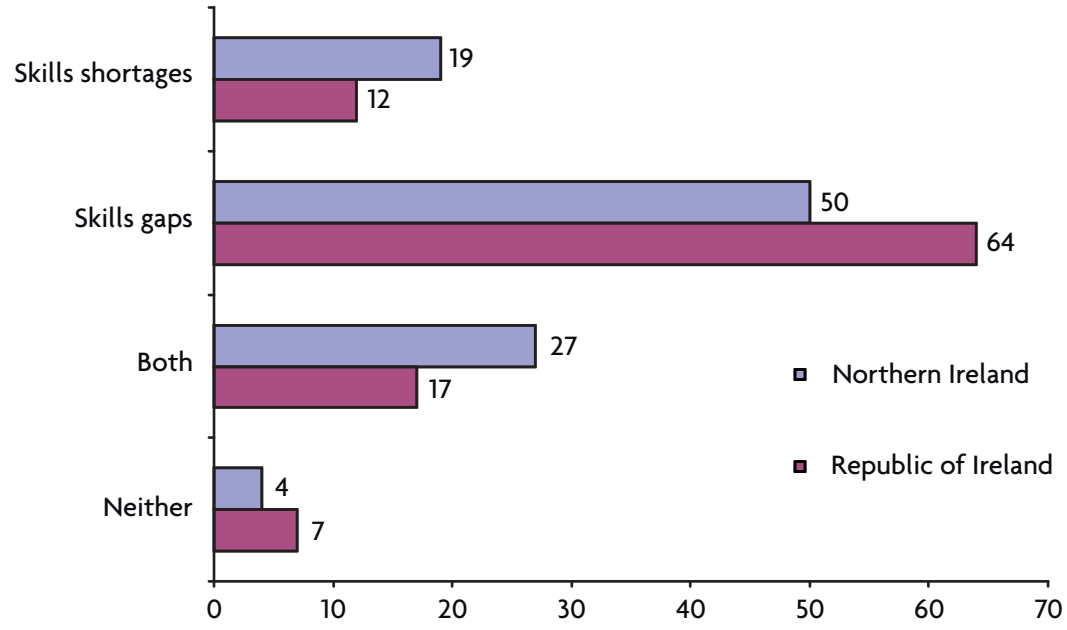
This passive approach is reflected by the fact that approximately 40% in both countries took no action (Table 24), but, reassuringly, only a small percentage used modern materials instead. This was higher within Northern Ireland, which tends to support the fact that a great percentage of conservation or heritage specialists exist in the Republic of Ireland, whereas general builders predominate in Northern Ireland and would tend to use modern materials more readily anyway. In spite of this, only 1 in 10 respondents in Northern Ireland and 1 in 20 in the Republic of Ireland had turned down work on pre-1919 buildings as a result of a lack of knowledge or skills within their firm.

5.6 Skills Issues and Subcontracting

5.6.1 Extent of Subcontracting

Table 25 shows that 66% of contractors in Northern Ireland had subcontracted trades/craftspeople to work on their pre-1919 buildings

Figure 8 Skills Shortages and Skills Gaps



Base: All experiencing recruitment difficulties (NI 62, RoI 69)

Table 24 Actions Taken to Overcome Skills Gaps

	Northern Ireland (%)	Republic of Ireland (%)
Tradespeople learn on the job	22	27
Used subcontractor with the specialist skills required	20	22
Sourced training for the specialist skill	9	14
Asked other tradespeople for advice	8	5
Researched on the Internet/publications	6	11
Used modern methods instead	5	1
Trained by employer/in house	4	4
Seminars	1	0
Worked longer hours	1	2
More site management overseeing work	1	0
Taken people from GB/UK	0	1
Merged with another company	0	1
Poached staff from other companies	0	1
No action taken	43	39

in the previous 12 months, compared with around 78% of contractors in the Republic of Ireland. Contractors in the Republic of Ireland subcontracted on average 8.3 skills, while those in Northern Ireland used about a third less (5.4).

In Northern Ireland the trades most commonly subcontracted (in descending order) were painting and decorating, glazing, roofing, leadworking, plastering and tiling, with at least a quarter of the firms using each of these trades during the last 12 months.

In the Republic of Ireland, glazing, painting and decorating, tiling, stone carving, woodcarving, joinery, leadworking, roofing and stonemasonry were reported as the most subcontracted trades, and each of these was used by one-third or more of the respondents.

As shown in Table 26, over half (56%) of the contractors in Northern Ireland and over two-thirds (69%) of those in the Republic of Ireland who subcontracted in the past 12 months waited for less than 2 months for a subcontracted craft skill/trade, and almost all of the remainder waited less than 3 months. Nobody in the Republic of Ireland waited for more than 3 months and only 1% in Northern Ireland, but interestingly one-third (34%) in Northern Ireland and just over one-fifth (22%) in the Republic of Ireland had not subcontracted in the past 12 months.

5.6.2 Scarcity of Skills

In order to establish the scarcity of each craft skill, all those subcontracting each skill were asked whether they had found it difficult to find a suitable subcontractor. As shown in Table 27, thatchers were the hardest to find in both Northern Ireland and the Republic of Ireland, and were mentioned by almost one-third (30% in both instances) of those subcontracting. Although this is currently an issue, it augurs well for the thatching training programme, established in the Republic of Ireland in 2006, being able to meet that apparent demand. Woodcarvers, stone carvers, blacksmiths and fibrous plasterers were also mentioned by contractors as scarce skills in Northern Ireland, and glass painters, blacksmiths and lime plasterers were hard to find in the Republic of Ireland.

5.6.3 Difficulty in Finding Sympathetic Contractors for Electrical and Mechanical Work

Respondents were questioned on how difficult it was to find electrical and mechanical contractors able to work sympathetically on pre-1919 projects, and of those requiring such services, around a third had experienced difficulties.

The contractors were also asked whether there was a need for training electrical and mechanical contractors for working on pre-1919 buildings. Opinion was divided almost equally between those agreeing and disagreeing in Northern Ireland, and a small majority were in favour of such training in the Republic of Ireland.

Table 25 Building Firms Subcontracting Each Specific Craft Skill

	Northern Ireland				Republic of Ireland			
	Possessed in-house		Subcontracted		Possessed in-house		Subcontracted	
	%	No.	%	No.	%	No.	%	No.
Joiner	47		23		46		34	
General craftsperson	42		14		59		14	
Carpenter	42		23		66		16	
Bricklayer	34		23		42		31	
Roofer (general)	27		26		44		30	
Roofer (random/ natural slates)	27		22		41		31	
Leadworker	26		26		35		36	
Painter/decorator	23		34		24		50	
Plasterer (non-lime, non-fibrous)	22		27		41		28	
Roofer (stone tiles)	22		16		35		25	
Tiler	22		25		31		40	
Plasterer (lime)	18		23		40		29	
Roofer (metalworker)	18		25		30		35	
Glazier	14		31		16		52	
Cabinetmaker	12		23		24		32	
Plasterer (fibrous)	13		27		28		30	
Stonemason	13		23		39		34	
Drystone waller	12		22		31		27	
Wood machinist	9		17		15		32	
Stone fixer	7		20		29		28	
Woodcarver	5		13		4		33	
Glass painter	3		19		4		32	
Steeplejack	2		13		4		27	
Scaffolder	2		0		1		0	
Blacksmith	2		22		2		25	
Stone carver	2		19		9		35	
Gilder	2		11		7		24	
Thatcher	2		8		3		15	
None			34				22	
Average number of skills		**5.4**		**5.8**		**8.0**		**8.3**

Table 26 Average Wait for Subcontracted Trades on Pre-1919 Work in Last 12 Months

	Northern Ireland (%)	Republic of Ireland (%)
Less than 2 months	56	69
2–3 months	9	7
More than 3 months	1	0
No subcontracting in last 12 months	34	22
Don't know		2

Table 27 Craft Skills Hard to Find/Where Long-Term Outstanding Vacancies Exist

	Northern Ireland (%)		Republic of Ireland (%)	
	Proportion subcontracting (all respondents)	Craft hard to find (all subcontracting each craft)	Proportion subcontracting (all respondents)	Craft hard to find (all subcontracting each craft)
Joiner	23	13	34	5
General craftsperson	14	17	14	11
Carpenter	23	10	16	10
Bricklayer	23	17	31	5
Roofer (general)	26	0	30	0
Roofer (random/natural slates)	22	4	31	3
Leadworker	26	15	36	15
Painter/decorator	34	7	50	3
Plasterer (non-lime, non-fibrous)	27	9	28	3
Roofer (stone tiles)	16	15	25	0
Tiler	25	9	40	4
Plasterer (lime)	23	13	29	21
Roofer (metalworker)	25	13	35	11
Glazier	31	8	52	9
Cabinetmaker	23	17	32	2
Plasterer (fibrous)	27	23	30	13
Stonemason	23	13	34	16
Drystone waller	22	14	27	11
Wood machinist	17	9	32	5
Stone fixer	20	15	28	11
Woodcarver	13	29	33	12
Glass painter	19	13	32	26
Steeplejack	13	18	27	11
Scaffolder	0	0	0	0
Blacksmith	22	21	25	21
Stone carver	19	25	35	11
Gilder	11	7	24	19
Thatcher	8	30	15	30

Note: Very small sample involved. It can be seen that there are more craft skills in this table than trades listed in Table 15, because the main trades have been classified in more detail: for example, roofing has been split into stone, slate, metal and other.

5.7 Training

5.7.1 Views on Training

The contractors saw on-the-job training and work experience on old buildings as very important, with much less emphasis placed on college training (Figure 9).

5.7.2 Numbers of Staff in Formal Training Programmes

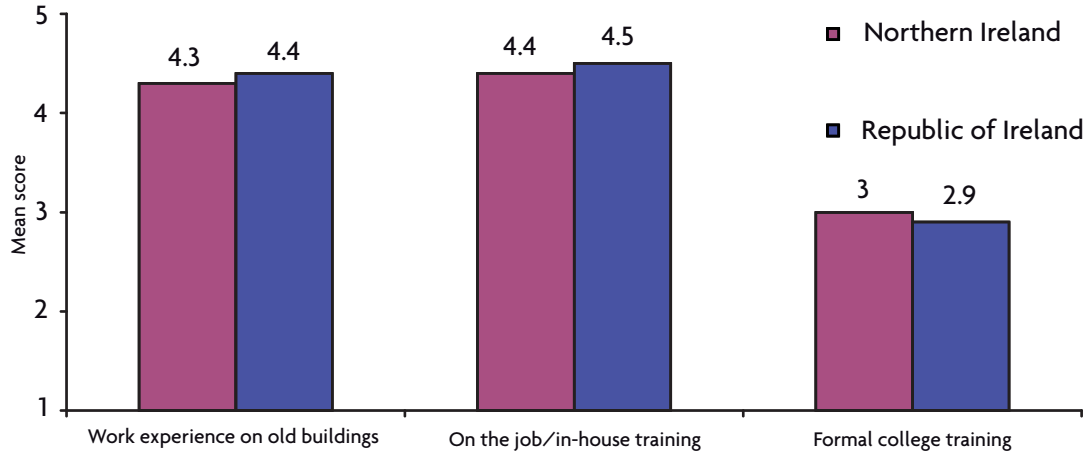
Table 28 shows that around half (44%) of the contractors in Northern Ireland had staff enrolled in some form of formal training programme leading to qualifications, with an average of 2.6 per firm.

In the Republic of Ireland only one-fifth (19%) had staff undergoing formal training, but at a much higher average of 6.3 per company. In both countries larger firms were more likely to have staff in formal training. The majority of trainees were aged under 25.

5.7.3 Sources of Training

As shown in Table 29, one third (33%) of companies interviewed in Northern Ireland had staff enrolled in further education courses, making this the most popular means of formal training. Nearly 10% of contractors used other off-the-job training such as courses or formal instruction, while

Figure 9 Importance of Factors in Development of Traditional Building Craft Skills (Contractors)



1 = not at all important, 5 = very important

Table 28 Number of Staff Involved in Formal Training

	Northern Ireland				Republic of Ireland			
	Total staff		Staff aged 25 or under (%)	Staff over age 25 (%)	Total staff		Staff aged 25 or under (%)	Staff over age 25 (%)
	%	No.			%	No.		
1	16		15	6	3		3	2
2	11		11	0	5		5	4
3	5		5	0	3		2	1
4	6		5	1	1		1	0
5	1		0	1	2		2	2
6+	5		3	2	5		2	2
None	56		5	35	82		5	8
Mean score		1.2				1.1		
Mean (all with trainees)		2.6				6.3		

Table 29 Sources of Formal Training in Traditional Skills

	Northern Ireland (%)	Republic of Ireland (%)
Training delivered by FE colleges	33	2
Other off-the-job training, such as courses or formal instruction	9	8
Training delivered by a manufacturer or supplier	9	2
ConstructionSkills On-Site Assessment & Training programme	8	
Training delivered by Training & Assessment Services for Construction	7	
Training delivered by any other private training provider	6	4
Training delivered by Foras Áiseanna Saothair (FÁS)		9
None of these used	2	4
None in formal training	56	82

training delivered by a manufacturer or supplier was used by 9% of respondents. Some also used courses delivered by the Training and Assessment Services for Construction and other private training providers.

In the Republic of Ireland, the government training organisation FÁS provides the principal source of formal training, with about one in ten (9%) contractors having staff enrolled on its courses. Some 8% used off-the-job training such as courses or formal instruction. Smaller numbers also used training delivered by private training organisations, manufacturers and suppliers and further education colleges.

5.7.4 Perception of College-Based Element of Apprenticeships

Contractors were asked to rate the college-based element of the apprenticeship system on a scale from 1 (very poor) to 5 (excellent). Table 30 shows that respondents in Northern Ireland gave slightly lower ratings (2.7) than those in the Republic of Ireland (3.1). Only 18% in Northern Ireland considered it good or excellent, compared to 30% in the Republic of Ireland; conversely, more than a third (34%) in Northern Ireland believe it to be poor or very poor, against only a fifth (21%) in the Republic of Ireland.

In Table 31 a high proportion of those interviewed (66% in Northern Ireland and 79% in the Republic of Ireland) were either satisfied with the training or could not comment on suggested improvements to the college-based training. The most frequent recommendations on this included: balance practical and theoretical elements; relate the training more closely to workplace concerns; provide more on-site/ hands-on training.

5.7.5 Drop-out Rates and Retention Post-Apprenticeship

In Table 32 the vast majority of apprentices (over 80%) in both countries stay with the contractor until they complete their apprenticeship. About half of contractors in both countries (48% in Northern Ireland and 54% in the Republic of Ireland) indicated that all their apprentices stayed with them until they qualified, with at least a quarter (29% in Northern Ireland and 25% in the Republic of Ireland) saying that they retained 75% or more.

Roofing in the Republic of Ireland is the trade where apprentices were most likely to complete their apprenticeships, perhaps because of its specialist nature, rather than general builders, where there are more employment opportunities. The lowest level of retention was in the wood trades.

Table 30 Overall Opinion of College-Based Element of Apprenticeships

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
Excellent (5)	2		5	
Good (4)	16		25	
Reasonable (3)	33		35	
Poor (2)	24		13	
Very poor (1)	10		8	
Don't know	15		14	
Mean score		**2.7**		**3.1**

Table 31 Suggested Improvements to College-Based Training

	Northern Ireland (%)	Republic of Ireland (%)
Balance practical with theoretical elements	8	6
Tie training more closely to workplace concerns	8	8
More hands-on training/on site	4	5
Better training of trainers	3	2
Extend length of college-based elements	2	0
Other	9	5
Don't know	4	1
Satisfied or unable to comment	66	79

Table 32 Proportion of Apprentices Completing Apprenticeship

	Northern Ireland (%)	Republic of Ireland (%)
0%	1	4
1–10%	4	0
11–25%	3	4
26–49%	0	0
50%	4	6
51–75%	11	3
76–99%	29	25
100%	48	54
Don't know	0	4
Mean	83.5	85.0
Wood	69.2	77.4
General building	85.8	79.7
Roofing		94.0

The length of time apprentices stay with firms after qualifying varies greatly, and one-third (30% in Northern Ireland and 36% in the Republic of Ireland) of contractors in both countries could not give a specific answer. As Table 33 shows, among those able to comment, it appears that trainees or apprentices remain with their employer on average for 5½ years in Northern Ireland and 4½ in the Republic of Ireland. Those who have undergone some formal training tend to stay with the contractor for longer than others.

5.7.6 Funding for Skills Training in Northern Ireland

About one-third of respondents in Northern Ireland received a grant towards training in the last 12 months, almost all of them from CITB-Northern Ireland. Contractors received between £125 and £2,500, with the grants most often being £500 or £1,000. One-third of those questioned could not say what size of grant they received, and larger firms tended to attract more grant. Most respondents used the grant money towards covering the cost of training provision (16%), while smaller numbers contributed the money towards the costs of wages during training (12%), and 8% used the grant to cover some of the cost due to lost production time.

5.7.7 Non-Formal Traditional Craft Skills Training

Respondents were asked about additional training in traditional building craft skills, excluding activities leading to a formal qualification. As shown in Table 34, in both countries the majority used job shadowing or mentoring, with self-learning (using books, CDs and other media) being the next most popular. Smaller numbers used FE colleges or short courses run by local authorities, private training providers, manufacturers and suppliers or builders' merchants. Contractors in the Republic of Ireland were more likely to make use of these than those in Northern Ireland.

A fifth of contractors in the Republic of Ireland used FÁS programmes (19%) or trade federation (21%) courses, and

Table 33 Average Retention Period of Trainees/Apprentices

	Northern Ireland		Republic of Ireland	
	%	Years	%	Years
Less than 1 year	3		1	
1 year	1		3	
2 years	12		11	
3 years	17		13	
4 years	7		4	
5–9 years	11		18	
10+ years	12		5	
Indefinitely	5		4	
Varies/cannot generalise	30		36	
Not applicable	2		5	
Average years (all specifying length of time)		5.5		4.5
Employees in formal training: average years		5.8		5.4
Employees not in formal training: average years		4.9		3.9

Table 34 Additional Sources of Traditional Skills Training

	Northern Ireland (%)	Republic of Ireland (%)
Job shadowing or mentoring	50	66
Any self-learning using books, CDs etc	26	40
Further education colleges	14	10
Short courses run by local authorities	15	24
Short courses run by builders' merchants	16	16
Short courses run by private training providers	17	23
Equipment manufacturers/suppliers	17	16
ConstructionSkills On-Site Assessment & Training programme	15	0
Trade federations	6	21
Conservation organisations, such as the Society for the Protection of Ancient Buildings	7	14
FÁS programmes which do not lead to formal qualification	0	19
None	28	16

slightly fewer worked with conservation organisations. In Northern Ireland some 15% used the ConstructionSkills On-Site Assessment and Training (OSAT) programme, but there was little use of trade federations or conservation organisations in Northern Ireland for training, which potentially may place traditional buildings and structures at risk. Overall, 28% in Northern Ireland and 16% in the Republic of Ireland did not use any additional training methods.

Among the 47% in Northern Ireland and 58% in the Republic of Ireland of the respondents who used courses, the great majority said that, as a whole, courses were available in Ireland. Only 7% in Northern Ireland went elsewhere for courses; this rises to 18% for those in the Republic of Ireland.

5.7.8 Training Initiatives

Heritage Lottery Fund Bursary Scheme

Respondents were asked whether they were aware of the HLF Bursary Scheme for Masonry Conservation in Scotland and Northern Ireland. One-third of respondents in Northern Ireland had heard of this, which compares very favourably with the 19% of contractors who had heard of the corresponding Traditional Building Skills Bursary Scheme for England and Wales in the NHTG 2008 England review. Also, while the scheme is not available in the Republic of Ireland, it was known to some 15% there.

The aims of the masonry conservation bursary scheme were explained to the interviewees, and they were asked if they would be interested in applying for a bursary for themselves or for one of their employees. As shown in Table 35, over half of respondents in Northern Ireland (56%) and three-quarters (79%) in the Republic of Ireland said that they would be interested or possibly interested in applying for a bursary. Similar numbers said they would be interested in assisting the scheme by offering a placement for a bursary holder.

Freda Rountree Bursary

Of the 131 contractors in the Republic of Ireland survey only 8% had heard of the Heritage Council's bursary in memory of Freda Rountree.

'In general the builder will not do anything unless it is specified as it costs much more money to use traditional materials, so they will not use them unless client and architect specifically demand it.'

Contractor

Table 35 Interest in HLF Bursary Scheme

	Northern Ireland (%)		Republic of Ireland (%)	
	Interest in HLF bursary	Offer a placement?	Interest in HLF bursary	Offer a placement?
Yes, interested	30	32	62	59
Possibly interested	26	27	17	20
No interest	40	49	19	18
Refused to answer	4	2	2	3

Table 36 Extent to Which Firm Is Interested in Developing Traditional Building Craft Skills Further

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
To a great extent (5)	26		27	
To some extent (4)	19		26	
Neutral (3)	26		25	
Not very (2)	11		6	
Not at all (1)	11		12	
Don't know	7		4	
Mean score		3.4		3.5

National Heritage Training Group

All of the 129 contractors in the Northern Ireland survey were asked if they knew of the work of the National Heritage Training Group, and only 16% of respondents had heard of this organisation; only half of these were also aware of the reports on traditional building craft skills in England, Scotland and Wales.

5.7.9 Interest in Further Traditional Building Skills Training

Only 8% of respondents in Northern Ireland said that they would be interested in undertaking additional training in traditional building craft skills but were unable to do so, but 27% in the Republic of Ireland were interested in further training.

The main reasons cited for this lack of interest were: no courses available (6% in Northern Ireland; 17% in the Republic of Ireland); not within a reasonable distance (5% Northern Ireland; 8% in the Republic of Ireland); cost of courses was relatively low at 2% for all respondents from both countries; and 5% in Northern Ireland and 6% of those interested in the Republic of Ireland cited the cost of having staff away from work.

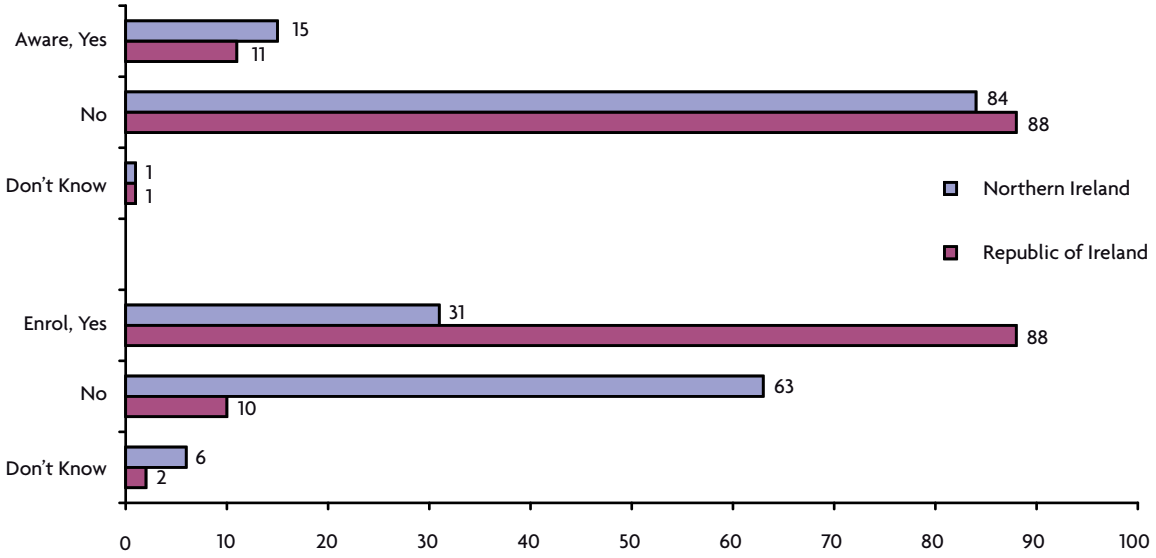
Contractors were also asked to what extent they and their employees were interested in developing their traditional building craft skills further. Encouragingly, 45% in Northern Ireland and 53% in the Republic of Ireland were interested in this, while around a fifth of respondents in both Northern Ireland (22%) and the Republic of Ireland (18%) showed no or very little interest (Table 36).

Respondents were asked if they were aware of the Heritage Skills NVQ Level 3 and whether they would be likely to register staff for this, which is currently achieved through the ConstructionSkills OSAT process.

As shown in Figure 10, only 15% of respondents in Northern Ireland were aware of this qualification, but just over double that (31%) would be interested in registering their staff. As the qualification is not currently available in the Republic of Ireland, it is not surprising that even fewer contractors in the Republic of Ireland were aware of it. However, at 11% it is not much less widely known than in Northern Ireland, and a staggering 88% of those contractors from the Republic of Ireland in this survey said that they would be interested in registering staff for this, compared to 31% in Northern Ireland.

While these percentages are encouraging in terms of those interested in qualifying their workforce, considerable work is necessary to stimulate the two-thirds (63%) in Northern Ireland who were not interested in the qualification to recognise this as a means of demonstrating craft skills

Figure 10 Awareness of and Interest in NVQ Level 3 Qualification in Heritage Skills



competence and holding a qualification specifically developed for the built heritage sector.

