Maximising Mobility:

Qualification Frameworks as a Strategy to Support Adult Learners

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Territorial Acknowledgement

This work was conducted on the traditional territories of the Lək̓ʷəŋən (Songhees and Esquimalt) Peoples on whose territory the University of Victoria stands, and the Lək̓ʷəŋən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

Throughout this work the author kept in mind the historical disenfranchisement of Indigenous Peoples from post-secondary education, and during analysis and identification of recommendations gave careful and respectful thought to the implications for the First People of the land currently known as Canada. We hope that it may prove useful.

Executive Summary

This project was sponsored by the British Columbia Council on Admissions and Transfers to help identify lessons for the design of systems to support adult learner mobility. Credit and qualification frameworks span across sectors and/or jurisdictions to bridge different types of qualifications and permit learners to carry previous experience and education into future learning. The source of these lessons was analysis of four selected credit and qualification frameworks: the British Columbia Transfer System (BCTS), the European Credit Transfer and Accumulation System (ECTS), Australian Qualification Framework (AQF), and the Scottish Credit and Qualification Framework (SCQF). Each of these offers an example of a different approach to building a comprehensive framework for adult learner mobility.

The research derived data from two sources. One was the extremely extensive historical and policy literature on each of the four systems. In the case of the European system in particular this runs into thousands of articles and dozens of books and handbooks. Obviously not all were analysed, and the approach was to cover enough ground to gain data saturation. The second source was interviews with eleven key informants highly placed within the four systems. The informants represented people involved in managing the frameworks as well as people working in stakeholder institutions.

Despite the diversity of the four approaches examined none emerged as clearly more effective than the others. Each offered strengths and weaknesses, reflecting a different set of circumstances and priorities for change. Nonetheless, in-depth consideration of these frameworks proved fascinating and productive.

Analysis gave rise to a range of insights into the creation and operation of credit and qualification frameworks. These can be considered in two broad categories. The first reflects the highly political nature of qualification frameworks and transfer systems. They were universally put in place by state actors to fulfil goals around human capital management and equity of learner outcomes. There were also internal political considerations, often manifesting in the dominance of higher education interests within the systems. In other words, these frameworks cannot be considered as a neutral technology but should be seen as permeated by the interests of multiple actors.

The second category reflects commonality around outstanding issues in each of the four contexts. No framework has managed to implement Recognition of Prior Learning (RPL) in an effective way, to address the parity of esteem and the resulting dominant position of higher education institutions, or to develop data collection that allows for empirical evaluation of frameworks.

The logic model behind increased learner access and mobility remains unassailable. The biggest challenge faced by each system is increasing the permeability of the boundary around the post-secondary system—that is making post-secondary education accessible to a wider range of people with a wider range of backgrounds and life experience. The boundaries internal to the system have already been weakened by existing strategies, but the external boundary has proven more

challenging. The following six recommendations reflect ways in which developing credit and qualification frameworks could respond to this opportunity.

1. Maintain and extend a diversity of approaches

There are a wide range of approaches to supporting learner mobility, including localised programs, subject pathways, joint degrees and block transfer. Any future development should maintain this range of approaches and avoid the fallacy of a one-size-fits-all solution.

2. Expand pathways beyond the external boundary of the post-secondary system

One of the key ideas contained within a number of these recommendations is to extend credit transfer, and therefore student mobility, beyond the boundaries of the post-secondary system. The frameworks reviewed in this document have focused on mobility within the existing system (internal boundaries) and their most significant challenges concern mobility into the system (external boundaries). A deliberate strategy of making eternal boundaries more porous would be potentially helpful in supporting frameworks to attain their ends.

3. Collect and analyse equity data

It is deeply challenging to assess the effects of credit and qualification frameworks in terms of increased access for traditionally excluded groups without hard data. Collecting such data is not without its own issues, such as evolving definitions of equity-deserving groups, but simply choosing not to collect it undermines one of the major rationales for the expense and complexity of the framework.

4. Consider full implementation of a full credit and qualification framework

In addressing learner mobility a well-designed credit and qualification framework can systematically capture and recognise learning from non-formal education including cultural knowledge, micro-credentials, short qualifications, periods of study that did not lead to a qualification, and life-long learning. This should include framework credits, as implemented in the SCQF and ECTS, as a way to bridge between sectors. Less than a full implementation represents a compromise unlikely to fulfil its full potential for learners.

5. Implement open credits

An open credit system is one where there is an expectation that wherever possible institutional programs will contain a proportion of credits that can be filled from evidenced learning whatever the source or topic, such as short qualifications or micro-credentials. This is essentially a simplified and low tariff way to recognise prior learning. A standard expectation of 10-15% of credits being "importable" would reduce cost and time of study for learners in a highly flexible and efficient way, as well as reducing the demand for formal Recognition of Prior Learning.

6. Consolidate and regularise Recognition of Prior Learning

None of the frameworks reviewed had fully developed systems for Recognition of Prior Learning (RPL). Generally, RPL credit was left for the receiving institutions to assess, and very often their

institutional interests lay in more limited recognition. This was often justified by concerns about the quality of previous learning. It did result, however, in considerable variability in the access and cost of RPL, and in the amount of credit given for a specific example of previous learning. To make a difference RPL should be easily achieved by learners and provide an equitable amount of recognition.

There recommendations are significant in terms of complexity and expense, and their viability will vary with context. However, this study provides evidence for the belief that they are necessary to achieve the full benefit of credit and qualification frameworks for adult learners.

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1. Introduction

This study was sponsored by the British Columbia Council on Admissions and Transfers in order to deepen understanding of policies and procedures designed to enhance mobility. The jurisdictions selected (European Union, Australia, Scotland, and British Columbia) have well-developed frameworks for recognizing academic credit earned in a diversity of contexts in a standardized way. Ideally this brings stability and predictability to the whole realm of post-secondary studies.

A comprehensive qualification framework, for the purposes of this study, means a device intended to link diverse qualifications systematically to support access, transfer and mobility. Each of the frameworks bridges jurisdictions, educational sectors, or both in order to achieve these ends. Looking at different examples of how it has been achieved in varied circumstances provides a way to identify challenges and opportunities involved in future development of frameworks.

The approaches taken by the various jurisdictions vary significantly. In some cases, credit recognition covers a wide range of study areas, from trades through informal learning and university study. In other cases, only higher education is recognized, but across a range of university systems with different rules and expectations. These different approaches work differently and have different implications and opportunities for learners. Chapter Seven discusses these comparative issues in depth.

The development of policies and processes for credit mobility represents a significant change in each of the jurisdictions examined—in each case, credits were initially local to institutions, with different workload, performance expectations, and level of learning outcomes associated with them. To make credit mobility work each of these issues, and many more, had to be considered and addressed.

None of the four diverse approaches to credit portability and learner mobility is demonstrably more—or less—effective than any other. They each reflect the circumstances of their creation, yet the pressing issues for the frameworks are remarkably similar. There are important lessons for the future within the current experience of qualification frameworks across the globe.

2. Methodology

2.1 Background and approach

As a framework for analysis of these developments this study has adopted Michael Fullan's framework for understanding educational change, possibly the best known and most credible approach to educational policy analysis. Originally, Fullan (1989) considered three phases of initiation, implementation, and institutionalisation for policy change. In his later work (Fullan, 2015), he changed the final phase to continuation.

Fullan's (2015) framework is a very helpful approach for the current study. It invites examination of the three phases in some depth. There can be little doubt that the creation of mechanisms for credit mobility is a complex and long-term endeavour requiring significant commitment. By examining the initiation phase, it is possible to understand the motivation behind this commitment, as well as the players involved and the steps taken. The implementation phase focuses on the concrete actions taken to bring about credit mobility as well as the intended—and unintended—consequences of these actions. Finally, the continuation phase helps to bring attention to the work done to ensure mobility will continue as a normal way of doing business. Fullan's work includes specific factors to consider and questions to ask, which have been adapted to suit the specific context of the current study.

2.2 Research Questions

This study set out to address four research questions. The question were initially focused on lessons for British Columbia (the funding jurisdiction for the study) but can be more broadly expressed:

a. What was the impetus and the process followed for development of qualifications frameworks?

b. How are the frameworks practically applied, and in what ways do they work well and less well?

c. To what extent was equity of outcomes a priority in their development, and how well has this been fulfilled?

d. What lessons do the four credit and qualifications frameworks hold for systems considering such an approach?

