

Labour market impact of National Qualification Frameworks in six countries

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Abbreviations and acronyms

CARICOM	Caribbean Community
CEDEFOP	European Centre for the Development of Vocational Training
CNQ	Classification nationale des qualifications
CVQ	Caribbean Vocational Qualifications
CXC	Caribbean Examinations Council
EQF	European Qualifications Framework
ETF	European Training Foundation
EU	European Union
FET	Further Education and Training
FETAC	Further Education and Training Awards Council
GDP	gross domestic product
HEART	Human Employment and Resource Training
ILO	International Labour Organization
NCQ	National Classification of Qualifications
NCTVET	National Council on Technical and Vocational Education and Training
NQF	National Qualifications Framework
NVQ	National Vocational Qualification
NVQF	National Vocational Qualifications Framework
OECD	Organization for Economic Cooperation and Development
PPP	purchasing power parity
RPL	recognition of prior learning
TVEC	Tertiary and Vocational Education Commission
TVET	technical and vocational education and training
UK	United Kingdom
USAID	United States Agency for International Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
WB	World Bank

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Note on terminology

As noted in the 2010 ILO report on national qualifications frameworks (Allais, 2010), the terminology involved in qualifications framworks presents difficulties both for conducting and presenting research, particularly when more than one country is involved. Like many areas of policy this one has been dominated by jargon and extensive use of acronyms that can have the effect of making documents and debates tedious and opaque to outsiders. Further, across countries, different policy interventions seem in some instances to go by the same name, and in other instances, different terms seem to be used for similar interventions. The 2010 report discusses various other aspects of this complexity. This report, like the previous one, does not attempt to start from one set of definitions of qualifications frameworks. It attempts to recognize and tries to respect variation of uses across countries, stakeholders, and researchers. It also avoids the use of acronyms wherever possible.

Nevertheless, two areas of particular complexity emerged in the writing of this report, and they are highlighted here. The first is what is understood by competency-based training. This is particularly complex as there are few (if any) vocational education systems which don't invoke the notion of competence at some point, and a large percentage describe themselves explicitly as competency-based. Competency-based training as a way of organizing vocational education and training was developed in the United Kingdom (UK) and Australia. Hugh Guthrie (2009), in a comprehensive Australian overview, argues that key aspects of competency-based training are that it is based on competency standards; it is focused on outcomes and not inputs or processes; industry is involved and preferably leads the process of defining the standards; it is as far as possible flexibly delivered and selfpaced; and assessment is performance-oriented using set criteria. Much of this is similar to Gilbert Jessup's (1991) notion of outcomes which were key to the original national vocational qualifications in the UK and which have been influential in the evolution of competence-based training historically. Jessup's vision was of an assessment framework, which provided the standards against which any trainer could train, and any learner be assessed, regardless of the learning path they had followed. This notion has been important to many competency-based training systems. The idea that learning should not be linked to a learning pathway and that assessment must demonstrate competence against a specific standard meant that assessment should be decentralized, and many countries have attempted to implement decentralized assessment in order to be true to the spirit of this idea (Wolf, 1995); for this reason, it is often associated with competency-based training systems, although, as seen in this report, some systems that describe themselves as competency-based do not use decentralized assessment. The original outcomes-based national vocational qualifications in both the UK and competency-based training in Australia were overtly linked to attempts to marketize the provision of vocational education, and this has also been associated with competency-based training (Allais, 2014b). However, ideas which were associated with competency-based training in its early incarnations have not all been associated with all systems that call themselves competencybased, as is clear in the report, and the systems in the UK and Australia have changed over time. All of this makes it complex to refer to competency-based training as an approach to policy. And yet, when competency-based training is advocated for or criticized, what is referred to is something more specific than a general concern with competence. This report attempts where possible to distinguish between the notion of competency or competence as used in specific countries, and the term competency-based training, which is used to refer to an approach to the reform of technical and vocational education and training (TVET) along the lines described by Guthrie above.

The term NVQ (standing for national vocational qualification) generally indicates a qualification that has been developed as part of a competency-based training approach, although it could of course simply refer to a vocational qualification available in a country on a national basis.

The second area of complexity arrises with terms such as 'competency standards', 'occupational standards', 'achievement standards' and 'unit standards'. While in some systems unit standards and competency standards are the building blocks of qualifications, and occupational standards are specifications for workplaces, with a distinction being drawn between occupational standards and teaching standards, in others occupational standards are more-or-less interchangeable. Even when there are clear distinctions drawn, there are overlaps between how the terms are used in practice. The report has strived for the greatest amount of conceptual clarity possible while respecting individual country's terminology wherever possible.

FOREWORD

In 2010, the ILO together with ETF presented research on "The implementation and impact of National Qualifications Framework: Report of a study in 16 countries" documenting countries that were early adopters of NQFs, such as Australia, Scotland, New Zealand, England, Wales and Northern Ireland as well as countries that had recently started implementation of NQFs, such as South Africa, Mexico, Chile, Malaysia, Mauritius, Botswana, Sri Lanka, Turkey, Lithuania, Tunisia, Bangladesh and Russia.

In the intervening years as the number of countries implementing NQFs has grown exponentially, the debate has increasingly centered on topics like labour market impact and outcomes of NQFs, including employer experience in using qualification frameworks when making hiring decisions.

This follow-up ILO research is therefore intended to better understand labour market aspects of NQF implementation and to provide sound empirical evidence of how employers recruit, fill vacancies and understand how qualification frameworks are tools for them and for employing people. In doing so we have been careful to chose countries that reflect various stages of implementation including Ireland, France, Belize, Jamaica, Sri Lanka and Tunisia.

The results clearly show that whilst the challenges associated with NQF implementation are myriad, benefits do accrue, especially over the long term. As such, for all the promised benefits of NQFs to be realised, a very long timeframe needs to be taken into account.

Girma Agune Chief ILO Skills & Employability Branch Geneva

Chapter 1 Introduction and summary

Introduction

National qualifications frameworks based on learning outcomes, competence statements, or occupational standards continue to be introduced by governments who want to raise skill levels; improve the relationships between education, training, and work, particularly in terms of ensuring that training systems meet the needs of industry; reform education and training systems; and improve qualifications systems. In 2009 the International Labour Organization (ILO) commissioned research to attempt to understand the impacts, strengths, and weaknesses of qualifications frameworks, particularly for developing countries, as well as the circumstances, starting points, different policy goals, and different approaches in various countries attempting to develop qualifications frameworks, and what informed decisions about whether to adapt or adopt existing models. Qualifications frameworks in 16 countries were examined. The research (Allais, 2010) found little evidence that qualifications frameworks were achieving their goals. It also found that most countries had experienced difficulties in implementing frameworks. It emphasized that there are very many different approaches to designing and implementing a qualifications framework. It also demonstrated that qualifications frameworks have not provided quick-fix or simple solutions to the complex problems facing countries in relation to education, skills development, and employment, and that expectations of what this type of policy mechanism could do should be reduced.

However, it was acknowledged that the research was premature in some of the countries, as in many instances the qualifications frameworks were recent interventions and in some insufficient data made it impossible to reach robust conclusions. This new research, therefore, aimed to revist two of the countries in the earlier study—Sri Lanka and Tunisia—to explore the achievements five years later. It also aimed to build insight into qualifications frameworks by examining countries that were not included in the previous study, but which have long established frameworks or systems of organizing qualifications—France, Ireland, and two Caribbean countries that are part of the regional framework in the Caribbean, Belize and Jamaica. This new research had a narrower focus than the original study; instead of attempting to understand the implementation and impact of qualifications frameworks in general, it focused on understanding labour market impact. It aimed to develop insights into how employers recruit and fill vacancies, and the extent to which and ways in which they use qualification frameworks. Specifically the research aimed to understand:

- employers' hiring decisions and their awareness of qualifications frameworks in recruitment and employment practice; and
- employment outcomes of graduates of national vocational qualifications.

The research also attempted to gain insight into the extent to which qualifications frameworks have contributed to improving policies on training and employment and if they have had an impact on social dialogue in training systems.

Case studies were developed for the six countries, based on analysis of publically available documentation and research providing insights into the labour market impact of qualifications frameworks, and interviews with key stakeholders in the countries. This report presents a synthesis of the case studies. Much of the focus of the research was on technical and vocational education and training (TVET), as the frameworks in some of the countries were only for this component of the education and training system, and even where frameworks were comprehensive, the focus was on TVET reform.

Summary of key findings

Qualifications frameworks are widely described as policies that are introduced to improve relationships between education and training systems on the one hand, and workplaces on the other. This research attempted to measure labour market impact, with a specific focus on employers' practices and views, and employment outcomes of graduates, as well as an interest in social dialogue. The research did not use a single set of indicators or criteria for exploring these issues, as the systems in the countries were too different from each other, and there was very little hard or quantitative evidence available in any of the countries—there were a few instances of surveys conducted, for example of graduate or employer satisfaction, but they themselves used varying indicators. The study, then, does not have clear and unambigious findings. Instead it provides some analysis of what seem to be pertinent issues for the various stakeholders across the countries, when considering the use of qualifications frameworks in improving outcomes for graduates of training in labour markets.

The research did identify some evidence of impact, including possible indirect effects, such as ways in which qualifications frameworks have improved general understanding of education and training systems, or contributed to standardizing provision, which might in the long-term improve how qualifications are used in labour markets.

The clearest relationship between a qualifications framework and the labour market was seen in France, where the framework could be seen as a codification of reasonably good relationships through not just a qualifications framework but also collective bargaining agreements. There was some evidence, corroborating the 2010 ILO study, that qualifications frameworks had contributed to creating greater coherence and greater understanding of qualifications in a country or sector, although for three of the countries in the study the frameworks were only operational in TVET systems, and did not cover all TVET provision.

As the 2010 report highlights, analyzing qualifications frameworks is complicated; impact analysis of most education and training policies are contested and complex, and one seldom enjoys the existence of a clear base line with well-developed indicators and comprehensive data. Nonetheless, inferences can be drawn. For example, while there is considerable rhetoric surrounding the importance of the Caribbean Vocational Qualifications with regard to labour mobility in the region, the fact that most countries in the region do not use the qualifications calls this immediately into question. Similarly in Tunisia, where very little development of the qualifications framework has happened in the last five years, in the context of substantial political upheaval, it is straightforward to infer that there has not been significant labour market impact of the framework.

The qualifications frameworks reviewed in this study were generally part of attempts on behalf of governments to improve the structure of qualifications and programmes available in different industrial sectors, as well as to raise the status of TVET. In this context it may be important to note that qualifications frameworks for TVET generally seem to function differently to comprehensive frameworks; the former tend to consist of competency-based training qualifications (often called NVQs—National Vocational Qualifications), while the latter relate to all qualifications. Where comprehensive frameworks are operational, there are some tensions between the TVET component of the framework and the rest of the framework, and where comprehensive frameworks are under construction, this tension seems to be a major sticking point. Other attempts to raise the status of TVET explored in the current study included increasing the general education component of TVET courses; building higher levels of TVET provision or creating quotas for students from TVET or further education and training in universities; attempting to change labour market rules; and creating policies to encourage training.

Most of the countries seem to have made considerable achievements in their TVET systems. There were good systems of provision in place, and a sense of dedication and committment from providers and government institutions. Much seems to have been achieved through strong government support for provision, and development of curricula and assessment systems to support implementation of the qualifications framework. Only in France, where labour markets were the most regulated and collective bargaining had the widest reach, were there clear relationships between qualifications and work. There was some indication of relationships between qualification levels and work in Tunisia, and an attempt to introduce such relationships in the public sector in Sri Lanka.

A key insight, corroborating the 2010 study, is the importance of building and supporting institutions, not only to improve educational provision but also because these institutions play an important role as labour market intermediaries. The importance of process and consensus building was also clear.

Similar to the 2010 study, we found instances of support from certain bodies representing employers and/or industry, as well as instances of lack of employer involvement or belief in this type of approach. In general we found little evidence of trade union involvement, with the exception of France.

The framework which emerges from this study as the most successful in terms of labour market relationships is the French National Register for Professional Certificates. Like the Scottish Credit and Qualifications Framework in the 2010 study it may be the most difficult framework to replicate, because of the long-term incremental policy reform process of which it was a part, the strong educational institutions in France, the specific and historical relationship between social partners, and the regulation of labour markets, including the inclusion of training levels in collective bargaining agreements.

Evidence of difficulties associated with implementing qualifications frameworks was found. However, in general, except for Tunisia, these were less severe than many found in the previous study. This seemed to be due to a more organic relationship with existing qualifications systems in the countries, and a less rigid notion of how a qualifications framework is supposed to work, building on existing systems and approaches instead of just trying to replace them. Having said that, it is not evident—and this is perhaps the reason for the lack of serious problems—that the qualifications framework *per se* is a major focus in the system in many of the countries. Other reforms were seen as equally or more important in achieving some of the desired goals: for example, while in many countries qualifications frameworks are cited by policy makers as key mechanisms to ensure educational progress, in Sri Lanka the government has enabled educational progress by creating more and different types of educational provision, and the framework seems to be a relatively minor aspect of this. This perhaps reflects a more mature view about what can realistically be achieved by qualifications frameworks in their own right.

Despite lack of clear evidence in their favour, there was broad support for qualifications frameworks in all the countries from policy makers and stakeholders, and there continues to be strong donor support as well as support from international organizations for the building and implementation of qualifications frameworks.

One of the clearest findings, explored in Chapter 4, is how different qualifications frameworks are around the world.

This research corroborates the argument of the 2010 study that serious consideration of policy priorities as well as the sequencing of policies is important, particularly for developing countries. The incremental development of qualifications frameworks, building on existing systems, and not making unnecessary changes where there is trust in and understanding of systems and qualifications, are also important. Perhaps most importantly, the study clearly demonstrates the importance of the holistic approaches to the reform of work and of TVET systems, which the ILO has supported in principle for many years.

Structure of the report

Chapter 2 provides a brief overview of the recent research literature on qualifications frameworks, the relationships between qualifications and work, and the reform of technical and vocational qualifications. The details of the methodology of the study are provided in **Chapter 3**. **Chapter 4** provides a brief description of the key features of the frameworks in the countries in the study. **Chapter 5** discusses key findings in terms of labour market impact. **Chapter 6** provides analysis and some reflections on the overall findings.

Chapter 2: Review of recent pertinent research

Qualifications frameworks

Since the publication of the ILO's 2010 report (Allais, 2010) on qualifications frameworks in 16 countries, qualifications frameworks have continued to be adopted and developed. Currently there are at least 142 countries involved to some extent in developing a framework (ETF, Cedefop, and UNESCO Institute for Lifelong Learning, 2013). At least six major world regions have continued to develop regional qualifications frameworks: the Southern African Development Community (SADC), the European Union (EU), the Caribbean Community (CARICOM), the Association of South East Asian Nations (ASEAN) and the Small States of the Commonwealth (ibid, p. 52). Not only are national and regional frameworks continuing to be built, but a recent report from UNESCO (Keevy & Chakroun, 2015) explores an attempt to develop world reference levels for qualifications.

A body of research on this policy phenomenon has also slowly started to grow. The research conducted by the ILO has been a major contributor to this body of knowledge: subsequent to the publication of the ILO 2010 report, the research contained in that report as well as some of the case studies were published in various peer-reviewed forms (Allais, 2011a, 2011b, 2014b; de Anda, 2011; Keating, 2011; Marock, 2011; Raffe, 2011; Strathdee, 2011; Tau & Modesto, 2011; Tūtlys & Spūdytė, 2011; Wheelahan, 2011; Young, 2011a, 2011b; Young & Allais, 2011, 2013a). The original report published by the ILO as well as these journal and book publications have contributed substantionally to the limited body of knowledge of this under-research policy phenomenon.

There is still limited peer-reviewed literature arguing in favour of qualifications frameworks and learning outcomes, and we found no new peer-reviewed research providing evidence of achievements of this policy mechanism; as this is a follow-up study, the research covered in the 2010 report is not re-covered here. Werquin (2012) presents an in-principle argument that approaches relying on learning outcomes bring more equity to the world of education and training and to the world of work.

Drawing on some of the lessons of the 2010 ILO research as well as the reflections on it, Michael Young and Stephanie Allais (2013b) reflect on policy possibilities in India, and Allais (2014a) reflects on the relationships between qualifications frameworks and apprenticeships. Lorenz Lassnigg (2012) provides an overview of developments in Europe, suggesting that claims made about learning outcomes are simplistic both in terms of education systems and how education relates to labour markets. He also argues that critics overstate the problems, given that learning outcomes and qualifications frameworks are unlikely to have a dramatic impact on education systems. Manual Souto-Otero (2012) agrees that both claims about what learning outcomes can achieve and critiques of outcomes-based approaches are overstated. Sandra Bohlinger (2012) cautions about outcomes and national traditions. David Raffe (2012) presents an overview of research into qualifications frameworks, and argues that the evidence, while still inconclusive, shows that the impacts of qualifications frameworks have been less than expected, have often taken many years to appear, and have been negative as well as positive. Hugh Lauder (2011) provides some reflection on the economic context and imperatives behind the popularity of qualifications frameworks, and provides come cautions about the likelihoods of their achieving their aims.

In terms of research on national systems, Bernt Gössling (2015) suggests that while in Germany the language of learning outcomes has been officially adopted, it in fact contradicts the existing systems and policies, and in many instances is merely being

invoked, while the older practices remain in place. Lassnigg (2012) makes a similar point about the Austrian framework, suggesting that while there is a formal process of referencing against the European Qualifications Framework, there is no adoption of learning outcomes, as this is a foreign tradition in Austria. Sigurd Thorsen (2014) describes the continued attempts by countries in East Africa to develop qualifications frameworks. Alan Brown (2011) gives another critique of the British policy, which he describes as the almost complete failure of the attempted reform of vocational education and training through the NVQs; another recent critique is Lester (2011).

Michaela Brockmann, Linda Clarke, Philippe Méhaut, and Christopher Winch have produced various pieces of research critiquing the notions of learning outcomes and skills embedded in the European Qualifications Framework (EQF) (Brockmann, Clarke, & Winch, 2008; Méhaut & Winch, 2012). Barbara Hupfer & Georg Spöttl (2014) are also critical of the notion of learning outcomes, suggesting that countries which adopt the qualifications framework terminology mainly do so because they lack their own traditions and terminology related to competence. With regard to the use of the word 'competence' in the EQF, they suggest that it is fundamentally at odds with the holistic conception in continental European vocational education.

So the result remains that the EQF and the Employability Grid are models of reality that extremely reduce complexity and that cannot be applied in practice just because of the very complexity they ignore (ibid, p. 15).

Lassnigg (2012, p. 324) makes a similar point, arguing that,

In order to work according to the model, change and convergence of existing systems and subsystems towards a simplistic model of bridging education and employment would be necessary that neither accounts for the inertia of the existing systems nor for the diversity and complexity of mechanisms and institutions at work.