5.8 Traditional Building Materials

5.8.1 Materials Used on Pre-1919 Buildings

Contractors were asked what proportion of traditional building materials they used on pre-1919 building projects, either on their own or in conjunction with modern materials. While this provides an insight into the use of traditional building materials, the responses are broadly indicative, rather than definitive, as they were generally based on top-of-mind estimates; respondents had not analysed their materials bills over the course of the year.

As shown in Table 37, from the survey sample, 11% in Northern Ireland and 13% in the Republic of Ireland always used traditional

'Some of the modern regulations need to be adapted to older buildings to preserve older windows rather than replace them.'

Contractor

Table 37 Materials Used by Contractors for Work on Pre-1919 Buildings

	Northern Ireland (%)			Republic of Ireland (%)		
	Only traditional materials	Only modern materials	Combination	Only traditional materials	Only modern materials	Combination
100%	11	19	27	13	8	21
76–99%	5	11	1	13	5	2
51–75%	6	2	2	8	6	4
50%	8	5	3	5	3	4
26–49%	3	5	5	15	13	8
11–25%	5	8	9	5	7	7
1–10%	9	4	9	6	8	7
0%	52	43	42	31	47	44
Don't know	0	1	1	3	2	2
Not applicable	1	2	1	1	1	1
Mean score	26	38	35	41	26	33

Table 38 Other Sources of Traditional Building Materials Used

	Northern Ireland (%)			Republic of Ireland (%)		
	Great Britain	Europe	Elsewhere	Great Britain	Europe	Elsewhere
Brick	23			20	2	
Cast iron	22			23	2	2
Glass	19	1		12	5	1
Lead	19	2		9	2	1
Lime mortar	16	2	1	11	13	1
Lime plaster	16	2	1	9	11	
Sawn timber	8	12	7	8	16	5
Slate/tiles	25	3		27	10	2
Stone	17	2	2	11	5	4
Thatch	7	2		2	2	2
Paint	3	1				

materials for pre-1919 buildings, while 19% in Northern Ireland and 8% in the Republic of Ireland always used modern materials. Around a quarter in each case always used a combination but, for most contractors, usage varied according to the project.

The levels of use of traditional materials quoted by contractors are lower than those cited by stockholders, especially in Northern Ireland. They are also lower than the level of specification mentioned by the building professionals, an indication that there is some substitution taking place. This is discussed in more detail in Section 7.5.1.

On the basis of this data (percentage of work undertaken, not percentage of contractors) it is estimated that, on average, 26% of work on pre-1919 buildings in Northern Ireland always involves the use of traditional materials, 38% always involves modern materials and 36% involves a combination of both. From this it is possible to estimate that, overall, 44% of the work on pre-1919 buildings is undertaken using traditional materials. This is calculated by adding the proportion always using traditional materials (26%) plus half of the proportion using a combination (half of 36% = 18%), giving a total of 44%.

In the Republic of Ireland the corresponding data is 41% of work always involves the use of traditional materials, 33% always involves modern materials and 26% involves a combination, resulting in an average of almost 58% (41% plus half of 33% = 57.5%).

5.8.2 Source and Origin of Traditional Materials

Contractors were asked what proportion of traditional building materials they purchased from suppliers in Ireland as a whole. Almost half in both Northern Ireland (47%) and the Republic of Ireland (49%) always bought from Irish suppliers, with most of the remainder saying they mostly bought from Irish suppliers. In Northern Ireland 17% and in the Republic of Ireland 7% said that they never purchased traditional materials.

One-third of those purchasing traditional materials said that at least three-quarters originated from Ireland, with other answers divided evenly between half, a quarter and small amounts only.

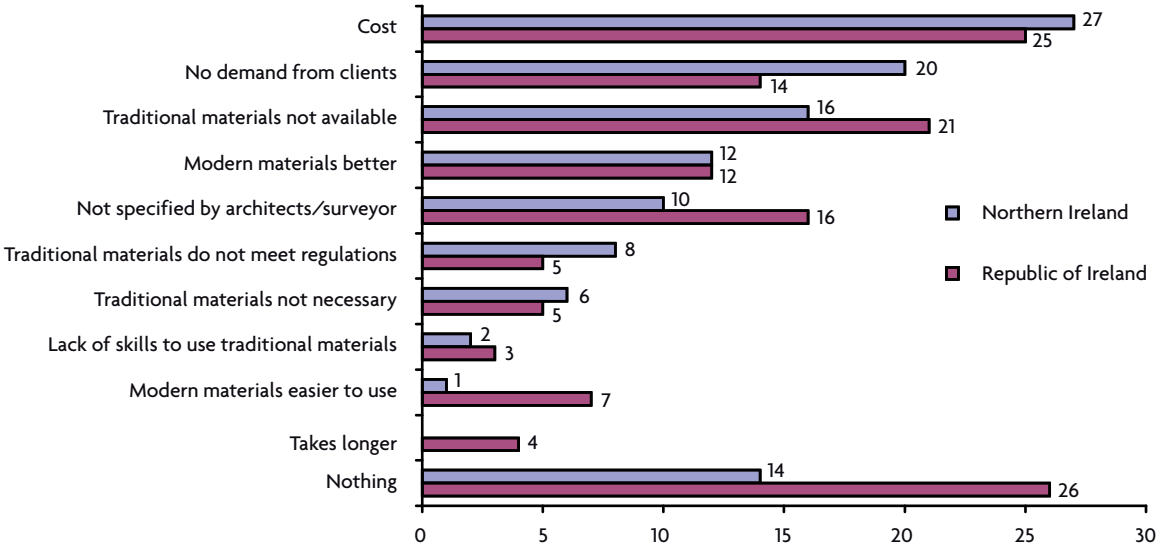
Regarding where else their traditional building materials originate from (Table 38), Great Britain (England, Scotland and Wales) was the main source, especially for those in Northern Ireland where the only other major demand was for sawn timber. This was primarily obtained from Europe, but with some also sourced from elsewhere in the world.

Contractors in the Republic of Ireland were more likely to use European sources as well as British; timber, slate and lime plaster/mortar were most often purchased from Europe, with small numbers buying timber and stone from countries outside Europe.

5.8.3 Factors Limiting Use of Traditional Materials

Cost, lack of demand and limited availability are the main reasons why traditional materials are not used more for pre-1919 building projects (Figure 11). Smaller numbers said that modern materials were better that traditional materials;

Figure 11 Main Factors Constraining Greater Use of Traditional Materials by Contractors



that traditional materials were not specified by architects or surveyors; or that traditional materials did not meet building regulations.

Traditional materials for pre-1919 buildings tend to be specified by architects less often in Northern Ireland than in the Republic of Ireland. As shown in Table 39, over half (56%) of contractors in the Republic of Ireland said that architects usually or always specified traditional materials for pre-1919 buildings, compared with less than one-third (29%) in Northern Ireland, and only 8% in the Republic of Ireland said that traditional materials were never specified, compared with 24% in Northern Ireland. This may be due to a lack of knowledge of traditional building materials by the architects.

5.8.4 Influence of Building Controls and Energy Efficiency on Use of Traditional Materials

As shown in Figure 12, answers regarding the extent to which building regulations and local authority building control officers restrict the use of traditional materials varied across the whole spectrum, with a small majority not seeing any restrictions. Building regulations are thought to have slightly more effect than building control officers.

'There is a very short supply of traditional building craft skills across the board.'

Contractor

'Quarries are closing because stone can be imported cheaper, that leads to losing skills in stonework.'

Contractor

Table 39 Specification of Traditional Materials by Architects for Pre-1919 Projects

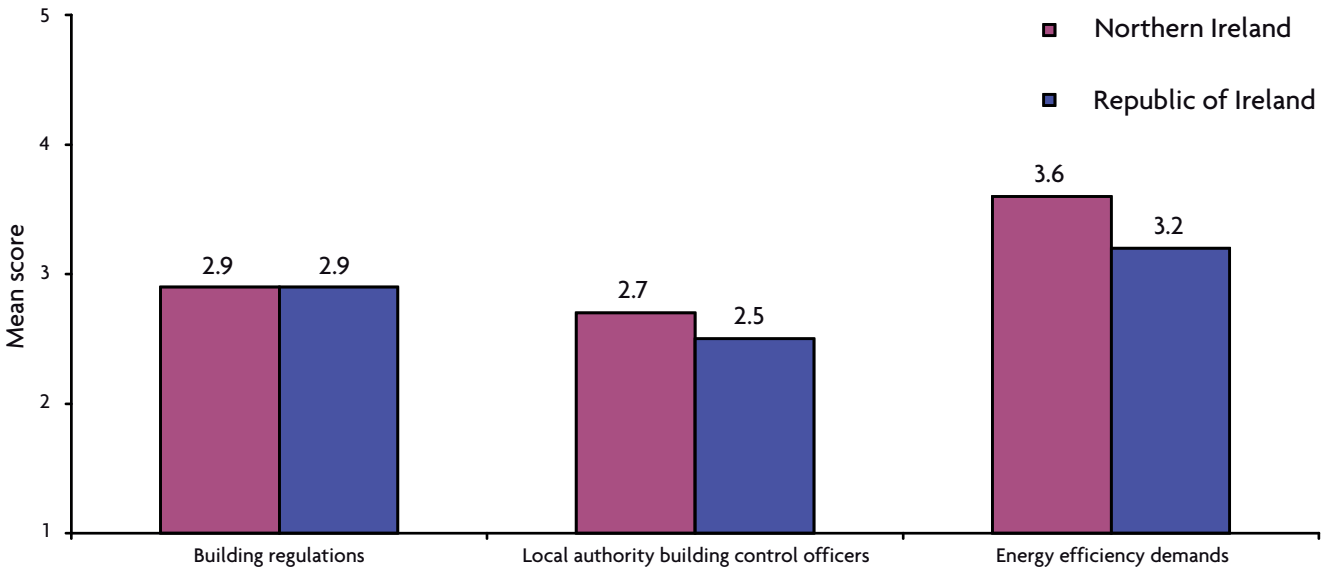
	Northern Ireland (%)	Republic of Ireland (%)
Always	17	31
Usually	12	25
Sometimes	28	24
Occasionally	16	10
Never	24	8
Don't know, not applicable	3	2

Respondents were also asked about their thoughts on how the growing emphasis on energy efficiency would affect the use of traditional building materials. Just under half of respondents from Northern Ireland felt that it would restrict the use, with less than a fifth saying it would have limited or no effect. The percentage in the Republic of Ireland saying it would restrict use was fairly similar at 43%, but those disagreeing were higher at 26%.

5.8.5 Employees' Knowledge of and Ability to Work with Traditional Materials

Respondents were asked to rate their employees' knowledge of traditional materials and their ability to work with them. The mean score of 3.7 suggests that contractors in Northern Ireland think that their employees have a fair knowledge of traditional building materials, compared to 4.0 in the Republic of Ireland, where the contractors are even more confident about their employees' knowledge (Table 40). It should be noted, however, that 14% of contractors in Northern Ireland and 9% in the Republic of Ireland rated it as poor or fairly poor. Contractors were even more positive in their attitudes towards their employees' ability to work with traditional building materials, with mean scores of 4.1 in Northern Ireland and 4.2 in the Republic of Ireland.

Figure 12 Extent to Which Building Controls and Energy Efficiency Demands Restrict the Use of Traditional Materials by Contractors



1 = not at all, 5 = to a great extent

Table 40 Rating of Contractors' Knowledge of and Ability to Work With Traditional Materials

	Northern Ireland				Republic of Ireland			
	Knowledge		Ability to work		Knowledge		Ability to work	
	%	Mean score	%	Mean score	%	Mean score	%	Mean score
Good (5)	22		31		31		42	
Fair (4)	27		33		37		31	
Neither good nor poor (3)	17		7		15		12	
Fairly poor (2)	9		6		8		4	
Poor (1)	5		1		1		1	
Don't know	6		8		2		3	
No trade employees	9		9		1		7	
N/A	5		5		0		0	
Mean score		**3.7**		**4.1**		**4.0**		**4.2**

MANUFACTURERS AND SUPPLIERS OF TRADITIONAL BUILDING MATERIALS IN THE UK

6

manufacturers and suppliers

This section of the report assesses the vital aspect of the manufacture and supply of traditional building materials, essential for the proper conservation, repair and maintenance of our older buildings. Modern building materials are almost always incompatible with the original fabric and methods of construction of older buildings. Therefore, apart from altering the historic character and visual and physical appearance of these buildings, modern alternatives will often be of different strength, texture and performance criteria, and thus risk changing the delicate balance that exist within an older building.

In this context, the right materials for the job are as essential as the detailed knowledge and practical experience of using traditional building skills, to ensure that our older buildings are repaired and maintained in as sympathetic a manner as possible.

To help understand the traditional building material supply chain in Ireland, a number of qualitative and quantitative interviews were undertaken with a sample of manufacturers and suppliers of these materials. The interviews used questions adapted from similar investigations in this field in the NHTG Scotland (2007), Wales (2007) and England (2008) reports.

One key issue affecting this subject is that reliable information on manufacture and supply of traditional building materials is often hard to obtain. In the past century or so, the manufacture and supply of building materials has undergone increased industrialisation and mechanisation. This has resulted in a reduction in the number of suppliers and loss of non-standard and regional products in favour of reliable, consistent industrial products. While the modern construction sector benefits from this change and high-volume output, this creates problems for those engaged in the conservation, repair, maintenance and restoration of traditional and historic buildings.

An example of linking the material supply chain to the proper practical conservation and repair of stone buildings is the Natural Stone Database for Northern Ireland.[65] The project was launched in January 2006 and the website in February 2008. The database allows searches of all stone types used on 1,800 buildings and monuments throughout Northern Ireland. Stone test data for local stone quarries and common imported stone can be used to help source replacement stone for repair. The database is the outcome of an industry-research partnership of the architectural practice Consarc Design Group and Queen's University Belfast, supported by the NIEA under the EU Building Sustainable Prosperity Programme.

6.1 Manufacture and Supply of Traditional Building Materials in Ireland

There has been a prolonged period of consolidation in manufacturing in both Northern Ireland and the Republic of Ireland. Building materials have been a relatively resilient part of the manufacturing base largely because their bulk means that even with modern technologies transport costs remain a significant issue, and because the construction industry has until recently enjoyed a relatively long-run period of sustained growth. A large proportion of building materials, especially masonry products and bricks, continue to be produced in Ireland. It is difficult to give reliable estimates of the size of the construction manufacturing sector in either of the two countries because no precise figures exist that would reflect this 'sector' as a whole. It is in fact a set of sub-sectors of larger manufacturing activities.

For employment data in Northern Ireland, the closest proxies are those relating to the economic activities covered by the footprint of Proskills[66] (the Sector Skills Council for the UK Process and Manufacturing Sector), whose five areas covered are:

- building products (principally tiles and bricks)
- coatings (principally paint)
- extractives (quarrying and mining)
- glass
- printing.

While printing would not be included within the manufacture of building materials, the others are directly related. However, the key areas of metal and wood-related activities are not included. These tend to fall between construction, engineering and manufacturing, leaving them without a fully representative body. In the UK and by excluding clearly unrelated sectors, we are left with a gross value added (GVA) of approximately £21bn. However, this still includes some unrelated materials and does not include the quarrying and extraction of stone for building.[67]

The manufacturing workforce within the Proskills footprint is 318,600, of whom about 296,300 are directly employed[68] within 21,350 enterprises.[69] Within the UK context Northern Ireland accounts for 4% of the total manufacturing and processing labour force. The vast majority of the UK manufacturing workforce (90%) is in direct employment. Levels of self-employment (7%) are correspondingly low compared with the UK average (13%), and are considerably lower than in the construction industry (36%). However, those in direct employment tend to work for small firms, and in this respect the sector is very similar to the construction industry, although there is a slightly higher proportion of small and medium-sized enterprises compared with construction and the UK average.[70]

The nearest equivalent to Sector Skills Councils in the Republic of Ireland is the Expert Group on Future Skills Needs. This body was appointed by the Irish government to advise it on aspects of education and training related to the future skills requirements of the enterprise sector of the Irish economy (www.skillsireland.ie). The Central Statistics Office of Ireland holds production and employment data for the various building products and related activities (e.g. quarrying) which make up this sector.

6.2 Survey Sample Overview

As with the rest of the research, a combination of in-depth qualitative interviewing and quantitative surveys was undertaken: 28 interviews in Northern Ireland and 65 in the Republic of Ireland were completed during the quantitative stage, with 6 in-depth interviews in Northern Ireland and 4 in the Republic of Ireland at the qualitative stage. During the qualitative research, interviews were undertaken with manufacturers and suppliers of the following types of traditional building materials.

Northern Ireland:

- lime products
- roofing products (including slate and clay tiles)
- hardwood flooring
- joinery
- natural stone and marble.

Republic of Ireland:

- lime products and paints
- sash windows
- traditional ironwork.

For the quantitative interviews, a total of 165 manufacturers and

suppliers were contacted in Northern Ireland, from which only 28 interviews resulted (17%), and 227 were contacted in the Republic of Ireland, with 65 interviews achieved (29%). The samples for these were taken from building conservation directories, such as those maintained by the UAHS and the IGS, supplemented by other published lists (using www.4NI.co.uk and www.build.ie, for example). Respondents were screened to establish whether or not they supplied traditional building materials.

As Table 41 shows, the sample covered firms ranging from small businesses to those with over 100 employees, almost all of them full-time. Firms in Northern Ireland were rather larger, typically having between 6 and 20 employees, while the majority in the Republic of Ireland employed only 6 or fewer. Although the average size in both countries was the same (around 33), the data from the Republic of Ireland is distorted by the four largest suppliers and manufacturers together employing 1,180 staff, which is over half (55%) of all those employed by all the Republic of Ireland respondents. Without these four firms the average falls to 14.5.

Around 43% of all respondents belonged to a trade federation or association; 14% of respondents in Northern Ireland mentioned the Federation of Small Businesses and 7% the CEF; in the Republic of Ireland, around one in ten mentioned the CIF and 3% each of the following: the Roofing Manufacturers & Suppliers Association, the Craft Council of Ireland, the Irish Professional Conservators' and Restorers' Association, and the National Guild of Master Craftsmen.

Table 41 Total Number of Employees, including Directors (Manufacturers and Suppliers)

	Northern Ireland		Republic of Ireland	
	%	No.	%	No.
101–350	7		6	
51–100	7		8	
21–50	21		11	
11–20	21		12	
6–10	29		22	
1–5	15		41	
Total workforce		917		2,150
Average		32.8		33.1

Only 11% of respondents in Northern Ireland and 8% in the Republic of Ireland were aware of Proskills. No one was either a sector or geographical member of Proskills, nor had anyone made use of its services or had contact with it in the past.

About half of all manufacturers and suppliers also offered installation services and about two-thirds offered specification services, while approximately one-quarter offered neither. One-quarter of respondents interviewed in Northern Ireland and 9% of those in the Republic of Ireland also provided non-staff training in the use of their products and materials.

6.3 Activities of Manufacturers and Suppliers

As shown in Figure 13, the majority of the respondents in both countries were both suppliers and manufacturers of traditional building materials. In Northern Ireland 14% were purely suppliers, compared to over one-quarter (28%) of respondents in the Republic of Ireland being purely suppliers (mostly stone and slate). In Northern Ireland 4% of businesses and in the Republic of Ireland 9% were only manufacturers; most of these produced wood or timber products.

As shown in Table 42, timber products and sawn timber were sold by over half (57%) of all the respondents in Northern Ireland, compared with only one-quarter (25%) in the Republic of Ireland. Sales of other products followed

Figure 13 Nature of Work Carried Out

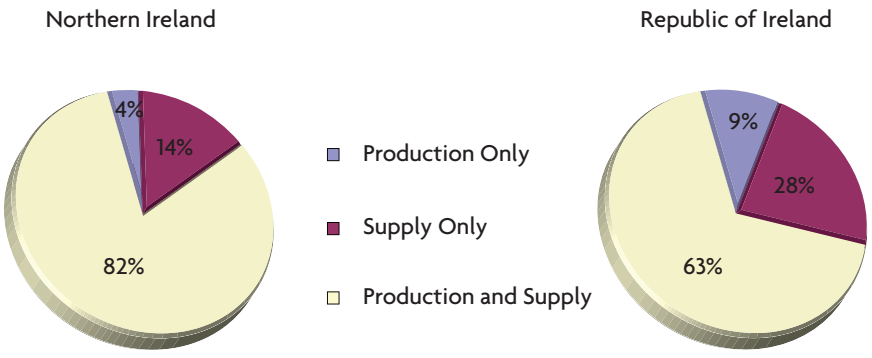


Table 42 Building Materials Supplied

	Northern Ireland		Republic of Ireland	
	Materials supplied	Main product, %	Materials supplied	Main product, %
	% No.		% No.	
Timber products	57	50	25	15
Sawn timber	54	4	26	6
Dressed natural stone	29	11	26	8
Glass/stained glass	25	7	23	8
Quarried rubble stone	21	4	29	20
Roofing slates/tiles	21	4	26	12
Bricks	18	7	17	5
Interior decorative fittings, e.g. textiles, wallpaper, plasterwork	18	0	8	2
General building materials	14	0	15	5
Metal products, e.g. cast iron, lead, brass, bronze, copper	11	0	20	2
Mortars	11	0	8	0
Architectural metalwork, e.g. railings/gates	7	0	15	5
Plaster	7	0	8	0
Lime	4	0	14	2
Granite	4	4		0
Thatch	0	0	6	5
Paint	0	0	2	2
No main product	N/A	11	N/A	6
Average number of products	**3.0**		**2.7**	

a similar pattern in both countries, with around one-quarter each mentioning as their main products dressed natural stone, quarried rubble stone, roofing slates/tiles and glass/stained glass. Bricks were supplied by almost one-fifth and general building products by 14% or 15% in both countries, while 11% of firms in Northern Ireland and 20% in the Republic of Ireland offered metal products.

Regarding their main product, half (50%) of Northern Ireland firms mentioned timber products, with glass the next biggest at 11%, but a much wider range exists in the Republic of Ireland (stone, timber and roofing tiles). On average each firm in Northern Ireland supplied 3 product categories, compared with 2.7 in the Republic of Ireland.

Manufacturers in Northern Ireland were less likely (13%) to be involved in the extraction of raw materials than those in the Republic of Ireland (43%), with the majority in both cases being in the stone and slate industry, but the great majority of respondents (96% in Northern Ireland and 81% in the Republic of Ireland) were involved in working these raw materials.

Only 11% of the manufacturers and suppliers in Northern Ireland are included on a register of approved suppliers to clients in the built heritage sector, compared with almost half of those in the Republic of Ireland.

The only three registers mentioned in Northern Ireland (each by one respondent) are: CIF Register of Heritage Contractors (operated in the Republic of Ireland), the UAHS and Invest Northern Ireland. However, one-third of respondents in the Republic of Ireland are included on the Irish Georgian Society register, with 6% listed on each of the CIF register and county lists. The IGS does include some Northern Ireland based suppliers in its register, but only if suppliers approach the IGS rather than being sought out, as this is the geographical area for the UAHS directory.

Table 43 Proportion of Products Which Are Traditional Materials

	Northern Ireland (%)	Republic of Ireland (%)
>49%	18	29
50%	4	11
51–75%	11	8
76–99%	18	6
100%	46	42
Don't know	3	4
Average (all respondents)	**75.8**	**65.8**
Sector		
Wood products/timber	55.3	68.8
Joinery	90.7	
Stone and slate	96.7	64.3

Table 44 Manufacturing Techniques Used

	Northern Ireland (%)	Republic of Ireland (%)
Only traditional	13	15
Mainly traditional	13	9
Mix of traditional and modern	58	57
Mainly modern	8	2
Only modern	8	17

6.4 Supply of Traditional Materials

6.4.1 Manufacturing Methods

Table 43 shows that, overall, three-quarters (76%) of products sold by the manufacturers and suppliers in Northern Ireland can be described as traditional building materials (i.e. substantially the same as those that would have been widely used before 1919), compared with only two-thirds (66%) in the Republic of Ireland.

Over two-fifths of all the manufacturers and suppliers in both countries said that all their products were traditional materials; 29% in Northern Ireland said the majority of their materials were traditional, compared with only 14% in the Republic of Ireland; only 18% in Northern Ireland said that less than half of their products were traditional, as did 29% in the Republic of Ireland. Some 11% in Northern Ireland described themselves as a company providing specialist conservation products, compared with 22% in the Republic of Ireland, while the remainder regarded themselves as generalists, providing products for a range of buildings including pre-1919 properties.

As shown in Table 44, around one-quarter used either purely or mainly traditional methods of manufacture, with almost three-fifths using a combination of modern and traditional techniques. Only small minorities used either mainly or only modern methods.

Low speed and high costs are the main reasons for not using traditional methods more often. Also, while a small number of manufacturers commented that they lacked skilled workers able to use traditional techniques, a few stated that traditional methods were not necessary.

6.4.2 Origin of Materials Worked and Supplied

As shown in Figure 14, one-fifth (19%) of the manufacturers and suppliers in Northern Ireland said that over half of their materials came from the six counties, and while around one-third (32%) said that only a minority was of Northern Ireland origin, almost half (46%) said that none of the material originated from there.

The pattern was slightly different in the Republic of Ireland (Figure 15), where nearly two-fifths (37%) stated that most or all of their materials originated from the Republic and only one-third (31%) saying that none did.