2.3 Data

The evidence used to create the reports on specific jurisdictions includes publicly available data, system reports, and interviews with key figures within the systems. There was a great deal of written material including histories, reviews and academic analysis available for each of the systems. A majority of this literature is procedural and descriptive, focused on questions regarding how particular strategies were developed or could be improved. It was striking how little material address the principles of philosophy of access and transfer. The literature gave the strong impression that

the qualification frameworks were widely regarded as a relatively unremarkable aspect of each post-secondary system. This material was reviewed to the point of data saturation.

Eleven key informants were interviewed for at least 60 minutes in order to sense-check the insights derived from the literature review and to enrich understanding. It proved problematic to recruit informants. The author believes this was partly because the frameworks have been in place for so long that many people did not think they could contribute to the story of their development. This was unfortunate, since the interviews were invaluable in providing an inside glance at the working of the frameworks.

The informants are identified within each case study by a simple reference: "K" for "key informant" followed by a number. The codes repeat in each case study since no quotes are used outside a specific case study.

ECTS	1	High-level individual involved in pan-European development of the framework
	2	High-level institutional representative familiar with delivery in universities
	3	High-level representative of a major European student organisation
	4	Masters student who experienced two periods of mobility
AQF	1	Individual with senior leadership responsibility within higher education
	2	High-level leader within the Vocational Education and Training (VET) sector
SCQF	1	Individual with high-level responsibility for administering the framework
	2	Individual working in institutional senior leadership
BCTS	1	Senior leader within the college sector and good knowledge of the BCTS
	2	Individual with deep knowledge of the transfer system and its history, as well as present senior leadership responsibility
	3	Individual with high-level knowledge of the data available across the BC Post-Secondary system

Table 2.1: Positionality of key informants

Each interview lasted more than one hour and covered a range of general topics related to mobility, specifics of each framework, and potential recommendations for British Columbia. The authors are grateful for the transparency and willingness to share experience of the key informants. Without their assistance, this study would have been much less valuable.

2.4 Data analysis

Data was analysed thematically, with the authors looking for ideas that spoke more to the phenomenon of comprehensive qualification frameworks than to the particular circumstances of each. The four case studies are intended to function as stand-alone descriptions of each framework and are strongly detailed in order to contextualise and support the comparative insights. During

analysis was that the themes discussed in Chapter Seven and leading to the recommendations in Chapter Eight were strong and clear within the data, and very much supported by the conversations with key informants. Our hope is that representatives of each system would consider the portrait fair and recognise the issues and opportunities represented there.

3. Case Study: European Credit Transfer and Accumulation System

3.1 Executive summary

The European Credit Transfer and Accumulation System (ECTS) was instigated in 1989 to support students taking advantage of the ERASMUS program. This program allowed students who were enrolled at a university anywhere in the European Union to study for a set period (generally one year) at a university in another country of the EU and get credit for their study at the home university.

Given the variability in European university systems a new approach to credits was developed to provide a *lingua franca* across the continent. One academic year was considered to be 1500-1800 hours of study, including individual work as well as class hours, and counted for 60 ECTS credits. This agreement proved hard to reach due to different counting methods and the desire of the UK to have one-year masters programs count for more than this system would allow.

Ten years after instigation ECTS was losing momentum. The 1999 Bologna Accord revitalized ECTS by positioning it at the heart of the new European Higher Education Area. Despite this development, there are significant limitations to ECTS. Due to pressure from EU ministers responsible for employment there are separate vocational and lifelong learning credit systems, though there are ongoing efforts to amalgamate the three systems (CALOHEE, 2024). ECTS remains highly individualized in practice, impacting efficiency. There is no central quality assurance mechanism. Due to these limitations the equity impact of the framework has been limited despite shared interest in increasing access and representation in European higher education.

Seven insights were derived from study of ECTS:

1. Political context is very significant.
2. Transfer across different higher education systems is complex.
3. Horizontal transfer systems may make limited contributions to equity.
4. Collecting sound data about transfer systems can be an enormous challenge.
5. Overarching bodies can be helpful, not least in providing a problem-solving venue.
6. Concrete details of the system are critical in the success of transfer.
7. Developing systems for mobility takes significant amounts of time.
8. Recognition of prior learning remains challenging, partly due to fragmented systems.

3.2 Overview of the European Credit Transfer and Accumulation System (ECTS)

The European Credit Transfer and Accumulation System (ECTS) exists in an extremely complex legal and political context. It is radically multi-jurisdictional, involving around 47 nation-states, and spans

across all academic subject areas and beyond. Over time the system has evolved from being a way to support student mobility through the ERASMUS scheme to constituting a higher education design component legislated across national systems. Over the 35 years of its existence, it has been challenged and supported by a range of European policy initiatives, including the Bologna Process and the creation of a single European Higher Education Area (EHEA). At times it has been popular, with strong uptake, while at others there has been significant resistance to the system, often on the basis of preserving the specifics of an existing local system.

The initial motivation for developing the ECTS was the need to recognise the learning completed by students who spent one year of their undergraduate program in another country, for example a French university student who spent a year in Spain. The French and Spanish university systems are different, and the meaning of "a year" was initially unclear. The aim was for the credit system to function as a transparent tool for translating study between two contexts, at first based primarily on the workload for the student. The concept of workload proved problematic, with some universities only counting class time and others taking into account all the time the student was devoting to learning activities. Later, learning outcomes were added to workload and the level of the learning began to be recognised. These highly technical developments were complicated by language difficulties and misunderstandings regarding the exact tone of similar terms in different languages. A good example is "competence," which can have a range of meanings from "the concrete application of knowledge and skill" to "the ability to transcend taught knowledge and skills in innovative ways."

During the lifetime of ECTS two other European qualifications frameworks have emerged, the European Credit System for Vocational Education and Training (ECVET) and the European Qualification Framework for Lifelong Learning (EQF-LLL). The currency of ECVET is learning outcomes, with credits attached to complete qualifications on the basis of the time it takes to achieve the outcomes. There is some potential for ECTS and ECVET to merge (CALOHEE, 2024). The EQF-LLL (now branded Europass) appears currently to be used mainly to bridge across national qualifications frameworks.

ECTS considers a year of full-time study to be 1500-1800 hours and allocates 60 credits for this amount of work (therefore 25-30 hours per credit). One unexpected outcome of this measure is the number of universities and systems across the EU designing their education around ECTS credits, creating an implicit tendency for university programs to become more aligned (as is the intention of the Bologna process).

3.3 Initiation

ECTS started as a six-year pilot project in 1988-1995. International study was gaining popularity as a result of the European Community's[1] ERASMUS program, which provided funding to European

[1] The European Community (EC) was the precursor of the European Union (EU), which was created in 1993.

undergraduate students to spend part of their degree in another country. With widely diverse systems of higher education in each country there was a significant practical problem knowing how to recognise this study time in the home institution. In most of Europe at this time there was no conception of modular university degrees. The smallest unit was the entire degree, and program years were not necessarily seen as becoming progressively more challenging. The number of years for "undergraduate" (Cycle 1 in European terms) and "graduate" (Cycle 2) qualifications varied and might not be separated in any meaningful way. As one informant put it, "nobody trusted anyone" (K 1).

A survey conducted in 1986 demonstrated that recognition of work done abroad (effectively credit transfer) was already fairly strong, with 64% completely or largely recognised (Dalichow & Teichler, 1986). However, there was variance by country and subject area. For example, 7.7% of French students did not have to repeat work conducted abroad to complete their degree versus 41% of German students. It is striking that the average across four countries was 20.1% not having to repeat, suggesting almost 80% *would* have to repeat some work. This figure alone suggests the processes could have been more efficient from the student's perspective. One of the major advantages of ECTS was "automatic *a priori* recognition if and when the studies completed by the ECTS student are in accordance with rules set out by the sending and/or receiving higher education institution and department" (Dalichow, 1990, p. 5).