He suggests that outcomes-based qualifications frameworks are based on a flawed assumption that the transformation of tasks into job profiles is simple and straightforward, and that qualifications can and should "accurately 'transport' the information from demand to supply" (ibid, p. 318). Connected to the translation or transformation problem, he argues, is the question of whether an inverse relationship between job profiles and qualifications exists. He provides a critique of the possible roles of qualifications frameworks, arguing that:

Two grand descriptors are used for the policies, one is 'currency', the other is 'language'. Both have flaws so significant that we question their application in this context. If we speak of currency, an economist will ask, who controls the money circulating. If we speak of language, we have enough material that shows us, that we are not able to translate even the most basic policy concepts unanimously. How could the translation between national systems work at the more aggregate levels, when there is a lack of understanding of the structures at even the national level? (ibid, p. 323).

Hupfer & Spöttl (2014) similarly suggest that the assumption that work can be reduced to operational functions, and can be defined in purely functional terms is flawed. They also argue that referencing against levels is problematic because the levels created are often based on normative decision, such as that technical expertise and skills are lower than skills such as management and leadership. They go on to suggest that within economic sectors aligning across national boundaries to other sectoral frameworks would be more efficient than national qualifications frameworks.

As with earlier critiques discussed in the 2010 report, some of the criticisms above suggest that questions remain about what qualifications frameworks and learning outcomes can achieve in principle, even setting aside the difficulties which have been experienced in implementation. For example, even within countries and within specific types of qualifications, people with the same degree, or the same number of credits and the same level of qualifications and outcomes, do not get the same opportunities. Which institution individuals attended remains key, and in fact seems to be increasing in importance as more and more people get higher and higher qualifications (P. Brown et al, 2011).

Policy documentation arguing for qualifications frameworks as well as learning outcomes has continued to come out, and while some of this is more guarded than earlier recommendations for these policy mechanisms, there continue to be rather grand assertions of what qualifications frameworks can achieve:

Such frameworks can also be a force for social equity, as they potentially place formal schooling on an equal footing with non-formal or informal learning. The 2008 recommendation on the EQF message is indirect but unmistakeable: it matters less how you acquired knowledge, skills and competences; what really matters is what you know and what you are capable of doing.

Thanks to this conceptual foundation, national qualifications frameworks (NQFs) are able to add value to a learning process and support access to employment. They allow citizens to assess their own qualifications; they allow employers to determine more accurately whether a person's qualifications are up to the job; they make it possible, via the EQF, for national policy-makers to compare qualifications available in their country to those available in other countries, and decide:

whether changes are needed. By establishing standards, qualifications frameworks push education and training providers towards better quality; and by treating all competences equally, they open new paths between and within sectors and careers (Cedefop, 2015, p. 6).

Much of this research describes existing policies and policy goals, such as Misko (2015); ETF, Cedefop and UNESCO (2013), Cedefop (2013), and OECD (2015). In this spirit, Graham and Deij (2013, p. 24) argue that:

outcomes approaches do seem to push countries to develop and use more appropriate assessment methods not only for the validation of non-formal and informal learning, but affecting the final assessment in formal learning as well.

They also suggest that "[d]eveloping an NQF also deepens institutional capacity, especially in transition or developing countries (ibid, p. 26). Policy makers continue to hope that frameworks will make qualifications and education systems more understandable, at the same time as making education systems more flexible, making education better related to the needs of the economy, and facilitating workforce mobility (Thorsen, 2014). An example of this can be seen in Graham and Deij's argument that:

occupational standards – defining work-related competences for a specific occupation - are normally developed by sectors or professional bodies and involve experts who practice the occupation. Basing qualifications on occupational standards and labour market demand, as well as linking them to higher-level qualifications and allowing for progression, raises their "market value".

Keevy and Chakroun (2015) provide an overview of the ways in which level descriptors have been developed around the world, as well as of other policies, studies, and

mechanisms which attempt to relate different education systems to each other, and engage in a conceptual debate about the roles of levels and descriptors.

Because of the limitations of this body of knowledge, a brief review of broader literature on labour markets, work, and the reform of TVET and vocational qualifications was also undertaken, in order to inform the research and analysis.

Labour markets, work, and the reform of TVET and vocational qualifications

As mentioned above, one of the reasons qualifications frameworks are popular is that it is hoped that they can improve the ways in which education and training programmes prepare people for work, help them to obtain jobs, and enable them to perform well at work. There is a wealth of research which analyses the gaps and differences between what education and training systems do and what workplaces want or say they want, and recently the issues seem to have become of increasing concern, perhaps due to rising youth unemployment (Allais & Nathan, 2014; Busemeyer & Trampusch, 2012a; Keep, 2012; Méhaut & Winch, 2012; Streeck, 2012). Different authors explain the problems in different ways, with some focusing more on the weaknesses of education systems (Gamble, 2013; Maclean, Jagannathan, & Sarvi, 2013; Musset & Field, 2013), and others more on the weaknesses of labour markets and economic systems (for example, Allais, 2015; Cappelli, 2015; Keep & Mayhew, 2014; Levine, 2013). The fact that qualifications are a weak proxy for skill is widely acknowledged (for example, Guile, 2010). It is probably self-evident that where there are more regulated labour markets and licensing is required to practice in different occupational areas, qualifications are more closely related to labour markets (Allais, Marock, & Molebatsi, 2014). Government policy to address the numerous challenges in this complex area continues in many countries to have a focus on what some refer to as the educational supply side, and reform of qualifications is generally seen as key in this regard.

For example, Ewart Keep and Ken Mayhew (2010, p. 271), describing UK policy reform, describe it as based on "a limited, repetitious menu of supply-side policy moves— targets, institutional change, new qualifications, new delivery programmes, fresh streams of government subsidy, employer 'voice' issues, and exhortation". Raffe (2015), reflecting on the reform of vocational qualifications, suggests that the best line of action may be to stop focusing on qualifications. He reiterates some of the well-established criticisms of the UK vocational qualifications which reflect issues in the design of qualifications, the role of awarding bodies and the nature of the framework that lead to:

- over-prescriptive and narrow design features to which all qualifications have had to conform;
- a model of occupational competence based on a narrow concept of skill as opposed to broader and more holistic concepts of occupational competence in other European countries, which, combined with the first problem of tightly prescribed standards, has resulted in assessment approaches which do not command confidence;
- qualifications which are specifically aimed at work and, in theory, designed with employer involvement, which attract no labour-market returns in terms of earnings or occupational status especially at lower levels; limited employer involvement;
- a complex and confusing set of qualifications;
- many dead-end vocational qualifications;
- and many overly narrow vocational qualifications.

These issues highlight again the complexities of qualification reform. Whilst some of these problems exist in all skills systems, they are in fact precisely what qualification reforms have been introduced to change. In some cases the reforms seem to have led to reinforcement of some of the initial issues, as noted by Raffe (2015, p. 149):

The low returns on vocational qualifications and the narrowness of their content similarly reflect weak demand in the UK labour market, and the way that occupations are structured within that market, rather than failings more intrinsic to the qualifications themselves.

What is clear is that there are many factors which affect the ways in which qualifications are used in labour markets. What is needed by work, and what is required in labour markets, do not necessarily correlate. There are many reasons why graduates with particular qualifications may not get jobs, other than weaknesses of the educational programmes leading to the qualifications, and other than the skills which graduates have; in fact, as D.W. Livingstone (2012, p. 108) points out, education levels have risen dramatically faster than knowledge requirements in most jobs:

The image of contemporary society inherent in post-industrial/knowledge economy and human capital theories proves illusory. While an aggregate upgrading of the technical skills needed for job performance is gradually occurring, our collective acquisition of work-related knowledge and credentials is far outpacing this incremental shift.

There is growing evidence that attaining ever higher levels of qualifications will in many instances not enable individuals to get better jobs (P. Brown et al., 2011; Livingstone, 2012). Sociologists suggest that in some jobs there seems to be an increase in levels of knowledge used, and in many others, there have been decreases; 'deskilling and temporary low-skill employment contracts remain a core feature of "knowledge work" (Kennedy, 2012, p. 169).

Further, while policy makers want to improve the ways in which education prepares individuals for work, there is little consensus about what this means, either in terms of what type of knowledge is required at work, or in terms of the best ways of developing such knowledge, and the role of formal education in this regard. Relationships between education and work are complex. Different types of labour markets relate to different educational approaches: for example, occupational labour markets (which often have license-to-practice requirements) are structured by qualifications but internal or bureaucratic labour markets are strongly related to informal learning (Lassnigg, 2012, p. 319). Annie Bouder and Jean-Louis Kirsch (2007), citing Steedman (1992), argue that if employers organize their production using outdated and inefficient divisions of labour, and if employers drive the qualification and occupational standards setting process, the qualifications developed can simply help to prolong this inefficiency. They also question the juxtaposition of supply and demand in TVET since, they argue, the types of skills that are supplied play an ever more important role in structuring demand, and the signal and filter effects of formal qualifications are probably being reinforced. Hupfer & Spöttl (2014, p. 27) suggest that while "workplace demands" give information for curricula, conversely vocational-pedagogical and educational principles from vocational education systems shape normative criteria for work processes.

Socio-economic conditions, power relations, and ideology in labour markets and workplaces contribute to the maintainance or weakening of occupational identities and roles (Freidson, 2001). Practices like casualization, off-shoring, or use of technology have profound impacts on occupations. Vocational education and apprenticeships, where they have been successful, have generally been connected with reasonably well-paying, respected, and protected occupational identities and jobs, and not aimed at either at very narrow tasks in specific workplaces, or at vague general descriptions of workplace areas. The strongest vocational education and apprenticeships systems have tended to be found in developed capitalist countries in continental Europe (Bosch & Charest, 2010; Busemeyer & Trampusch, 2012a). In short, there are considerable difficulties in improving the relevance and quality TVET to better meet the needs of both labour markets and society in general.

In English-speaking countries dramatic expansion of access to higher education may have contributed to an erosion of vocational education; this effect has been less pronounced in the European countries with successful skill formation systems. Marius Busemeyer and Christine Trampusch (2012a) speculate that one possible explanation for this is more tightly controlled learning pathways in some European countries; another could be that the wage premium of university education is less pronounced in systems with strong vocational tracks. This is significant as the models of occupational standards, sectoral councils, and qualifications frameworks which are usually recommended to developing or middle income countries derive largely from the models in the English-speaking countries.

Busemeyer and Trampusch (2012b) suggest that there are four types of skill formation systems in the developed world:

- Liberal countries with limited involvement of firms and state;
- Statist nations with a low level of firm involvement but a high level of state commitment;
- Segmentalist countries with high levels of firm involvement and low state commitment;
- Collective systems with high levels of both firm involvement and state commitment, and partnerships which often also include labour, and effectively deliver portable certifiable skills.

The differences between the four stem from differences in the division of labour between firms, associations, and the state in providing and financing skills, as there are large differences across countries in the extent to which firms are willing to invest in skills that are not firm specific, and in public commitment to the development of skills, and therefore of financing it collectively (Martin, 2012).

Busemeyer and Trampusch argue that there is more heterogeneity within each of the second, third, and fourth categories, while liberal (mainly English-speaking) countries tend to be more similar to each other, although of course with some significant differences. In the English-speaking countries governments have focused in various ways, and with frequently changing structures and systems, on attempting to pinpoint exactly what it is that employers want, but often employers have not valued the skills and qualifications coming from these efforts, perhaps because, even where there are real skill needs that are not being met by education providers, the types of standards developed through this type of approach have tended to be highly narrow and specific, as is discussed in more detail below. Another is that while focusing on current employer demand for skills, governments have often done little to *change* employer demand for skill, by creating demand in the economy, or to increase employers' utilization and development of workforce skills (Rainbird, 2010). The assumption has been that the main needed change is to get the suppliers of education to be more responsive to the believed needs of the demanders of education. The case of Scotland, argues Keep, (2012, p. 6) clearly demonstrates "that a country can create a relatively wellresourced and successful education and training system that creates large numbers of relatively highly qualified young people whose employability is quite highly rated by employers, but still end up with significant problems of youth unemployment, problematic transitions to employment, under-utilisation of skills and little discernible improvement in relative productivity at national level." This again highlights the limitations of supply-side reforms, the unrealistic expectations placed on qualifications frameworks and the weak links between skills and other labour market policies.

Many different factors, such as labour market regulation, unionization, the nature and extent of employer organization and the role of industry peak bodies, the broader political,

institutional, and cultural context, the degree of federalism in a country and the relative powers of national governments and states/provinces, and so on, all affect how people are educated for different occupations, and how the relationships between education and training systems and labour markets function (Streeck, 2012; Thelen & Busemeyer, 2012). And these factors all interact with each other in complex ways; for example, the shape of labour market opportunities structures incentives to learn (Keep, 2012, p. 14). In another example, Bouder and Kirsch (2007) describe a situation in France whereby for several years, the French labour market has been showing a constant level of demand in the hotel and construction sectors, both of which have relatively autonomous training systems financed by the professions. Despite this, there is still a shortage which seems to be due to dissuasive working conditions.

It is perhaps worth mentioning that some researchers suggest the move towards a qualifications framework in Europe, and specifically the focus on learning outcomes, could be seen as evidence that European countries are gradually starting to adopt the models of English-speaking countries (Brockmann, Clarke, & Winch, 2011), although, as mentioned above, other research suggests that in some European countries the adoption of qualifications frameworks has been a formality with little real change introduced (Lassnigg, 2012).

This study attempted to take on board some of the complexity raised in this brief review of pertinent literature. While, as discussed in the following chapter, we looked for clear and unambiguous evidence of qualifications frameworks impacting on labour markets, we also attempted, albeit in limited ways, to gain some insights into the interplay of these complex different factors that affect the ways in which education and training, and more specifically TVET, relates to work.

Chapter 3: Methodology

This report consists of an analysis of five case studies which were produced by conducting research in the different countries, supplemented by additional literature on the countries in the study where available.

This research aimed for an analysis of the labour market use of the frameworks, something that was touched on but not explored in sufficient depth in the 2010 ILO study into qualifications frameworks. It was originally hoped that this study would determine the extent and nature of socio-economic gains for individuals and enterprises from the creation and implementation of national qualifications frameworks by gathering the following sets of data:

- Quantitative and qualitative data on industry engagement in critical areas of national qualifications framework development i.e., challenges in occupational standards development; competency-based delivery of instruction; competency-based assessment; and certification process.
- Quantitative and qualitative data on pre-national qualifications framework graduates, disaggregated by gender, age and other socio-economic characteristics, i.e., cost of training/certification per graduate; completion rate, and programme articulation.
- Quantitative and qualitative data on national qualifications framework graduate numbers by qualification level, employment of graduates, occupational area and incomes, labour mobility, level of productivity/quality of work, job security, and access to training.
- Quantitative and qualitative data on how employer knowledge of national qualifications frameworks affect recruitment practices and employment terms and conditions;
- Quantitative and qualitative data on how how employers recruit and fill vacancies based on national qualifications frameworks;
- Quantitative and qualitative data on satisfaction with national qualifications framework graduates; quality of work and productivity levels; and access to further training.

However, most of this information has not been collected in the individual countries, and collecting this amount of primary data across different countries is a huge undertaking; there was nothing close to the budget needed for a primary quantitative study in each country. This study did not attempt to conduct any kind of quantitative surveys or other large-scale collection of data. Further, it was extremely unlikely that equivalent or even comparable data would be easily found across the different countries; as various studies have shown, qualifications frameworks differ substantially across different countries (Allais, 2011c; Raffe, 2009, 2011), and the different countries were at different stages of development.

In order to ensure that we could access any existing information that could shed light on the items mentioned above, the research was designed in two stages. First, researchers attempted to collect and summarize all official qualitiative data, reports, and research which was pertinent to the labour market impact of qualifications frameworks in line with the points listed above (the specific wording of the items in the research documents are detailed below). In other words, while we could not do a primary collection of quantitative data, we hunted for such data where it did exist. This first step was also necessary in order to develop a reasonably complete picture of how the framework in each country had been designed, what its scope, coverage, history, and goals were, and how it had been implemented. This was essential given how different frameworks are from each other, and given that official policies all tend to use similar language, which makes it hard to penetrate the surface of these policies and understand what is actually being implemented in the different countries. We would not have been able to make sense of stakeholder perspectives without a picture of what each framework looked like. The second step then involved interviews with key stakeholders, to ascertain their views about the frameworks, and importantly, what counted for them as labour market success, and their analysis of the extent to which it had been achieved in each country.

This study was not an evaluation, nor is it strictly comparative. There were no baseline data to compare against, and it was impossible to develop fixed and clear evaluation criteria. For example, while increased labour market mobility is a key aim of many qualifications frameworks, measuring it is complex, and attributing causality to any increase or decrease in mobility even more complex—a rapidly growing industry or industrial sector may offer opportunities for more labour market mobility just because labour is demanded, regardless of whether the quality of training has improved or the transparency of qualifications has improved. It was also important to consider the implicit theory of change and rationale for the frameworks in question in their own contexts. Further, a key concern in the design of this study was not to overlook any achievements which were observed by stakeholders in the respective countries.

Thus, in each case, we attempted to analyze what it meant to have labour market impacts, what the ways were in which the qualifications framework could have impacted on labour markets, and what evidence could be found. Impact could include a diverse range of matters, such as, getting stakeholders together and building trust and relationships; improving educational standards; and improving qualification systems and pathways between and from qualifications. Impact may not necessarily be a strong effect; further, impact could be negative or positive. Previous researched suggested that in some cases, the qualifications frameworks with more 'impact' caused damage, while the framework which was seen as having least impact was the most successful (Allais, 2011b; Raffe, 2012). We attempted to separate out who was impacted on, and how. It remains difficult to isolate causal relationships, and in terms of broad contribution to policy this was particularly difficult; researchers were simply asked for their impressions, based on the interviews.

Researchers were asked to gather all pertinent quantitative and qualitative data and research from the qualifications agency or training authority, as well as other government agencies and ILO partners, containing information on any of the following:

- Any documentation or research that provides insight into employers' attitudes to graduates with qualifications on the qualifications framework, and any research that analyses factors influencing employers' hiring practices for mid-level occupations.
- Information about the qualifications framework: its structures and systems; the different organizations involved in it, and their respective roles; its relationship with the education and training system as a whole; an overview of its qualifications; its history. For Tunisia and Sri Lanka, researchers were asked not to repeat information available in the 2010 ILO case studies, but to provide additional information, or point out where information may be disputed, or where there have been new developments.
- Reports containing quantitative and qualitative data on industry engagement in critical areas of qualifications framework development i.e., challenges in occupational standards development; competency-based delivery of instruction; assessment processes; and certification process.
- Reports containing quantitative and qualitative data on graduates with qualifications dating from before the introduction of the qualifications framework, disaggregated by gender, age and other socio-economic characteristics, i.e., cost of training/certification per graduate; completion rate, and programme articulation.
- Research and reports containing quantitative and qualitative data on graduates who have obtained qualifications on the qualifications framework, including numbers by qualifications framework level, employment of graduates, occupational area and incomes, labour mobility, level of productivity/quality of work, job security, and access to training.