Respondents were then asked what proportion came from the neighbouring country: that is, Northern Ireland respondents were asked about imports from the Republic of Ireland and vice versa. Two-thirds (64%) of those in Northern Ireland (Figure 14) said that none of the materials they used was of Republic of Ireland origin, while just under one-third (29%) said less than half. Only 4% stated that most of their materials came from the Republic of Ireland. Some 82% of respondents in the Republic of Ireland (Figure 15) did not use any materials originating from Northern Ireland, while all the remainder said that this was less than one-quarter.

The main reason for not using more materials from the home or the neighbouring country was lack of availability, with lower cost and better quality of imported materials also mentioned.

Figure 14 Proportion of Materials in Northern Ireland of Irish Origin

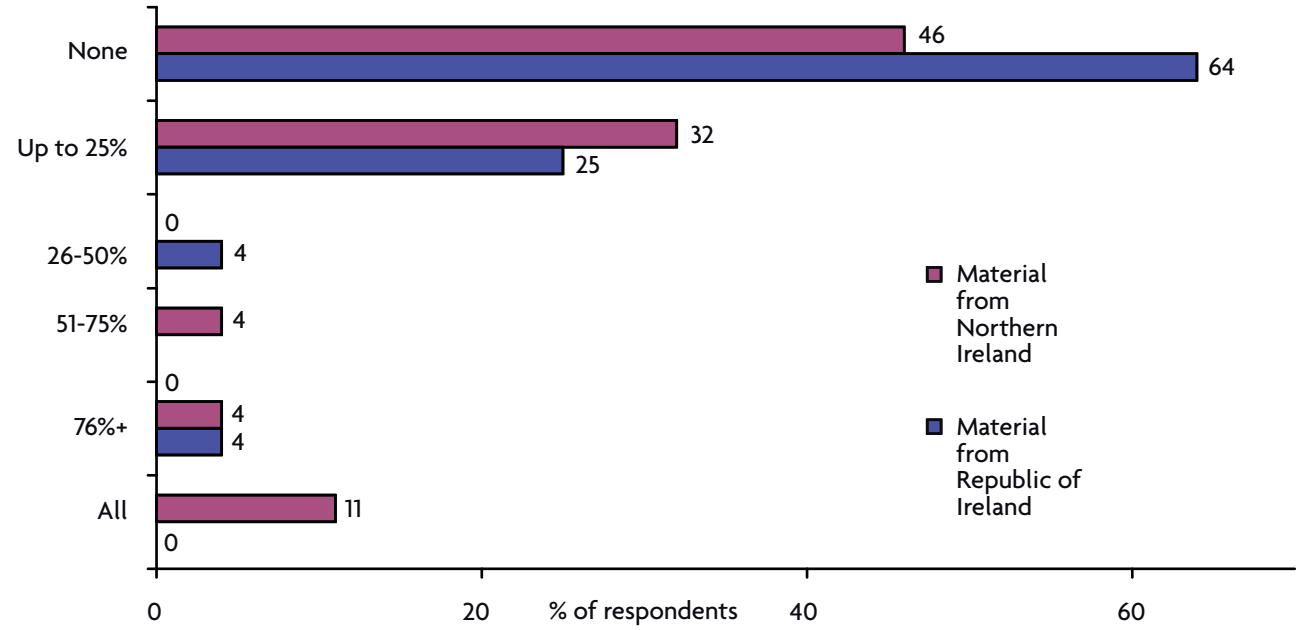
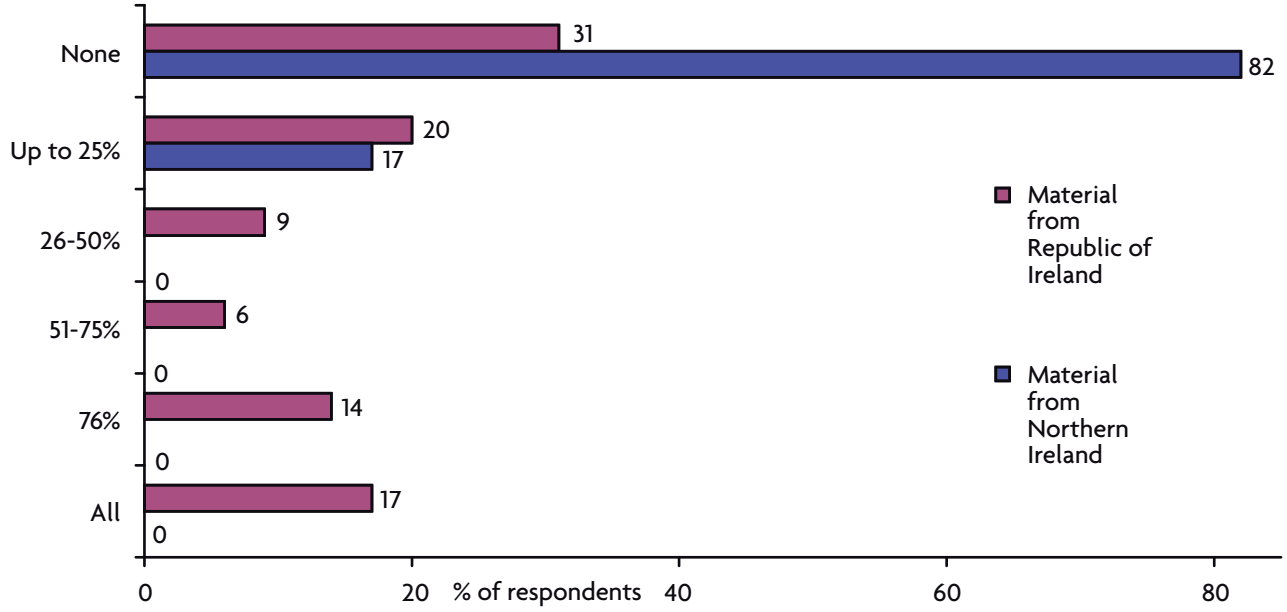


Figure 15 Proportion of Materials in Republic of Ireland of Irish Origin



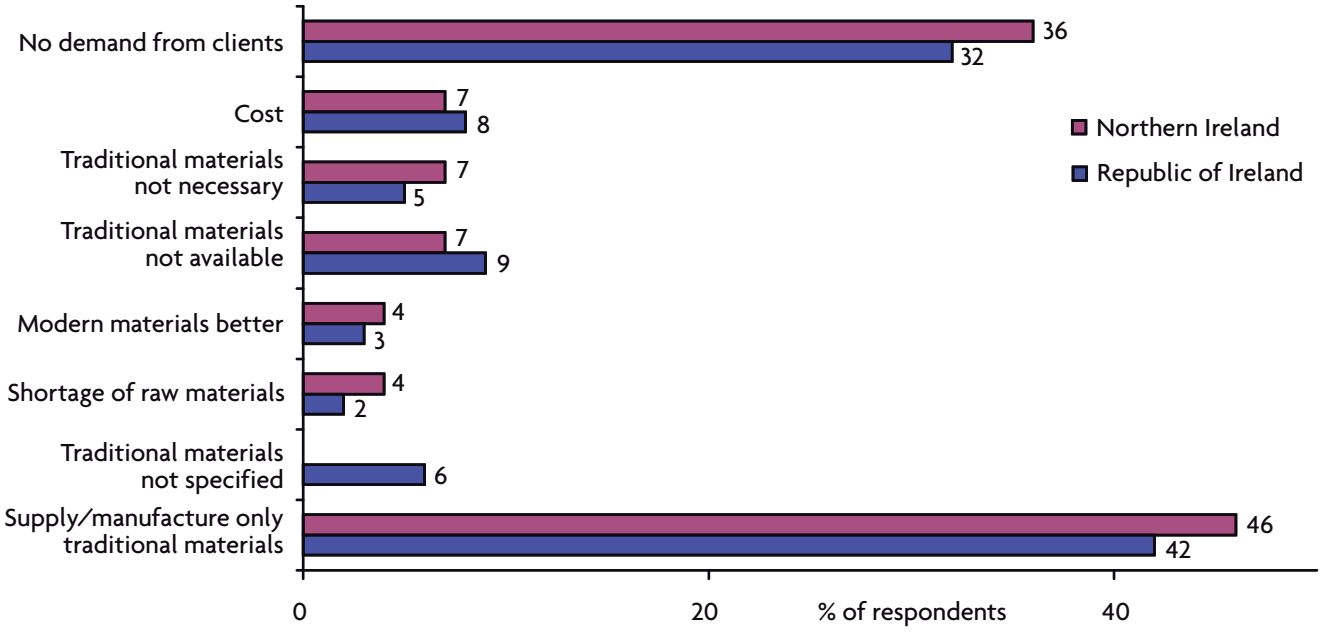
As shown in Figure 16, in terms of all Ireland, 15% said that all their materials came from either Northern Ireland or the Republic of Ireland, and half (47%) said that some came from one or other country. Just over one-third (35%) said that none was sourced in the island of Ireland. Timber and wood products were most likely to be mentioned in this respect.

Figure 16 Proportion of Materials Sourced within Island of Ireland

Table 45 Other Sources of Traditional Building Materials Used by Contractors

	Northern Ireland (%)			Republic of Ireland (%)		
	Great Britain	Europe	Elsewhere	Great Britain	Europe	Elsewhere
Brick	14	7	0	8	0	0
Cast iron	7	0	0	5	5	2
Glass	7	11	4	11	8	6
Lead	4	0	0	3	6	0
Lime mortar	4	0	0	0	5	0
Lime plaster	0	0	0	0	5	0
Sawn timber	7	25	43	8	11	18
Roofing slate/tiles	14	14	7	12	11	8
Stone	14	4	4	8	9	17
Thatch	0	0	0	2	3	2

Figure 17 Main Factors Constraining Greater Use of Traditional Materials by Manufacturers and Suppliers



As shown in Table 45, Great Britain and Europe were the main alternative sources of materials, although timber, stone and roofing slate/tiles were often purchased from further afield.

6.4.3 Restrictions on the Use of Traditional Materials

Figure 17 shows that lack of demand from clients is by far the most important reason against more manufacture and supply of traditional building materials, with cost, limited availability and the perception that traditional materials were not necessary mentioned by smaller numbers.

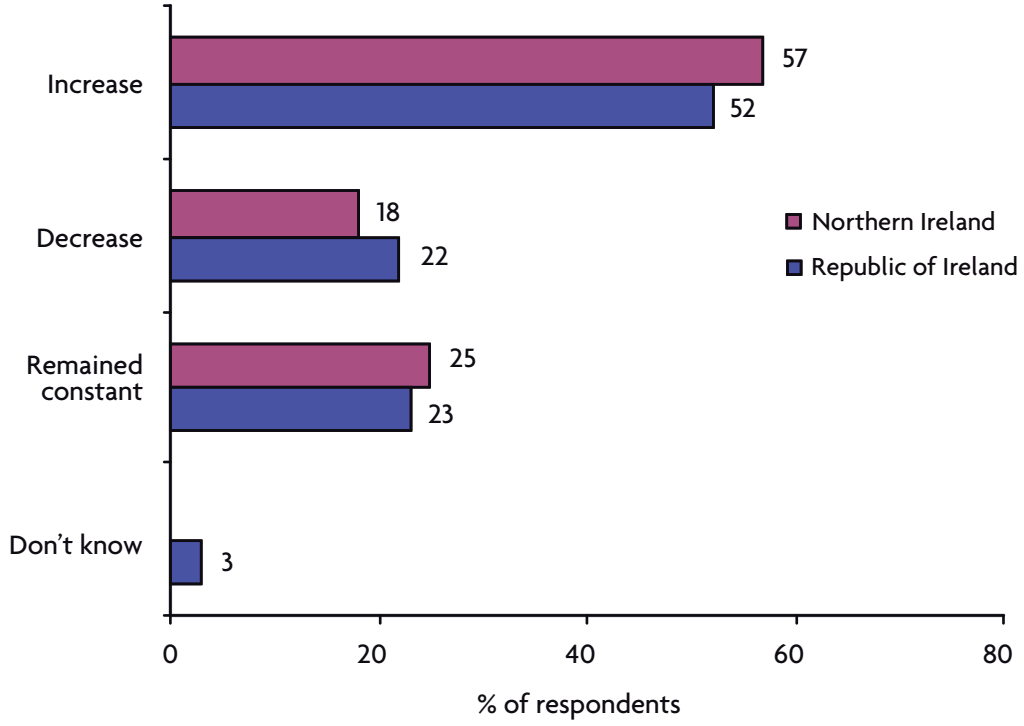
While lack of demand is seen as the main constraint, it would appear that manufactures and suppliers have not undertaken any detailed research as to the reasons for this. In comparison, the main constraints noted by contractors were cost, lack of demand from clients and lack of availability, while stockholders felt that traditional materials were not necessary, not available, too expensive and, in Northern Ireland, that they would not meet building regulations.

As shown in Table 46, the views of manufacturers and suppliers were mixed regarding whether the use of traditional building materials was restricted by a lack of knowledge among the various stakeholder groups (property owners, architects and surveyors, contractors/builders). A small majority agreed with the proposition in each case, with those in Northern Ireland less likely to

Table 46 Extent to Which Lack of Knowledge and Skills Restrict the Use of Traditional Materials

	Lack of knowledge						Lack of traditional skills among builders	
	Among architects and surveyors		Among property owners		Among builders			
	%	Mean Score	%	Mean score	%	Mean score	%	Mean score
Northern Ireland								
To a great extent (5)	21		11		18		18	
To some extent (4)	18		18		21		36	
Neutral (3)	32		46		29		18	
Not very much (2)	7		11		25		18	
Not at all (1)	18		14		7		7	
Don't know	4		0		0		3	
Mean score		3.2		3.0		3.2		3.4
Republic of Ireland								
To a great extent (5)	17		25		18		28	
To some extent (4)	31		22		25		21	
Neutral (3)	24		27		37		28	
Not very much (2)	12		11		11		5	
Not at all (1)	11		11		6		12	
Don't know	5		4		3		6	
Mean score		3.3		3.4		3.4		3.5

Figure 18 Demand for Traditional Building Materials



agree than those in the Republic of Ireland. There was more consensus regarding whether a lack of traditional skills among builders restricted the use of traditional materials, with half the respondents agreeing and one-fifth disagreeing.

6.4.4 Demand for Traditional Materials

As shown in Figure 18, over half (57% in Northern Ireland, 52% in the Republic of Ireland) of the

Table 47 Key Reasons for the Increase in Demand for Traditional Building Materials

	Northern Ireland (%)	Republic of Ireland (%)
Customers more aware of traditional materials	44	44
Customers more affluent	25	26
Trends and tastes	19	6
Building boom across Ireland	13	9
Increase in funding/grants for traditional building work		9
Builders more aware of traditional materials		9
More restoration work being done		6
More buildings protected		6

Base: all experiencing increase (NI, 16; RoI, 34).

manufacturers and suppliers in this survey said there had been an increase in demand for traditional materials over the last five years, but around one-fifth (18% Northern Ireland, 22% Republic of Ireland) had seen a decrease, with the remainder reporting no change. Those in the stone and slate industry reported the greatest growth.

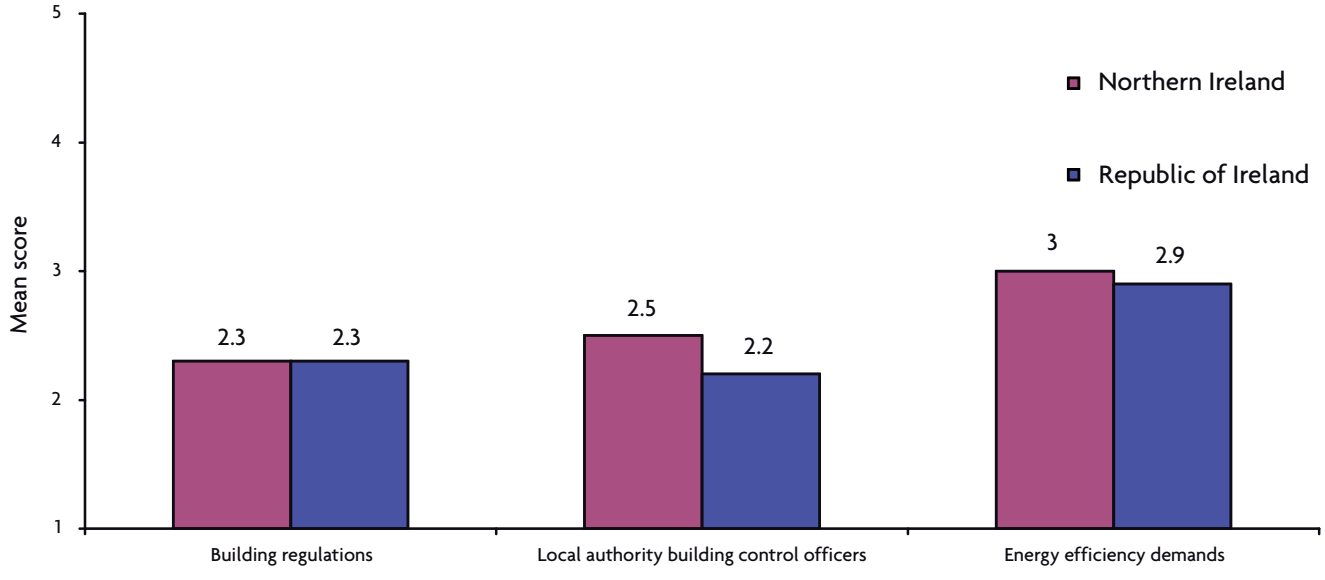
Table 47 shows that almost half (44%) of those experiencing a growth in demand said that this was because of a higher awareness among customers, followed by one-quarter saying that customers were more affluent, with current trends and tastes the next highest in Northern Ireland (19%), while this was significantly lower in the Republic of Ireland (6%) as a reason. The building boom across Ireland at the time of the research was the next most important, but rated higher in Northern Ireland than the Republic of Ireland. Smaller numbers in the Republic of Ireland also mentioned an increase in funding/grants for traditional building work, greater builders' awareness of traditional materials, more restoration work being done and more buildings being protected, while their counterparts in Northern Ireland did not mention any of these factors.

Conversely, key reasons for the decrease in the demand for traditional materials given were high cost, the domination of modern building methods, focus on new build and the downturn in the economy. Smaller numbers in the Republic of Ireland also considered that new materials were easier to use.

6.4.5 Influence of Building Controls and Energy Efficiency on the Use of Traditional Materials

It can be seen from Figure 19 that manufacturers and suppliers in both Northern Ireland and the Republic of Ireland do not believe that building regulations and local authority

Figure 19 Extent to Which Building Controls and Energy Efficiency Demands Restrict the Use of Traditional Materials by Manufacturers and Suppliers



1 = not at all, 5 = to a great extent

building control officers restrict the use of traditional building materials. Opinions were more divided, however, on the question of energy efficiency, with around one-third each agreeing, disagreeing and undecided.

6.5 Workforce Management

6.5.1 Skilled Trades/Craftspeople Employed

As Table 48 shows, 64% of manufacturers and suppliers in Northern Ireland had at least one employee with traditional building craft or manufacturing skills, compared with only 38% in the Republic of Ireland. The research identified a total of 115 staff with traditional building craft skills in Northern Ireland, an average of four per company, and 118 in the Republic of Ireland at an average of just below two. Thus, these skilled employees compose only a very small proportion of the overall workforce (13% in Northern Ireland and 6% in the Republic of Ireland).

Table 49 shows on a sliding scale from 1 to 5 (where 1 is poor and 5 good) how the manufacturers and suppliers rated their employees' knowledge of and ability to manufacture/process traditional materials. Those in Northern Ireland rated their staff's knowledge (MS 3.8) and practical ability (MS 4.0) slightly lower than their counterparts in the Republic of Ireland (MS 3.9) and (MS 4.1). Those employing skilled tradespeople were also asked to rate these staff on the same basis, and from Table 49 it can also be seen that those in Northern Ireland

Table 48 Total Number of Employees, Including Directors, with Traditional Craft Building or Manufacturing Skills

	Northern Ireland				Republic of Ireland			
	With craft skills		Total employees		With craft skills		Total employees	
	%	No.	%	No.	%	No.	%	No.
30–350			21				21	
21–30	4		14				3	
11–20	3		21		3		12	
6–10	18		29		9		22	
5	3		0		5		12	
4	11		4		6		5	
3	7		11		5		9	
2	11		0		5		11	
1	7		0		5		5	
None	36		0		62		0	
Total workforce		**115**		**917**		**118**		**2,150**
Average		**4.1**		**32.8**		**1.8**		**33.1**

Table 49 Rating of Employees' and Trades/Craftspeople's Knowledge and Ability to Manufacture/Process Traditional Materials

	Northern Ireland				Republic of Ireland			
	Knowledge		Ability		Knowledge		Ability	
	%	Mean score	%	Mean score	%	Mean score	%	Mean score
Good (5)	21		36		35		42	
Fair (4)	39		28		35		15	
Neither good nor poor (3)	36		25		14		9	
Fairly poor (2)	4		4		5		6	
Poor (1)	0		0		6		5	
Don't know/not applicable	0		7		5		23	
Employees' mean score		**3.8**		**4.0**		**3.9**		**4.1**
***Skilled trades/ craftspeople's mean score**		**3.8**		**3.8**		**4.3**		**4.3**

** Mean scores only have been given for the skilled tradespeople as the numbers involved are relatively small.*

again rated both knowledge and practical ability lower at 3.8 for each aspect than those in the Republic of Ireland at 4.3 for both knowledge and ability.

6.5.2 Recruitment

As shown in Figure 20, when recruiting staff, over half said they employed people with relevant skills and experience but in need of some training, with about one-fifth (21% for Northern Ireland, 17% for the Republic of Ireland) stating they employed those with relevant skills and experience but not in need of training. Just under two-fifths (39%) in Northern Ireland and just over one-quarter (26%) in the Republic of Ireland said they employed people with no relevant experience or training but with the ability to develop the required skills, while 3% in the Republic of Ireland claimed that they employed whoever is available.

Table 50 shows that manufacturers and suppliers in Northern Ireland found it more difficult to recruit skilled employees into manufacturing and supply (MS 1.6) than did those in the Republic of Ireland (MS 2.7), and even more so than contractors in either Northern Ireland (MS 2.8) or the Republic of

Figure 20 Selection Criteria When Employing Staff

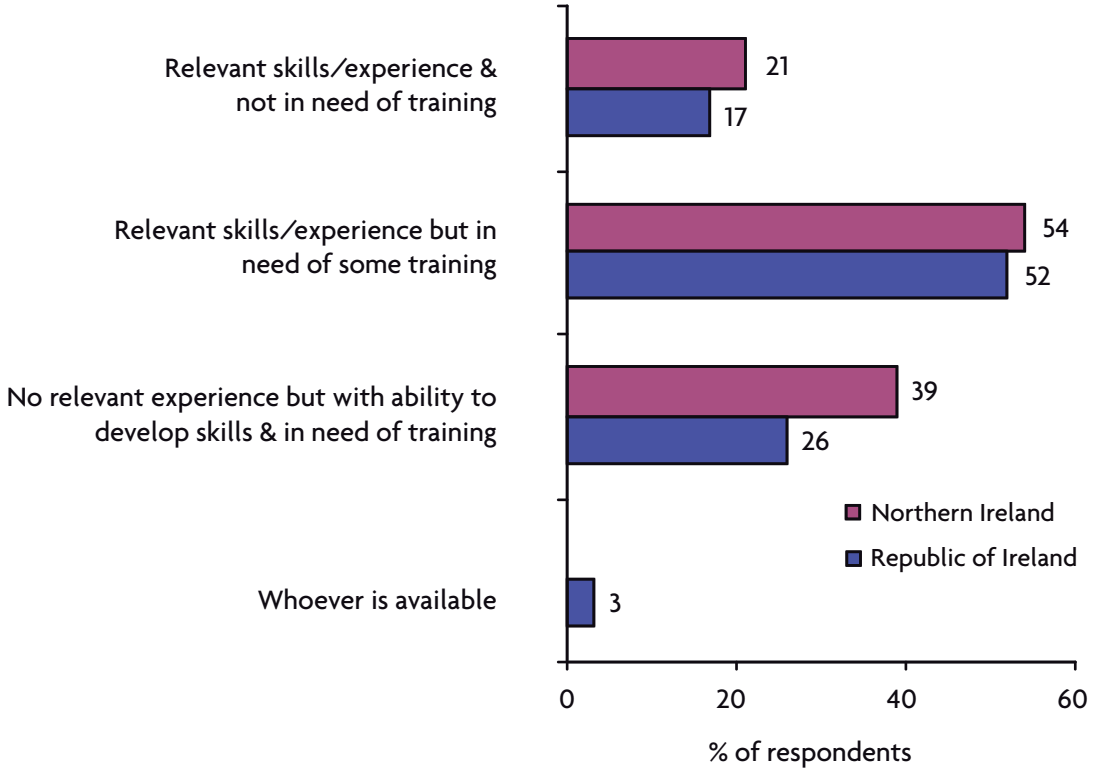


Table 50 Ease of Recruiting Skilled Workers

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
Very easy (5)	0		16	
Fairly easy (4)	6		12	
Neither easy nor difficult (3)	0		20	
Fairly difficult (2)	44		20	
Very difficult (1)	50		28	
Don't know	0		4	
Mean score		1.6		2.7
Mean score (contractors)		2.8		3.1

Base: all manufacturers and suppliers employing skilled staff (NI, 18; RoI, 25).

Table 51 Skills Shortages and Skills Gaps

	Northern Ireland (%)	Republic of Ireland (%)
Skills shortages	27	17
Skills gaps	55	66
Both	9	17
Neither	9	0

Base: all experiencing difficulty recruiting trades/craftspeople (NI, 11; RoI, 12).