The ECTS pilot was based on the following four principles:

1. value of the studies abroad;
2. knowledge of and trust in partner institutions;
3. voluntary basis for its introduction;
4. full recognition of the courses completed abroad by the mobile students. (Markevicičiene & Račkauskas, 2012, p.4)

The pilot scheme was managed by the ERASMUS Bureau and was quite extensive. At its broadest it included 145 institutions (with representation from every state in the Community) and five subject areas: Business Administration, Chemistry, History, Mechanical Engineering and Medicine (Markevicičiene & Račkauskas, 2012). The decision to formalise and extend ECTS was made before the pilot scheme finished, underpinned by a 1993 report from Coopers and Lybrand stating the scheme was ready for expansion (Wagenaar, 2018). It may not be a coincidence that 1993 also saw the Maastricht Treaty, with its bullish promotion of trans-European state structures such as the Euro. In some ways, this year represents the high-water mark of pro-European sentiment and policy.

The initial team included the ERASMUS Bureau staff, Commission staff and five subject area coordinators representing the disciplines listed above. It was hoped 20 universities would express an interest in being involved in the pilot; 252 did so. The initial group ended up being 77 institutions. The active participants were at departmental level, organised into subject area groups who worked together on the specifics of their disciplines.

During the pilot scheme, a number of key decisions had been made. Some of these were later reconsidered, but others remained foundational to the ECTS. Initially, the intent can be summarised as bridging recognition of student work between different higher education learning contexts. This apparently simple aim proved to be far more complex in practice and to have far-reaching effects. This reflects a classic premise of political science, holding that agreements in one policy sector tend to creep into adjoining sectors (Haas, 1958).

One fundamental decision demonstrating this tendency is the number of ECTS credits associated with a year of full-time study. The initial aim was to have a hard number representing the situation on the ground in each university system in Europe, based on the expectation that there would already be good alignment. This expectation turned out not to be well-founded.

European universities do not use the Carnegie credit system, a system that is almost universal in North America and helps to organise workload so that each year of undergraduate study consists of courses adding up to 30 credits, with 120 for a four-year degree. Having such a systematic approach is an enormous benefit for transfer and accumulation as the scale of the completed study is universally understood (though the scope and level of the work may still not be transparent). Without a single, well-accepted framework, there was no way for different universities to communicate with each other about the amount of study completed by mobile students. Courses were often seen simply as parts of degree programs and not as meaningful entities in themselves.

The allocation of 60 ECTS credits to a full year's study (whether two semesters, three trimesters, or another format) was essentially arbitrary (Wagenaar, 2018) based partly on the easy divisibility of 60 to reflect different study periods. There were questions regarding the taught time (vs. self study) the 60 hours implied, as well as the actual overall time commitment. Since student workload lay at the heart of the credit system, the different approaches represented a significant problem. After a great deal of negotiation and research into current practice an academic year was defined as 15-1800 hours of nominal learning time, making each credit equivalent to 25-30 hours of academic work. An undergraduate (Cycle 1) degree was defined as 240 credits and a master's (Cycle 2) degree as 120 credits.

A challenge to this model came from the UK. British universities get a great deal of income from "12-month Master's." The amount of work done during these cycle 2 qualifications was 1800 hours, equivalent to 60 ECTS credits and not sufficient for Cycle 2. The UK successfully argued that learning outcomes had to be considered alongside study time, though this did not address the central issue fully. In the end the UK kept their model in place, leading to the acceptance of 1800 hours leading to BOTH 60 and 90 credits (the full year in the UK programs was 2400 hours and 120 credits). To this day, European universities may not accept 12-month UK master's toward eligibility for doctoral programs.

Partly due to the UK's position that learning outcomes are more significant than study time, ECTS adopted them in parallel with hours of study. "Learning outcomes" as defined within the ECTS literature are

> Statements of what a learner knows, understands and is able to do on completion of a learning process. The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria. Learning outcomes are attributed to individual educational components and to programmes at a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification. (European Commission, 2015, p. 72)

The addition of learning outcomes to time of study meant that the home institution could have a clearer idea of what the student was intended to learn while visiting the host institution. Ideally, both institutions would have written learning outcomes that could be compared to ensure the credits earned while visiting were truly complementary to the program (and degree) at the home institution. As one informant put it "if you can't describe the outcomes, what are you talking about?" (K 1)

The question of whether the framework was concerned with only transfer of credits or accumulation as well arose at the same time but was not fully settled until some years later. Transfer, as defined most recently, means

> The process of having credits awarded in one context (programme, institution) recognised in another formal context for the purpose of obtaining a qualification. Credits awarded to students in one programme may be transferred from an institution to be accumulated in another programme, offered by the same or another institution. Credit transfer is the key to successful study mobility. Institutions, faculties, departments may make agreements which guarantee automatic recognition and transfer of credits. (European Commission, 2015, p.76)

Whereas accumulation means

> The process of collecting credits awarded for achieving the learning outcomes of educational components in formal contexts and for other learning activities carried out in informal and non-formal contexts. A student can accumulate credits in order to obtain qualifications, as required by the degree-awarding institution, or to document personal achievements for lifelong learning purposes. (European Commission, 2015, p.66)

As can be seen by the definitions, these ideas are quite distinct and the implications more different still. The central idea of transfer is the substitution of like for like; that is, a third-year math course for another third-year math course. Accumulation is more far-reaching. Firstly, it suggests all programs should be considered as an accumulation of credits, implying a level of modularity. Secondly, accumulation involves conversion of other types of indicators into universally consistent units (in this case credits) that can be stacked to justify learning claims. These two ideas have different effects on access to learning.

Transfer implies mobility within higher education, meaning learners still need to meet formal university entrance qualifications. Accumulation changes the access picture significantly, as the

credits for any qualification may recognise learning in the workplace, the community, and in college alongside university study. If learners can access university programs on the basis of credits acquired in a range of settings, the university entrance criteria are less emphasised and degrees may become more available to non-traditional groups. It also means that courses are rendered equivalent, making transfer far simpler.

During the pilot period of ECTS the number of students involved grew from 553 to 2054 and the number of institutions expanded. Taken together, this meant a growth from an average of 6.6 students per institution to 14.2. The numbers do not fully capture the amount of work it took to invent a system to bridge across radically different educational contexts. The line between the initiation and implementation is a blurred one, as many changes were made to the initial concept as it expanded to cover the entire European Union and beyond. Nonetheless, there was a clear change when ECTS, which had been a fairly limited endeavour within the workings of the ERASMUS program, began to be seen as a key part of the ambitious Bologna Process.

3.4 Implementation

When analysing the implementation of the ECTS an obvious question is why so many diverse institutions and national systems chose to adopt a standard approach to managing their work. The process was driven by the EU using a number of levers they had available. These included inviting institutions to submit proposals for broadening the scheme, making ECTS use mandatory for institutions who wished to receive EU student mobility funding, setting up a series of ECTS workshops around Europe, creating a network of ECTS counsellors to help with implementation, and funding inter-institutional visits. Yet these supports were often undermined within institutions as the impact was limited to international offices and did not reach the academics who needed to engage with the scheme. The ECTS tools were being applied in diverse and eclectic ways (Markevicičiene & Račkauskas, 2012). It could be claimed that "by 1999 the ECTS was dying from the lack of support on national and institutional levels as well as suffocating from narrow minded approaches to problems and impacts student mobility brings to institutions" (p. 5).

A review of ECTS (Adam & Gemlich, 2000) was conducted in 1999 and published in 2000, overlapping with the Bologna Declaration. The review presented ECTS as a framework for mobility of lifelong learning (not just higher education) and suggested that, in order to thrive, ECTS needed to allow for accumulation and to pivot more strongly towards learning outcomes. The report can be read as advocacy for ECTS to move closer to the English Credit Accumulation and Transfer Scheme (CATS), which covers all levels and types of post-secondary study. This recommendation aligned well with the broader thinking at the time within the European union.

This centrality of the ECTS did not emerge unproblematically from its merits. Previously, at the celebrations for the 800th anniversary of the Sorbonne in 1998, there had been intense discussions regarding the future of the European university. Four Ministers responsible for Higher Education (France, Germany, Italy and United Kingdom) signed the Sorbonne Declaration, expressing their hopes for a more integrated system of universities across the continent (Marshall, 2008). The

declaration stated, "the Europe we are building is not only that of the Euro, banks and the economy: it must also be a Europe of knowledge" (European Higher Education Area, 1998, p.1).