- Research and reports containing quantitative and qualitative data on how employer knowledge of the national qualifications framework affects recruitment practices and employment terms and conditions.
- Research and reports containing quantitative or qualitative information on satisfaction with graduates who have qualifications framework qualifications, including analysis of quality of work and productivity levels and access to further training.

Our assumption was that much of this information would not be available in many of the countries. Nonetheless, our starting point was a concerted search for any of it which could be found, and which would then lay the basis for more in-depth insights to be obtained through interviews. Researchers approached official organizations in the countries, mainly government agencies but also other bodies, as well as conducting internet searches, and reading available literature, in an attempt to collate any information that was available in each country. We did not establish fixed evaluation criteria for each of the areas listed above, given the considerations already discussed. For example, while use of the qualifications framework in hiring practices would obviously be a key consideration with regard to the first point, the item was phrased more broadly to obtain as much insight as possible into the broader considerations of employers, in the hope that this would allow the researchers to make inferences about potential uses of the qualifications framework in the absence of hard data.

Researchers were asked to produce a first report on the history and nature of the national qualifications framework or national vocational qualifications framework in the country, including information on the nature of industry engagement in the development of qualifications, the skills and employment of graduates of technical and vocational education prior to the introduction of the framework, the skills and employment introduced through the framework, and employer knowledge of the new qualifications, including how they have affected recruitment practices. In order to make sense of this, researchers were also asked to obtain information about how the qualifications framework is expected to work and its evolution over time, descriptions about the roles of different organizations/institutions; and relevant background information.

Researchers then conducted interviews with some of the following individuals, depending on the specifics of the country in question: employers and employer organizations; trade unions; officers from the qualifications authority; leading government officials responsible for developing and implementing the qualifications framework (including members of ministries of education and labour where appropriate); members of task teams responsible for developing the qualifications framework; education and training providers; experts and researchers in the country; and officials from bilateral or multilateral agencies providing assistance on qualifications frameworks. Individual researchers developed schedules of interviews based on what was applicable in their countries, based on broadly agreed guidelines; researchers were given autonomy to shape the research and structure the report according to the logic of the framework in question and broader history of education and training in the country concerned. The exact number and designation of individuals interviewed is contained in each of the five case studies.

The countries selected were: Belize; the Democratic Socialist Republic of Sri Lanka (henceforth, Sri Lanka); the French Republic (henceforth, France); Jamaica; the Republic of Ireland (henceforth, Ireland); and the Tunisian Republic (henceforth, Tunisia). A single case study was produced for the Caribbean regional framework and the national frameworks in Belize and Jamaica.

The selection of cases was based on various considerations. Firstly, while the previous research included a range of countries, including many that were in very preliminary stages, all the countries in this study were selected on the grounds that they had established qualifications frameworks which were being further developed. Sri Lanka and Tunisia were

selected to see whether in the five years since the previous study was conducted employers had started using the new system. France, Ireland, and Jamaica were selected as representing older frameworks, and the Caribbean region as a whole was selected as regional framework which is considered fairly well-established; to this end research was also conducted in Belize.

As with all research, this project had considerable limitations, and as such does not make any comprehensive or definitive claims about its findings for qualifications frameworks in general. Budgetary constraints severely limited the amount of time that was spent on each study. More time would have provided more nuanced and in-depth analysis. The case studies cannot claim to be comprehensive, but merely provide some insights and perspectives on the frameworks in the countries examined. The hope is to provide some empirical evidence about the extent to which qualifications frameworks have impacted on labour markets, directly or indirectly, in the selected countries, and analysis of what lies behind success or lack of it.

Chapter 4: Overview of the frameworks in the study

In order to evaluate the labour market outcomes of qualifications frameworks, it is necessary to develop some understanding of what exactly qualifications frameworks are in the different countries, how they have been designed, and the extent to which they are operational. One of the most striking findings of this research is how different the frameworks are in the six countries in the study. In order to make sense of the findings, and attempt to separate out issues, an overview of the different frameworks in the study is presented below. The countries are discussed in alphabetical order. This is followed by a discussion of some of the key differences and similarities that were found.

Belize, Jamaica, and the Caribbean Vocational Qualifications

In the Caribbean many of the small island nations have frameworks of vocational qualifications, also known as NVQs, which contain the occupational standards against which TVET is offered in the various national systems. The two Caribbean countries in this study, Belize and Jamaica, have their own national standards, which are described as competency-based qualifications, and offered in their TVET systems. Some Caribbean countries, mainly Jamaica, have submitted their occupational standards to the regional framework of vocational qualifications, the Caribbean Vocational Qualifications, and have had them accepted as TVET qualifications for the region.

The regional framework in the Caribbean is different to other regional frameworks. Instead of being a 'meta-framework', or set of levels against which different countries in a given region can benchmark their qualifications, it is based on occupational standards developed by member states, mainly Jamaica. These are submitted to the Standards Committee of the Caribbean Association of National Training Agencies and the Regional Coordinating Mechanism for Technical and Vocational Education and Training for review, and are then forwarded to the CARICOM Council for Social Development for approval as regional occupational standards.

The regional framework has its origins in the CARICOM Single Market and Economy, through which governments in the region have tried to create greater economic integration and movement of people. In 1990 Ministers of Education across the region adopted a regional TVET strategy, and, building on attempts to align TVET in the region, in 2002 a Caribbean Vocational Qualifications Framework was officially adopted. In 2003 the Caribbean Association of National Training Agencies (CANTA) was created, to coordinate TVET in the region, including coordinating the framework.

The framework which was adopted had five levels, and was modelled largely on the Jamaican competency-based training initiative then underway. Initially it was intended to integrate education and training qualifications across all components of the education and training systems, but currently it contains only vocational qualifications. The bulk of the qualifications on the framework are at the lower levels.

The framework was intended to facilitate movement of workers in the region. The extent to which this is actually the case is limited by the reality that while all CARICOM countries officially subscribed to the framework when it was adopted in 2002, only five of the 13 countries have actually implemented the associated training, assessment, and certification systems required in order to have the qualifications awarded; of these five, two joined only in the last year.

There are now developments underway to create a comprehensive regional framework, the Caribbean Qualifications Framework, which will consist of eight levels, defined in terms of broad learning outcomes. In this context, countries are now also attempting to develop comprehensive national qualifications frameworks for their entire education and training systems.

Some specifics of the systems in Belize and Jamaica are discussed below.

Belize is a very small country, with a population of just over 331 000 people, with a GDP per capita of USD 4 619 in 2013, according to the International Monetary Fund (calculated according to purchasing power parity (PPP) the figure is USD 8 014 GDP per capita).

Belize has a system of national standards which are compiled into a national vocational framework of qualifications. Each qualification is a year long, corresponding to a particular level on the framework. The bulk of qualifications are low-level, mainly levels 1 and 2. The qualifications are mainly offered through six public institutes for TVET, which have boards that include employer representation. The institutes have to apply to the Ministry of Education, through its Employment Training and Education Services Unit, to offer specific NVQs. If approved, they receive funding to do so. Curricula and assessment are developed through the ministry, and not by the individual institutes. There is also some on-the-job training which is not aligned with the NVQs, although some is certified through international bodies. This small island state has a very small TVET system compared to its school and higher education systems (the ratio of learners in NVQs compared to higher, secondary, and primary schooling is 1 to 9, 1 to 23, and 1 to 84 respectively).

A National Council for TVET was created to oversee the system, and is responsible for the development of a National Human Resource Policy framework for TVET, as well as the assessment, certification, and award of NVQs, and monitoring of all TVET in Belize. The creation of such a body is a requirement for participation at a Caribbean level. However, it is a voluntary body without full time staff and an operational budget. The actual work is delegated to the above-mentioned Employment Training and Education Services Unit of the Ministry of Education.

Belize intends to develop a comprehensive national qualifications framework which covers all education and training in the country, which is the general trend in the region.

Jamaica is a larger country, but still small, with a population of just under 3 million, with a GDP per capita of USD 5 100 in 2013 according to the International Monetary Fund (USD 8 487 GDP per capita PPP).

Jamaica was one of the first countries in the Caribbean region to establish a national framework of vocational qualifications, in 1994. This early activity perhaps explains why most of the occupational standards for the regional qualifications framework were developed in Jamaica by the national bodies discussed below.

The Jamaican competence-based training system and associated qualifications used the Australian system as a model. Five levels were created, intended to correspond to five levels of employment. The idea was to have certificates at levels 1 - 4, and diplomas and associate degrees at levels 3 and 4, and bachelor's degrees at level 5. In practice, however, higher education has not used the framework. There are about 500 occupational standards registered on the framework, the bulk of which are low-level (levels 1 - 3).

TVET is mainly offered through a network of public providers under an organization called HEART (which stands for Human Employment and Resource Training), which is the Vocational Training Development Institute of Jamaica. The initial standards for the NVQ qualifications were developed by HEART.

Most of the organizations under HEART offer qualifications at levels 1 to 3, but one offers higher-level qualifications, some of which are accredited by HEART and some by the University Council of Jamaica. This institution also trains TVET instructors. Since 1994 HEART's role was expanded to that of a National Training Agency, which included managing and being funded by a national skills levy. At the same time, a National Council for Technical and Vocational Training was established under HEART. This body now oversees the development of standards for the competency-based qualifications, accredits training programmes and institutions, and awards the NVQs. HEART maintains responsibility for coordinating qualification and curriculum development teams.

In other words, HEART has two components: it is a network of providers, and it is the authority responsible for managing the qualifications framework and quality assuring providers. These two areas of responsibility are separated into different components of the organization.

Employers are active board members of HEART, although their participation in standards development seems to be uneven.

Workforce development institutions are being established in collaboration with employers, the universities, and the University of Technology Jamaica, to offer higher-level qualifications in specific sectors. The universities and the University of Technology do currently offer some TVET programmes, but they are not based on the NVQs.

Jamaica is intending to develop a comprehensive national qualifications framework covering all parts of the education and training system.

France

In terms of its qualifications system, the main theme from France seems to be continuity, strong general education, and a regulated labour market, with new challenges because of an emerging two-tier labour market.

France, with its population of just over 60 million people, is the fifth largest economy in the world by size of GDP, and second largest in Europe after Germany, with a GDP of USD 2.7 trillion and GDP per capita of USD 44 009 in 2013 according to the International Monetary Fund (USD 39 813 GDP per capita PPP). France probably has the most functional framework in this study, because what it now recognises as a qualifications framework, the National Register for Professional Certifications (Repertoire National des Certifications Professionnelles) is largely the same qualification system that has been in place in France for further education and training since the early 1970s.

France was not considered one of the 'early starters' in the first literature describing the development of qualifications frameworks, perhaps because its systems were different from those of the English-speaking countries in which the term qualifications framework emerged. Nonetheless, the French framework is now considered an established one. The principles of the French framework have some commonalities with the goals of the frameworks which emerged in English-speaking countries, and which many countries adopting qualifications frameworks have tried to obtain: a degree of equivalence between upper secondary qualifications for academic and vocational programmes; a notion of occupational standards or occupational competence accepted by social partners; the possibility of obtaining any qualification listed in the register of qualifications through assessment of prior learning and experience; and, most importantly for the purposes of this study, a clear and accepted relationship between qualification levels and employment levels. As will be seen below, these features have emerged over time, with incremental developments that could be compared to the Scottish framework discussed in the 2010 ILO research. On closer examination some of the apparent similarities with other qualifications frameworks may be less similar with the qualifications framework in English-speaking countries than appears to be the case at first sight, as what underpins this framework is strong provision of vocational education that contains a substantial amount of general education; broadly defined occupational standards; and labour market regulations which have favoured workers. These factors may be key aspects that have made the system work in the past—and the last in particular is threatened by an emerging two-tier labour market.

The National Register for Professional Certifications has five levels on which are included all qualifications from senior secondary education upwards, although many higher education qualifications have not yet been included. The Register plays an important role in bringing together education and work. It also plays a role in the governance of vocational and professional education and training. The National Register is overseen by a structure called the *Commission National de la Certification Professionnelle* (National Commission for Vocational Qualifications) or CNCP.

The creation in 1965 of a technical baccalaureate can be seen as the first step in creating a relationship between general and vocational education. Technical and vocational education were officially put on par with general education. Since 1808 general education had led to the prized baccalaureate, which gave access to higher education (Cam, 2001). This is why the creation of a technical baccalaureate was significant. The technological baccalaureate later replaced the technical baccalaureate, continuing a tradition of a substantial component of general education, signalled in the fact that 80 per cent of students continue with their studies (Bouder & Kirsch, 2007). This tradition of general education within vocational education perhaps has facilitated a stronger degree of comparability across different sectors of the education and training system than is found in many English-speaking countries.

Currently, as in many countries, in France it is compulsory to go to school until 16 years of age. At this point learners have a choice of three certificates, all of which are titled baccalaureats. While there is a generally perceived hierarchy of these qualifications, (Cam, 2001) they are all substantive and formally equivalent qualifications, and can all lead to some further or higher education, although with different pathways and with, inevitably, the more prestigious trajectory (higher education) leading from the most academic of the three qualifications. For those taking the technological baccalaureate or the vocational baccalaureate the common trajectory is two-year courses focused on specific areas of work.

In 1969 a grid of 'training levels' was adopted, with the explicit aim of linking the education to the workplace. While duration of education was important here, the levels were anchored against definitions of staff in work situations, which were then linked to qualifications. This, as Bouder and Kirsch (2007) point out, was circular: the levels of work were defined according to the levels of education usually required for work at that level. Nonetheless, it seemed to work. These levels also formalized what is often seen as one of the important roles of a qualifications framework - comparison across general and vocational education.

A law was passed in 1971 which emphasized the right of employees to training and the obligation of employers to finance training, as well as the importance of training for unemployed people. In 1972 the Technical Accreditation Commission of Technological Qualifications (*Commission technique d'homologation des titres et diplomes de l'enseignement technologique*) was established to maintain a list of accredited qualifications and diplomas, which automatically included diplomas delivered by the Ministry of Education. This brought qualifications across different sectors of the education system into the same set of qualifications. These qualifications were, in many cases, defined by broad occupational standards which were linked to occupational fields, and which had been agreed on by social partners and were directly related to employment at specific levels, with specific expectation of remuneration and employment conditions. In 2002 this commission was replaced by the National Commission of Vocational Qualifications (*Commission nationale de certification professionnelle*). The new Commission had the job of improving the legibility of diplomas at the national as well as the European level. So, the introduction of the qualifications framework in its latest form was driven by the harmonization of the French system with the European one. The 2002 French Social Modernization Law extended the device that had already been in existence for many years for the Ministry of National Education, Ministry of Employment, and Ministry of Agriculture, three large departments which each have a large number of certifications. Through the creation of the National Commission for Vocational Certifications, the 2002 law has extended the scope of the system to other ministries. The National Registry for Professional Certifications is considered as the national reference point for the European certification framework at the French national level.

Thus, the basic five level structure which has been in existence since 1969 was used in 2010 to align French qualifications to the European Qualifications Framework, and is officially now the French national qualifications framework. The language of knowledge, skills, and competences which was adopted in the European Framework is seen by some researchers as originating in the French system, and has certainly been compatible with how that system operates. Others suggest that the language of learning outcomes has been a shift in French policy, although what exactly this shift means and what its impact is remains unclear. Correspondence between the French and the European levels has been established but there are still inconsistencies between the two; in particular, in the French grid Master and Doctorate are at the same level, unlike the European one which classifies them respectively at level 7 and 8. Moreover, in the European grid there are two levels (2 and 1) below the lowest level (5) of the French grid. Because in France the lowest level is the first one protected by collective agreements adding more levels below it would mean opening room for the 'low skill, low pay' recruitment processes, something trade unions oppose.

For reasons stemming from the transition from the previous system (between 1972 and 2002), two grids were used until a recent date in spite of the order issued setting up the new framework. Certifications issued by the French ministries of education and higher education used a grid dating back to 1967 based on the duration of the studies. Other certifying bodies used the inter-ministerial grid drawn up in 1969 to classify certifications in relation to the level of autonomy and responsibility in a work organization.

Through participation in the Bologna process, there has been change to the higher education structure in France. The previous structure was fragmented, and has been changed quite substantially (Malan, 2004). One consequence has been that non-university higher education has become closer to university higher education (Witte, van der Wende, & Huisman, 2008). The implementation of the Bologna process recently led to abandoning references to the 1967 levels of studies for the European licence, master and doctorate system. In 2009, the French ministry for education decided to abandon the 1967 grid. Reflections have been under way for several years to adapt the French grid to make it more compatible with the European framework. It seems, however, that this process is going to be long and complex and to date an 8 level grid has yet to be elaborated. The current qualification framework used in France refers back to the 1969 grid.

All of this takes place in a labour market and economic context which, while good by the standards of much of the world, is growing in insecurity. Since the 1980s the economy has grown only slowly, and currently unemployment stands at an all time high of 9.2 per cent. Because high unemployment has been attributed by many policy makers to overly rigid labour legislation, reforms since the late 1980s have fostered a labour market with a dual nature: protected permanent or open-ended contracts in which the majority of workers were employed, and far less protected fixed-term contracts, existing in parallel. While fixed-term contracts cover around 12 per cent of workers in the private sector, they have increased dramatically over the past 20 years, and now represent the most common form of entry into employment for young people. The protection afforded to people under short-

term contracts has declined dramatically, while the protection associated with long-term jobs has been reduced slightly. This is likely to create challenges for the qualification system.

Ireland

The main theme emerging from our study of the Irish National Framework of Qualifications is change, primarily in terms of institutional configuration, but to some extent in terms of the rules and organization of the framework itself. The framework as it currently stands has been through a number of iterations, with the most recent in 2012.

Ireland has a population of just under 5 million people, with GDP per capita of USD 48 608 in 2013 according to the International Monetary Fund (USD 44 663 GDP per capita PPP).

A key driving force behind the creation of the framework in this country has been an attempt to create more coherence in further education and training, which was fragmented, and encompassed a wide range of different types of programmes, providers, and award systems, as opposed to schooling and higher education which both had a strong tradition of nationally recognized certificates and award bodies. Over the past century various programmes and interventions had emerged attempting to smooth the transition from school to work, and attempting to improve the skills of job applicants. A series of different organizations emerged, and were merged, reorganized, and reconfigured over the years. In the early 1990s numerous projects emerged attempting to prepare out-of-work young people for the workplace. Having credentials for the training young people were receiving was seen as important, but none of the existing qualifications seemed appropriate. Various processes culminated in the formation of an Awards Body for vocational awards-the National Council for Vocational Awards, established in 1991 to provide certification for the further education and training sector. It was this council which first developed a ladder of qualifications, in an attempt to bring some coherence to the fragmented provision within further education and training. This ladder of qualifications, with its notion of modules that could be accumulated, laid the groundwork for the qualifications framework.