Ireland (MS 3.1) covered in Section 5 of this report. Of those employing staff in the manufacture and supply sector in Northern Ireland, 94% had difficulties with recruiting, compared with 48% in the Republic of Ireland, and this is again reflected in the percentage finding this aspect very easy or fairly easy.

6.5.3 Skills Shortages and Skills Gaps

Respondents experiencing recruitment difficulties were asked whether this was due to lack of applicants or lack of skills among those who did apply. As shown in Table 51, the majority ascribed the problem to skills gaps alone, with considerably fewer saying a skills shortage. Only 9% in Northern Ireland and 17% in the Republic of Ireland said it was due to both.

Joinery and wood products manufacturers in Northern Ireland found it hard to recruit joiners, woodcarvers and wood machinists, while those supplying stone and slate mentioned stonemasons in this respect.

In the Republic of Ireland, half of those with recruitment difficulties in wood products manufacturing said that joiners were hard to recruit, with another quarter mentioning carpenters, and those in the stone and slate industry had difficulties when recruiting stonemasons and stone carvers.

6.5.4 Training

In Northern Ireland half of the manufacturers and suppliers employing skilled craftspeople had at least one employee involved in formal training courses leading to recognised qualifications, such as City & Guilds, compared with only 12% in the Republic of Ireland employing staff following the FETAC qualification route. On average, those in Northern Ireland had 1.3 staff in formal training and those in the Republic of Ireland, only 0.3 employees, with 70% of those trainees in Northern Ireland and all trainees in the Republic of Ireland aged under 25.

The key sources of traditional skills training in this sector were in-house or on-the-job training and job shadowing and mentoring, followed by training delivered by further education colleges. Smaller numbers in both countries mentioned short courses provided by equipment manufacturers or suppliers and by local authorities.

Those in Northern Ireland also used OSAT and the Training and Assessment Services for Construction, while those in the Republic of Ireland made use of training delivered by FÁS and other off-the job training, including courses of formal instruction.

'A lot of contractors realise that the benefits of using lime products tick the recycling and sustainability boxes, which, we think, is also contributing to the increased usage of our lime products.'

Manufacturer and Supplier

'The requirement that a person working on the pre-1919 property is adequately skilled and trained in using traditional materials should be part of a tender.'

Supplier and Manufacturer

6.6 Manufacturers and Suppliers as Training Providers

During the quantitative interviews, one-quarter of Northern Ireland firms, but less than one-tenth of businesses in the Republic of Ireland, stated that they provided training for people outside their firms interested in using traditional building materials.

In Northern Ireland, two wood manufacturers offered training to builders/tradespeople, and one of these offered this to homeowners/DIY enthusiasts. A further three stone/slate suppliers provided training, mostly to tradespeople and architects, but one of these also offered this to college students and homeowners and DIY enthusiasts. Two brick suppliers offered training to architects and surveyors.

In the Republic of Ireland, six suppliers provided training for builders, trades/craftspeople, architects and surveyors (four stone and slate, one roof slate/tiles, one lime products).

All three lime suppliers interviewed during the qualitative research provided structured training courses for those wishing to learn more, for a target audience with variable levels of expertise. The producer in Northern Ireland aimed to create a training academy that would cater for applicants at all levels, and at the time of the interview the firm was planning to apply for some form of accreditation.

One lime manufacturer in the Republic of Ireland provided courses suitable for any private individuals who were using its materials, while the other catered for people with a higher level of expertise, for example, architects, engineers or craftspeople.

The Building Limes Forum in Ireland, now in its fourth year and with a committee composed of architects, suppliers, plasters and contractors, provides guidance on the use of lime products. It runs three or four roadshows each year across Ireland, and also a number of courses in conjunction with the NIEA in Northern Ireland and conservation officers in the Republic of Ireland, and has strong links with the UK Building Limes Forum, from which it originated.

The majority of those offering courses did so at their own premises, and about 50% also delivered these at the client's site, with most courses run by the manufacturers' or suppliers' own employees; one-third also used external trainers/tradespeople to deliver the training. Nobody offered any course that would lead to an accredited qualification such as an NVQ in Northern Ireland or FETAC in the Republic.

BUILDING PROFESSIONALS 7

building professionals

The knowledge base of building professionals in their role of overseeing standards on conservation projects, including specifications for materials and contractors or craftspeople, is essential when reviewing the current supply of traditional building skills in Ireland. This section of the report therefore provides qualitative and quantitative information from building professional practitioners in Northern Ireland and the Republic of Ireland to establish their views and relate this to those of the stockholders, contractors, and manufacturers and suppliers to obtain a rounded view of the field. In addition to the architects and surveyors whose opinions form the major part of this Section of the report, this research also involved conservation officers, whose views are discussed in section 7.6. Conservation officers are employed in both Northern Ireland and the Republic of Ireland, albeit in somewhat different roles, but essentially offering advice to those charged with the care and protection of the built heritage.

7.1 Architects and Surveyors in Ireland

7.1.1 Northern Ireland

The Royal Society of Ulster Architects (RSUA) operates in alliance with the Royal Institute of British Architects (RIBA). With around 250 practices in the province, the RSUA provides support and information from its Belfast Office.

Conservation accreditation for RIBA is offered by its affiliate Architects Accredited in Building Conservation (AABC), through applicants submitting a portfolio of projects which is examined by a small panel of assessors. Currently 350 individual architects are on the AABC register, but only 2 in Northern Ireland, which conflicts with the 31 architects in Northern Ireland who advertise themselves as specialists in conservation through the RIBA search facility.

A further key source of information is the *Directory of Traditional Building Skills* published by the UAHS but, as with the RIBA listing, this does not provide formal accreditation on the organisations included in the directory.

The professional body for building surveyors, the Royal Institution of Chartered Surveyors (RICS), has only three members in Belfast in its building conservation category; a fourth firm is listed as an RICS-accredited building conservation specialist.

7.1.2 Republic of Ireland

The situation is very different in the Republic of Ireland regarding architects: the Royal Institute of Architects in Ireland (RIAI), with 566 active member practices, has developed a formal conservation accreditation scheme in three grades (Grade I is the highest).

For Grades I and II, the architect or practice has to undergo a detailed evaluation of their qualifications, expertise and experience by an accreditation board. The accreditation can be applied to a practice either because it has an accredited architect on its staff or because the skills possessed by the team as a whole meet the requirements. Those with more experience and greater expertise will be accorded Grade I classification.

There are currently 40 Grade I and 31 Grade II practices, although these include a number of separate offices from the same practice, for example in Cork and Dublin. For Grade III (of which there are currently 199 practices) an architect must attend an RIAI Conservation Induction Module covering the principles and practice of conservation, and successfully complete an assessment exercise.

The other major source of information on conservation professionals (and contractors) is the IGS. As with the UAHS in Northern Ireland, this body has no formal accreditation process. The IGS does apply an informal vetting process and also recognises accreditation processes already established such as RIAI Grade I or II conservation accreditation for architects.

The professional organisation the Society of Chartered Surveyors (SCS), which was part of the RICS until 1993 and retains strong links with it, has around 450 members; 68 of these are building surveyors' practices. The SCS is in the process of implementing a conservation accreditation scheme for building surveyors and quantity surveyors and has initiated a conservation induction module. It is also in the process of developing and reviewing criteria for accrediting surveyors at levels 1, 2 and 3.

7.2 Survey Sample Overview

Six architects were interviewed during the qualitative research, three each in Northern Ireland and the Republic of Ireland, while 27 building professionals in Northern Ireland and 53 in the

Table 52 Total Number of Employees, Including Directors (Building Professionals)

	Northern Ireland		Republic of Ireland	
	%	No.	%	No.
31+	7		10	
21–30	0		6	
11–20	11		17	
6–10	15		13	
3–5	48		28	
1–2	19		26	
Average		7.3		18.2
Total workforce		197		966

Republic of Ireland were included in the quantitative survey, primarily architects but also surveyors and a small number of specialist consultants.

All building professionals interviewed had been actively involved in managing building works contracts affecting the fabric of pre-1919 buildings in the 12 months prior to the interview. However, as with the contractors in this survey, this represents only a proportion of the overall total: in Northern Ireland, from 131 contacted practices (excluding call-backs) only 27 were eligible for interview (21%), but in the Republic of Ireland, 53 out of 120 were eligible (44%).

Consequently, this constitutes an imbalance between the sample sizes in the two countries, as despite considerable effort it was impossible to identify any further respondents in Northern Ireland in the available time. The sample includes RIBA practices and RICS building surveyors not listed as having any particular specialisation, with a total of 189 building professionals approached in Northern Ireland for this survey. However, because the criterion for interview in this project was having undertaken work on a pre-1919 building in the last 12 months not all of those listed in the above sources were eligible.

The sample of architects in the Republic of Ireland was largely drawn from accredited practices on the RIAI scheme with the main emphasis on Grades I and II, and supplemented with the IGS Traditional Building Skills Register. It should be noted that since the initiation of the RIAI conservation accreditation scheme the IGS no longer adds architects to its register unless they are Grade I or II. However, architects who have not attained this accreditation and who were already included on the IGS Traditional Building Skills Register have not been removed.

A total of 306 architecture practices were approached but, again, not all were eligible as they had not worked on pre-1919 buildings within the past year. The sample for surveyors was taken from the SCS building surveyor listings.

The types and numbers of firms involved in the research are as follows:

Northern Ireland:
- architects (19)
- surveyors (6)
- consultants (2).

Republic of Ireland:
- architects (47)
- surveyors (5)
- consultant (1).

There is also some difference between the size of practices in Northern Ireland and the Republic of Ireland. Again as with the contractors, practices in Northern Ireland tend to be smaller and employ 7.3 people compared to the average of 18.2 people in the Republic of Ireland. The practices interviewed in Northern Ireland were typically small businesses, with one-fifth (19%) having only 1 or 2 employees per firm and half (48%) employing 3 to 5 people, compared to just over a quarter (28%, 26%) in both categories in the Republic of Ireland (Table 52).

While the two largest practices interviewed in Northern Ireland each employed only about 35 people, three practices in the Republic of Ireland each had over 100 employees, with the largest employing 300 staff, thus accounting for 55% of the 966 staff employed by firms in the Republic of Ireland. In both countries the overwhelming number of employees were full-time, 190 in Northern Ireland and 846 in the Republic of Ireland.

Table 53 Breakdown of Work

	Northern Ireland (%)	Republic of Ireland (%)
Firms' work involving pre-1919 buildings in the previous 12 months		
100%	0	4
76–99%	11	8
51–75%	4	15
50%	15	13
26–49%	7	21
11–25%	41	13
10% or less	22	26
Mean	31.9	38.3
Average proportion of work involving pre-1919 buildings		
Architects	30	36
Surveyors	38	46
Consultancy*	35	95
General practitioners	25	33
Conservation specialists	56	53
Urban-based	24	28
Rural-based	31	61
Mixed location	35	39

** Very small numbers involved.*

7.3 Work on Pre-1919 Buildings

7.3.1 Proportion of Work involving Pre-1919 Buildings

Around three-quarters of building professionals engaged in work on pre-1919 buildings regard themselves as general practitioners, rather than conservation or heritage specialists.

As shown in Table 53, on average, about one-third of the work undertaken by building professionals in Northern Ireland in the 12 months prior to the study was on pre-1919 buildings, compared to 38% in the Republic of Ireland. However, around two-thirds (63%) of the professionals in Northern Ireland commented that this accounted for less than one-quarter of their business, and only 15% said that it formed most of their work. These results reflect the findings for Northern Ireland building professionals published in the NHTG's *Built Heritage Sector Professionals* report.[71]

Table 54 Urban/Rural Split

	Northern Ireland (%)	Republic of Ireland (%)
All/mainly urban	26	36
All/mainly rural	15	9
A mixture	59	51
Don't know	0	4

By comparison, two-fifths (39%) of those in the Republic of Ireland said that work on old buildings made up less than one-quarter of their business, but over one-quarter (27%) worked mainly in this sector. Firms based in rural or mixed landscapes tended to be involved in a higher proportion of work with old buildings than were those in more urban areas. As would be expected, conservation specialists carry out considerably more work on old buildings than do general practitioners, although even the specialists do not usually work exclusively in this sector.

7.3.2 Geographic Range of Work

Building professionals in Northern Ireland covered a greater geographic area in their work on pre-1919 buildings than did those in the Republic of Ireland. Most firms in Northern Ireland undertook the majority of this work within a 50 mile radius of their company's location, with one-quarter working within a 20 mile range, while half the firms in the Republic of Ireland worked mainly within a 20 mile radius.

The reason may be that in Northern Ireland there is a lower proportion of firms with the relevant experience to work on older buildings compared to the Republic of Ireland, and so there is more call for their services. Only small numbers in either country undertook work on pre-1919 buildings further than 50 miles away from their office.

Most building professionals undertook the vast majority of the pre-1919 building projects in their own country (78% in Northern Ireland and 92% in the Republic of Ireland. Of firms based in Northern Ireland, 22% also worked in the Republic of Ireland, with some 15%

Table 55 Percentage of Work on Pre-1919 Buildings in Different Sectors

	Private sector (%)	Commercial/industrial (%)	Public sector (%)	Religious buildings (%)
Northern Ireland				
>75%	22	7	4	11
51–75%	11	7	0	11
21–50%	18	26	22	15
10–20%	19	11	11	19
<10%	4	4	0	0
None	26	45	63	44
Republic of Ireland				
>75%	13	4	9	5
51–75%	13	4	8	4
21–50%	32	24	17	24
10–20%	13	19	13	17
<10%	8	8	4	8
None	17	37	45	40
Don't know	4	4	4	2

working outside Ireland, although this formed a relatively minor part of their overall turnover. In contrast, only 8% of the Republic of Ireland building professionals worked in Northern Ireland, and only 2 of the 53 building professionals worked elsewhere.

In terms of the urban/rural dimension of pre-1919 building work, Table 54 shows that most building professionals worked in mixed rural/urban environments, with most of the remaining work in towns. This reflects the fact that a very high proportion of pre-1919 buildings in Ireland are situated in the towns and cities; there is not the portfolio of country houses which is for example found in England and Wales.

7.3.3 Type of Work Undertaken, by Sector

In both countries the highest proportion of work on pre-1919 buildings was undertaken within the private sector, while the remaining work was spread fairly evenly between the commercial, public and religious sectors, except that there was less public sector work in Northern Ireland (Table 55).

7.3.4 Confidence in Ability to Work on Pre-1919 Buildings

Around three-quarters of the building professional respondents in Northern Ireland expressed confidence in their ability to undertake work on Grade A listed buildings, with all happy to work on Grade B listed buildings or non-listed buildings. Similarly, in the Republic of Ireland all respondents felt confident working on pre-1919 protected structures.

7.3.5 Accreditation

As shown in Section 7.1, architects in Northern Ireland were less likely to possess building conservation accreditation than those in the Republic of Ireland. Only 4% of those interviewed in Northern Ireland were accredited on the RIBA/AABC scheme, while 83% of those from the Republic of Ireland reported that their firm was accredited to the RIAI. A further 8% in the Republic of Ireland claimed another form of accreditation, although not necessarily one that was nationally recognised, for example, a certificate from a university course.

The main reason given against applying for conservation accreditation was the perception that it would involve too much time and effort. Others felt the accreditation was simply not necessary as they were competent without it, while smaller numbers pointed out that conservation makes up only a minor part of the company's business.

As shown in Table 56, just over half (52%) of the building professionals interviewed in Northern Ireland said they were registered on one or more heritage building register, compared with two-thirds (66%) in the Republic of Ireland; one-third (33%) of building professionals in Northern Ireland were included in the UAHS directory, and roughly the same proportion in the Republic of Ireland were included on the IGS register. Some were included on a county list or the Heritage Council listing.

Table 56 Inclusion in Registers or Lists

	Northern Ireland (%)	Republic of Ireland (%)
Ulster Architectural Heritage Society	33	4
Traditional building conservation list	4	0
Conservation register	4	0
Environmental register	4	0
Royal Society of Ulster Architects	4	0
Historic building register	4	0
Royal Institution of Chartered Surveyors	4	0
Irish Georgian Society	0	36
County list	0	13
Heritage Council	0	13
Irish Landmark Trust	0	4
Royal Institute of Architects in Ireland	0	15
Office of Public Works	0	4
Society of Chartered Surveyors	0	2
Local conservation authority	0	2
Society for the Protection of Ancient Buildings	0	2
None or can't remember	48	34

Table 57 Grant Funding

	Northern Ireland (%)	Republic of Ireland (%)
Northern Ireland Environment Agency	48	0
Heritage Lottery Fund/Lottery grants	22	6
Northern Ireland Housing Executive	15	0
National Trust	11	0
Architectural Heritage Fund	7	0
Irish Landmark Trust	4	0
Pilgrim Trust	4	0
Leader Funding for Farmers	4	0
Department for Social Development	4	0
Dublin City Council	0	13
Other local authority scheme	0	59
Heritage Council	0	32
Office of Public Works	0	13
Irish Tourist Board	0	2
No work involving grants	37	40
Don't know	4	2

7.3.6 Involvement in Grant-Funded Work

Almost 60% of building professionals had been involved in grant-aided pre-1919 building projects in the last year, and those involved often mentioned more than one grant provider.

As shown in Table 57, in Northern Ireland, the principal grant provider mentioned by almost half (48%) of the building professionals is the NIEA. Almost one-quarter (22%) of the respondents in Northern Ireland received a grant from the HLF/Lottery grants, while 15% obtained a grant from the Northern Ireland Housing Executive and 1 in 10 obtained some contribution towards the cost of projects from the National Trust.

Over half (59%) of the respondents in the Republic of Ireland were awarded a Local Authority Conservation Grant, funded by the DoEHLG. The Heritage Council is the second most common source, mentioned by one-third (32%) of the professionals. The OPW and Dublin City Council were each mentioned by 13% of respondents, with 6% receiving a grant from the HLF/Lottery grants.

In Northern Ireland most grants were received by building professionals for work in the private sector, while in the Republic of Ireland most grants were awarded to firms for work on public buildings.

Grant support for work on pre-1919 buildings is an invaluable source of funding, but the previous NHTG skills needs analysis research indicated that some respondents were put off from applying for grants by the time and administration required, together with the conditions imposed to ensure that the work was carried out according to best practice.

As shown in Table 58, in Northern Ireland the time needed for processing and administration were the main factors discouraging grant applications, with the accompanying conditions considered slightly less important. As might be expected, those who had not received any grant aid in the preceding year were more likely to agree that the factors acted as disincentives than those who had received funding.
Respondents in the Republic of

Table 58 Factors Discouraging Involvement in Applying for Grant Aid

	Time taken for whole process		Administration required		Conditions applied to awards	
	%	Mean score	%	Mean score	%	Mean score
Northern Ireland						
To a great extent (5)	44		41		30	
To some extent (4)	15		19		22	
Neutral (3)	19		18		15	
Not very (2)	7		7		18	
Not at all (1)	11		11		11	
Don't know or N/A	4		4		4	
Mean score		3.8		3.7		3.4
Republic of Ireland						
To a great extent (5)	19		19		15	
To some extent (4)	15		6		11	
Neutral (3)	13		22		11	
Not very (2)	11		6		11	
Not at all (1)	25		30		30	
Don't know or N/A	17		17		22	
Mean score		2.9		2.7		2.6

Base: all building professionals (NI, 27; RoI, 53).

Ireland were, however, much less likely to be put off from applying for grants, perhaps because being larger firms they had the staff and resources to cope with the application and administration processes.

7.4 Contractors Used by Building Professionals

7.4.1 Factors Affecting Contract Awards

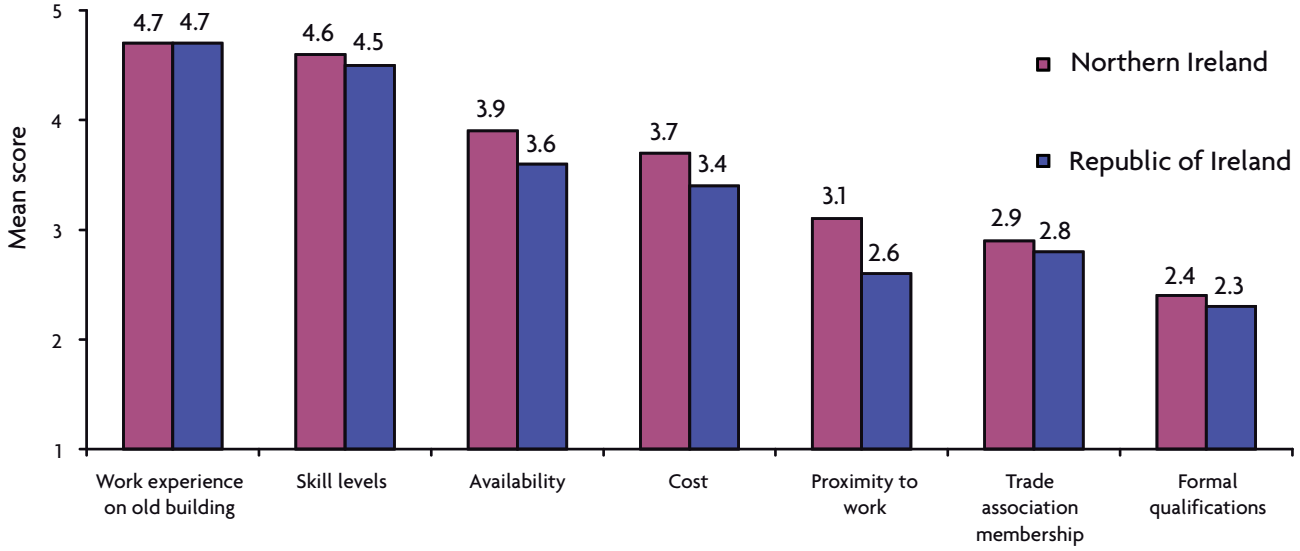
Figure 21 shows that work experience on old buildings and skill levels were the key factors influencing building professionals in the award of contracts for work on pre-1919 projects. The next most important factors were availability and cost, although less so in the Republic of Ireland than in Northern Ireland, with proximity to the work moderately important in Northern Ireland, but less so in the Republic of Ireland. Views on membership of a trade federation varied: the Northern Ireland respondents were somewhat polarised between those thinking it was important and those disagreeing; in the Republic of Ireland, there were fewer strong opinions, with 40% neither agreeing not disagreeing. Formal qualifications were not considered particularly important in either country.

During the qualitative interview phase, some respondents commented that when deciding on contractors for pre-1919 projects there was no easy means of identifying those with good traditional building craft skills. In the quantitative research, therefore, the building professionals were asked whether they were in favour of the introduction of a traditional building craft skills accreditation scheme for craftspeople.

Three-quarters of building professionals in Northern Ireland and 83% in the Republic of Ireland would support the introduction of such an accreditation scheme. Larger firms and those doing a relatively low proportion of work on pre-1919 projects were more likely to be in favour of this type of accreditation, the latter presumably because they had less regular need and did not have a history of past contracts, and would use contractors with expertise in this field.

Two-fifths of respondents in Northern Ireland would be prepared to pay a premium of typically 10–15% to use accredited tradespeople, with a further 20% undecided over whether and how much they would be willing to pay for this. In the Republic of Ireland, 36% would be willing to pay a premium, but a lower premium of 5–10% was suggested, while one-quarter said that paying this would depend on the individual situation. This can be compared with comments from contractors

Figure 21 Importance of Factors Affecting Contract Awards



1 = not at all important; 5 = very important

(see Section 5.4.5): 24% in Northern Ireland and 38% in the Republic of Ireland charge a premium for work on pre-1919 buildings, and almost the same numbers pay employees more for such work.

7.4.2 Type of Contractors Used

Around half of the building professionals used both general and specialist contractors, dependent upon need. Two-fifths in Northern Ireland used only general contractors, compared with only 30% in the Republic of Ireland, and just over one-tenth of contractors in both countries used solely heritage specialists.

The building professionals in Northern Ireland tended to use contractors based within 21–50 miles of their pre-1919 projects, while those in the Republic of Ireland tended to use reasonably local contractors based within 20 miles of the projects. This reflects the pattern of work for the building professionals in the two countries (see Section 7.3.2), indicating that contractors close to the place of work are generally preferred to those close to the building professional's office. One-third of building professionals said that they could not generalise, and only very small numbers used contractors based more than 50 miles away, which again follows the pattern of their own work.

Contractors from their own country were normally used for work on pre-1919 buildings, but around one in ten building professionals used contractors from either Northern Ireland or the

Table 59 Rating of Contractors' Skills, Knowledge and Ability regarding Work on Traditional Building Materials

	Northern Ireland						Republic of Ireland					
	Skills		Knowledge		Ability		Skills		Knowledge		Ability	
	%	Score	%	Score	%	Score	%	Score	%	Score	%	Score
Good (5)	15		4		4		9		17		21	
Fair (4)	55		48		63		41		34		47	
Neither good nor poor (3)	30		40		29		38		36		26	
Fairly poor (2)	0		4		0		6		9		0	
Poor (1)	0		4		4		0		0		0	
Don't know							6		4		6	
Mean score		3.9		3.4		3.6		3.6		3.6		3.9

Base: all building professionals (NI, 27; RoI, 53).

Republic of Ireland, with smaller numbers using contractors also from other countries.