This declaration flew in the face of normal EC protocols because it was created by a sub-group of member nations and not the Commission. In 1999, however, at a meeting in Italy, all EU Ministers responsible for Higher Education accepted the Sorbonne principles and signed onto the Bologna Declaration, creating the European Higher Education Area (Bologna, 1999, p.3). The declaration included

> Establishment of a system of credits - such as in the ECTS system - as a proper means of promoting the most widespread student mobility. Credits could also be acquired in non-higher education contexts, including lifelong learning, provided they are recognised by receiving Universities concerned. (p. 3).

To a large extent, the Bologna Declaration and the associated process of implementation provided the rationale and policy commitment needed to make the ECTS viable. Once the Ministers in charge of Higher Education in the European nations had signed the Declaration, there was evidence of shared will to implement a consistent system of credit recognition at the national levels. As Ministerial declaration followed Ministerial declaration there was increasing reference to ECTS specifically, leading some to wonder if the Ministers fully appreciated the consequences of what they were signing (Markevicič iene & Rač kauskas, 2012). By 2009, for example, 23 out of 29 EU countries had legislation requiring universities to design each academic year as between 1440 and 1800 nominal hours of study, making them fully compliant with ECTS expectations (European Commission, 2009). This work points to a remarkable degree of alignment among such diverse systems in a remarkably short time.

This alignment is unexpected and interesting, as Higher Education is an area of "national sensitivity" with "pronounced and legitimate diversity" (Gornitzka, 2009, p.112). Higher Education is considered as a nation-building function and the intention was never for the supra-national European governance structures to become involved with universities. Diversity of language and culture—both implicated in Higher Education—is one of the most celebrated aspects of the EU. The first signals of potential interest in education came in the Maastricht Treaty of 1993, talking of building quality education by encouraging cooperation between states and even supporting it if necessary. However, no European agency has been created to manage higher education, unlike vocational education and training (Gornitzka, 2009). The alignment of higher education was driven by a less centralised process.

This approach, called the "Open Model of Coordination," was adopted by the EU early in the 2000s across a number of policy areas. The model can be considered as a four-stage process:

1. identifying and defining common goals for the Union with specific timetables for achieving them
2. establishing indicators and benchmarks for assessing progress towards the goals

3. translating common objectives to national and regional policies taking into account national and regional differences
4. engaging in periodic monitoring, evaluation and peer review organised as mutual learning processes (European Council, 2000, ¶37)

In 2002, the European Council formally laid out a plan for the modernisation of education (Gornitzka, 2006) based on these principles. At this point the Director-General of Education, Arts and Culture stepped in to help define goals and set up the committee structures and measurement tools required. Around 500 individuals were involved as committee members and stakeholders in the process, which tended to modernize towards a common model in the light of the Lisbon Strategy of 2000. The Strategy introduced language around shared social goals across the European Union, including full employment, which shaped the role of higher education.

The developments described here are high-level, concerning agreements and developments in trans-European policy. There were also more pragmatic influences on the rapid development of ECTS, one of which was the TUNING Project. This was created in "response from the higher education sector – in particular its grass-root level – to the 1999 Bologna Declaration of the Ministers of Education of 29 European countries" (Wagenaar, 2018, p. viii). In other words, the universities believed they should have a say in the operation of the credit framework.

TUNING's work was focused strongly on the nitty-gritty of making the ECTS work. The project tackled issues such as designing the forms used to assess credit compatibility and pinning down the exact relationship between time spent studying and learning outcomes. They addressed the needs of the people faced with implementing the high-level principles in day-to-day practice. TUNING had no authority over the universities, but because it was created by them in response to external developments it seems reasonable to assume it had a high level of credibility across the Higher Education sector. TUNING assisted a great deal with making the ECTS a reality rather than an aspiration.

On occasion other EU projects contradicted, or at least interfered with, the implementation of the ECTS. A good example of this situation is lifelong learning. ECTS, while primarily concerned with formal higher education, is theoretically compatible with other forms of post-secondary study as well as with informal learning. Attainment of competency within these three domains (higher education, vocational education, informal learning) could be captured and communicated within ECTS simply by expanding and refining the available levels of credits.

The Minsters responsible for higher education met in Prague in 2001. They affirmed the need for lifelong learning and the need to "embed lifelong learning within higher education." A range of steps were identified that could bring this integration about:

- widening access to higher education;
- creating more flexible, student-centred modes of delivery;
- improving the recognition of prior learning, including non-formal and informal learning;

- developing national qualifications frameworks;
- improving cooperation with employers, especially in the development of educational programmes (European Higher Education Area, undated, ¶3)

However, the area of lifelong learning was strongly claimed by policymakers focused on employment (Gornitzka, 2006) and was interpreted through that lens. This led to resistance against adopting the already established ECTS and the resultant development of two new frameworks: the European Credit System for Vocational Education and Training and the European Qualifications Framework for Lifelong Learning (Wagenaar, 2018). Those involved in ECTS saw this as an unnecessary proliferation of frameworks. As both of these later frameworks have had mixed results despite being modelled on ECTS, it is reasonable to see the failure to unify the sectoral frameworks as a missed opportunity. Unlike higher education, vocational and lifelong learning have not had the benefit of a trans-European agreement on mobility and the creation of a single European education area to drive the work forward. These were both critical influences on the survival and relative success of ECTS.

One of the opportunities claimed for qualification frameworks is equity of access and progression. For example, a student from a historically under-represented group might have a different trajectory from a student whose family all have advanced degrees. If these students have similar interest, ability and application, they should be able to end up with the same qualification even though their pathways might be markedly different. Equity in this sense can be seen as the minimization of "friction" across the qualification system, with the easiest possible movement. This aspect of the ECTS appears not to have been formally recognized until fairly recently, in the 2018 Paris Communiqué.

> . . . further effort is required to strengthen the social dimension of higher education. In order to meet our commitment that the student body entering and graduating from European higher education institutions should reflect the diversity of Europe's populations, we will improve access and completion by under-represented and vulnerable groups. Therefore, we mandate the BFUG [Bologna Follow-Up Group] to take this issue forward by the next EHEA Ministerial conference. (European Higher Education Area, 2018, p. 4)

The commitment to inclusivity is re-stated in the 2020 Rome Ministerial Communiqué (European Higher Education Area, 2020) and an annex is dedicated to explaining and expanding this idea. The annex lays out ten principles for increasing access to higher education, though they remain at a very high level. One principle, for example, states the need for clear and reliable data on inclusivity, a huge undertaking for 27 national entities with thousands of universities. There is no evidence this recommendation was fully implemented.

3.5 Continuation

This section considers the continuation of the ECTS as a standard component of European policy. Since the inception of the system a great deal has changed in the European Union. New nations

have joined and one of the biggest economies has left. The economic crisis of 2008 has weakened the alliance and COVID has threatened it. University World Rankings have distorted relationships between universities, and the flow of students from outside Europe coming to study at EU universities has increased enormously. Not surprisingly, the current state of the ECTS is some distance from where it started.

One informant (K 2) commented:

> The ECTS Guide itself is now very old—nine years old—and in the interim very many things have happened, catalysed particularly by the pandemic, and the ECTS Guide as it exists has no way of handling micro-credentials, it has no way of handling blended mobility, and it cannot be said to command a consensus of the institutions which are involved in the most forward platform of EU thinking, which is the Network of European University Alliances.

It seems clear, however, that ECTS is going to continue for the foreseeable future. One piece of evidence for this claim is the number of programs which express their value in ECTS credits. The legislation normalising the number of hours of study across Europe has resulted in 60 ECTS credits per year (30 per semester) becoming standard across many institutions. The latest data from Eurostat (from 2020) shows that nearly a million and a half students are studying in a country other than their own, and 440,000 of these students are from a European country studying in another European country (and therefore falling under ECTS) (Eurostat, 2022). This is not an unmitigated success story.