However, there was still fragmentation: there were at least four other bodies recognized to issue awards at the same levels. The qualifications issued by the Council did not always articulate with those issued by other structures also located in further education and training. So, in 1999, an act was promulgated which created a single body to make awards for further education and training, in the process merging or subsuming the various existing bodies. This act also created a Qualifications Authority, to establish an overall framework which would link further education and training to the rest of the education and training system; there had also been some changes to the bodies responsible for higher education.

So, by 1999 there were three awarding bodies (for schooling, further education and training, and non-university higher education respectively), and a Qualifications Authority. The universities issued their own qualifications, but a Quality Board was established for them in 2002. While some coherence had been created within further education and training, there were problems with articulation.

In 2003, the ten level National Framework of Qualifications was officially introduced, as a comprehensive framework encompassing all education and training in the Republic - primary, secondary, and higher education. A key rationale for the framework is to make qualifications easier to understand, and to improve how they relate to each other.

The next major change occurred in 2011, and involved reform and reorganization of the providers of vocational education. Until then 33 Vocational and Educational

Committees had been the main public providers. They were merged and reconfigured into 16 Education and Training Boards. The other large provider, which organized a network of provision for certificates mainly at levels 3-6 on the framework, was also reorganized at this time, and a new organization was created with the responsibility of funding and coordinating further education and training programmes.

A new awarding body, Quality and Qualifications Ireland was created the following year (November 2012). This is the key body in terms of the framework, and was created in 2012 to replace four previously existing structures (the Further Education and Training Awards Council, the Higher Education and Training Awards Council, the National Qualifications Authority of Ireland, and the Irish Universities Quality Board).

The main role of Quality and Qualifications Ireland is to maintain and develop the qualifications framework and oversee the quality assurance of providers. This includes the development of a register of all programmes that lead to awards on the framework. These functions are prescribed in detail through its constituting act.

Another important and recently created body is SOLAS, the authority for further education and training. This body, created in 2013, is mandated to focus on planning, funding, and developing an integrated further education and training sector.

A crucial element of the Irish National Framework of Qualifications is the *award*—a term signifying either a qualification or a recognized part of a qualification awarded by relevant awarding bodies in Ireland in recognition of a specific range of learning outcomes achieved. The National Framework of Qualifications sets the overall standards of awards, together with the measures taken by the awarding bodies and programme providers to build and monitor their quality (Mernagh, 2011). Award standards are expressed in terms of learning outcomes. They were developed within further education and training, and apply there—from levels 1 to 6 on the framework. Each level has a set of 'standards of learning otucomes' that are expected of a learner at that level. These include two statements about knowledge, two about skill, and four about aspects of competence. This makes for a relatively complex system containing a grid of 80 cells.

Currently the newly established Quality and Qualifications Ireland is maintaining and developing them in terms of four award types. The four types of awards were introduced with the 2012 reform: major awards (16 types of qualifications), minor awards (components of qualifications), special purpose awards, and supplemental awards (top up or refresher in addition to existing qualifications). Existing qualifications will be deactivated by the end of 2015, although in practice many of these qualifications will be revised, not replaced.

Quality and Qualifications Ireland has processes for establishing whether a new qualification is needed or not, and supporting the development of standards for new qualifications, particularly those indicated by bodies such as the Expert Group of Future Skills Needs.

The various reforms leading to what is now Quality and Qualifications Ireland and the Irish Framework of Qualifications have all been contested and criticized—which is to be expected given the number of changes. An internal review conducted in 2009 by the then Qualifications Authority Ireland suggested that the framework was succeeding in improving knowledge of the qualifications system, creating stable qualifications which were trusted, influencing curriculum and pedagogy, and creating new opportunities for progression. The study also aknowledged challenges, including confusion about the equivalence of qualifications at the same level, differing expectations of qualifications that gave licenses to practice in professional and occupational contexts, and limited employer awareness of the framework. It was hoped that the most recent changes would address these concerns.

The context for the recent changes is serious economic problems. Ireland was severely affected by the recent global financial crisis, with GDP falling in real terms between 2008 and 2010, and the economy contracting. Unemployment rose accordingly, although with some exceptions, particularly in information and communications, education, and health. The greatest decline was experienced in construction.

Sri Lanka

Sri Lanka has a population of 20.5 million, with a GDP per capita of USD3 204 in 2013 according to the International Monetary Fund (USD9 583 GDP per capita PPP).

The National Vocational Qualifications Framework (NVQF) in Sri Lanka currently encompasses a large component of the TVET qualifications on offer in the country. Although TVET is a relatively small component of the education system, there is a large array of programms available, offered through a bewildering diversity of types of providers which are in turn regulated by various different public institutions. The framework of vocational qualifications, or NVQs, was created in 2005 in an attempt to create some coherence. The history of TVET in Sri Lanka is important to understanding the current system and dynamics.

Maurer (2012) describes this history since colonial times. From 1859 onwards, missionaries opened more than 100 industrial schools all over the island, which mainly offered training in agriculture and craft to disadvantaged youth. This gradually shifted, and a focus emerged on preparation for public service. In 1893, the Department of Education opened a technical college in Colombo, which included an academic curriculum designed to train employees for the upper echelons of the public works departments and emerging industries. Maurer goes on to describe post-independence governments as not taking TVET particularly seriously, so that by 1976 only 0.4% of all students were enrolled in TVET, which at that time was the lowest share in Asia. However, after this training programmes started to increase, coinciding with a growing economic demand for skilled personnel and rising wages for employees formally trained at crafts and technician levels. And in 1994, with a new government whose core electorate was rural, a focus on TVET increased, with the creation of the Vocational Training Authority, under which a large number of training agencies were concentrated, and started to offer public vocational training programmes and basic education to rural unemployed youth. About 200 Rural Vocational Training Centres were opened within three years, a very significant public investment which, Maurer argues, was contrary to the donor advice and support Sri Lanka was receiving at the time, but worked well because of the public investment, the demand from rural youth for additional education in the context of highly selective higher education, and absorption of the youth who were trained by an economy sustained by import substitution policies. This public investment in provision, as is discussed below, continued.

The Vocational Training Authority remains significant as the largest public provider, with a network of about 400 training centres, through which most of the TVET programmes against qualifications at levels 1 - 4 of the NVQs are offered. The numbers of these training centres has increased substantially over the past ten years—there were only 31 in 1995. This body was located within the Vocational Training Division of the Ministry of Youth Affairs and Skills Development, although recent ministerial restructuring has changed this arrangement. The NVQF is located in the same ministry. Within the Ministry of Youth Affairs and Skills Development, the institution responsible for the framework is the Tertiary and Vocational Education Commission. Like the Vocational Training Authority, this Commission falls under the Vocational Training Division of the Ministry. The Commission was established in 1990 with a governing body of 15 members, 10 of whom represent employers. The Commission is responsible for quality assurance of providers and certification of TVET programmes, and also maintains a Labour Market Information System. Private providers need to be registered with the Commission. While

there are still multiple ministries involved in the delivery of TVET, there seems to be increased coordination.

Another significant institution in relation to the NVQF is the National Apprenticeships and Industrial Training Authority, which oversees the training of apprentices, including the development of standards for apprenticeships, the training of assessors, and the conducting of assessment and national trade tests. This Authority also issues apprenticeship certificates.

Also under the same ministry, through its Department of Technical Education and Training, are 38 technical colleges. The Ministry has also other divisions responsible for youth development, small business development, infrastructure, and skills development. It also houses institutes offering vocational programmes which are not NVQ programmes.

NVQs at levels 1 – 4 are primarily offered through the public training centres under the Vocational Training Authority. NVQs at levels 5 and 6 are offered by 9 Colleges of Technology, which, as mentioned above, fall under the Department of Technical Education and Training, which is also under the Ministry of Youth Affairs and Skills Development. There is a process to establish university colleges, under the same department, as well as more Advanced Technological Institutes—there are currently 12—under a different ministry, the Ministry of Higher Education. NVQs at level 7, the highest level, are offered through the University of Vocational Technology, which was also recently established, and has developed and expanded.

The NVQs are supposed to be the standards against which all provision takes place. The first 45 standards were developed by the National Institute of Teacher Education, which is now the Faculty of Training Technology in the University of Vocational Technology. Standards are now developed by the Technical and Vocational Education Commission, except for apprenticeships, in which case the National Apprenticeships and Industrial Training Authority develops standards through sector specific committees. Standards are then endorsed by the Technical and Vocational Education Commission. The original standards, developed through grant funding, have not been revised. Some have not been used, but numbers were not available. For level 7 the University of Vocational Technology develops the standards and the associated curriculum for the programmes that it offers.

A third ministry with some role to play is the Ministry of Higher Education. The Ministry of Labour does not seem to have a major role, although it does run some training programmes.

The NVQF can be seen as intended to create coherence in three main ways. One is by having levels on the framework, so that different qualifications can be placed on the appropriate level. In this regard, there are some provisions for benchmarking qualifications, and therefore some, although limited, progress in terms of relating different qualifications (non-NVQ qualifications) to the framework. The second is by having competence-based TVET qualifications which, it is hoped, all TVET provision will happen against. This has happened to some extent, predominantly in the main public network of TVET providers, and mainly at levels 1 to 4 of the framework. Standards developed are accompanied by specified curricula and other centrally developed prescriptions. The third way in which the framework is intended to build coherence is by a system of provider registration and accreditation against the competence-based qualifications. This has been implemented to some extent, although primarily for qualifications at levels 1 to 4. While registration with a statutory agency-the Tertiary and Vocational Education Commission-is a requirement, in the new National Human Resources Employment Policy, the government has recognised the need to improve quality assurance systems for training organizations. And, as noted above, the bulk of provision happens through the training centres which are directly under the Vocational Training Authority.

What currently exists in Sri Lanka, then, is a framework of seven levels, containing a set of qualifications that a fair amount of (mainly public) TVET provision now relates to, with some mechanisms for 'benchmarking' non-NVQ qualifications against the framework. The 7-level national vocational framework runs from national certificates which designate 'entry level competences' at level 1, to Bachelor's degrees at level 7, although these are limited to the degrees issued by the University of Vocational Technology, and not those issued by the other public universities. This system of qualifications, with accompanying assessment and quality assurance, enables individuals to get government-endorsed TVET certificates.

As in many countries, the reforms which introduced the NQF also introduced a new qualifications and curriculum model and institutional reform, as it attempted to create a single set of agencies overseeing TVET. And, as in many countries, it is hard to separate cause and effect, and estimate how much the qualification model *per se* has influenced things. *Unlike* many countries, Sri Lanka has strongly supported the provision of TVET, and has built, developed, and supported public provision at all levels. This continues, and is a major factor influencing the nature of the system; the other key factor currently is a rapidly growing economy.

The Ministry of Education is in the process of developing a comprehensive national qualifications framework, into which the NVQF should be incorporated. It is envisaged that when a ten level comprehensive national qualifications framework for Sri Lanka is developed, level 7 of the vocational framework will become level 5 on the national framework. Currently providers can offer their own certificate, and there is no guideline or regulation about minimum requirements for certificates and diplomas. The hope is that the NQF will lead to more stringent control and regulation of qualifications in general.

Some broader contextual factors are important to point out. Sri Lanka has a very high literacy rate, and a strong school system. In the past economic growth was weak, and educational provision relatively strong. Many school leavers did not have the possibility of entering the free but highly selective higher education system. Public provision of TVET gave some competitive edge to such individuals in a selective labour market, and government therefore focussed on creating and supporting provision since the mid-1990s, through the Vocational Training Authority, the largest and most prominent provider of TVET in Sri Lanka (ibid). This informed the government drive to reform and support TVET in the 1990s, at times against the advice and support of donors. More recently the system has continued to grow substantially, and government has continued to create more institutions and enrol more students, in a new economic context of a strong economic growth—7.3 per cent in 2013, and with low unemployment, at 4.3 per cent.

Tunisia

Whilst Tunisia officially has a qualifications framework, very little progress has been made towards implementing it, and there is very weak involvement of key government role players as well as social partners.

Tunisia is a middle-income country, with a population of just under 11 million, with a GDP per capita of USD 4 317 in 2013 according to the International Monetary Fund (USD 10 998 GDP per capita PPP). In 2011, a revolution resulted in the overthrow of the government, and a new democratic system has been in the process of being consolidated since then, with parliamentary and presidential elections held in 2014.

Officially established in 2009 after a design process starting in 2007, the national classification of qualifications (NCQ) in Tunisia is a framework that links the diplomas issued by the various institutions involved in training and education to corresponding qualifications levels. It includes seven levels of complexity with six descriptors formulated

in terms of learning outcomes, and overarches general education, TVET, and higher education. A major objective was to improve occupational qualifications. It is also intended to strengthen the links between the vocational education and higher education systems and between them and the needs of the economy; moreover it aims at improving the visibility of qualifications for employers, individuals, and vocational and educational institutions.

The national context is one where a country has invested considerably in higher education, with a notable increase in university graduates, who struggle to find the type of employment that they expect. While the economy has developed, it is not growing sufficiently. As in many countries in the world, the education system in Tunisia is criticized by employers for not producing the skills needed by the economy. It is nonetheless still in place and free for all; every year the Tunisian education and vocational training system produces professionals that are employed outside the country, especially in Europe and Arabic countries. Emigration has become the only viable solution for many young Tunisians to avoid unemployment or the downgrading of their educational achievements as the only jobs available are poorly paid and with very little career opportunities. In this context, labour migration has become a policy endorsed by the state.

The framework was conceived of as a classification of qualifications, based on previous classifications. The focus was on rationalizing and improving the existing occupational classifications through level descriptors and learning outcomes, rather than developing new qualifications. It was hoped that it would have a regulatory role in the labour market. In Tunisian labour law and collective agreements qualifications are linked to education and training programmes and related to employment levels. The NCQ added descriptors to existing qualifications, without requiring a redesign of qualifications. The outcome-based descriptors are supposed to be used across the economy in processes of recruitment, promotion, and remuneration. However, the extent to which this actually happens in the labour market is unclear, but seems likely to be limited, based on the limited progress in creating the framework itself. There is also disagreement about the role and implementation of the outcomes-based approach from the side of educational providers. Due to the centralization of the system, no training provider has the authority to change training programmes.

The highest body responsible for the framework, the Council for Human Resource Development, which was set up in 2002 as an advisory body on education and is supposed to meet once a year, has not met since February 2010.

Directly in charge of the qualifications framework is a national commission, situated under this council. Created in November 2010, the Commission was dissolved soon after the revolution in January 2011 because its members were seen as belonging to the previous regime. Subsequently, a new commission was instituted on the 25th September 2012; it only sat once, on the 6th of November 2012. It has a reduced role, with a focus on registering existing qualifications, as opposed to developing new ones. Even this new role has been the subject of contention, and requires legislative amendments, which has not yet happened.

The revolution of January 2011 is a direct and indirect factor in the delays, both in terms of the general instability which followed, as well as increased unemployment, and the prioritization of other more pressing political matters, changes within employer organizations and trade unions, and changes in critical positions in the ministries involved. There has also been disagreement internal to the Commission, as in 2012 the Minister of Vocational Training and Employment wanted the Commission to classify old diplomas not included in the 2008 framework, but some members of the Commission challenged this as it was not specified in the decree which established it. Nothing came of the single meeting the Commission held but a request to the Minister to change the law if the old diplomas had to be classified in the framework.

Nonetheless some reform of the vocational education system has taken place, and some of it seems to be broadly in the same direction as the qualifications framework. TVET providers have consulted stakeholders and partners, extending a competence-based system that was introduced in 1996. The content of training is, in theory, drawn in partnership between the employers' organizations and the Ministry of Vocational Training and Employment. Partners are supposed to start from an analysis of the work situation, proceed with the development of a standard for the given job type and develop training programmes that produce the skills indicated as relevant. However, these partnerships seem not to be well-established, and the relationship between the setting standards process and the quality of training is unclear. In most cases the partnerships seem to function when supported by external donors which require them in order to invest, for instance in the restructuring of training centres. The process is uneven as the functioning of the partnerships relies on the knowledge and autonomy of the directors of training centres, which vary considerably. Similarly, quality of provision varies considerably, even when the standards are in place. Sectoral organizations led by employers in five sectors have developed occupational standards, which are intended to act as the basis for training providers to develop qualifications and curricula (ETF and Cedefop, 2015). These sectors are electrics and electronics, tourism, construction and public works, construction materials industry, fishery and agriculture. The standards seemed not to be used at the time this research was conducted.

Quality assurance is seen as important in terms of improving education/work relationships, but it appears that most initiatives have remained at the experimental stage before being abandoned and others have still not received sufficient support and operationalization measures.

The inability of government and of the economy to create jobs seems to be the key driving factor behind the creation of the qualifications framework. The Tunisian state is battling against dramatically high rates of youth unemployment, including significantly high levels of graduate unemployment. Thus, employment creation is a focus of government. In the vocational education sector, there is a plurality of institutions and stakeholders, and a general view that relationships between education and training provision and the needs of workplaces remain weak. TVET remains isolated from the rest of the education system, and is very small, with a fraction of the budget allocated to the rest of the education system. There is a new initiative between the Ministry of Higher Eduation and the Ministry of Vocational Training and Employment to work on better articulation, and a TVET Reform Strategy adopted in November 2013 states the need to align the CNQ with the new human resource development vision of the country.

Some comparative comments on the frameworks

Scope - a focus on TVET

Three of the frameworks in the study are focused on technical and vocational education, and to some degree lower level professional education. Two, Ireland and Tunisia, are comprehensive frameworks, and the framework in France is intended to include all education and training except the school system. All countries in the study intend to create comprehensive national or regional qualifications frameworks. In all countries, including those which already have national comprensive frameworks, what stands out is concern with TVET qualifications, a desire to reform them, and a desire to improve their quality and raise their status. In all countries the approach to developing qualifications at lower levels was different to higher-level qualifications, with a greater emphasis on competence-statements for lower level and vocational qualifications. Even where comprehensive frameworks exist this is an issue within them, and in all countries was a factor in difficult relationships between TVET and higher education, as the latter typically does not use competency-based models.

Comprehensive national qualifications frameworks in Belize, Jamaica, and Sri Lanka were at a very early stage, and are not commented on in this report, except to point out here that there are likely to be various tensions between the existing vocational frameworks and the impending national frameworks, as there are different numbers of levels, the levels seem to have different meanings, and there are different approaches to qualifications at different levels.