7.4.3 Perceptions of Contractors Used

In Northern Ireland the majority (70%) of the professionals rated the skills of the contractors they used on their heritage projects as either fair or good, compared to only half (50%) of the respondents in the Republic of Ireland.

Regarding the contractors' use of traditional building materials, just over half of the respondents in both Northern Ireland (52%) and the Republic of Ireland (51%) rated knowledge as either fair or good, with almost a tenth rating it as poor or fairly poor (8% and 9% respectively). In terms of the ability to work with traditional materials, over two-thirds gave a good rating in both Northern Ireland (67%) and the Republic of Ireland (68%). However, more than one-fifth (21%) in the Republic of Ireland rated this as being particularly good (Table 59).

Table 60 shows that 70% of the building professionals in both countries were either very or fairly satisfied with the contractors' quality of work and only 4% not very satisfied, with the remainder neutral. Architects interviewed in the qualitative stage suggested that lack of supervision was often a reason for inappropriate work. In addition, many contractors expanded rapidly during the boom and, as a consequence, sometimes employed teams with below-standard skills.

'Bad workmanship can lead to knocking buildings down because people think it would be too expensive to rectify the work.'

Architect

Table 60 Satisfaction with Contractors Used for Work on Pre-1919 Buildings

	Time to start the work		Time to complete the work		Quality of work	
	%	Mean score	%	Mean score	%	Mean score
Northern Ireland						
Very satisfied (5)	19		15		18	
Fairly satisfied (4)	48		33		52	
Neither satisfied nor dissatisfied (3)	22		33		26	
Not very satisfied (2)	11		15		4	
Not at all satisfied (1)	0		4		0	
Don't know						
Mean score		**3.7**		**3.4**		**3.9**
Republic of Ireland						
Very satisfied (5)	12		8		21	
Fairly satisfied (4)	45		34		49	
Neither satisfied nor dissatisfied (3)	28		45		26	
Not very satisfied (2)	13		11		4	
Not at all satisfied (1)	0		0		0	
Don't know	0		0			
Mean score		**3.6**		**3.4**		**3.9**

Base: all building professionals (NI, 27; RoI, 53).

In Northern Ireland 11% and in the Republic of Ireland 13% were not very satisfied with the time they had to wait for the work to begin. Approaching half (48%) of those in Northern Ireland were satisfied with the contractors' time taken to complete the work, with one-third (33%) neutral and one-fifth (19%) dissatisfied. The pattern was slightly different in the Republic of Ireland, with only 42% satisfied and 11% dissatisfied with this aspect.

Overall, it appears that good-quality traditional building craft skills exist in both countries but in limited supply. It is not clear whether this is because of a shortage of specialist traditional building craft skills per se or because of the huge demand for building skills as a whole in recent years. It was also commented in the qualitative stage that the current traditional building craft skills base includes Eastern European craftspeople who might be expected to move on as demand falls.

7.4.4 Skills Employed

Table 61 shows the traditional building craft trades used by building professionals on pre-1919 buildings in the past year and also shows predicted demand over the next 12 months. It can be seen that demand in Northern Ireland is consistent across both periods but is expected to decrease considerably for almost all trades in the Republic of Ireland, almost certainly because of the downturn in construction activity which was becoming apparent as this project began.

The overwhelming majority of building professionals in Northern Ireland used bricklayers, carpenters and joiners, general craftspeople, painters and decorators, plumbers/leadworkers, plasterers and general roofers. Demand for stonemasonry, lime plastering, and roofing with natural and random slates or metalwork is also strong. On average, each building professional used 17 different craft skills during the course of a year's work on pre-1919 buildings.

The trades most in demand in the Republic of Ireland were joinery and carpentry, lime plastering, painting and decorating, plumbing/leadworking, roofing and bricklaying, with general craftspeople also being highly sought-after by at least 80% of building professionals. Glaziers, plasterers and roofers doing metalwork were the next most commonly used craftspeople. The building professionals used on average 15 different trades in the last year, though this number was expected to fall dramatically during the next 12 months, as one-quarter (23%) of the respondents said they did not expect to need any of these skills in the next 12 months.

Table 62 shows the proportion of building professionals specifying various trades and the proportions having difficulty in finding these and/or having to wait three months or more before they were available. Thatchers were identified as hard to find by the two Northern Ireland building professionals specifying this trade, and both had had to wait over three months for one to become available. Lime plastering (38%), stonemasonry (30%) and dry stone walling (27%) were also regarded as hard to find, and in some cases involved a delay of over three months. Other skills which were sometimes hard to find and involved a three-month wait were stone fixing and stone carving, woodcarving and glass painting. Steeplejacks were not regarded as hard to find but were not always immediately available.

While most of the craft skills were needed by only a minority of respondents, stonemasonry and to a lesser extent stone fixing were specified by a considerable number of building professionals. Of all those interviewed in Northern Ireland 30% had difficulty in finding stonemasons, indicating a major gap in the market, maybe because stone trades are also used in modern construction. Bricklayers, cabinetmakers and plumbers were also sometimes hard to find although a long wait was rarely involved.

In the Republic of Ireland, one-third (33%) of those using thatchers said they were hard to find and half (50%) had had to wait three months or more. Drystone wallers, woodcarvers, glass painters and gilders were also sometimes hard to come by, but these trades were specified by only a minority of respondents; there does not appear to be the shortage of stone workers or bricklayers seen in Northern Ireland. This may be because the downturn in the building sector came rather earlier in the Republic of Ireland.

The two main consequences of these skills shortages are delays and higher costs. In Northern Ireland 10% of respondents also commented that, as a consequence, tradespeople with lower/unknown skill levels were used. Smaller numbers in the Republic of Ireland pointed out that these shortages could result in poor or inappropriate work being carried out or a loss of work.

Table 61 Craft Skills Used or Likely to Use

	Northern Ireland				Republic of Ireland			
	Used in the last 12 months		Likely to use in next 12 months		Used in the last 12 months		Likely to use in next 12 months	
	%	No.	%	No.	%	No.	%	No.
Blacksmith	19		44		36		23	
Bricklayer	96		100		81		64	
Cabinetmaker	44		56		57		43	
Carpenter	89		89		87		64	
Drystone waller	41		37		60		43	
Plasterer (fibrous)	44		52		45		36	
General craftsperson	100		96		83		64	
Gilder	15		0		11		6	
Glass painter	41		33		23		13	
Glazier	85		89		72		49	
Joiner	93		93		98		66	
Plasterer (lime)	78		81		87		64	
Painter/decorator	96		93		85		64	
Plasterer (non-lime, non-fibrous)	89		89		77		55	
Plumber/leadworker	100		100		83		57	
Roofer (general)	93		93		83		60	
Roofer (metalworker)	85		85		70		51	
Roofer (random/ natural slates)	85		81		66		47	
Roofer (stone tiles)	11		11		21		8	
Steeplejack	30		22		25		26	
Stone carver	33		41		23		11	
Stone fixer	59		59		57		40	
Stonemason	85		85		64		53	
Thatcher	7		15		11		8	
Tiler	89		89		62		58	
Woodcarver	22		22		28		21	
Wood machinist	56		56		45		30	
None	0		0		0		23	
Average trades used		**16.9**				**15.4**		
Average trades may need				**17.1**				**11.2**

Base: all building professionals (NI, 27; RoI, 53).

7.4.5 Subcontracting and Skills Development

Some 78% of professionals in Northern Ireland, but 40% in the Republic of Ireland, believed that the building industry as a whole was too reliant upon the practice of subcontracting work. Northern Ireland professionals tended to agree (MS 3.5) that subcontracting was a key factor limiting the development of traditional building craft skills, whereas those in the Republic of Ireland tended to slightly disagree (MS 2.7).

Regarding the importance of different forms of training and work experience for the development of traditional building craft skills, the building professionals considered experience of working on old buildings and on-the-job/in-house training as important (Figure 22). However, views were mixed regarding the importance of college-based training.

Table 62 Craft Skills Hard to Find, and Average Wait for Subcontractor

	Northern Ireland (%)			Republic of Ireland		
	All respondents	All subcontracting each craft		All respondents	All subcontracting each craft	
Craft skill	Used in last 12 months	Craft hard to find	Average wait over 3 months	Used in last 12 months	Craft hard to find	Average wait over 3 months
Blacksmith	19	0	0	36	26	5
Bricklayer	96	15	0	81	7	0
Cabinetmaker	44	17	0	57	3	3
Carpenter	89	8	0	87	2	2
Drystone waller	41	27	18	60	19	3
Plasterer (fibrous)	44	0	0	45	8	4
General craftsperson	100	7	0	83	0	2
Gilder	15	0	0	11	0	17
Glass painter	41	9	18	23	17	17
Glazier	23	0	0	72	3	3
Joiner	93	4	0	98	8	2
Plasterer (lime)	78	38	10	87	13	2
Painter/decorator	96	12	4	85	4	2
Plasterer (non-lime, non-fibrous)	89	8	4	77	5	2
Plumber/leadworker	100	19	4	83	2	2
Roofer (general)	93	8	4	83	5	5
Roofer (metalworker)	85	22	0	70	11	3
Roofer (random/ natural slates)	85	17	4	66	0	3
Roofer (stone tiles)	11	0	0	21	9	0
Steeplejack	30	0	13	25	0	8
Stone carver	33	22	11	23	8	0
Stone fixer	59	13	13	57	10	0
Stonemason	85	30	9	64	12	6
Thatcher	7	100	100	11	33	50
Tiler	89	8	4	62	0	6
Woodcarver	22	17	17	28	13	20
Wood machinist	56	7	7	45	13	8

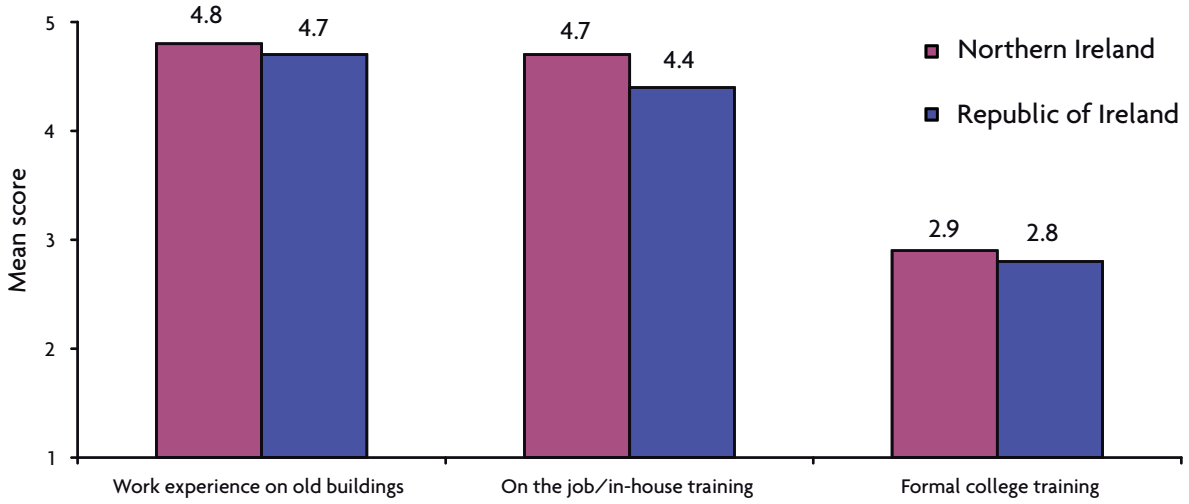
The majority of building professionals did not include the need for evidence of either formal qualifications or skills training as tender requirements; only around one-quarter included skills training and a small number asked for formal qualifications only, or both skills training and qualifications, in tenders. In this regard, only 15% of the respondents from Northern Ireland were aware of the Heritage Skills NVQ Level 3; surprisingly, as this qualification is not available in the Republic of Ireland, 13% of respondents from there claimed they knew of it.

7.4.6 Knowledge of NHTG and HLF Masonry Conservation Bursary Scheme

Only 7% of professionals in Northern Ireland and 15% in the Republic of Ireland were aware of the NHTG; on prompting, 11% in the former and 6% in the latter said that they had heard of the NHTG's reports on traditional building craft skills in England, Scotland and Wales and/or the UK-wide *Built Heritage Sector Professionals* report.

One-quarter of respondents in Northern Ireland were aware of the HLF Bursary Scheme for Masonry Conservation in Scotland and Northern Ireland, compared to one-tenth of those in the Republic of Ireland, but this is not surprising as the scheme is not available in the latter country.

Figure 22 Importance of Factors in Development of Traditional Building Craft Skills (Building Professionals)



1 = not at all important, 5 = very important

7.5 Traditional Building Materials

7.5.1 Knowledge and Specification of Traditional Materials

Specifying Traditional Materials

As seen in Table 63, overall the building professionals in both countries considered that their firms had a good knowledge of traditional building materials (MS 4.3 for both countries), and nobody rated their knowledge as poor.

All respondents were asked what proportion of their work on pre-1919 projects involved the specification of only traditional materials, only modern materials and a combination of both. In Northern Ireland 38% and in the Republic of Ireland 50% specified only traditional building materials; in both countries one-quarter of all the materials specified by building professionals for heritage buildings involved purely modern materials. The remaining 37% in Northern Ireland and 25% in the Republic of Ireland specified the use of a combination of modern and traditional materials.

As expected, conservation specialists and those who work extensively on pre-1919 buildings tended to specify the use of traditional building materials more than did general practices. It should be noted that the figures provided are generally based on top-of-mind estimations from the 27 respondents in Northern Ireland and the 35 in the Republic of Ireland, and so should only be regarded as broadly indicative.

Table 64 shows the average level of specification of traditional materials by building professionals, together with the level of usage reported by stockholders and contractors. It can be seen that the building professionals are broadly in line with the stockholders but that, in practice, contractors appear to use a lesser amount of traditional materials than originally specified.

Table 63 Rating of Knowledge of Traditional Materials

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
Good (5)	44		45	
Fair (4)	44		38	
Neither good nor poor (3)	12		17	
Fairly poor (2)	0		0	
Poor (1)	0		0	
Mean score (all)		4.3		4.3

Table 64 Use of Traditional Materials: Comparison of Building Professionals, Stockholders and Contractors

	Northern Ireland (%)			Republic of Ireland (%)		
	Only traditional	Only modern	Combination	Only traditional	Only modern	Combination
Building professionals	38	25	37	50	25	25
Stockholders	41	35	24	49	20	31
Contractors	26	38	36	41	26	33

Materials Specified

As shown in Table 65, almost all of the building professionals interviewed specified lime in the last year. Over three-quarters (78%) in Northern Ireland specified architectural ironwork, compared with 58% in the Republic of Ireland, with 67% in Northern Ireland and 83% in the Republic of Ireland specifying locally quarried stone. Specialist bricks and local slate were the next most commonly specified materials in both countries.

In terms of obtaining traditional building materials, in both countries thatch and local slate were the hardest materials to source. Lime and corrugated iron were considered easy to get hold of, and cast lead, architectural ironwork and specialist bricks were considered fairly easy to obtain in Northern Ireland but considerably less so in the Republic of Ireland.

7.5.2 Factors Limiting Use of Traditional Materials

As shown in Figure 23, the two key constrains against specifying a higher proportion of traditional materials for pre-1919 buildings were cost and lack of demand from clients, with cost as a barrier considerably higher in Northern Ireland. The percentage in Northern Ireland citing modern materials as better and traditional materials not meeting building regulations (next most popular constraint in both countries) was considerably higher than that of their counterparts in the Republic of Ireland. One-tenth (11%) of the building professionals in the Republic of Ireland stated that there was no need for traditional materials, compared with only 4% in Northern Ireland.

7.5.3 Availability of Traditional Materials in Ireland

Regarding how much of the building material they specified was purchased from the manufacturers or suppliers in Ireland as a whole, and what percentage of this traditional material was actually of Irish origin, just over one-quarter of respondents in both countries purchased all their traditional materials in Ireland, and two-thirds in Northern Ireland purchased most of theirs from Irish manufacturers and suppliers, compared with only 45% in the Republic of Ireland. In the Republic of Ireland 19% did not know the source of the materials, compared with none in Northern Ireland.

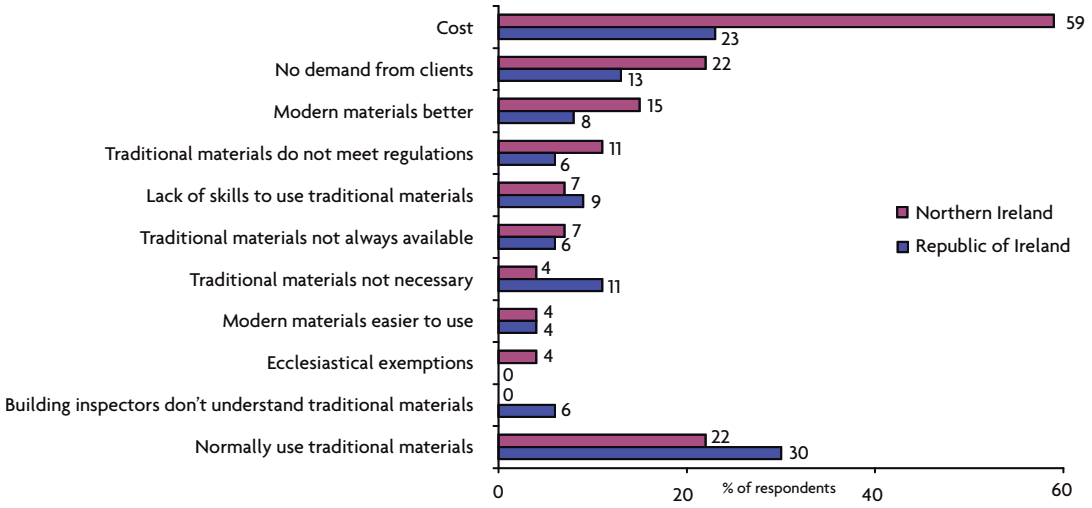
Only one-quarter of the respondents in Northern Ireland, compared with almost two-fifths of respondents in the Republic of Ireland, claimed that more that three-quarters of their traditional building material was of Irish origin. One-third in Northern Ireland and one-sixth in the Republic of Ireland stated that between half and three-quarters of their traditional building material was from Ireland, and only 15% in Northern Ireland and 8% in the Republic of Ireland thought that less than 20% of the material originated from Ireland. However, it should be noted that 11% of the respondents in Northern Ireland and almost one-third of the respondents in the Republic of Ireland were not able to answer the question regarding the origin of the building material.

Table 65 Traditional Building Materials Specified in Last 12 Months

	Northern Ireland (%)	Republic of Ireland (%)
Lime products	93	92
Locally quarried stone	67	83
Local slate	48	58
Thatch	11	19
Specialist bricks	52	45
Architectural ironwork	78	58
Corrugated iron	26	19
Cast lead	30	32

Base: all building professionals (NI, 27; RoI, 53).

Figure 23 Main Factors Constraining Greater Use of Traditional Building Materials by Building Professionals



Building professionals were asked where else traditional building materials they used originated from, and from Table 66 it can be seen that in Northern Ireland this was mainly Great Britain, while those in the Republic of Ireland used materials from both Great Britain and Europe.

For Northern Ireland the most common materials sourced from Great Britain were slate/tiles (59%), glass (44%) and bricks (41%), while sawn timber and slates/tiles were sourced most frequently from the rest of Europe. Some 7% of the building professionals specified stone and sawn timber originating from countries outside Europe.

Regarding the Republic of Ireland, about one-quarter of the building professionals used cast iron (26%) and slate/tiles (26%) originating from Great Britain, while around one-fifth (21%) used brick and 13% lead from Britain. Lime mortar and lime plaster originating from Europe was used by almost one-quarter of the respondents (23% in both instances), with one-fifth (21%) using European sawn timber and glass and almost one-tenth (9%) sourcing stone from outside Europe.

7.5.4 Influence of Building Controls and Energy Efficiency on the Use of Traditional Materials

As shown in Figure 24, while building professionals in Northern Ireland (MS 3.3) had a slight tendency to agree that building regulations restrict the use of traditional materials, those in the Republic of Ireland (MS 2.4) did not believe this was the case.

Views on the impact of building control officers were divided in Northern Ireland, with two-fifths agreeing and slightly more than this disagreeing (MS 2.9). In the Republic of Ireland, however, the majority felt that local authority building control officers did not really restrict the use of traditional materials (MS 2.2).

Opinion was divided regarding the impact of the increasing emphasis on energy efficiency on the use of traditional materials. Over half in Northern Ireland and two-fifths in the Republic of Ireland thought it would have an effect, but one-third from both countries disagreed; 7% in the Republic of Ireland did not know.

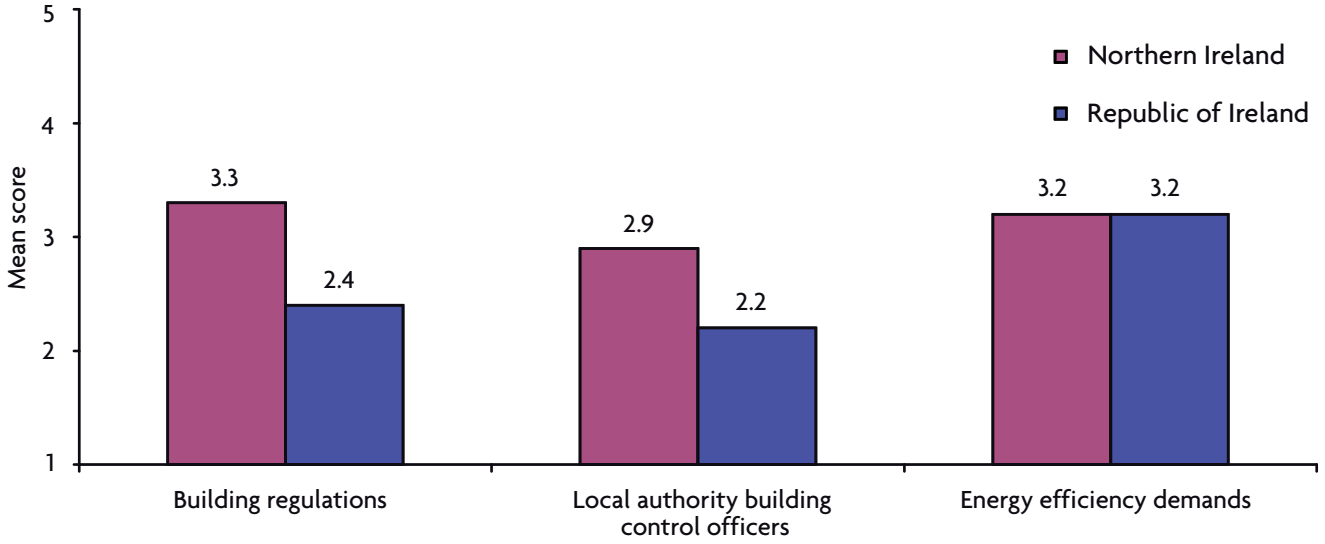
'It would be useful if regulations were written also in the context of conservation and repair and maintenance, not only for new build.'

Architect

Table 66 Other Sources of Traditional Building Materials Used by Building Professionals

	Northern Ireland (%)			Republic of Ireland (%)		
	Great Britain	Europe	Elsewhere	Great Britain	Europe	Elsewhere
Brick	41	4	0	21	4	0
Cast iron	30	0	0	26	4	0
Glass	44	0	0	8	19	2
Lead	30	0	0	13	4	4
Lime mortar	19	7	0	6	23	2
Lime plaster	15	7	0	4	23	2
Sawn timber	19	22	7	6	21	4
Slate/tiles	59	19	4	26	15	2
Stone	33	0	7	4	6	9
Thatch	19	7	0	2	2	0

Figure 24 Extent to Which Building Controls and Energy Efficiency Demands Restrict the Use of Traditional Materials by Building Professionals



1 = not at all; 5 = to a great extent

7.6 Conservation Officers

Fourteen conservation officers were interviewed as part of the research: 3 qualitative (1 in Northern Ireland, 2 in the Republic of Ireland) and 11 quantitative telephone interviews (1 in Northern Ireland and 10 in the Republic of Ireland) were conducted to gain an understanding of their roles in the planning process, in advising on the conservation of the built heritage and in the administration of grants for this purpose.

7.6.1 Roles and Responsibilities

Major differences exist between the duties of conservation officers in Northern Ireland and the Republic of Ireland. In Northern Ireland, conservation officers are based in all six divisional, and one subdivisional, planning offices of the Planning Service, an agency within the Department of the Environment.

Many responsibilities of these conservation officers relate to conservation areas and include: preparation and revision of conservation area guides describing their architectural importance and containing supplementary planning guidance; designation of conservation areas; considering planning applications in conservation areas; and working on area development plans and planning policies.

Conservation officers can also act as consultees in matters involving conservation issues or provide advice to the public regarding conservation areas.

In the Republic of Ireland, most local authorities employ a conservation officer who, usually with others, creates policy in relation to the built heritage.

In addition, conservation officers recommend deletions and additions to records of protected structures; provide recommendations and advice on relevant planning applications, and approve these; create databases of tradespeople with appropriate skills for work on traditional buildings; and offer advice to the general public regarding the built heritage. An important duty is the administration of the Local Authority Conservation Grants scheme, which provides funding for private owners of heritage buildings.

Although the grants are administered at the local government level, certain criteria are set centrally by the DoEHLG's Circular PD 5/99. Therefore, some aspects – such as the funding level, the proportion of the applicants' total budget that the grant represents and whether the building has protected structure status – are beyond the conservation officer's control.