> The ECTS is widely used around Europe, but not always in a consistent way. There is considerable variation in how workload and learning outcomes are combined (see e.g. European Commission / EACEA / Eurydice, 2018, p. 54). The automatic recognition of credits, including within Erasmus+ credit mobility, is further hampered by administrative issues, for example, related to the use of ECTS documents or grading systems. (EURYDICE, 2023, p.51)

All informants mentioned, sometimes at length, the prevalence of issues regarding consistency of credit allocation and recognition. Credit allocation can sometimes reflect more than level of study and hours, such as the status of the topic being studied (K 3). The utilisation of learning outcomes remains inconsistent. Two commentators suggested this was partly because of different academic cultures and traditions, with the Anglo-Saxon tradition most likely to use learning outcomes and the Napoleonic academics more likely to look for identical processes before conceding equivalence.

Even after the credits have been allocated, having them recognised at a home university is not always straightforward. There is a significant difference in philosophy between those who see studying elsewhere as valuable in its own right and those who expect the same reading list in a different university. There is an apocryphal tale of a German university refusing to accept a Spanish university's Spanish language courses because they were seen as lower quality than the ones in

Germany. The grade the home institution will assign based on the grade achieved elsewhere can also be highly variable despite frameworks being put in place to address this specifically.

There is also an important difference between recognition in terms of entry to study and moving forward in study. A high-level member of a student advocacy group commented "we differentiate between recognition for access and recognition for progression. For access it's more uncommon . . . For progression it's more common. There are various barriers in place, like you can recognise 1/3 of ECTS for a bachelor's degree, or 10-15% per year, or there are reverse ways, like in Italy and France you need to have at least 60% ECTS points gained in the awarding institution" (K 3).

These complications maintain the allocation and recognition of credit as a low-level, highly personalised process. Given the significant number of students using the ECTS each year the application of the system to a course of study remains relatively labour-intensive. A student with experience of the system commented that "ECTS adds a lot of work for the coordinators, and for me as a student" (K 4). Repeat or multiple students following the same study pattern could reduce this significantly, but many credit transfers are individual. There are four main documents involved in application of the framework:

1. Course catalogue. This is the catalogue of the receiving institution, with descriptions of intended learning for the incoming student.
2. Student application form. Completed by the student, this lays out expectations and provides background on the student.
3. Learning agreement. Provides detail on what should be learned during the period of visiting study and has to be approved by both institutions.
4. Transcript of records. A summary of the courses completed and learning attained by the visiting student at the host institution.

While the rationale in terms of quality assurance for these documentary requirements appears clear, it could represent considerable workload for the student and both institutions involved (K 4). This may be an artefact of the pre-EHEA period, when the systems across Europe were more diverse than currently and institutions were less used to thinking in a consistent manner about their programs. Nonetheless, ECTS remains a highly bespoke approach in practice.

EURYDICE, the European Education and Culture Executive Agency, has published reports on student mobility called the "mobility scoreboard" three times from 2016 to 2023. The report provides information on six indicators considered as essential for strong mobility (Eurydice, 2023, p. 9):

1. Information and guidance
2. Foreign language preparation
3. Portability of grants and loans
4. Support for disadvantaged learners
5. Recognition of learning outcomes through the European Credit Transfer and Accumulation System (ECTS)
6. Recognition of qualifications.

Each country is rated on sub-elements of each of these aspects. Certain countries are strong performers and have good frameworks and support in place for mobility, but this is far from universal. The report's comments on each of the six areas are extremely pertinent and useful.

In terms of the information and guidance available, the most frequent approach is for the institutions to provide advising services. This has the advantage of locality and institutional knowledge, but the report points out that this could also allow patchy or inconsistent forms and levels of support.

Foreign language preparation is critical. One cannot study in France without a very strong knowledge of French. Most European countries have school systems teaching one foreign language (most often English) but a number teach two or more.

Portability of grants refers to the issue of whether a student can access funding from their home government while studying elsewhere. Generally, where state support is available portability for study abroad is permitted, though the level of this support varies considerably, and the support granted by a country with lower costs may not cover the expense of study in Berlin or Paris. This issue links with the next, in terms of support for disadvantaged learners. Ideally countries would have good data on the conditions and success of less advantaged learners and offer targeted support for their study, including study abroad. This is, however, the indicator with the weakest results, as few countries have data or specific supports in place.

The fifth indicator directly reflects ECTS and the quality assurance mechanisms associated with it. The report states:

> The ECTS Users' Guide 2015 principles are required to be used by external quality assurance as a basis to assess the implementation of ECTS in higher education institutions in the context of international credit mobility.
>
> [The following five] elements are monitored specifically:
>
> 1. ECTS credits are allocated on the basis of learning outcomes & student workload.
> 2. ECTS supporting documents (Course Catalogue, Learning Agreement, Transcript of Records, and Work Placement Certificate) are used appropriately.
> 3. All credits gained during a period of study abroad – as agreed in the Learning Agreement and confirmed by the Transcript of Records – are transferred without delay and count towards the student's degree without any additional work by or assessment of the student.
> 4. The HEI has an appropriate appeals procedure to deal with problems of credit recognition.
> 5. The HEI uses statistical grade distribution tables in each field of study. (EURYDICE, 2023, p. 58)

Six countries implement all five of these principles, with another 17 implementing two to four of them. The most commonly implemented indicator is the first, with credits assessed on workload and learning outcomes.

The EURYDICE (2023) report suggests that neither the broader goal of friction-free credit transfer or the narrower goal of consistent use of ECTS is fully achieved across the EU. The report comments "This suggests that automatic and fair credit recognition is not yet the focus of attention among top-level authorities" (p. 60). This judgement should be balanced with the observation that each cycle of the report has shown increasing use of consistent approaches across the European Higher Education Area. Transfer of credits is becoming easier even though it is not a political priority.

Assessing the success of ECTS as a credit accumulation mechanism is more complex. While this practice has become both standard and required in many jurisdictions there are few publicly available statistics regarding how many people are taking advantage of the possibilities for access. Any such information is likely to be scattered among institutions in different jurisdictions and would have to be collated. However, it is possible to provide insights on the current status of articulation policy beyond the university sector.

The Europass website (Europass, undated, a.), designed to support transfer and accumulation of vocational preparation through the European Qualifications Framework (EQF), acknowledges the existence of the three cycles of higher education defined within the Bologna Process (essentially undergraduate, masters, and doctorate). It then suggests these correspond to the top three levels of the eight-level EQF, with short-cycle qualifications as level 5.

Europass launched a new online facility in July 2023 designed to make it easier to assess comparability of qualifications across the EU. Called the European Learning Model (ELM), it is intended to increase the comparability, portability, and transparency of data around learning. The description of the ELM states,

> By providing a unified way to refer to, and to describe all things related to learning, the ELM allows for the understanding of concepts in the same way across countries and organisations. This, in turn, eases the data exchange process across Europe as any organisation or entity working with learning can make use of the same concepts, making the data understandable even across languages. For instance, when providing information about a learning opportunity (such as a university degree programme or a short online course), this information can be presented in a way that is understood across all EU Member States. (Europass, undated b, ¶1)

The principles of the ELM/EQF seem to resemble the ECTS strongly, and reviewing the documents allows the reader to understand how these systems could be seen as redundant. The links are not drawn strongly in the available information, however. ECTS is not mentioned in the list of frameworks to which ELM is mapped (Europass, undated) and the webpage is extremely high-level and not particularly clear and welcoming. There is no explanation of how the ELM can be used by an

institution or an individual. It seems reasonable to conclude that the mechanisms needed to support effective accumulation of learning through the EQF are still in development.

The design of the EQF appears to position ECTS as a subordinate, specialised area of the broader EQF, a suggestion that may be unpopular with universities. The European Qualification Framework has yet to gain significant traction. One comment suggested "there would be enormous resistance on the part of the universities . . . in driving [the framework levels] down in such a way that they became structurally committed to, and involved with, vocational education institutions" (K 2). The interests of the higher education sector, in terms of maintaining a status differential, make the implementation of an overarching framework more challenging.