Role

At its most simple, a qualifications framework is an attempt to classify, or provide a classification system for, the qualifications system of a given country or educational sector within a country (Misko, 2015). At its most ambitious, qualifications frameworks are intended as instruments to reform the delivery, curriculum, pedagogy, and assessment of an education system, as well as the use of qualifications in labour markets. Researchers have suggested various typologies with which to categorize and analyze qualifications frameworks (for example, Allais, 2007; Raffe, 2003, 2009; Tuck, Hart, & Keevy, 2004; Young, 2005). The 2010 ILO study built on these, and suggested separating out three of the most key objectives of qualifications frameworks. The study proposed three types of frameworks (where *types* is used for analytic purposes) focusing on the key intended nature of changes involved in the implementation of the qualifications framework. The types are:

- 1. A single nationally accepted framework of qualifications in which relationships between existing qualifications are made explicit;
- 2. A device or set of rules and regulations which make the relationships between occupational entry regulations and educational qualifications more explicit; and
- 3. An attempt to use independently specified outcomes to drive a range of different educational reforms including translating labour market requirements into education products.

In the 2010 ILO study the development of a single nationally accepted framework of qualifications was seen as a work in progress—constantly under change and redevelopment—in all the countries examined. The findings of the current study are no different. The French National Register for Professional Certifications seems closest to this way of understanding a framework for technical and vocational education, but universities have in the main yet to get their qualifications added to it.

Ireland can also be seen as having achieved buy-in to a national framework that shows the relationships between all qualifications on offer in the country. The framework represents the full spectrum of education and training in Ireland, and has a prominence in the education landscape. However, the system has not been without difficulties, and recent changes in the institutional landscape are seen to have, to some extent, undermined trust that had been built up in previous awarding bodies. This will take some time to re-establish. This reveals an interesting irony of the attempt to create a single nationally understood framework: the process of creating a single framework inevitably disrupts some of the trust and understanding that exists for specific qualifications, and in this sense the current arrangements could be seen as a (perhaps necessary) backwards step in terms of creating a nationally understood qualifications system. It was hoped that the new system would overcome some of the challenges of the old, and reduce fragmentation and division in the system. The case study on Ireland also showed limited employer awareness and understanding of the framework itself, and suggests that a multiplicity of rules and lack of flexibility has created problems in implementation at points.

Generally interviewees in Ireland concured that most people could not comment on the framework, but that there is awareness of the level of different programmes. Many interviewees emphasized that, "that's the currency (levels) though the type of award is less clear." That is, people know that a qualification is on a particular level on the NQF but they are uncertain about the types of awards (whether it is a major or minor award etc). This observation was said to be true of both learners and employers. A number of interviewees affirmed this view and comment that the challenge is that the system is too complicated, "minor, major *et cetera*, from where I sit—it's too complicated and people get put off by complexity" and another interviewee commented that, "the complexity of language, it's too much".

In Ireland it seems that through the Further Education and Training Awards Council (FETAC), a previous award body subsequently replaced, there was increased recognition of the programmes that were offered in the vocational and education and training sector. However, there have continued to be concerns that the different components of the education and training system are not yet aligned and interviewees suggest that the new Quality and Qualifications Ireland, as an integrated structure, will assist to address these challenges. However this has in turn created new requirements and interviewees observe that whilst there had been an understanding of the FETAC qualifications there is now uncertainty about the status of the different types of awards. Quality and Qualifications Ireland has placed considerable emphasis on its communication strategy and has embarked on an extensive process of engaging stakeholders. However the extent to which these changes can transform the way in which the TVET sector is perceived and particularly given the economic challenges and the policy emphasis on young people attaining higher education, as discussed in the following chapter.

In Belize and Jamaica, and to a lesser extent in Sri Lanka, the frameworks of National Vocational Qualifications could be seen as a set of the main national TVET qualifications on offer. In Sri Lanka one of primary purposes of the NVQs is to ensure that the multiple technical and vocational education and training programmes and certificates relate to each other such that learners, the public, and providers within Sri Lanka can understand them. An interviewee from the Ministry of Youth Affairs and Skills Development stated that the system has allowed many non-NVQ courses to be mapped onto the NVQ, and another interviewee from the Ministry observed that, "there are so many students that have benefitted though this process." Another interviewee from this Ministry stated that, "we have been able to establish a unified qualification framework and achieved one of the main objectives of this framework." However, in all three countries, but perhaps most in Sri Lanka, there is still a fair amount of TVET provision outside of the framework, and the governments recognise that the frameworks are works in progress.

Clearly, as the first study pointed out, creating a single nationally understood framework is not as easy as it may seem. When a country has a large amount of different types of qualifications on offer, relating them to each other can be very complex. Qualifications frameworks generally attempt to do it by allocating qualifications to levels on a grid.

Level descriptors which attempt to capture the essence of the kinds of knowledge, skills, and abilities required in general at each level of a qualifications framework is one way in which frameworks try to relate all qualifications in a country to each other. In the previous study there were some countries which viewed frameworks as primarily grids of level descriptors on which existing qualifications can be organized, and through which existing qualifications can be understood. Level descriptors were also seen as the base for the development of new qualifications. The role of level descriptors did not emerge strongly in any of the countries of the current study. In Sri Lanka, as mentioned above, there is some provision for benchmarking non-NVQs against the NVQ levels, but this has been limited, and it is not clear to what extent level descriptors are even used in this process. In the Caribbean the emphasis is more on the development of individual qualifications than using levels to compare qualifications. In France the levels were developed very pragmatically, and somewhat in a circular manner, looking at the

qualifications which were generally required at particular levels of the workforce, and there are no descriptors *per se*. In Ireland there are level descriptors, but they did not stand out as a major or particularly significant feature of the system.

Two issues must be noted in this regard, which are discussed in some of the critical literature on qualifications frameworks, but which can also be seen in the current case studies. Firstly, the definitions and meanings of levels are contested, as is allocation of qualifications to levels. Research conducted by the former qualifications authority in Ireland, for example, confirmed that there was contestation about what it meant when a qualification was allocated to a level, and the extent to which qualifications on the same level could and should be regarded as equivalent to each other. Secondly, even when qualifications are allocated to levels, it is not clear to what excent this actually clarifies relationships between qualifications. For example, if qualifications a, b, and c are all on level x of the framework, but on obtaining them learners can only enrol for qualifications e, f, and g respectively, then the 'sameness' that is achieved is limited. On the other hand, more substantive ways of achieving some degree of 'sameness' do exist-such as through compulsory general education components and broad theoretical components. The French system offers an example of both the problem and solution here: three baccalaureates are available, which are formally equivalent. They don't lead to the same routes, and therefore this formal equivalence can be questioned. To the extent that the equivalence has meaning, it has been achieved by ensuring that the curricula of all qualifications are substantive and include general education and theoretical knowledge.

A second way of understanding the introduction of a qualifications framework is as an attempt to make the relationships between occupational entry regulations and educational qualifications more explicit. In countries which have widely used occupational classifications governing the entrance to occupations and with linkages to conditions of employment and collective bargaining, this may be easier to achieve. And achieving this single goal is relatively simpler than qualifications frameworks which try to reform all aspects of an education and training system. It can nonetheless lead to complexity and contestation, as two very different systems of classification have to be brought together, with, inevitably, "many vested interests ... at work" (Bouder, 2003, p. 355). The French system is, to a large extent, an example of a successful framework linking qualification levels with levels of work and pay. It is hoped in Jamaica that the framework could play this role with regard to requirements for work, if not pay, but there is as yet very little evidence that it is the case. The Sri Lankan framework is officially intended to play this type of role in the civil service; again, the extent to which it happens in practice could not be ascertained, but it would obviously only apply to fairly low level civil service jobs, given the nature of the qualifications.

Key to this type of framework is a strongly regulated occupational labour market, and it is this which has historically enabled the French system to relate qualification levels explicitly to levels in the workforce, through regulation or collective bargaining agreements. There is some tradition of this in Tunisia as well, and, as discussed above, the framework was being used as an attempt to shift from the idea of qualification levels to learning outcomes in collective bargaining processes, although we did not find evidence of links with licensing requirements.

In countries where occupations are less regulated, the emphasis on linking education and work tends to rely on the involvement of sectoral organizations or committees of employers to specify learning outcomes and develop occupational standards. Belize, Jamaica, Sri Lanka, Tunisia, and the vocational qualifications within the broader framework in Ireland can all be seen as examples of this approach, which seems often to relate more to the third way of understanding the introduction of qualifications frameworks—an attempt to use independently specified outcomes or competency statements to drive a range of different educational reforms. Although all qualifications frameworks use terms like 'learning outcomes' or 'competencies', in this third approach the development of learning outcomes or competencies is seen as the focus, and the mechanism through which the goals of the qualifications framework will be achieved. It is assumed that learning outcomes or competency-statements can be the basis for curricula to be developed, assessment and quality assurance to be conducted, and certificates awarded. As discussed in the 2010 ILO report, the NVQs in England were the first clear example of an attempt to use a qualifications framework in this manner, and the Australian competency-based training reform of vocational education followed in its footsteps, although the qualifications framework in this country was a much looser arrangement. In both countries the reforms of TVET qualifications attempted to get employers to specify learning outcomes, in order to ensure the relevance of education programmes to work, as well as to support the marketization of the provision of TVET by using outcomes as the benchmark for all education providers, public and private. The most extensive attempt to use this type of qualifications framework to reform an entire education and training system can be seen in the South African NQF, which collapsed and has been completely redesigned (Allais, 2007, 2011a). The 2010 ILO study found other examples of this approach, although all less farreaching than the South African case.

In the current study, some of the frameworks use *some* aspects of the outcomes-based approach. All countries use some notion of learning outcomes or competencies, and the systems in Belize, Jamaica, and Sri Lanka are described as competency-based. Although the NVQ systems in Belize, Jamaica, and Sri Lanka were designed using the British and/or Australian models, there are some significant differences. There does not seem to be a strong separation of learning outcomes from curriculum. Privatization or decentralization of provision does not seem to be a major factor. In all three of these countries, as well as in France, Ireland, and Tunisia, public provision of TVET and further education and training continues to dominate the system. In Sri Lanka in particular, strong state provision has increased substantially since the 1990s, with many new TVET providers being created, a new University of Vocational Technology is being established, and new university colleges planned.

The imperative to get industry to lead the processes of designing competence statements or occupational standards, in order to obtain industry-specified standards which are not linked to specific educational institutions and their specific curricula, is limited in Belize, Jamaica, and Tunisia. In the main standards and curricula are developed by TVET regulatory authorities, with some consultation with employers in some sectors. In France occupational standards are important, but are not seen as dictating curricula. Assessment and certification are centralized in Belize, Jamaica, and Sri Lanka. This seems appropriate, especially where there is considerable public provision and where populations are small, as it places less weight on the regulatory and evaluatory capacity of government.

It is also perhaps important to note that to the countries in this study which officially describe their systems as competency-based mainly use this approach for the lower level qualifications. More detailed analysis of curriculum design practices and the actual delivery and assessment of education and training would be needed to ascertain the ways in which competence statements, occupational standards, and learning outcomes actually relate to provision.

Institutional complexity

There were some instances that seemed to indicate the introduction of unnecessary organizational and systemic complexity. For example, a very small country like Belize needed to develop a National Council for Technical and Vocational Education, although it has a small public provision system; it does not seem to have been able to effectively fund this council or make it really operational. Jamaica has the slightly unusual situation whereby the same institution, albeit through different arms, plays the role of coordinating provision and accrediting provision. This is reminiscent of what the 2010 ILO study found in relation to Mauritius, where the public body which organized TVET provision was

playing the role of accrediting private providers. Both systems suggest that it may not be practical for governments to treat public and private providers in the same way. Another example of a conflict between the 'pure' policy vision and the reality in a country can be seen in Sri Lanka, where, as in most education systems, time-based qualifications contradict the logic of competency-based approaches, which are supposed to be neutral to time taken to learn. As credit systems all have, at their core, some notion of learning time, some competency-based systems have attempted to reconcile the notion of learning time within their curriculum development guidelines.

Evolution

The extent to which qualifications frameworks have emerged organically and developed over time is also an important factor. The French system, like the Scottish one in the previous study, can be seen as a set of reforms of the use and organization of qualifications starting in the mid-1960s. The system is a highly evolutionary one: what exists on paper now is the result of progressive progress over time (Bouder & Kirsch, 2007). The implication of Bouder and Kirsch's argument is that the success of the system rests not so much on having the perfect qualification systems or perfect occupational standards, but on having a somewhat instrumental or pragmatic approach that has been developed through collective support and understanding, and is constantly being questioned and adapted; a formalization of practice, more than any claim to 'scientific' reasoning, through, for example, level descriptors. As such, the system is well understood, with buy-in from most important stakeholders.

Social partners

All qualifications frameworks involve elements such as new mechanisms for industry engagement and reformed quality assurance arrangements, regardless of the curriculum model being deployed, and such arrangements can play a role in bringing social partners together.

Status

In all the countries in this study qualifications frameworks have legal status. In all countries the framework was introduced with and through the creation of new institutions, and in some cases existing institutions were given new roles.

Chapter 5: Evidence of labour market impact

As expected, countries had little readily available data providing evidence of the impact or lack thereof of occupational standards, outcomes or competence-based qualifications, or qualifications frameworks in terms of labour market outcomes. Very little information was found by researchers about monitoring and evaluation systems in place to measure achievement of the aims and objectives of qualifications frameworks in the study. We attempted to source quantitative data pertaining to graduate numbers by qualification level, employment of graduates, occupational area and incomes, labour mobility, level of productivity/quality of work, job security, and access to training. Almost none of this, except for graduate numbers, could be obtained. There was also little quantitative data on how employer knowledge of qualifications frameworks affects recruitment practices and employment terms and conditions. In Belize, Sri Lanka, and Tunisia, no quantitative information or reviews were available. A few tracer studies were found in Jamaica, from which some analysis could be extrapolated.

Through interviews we were able to gain some qualitative insights, and the discussion below is mainly based on this. There were areas in which countries had achieved some success in terms of improving the delivery of training in areas required by employers, and some of these are discussed below, although the extent to which the qualification design and framework was a major issue is unclear in most cases. In the four poorer countries in this study, the most that could be said to be effectively in place in the countries is a set of competency-based standards or qualifications that enjoy some degree of national recognition. There was little clear evidence that employer involvement improved responsiveness and relevance although the lack of data needs to be acknowledged, and efforts to involve employers in developing occupational standards and to be involved in the assessment of workplace training similarly reflect evolving approaches.

Below we present an overview of what we found about direct labour market impact of the qualifications framework in each of the countries. This is followed by some of the related issues which stood out in the research, and which may be of interest to policy makers attempting to implement qualifications frameworks and to researchers attempting to understand what is happening in different countries. The issues presented are not reflections of findings against clear indicators, but rather of insights obtained which seemed to cluster around specific areas of concern related either directly to qualifications frameworks or to the goals of such frameworks.

Overview: France

In France qualification levels have the clearest role in occupational labour market of all the countries in this study. There is a close relationship to the number of years of training and the names of the diplomas conferred by the Ministry of Education. While the individuals interviewed within the French system, who were clearly in support of it, did not have specific empirical evidence of labour market impact, the system does seem to be effective in the sense that training levels are embedded in occupational labour market relations and understood and accepted collectively. The system is seen to work better in large companies located in sectors where social dialogue is strong and the *Commission Paritaire Nationale Emploi Formation*, sets qualifications needed in the sector. These sectors include metal, auto-motive repairs, chemicals, and to a lesser extend hospitality.

The approach to the development of occupational standards in France is described as somewhat instrumental as opposed to scientific, with the emphasis being on discussion amongst partners. This reinforces findings of previous research, that a major potential contribution of qualifications frameworks is the creation of social dialogue. Occupational standards are linked to occupational fields as opposed to specific jobs. The idea is not to create a narrow description of the tasks undertaken by a novice, but to identify the wider professional domain, taking into account processes of adaptation to the job and professional integration (Bouyx, 1997). The development of standards gradually spread to all vocational qualifications. France also has a tradition of centralized curricula.

Training has always been compulsory at the level of the workplace and employers have to finance it in a manner that varies on the basis of the size of the enterprise and the number of employees.

Another contributing factor to strong relationships in France, and a degree of acceptance of the relationship between qualifications and levels of work, is a long tradition starting in 1965, and a series of reforms which brought different stakeholders on board. France has a long history of labour organization and social dialogue. The qualifications system was developed and used by social partners, valued and accepted over time. In this sense there are some similarities to how the Scottish system was characterized in the previous ILO study—in terms of incrementalism—although there is a clear difference, in terms of an explicit relationship with work that was absent in Scotland. There are, of course, problems in France, particularly caused by high and growing unemployment. Policy makers are attempting to counteract this with a focus on training, attempts to reduce the cost of hiring, and reductions of employers' contributions to social security. The introduction and gradual increase of short-term less protected work contracts may contribute in the long term to undermining the relationships which exist between education and work. The consequences of the 2002 reform are difficult to identify.

Overview: the Caribbean countries

In most of the Caribbean countries the extent to which the qualification system is enabling individuals to access the labour market, or that it affects wages and/or performance in the workplace, is not clear. Jamaica is the most advanced, and one of the few countries that conduct tracer studies, albeit with small samples. The majority of interviewees in Jamaica felt that the framework added value, and there were good relationships in certain instances, particularly in terms of employer involvement at the level of boards and councils, as well as in certain areas in the development of curriculum and standards. The qualification system could be seen to be playing some positive role, although it also seemed to introduce a fair amount of complexity which did not always appear necessary. In Jamaica HEART stated that approximately 65 per cent of their graduates are employed by industry. In Belize the employer interviewee suggested that whilst they value the engagement that they have with the TVET institutions, they have not yet moved to a point where employers accept all of the qualifications that are on the NVQ. Employers also cite lack of skills as a difficulty in filling positions, and import skilled workers in some instances. Some clear examples were found of programmes with good labour market outcomes outside of the NVQ system. For example, in Belize the Tourism Board has a strong focus on ensuring that industry has the requisite human resources in place and in some cases, such as tour guides, they have developed 'license to practice' systems linked to identified training programmes that have been developed with active involvement of the board, providers, and international partners, but which are not part of the NVQs.

Feedback from employers obtained by HEART showed a mean of 2.98 on a scale where 4 was the highest rating. Performance ratings were varied according to the skill or occupational area of the workers. Graduates who were employed in computer operations, and skill trades such as auto mechanics, plumbing, carpentry, etc. received the highest performance ratings by their employers (3.4 and 3.1 respectively, out of 4). The duration and level of the programmes was highlighted as a concern, with most interviewees recognizing that there are too many programmes offered for a relatively short duration and at lower levels of the framework. The findings suggest that employers do not consistently value these NVQs with many preferring to use alternate requirements such as the number of

Caribbean examinations council (CXC) subjects, workplace experience or local employment.

Overview: Ireland

The public sector employer interviewees in Ireland stated that they have found the framework useful in making their decisions regarding recruitment. Interviewees indicated that they had found it difficult to navigate the wide range of qualifications, particularly at the lower levels, and now that this wide range of qualifications was on a single framework it is easier for them to understand the level of the qualification and what may be required for particular jobs. A study conducted in 2009 by the then Qualifications Authority suggested that the framework was playing a role in creating understanding across the qualification system, as well as trust, and stability across the education and training system and had considerable potential to be used in recruitment, in developing career pathways, in planning work-based learning and training and in recognising transferable skills. In general there was limited direct employer involvement in the processes of qualifications development. An employer interviewee observed that he did not think the National Qualifications Framework was well marketed or branded, observing that, "if you were to survey Irish enterprise and ask them what the NQF is-they wouldn't know. Those on the inside can get into it because we are constantly seeing it, because we go looking for it, but most guys in forms don't have a clue".