If the local authority has no conservation officer, the planning section administers the grants with help of either an external conservation specialist or a heritage officer. Grants are not necessarily for pre-1919 buildings, although the great majority are for these.

7.6.2 Grant Awards

Local authorities can set out the specific priorities for the grant awards in their 'Scheme of Priorities', which should help to ensure that the most urgent needs of the country's built heritage are met. Priorities set in the last year included roof and window repairs, plastering, structural repair, weatherproofing and the proposed use of the building. Individual conservation officers can also create their own conditions, which can be numerous.

The DoEHLG allocates to each individual council a certain amount of money, ranging from tens of thousands to over 1m euros. Dublin City Council received the largest budget, €1,138,000, and redistributed 92 grant awards, at an average of €12,369 per grant. Cork City Council received the second largest budget, €503,000, and awarded 67 grants. At the other end of the scale, Donegal County Council provided 16 grants at a total cost of €137,000, at an average of €8,563. The number of grants awarded is, to a large extent, determined by the amount of money received from the DoEHLG. On average 38 grants were awarded by each conservation officer.

At least half of the valid applications received in each interviewed council were successful, with two conservation officers mentioning a 100% success rate. Not all applications were valid as they did not meet the set criteria. Conservation officers never have grant money unspent because of lack of applicants; on rare occasions this is due to applications not matching the criteria.

Public sector buildings are not eligible under this scheme, and the overwhelming majority of grants were awarded for work on residential property, with small amounts going to religious or commercial buildings.

7.6.3 Control over Use of Traditional Building Materials and Skills

There were some differences in the individual responsibilities of conservation officers, but almost all said that they had strong influences over the materials to be used. Traditional building materials were almost always specified, as the main purpose of the grant was to conserve the built heritage without making substantial alternations to the fabric of the buildings.

The main grant conditions were that the work should be carried out in a pre-set time and that the materials used were in keeping with the style of the building and location. For instance, one conservation officer pointed out that it is not enough to just re-thatch a roof, it has to be done in the correct regional style with the correct material, for example reed instead of straw. Conservation officers or their colleagues inspect the project while the work is being carried out and again on completion to ensure that this is done as agreed. Non-compliance would result in removal of funds.

There can, however, be problems in meeting these conditions, with several respondents saying that owners found it hard to both source the appropriate materials and find skilled craftspeople available to undertake the work in the required timescale.

In fact, almost all of the respondents felt that owners had real difficulty getting information about built heritage skills and finding suitable contractors. One commented that, while it was relatively simple around Dublin to get training and information, it was much more difficult in rural areas

because of the lack of experienced craftspeople. Those that have the skills and knowledge are usually busy and highly sought after.

There was more variation in attitudes towards contractors, in particular whether or not craftspeople with training or experience of built heritage projects should be used. The majority would normally expect this and cited examples where non-experienced craftspeople had attempted to use lime plaster, for example, and had ended up damaging the structure.

A small number, however, did not feel it necessary to insist on using trained craftspeople on traditional buildings, except in special circumstances. They felt that a joiner who was good at his or her job could do just as well on a built heritage project as on a more modern building.

A majority of conservation officers thought that architects working on pre-1919 projects had reasonably good skills in this respect and had a fair knowledge of traditional building materials, but a small number of respondents felt that they could not generalise: for example, one said, 'in my experience architects who work on churches and larger projects are very good and architects that work on houses are hit and miss'.

In comparison, the conservation officers rated contractors' skills to work on pre-1919 buildings as only fair (and lower than those of architects), and their knowledge of traditional building materials was also seen as only fair, although their ability to work with such materials was perceived as rather better. Most respondents were in favour of an accredited scheme for those experienced in built heritage or conservation work.

Conservation officers were divided on the issue of how difficult it is for owners of pre-1919 buildings to obtain information concerning the management of traditional buildings. Two commented, perhaps tongue-in-cheek, that it is only difficult if owners don't get in touch with the conservation officer, and then it becomes relatively easy.

7.6.4 Views on Traditional Building Skills Training

The majority of conservation officers considered that the situation regarding training in traditional building craft skills was improving but that it still needed further development. For example, one respondent was optimistic about the availability of craftspeople with experience relevant to traditional building projects because of the increasing number of courses available, but another felt that availability was on the downturn because skills were dying out without these being passed on to new craftspeople.

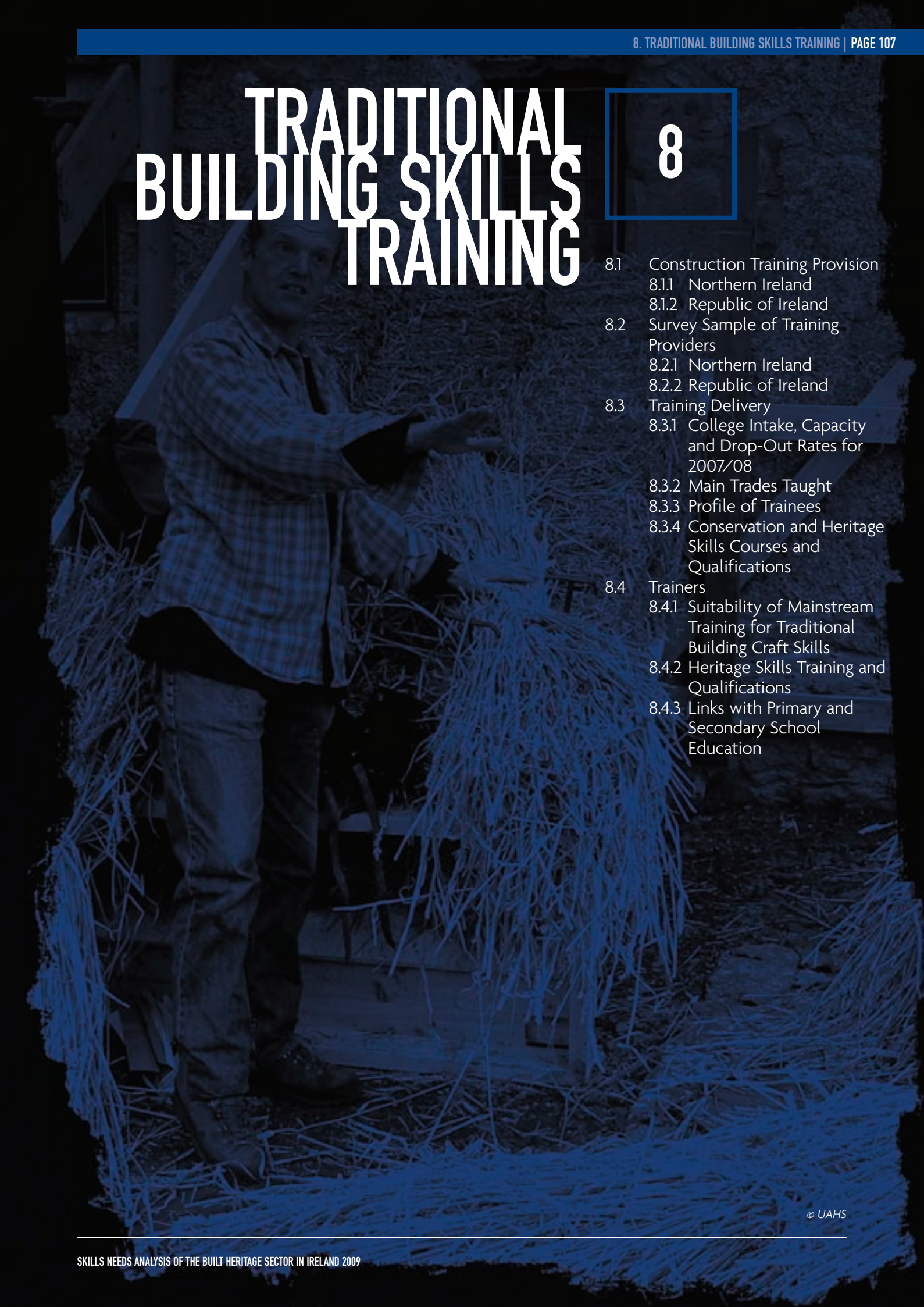
Only four of the respondents provided training for trades/craftspeople, owners and architects, primarily at an introductory level; no qualification or accreditation was provided, and around 40–50 people attended each seminar or session. They would like to see more state input into this, with one suggestion being the provision of free courses for builders, to be funded by the DoEHLG, rather than the local authorities, which they felt would encourage apprentices to take up specific skills such as joinery, stonemasonry and so on, rather than general building skills. Only two respondents were aware of the HLF Bursary Scheme for Masonry Conservation, but all thought it a worthwhile idea.

Although there were some differences of opinion, the overall consensus was that things had improved recently in this field, and that this was likely to continue over the next few years. The impact of the economic downturn produced some interesting but diverse opinions. Some felt that it would lead to a decrease in the number of heritage projects being started, both because less funding would be available and because owners would be less willing to spend money on conservation.

Others felt that it could increase the number of traditional building projects, because owners would rather spend a smaller amount of money repairing an existing structure than on buying a new property. Some thought that trades/craftspeople would find built heritage projects more attractive than new building, as these tend to take longer to complete.

TRADITIONAL BUILDING SKILLS TRAINING

8



traditional building skills training

This section of the report assesses current traditional building skills provision within Ireland in the context of the wider construction industry. Differences exist in the qualification system and mode of training delivery in both countries: therefore, as with the rest of the report, these are presented separately with comparisons drawn as appropriate.

It is reasonable to say that in both countries the bulk of those working in the traditional building skills sector enter via mainstream site-based trades (carpenters, bricklayers and so on) after following a recognised construction industry training programme in a further education college. More experienced practitioners may have used traditional building skills, but for most trades/craftspeople these are usually acquired by learning on the job and attending short introductory courses. Very few have taken up existing conservation options as part of their qualifications or apprenticeship training. Most craftspeople also enter the built heritage sector at an older age rather than as an apprentice, or as career-changers, usually from a background in creative crafts or through an empathy with historic buildings and handcraft skills.

Once qualified to a recognised level, many trades/craftspeople continue their career development with little in the way of formal training courses, and few return to college or use distance learning to pursue higher-level qualifications. The main exception to this is those who choose a site supervisory or managerial role, and undertake more academic study and qualification, but these people are then lost from working on the tools.

8.1 Construction Training Provision

8.1.1 Northern Ireland

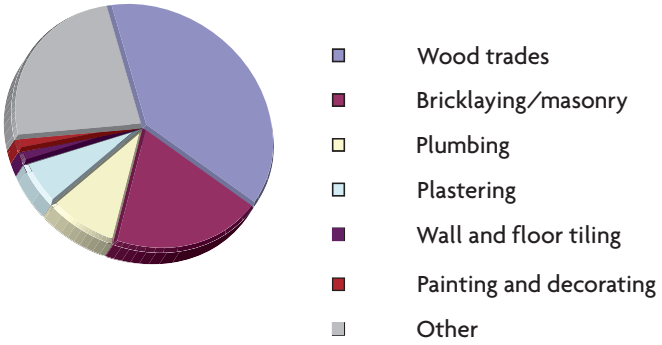
NVQ construction courses are provided predominantly by further education colleges, with only a small number of private training providers. In August 2007 the 16 FE colleges merged to create six new 'Super FE Colleges' composed of: Southern Regional College, Belfast Metropolitan College, South Eastern Regional College, South West College, Northern Regional College and North West Regional College. The various sites and campuses have, however, been retained to serve their local communities so that construction courses continue to be taught across the region. This means that the same course is often taught by a college at a number of different sites, and this had implications for the sampling and interviews.

During 2007 a total of 2,393 trainees enrolled on construction courses in FE colleges, as follows:[72]

- 883 pre-apprenticeship
- 925 NVQ Level 2
- 8 NVQ Level 3
- 577 on other qualifications in construction trades.

The breakdown of trainees in terms of main trades is: wood trades, 841; bricklaying/masonry, 467; plumbing, 255; plastering, 122; wall and floor tiling, 59; painting and decorating, 54 (see Figure 25).

Figure 25 Distribution of Trainees by Trade Occupation in Northern Ireland



8.1.2 Republic of Ireland

Construction training is provided through a four-year apprenticeship scheme that comprises seven phases. Prospective apprentices must be employed before starting the course; their employers pay them basic wages, but training is provided free of charge. Phases 1, 3, 5 and 7 are undertaken on the job working with the employer, while phase 2, involving basic training of 20 weeks, is undertaken in a local FÁS training centre. Phases 4 and 6 each involve a 10-week course at an Institute of Technology (IoT).

The technology sector accounts for around 50% of those in tertiary education delivered in 14 IoTs, which offer a broad range of vocational and non-vocational courses, ranging from apprenticeship to postdoctoral level, with CPD, part-time and evening courses available. However, only 10 of these provide construction skills courses at apprenticeship level. There is, however, a certain degree of crossover, with two FÁS centres also offering levels 4 and 6 and one

IoT offering level 2. In addition, two FE colleges were identified during the survey which offered various levels of training.

On completion of phase 7, apprentices receive their FETAC National Craft Certificate (the equivalent of an ordinary degree in the education framework). The integrated nature of the Republic of Ireland education system means that the newly qualified craftsperson can choose either to concentrate on practical work or to continue further study, for example, on a master's degree course.

FÁS is responsible for ensuring that the workforce is trained and skilled for the needs of the economy. It recently launched a new syllabus which focuses primarily on new-build construction to respond to demand during the construction boom. This syllabus (unlike the old system) is output-driven rather than education-driven, and for this reason was criticised by some of those interviewed in this survey.

In December 2007 the total number of construction apprentices was 29,342, which includes 11,000 working with their employer on phases 1, 3, 5 or 7. During the same period, 18,149 apprentices completed part of their college training, with 6,997 passing the initial FÁS phase 2, and 5,849 and 5,303 passing phases 4 and 6 respectively.[73] However, it is possible that some double counting occurs, if for example an apprentice completes two college phases in one year.

In the course of the survey, trainers commented that, during the boom, many employers had held back apprentices from the college element. However, as the amount of work declined, numbers enrolled for phase 6 increased, and in some cases, two parallel courses were held where one had been sufficient the previous year.

8.2 Survey Sample of Training Providers

8.2.1 Northern Ireland

Belfast Metropolitan College and Southern Regional College were interviewed as part of the qualitative research, and all six Super Colleges were interviewed in the quantitative stage (across all campuses and sites offering the relevant construction NVQs).

The 26 campuses (10 colleges) interviewed offered 151 vocational construction courses. In some cases more than one individual had to be contacted at a campus to cover all modules. The following 32 respondents were contacted at 20 sites:

- Southern Regional College (7)
- Northern Regional College (6)
- South Eastern Regional College (5)
- Belfast Metropolitan College (4)
- South West College (4)
- North West Regional College (2)
- others (4).

Of the 26 campuses in Northern Ireland, 21 provide NVQ Level 1 courses, all provide NVQ Level 2, 22 offer NVQ Level 3, one offers NVQ level 4 and five offer other qualifications.

8.2.2 Republic of Ireland

Qualitative interviews were undertaken with Cork Institute of Technology, Dublin Institute of Technology and FÁS; 25 quantitative interviews (conducted with one respondent in each case) were also conducted with all 17 FÁS training centres, 6 of the 10 IoTs, and 2 FE colleges.

These 25 colleges provide 222 construction courses, and of these, 18 colleges offer Apprenticeship Phase 2, 10 offer Phase 4, and 9 offer Phase 6.

8.3 Training Delivery

8.3.1 College Intake, Capacity and Drop-Out Rates for 2007/08

Table 67 shows that on average each campus in Northern Ireland enrolled 129 trainees on construction courses for the 2007/08 academic year. However, a wide variation existed for numbers at individual site/college level, with the smallest being 20 trainees and the largest 400. Among those interviewed, the number of trainees enrolled on courses in the main construction trades totalled 2,827. Only 10 of the 26 campuses delivering construction training were operating at their maximum capacity in terms of trainee numbers, although most of the remainder were running at least at 80% capacity.

Drop-out rates experienced by colleges ranged from 8% to 30%, at an average of 18%, with an average pass rate for trainees who actually finished their construction course being 87%. This compares to a drop-out rate in Wales of 13% (variable from 1% to 25%) and a pass rate of 85% for the 2006/07 academic year.

By comparison, each college in the Republic of Ireland had on average 470 trainees, the smallest number of trainees being 98 and the largest 2,400, with 11,286 apprentices enrolled. The overwhelming majority of the colleges were fully subscribed, with only 7 colleges having some unused capacity. Drop-out rates varied from 0 to 6%, at an average of 3%, with the average pass rate of trainees finishing their construction course being 87%, the same as Northern Ireland.

8.3.2 Main Trades Taught

As shown in Table 68, wood trades were the most popular courses in Northern Ireland: the majority of the campuses provided two courses and most of the remainder offered between three and eight courses. The majority of colleges also provided training in bricklaying/masonry and plumbing, with over one-quarter training plasterers, electricians and painters/decorators. Almost all of the colleges provided only one course in the other trades offered, but some offered up to three.

Almost all Republic of Ireland colleges offered courses in wood trades and over half trained plumbers, electricians and

Table 67 FE Colleges' Intake, 2007/08

	Northern Ireland		Republic of Ireland	
	%	No.	%	No.
>500 trainees	0		28	
251–500 trainees	11		16	
101–250 trainees	31		48	
<101 trainees	58		4	
Don't know			4	
Average intake		**129**		**470**
Total intake		**2,827**		**11,268**

Base: NI campuses, 26; RoI colleges, 25.

Table 68 Main Trades Taught

	Northern Ireland (%)	Republic of Ireland (%)
Wood trades	85	84
Bricklaying/masonry	77	64
Plumbing	50	80
Plastering	38	44
Electrical	31	80
Painting and decorating	31	28
Wall and floor tiling	23	12
Roofing	0	4
Others	4	4

Base: NI campuses, 26; RoI colleges, 25.

bricklayers/masons, while plastering and painting/decorating were offered by over one-quarter. Most colleges taught only one course in the wood trades, with most of the remainder providing two or three courses, while one college offered 16. Most colleges offered only one course in the other main trades, although small numbers offered more in bricklaying/masonry, plumbing and electrical trades. Smaller numbers in both countries offered wall and floor tiling, with only one college interviewed in the Republic of Ireland offering roofing.

8.3.3 Profile of Trainees

As shown in Table 69, a major difference exists between the profiles of trainees on construction courses in the two countries. The majority of those attending construction courses in Northern Ireland were aged under 18 whereas in the Republic of Ireland the majority of trainees were aged at least 18, with almost 8% over 25 years old. Nine out of ten in Northern Ireland lived near the college, but in the Republic of Ireland one-quarter (28%) lived within a 21 to 50 mile radius of the college, and another quarter (23%) lived more than 50 miles away. This is partly due to the larger geographic distances within the latter country, and because Phases 4 and 6 of the apprenticeship are offered at only a limited number of colleges.

There is little crossover between the two countries, perhaps reflecting the different education and training schemes. Almost all of those undergoing training in Northern Ireland lived there, while two-thirds of trainers in the Republic of Ireland said that all their students lived in that country although, oddly, one-third were unable to answer.

Regarding the sector destinations of their trainees once qualified, the trainers reported that around three-quarters (76% in Northern Ireland, 79% in the Republic of Ireland) went on to work in the new-build housing sector, while about one-fifth (22% in Northern Ireland and 18% in the Republic of Ireland) went into the RMI sector. The proportion of trainees going straight from colleges into the historic building conservation sector was very small (2% in Northern Ireland and 3% in the Republic of Ireland), but around one-quarter of respondents in each country were unable to provide an answer.

8.3.4 Conservation and Heritage Skills Courses and Qualifications

Only two colleges in Northern Ireland and one in the Republic of

'Our training is demand led and I would expect demand to increase in the built heritage sector, as the construction sector slows down and people turn to conservation/ restoration as an alternative.'

FÁS Representative

Table 69 Trainee Profiles (First Year)

	Northern Ireland (%)	Republic of Ireland (%)
Age		
Under 18	88	12
18–25	10	80
Over 25	2	8
Residence		
Within 20 miles	88	49
21–50 miles away	9	28
51+ miles away	3	23

Ireland offered specialist conservation skills modules or courses leading to a formal qualification. All of the colleges interviewed during the qualitative research acknowledged this paucity of traditional building craft skills courses, but if there had been demand for these, they would have been ready to respond.

Northern Ireland

The North West Regional College has since 2002 offered a stonemasonry course, which is mostly theoretical, but also has some practical elements. During the 2007/08 intake, 16 trainees were enrolled (maximum capacity). Since 1993 South West College has provided an optional module entitled Maintenance UR12 (75% theoretical, 25% practical), but with only four trainees enrolled in 2007/08, it was running at only one-quarter of its capacity. However, it was expected that both courses would be offered in the 2008/09 academic year.

At the time of the interviews, Armagh Campus of Southern Regional College, together with the NIEA, was preparing to set up an NVQ Level 2 course in Heritage Skills training. This will initially provide a stone-carving course: if it is successful, training will extend to other skills, for instance stained glass, carpentry or blacksmithing. These courses are intended not only for apprentices, but to attract more experienced practitioners who wish to develop their skills. Armagh Campus has in the past facilitated an NVQ Level 2 in Stonemasonry, with apprentices spending one day per week in college and four days with their employers. However, logistics became a problem because of students commuting 50 miles to and from college, and so the course was withdrawn because of lack of uptake.

Traditional building craft skills courses that do not lead to a recognised qualification were offered to a range of participants, including building professionals, contractors and homeowners/DIY enthusiasts, by two colleges.

The Omagh Campus of South West College offered a course in dry stone walling, intended mainly for builders and trades/craftspeople, but also for homeowners and DIY enthusiasts. The course, running twice a year, was for a total of 12 days, and with 16 people enrolled in 2007/08 was fully subscribed, at an average cost of £60 per person.

The Enniskillen Campus, also part of South West College, offered a 10-week course (two hours per week) in recreational joinery for homeowners and DIY enthusiasts, at an average cost of £40 per person. The course runs three times a year, each time with a capacity of 18, and was half full over the last academic year. Southern Regional College provided a 10-week evening course in stonemasonry intended predominantly for DIY enthusiasts and homeowners.

The University of Ulster is currently developing the content for a master's degree course in building conservation, scheduled to commence in 2010.

Republic of Ireland

Trinity College Dublin offers a Postgraduate Diploma in Applied Conservation and Building Repair, aimed at civil engineers or other professionals. University College Dublin offers a Master's in Urban and Building Conservation, primarily for architects.

Dublin Civic Trust is a non-governmental organisation, established in 1992, which aims to promote the recognition and protection of the city's architectural heritage. It provides a number of conservation CPD courses aimed at educating and informing predominantly professionals, but also owners of historic buildings, about the resources of heritage buildings. Other activities include an advisory service, consultancy work, research and compilation of publications relating to the built heritage.

At the vocational level, the FÁS training centre based in Donegal offered an optional module in stonemasonry (75% practical, 25% theoretical). First offered in 1988, it attracted its maximum of 14

trainees in 2007/08, and the college was committed to providing the course again in 2008/09.

Athlone Institute of Technology provided a 10-day course in bricklaying and paving (spread over a period of time) for students with diverse levels of expertise, including trades/craftspeople, building professionals and homeowners. Some 30 people enrolled in three sessions in 2007/08, which is the maximum, but the cost was somewhat higher than in Northern Ireland (€250).

Dublin Institute of Technology provided non-vocational traditional skills training in decorative plasterwork, predominantly intended for homeowners and DIY enthusiasts, but accessible to builders or building professionals. The course, taught over 23 days, is offered three times during each academic year, with 60 students enrolled in the last academic year. Courses in lime plastering were also offered from time to time, as were courses in carpentry and joinery, which cover repair/maintenance and conservation as well as new build. The woodworking course covers theoretical and practical knowledge of traditional methods and materials.

Finglas Training Centre provided a building conservation course (free of charge), which it offered twice a year and taught over 100 days. This is predominantly for builders/craftspeople and DIY enthusiasts; during 2007/08 the course was fully subscribed, with 20 people attending.

Two other colleges mentioned that they had in the past offered a course, but owing to lack of demand no longer did so. Nonetheless, they both planned to run their courses in the future, one in the 2008/09 college year and the other at an unknown starting date. One of the two colleges commented that it had experienced difficulties in getting its course started because of insufficient interest and availability of funding, and the other cited availability of resources, space and technical expertise as a barrier.

8.4 Trainers

At the colleges interviewed in Northern Ireland that delivered construction courses, there were in total approximately 261 full-time trainers, an average of 10 full-timers per campus, but at individual campuses this ranged from 1 to 35. All the campuses also employed a small number of part-time trainers, 91 in total.

In the Republic of Ireland there were 455 full-time trainers, which varied from 2 to 80 at college level (average 19); only 8 colleges had part-time trainers, a total of 33.

Table 70 shows that opinions differ regarding the proportion of trainers within the colleges who thought they themselves had the necessary traditional building craft skills to undertake work on heritage buildings.

One-third (31%) of campuses in Northern Ireland and a slightly higher proportion of colleges in the Republic of Ireland believed that all their trainers had the necessary skills. Most of the remainder thought that the majority of their trainers had these skills, whereas at the other end of the scale only very small numbers claimed that none of their staff had traditional building craft skills themselves.