While discussing articulation it is worth noting that micro-credentials are starting to attract attention in the European educational eco-system. In June 2022 the European Council (2022) published a recommendation for greater availability and recognition of micro-credentials. One of the early statements in the recommendation is that lack of a common definition or standard for micro-credentials across the EU limits their utility (¶6). The discussion concludes by recommending (among other things) that European states incorporate micro-credentials into employment law and data on micro-credentials is collected. A template is provided for this purpose. Again, it may be some time before these efforts bear fruit for learners. One informant expressed dismay about the work needing to be done before micro-credentials could even be assigned an appropriate level (K 1).

One of the potentials for qualifications frameworks is to recognise learning in many forms and contexts as having equal value to formal education, which has always been more accessible to some people than others. By recognising a range of experience this imbalance can be addressed to some extent, as is recognised by student groups. "For the students there is a lot of push for the recognition of informal and nonformal education, and in theory the qualification framework should be used also for nonformal learning and based on mapping . . . You could use Recognition of Prior Learning linked to the descriptors and levels of the qualifications framework" (K 3). It would make sense to have a single, consistent approach to RPL across the EHEA rather than a range of inconsistent local practices. Currently the Agency for Quality Assurance and Accreditation Austria is leading the European RPL Network, but it remains too early to know what the outcome of this initiative will be. There are already multiple agencies and networks working within the European higher education field and it is unclear whether a new one can gain purchase and influence, especially when it can be seen to be working against institutional autonomy to some degree.

The Bologna Follow-Up Group (BFUG) is the body entrusted by the EU Ministers of Education to implement the policies and create the structures for the Bologna process of harmonisation of higher education across the EHEA. One of the topics the BFUG addresses is "social dimension," defined in the London Communiqué (European Higher Education Area, 2007) as the aim that "the composition of the student body entering, participating in and completing higher education at all levels should correspond to the heterogeneous social profile of society at large in the EHEA countries (¶2.18)." The working group associated with this topic (European Higher Education Area, undated) has the following aims for 2021-24:

1. Developing a system of monitoring the implementation of the 'Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA' (Principles and Guidelines). It will enable measuring the impact of the broadened definition of the social dimension in the Principles and Guidelines on the work of different higher education institutions.
2. Defining indicators and benchmarks for the principles included in the Principles and Guidelines.
3. Developing tools for the implementation of the Principles and Guidelines.
4. Organizing peer support activities for social dimension to support the implementation of the Principles and Guidelines among the EHEA members.
5. Organizing a seminar on the social dimension at the end of the cycle in 2024 to discuss the progress made in developing social dimension policies in the EHEA members.

Having these aims at this point suggests the implementation of the London Communiqué principles remains at an early stage. Key informants suggested this was more to do with the way the Bologna process was unfolding more that the ECTS itself and tended to view the ECTS as a neutral tool rather than representative of certain values (K 1, 2 & 3). One commented on the question of equity "that's not intrinsically an ECTS matter."

Reviewing the continuation of the ECTS there are a number of points that emerge. The first is that the ECTS itself, in the minimal sense of a mechanism for credit transfer between disparate higher education systems, appears to be well accepted and non-controversial. It is difficult to see why this would not continue, especially as non-EU institutions have come to use it to support and evaluate study-abroad programs within the EU. There is good acceptance of ECTS on the level of simple transfer, especially as Bologna pushes European universities to align their work.

It is apparent, however, that there is still some way to go in terms of building a more broadly applicable qualifications framework. Due to this, the full benefits of ECTS to increase equity of access may not have been fully realised. A second, more operational, concern is the lack of coherence regarding quality control across the EHEA and beyond. While EU agencies and Ministerial meetings attempt to lead consistent approaches by example, such as providing templates for assessing learning outcomes, the uptake across nations has been patchy. Given the many thousand institutions across the EU and the extent to which ECTS continues to be applied on an individual basis, this is not unexpected.

Upon hearing of this project an individual with a pivotal position in the operation of the ECTS was good enough to provide notes regarding how to best approach setting up a credit and qualification framework. These are attached as the Appendix to this case study.

3.6 Observations regarding the ECTS

The first, and inevitable, observation concerns the complexity of ECTS and the challenge of getting clear information about the system. Over the thirty-plus years of this effort there have been many

hundreds of commentaries written about ECTS, but very few analyses based on concrete data. This dearth of information may well be because the data resides at the institutional level rather than within a Pan-European repository. The process of developing ECTS, conversely, has been concerned to a large extent with the high-level political aspects rather than the concrete and operational issues. The distance between the high-level meetings where the system was designed and the personnel in local institutions who have to operationalise it is striking.

The international political context has been pervasive throughout the ECTS development process and has had substantial influence. Originally it was intended as a simple mechanism to help incompatible systems to communicate about student learning in order to support ERASMUS. This motivation was running out of steam by the late 1990s, when it was revitalised with the Bologna Accord and the beginning of the EHEA. A common educational area of this type would need a consistent way to measure learning and ECTS was well-placed to step into this gap. Universities developed and supported agencies to implement ECTS and ensure their interests were protected within a common framework, and these agencies contributed a great deal to the pragmatic business of making credits portable and transparent. ECTS suffered a setback when it was decided to create new frameworks for vocational and lifelong learning rather than extend ECTS to cover these areas. In the interim the political interest in common qualifications structures covering all learning across the EU has not yet led to a mechanism capable of fulfilling this hope.

Many of the key observations regarding ECTS reflect political process rather than technical credibility. One important example is the notion that ECTS credit allocation captures both time spent in learning and learning outcomes achieved. These two elements represent divergent philosophies of learning. Using time spent learning as the primary measure assumes one hour of learning is comparable with any other hour, and that all learners learn at the same rate. Learning outcomes are disinterested in the means or length of learning and focus only on what a learner can do. In other words, one centres inputs and the other outcomes. This disjuncture is overlooked because doing so allowed the UK position (primarily on master's degrees) to be consistent with other countries' approaches. It was commented that the UK leaving the EU could prove beneficial to the future of the ECTS (K 2).

It is worth noting that the ECTS approach to learning outcomes (described above) does not consider them as learner-centred or learner-defined. Rather, they are programmatic statements, defined in advance, of what learners know, understand, and are able to do if they successfully complete assessments associated with courses of study. This can make them appear narrower than they could be, though it also simplifies transfer and assessment of equivalency a great deal.

ECTS appears to be reasonably effective at supporting credit transfer, but less so when it comes to accumulation. It allows horizontal movement of the same types of credit between disparate systems but seems less useful for vertical movement between different types of learning, for example vocational and higher education. It functions as a bridge, but not as a ladder. This is reflected in continuation of the lifelong learning and vocational credit systems representing different forms of

learning. If there were to be a single system across the EU to permit maximum mobility, it would have to offer both vertical and horizontal movement.

The equity benefits of the ECTS as currently operationalised appear to be quite limited. The most significant point of discrimination in higher education is the initial entry point. Some aspects of this discrimination are based on preparation of the student and whether they are likely to be successful, and some are based upon factors such as historical challenges for certain groups in gaining access. ECTS is not relevant to either of these aspects of student selection, only being applied when students are already in the university system and seeking mobility. Where ECTS could contribute is in ensuring all students have equal access to mobility in general, and specific programs such as ERASMUS in particular, but this function of the system remains significantly under-developed. This does not mean that individual nations may not have excellent approaches in place to support equitable study abroad, but the ECTS is not explicitly configured to complement this effort.

Related to this, the ECTS process is very much individualised, with each learner going through a bespoke process of credit assessment and determination of suitability for transfer. Given the emphasis on individuals, it is not always clear that ECTS can be regarded as a system rather than a broad framework to facilitate advisory and program design decisions. In a fully developed system one could hope that the credit recognition process would be automatic, requiring little intervention for each learner. Of course, the complexity of the European context, with its multiplicity of institutions and languages and degree programs, may make the aspiration for a universal and inclusive approach unrealistic.

The ECTS has also had unintended consequences that did not arise directly out of the system but from the part it has played in the broader development of the European Higher Education Area following Bologna. One striking example is the widespread—and legislated—acceptance of 60 credits as equivalent to a year's study and the associated hour-to-credit ratio. ECTS has moved from bridging between diverse systems to acting as a key commonality between those systems. There may be some concern within EU universities regarding non-academic factors driving decision-making.