A review of the apprenticeship system in Ireland undertaken in 2013 found that further education and training (FET) programmes are weak in terms of helping people to access employment. The report acknowledged a rapid increase in higher education levels and unemployment rates, and suggested that workers both in and out of employment had low skills. This is surprising given the very high education levels in Ireland, although this is admittedly a recent phenomenon. Recent reforms, in particular the reorganization of provision of further education and training as well as the creation of a new body for funding and coordinating provision, were hoped to solve low skill levels, but the reforms are too recent to really evaluate. Ireland seems to have developed a reasonably successful approach to analyzing labour market requirements at a national level and ensuring that education provision meets these, through a structure called the Expert Group of Future Skills Needs, which is comprised of representatives of business, employees, education, government departments, and state agencies, and advises the Irish Government on skills needs and labour market issues that impact on enterprise and employment growth.

Overview: Sri Lanka

From the limited sample of employers interviewed in Sri Lanka there was evidence of limited recognition and acceptance of the NVQs from the private sector. There are small pockets of involvement from employers in the qualification system, and employer representation on official structures. There is official recognition in the public sector through an official requirement for the public administration to hire NVQ graduates and to link their employment level and conditions of service to particular qualification levels, although given that this is a recent initiative, concrete information about how this has actually affected hiring practices was not available. As mentioned above, what is also clear in Sri Lanka is that TVET has been dramatically expanded, and it appears quality improved to some extent, through extensive public intervention in provision; this looks set to continue, particularly at higher levels.

There was a feeling from the interviewees in Sri Lanka that despite the implementation of a competency-based system the right qualifications were still not being generated. One interviewee observed that there are challenges with respect to the investigation of demand and indicated that, "students have difficulty in finding [work] opportunities. We are not matching. We produce the wrong results—we train people who are qualified in areas not required". This perspective was further evidenced by the myriad

of concerns that were raised pertaining to occupations—particularly non-engineering trades—for which there are no NVQs in place, such as retail skills, visual merchandising, and salesmanship. Some employers state that they would like NVQs to be put in place for these occupations to enable the programmes that they run to be recognized formally. They argue that this would increase the status of the work and may assist them to encourage individuals to take up these jobs.

Overview: Tunisia

Progress towards the implementation of a framework in Tunisia has been very slow over the past five years, and as such it was not possible to even attempt to look for impact in most instances. In general there was very limited awareness of the qualifications framework's existance, not only from employers and workers but even from government officials who are nominally involved in its implementation. There do seem to be some developments with regard to the implementation of a competency-based approach in the TVET system, and this is briefly discussed where appropriate.

In Tunisia, like France, there are relationships between qualifications and the labour market, although we could not establish exactly how extensive they are in practice. Policy makers hoped that the qualifications framework would restructure and strengthen these relationships: the outcomes were supposed to be used across the economy in processes of recruitment, promotion, and remuneration. This has not yet happened. A Tunisian expert interviewed argued as follows about the design of the framework:

Labour law and collective agreements establish a direct link between level of education and qualifications. That is such a diploma corresponds to such a job and thus to a particular salary. On paper, the current classification nationale des qualifications (CNQ) through outcomes-based descriptors should give employers a signal on the employee's skills independently from the diploma. Nevertheless the fact that the third column refers to the diploma/degree means that the whole table is still anchored to the education system. How can we ensure that this diploma corresponds to the skills included in the descriptors of a particular level? The reading of the table is made more complex by the fact that being Arabic writing from right to left, you could read the CNQ table both ways; if the employer reads the table from right to left is to say, degree towards levels, this is gives a wrong signal on the implementation of the CNQ. This happens in the context of an education and training system characterized by a massification of diplomas and graduates who, especially according to business do not meet the needs of the market; if the CNQ is meant to bring together the needs of the market to the employees' skills it is actually failing to do so.

According to one of the Tunisian experts interviwed, the implementation of the outcomes-based approach is fraught with difficulties due to: (i) low involvement of business in the identification of needs in terms of qualifications and in terms of skills; (ii) a lack of supervision and guidance of trainers and training centres; (iii) the non-allocation of resources to either create an environment similar to the workplace, in terms of equipment and facilities, or alternatively to have direct access to various professional environments; and (vi) the absence of pedagogical control, i.e. control over the teaching process by educators.

Despite the lack of progress in implementing the qualifications framework, some employers support it in principle, particularly in the hospitality sector, where employers believe that the qualifications framework could enhance skills level in the sector; they would hope that as a consequence, foreign multinational chains would be thus encouraged to invest in Tunisian tourism infrastructure. Employers in the hospitality sector, particularly from tourism, have been particularly active in the process that led to the design of the national classification of qualifications and continue to support the system; their involvement was initiated in the context of a European Training Foundation project. Moreover, representatives of employers in the sector have raised concerns about the poor interest young Tunisians show in vocational education paths in general and in vocational paths related to tourism in particular. They expect the qualifications framework to uplift the social status attached to jobs in this sector and to vocational paths more generally. When asked how a framework could uplift the vocational education system they explained that it would provide clarity to pupils and employers, but would also give pupils the idea that what they enrol in is also easily understood abroad or even in Tunisia but by foreign investors; in this way, according to them, the national vocational education system could become more appealing. Nevertheless, and beyond the enhanced legibility of TVET qualifications due to the qualifications framework, looking at the structure of the Tunisian economy and at the size of most industries—predominantly small and medium enterprises working as subcontractors in low value-added productions and with weak recruitment rates—as well as possible career paths in tourism, an industry characterized by intrinsic scarcity of social mobility opportunities, the choice of most young Tunisian not to embark in vocational training, especially in this sector, does not appear irrational.

Relevance of curricula and qualifications and the role of social partners

One of the original aims of competency-based training was to improve the relevance of TVET qualifications. However, in all countries systems to develop and update competence statements were problematic. In Sri Lanka, for example, the standards developed through donor support in the early development of the framework have never been revised, and remain in place. Also, while interviewees suggest that there are no unused qualifications, graduation data suggests that only about half of the Sri Lankan NVQs have awards made against them. It may be the case that broader qualifications, together with ongoing relationships between employers and providers, may be more effective in building curriculum responsiveness.

Qualifications frameworks are seen by policy makers as ways of improving the involvement of social partners in TVET, and involvement of social partners is seen as key to improving the relevance of qualifications and curricula. But this involvement seemed to be weak in most cases, with a partial exception of France. Where there is social partner involvement it is mainly at the level of institutional boards—whether of large public providers or authorities. In this more generic level—on councils, boards, and so on—they may represent a general voice of employers, but would not be able to input the specific requirements of workplaces or sectors. There was limited specific sectoral expertise obtained from industry roleplayers in the design of standards. Where there was involvement, in all cases employer involvement was stronger than trade union involvement, the latter was almost non-existent in most cases.

Most of the countries have structures that attempt to bring various stakeholders together. For example, Tunisia has a High Council for Human Resource Development, which has an advisory role, and brings together ministries responsible for education and training and social partners. This is supposed to take place once a year. Like the employers cited above, the Tunisian General Workers' Union is hopeful about implementation of the qualifications framework, as they see it as a step towards recognition of prior learning (RPL), which they hope could enhance qualifications levels especially for older workers who entered the labour market before the reform of education. However, in general unions in particular either felt excluded from the systems, or had not been drawn into them directly. In many cases unions felt unable to participate in TVET or qualification reforms because of the more immediate and pressing challenges they faced, for example with wages (Sri Lanka) or addressing retrenchment (Ireland). This echoes the findings of the previous ILO report. One of the case studies argues that there is a need to be realistic about the level of stakeholder involvement that is possible. Employers and unions will typically only choose to engage the system where it directly affects their needs; while there can be consultation on broad policy this must be structured in a manner that takes into account what capacity exists to engage in this, and then deliberate, and short processes need to be

put in place where there is a need for employers and unions to comment on specific qualifications.

In Jamaica employers are active members of the HEART board, and employer representatives interviewed suggested they play a key role in steering the direction of this institution. The positive relationship that HEART has with employers was evidenced by the fact that HEART was given the "Business Leader Award" for being the public body most responsive to the needs of industry in the week in which the research took place. This is an award adjudicated by employer representatives. An interviewee from the Jamaican Employer Federation explained that this award recognizes that where they need a new training in an area they are able to work with HEART to determine how this need can be addressed. Other employers confirmed the responsiveness of HEART suggesting that they believe that HEART attempts to meet their needs, although the interviewees indicate that there are varying levels of success in this regard. HEART's own research suggested employer concerns that graduates were 'inadequately prepared' (22 per cent) and that the HEART Trust was 'too slow' in responding to employers' requests (24 per cent).

HEART maintains the responsibility for coordinating the qualification and curriculum development teams and they request employers to provide representation on these teams. The extent to which this takes place is reportedly (by interviewees) uneven with some examples, such as cosmetology and construction, where the associations drive the process very actively and the industry appears to take ownership for the qualifications, whilst in other cases the industry informs its members of the process but there is little follow up and interviewees were uncertain of the level of involvement.

This role was not confined to the process of creating qualifications and standards, but extended to curriculum development. Interviewees indicate that this process ensures a consistent standard is maintained whilst enabling them to be more responsive to the needs of industry. With respect to the latter they explain that it is possible for them to work with industry to generate new qualifications in a short space of time. An interviewee from HEART indicates that it can take six months to develop the new qualification and curriculum in response to a request, and then a further three months to develop the learning materials. They also state that this process supports the improved quality of provision.

Employers also participate in the National Council on Technical Vocational Education and Training, and are encouraged to play an active role on standard generating, however, as discussed below, this is achieved to a greater or lesser extent depending on the industry.

The other area of involvement relates to directing funds. One representative of employers in Jamaica observed that whilst they sit on the board, and are broadly happy with what HEART does, there are some members that feel that they should direct the funding more. Another employer interviewee commented that the HEART Trust is perceived as a tax and their members don't have any influence over the decisions about how it is spent, rather this is a government decision entirely. Of interest is that the interviewee suggested that this is not a concern for employers as the system has been in place for so long that they simply accept it.

In Belize the NVQs were not directly developed with employers in Belize, given that many of them were purchased, together with curricula, from HEART, as well as some from from Australia. However, there was some employer engagement in the review of these qualifications and curricula conducted by the Employment Training and Education Services within the Ministry of Education and Sports. The qualifications then became the basis of the NVQs in Belize. Where new programmes are required by industry the Ministry works with industry to develop these through the National Council on Technical and Vocational Education and Training (NCTVET-Belize). Interviewees from these institutions indicate that the NVQs have provided a framework for this development work and they suggest that this has enhanced the quality of these programmes. Sri Lanka has a National Employer Federation. There is some involvement of both employers and unions in education and training debates and policies at a very broad level, as well as involvement through sectoral committees of the National Apprenticeships and Industrial Training Authority. Although it is described as employer-driven, this role seems much more limited in practice. The Employer Federation indicated that they don't have a direct involvement in the training, though they respond to requests made by the Tertiary and Vocational Education Commission (TVEC) including assisting to disseminate the message of the NVQ to industry. They indicate that there is a real challenge in this regard as the standards have been developed, "but the social marketing is very poor so TVEC has all these standards but no one knows they have been developed". An interviewee commented that, "the majority of industries don't know about the standards, that's a sorry state. No point in developing standards if you don't sell it. They need a revamp and to have a better marketing strategy, so we have started assisting".

However, in the main employers reflected that there are few employer associations, with the result that successful involvement in NVQ implementation has to be more company based. This engagement at the level of companies does not appear to be taking place, and typically, despite the sectoral committees of the National Apprenticeships and Industrial Training Authority mentioned above, the employers interviewed indicated that there was almost no involvement of companies, and in particular human resource people, in the NVQ processes. Interviewees suggest that as a result there is very little awareness of the NVQ and human resource people do not consider NVQ as a recruitment requirement.

Some interviewees suggested that to address the alignment between supply and demand there is a need to improve the relationship between industry, providers, and the TVEC and in particular to increase the level of involvement that employers have in the NVQ system. These observations suggest that despite efforts to ensure that the structures and processes involve all parties, there are still challenges relating to the extent to which social dialogue is resulting in technical and vocational training is considered relevant.

A few employers indicated that they have approached the TVEC for support but have found that there is no capacity to move into these fields with one employer observing that, "we asked if they had standards we could relate to—but no, nothing. This area has not been touched though it's a fast growing sector in Sri Lanka". The interviewee stated that they had indicated that they could work with TVEC to develop these standards. This concern about the absence of NVQs for certain fields reinforces the points made previously about the absence of NVQs at levels 4 and above, and is reflected in the priorities for further development of the skills sector outlined in the National Human Resource and Employment Policy for Sri Lanka (Sri Lankan Secretariat for Senior Ministers, 2015).

An interviewee that is supporting the development of the NVQ process concurred that the involvement of industry has not been sufficient and stated that in response they are supporting the establishment of industry sector councils. The Ministry is planning to start with four sector councils, including in construction—which is likely to be the first council—hospitality, information and communications technology and light engineering. Interviewees explain that the sector councils are expected to ensure collaboration commenting that, "to grow the TVEC sector we need information from industry and the councils will help with this. It will be an employer body with government assistance". It was indicated that initially they will be established as limited liability companies.

Strong stakeholder involvement in France seems to allow the system to be a fairly pragmatic one through regulation procedures that are jointly constructed between the social actors. This enables stakeholders to jointly construct solutions and manage risks, instead of attempting to do this by codifying everything in government policy.

In Ireland an interviewee from business commented that the process requires an industry body to define a need and to then define the skills requirement, and this enables

them to have a "genuine influence on occupational standards". The same interviewee confirmed the existence of many of the qualifications and a focus on revision rather than new qualifications. They comment that this process—of reviewing existing qualifications— has been valuable in the re-design of the apprenticeship system, as they need to identify relevant qualifications against which they design the apprenticeship. Based on this process, and a joint engagement between employers and providers, it is suggested that they may only need to "tweak" the qualifications.

Another interviewee, from an organization working with employers to enable relevant provision, but not primarily providing training, commented on how they experience the standard development process. The interviewee explained that as an organization the process that they follow is to work with a network of employers who would need to identify where there is a gap and what standard is needed. They would then need a memorandum of understanding with Quality and Qualifications Ireland to allow them to develop this new standard. Once the standard has been developed it gets posted for broader consultation and, "if OK then gets adopted and goes onto common award system".

The interviewee stated that in some cases this works, citing a process that they recently supported, which focused on the development of the supervisor award for the manufacturing sector. He stated that in this case there was a good group of people, the need was driven by government's action plan for jobs and most of the components existed and so the group simply had to bring these together and "add a little." He indicates that they started the process in January and at the point at which this study took place (June of the same year) the standard had been approved already and it was a major award. He further commented that the process was efficiently managed: it relied primarily on email with only a limited number of meetings (four or five half day meetings) in which employers participated. The interviewee commented, however, that in other cases it can be a lengthy process to agree on a new qualification: he indicates that his institution has a funding mechanism that supports new certified programme development where employers have identified a gap and that in some cases they face a challenge as the network has not completed the process within 12 months.

The interviewee observed that the changes to the development process have had some negative consequences: initially a provider had a programme and this would form the basis for the standard. This resulted in "a very niche type of qualification." The interviewee indicated that many of these qualifications "have been squeezed out" of the framework and suggested that the qualifications are increasingly focused on education provision (rather than the workplace) and that as a result in-company training is suffering. This concern relates to both the time required to participate in these new processes, as well as the costs associated with the development process and the process of having their programmes verified against the standard.

Interviewees from Quality and Qualifications Ireland acknowledged that there is sometimes a tension in the development of qualifications and commented that employers will say, "I don't think this is needed." They indicated that there is a debate about how much classroom time is necessary and what the balance should be between developing well rounded individuals with general skills with what employers require, which they suggest is a "healthy pull". Another interviewee (an employer) also indicated that there would also always be a tension with regard as to how fast employers want things done: "business requirements change so quickly and when employers want something they want it tomorrow. Education and its cousin qualification do not work like that".

An interviewee from the employers confirmed this perspective and stated that the process of ensuring the involvement of employers has proven to be a complex process. The interviewee confirmed that whilst employers realize that certain qualifications need to be reviewed and re-validated there are challenges relating to the timing of processes and the extent to which people can be involved. Another interviewee working with employers

concurred with these concerns and observed that the involvement of employers has been made more complex by the structural changes (the amalgamation of different agencies into Quality and Qualifications Ireland) that have taken place in the last few years. The interviewee commented that the Higher Education and Training Awards Council and the Further Education and Training Awards Council were only ten years old and had managed to create brand awareness, "people would say I have a Further Education and Training Awards Council certificate, but now it's starting all over again with different acronyms..."

Another employer commented that individuals from enterprises are reluctant to become involved in the NQF processes, as they perceive them to be outside of their core work. He indicated that they rely on the association to present their perspectives and are happy to do this. He indicated that he was on the National Qualifications Authority of Ireland (NQAI), which was also a predecessor to the Quality and Qualifications Ireland. He explaind that the Quality and Qualifications Ireland has now moved from a stakeholder body to one that is constituted by experts (the Board consists of ten members: this includes the Chief Executive and nine members appointed by the Minister). He suggested that the new configuration is preferable as it ensures that the Board is more focused and that there are individuals who understand the needs of industry on the Board and so these interests are addressed in the engagements that take place.

An absence of, or weaknesses in, skills planning was seen as a problem in most cases, although Ireland and France seem to have some good systems in place in this regard. In Belize, for example, companies recruited welders from outside the country, as they had not planned which skills they required, and by the time they were certain of the skills that they needed it was too late to train the required number of people. Interviewees suggest that the effect of these practices is that there is limited need for companies to invest in training. This concern was also emphasized in Jamaica with a similar concern that this meant that skills that are required—for example logistics—need to be imported from elsewhere, often outside of the region. This is of course not a weakness of the qualifications frameworks themselves, but is mentioned here in order to assist the general picture of how the systems work in the countries in the study.

Institutions as labour market intermediaries

Strong providers were seen as playing an important intermediary in the labour market, and assisting young people to access employment.