Opinions were almost equally divided in Northern Ireland regarding the extent trainers were interested in developing their traditional building craft skills further, with one-quarter each expressing interest, being neutral and showing lack of interest (Table 71).

In contrast, most lecturers in the Republic of Ireland were interested in developing their skills, with only one-fifth not interested. Not surprisingly, the small number of colleges already offering traditional skills courses were more interested than the others.

Table 70 Proportion of Trainers with Necessary Traditional Building Craft Skills to Work on Heritage Buildings

	Northern Ireland (%)	Republic of Ireland (%)
100%	31	40
51–99%	15	8
26–50%	27	20
10–25%	8	8
<10%	4	0
None	8	4
Don't know	7	20
Average (all colleges)	**59**	**70**

Base: NI campuses, 26; RoI colleges, 25.

Table 71 Extent to Which Lecturers are Interested in Developing Their Own Traditional Building Craft Skills

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
To a great extent (5)	6		32	
To some extent (4)	19		32	
Neutral (3)	25		12	
Not much (2)	13		20	
Not at all (1)	13		0	
Don't know	25		4	
Total	**100**		**100**	
Mean score		**2.9**		**3.8**

Table 72 Agreement with Statement 'Mainstream NVQ Courses Provide Trainees with Appropriate Skills to Work on Pre-1919 Buildings'

	Northern Ireland		Republic of Ireland	
	%	Mean score	%	Mean score
Agree strongly (5)	0		0	
Agree slightly (4)	0		16	
Neither agree nor disagree (3)	22		28	
Disagree slightly (2)	41		24	
Disagree strongly (1)	31		24	
Don't know	6		8	
Total	**100**		**100**	
Mean score		**1.9**		**2.4**

8.4.1 Suitability of Mainstream Training for Traditional Building Craft Skills

Table 72 shows that none of the Northern Ireland trainers agreed that mainstream NVQ trade courses provided trainees with the appropriate skills to work on pre-1919 buildings.

This is somewhat weaker in the Republic of Ireland, where half (48%) of trainers disagreed with the statement, with most of the remainder neither agreeing nor disagreeing. Interestingly, four trainers said that they agreed slightly, although none of these actually offered modules or courses in traditional building craft skills leading to a formal qualification.

The main reasons given by those in Northern Ireland for disagreeing with the statement were that courses were designed for the type of work required, mainly new build; there was (almost) no demand in this locality to work with historic buildings; old trades were no longer required as there was only new build; training was geared up towards new techniques and materials, as there was no need for old skills.

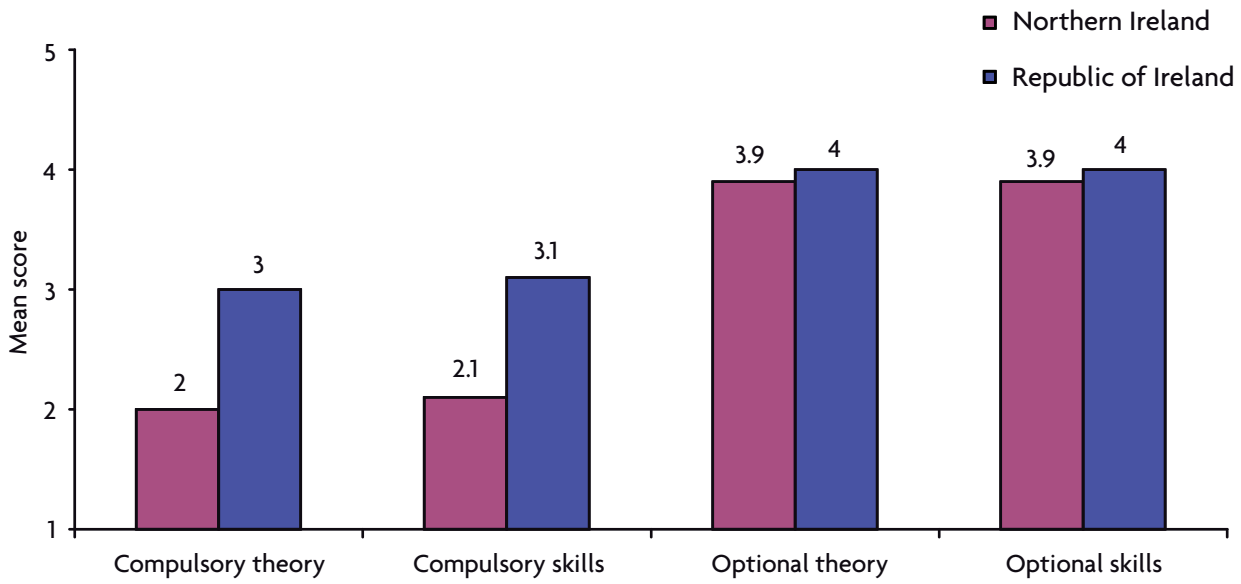
The two key reasons given by those in the Republic of Ireland were that training today was geared up to new build, not old buildings or conservation, and training focused upon new techniques and materials, because of the lack of need for old skills.

Figure 26 shows that additional traditional building skills modules introduced on a compulsory basis to mainstream NVQ courses were not favoured by the majority of trainers in Northern Ireland. By comparison, opinion in the Republic of Ireland was divided, with as many being in favour as against.

However, the overwhelming majority in both countries agreed that both theoretical and practical modules covering traditional building materials should be offered on an optional basis.

Table 73 shows that the trainers in Northern Ireland rated their students' knowledge of and ability to work with traditional materials somewhat lower than did those in the Republic of Ireland. Regarding the students' knowledge, the majority of trainers in Northern Ireland rated it as poor or fairly poor, with only 9% thinking it was

Figure 26 Agreement with Additional Traditional Building Skills Modules Being Introduced into Mainstream Construction Courses



1 = disagree strongly, 5 = agree strongly

Table 73 Rating of Students' Knowledge of and Ability to Work with Traditional Building Materials

	Northern Ireland				Republic of Ireland			
	Knowledge		Ability		Knowledge		Ability	
	%	Mean score	%	Mean score	%	Mean score	%	Mean score
Good	0		0		12		4	
Fair	9		6		8		24	
Neither poor nor good	25		38		36		32	
Fairly poor	44		41		32		28	
Poor	13		6		8		8	
Don't know	9		9		4		4	
Mean score		2.3		2.5		2.8		2.9

fair and none considering it good. Most (41%) rated their trainees' ability to work with traditional materials as fairly poor, with the majority of the remainder thinking that it was neither poor nor good.

Two-fifths (40%) in the Republic of Ireland believed that their students' knowledge was poor or fairly poor, and one-fifth (20%) fair or even good, while their views on the students' ability were divided: one-quarter (28%) thought that this was good or fair, around one-third (36%) rated it as poor or fairly poor, and the remainder were neutral.

8.4.2 Heritage Skills Training and Qualifications

Heritage Skills NVQ Level 3

About half of the trainers interviewed during the qualitative research in Northern Ireland were aware of the new Heritage Skills NVQ Level 3 qualification offered in the UK. Although this qualification is not offered in the Republic of Ireland, surprisingly one-third of the colleges interviewed were aware of it.

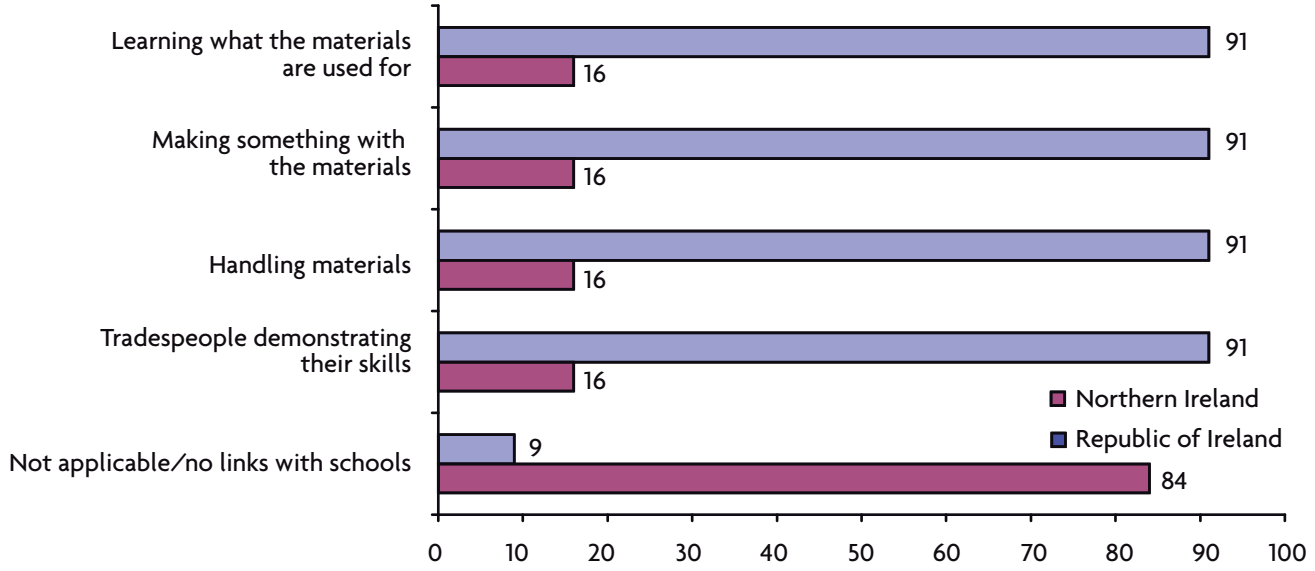
NHTG Training the Trainers Programme

Only a small number of trainers were aware of the NHTG's Training the Trainers programme. However, three-quarters of respondents in Northern Ireland and two-thirds in the Republic of Ireland indicated that they or other trainers from their organisation might be interested in attending this type of programme in future.

The HLF Bursary Scheme for Masonry Conservation in Scotland and Northern Ireland

Only one-sixth of the Northern Ireland trainers and one trainer in the Republic of Ireland were aware of this scheme, but almost all considered this to be a good way for trades/craftspeople to develop traditional building craft skills.

Figure 27 Traditional Building Skills Teaching Desired in Schools



8.4.3 Links with Primary and Secondary School Education

Of trainers in Northern Ireland, 91% said that their college had existing links with schools; however, in the Republic of Ireland this was only 16%. Almost all trainers would have like to see schools introduce teaching on building and building materials, although they disagreed on the most appropriate age to start.

Around one-quarter of all the trainers preferred primary school, while three-fifths favoured secondary school age as the most appropriate learning stage. As shown in Figure 27, from those with links with schools, all respondents said that students should learn what the materials are used for and that they should also handle materials and make something with them; they also agreed that trades/craftspeople should demonstrate their crafts to students.

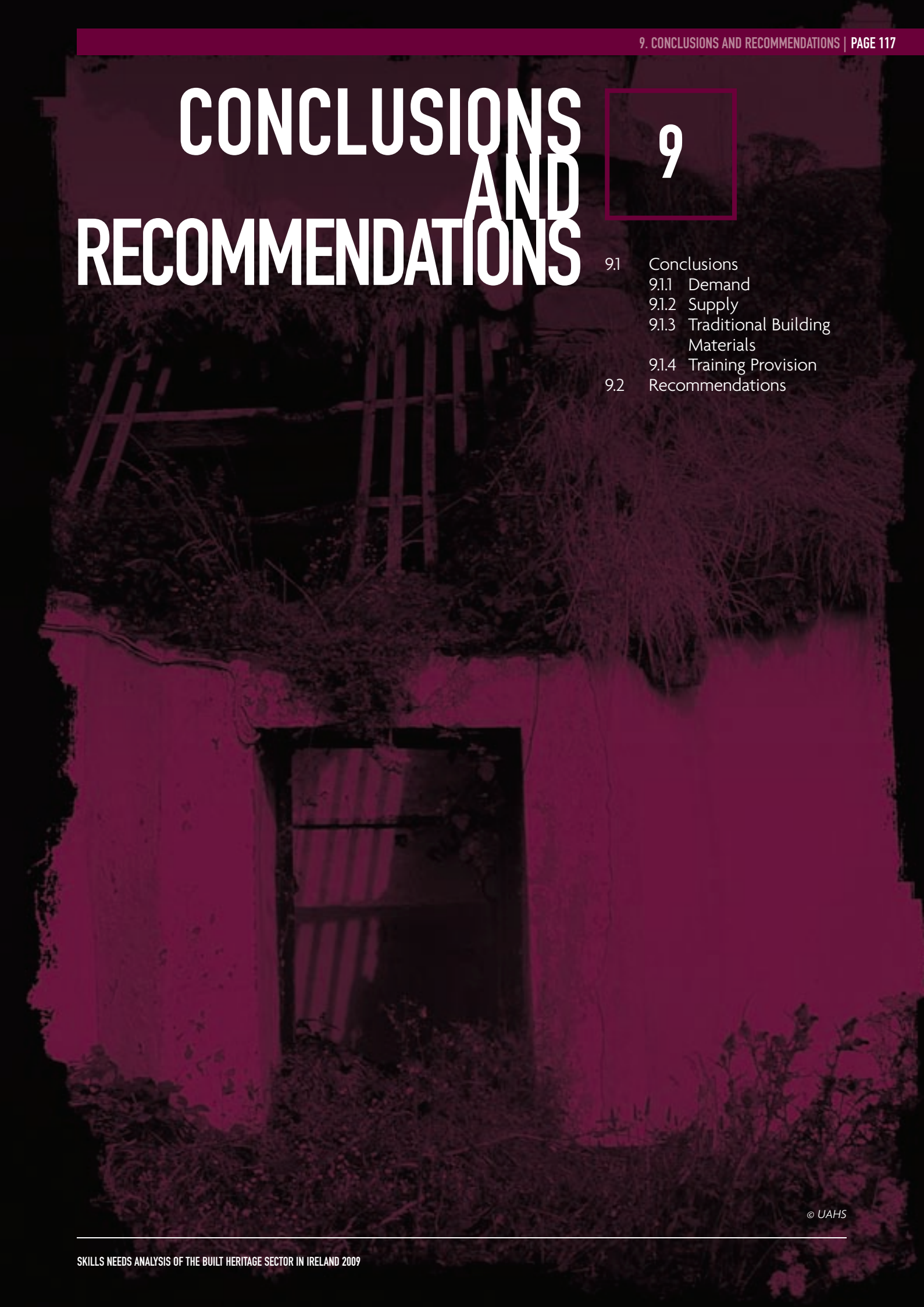
As shown in Table 74, in Northern Ireland, almost all the trainers with links to schools would like to see woodwork and metalwork, traditional building craft skills, and construction and the built environment taught at secondary schools (all GCSE). In Northern Ireland, the percentage supporting the provision of the Construction and the Built Environment (Diploma) and the Young Apprenticeship in Construction programme (BTEC Level 2 First Diploma in Construction) dropped considerably. The Young Apprenticeship programme is a UK initiative, but most trainers in the Republic of Ireland that had links with schools were in support of provision of similar courses.

Table 74 Support for Building-Related Courses in Secondary Schools

	Northern Ireland (%)	Republic of Ireland (%)
Construction and the Built Environment (GCSE)/ Construction Skills at Junior Certificate level	72	12
Woodwork (GCSE)/Woodwork Junior Certificate	81	16
Metalwork (GCSE)/Metalwork Junior Certificate	75	16
Traditional Building Craft Skills (GCSE)/ Traditional Building Craft Skills at Junior Certificate level	78	16
Construction and the Built Environment (Diploma)/ Construction Skills at Leaving Certificate level	44	16
Young Apprenticeship in Construction programme	53	Not asked
None of these	6	0
Not applicable/no links with schools	9	84

CONCLUSIONS AND RECOMMENDATIONS

9



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conclusions and recommendations

9.1 Conclusions

This first ever skills needs analysis survey of the built heritage sector in Ireland set out to provide accurate information on current **demand, supply and training provision,** to highlight the main issues affecting this sub-sector of the construction industry and to inform the **Skills Action Plans** (see Section 10).

The **key conclusions** are provided separately for both countries, but there are obvious commonalities, as follows.

9.1.1 Demand

Northern Ireland	Republic of Ireland
• There are an estimated **125,000 pre-1919 traditional buildings** (16% of the total building stock), including 9,000 listed buildings, compared with 5 million pre-1919 buildings (21% of total building stock) and ½ million listed buildings in England, and around ½ million pre-1919 in Scotland (20% of total building stock) and Wales (33%), including around 47,000 and 30,000 listed buildings respectively. • The 9,000 listed structures are **difficult to analyse for only pre-1919 buildings**, as the figure includes post-1919 buildings and non-building structures. • The market in 2007 for **conservation, repair, maintenance and restoration** of these pre-1919 buildings was an estimated £24.9m, providing work for at least **570 craftspeople**; spend is expected to rise to £26.1m in 2010. • The actual 2007 market for **traditional building craft skills** (using only traditional building materials) was worth around £11.3m and is expected to rise to £11.8m in 2010. More awareness of the benefits of traditional building materials, and the dangers of using modern materials on older buildings, could increase this demand. • The small market reflects the boom in new build seen over the last few years, with **only 5% of contractors having undertaken any work on a pre-1919 building** in the 12 months prior to the interview. Unlike the other UK home countries, the government undertakes a significant proportion of conservation work using in-house staff, and the Northern Ireland Environment Agency has directly employed craftspeople to work on the state monuments in care. • Lack of demand is the single most important reason for **not using traditional building materials**: stockholders consider that such materials may not meet building regulations and are simply not necessary. • Other than the Ulster Architectural Heritage Society directory, there is no source of heritage specialists and **no accreditation** of those claiming specialist traditional building skills status. • Grants are very important in conservation and, where awarded, there is much **more likelihood of using appropriate methods and materials**.	• There are an estimated **175,000 pre-1919 buildings**, but given the respective population sizes this figure is low compared to Northern Ireland. • Listing of protected structures is still being compiled in some counties, and the **lack of a central record** hampers gathering accurate statistical data on these buildings. • The market in 2007 for **conservation, repair, maintenance and restoration** of these pre-1919 buildings was an estimated €210m in the private sector and provided work for some **3,730 traditional building craftspeople**. • The actual 2007 market for **traditional building craft skills** was an estimated €122m. Again, increased awareness of the need to use traditional materials for pre-1919 buildings is required. • The level of **spend per building is much higher compared with Northern Ireland**, and on a similar level to that of England (calculated on the basis of all buildings not just those covered by this report). • Only **7% of contractors had undertaken any work on a pre-1919 building** in the last 12 months, reflecting the recent boom in new building. • Again, lack of demand is the main reason for **not using more traditional building materials**, but since the introduction of Protected Status in 2000 there has been increased awareness of the need to preserve the built heritage; this may increase future demand for using appropriate methods and materials on pre-1919 buildings. • Although lists of heritage specialists are available, for example from the Construction Industry Federation and the Irish Georgian Society, these are **not formally accredited**. Grade 1 Conservation Architects are subject to stringent scrutiny, **but these form a minority** of the profession.

9.1.2 Supply

Northern Ireland	Republic of Ireland
• The vast majority of those working on pre-1919 buildings are general builders, with **14% seeing themselves as conservation or heritage specialists** (only 8% in England), but most consider themselves as capable of working on listed buildings. • This research has identified that **skills gaps as opposed to skills shortages** are the main issue. Most craftspeople possess the basic skills needed, but lack specialist knowledge and expertise for work on pre-1919 buildings, which reflects the focus on new build. • Contractors generally **prefer to recruit skilled or partly skilled staff**, and only one-third had taken on one trainee or more in the last year. • At the time of the interviews only a very **few contractors had long-term vacancies**, but finding **skilled workers was not particularly easy**, especially those in the wood trades. There was a net inflow of 14% of employees in 2007. • The main steps taken **to overcome skills gaps were to train employees on the job or recruit specialist subcontractors**, who were relatively easy to find. • The **hardest trades to find were specialist crafts**, such as thatchers, woodcarvers, stone carvers, fibrous plasterers and blacksmiths, although these tend to be used by only a minority of contractors. • Contractors generally **have a high regard for their employees' skills** when working on pre-1919 buildings. • **On-the-job training and work experience** are seen as more important than college courses. In spite of this, around half the contractors have at least one employee undergoing formal training. • There is generally **low awareness of the various initiatives** relating to traditional building skills training and qualifications, but many expressed interest in these schemes once they were explained.	• Again, the vast majority of those working on pre-1919 buildings are general builders; **30% of interviewees regard themselves as conservation or heritage specialists**. Almost all interviewees regard themselves as capable of working on protected structures. • Again, **skills gaps** are the main problem faced in this sector, owing to the recent emphasis on new-build activity within the construction industry. • Contractors **prefer to recruit trained or partly trained staff**, but under one-third had recruited a trainee in the last year. • There were **very few long-term vacancies** at the time of the interviews, but recruitment of skilled employees was **moderately difficult**, with the main shortages being roofers and stonemasons. A net 1% inflow of employees in the 12 months prior to the research reflects the start of the economic downturn affecting construction. • The main measures taken to fill these skills gaps and shortages are **on-the-job training and using skilled subcontractors**. • Just below **80% had used a subcontractor** in the previous 12 months, with glaziers, painters and decorators, tilers, stone carvers, woodcarvers, joiners, leadworkers, roofers and stonemasons being most often mentioned. The majority had been able to find the subcontractor within 2 months or less. • The **scarce trades** are thatchers, glass painters, blacksmiths and lime plasterers, although these tend to be used by only a minority. • Contractors consider their **craftspeople to be highly skilled**. • **On-the-job training and work experience** are considered more important than college courses, which is reflected in the finding that **under one-fifth** have employees undergoing formal training. • No initiatives comparable to the Heritage Skills NVQ Level 3 or the HLF Masonry Bursary Scheme exist in the Republic of Ireland, but there was considerable interest in these, and even more so than in Northern Ireland, once their nature was explained.

9.1.3 Traditional Building Materials

Northern Ireland	Republic of Ireland
• The use of **traditional building materials has increased** over the last few years, partly because of increased demand and greater affluence. • In spite of this, manufacturers and suppliers consider that **many involved in specifying and using these materials** do not have sufficient knowledge and skills. • Employees are viewed **as highly skilled**, and, perhaps for this reason, suppliers have more difficulty in recruitment than do contractors. • A difference exists between the **level of specification of traditional materials quoted by stockholders and professionals** compared with that actually used by contractors.	• Again, the **use of traditional building materials has increased** recently because of increased demand and greater affluence. • Manufacturers and suppliers have **mixed views regarding the competence** of those involved in specifying and working with traditional materials. • Employees and craftspeople working for manufacturers and suppliers are seen as having **a high level of skill.** • Again, a difference exists between the **level of specification and use of traditional materials**, but this is less pronounced than in Northern Ireland.

9.1.4 Training Provision

Northern Ireland	Republic of Ireland
• Because construction work is currently **mainly new build**, employers expect this to be the focus of training. This leaves little opportunity for heritage skills to be included in the courses, and until demand for heritage building skills increases there is **no incentive** for the colleges to offer such training. • There is also little in the way of **non-formal training** for traditional building skills and specialist training: for example, training on the use of lime is almost always carried out on-the-job or by short courses by product suppliers. • **Optional modules would offer some flexibility** and, given its comparatively small size, **two or three centres** could service the whole country. • As almost 60% of trainers were thought by their colleges to have traditional building craft skills, there should be a source of training supply. They would benefit from the **NHTG Training the Trainers programme.** • There is a **comparatively low level of awareness** among trainers of the various heritage training schemes now available in the UK, but there is interest in these.	• Contractors are **highly influential on the apprenticeship syllabus**, which has resulted in almost all training being for new build, with little room for heritage skills training. If market demand for such skills were to increase then employers would require appropriate training for their employees. • Again, there is little non-formal training in traditional building craft skills and specialist training: training on the use of lime is almost always provided on-the-job or by short courses from the product suppliers. • Optional modules would offer some flexibility and could be considered **at Level 8 as an addition to the apprenticeship framework**. • The training providers suggest that **70% of trainers have traditional building craft skills** and should be an available source of this training. There was considerable interest in the NHTG Training the Trainers programme as a model for use in the Republic of Ireland. • Trainers knew little about the various UK heritage training schemes, but **showed considerable interest in the ideas** put forward: this should be pursued as part of the Skills Action Plan.

9.2 Recommendations

The findings and conclusions support the need to improve standards and understanding of traditional building methods and materials among the existing workforce, and to develop an integrated approach to training and skills development within the built heritage sector. Coordinated partnership working is needed in both countries to deliver the following key recommendations, which support and underpin the Skills Action Plans (see Section 10).

1. Improve education, publicity and information sources within the construction industry and historic environment field to **activate demand** for, and effect the required change in the current market for use of, traditional building skills and materials on pre-1919 buildings.

2. Continue to work in partnership under a **Traditional Building Skills Working Group in both countries** and build upon existing cross-border cooperation to ensure that Northern Ireland and the Republic of Ireland exploit the potential for both economies through a suitably skilled heritage sector workforce, to meet current and future market demand.

3. **Increase public awareness of the value and importance of the built heritage** and inform private property owners of the dangers of using inappropriate materials on traditional buildings, and the real whole-life and sustainability benefits of using compatible techniques and approaches. This should include providing improved unified information for **conservation officers** who are on the front line in issuing advice and guidance to owners of pre-1919 properties.

4. Stress the **sustainability of conserving old buildings** in retaining this sizeable part of the total building stock and integrating it with the rest of the built environment, thus saving non-renewable natural and physical resources.