Finally, and interestingly, ECTS seems to have come full circle in many ways. It was originally intended as a relatively light-touch means for disparate systems to capture the study effort of a single student in a fair way. After some time when the credit system was seen as leading the integration of European higher education, it is now very much back to being a sector-limited tool focused strongly on transfer.

3.7 Lessons learned

Reviewing the development, implementation and continuation of ECTS leads to the identification of a number of lessons for the development of similar systems.

1. Political context is very significant. In the case of ECTS, the European Union contains many different political players of many different philosophies, and they change frequently. One example

of the way this shaped the system is the compromise around study time and learning outcomes, originally made to placate the UK representatives' concerns regarding the 12-month masters.

2. Transfer across different higher education systems is complex. A lot of the time and effort put into ECTS concerned fundamental—and important—questions of equivalency. The increased alignment of European universities since Bologna has contributed a great deal to the utility of ECTS. It would be much easier to create a framework where all institutions were already thinking of credits in the same way, such as the Carnegie system.

3. Horizontal transfer systems may make limited contributions to equity. Where mobility occurs within a sector, the initial entry barriers to a system may still prevail, resulting in the continuation of selection practices. Vertical transfer systems (and associated credit accumulation mechanisms) may be more effective at permitting access for non-traditional groups.

4. Collecting sound data about transfer systems can be an enormous challenge. Despite having excellent statistical and monitoring agencies, the EU finds it hard to record the use and effectiveness of ECTS because decisions are made locally, in turn limiting potential for shared quality assurance mechanisms.

5. Overarching bodies can be helpful, not least in providing a problem-solving venue. Even though the ECTS was a top-down endeavour, bodies such as TUNING and the European University Association, both of which had representation of the institutions involved in implementing the system, carried out a considerable amount of problem-solving and design.

6. Concrete details of the system are critical in the success of transfer. The political will, and associated policy, were helpful in the instigation of ECTS, but it was only when stakeholders began to engage with questions around the form paperwork had to take and how universities could get instant support with transfer that the system began to function well.

7. Developing systems for mobility takes significant amounts of time. It seems likely that the variability in the European higher education sector and the importance of political process slowed down the development of ECTS a great deal, but any system that is developed with the participation of institutions will take some time.

8. Recognition of prior learning remains challenging, partly due to fragmented systems. While this is the case, ECTS is limited to mobility within the post-secondary system rather than helping to increase access into the system. It seems this will take a while to resolve given that recognition of ECTS credits across institutions remains inconsistent and unpredictable. This appears to be an aspect of the system where there is a rationale for some sort of overarching set of practices.

3.8 Appendix: Suggested guidelines for introduction of new/enhanced credit accumulation and transfer scheme (CATS) for higher education

Howard Davies, Senior Advisor to European University Association

- At top level (ministerial, regulatory body) ensure that the project objectives are clear, attainable, in line with, and capable of progressing, the overarching strategic vision of HE development;
- Be explicit regarding the extent to which the CATS is expected to contribute to
  a) a lifelong learning mission,
  b) labour market integration and regional development, and
  c) easing the interface with peer jurisdictions and promoting cross-border mobility;
- Convene an advisory group of internal and external experts charged with
  a) mapping international good practice,
  b) canvassing the views of social partners, student organisations and civil society, and
  c) appointing a policy entrepreneur with powers to steer the project, advocate, liaise and otherwise secure the buy-in of key stakeholders;
- Give the policy entrepreneur a budget and a small team of assistant, IT systems adviser and event manager;
- Require the team to undertake a feasibility study, identifying those structural elements already in place and those to be introduced: the study should cover modularisation, semesterisation, implications for funding and employment practices, staff development needs, data collection, quality assurance and recognition practice (RPL, incl. non-formal and informal), mapping of student pathways with particular reference to vertical (between VET and HE) and horizontal (across the binary divide) bridges;
- Ensure a watching brief on international good practice in the areas of micro-credentials and digitalisation of recognition instruments;
- Run a funded pilot CATS programme with a representative sample of institutions, of sufficient duration to generate useful monitoring mechanisms, data collection and analysis, and assessment of the likely impact of full-scale implementation;
- Proceed to legislation if appropriate.

4. Case Study: Australian Qualifications Framework

4.1 Executive summary

The Australian Qualifications Framework (AQF) was established in the mid-1990s as a way to address apparent inefficiencies in vocational and academic post-secondary education across the country. Initially it was top-down and based on the belief that market-based solutions could help to add discipline and rigour to a post-secondary context marked by jurisdictional and sectoral differences. There is a well-developed parallel system of private vocational training in Australia, and the hope was that they would want to buy into the framework, providing an opportunity for quality expectations to be extended across this sector.

The AQF is quite literally a qualifications framework. To date the unit of currency involved in portability has been qualifications as a whole rather than courses or study-hours. An example is a private provider who teaches a course on project management. The question the AQF addresses is the extent to which this study can be credited against further study at similar or higher levels. In recent years there has been increasing interest in competencies as the fundamental unit for assessment and the concomitant philosophy of qualifications as clusters of competencies. Though logical, this model complicates the picture enormously and initially appears more appropriate for vocational rather than academic education.

The AQF emphasises the importance and ubiquity of Recognition of Prior Learning (RPL) as a contribution to equity and access. There is some disagreement about the importance of equity aims within the original formulation of the AQF and little evidence regarding either the implementation or effects of RPL. Recent developments are changing the conversation around equity in the Australian post-secondary sector, reflected in a number of reports discussed in this review.

There are nine main insights for similar frameworks arising from the AQF:

1. Qualification frameworks do not lead spontaneously to specific outcomes such as enhanced credit portability but depend for their effects on the details of their design.
2. Qualification frameworks may describe the current state of an educational field rather than transform it.
3. For a qualification framework to change opportunities open to learners, credit portability and the ability to import credit into the framework (e.g., through RPL) are key considerations.
4. Low-trust environments are limiting, irrespective of the formal structure chosen for mobility.
5. A measure of learning going beyond and below qualifications would seem to offer the most potential for portability and flexibility.
6. Data on equity and access alongside attention to the details of who is moving and why would enhance the ability of a system to attend to these priorities.

7. Quality assurance can be complex and resource-consuming when working across sectors and jurisdictions.
8. Some jurisdictions may choose not to engage with a broad multi-jurisdictional framework, but their non-participation need not undermine the framework completely.
9. Despite the claims regarding the learner-centredness of the framework, a truly transparent approach without a significant need for specialised knowledge remains elusive.

4.2 Overview of the Australian Qualifications Framework (AQF)

The intention behind the establishment of the Australian Qualification Framework (AQF) can be understood in a number of different ways. At the time, the rationale centred pragmatically on learner access and system efficiency; learners should not have to repeat learning they had already achieved and there should be no gaps in their knowledge and skills. The founding report reflects these values. However, there was also a philosophical driver behind the framework, centred on a market-based ideology and the notion that publicly-funded services should not have advantages in the market simply because of that status. The AQF is an interesting and important case to examine because of these twin—and potentially incompatible—philosophical foundations and also because it represents an effort to build a unified framework across several jurisdictions and a number of sectors.

As with many qualifications frameworks the AQF is often portrayed as a matrix with horizontal categories for level of learning and vertical categories for broad category of learning. Since complete qualifications are currently used as the currency of the framework there is a legitimate question about the extent to which credit transfer takes place beyond that already offered by qualifications themselves. It seems that the main effects of the framework might be felt at the "lower" levels of the framework, simply because there are more short qualifications in these levels and transfer is a more useful tool. The implications of the framework for credit accumulation, that is the extent to which credits are stackable towards broader qualifications, also seems less clear than it could be. The AQF offers a system for creating hierarchical pathways from certificates through to PhD level studies, but how much it helps learners to progress along them is unknown. To this extent it appears more of a system management tool than a learner-centred opportunity.

The AQF has attained a significant position within the Australian post-secondary sector, particularly in vocational education. There are many private providers of Vocational and Educational Training (VET) and the AQF has served as a resource, a communication device, and a basis for quality assurance across the diversity of these programs. Higher education institutions have been slower to recognise the framework other than as a way to demonstrate readiness for entry; application of the framework to higher education qualifications has not been rapid. The original ambition of the framework to reach into secondary schooling has also proven difficult to achieve, in no small part because each state has its definition of the certificate representing secondary completion. This

discreteness is reminiscent of the situation in Canada, where Québec and the rest of Canada have different approaches to the transition out of secondary schooling.