In both Jamaica and Sri Lanka many employers felt that education institutions were more important than qualifications. In Sri Lanka employers particularly recruited from National Apprentice and Industrial Training Authority (NAITA), and in Jamaica from HEART. Key here was good ongoing relationships, and this was reinforced in the case study on Ireland, where the mechanisms to enable education institutions to talk to enterprises were valued. Commenting on the Expert Group responsible for skills forecasting, an interviewee commented that this is a "good recipe for ensuring that we are neither supply or demand driven. There is a link and flow between what economy needs and what we need the education and training system to do". This includes a clear process for informing institutions about demand and supply trends, identifying where the gaps are and creating processes that encourage institutions to consider how they will address these gaps and then funding these institutions to make the requisite changes. In Ireland too the value and reputation of qualifications was very much related to the awarding institutions; it generally seemed to be the case that FETAC had built trust in their qualifications and in fact, "understand them so well that they don't want to change them". There was a sense that it was the institutions that employers recognized more than qualifications per se. Quality and Qualifications Ireland saw part of their role as trying to bring the *framework* back into the centrality of the work, that is, to encourage users of the system to focus on the framework and the credibility of the awards rather than on the particular institution that is issuing the awards and providing the programme.

In Jamaica, when they specifically require people with an NVQ the employers interviewed suggested they would not advertise, preferring instead to recruit directly from HEART, often with the proviso that the graduate also has a defined number of school subjects issued by the CXCs. They indicate that even with the higher-level qualifications where they have worked with HEART on the programme, they would recruit directly from HEART. This confirms the findings from the survey completed by HEART¹ which found that employers generally believed that the best methods to recruit workers with training from HEART Trust was through the Placement Office of the Trust (52 per cent).

In certain sectors such as manufacturing in Jamaica, employers suggested that they primarily recruit from the HEART interns. They state that companies make posts (opportunities) available for internships once individuals have graduated from HEART. They can then select from these individuals, and suggest that the advantage of this approach is that they are able to establish whether the individuals have the appropriate attitude. They add that a further advantage of this approach is that the individuals acquire the relevant experience during the internship and the employer can determine whether they really are competent.

One employer in Sri Lanka observed that they would prefer to recruit an individual with a NVQ but only from certain institutions. If NVQ graduates were taken from other institutions then they would likely train the individuals themselves. Other employers agreed that their primary consideration when recruiting was the institution where the individual was trained. They recruit through particular institutions that offer technical training, rather than advertising widely for a particular qualification.

Role of donors and international organizations

Qualifications frameworks continue to be a policy strongly supported by international donors and organizations, and much of the impetus for them in Belize, Jamaica, Sri Lanka, and Tunisia come from this direction. There are many concerns with this, but the two that emerged most strongly in this research were firstly that interviewees in many of the case studies expressed anxiety about the need to continue with this type of reform in order to secure donor funding, and were anxious to be seen to be implementing qualifications frameworks; in this regard it is worth remembering that an impetus for the Caribbean regional framework was the ILO 2004 Recommendation 195 concerning human resources development (ILO, 2004), which advises countries to adopt qualifications frameworks. Secondly, a key concern was sustainability. In Sri Lanka, for example, many of the original competency standards developed through the first donor-supported project (Gajaweera, 2010) had never been updated, and there seemed little possibility of such updating happening in the absence of further donor support.

In Tunisia in particular there seemed to be very extensive donor and international agency involvement in reform of various aspects of qualifications, skills, and TVET policy and delivery. The process of developing the Tunisian qualifications framework has been supported by the European Training Foundation (ETF) through a regional project involving several other Mediterranean countries, and has built on other reform processes, particularly competency-based approaches to curriculum reform supported by the World Bank, the EU, and French, Canadian, and German aid. The role of donors continues to be important in Tunisia. Since the revolution many donors are again active, in particular the *Agence Française de Développement*. According to an expert interviewed, there has been a constant gap in TVET reform between what projects, often started by international

¹ Employment Satisfaction Survey Report conducted by HEART/Trust/NTA in 2007.

organizations, have *introduced*, and what actually has become *operational*. Partnerships for the development of occupational standards are perceived as dominated by donors who require such systems in order to invest in training centres. As pointed to by an OECD report (2015), and confirmed by interviews with experts and trade unionists, normally initiatives aiming at implementing the outcomes-based approach to monitoring and evaluation are carried out in the context of projects financed and led by foreign development agencies; when the projects come to an end then these initiatives fail to be developed due to poor implementation by concerned institutions. Government officials suggest that key priorities are: a highly unstable political environment, galloping inflation and dramatic rates of youth unemployment, but despite this Tunisia is currently involved in 18 projects dealing with skills and qualifications, funded by international donors and organizations including the EU, the ETF, the ILO, the WB, USAID and others, and focusing on the supply side of the labour market.

Complexities of supply and demand and the low status of TVET

The status of TVET is an important issue in all countries in the study, although this is relatively less pronounced in France.

Key to understanding why qualifications frameworks are introduced, what they are expected to do, and to evaluating whether and to what extent they have impacted on labour markets, is understanding how TVET systems work, how well they met labour market needs prior to qualification reform, and what effect qualifications policy has had on them. TVET is the aspect of education which differs most from country to country as well as within countries. One key reason for this is because of how labour market conditions vary. Another is the traditions of funding. TVET is also, in most, countries complex and somewhat fragmented. It has tended to enroll students with less academic ability, with this trend being much more dominant in English-speaking countries, and gradually on the increase even in countries with strong traditions of TVET. This can probably be attributed at least in part to qualification inflation.

Raising the status of TVET is one of the reasons that many governments create qualifications frameworks, on the assumption that qualification frameworks will improve how TVET is viewed by demonstrating that it is equivalent to forms of general education, and by improving pathways to higher education. But frameworks have not thus far been able to do much about this low status, and in some instances may reinforce it because of lack of acceptance from higher education providers.

In many instances there is a cycle which is very difficult to break, where poverty, poor networks, and rurality prevent good achievement in school, and TVET provision is developed for such learners. But employers select the highest possible educational achievement even when they don't need it, which means they tend to hire wealthier individuals with better networks and better education levels, even where education is not required for the job at hand, and technical training may have served better. When TVET is seen as a second choice, all students who are able follow an academic path. This creates a vicious circle, as employers see TVET graduates as the less capable individuals, and prefer to hire young people with good school certificates or higher education qualifications. Where employers in fact do require the skills and knoweldge learnt in general education, usually indicated by communications and mathematics as proxies, the learners who have been chanelled to TVET are less likely to have achieved these, either in prior schooling or through TVET programes. The providers of TVET are then offering education programmes to learners with weak education backgrounds, and this makes it particularly difficult to cover sufficient general education as well as training in a range of required technical areas. This commonly leads to considerable debate about funding as well as time and nature of curricula. These problems were found to some extent in all the countries in the study, although they emerged most clearly in the Caribbean countries and Sri Lanka, where the relatively low status of vocational education means the students enrolling for TVET programmes often have weak general education backgrounds, and, as in many countries, the time pressure of the TVET programmes is such that it is difficult to assist them in catching up on this aspect of their education.

All of these reasons explain why much of the impetus of qualifications frameworks internationally is focussed on, and comes from, TVET. However, the problems described above can be aggravated by reforms which focus on changing TVET without changing the structure of the economy and labour market to increase the demand for skills.

All the countries in the study have predominantly institution-based TVET provision, with provision of apprenticeships in niche areas. There are countries with school-based provision which have developed reasonably strong vocational education provision-Denmark and France are cited in the research literature as good examples (Busemeyer & Trampusch, 2012b). France has a history of strong state commitment, portable skills, school-based delivery, and low involvement of firms in its training system (Martin, 2012). Like many European systems vocational education is a significant part of upper secondary education, while Ireland, by contrast, follows the Commonwealth tradition where the majority of students pursue general academic upper secondary education (Estevez-Abe, 2012). The further education and training system in Ireland has a lower status than other parts of the educational system, especially higher education. Stakeholders repeatedly used terms like 'the poor relation' and 'the Cinderella sector' to characterise public perceptions of the sector. An employer group is quoted as saying, "you go to secondary school, you get your leaving certificate, you go to university and any kind of deviation from that is seen as second-class education". The further education and training sector in Ireland has been very fragmented and interviewees indicate that the "sector" did not really exist before the Further Education and Training Awards Council (FETAC) came into play. Some interviewees argue that in fact there is still no FET sector and that the process of building such a sector is still very much work in progress. Interviewees generally agree, however, that part of the work of FETAC had been to construct the sector from very diverse providers with varied areas of focus and purpose, taking into account the diversity of capacity and requirements of providers.

The TVET system in Belize is small and centralized—which seems appropriate in a very small country. It is basically all directly under the ministry, with six main providers, and centralized curricula and assessment. Where other organizations (private, non-governmental organizations) are involved, this is also through the centralized system with examinations. The NVQs are only offered through the public TVET institutions, and interviewees suggested that these institutions are viewed as "institution of last resort." The Education Sector Strategy (2011 – 2016) of Belize² corroborates this, describing "the prevalent and persistent view that TVET options are for the less academically inclined student, who must opt for this as a last resort having failed to secure a place in a junior college, or in regular secondary school". Employers are obviously aware of this perception, and our interviewees suggested that graduates do not enter the NVQ programme with a good educational foundation and there is not the space in the programme to develop the generic skills that employers require, particularly language and mathematics, which employers have argued for more of in vocational qualifications.

Similarly in Sri Lanka most parents would rather their children go to university, which is free and is a well-recognized graduate system, but is highly selective, offering places to

² Improving access, quality and governance of education in Belize, Education Sector Strategy 2011-2016, March 2012.

only about 15 per cent of young people. While government tries to market the NVQs to learners, they, and TVET in general, remain a second choice.

TVET also has low status and is unpopular in Tunisia. The competence-based approach has been implemented there, at least to an extent, although not without problems. One of the aims of the framework seems to have been to extend this approach to other qualifications, and this has not worked. In Tunisia one expert interviewed suggested that the framework would reinforce negative attitudes towards TVET as the framework designates TVET qualifications as the lower levels ones. This is consistent with findings in the literature on vocational education and training in Tunisia: most students and families find it as a unattractive option and most students embark on vocational paths only because they cannot access general education paths due to poor performance records (OECD, 2015).

All governments are trying, through various policies, to improve the quality of TVET provision, and these may, in the long term, contribute to improving status. In the Caribbean countries centrally developed curricula and assessment are seen as important, and in Sri Lanka, while assessment is decentralized to some extent, many other aspects of the system are very centralized, and this is seen as having raised standards.

Offering higher levels of technical education provision, which, as seen above is a trend in all the countries in the study, is also seen as a way of raising the status of TVET provision.

Policies which encourage and support employers to train are being considered by many governments—including those in this study—but again, the nature of the labour market may work against this.

Another option to raise the status of TVET is to create programmes with very substantial components of general education, as was done in the 60s in France, making it possible for a formal declaration of equivalence, even though the pathways which the three different qualifications led to are still different. The French system appears paradoxical at first glance: TVET is seen as closer to education than to work historically, with a strong general education component, and school-based tradition. Despite this, there has always been an understood relationship between education and work, and this was codified and formalized in the grid of qualifications and work levels developed in 1969. Two contributing factors to this good relationship seem to be, on the other hand, strongly regulated occupational labour markets, and, on the other hand, the fact that the strong general education tradition, added to free and compulsory general education preceeding TVET qualifications, is seen as contributing to preparation for the modern workplace in terms of producing general skills and transferable skills, as opposed to narrow and specific skills. TVET includes a strong theoretical base, strong general, and civic education.

An option which may have more effect, but may be much more difficult for most governments to achieve, is to intervene in the labour market: as mentioned above, in Sri Lanka government has passed an official circular that requires civil servants to have NVQs, and for their pay and conditions of employment to be based on their NVQs. As discussed above, in France historically there have been strong relationships between training and collective agreements. However, the current two-tier labour markets are not likely to support training for workers on short-term contracts—an increasing percentage of the workforce, and in particular, of the young workforce. Firms invest less in short-term workers. This is supported by a broad body of literature which links strong vocational education and apprenticeships to well-regulated occupations, amongst other aspects of social policy (Busemeyer & Trampusch, 2012b; Iverson & Stephens, 2008).

Finally, the most difficult but perhaps most effective option may be intervening in the structure of the economy, at the same time as reforming TVET provision, as per the 'developmental skills development systems' described by Ashton, Green, James, and Sung

(1999) and Park (2013). It is hard to see what else could assist, for example, in Tunisia, where the problem is not so much lack of skills as lack of jobs. The number of skilled emigrants from Tunisia has been increasing steadily since the 1980s, at three times the rate of population growth, reaching 1.2 million people or 11 per cent of Tunisia's total population in 2011 (ONEQ, 2012, p. 11). The shortfall of highly qualified jobs is growing and the economy's capacity to create jobs remains weak. These labour market challenges again reinforced the need to be more realistic about claims made for qualifications frameworks and the impact they can have.

Improving the quality of TVET provision could be seen as an indirect labour market outcome of qualifications frameworks. For example, while there is very little direct evidence of improved take-up of TVET qualifications since the creation of the qualifications framework in Sri Lanka, and there is limited employer involvement in the system, in so far as the qualifications have been part of a drive to improving and standardizing provision, and making qualifications in general easier to understand, they could have contributed to improving relationships between education and work.

The greatest contribution to improved quality in Sri Lanka seems to have been the introduction of methodical curricula and assessment procedures, in particular in government institutions and through new programs linked to the new NVQF qualifications. The quality assurance system faces challenges, given the large numbers of providers, and small numbers of people responsible for quality assurance. One interviewee observed that, "more than 10 000 courses are running but the accrediting body only has 4 people employed there-how can that work, they don't want to delegate and they don't want to appoint more?" Other interviewees concurred that one of the reasons that the NVOF has not achieved traction is that there is insufficient capacity in the system. It appears that when there was an injection of funds into the initial development process some traction could be achieved, but that since then there is little support from TVEC in part because of limited capacity. Another interviewee (from an education and training provider) suggested that even in the technical areas the impact on quality has been limited. The interviewee observed that they offer their programme against a qualification on the vocational qualification framework, but they then integrate additional elements into the curricula based on what is required by industry. They then also award their own qualification to these graduates as they believe their qualifications are more credible and cover the needs of industry in a more comprehensive manner. Interviewees also commented that over and above the considerations of instructors and infrastructure required for a quality programme, the new system has introduced a myriad of requirements, which have resource implications and that in some cases result in a decision not to offer a NVQ programme.

In Ireland despite all of the changes implemented since the formation of the National Council for Vocational Awards (NCVA), which was established in 1991, stakeholders continue to believe that there are too many providers, that provision lacks a national focus, that the quality of provision is inconsistent, and that while some training centres (that formed part of the Foras Áiseanna Saothair (FÁS) delivery network and who will now be managed by the Education and Training Boards) have developed a strong reputation based on local initiatives, others are seen as weaker. This diversity of provision is common.

Levels of qualifications, levels of employment

Across the countries it seemed as if employers valued general education more highly than TVET. Reflecting concerns expressed about TVET graduates broadly, in Belize and Jamaica employers felt that graduates of NVQs lacked basic education in communication and mathematics as well as more generic work readiness skills. In Jamaica also, some employers suggested that for lower level skills they would rather recruit from the community—as this is good for their relationship with the community in which they are located. They indicate that in these cases they recruit individuals with some CXC subjects and then train them with the relevant skills. Where employers do appear to recruit NVQ graduates, they look for NVQs *as well as* general education qualifications, and one employer in Jamaica indicated that when they advertise the focus is on the requirements for a CXC and in some cases work experience. However, the interviewee suggested that in the review of the applications they would prefer individuals that have Caribbean Examination Council certificates against five core subjects, including mathematics and English and an NVQ. Alternatively employers suggest that they would want the person to have a higher education qualification.

One of the tricky issues facing some of the countries in this study is that the bulk of vocational qualifications on vocational frameworks were low-level qualifications. But employers did not particularly require qualifications for low-level jobs. In Sri Lanka, for example, in a context of low unemployment and a post-war economy which is growing fast, employers seemed to prefer to simply hire and train themselves, and those interviewed suggested that for most jobs, there are no requirements for particular qualifications. One employer commented that, "we interview people—then we hire them and send them to orientation and do in-house training if there are gaps that we have to address". Similarly another employer observed that for many of their jobs, "NVQ is not a requirement, like the people who work on the sewing machines, we provide training on the job". In the context of low unemployment, employers in many sectors experience difficulties in attracting labour for particular positions and therefore cannot even consider whether individuals have a qualification. One employer commented that,

We are suffering with the lack of workers at lower levels, both unskilled and skilled. In my opinion—young people are not attracted to the industry. Because of the scarcity we don't consider the qualifications or certificate. If there are people we recruit and we train—we do inhouse training.

Government interviewees suggested that there is also a challenge in terms of encouraging young people to enrol for NVQ courses, particularly where they are at low levels. In the words of one interviewee, "nobody wants the levels 1 and 2 - they do not lead to any occupation". Employers concurred that at lower levels in particular they would simply hire and train. Policy makers seem to rest their hopes on the creation of higher levels of NVQ programmes, in particular at level 5, which has been introduced as a requirement for skilled workers in the public sector. Most programmes at level 5 were not NVQ programmes although this issue has also been identified as a priority in the recently endorsed human resource and employment policy (Sri Lankan Secretariat for Senior Ministers, 2015).

In Sri Lanka one interviewee observed that it is difficult for people who are living in poverty to choose vocational education and training as these individuals "can get semiskilled jobs, which do not require much training, or any training, and they get a salary sometimes equal to a skilled person's salary, but those jobs are temporary". Another government interviewee concurred with this view and commented that, "technical and vocational training graduates get lower salaries than unskilled-such as the 3-wheel drivers—so what is the motivation for a student then to come into this sector? Employment is about status". One of the factors that relates to student choices and the ability to align supply and demand relates to the low wages of individuals that enter the workplace with a NVQ below trade level; for this reason students select to enter sectors where they can create their own small businesses where their earning potential is higher. Other interviewees felt that this approach was short-sighted of individuals, stating that there are opportunities to advance in industry, whilst the small businesses do not offer similar opportunities. One interviewee in Sri Lanka commented that for individuals to attain a National Vocational Qualification they, "have to study for two years with no payment-this is a hard way of finding employment but it is sustainable".

Jamaica also has predominantly low-level TVET, particularly through the NVQ system, despite what seems to be a very vibrant and dynamic national training institution.

Of interest is that in Jamaica when the Vocational Training Development Institute (HEART Trust/National Training Agency) provides bachelor programmes these are approved by the University Council of Jamaica, and are not developed against the Caribbean Vocational Qualifications.

In Jamaica HEART indicated that they are engaging employers to encourage them to specifically recognize the value of the lower level qualifications as well as the school qualification (CXCs) and to give both types of qualifications prominence in their recruitment processes. This is considered to be very important in terms of signaling to individuals that there is value in undertaking NVQs. Similar perceptions were seen in Belize, and interviewees from government and providers stated that they were involved in a communication campaign where they can "blow their horn and show success stories" to encourage employers to recognize that there is value of the NVQs—even at the lower levels. Employers in Jamaica indicated that for semi-skilled workers they would typically not advertise for someone with a NVQ.