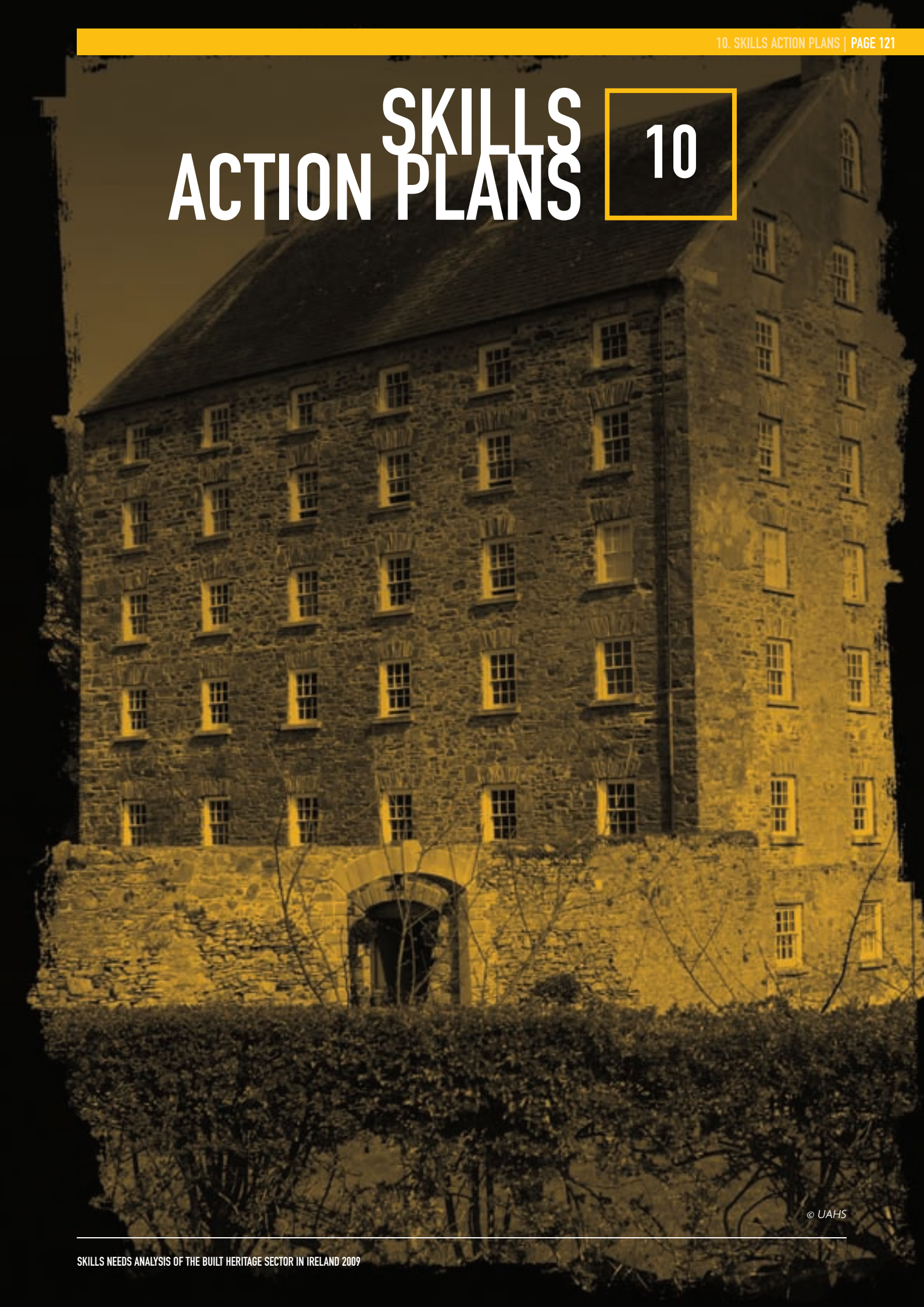
5. Work to ensure that accreditation of building contractors, craftspeople and professional practitioners is achieved, and use the emerging NHTG unified, accredited **Heritage Building Contractors Register** in Northern Ireland. Further develop the Irish Georgian Society's **Traditional Building and Conservation Skills Register of Practitioners** and **CIF Register of Heritage Contractors** within the Republic of Ireland to show qualifications, competencies and experience of contractors and their employees to help private property owners when selecting a contractor or craftsperson.

6. Consider ways of **improving statistical information on the built heritage stock**, which is currently difficult to access, consolidate and analyse, as this would help future labour market intelligence and forecasting.

7. Provide **improved information, advice and guidance** on traditional building skills and materials to a range of stakeholders, including schools, colleges and property owners, to raise awareness and promote potential recruitment to this sector.

8. Promote the various **heritage building skills training initiatives and develop a network of appropriate training providers** to match demand in both countries. Where appropriate use experience from the other UK countries to adapt similar training, but develop home-country based trainers now and for the future.

SKILLS ACTION PLANS 10



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skills action plans

The key findings of this research were presented on 15 October 2008 to a focus group with representatives from ConstructionSkills in Northern Ireland, the Northern Ireland Environment Agency (NIEA), the Heritage Lottery Fund (HLF), the Ulster Architectural Heritage Society (UAHS), The Follies Trust, the Institute of Historic Building Conservation (IHBC), the Office of Public Works (OPW), Foras Áiseanna Saothair (FÁS), Republic of Ireland, Historic Scotland and members of the NHTG Executive Committee. This meeting concentrated on three key areas:

- deliberating upon, questioning and endorsing the findings of the research project
- discussing and agreeing solutions to address the key issues raised in the report
- contributing to and agreeing the Skills Action Plans.

The research was also peer-reviewed, and this consultative process has remained a constant and central part of the NHTG Skills Needs Analysis research since 2005.

The separate Skills Action Plans for Northern Ireland and the Republic of Ireland provide a combination of strategic and practical delivery of a series of interrelated actions. Performance measures and key milestones are also provided to enable progress to be monitored, re-evaluated and where necessary adjusted to meet changing needs. The proposed cohesive solution to the current skills issues identified in the report aims to:

- stimulate client demand for traditional building skills and evidence of competence
- ensure contractors and craftspeople in the supply chain have the required skills
- refine and improve the training infrastructure to meet current and future workforce demand.

Contractors invariably place great emphasis on learning on the job, and we need to respond to this by providing flexible training which integrates FE sector provision with private training providers and the use of live site-based learning. We need to ensure that a suitably skilled, fully qualified and safety-aware workforce is available by developing the skills base and showing evidence of competence to work in this sector. Many of the actions can and will be undertaken separately, but the Skills Action Plans will be most effective through an integrated, collective approach across the range of identified issues. These range from introducing awareness of the need for traditional building skills and materials through to matching client demand for those skills by having the skills in the right place at the right time.

The partners identified in the action plans are considered to be most appropriate to deliver the particular actions. Most are already involved in this skills agenda, but others may need to be consulted regarding any resource implications for their organisations, and this will be coordinated by the Traditional Building Skills Working Groups. While different jurisdictions and education systems exist in Northern Ireland and the Republic of Ireland, commonalities and great similarities have been shown between both regarding traditional building craft skills. Therefore, to share best practice, exchange ideas and foster possible mutual training and skills development opportunities in both countries, it will be sensible for those involved in the research and the emerging Traditional Building Skills Working Groups in each country to meet at regular intervals to monitor progress on the respective Skills Action Plans.


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Addressing the issues

The Built Heritage Sector in Northern Ireland Skills Action Plan

Action Theme 1: Demand for Skills and Materials

Increase awareness of and demand for the use of traditional building craft skills and materials.

Actions	1. Provide **integrated information, advice and guidance** on conservation, repair, maintenance and restoration to the general public, clients and stockholders by signposting to the NHTG website and other websites, and developing easily understandable leaflets for public dissemination 2. Use the emerging UK-wide **NHTG Heritage Building Contractors Register** to promote the selection of suitably experienced and competent contractors for pre-1919 building work and to provide consumer protection to homeowners 3. Work with heritage organisations and major stockholders to develop a **Works & Training Contract framework**, and **use quality price tendering** for pre-1919 buildings to deliver higher-quality projects and develop a standard approach to stipulating the level of skills required in project specifications, to ensure current and future skills supply 4. Ensure that clients/stockholders are aware of and insist upon evidence of **competence and safety-awareness** through the construction registration schemes, and investigate developing a **Heritage Skills Card** for built heritage sector work, to comply with the industry objective of a qualified workforce by 2010 5. In partnership with the IHBC and other professional bodies, **work more closely with conservation officers, planners and local authorities** to encourage the use of an appropriately skilled regional workforce and traditional building materials for pre-1919 buildings, and develop improved information and guidance for their use with private stockholders 6. Promote the **positive environmental and social benefits of traditional buildings**, including the contribution to minimising carbon emissions (through reducing waste and using nationally sourced building materials), energy efficiency, sustainability, quality outcomes and local distinctiveness through the sensitive use and reuse of pre-1919 buildings
Performance Measures	2009: Establish a **Traditional Building Skills Working Group** to oversee delivery of the Skills Action Plan and an outline framework developed for consultation with local authorities, heritage bodies and other sector stakeholders 2009: Complete a **scoping exercise to establish levels and types of information** required for item 1, and develop a strategy for production and dissemination of information and signposting and sharing information between sector partners 2009–10: Develop and monitor uptake of the **Heritage Skills Card** 2009–10: With partners in the Republic of Ireland, organise a joint conference **promoting best practice on built heritage skills and the material supply chain** linked to the sustainability, regeneration and innovation agenda and the potential for the enhanced supply of indigenous materials
Partners	NIEA, ConstructionSkills in Northern Ireland, HLF, Department of the Environment Planning Services, Department of the Environment, Central Procurement Directorate within the Department of Finance and Personnel, Department of Culture, Arts & Leisure, Department of Agriculture and Regional Development (DARD), College of Agriculture Food and Regional Enterprise (CAFRE), IHBC, UAHS, local authorities, professional bodies, heritage amenity groups, building preservation trusts, Mourne Heritage Trust, Listed Building Owners Forum, Proskills

Action Theme 2: Supply of Skills and Materials

Work towards achieving a fully skilled and qualified built heritage sector workforce by ensuring that contractors and craftspeople invest in training and upskilling.

Actions	1. Establish suitable training providers and assessors for the **Heritage Skills NVQ Level 3, Scottish National Progression Award for the Conservation of Masonry** and the **Senior Craftsperson NVQ Level 4** to stimulate demand for training and self-development, and review and adapt existing/future qualifications to meet employer demand 2. Focus upon **upskilling practitioners working in the construction sector and career changers** from other trades or professions for the built heritage sector, and promote career progression to master crafts status, to enable craftspeople to remain working on the tools 3. Ensure that traditional building skills training is on the **Department for Employment and Learning Northern Ireland (DELNI) agenda and is eligible for the Department's funding streams** 4. Increase the use of the **HLF Bursary Scheme for Masonry Conservation and the Prince of Wales's Foundation Apprenticeship Scheme** by contractors so they access work-based training and practical experience opportunities 5. Adapt the NHTG **mentoring programme** for use in Northern Ireland to enable experienced craftspeople to pass on their skills and knowledge to less experienced practitioners in the workplace and develop the sector skills base 6. Work with the Building Limes Forum in Ireland (BLFI) and other material suppliers **to deliver improved product training** for contractors, craftspeople and heritage training providers 7. Promote **European exchange programmes** for craftspeople and professional practitioners, and extend opportunities to enable travel around the UK, the Republic of Ireland and abroad, including those offered by Les Compagnons du Devoir 8. Increase **practical demonstrations by contractors/craftspeople** at schools, skills events and education/outreach programmes, and educate potential entrants on the career possibilities within this sector through **targeted information packs** and a *Careers in Building Conservation & Restoration* brochure for Northern Ireland
Performance Measures	2010: Sector achieves a **fully skilled, qualified and health-and-safety-aware workforce** 2009: Dialogue opened with DELNI over **funding for traditional building skills** training and development 2009–11: Increased uptake and delivery of the **HLF Bursary Scheme for Masonry Conservation** and scheme expanded beyond its current timescale 2009–10: Pilot **mentoring** scheme completed 2009: Dialogue established with selected manufacturers regarding **traditional building materials** product training 2009: Network of traditional building skills training and **exchange programmes** developed 2009–10: Programme of integrated **careers information, promotion and skills events** developed
Partners	ConstructionSkills in Northern Ireland, NIEA, NHTG, DELNI, HLF, Historic Scotland, The Prince's Foundation for the Built Environment, trade federations and associations, trade unions, BLFI and other manufacturers and suppliers, UAHS, heritage amenity groups, building preservation trusts, OPW, International Council on Monuments and Sites (ICOMOS) Ireland, FÁS, Les Compagnons du Devoir

Action Theme 3: Training Provision

Deliver flexible training and skills development to meet the needs of contractors and craftspeople and the requirements of the built heritage sector.

Actions	1. Establish a **traditional building craft skills centre** at the NIEA Moira depot to provide training for the wider built heritage sector workforce and investigate creating similar delivery in three or four other regional centres in Northern Ireland to meet demand 2. Pilot a **Heritage Apprenticeship Programme** within the NIEA directly employed labour workforce by registering three or four new NIEA apprentices, develop an in-house training programme combined with the Intermediate Construction Diploma (ICD) and promote this approach to the wider sector 3. Support training providers to actively **publicise heritage and conservation-related construction courses** to meet latent demand, and upskill existing trainers through a **Training the Trainers programme** 4. Support the provision of **accredited/approved training provision** to include the Heritage Skills NVQ Level 3, the Scottish National Progression Award and the Senior Craftsperson NVQ Level 4, short training courses and conservation and repair projects, such as Townscape Heritage Initiatives (THIs), as live site-based training opportunities 5. Respond to contractors' preference for **on-site, practical training and qualification** through increased uptake of the HLF Bursary Scheme for Masonry Conservation; adapt the existing Great Britain ConstructionSkills On-Site Assessment and Training (OSAT) scheme to suit Northern Ireland; develop built heritage assessors within the province (linked to Action Theme 2.1 above); and use other opportunities to upskill and qualify the workforce 6. Exploit opportunities for **shared training and education** between building professionals, contractors and craftspeople by linking to the emerging University of Ulster postgraduate course and CPD skills events, short training courses and on-site learning, and increase opportunities for craftspeople to develop routes from further to higher education
Performance Measures	2009–10: Traditional building **craft skills centre** at Moira established and feasibility of others mapped and planned 2009: Three or four candidates registered on the ICD in September 2009 for the **Heritage Apprenticeship Programme** 2009: Heritage and **conservation courses publicised** on NHTG and partner websites 2009: Funding and venue secured to deliver a **Training the Trainers** programme 2010: Traditional building skills training delivered as part of new THI or building preservation trust schemes 2009–10: University of Ulster **Postgraduate Conservation Course** established
Partners	NIEA, ConstructionSkills in Northern Ireland, NHTG, HLF, Historic Scotland, training providers, University of Ulster, IHBC, UAHS, Royal Society of Ulster Architects (RSUA), Royal Institution of Chartered Surveyors (RICS), Chartered Institute of Building (CIOB)

Addressing the issues

The Built Heritage Sector in the Republic of Ireland Skills Action Plan

Action Theme 1: Demand for Skills and Materials

Increase awareness of and demand for the use of traditional building craft skills and materials.

Actions	1. Provide **integrated information, advice and guidance** on conservation, repair, maintenance and restoration to the general public, clients and stockholders by signposting to partner websites and developing easily understandable leaflets for public dissemination 2. Further promote and expand the Irish Georgian Society's **Traditional Building and Conservation Skills Register of Practitioners** and the Construction Industry Federation (CIF) **Register of Heritage and Specialist Contractors in Ireland** to encourage the selection of suitably experienced and competent contractors for pre-1919 building work, and so provide consumer protection to homeowners 3. Work with heritage organisations and major stockholders to **assess the procurement process** for pre-1919 building works to help deliver higher-quality projects, and to develop a standard approach to stipulating the level of skills required in project specifications to ensure current and future skills supply 4. Ensure that clients/stockholders are aware of and insist upon **evidence of competence and safety-awareness** through the construction registration schemes, and investigate developing a **Heritage Skills Card** for built heritage sector work 5. In partnership with the professional bodies **work more closely with conservation officers, planners and local authorities** to encourage the use of an appropriately skilled regional workforce and traditional building materials for pre-1919 buildings, and develop improved information and guidance on their use for private stockholders 6. Promote the **positive environmental and social benefits of traditional buildings**, including the contribution to minimising carbon emissions (through reducing waste and using nationally sourced building materials), energy efficiency, sustainability, quality outcomes and local distinctiveness through the sensitive use and reuse of pre-1919 buildings
Performance Measures	2009: Establish a **Traditional Building Skills Working Group** to oversee delivery of this Skills Action Plan, and develop an outline framework for consultation with local authorities, heritage bodies and other sector stakeholders 2009–10: Complete a **scoping exercise to establish level and types of information** required for item 2, and develop a strategy for the production and dissemination of information and signposting and sharing information between sector partners 2009–10: Develop and monitor uptake of the **Heritage Skills Card** 2010: With partners in Northern Ireland, organise a joint conference **promoting best practice on built heritage skills and the material supply chain** linked to the sustainability, regeneration and innovation agenda
Partners	OPW, FÁS, CIF, Irish Georgian Society, Heritage Council, Department of the Environment, Heritage and Local Government, Department of Arts, Sport and Tourism, local authorities, trade associations, trade unions, ICOMOS Ireland, An Taisce, building preservation trusts, professional bodies

Action Theme 2: Supply of Skills and Materials

Work towards achieving a fully skilled and qualified built heritage sector workforce by ensuring that contractors and craftspeople invest in training and upskilling.

Actions	1. Focus upon **upskilling practitioners working in the construction sector and career changers** from other trades or professions for the built heritage sector and promote career progression to master crafts status, to enable craftspeople to remain working on the tools 2. As a medium-term objective, develop **traditional building skills training** as a supplement (level 8) of the current apprenticeship scheme, and further develop the **Work-Placed Assessors Award** to include this sector 3. Evaluate the NHTG **mentoring programme** to see if this might be adapted to encourage experienced craftspeople to pass on their skills and knowledge to less experienced practitioners in the workplace, and develop the sector skills base 4. Work with the BLFI **to deliver improved product training** for contractors, craftspeople and heritage training providers 5. Promote **European exchange programmes** for craftspeople and professional practitioners, and extend opportunities to enable travel around the Republic of Ireland, the UK and abroad, including those offered by Les Compagnons du Devoir 6. Improve **understanding of traditional building skills and careers within this sector** in schools through skills events and education/outreach programmes, and develop **targeted information packs** and a *Careers in Building Conservation & Restoration* brochure
Performance Measures	**2009:** Dialogue opened with FÁS over **funding for traditional building skills** training and development to upskill the existing workforce **2009–10:** Integration of traditional building skills as level 8 of apprenticeship scheme is evaluated, and work-placed assessors award developed for this sector **2009:** Dialogue established with NHTG and evaluation of **mentoring scheme** completed **2009:** Dialogue established with selected manufacturers regarding **traditional building materials** product training **2009–10:** Network of traditional building skills training and **exchange programmes** developed **2009–10:** Marketing of integrated **careers information, promotion and skills events** and improved links developed between training providers, contractors/craftspeople and schools
Partners	OPW, FÁS, CIF, Heritage Council, Department of the Environment, Heritage and Local Government, Department of Arts, Sport and Tourism, trade associations, trade unions, BLFI and other manufacturers and suppliers, building preservation trusts, Les Compagnons du Devoir

Action Theme 3: Training Provision

Deliver flexible training and skills development to meet the needs of contractors and craftspeople and the requirements of the built heritage sector.

Actions	1. Identify and train **on-site work-placed assessors for traditional building craft skills** to qualify the current workforce and enable future traditional building skills training as an extension (level 8) to the current apprenticeship scheme 2. Explore funding options for traditional building craft skills training, including short full-cost recovery courses, redundant craftspeople training for re-employment in this sector and developing a **bursary scheme** 3. Using the NHTG model, develop a **Training the Trainers programme** for Institutes of Technology, FÁS and further education college trainers to improve their understanding and knowledge of the theoretical and practical aspects of conservation, repair, maintenance and restoration 4. Increase **flexible training** to upskill, expand the successful FÁS thatching training programme to cover other craft skills/occupations and use live, site-based conservation and repair projects as training opportunities 5. Support training providers to actively **publicise heritage and conservation-related construction courses** to meet latent demand, and upskill existing trainers through the **Training the Trainers programme** 6. Support the objective of developing the **Master Programme in Construction** to include traditional building craft skills 7. Explore opportunities for **shared training and education** between building professionals, contractors and craftspeople by linking the further education, Institutes of Technology and university courses and combined CPD skills events, short training courses and on-site learning, and further develop the existing opportunities for craftspeople to move from further to higher education
Performance Measures	**2009:** On-site work-placed **assessors identified**, and training started **2009:** Funding options for training in this sector explored and **road-map of funding streams** produced for inclusion on websites **2010:** Traditional building skills **bursary scheme** funded and launched **2009–10:** Other **traditional building craft skills centres/training programmes** evaluated and established to meet demand **2009:** Funding and venue secured to deliver a **Training the Trainers** programme **2009:** Heritage and **conservation courses promoted** on partner websites **2010–11:** Master Programme in Construction and delivery of shared learning between building professionals and craftspeople/contractors established
Partners	OPW, FÁS, CIF, trade associations, universities, Institutes of Technology, FE colleges, BLFI, professional bodies

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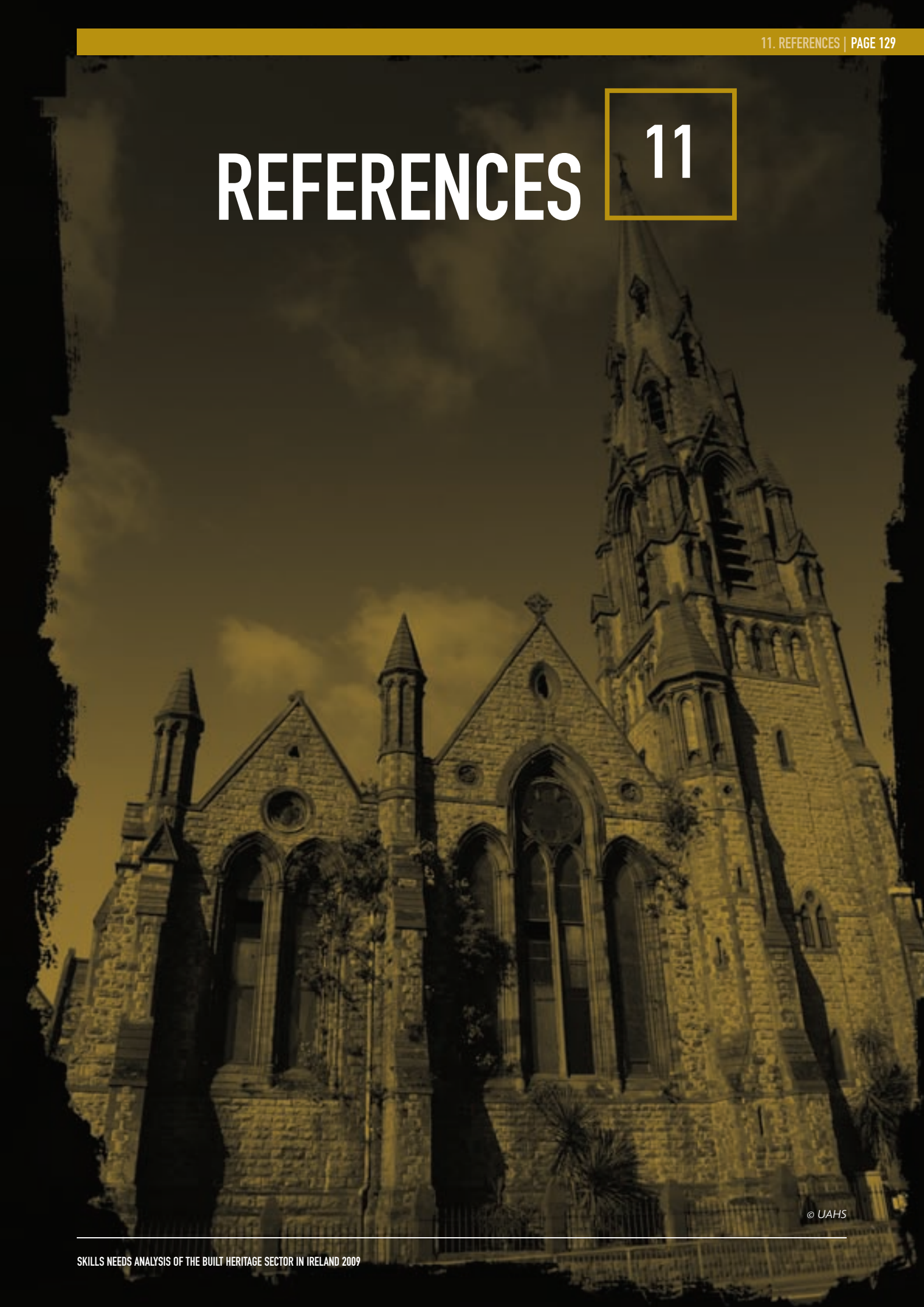

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www.nhtg.org.uk

www.constructionskills.net/research

www.constructionskillsni.org.uk

www.ni-environment.gov.uk

www.opw.ie

www.uahs.org.uk

www.heritageireland.ie

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