In Jamaica, the need for higher level qualifications to support the needs of the workplace has been emphasized, but it is not yet clear whether the NVQ system will support this, or whether it will happen through higher education institutions offering a greater range of programmes. Besides NVQs, employers are utilizing a range of other training mechanisms to ensure that individuals have the requisite skills, including internships, on-the-job training as well as informal training offered by the workplaces.

In Ireland in particular higher education enrollment levels are very high, individuals want it, and government policy is encouraging it. This automatically makes lower level vocational qualifications weaker in terms of labour market rewards; as one interviewee put it, "employers will advertise at a higher level because they know the expertise is there."

The public sector employer interviewee concurred that there is a real push for candidates to have higher level qualifications and stated that this creates a real challenge for them as the body responsible for public sector recruitment, as even though they define the level in the framework required for the job, individual departments continue to argue for higher levels. They indicate that this is even at lower levels where there is no stipulated requirement, "if we advertise—most people would have a 3rd level qualification, even at a clerical level—most will be 3rd level". They say however that in reality, they don't require many people with trade qualifications in the public sector, although they believe that the FETAC (Further Education and Training Awards Council) qualifications have currency in the labour market. It is noted that they continue to refer to the FETAC qualifications and have not made the shift to Quality and Qualifications Ireland, despite FETAC having been replaced as an awarding body. This resonates with points made above about limited stakeholder engagement with the current landscape. Interviewees suggested that stakeholders are reluctant to participate very actively in these current changes because of both policy fatigue and a sense that the Irish Business and Employers' Confederation (IBEC) association can represent their views.

Interviewees from certain employers and organizations working with employers suggested that qualifications at the FET levels are still considered relevant as "employers do want to make sure people can do what they are supposed to do, so they do want certification as evidence of this ability". One interviewee observed that this is perhaps the real value of the framework as it goes beyond the traditional view of two levels of education (secondary and tertiary), and "allows them to think beyond that". Others suggest that the framework has not yet allowed for this and that information on outcomes remains a glaring gap. The interviewee continued to say that because it is a very diverse sector and very regional, different regions can look different to others: "it's not attached enough to labour market". Other interviewees argued that over and above challenges about how the FET system is perceived there is also a debate about which qualifications have relevance, commenting that the vendor certificates hold more currency in certain sectors and indicated

that, "if every employer in the country said I am only going to recruit people that have qualifications on the framework there would be little hiring going on".

Mobility from TVET to higher education

Related to the complexities discussed above were difficulties in all the countries in the study in relating vocational education to higher education. And yet, in all countries in the study, higher education was the main demand from students and employers, and policy makers were attempting to respond to this mainly by increasing options within higher education provision. Where there were only vocational qualifications frameworks that were operational, it was difficult for TVET graduates to access higher education, although increasing provision of TVET at higher levels has created some, albeit restricted, pathways, visible in particular in France and Sri Lanka.

In France, while many graduates of vocational programmes accessed higher education, the progression is quite specific, as each different type of higher education has its own specific entrance requirements. Interestingly, however, some research suggests that non-university provision has become closer to university provision with the Bologna accord (Malan, 2004; Witte et al., 2008). This is perhaps inevitable when different institutions are brought into a single system, as everyone will want to be as similar as possible to the highest status part of the system; this could mean in the long term a reduction in labour market relevance, although the polarisation of job roles in the labour market (disappearing middle skills) may support this development.

Upward mobility is a key issue in Sri Lanka, so the focus has been on creating provision: there has been a dramatic expansion of both TVET provision as well as some higher education, including the University of Vocational Technology, and now University Colleges. The extent to which this is really required in terms of skills demand to do work is hard to establish, as employers always prefer higher levels of qualifications when they are available, and there is huge pressure on individuals and families to raise their qualification levels. So enrollments in these institutions are likely to continue growing. The extent to which the framework *per se* has contributed to supporting mobility to higher education levels is unclear, given that mobility has come through increased provision that is aimed at students who are unable to access university education. Even within the technical and vocational track, there are very limited opportunities for higher levels of provision—which is what government is attempting to rectify through the university colleges.

One of the difficulties in Sri Lanka was that the lower level NVQs are competencybased, with no time specifications, while higher education programmes and qualifications are linked to a particular duration. The university interviewee commented that this means that, "the two systems cannot be easily transferred", even for level 5 to 7 qualifications on the NVQ. This situation is reminiscent of what was found in Australia in the 2009 research (Wheelahan, 2009), where the competency-based vocational education system was very difficult to align with higher education due to different curriculum models.

Jamaica is also trying to increase TVET provision at higher levels: interviewees from HEART explained that they were currently restructuring provision, such that there are vocational education and training institutes that are regional and that focus on the provision of levels 1-3. In addition there will be workforce development institutions, currently being established, which will specialize in a particular sector and will focus on the higher levels, specifically levels 4 and 5. These qualifications will include more advanced technical skills and are intended to equip the learner such that they can work more innovatively in industry, or even in some cases initiate an enterprise. The workforce development institutions are being developed in close cooperation with employers as well as higher education institutions.

In addition to this, tertiary institutions in Jamaica have implemented some level 1 and Level 2 courses with direct financial assistance from HEART although they have not offered any diploma or associate degree developed within and sanctioned by the NCTVET-Jamaica framework³. A number of interviewees from both HEART and employers stated that the University of Technology also increasingly offers vocational programmes targeted at this higher level and that the university is also offering such programmes. However, these higher-level technical qualifications are not against the NVQ but rather are accredited through the Jamaican University Council.

In Tunisia the major focus in terms of assisting with mobility from TVET to higher education is an attempt to create bridging programmes, referred to in legislation. In December 2014 the Ministry of Higher Education and the Ministry of Vocational Training and Employment signed an agreement aimed at allowing learners from centres of vocational training to join universities and university students to take vocational paths. The agreement should come into effect this year, but was not operational at the time of our research. A steering committee will be formed to define criteria and gateways for creating standards between the two systems, but this committee had yet to be established at the time of writing.

Recognition of prior learning (RPL)

We found little evidence of effective recognition of existing skills, knowledge, and abilities of workers and potential workers in the study. All the countries in the study had policies about RPL and it was a concern in all countries, but we did not find much evidence either of systemic implementation or of labour market outcomes.

The strongest system seemed to be in France, where all qualifications on the register of qualifications can officially be obtained through RPL. The process of RPL is in France an individual right. However, interviewees said that often employers are not at ease with it because workers could go to the RPL process without the employer's support but on the basis of an assessment, then claim to be in a different level of collective agreement than the one they were employed at and demand higher wages. According to a representative of the employer organization interviewed, many workers have been reported oundertake RPL without letting their employers know. In these cases state funding influences employees' choices of acquiring a certain qualification and according to the employer interviewed, "in the end it does not lead to any kind of promotion or mobility". Such mismatch between the employees' expectations attached to a given acquired qualification and the employers' need and opportunity to use it may lead to tension.

Similarly in Tunisia there was some contestation about the yet-to-be-implemented RPL system, as the trade unions saw it as potentially beneficial to workers, especially older workers who entered the labour market before the reform of education. But some employers alleged that trade unionists/trainers may have an additional interest in supporting the implementation of RPL because it would give them, as individuals, extra work and pay as employees in the systems for awarding prior learning qualifications (some union representatives, including the General Secretary of the Union Federation, are also trainees in public training centres and the allegation is that they may be employed in the RPL processes). Employers say they agree with the principle but not the approach, arguing that it is too bureaucratic, and still too influenced by diplomas while the levels should be only based on skills and training outcomes; they also feel it should not be carried out in public

³ Jamaica National Report on Technical and Vocational Education and Training, HEART Trust, National Training Agency, Jamaica (no date indicated).

training centres with what they allege to be incompetent personnel, but would rather see a certification system based on skills and exclusive to the old employees as is currently implemented in the electricity and electronics sector—as a consequence of a specific sectoral agreement between employers and trade unions.

There was some evidence of RPL implementation in Sri Lanka, where relatively large numbers of qualifications were said to have been awarded through RPL, but we were not able to establish the labour market impact of this.

Labour market mobility in the Caribbean

This issue is reported on separately as, although labour market mobility in general is of interest with regard to qualifications frameworks, the role of the regional framework in the Caribbean was a specific interest motivating the current study. As discussed above, labour market mobility is a specific aim of the regional framework.

There is general concern to improve the regulation of qualifications so that countries have trust in what specific qualifications represent when making international benchmarks and comparisons. However, the actual uses and effects of regional qualifications frameworks are uncertain. As the Caribbean framework is seen as a well-established regional framework, the study aimed to understand what role it is playing in labour market mobility in the region. Very little evidence of impact in this regard was found.

As indicated in Chapter 4, this framework is not so much a meta-framework, against which different countries can compare their occupational standards, as a framework of standards that some countries in the Caribbean offer. The Caribbean Association of National Training Agencies has set requirements that must be met if a country wants to offer the Caribbean Vocational Qualifications (CVQ). Only a very limited number of countries have been able to meet the requirements. One interviewee commented that this is a particular challenge where countries are smaller and resources are a real constraint. For example, in order to offer these qualifications there is a need for training assessors and verifiers against standards defined at a regional level. Some of the smaller countries have not had the resources to either train or employ this number of assessors. This is true of Belize, which is still in the process of becoming accredited and interviewees suggest it has taken longer than initially anticipated. One interviewee observed that the number of requirements might lead to an emphasis on compliance rather than quality.

One interviewee from Belize observed that the value of being part of the CVQ process is that it ensures that their standards are aligned to regional ones, which they believe is particularly important because of the Caribbean Single Market Economy. It was indicated that the signing is important because "we are part of a community, we are stronger as a community—we are small and want to be aligned. It gives us a stronger voice". However, another interviewee (also from Belize) stated that, "the only thing that would change (once Belize can offer the CVQ) is that we would be recognized—the name would be recognized. But Belize people don't move in the Caribbean they only go to the USA, it's quicker, it's one flight away—so how will it help them?" While Belize intends to persevere with the process of being accredited to offer the CVQs, they are also looking to programmes run by other associations globally, in particular those in the United States, and which are sometimes offered in partnership with global partners, so that the graduates can receive additional recognition.

In Jamaica, as discussed above, there were few changes to the system, as the regional system developed largely off the Jamaican system. Interviewees saw it as important to be part of a regional framework, but did not see it has having impacted on the quality of their provision.

There is agreement in that countries develop new qualifications for the Caribbean framework in areas which are particular to them; for example, Belize has developed qualifications for drum making. What is not clear is how much this qualification is needed at a regional level, given that it is seen as a speciality area of Belize.

Interviewees observed that while there is commitment to ensuring that people can move freely in the region, there is still resistance from countries with much smaller populations where people believe it will result in loss of employment in their country. There are also particular areas of concern, such as tourism: an interviewee from Belize stated, "we are adamant that you can't have a non-Belizian presenting Belize". Interviewees from Jamaica indicate that when Jamaicans apply for jobs elsewhere in the region they are met with resistance even if they can show that they have a competence that is recognized regionally; at the point of this research there had just been an incident when 13 Jamaicans were not allowed into Trinidad, which was seen as indicative of the barriers that individuals face when trying to work elsewhere in the region.

Chapter 6: Reflections

A few key points emerge through this analysis of empirical data and the latest research into qualifications frameworks as well as into relationships between education and work.

One is the difficulty of establishing what employers want. This is one of the key aims of many TVET reforms, including many qualifications frameworks and competency-based training reforms. But it has proved hard to pinpoint. This study corroborates the 2010 ILO study which found that in some instances, the specification of occupational standards may help qualifications to fit better with labour market requirements, but in others, particularly at the higher levels research-based curricula may be more successful, as industry itself may not know what it will require in years to come. In other instances, professional bodies have the potential to play crucial roles. Seeing such processes as ongoing and developmental, rather than fixed quickly through standards specification, may yield results. To the extent that qualifications and standards are a problem in a particular instance, they can and should be discussed as part of the processes aiming to build, reform, and support institutions within a national framework. A broad notion of occupational competence, supported through strong TVET provision which includes aspects of general academic education, such as seen in the French study, seems to offer more than the narrow specification of specific employer requirements.

'Demand-led' is not the same as 'employer-led', a point which seems to be taken into account mainly in the Irish and French systems, in the former through the Expert Group on Future Needs, which attempts to analyse and anticipate demand, and the latter through a system which tries to anticipate demand through the interaction of different actors in a state-led process.

Attempting to engage employers in terms of their short and medium term needs, as well as attempting to research future needs of the economy, particularly where there are specific interventions in industries, sectors, and so on, will remain important for TVET systems. But, what should also be considered is a reduction in expectations from qualification frameworks and perhaps from TVET systems more broadly. Improving TVET is very important, particularly as it tends to serve poorer students. Current policy reforms seem to place too much weight on the role that these systems could play in countering youth unemployment. This is potentially destructive for TVET systems are blamed, and tend to be the subject of continual policy reform, which causes instability and reinforces public perceptions of low status. Youth unemployment and qualification inflation have distorting effects on education systems and notions of what can and can't be achieved through education and training. It is possible that TVET could continue to be seen as a weak option regardless of how it is reformed and strengthened.

And what has worked in the past may not carry on working. As diplomas and certificates become more and more necessary to gain access to labour markets, their possession also becomes less and less sufficient. For example, in France, a combination of qualification inflation, growing youth unemployment, and the growth of short-term contracts, may counteract embedded agreements about training levels and occupational levels. The upward drift of TVET, which was a clear issue in all the countries in the study, is not clearly based on the requirements of work, as sociological studies discussed in Chapter 3 point out. The current study suggests, as others have done in the past, that employers have unrealistic expectations at times. For example, in a survey conducted in Jamaica, employers suggested that education institutions should be providing more work experience.

A second key point that stands out in this research is that there is much that is good, pragmatic, and working well in all the countries in the study. It is to be welcomed that

policy makers in some of the countries in the study did not attempt to rigidly implement the competency-based training models of the UK and Australia, despite using them as guidelines, but instead developed a system to suit the current conditions of their system. For example, Sri Lanka has centralized curricula, and the Caribbean countries have centralized curricula and assessment. Problems tend to arise when policy prescriptions become the focus and people try to change or adapt their systems based on recipes, models, and formulas which have not really worked well anywhere and do not take specific contextual factors into account. The current study supports Raffe's (2015) argument that processes may be more important than product in the development of vocational qualification systems, and that there should not be too many hard and fast rules.

A third key point is in line with the previous ILO study: focus of TVET reform should be on building institutions. It is clear that where progress has been made, it has happened through extensive government support in terms of building and developing institutions, and this is something donors and international agencies could give greater emphasis to in their efforts to strengthen skills systems. Strong providers are more likely to be responsive to the needs of industry, while rigid qualifications or occupational standards could in fact make provision less responsive. This is why the question of what qualification and curriculum models underpin a qualification framework is more important than the question of whether or not framework exists in the first place. Having providers with professional staff who have the time and resources to respond to short-term requests is important and requires systematic support from government. Equally important in this regard are strong relationships with social partners.

Given the weaknesses of TVET in many countries, it is a concern that some donors and international agencies continue to prioritise the introduction of qualification frameworks. It may be more useful to focus on building and supporting education and training institutions, curriculum and assessment systems, and the training of trainers, assessors and institutional managers.

The importance of institutions does not only relate to providing institutions, but also government regulatory ones. Raffe's (2015) notion of ensuring that the process of developing and reforming qualifications should support the accumulation of policy memory, and counteract policy amnesia—the failure to learn from the experience of previous reform attempts—is also important. In many countries, particularly the UK where the idea of NVQs originated, Raffe describes a tendency in the reform of vocational qualifications for 'policy busyness' which goes round in circles, and often sees history repeating itself. He suggests that it is important that the institutions responsible for developing and monitoring vocational qualifications "should have a sufficient life expectancy and continuity of function to enable them to accumulate expertise and policy memory, as well as to make the qualifications system itself transparent and understood by stakeholders" (Raffe, 2015, p. 172). He also argues for the importance of stable institutions which are independent of political authority, and are able to collect and analyse data on vocational qualifications and evaluate the impacts of changes.

A fourth key point is social dialogue. Supporting processes and institutions to build relationships between social partners is useful, but could be more focused on the needs and logics of different sectors of the economy and types of provision, and the potential role that social partners could play, than the design of qualifications. More consideration should be given, taking the specifics of countries and sectors into consideration, of what sectoral organizations should discuss when different social partners are brought together, how to interest them in TVET, how to ensure that any TVET reforms are broadly located in, for example, collective bargaining issues, and how to make sure that an entire qualification system does not have to be designed up front before anyone can do anything. The logic of creating sectoral institutions and processes to develop occupational standards and qualifications based on the needs of industry seems simple and obvious, and yet, it has had mixed results even in the wealthy English-speaking countries in which it originates (Allais et al., 2014). The Irish study shows that there were considerable costs associated with the process of developing standards and validating of providers, within a country which had a strong provider network, resources, professional lecturers, and programmes that have been developed in response to needs, and which are refined according to demand signals. Poorer countries may not have many existing strong providers nor the resources to focus both on improving provision and the costs associated with building and maintaining the different elements of such a framework. In poorer countries, and in small countries, setting up such systems may undermine provision, create unnecessary complexity, and divert resources. Fortunately, in the cases considered in this study, while there were examples of increased complexity, in many instances governments have continued to support and develop provision, as well as curriculum development and assessment systems and these—for example in the case of Sri Lanka—have led to improvements in public provision of TVET. If national frameworks of vocational qualifications continue to develop in this pragmatic and flexible manner, perhaps they will be able to play a better role than the original NVQs in the UK.

Finally, Keep and Mayhew (2010) argue that if real progress in occupational training is to be achieved, governments need to attempt to carefully understand problems caused by the structure and incentives provided by current labour, product market, and industrial relations regimes. They suggest that policy changes could include developing broader occupational identities and their links to skill; revising labour market structures to support progression; improving the quality of working life; changing work organization and job design; reorganizing industrial relations to give voice to workers; addressing wage setting and income distribution; and intervening in industrial policy, amongst others. Other reforms which could contribute to improving labour market outcomes of education systems could include improving social welfare policies to improve young people's chances of succeeding at school, and improving occupational regulation where relevant in labour markets, as well as conditions of work and structures of workplaces, to encourage young people to enrol for training in skilled mid-level occupations, and counter-act the cycle of general aspiration for higher and higher levels of general or academic education.

This research was not able to conduct a detailed analysis of collective bargaining practices in the countries, nor the role of industrial policy in relation to education and training policy, and the nature and composition of employer organizations and trade unions. As these are all features that have been key in successful skill formation systems, further, more in-depth research in the different countries into these aspects may prove fruitful. Given the short time frames and limited budget the research was also not able to gain indepth insight into the curriculum and assessment systems in the different countries. Deeper insights into all of these issues could contribute to the development of better and more nuanced policy advice and support. This study has only been able to briefly explore aspects of the potential labour market impact of qualifications frameworks in six countries and should be considered a useful first step in that direction, hopefully one that can be revisited as the story of qualifications framework implementation is further told.

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