The equity benefits of the AQF have remained elusive. The perennial problem of data management across multiple providers, not to mention the evolving ways in which ethnicity, socio-economic status, and gender are defined, have prevented a clear picture emerging. While there was an implicit hope in the early days of the framework that it would make the transition into higher status and more rewarding forms of education easier for people starting at a disadvantage, the extent to which this was achieved is currently not possible to assess.

4.3 Initiation

Australia is a federal country consisting of a national government based in Canberra, six states and three internal territories. The division of responsibilities between these governments is reminiscent of many federal countries in that schools are governed by states and territories, and higher education, while funded by several levels of government, is nominally autonomous. A third sector, vocational education and training (VET), is funded at state and territorial levels but has come to function largely as a national system over the last 40 years or so. These varying patterns of governance are among the most distinctive features of the Australian educational system.

Education and training systems underwent a very significant change in the early 1990s, and understanding this change and its effects is important in building understanding of the Australian Qualifications Framework. As one study summarises,

> Until the early 1990s the institutes of TAFE [technical and further education colleges] delivered the vast majority of publicly funded and accredited vocational education and training. The new idea was to introduce contestable funding arrangements into the publicly funded VET system and thereby create a 'training market' in which both public and private providers potentially had access to public funding. (Bowman & McKenna, 2016, p.29)

The philosophy underpinning this approach to vocational education and training extended across a number of sectors and reflected a commitment, common to many countries at this time, to economic liberalisation.

> In Australia, the then Labor Government was pursuing this way of thinking. It went on to establish a National Competition Policy in July 1995. The policy principle was that government businesses should not enjoy any net competitive advantage simply as a result of their public sector ownership. (Bowman & McKenna, 2016, p.29)

When considering this policy statement several decades later, it appears to raise as many questions as it answers, for example the exact competitive advantages entailed by public ownership. At the time, and since, this philosophy has been a significant shaping factor in Australian education policy, creating a quasi-market across education generally and in vocational provision particularly. A number of policy innovations have been designed to help

support and shape this quasi-market, not least in terms of ensuring some form of quality assurance is in place. The Australian Qualifications Framework (AQF) is one of these innovations. It can be considered as an attempt to identify and organise equivalent products within the training marketplace.

The starting point for the AQF was a publication known as the Rumsey Report (Rumsey, 1991), which states "this project for the national alignment of credentials is intended to develop a new model for vocational education and training credentials in Australia" (p.2). The report contains high-level discussion around the design parameters of a system intended to provide a competency-based approach across an educational sector where the actual content of courses could vary widely. The report leans towards the use of "units of learning" as the currency of the framework though in practice the AQF only worked with entire qualifications rather than sub-components within them.

The framework was developed and implemented by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCETYA) (Australian Qualifications Framework Advisory Board, 1996). This group of representatives of the various Australian governments wanted to create a single continuum for education and training running from secondary school to PhD. In theory it would not matter whether an individual received preparation for the third year of university by attending university for two years or from a mix of less formal study and work experience. Implementation of this system would both help individuals to attain the higher qualifications it was argued Australia would need in the coming decades and create a more transparent marketplace for qualifications. The framework set out to support

- The articulation of education and training programs—programs designed so that they interconnect in variety of logical ways, across schools, TAFE, adult education centres and university, across fields of study and across qualifications levels
- Credit transfer arrangements—official credits granted towards qualifications & through formal arrangements at institutional level (Australian Qualifications Framework Advisory Board, 1996, p.4)

At the introduction of the framework, the key features were identified as follows:

1. Reflects closer integration of learning and work at all levels of the workplace;
2. Rationalises school, industry, vocational and academic qualifications into a single system of twelve qualifications;
3. Encourages continuous upgrading of knowledge and skills in areas previously without specified standards of competency or educational expectation;
4. Supports flexible education and training pathways between schools, TAFE institutions, private training institutions, universities, training in the workplace and lifelong experience;
5. Encourages parity of esteem between academic and vocational qualifications;
6. Provides a clear and rational structure in which an increasingly deregulated training market can maintain credibility within the overall education and training system. (Australian Qualifications Framework Advisory Board, 1996, p.3)

Three points are worth noting in the list of features above. The first is the inclusion of "lifelong experience" with its connotation of both lifelong learning and experiential learning. In the document cited, these items appear alongside a diagram of the system featuring recognition of prior learning (RPL) as an input at every level (Table 1, below). Lifelong learning is not explicitly mentioned but is implied to be a source of the knowledge undergoing RPL. Point 5, on parity of esteem between types of learning, is common to many qualification frameworks, and proves to be problematic in Australia as in many other jurisdictions. The final notable point falls under the last bullet, where the creation of a deregulated market is identified as a desirable feature of the framework.

The AQF was not intended to be a standalone mechanism for educational reform. There were a number of other structures brought in at the same time, including guidelines for each level (levels are discussed in the following section), a set of articulation principles, protocols for issuing a qualification, transition principles and processes (from the previous system to AQF), and an AQF advisory board. The issue of quality control attracted a great deal of attention, partly because the move towards a market model of training brought in an array of new non-public sector suppliers. This raised the question of how there could be certainty that a level 3 qualification from one institution was equivalent to a level 3 qualification from a private training company, for example. One response involved management of who could legitimately provide VET.

The Australian Training Framework Committee of the Australian National Training Authority (a statutory authority established by the Australian government from 1992 to 2005) was a group of industry and training representatives charged with managing the National Training Framework. AQF was one component of this framework; the other was the Australian Recognition Framework, dealing with how credit should be allocated by receiving institutions and programs. Jurisdictions were given responsibility for identifying, registering and monitoring Registered Training Organisations (RTOs). Registered providers gained access to the formal VET system. In return they had to provide AQF compliant qualifications and recognise the AQF compliant qualifications of learners coming into their programs. Registered providers were also to be recognised across state and territorial boundaries, so that an RTO from New South Wales would have free access to the Victoria training market (Bowman & McKenna, 2016).

The initial Australian approach to creating their educational ecosystem was strongly shaped by the perspective that training could be treated as a standardised product. The emphasis was placed on ensuring uniformity and interchangeability of education and training components. This has not been a benefit for all sectors. One key informant mentioned that "community education providers have struggled in a marketized system . . .they've struggled to find their place. They're generally state-based" (K 2).

Within VET there are tensions between private providers and publicly funded Technical and Further Education colleges (TAFEs). There are 28 TAFEs in Australia, ranging in size from New South Wales with 400,000 enrolments and 17,000 staff to some in Victoria with 500 enrolments. Due to TAFEs being state institutions the commonwealth government does not pay for students to complete programs at TAFE (except for one nursing program and one early childhood education program).

States do generally have a range of programs where learners are not paying full fees. These programs reflect the use of TAFEs to fulfil different purposes in shaping the workforce of different jurisdictions and is reflected in the different AQF levels they engage with. The bulk of their work is generally at AQF levels 3-4, though some do go as high as level 7 (bachelor's degrees) (K 2).

The private VET sector is very significant in scope and is seen as a credible and desirable feature of the post-secondary system. One key informant reflected that "the public-private thing has proceeded apace. Privates generally do better on student satisfaction, usually because they're smaller and there's a commercial imperative, and so they have to treat their students well" (K 1). The tension between the private providers and the TAFEs concerns the type of regulatory environment within which they work. While TAFEs may be comfortable with a highly-regulated state-driven sector, the private providers would prefer less regulation. More than this, they hope for stability, a concern emerging in recent years because of the recurring suggestions for reform discussed later in this review.

The notion of parity of esteem between sectors and providers has proven to be as difficult to enact in Australia as in other jurisdictions. The AQF "tried to be sector-agnostic in the first instance" but suffered from "retrospective levelling where unfortunately all the vocational stuff went to the bottom. And there's the messy muddle where VET and higher education overlap" (K 1). In the design of the framework a distinction between skills and knowledge emerged, with skills as the lower, vocational sort of learning and knowledge as the more academic sort. Over the years this distinction has been naturalised as meaningful and significant. "Parity between skills and knowledge would be a good thing, but it's all deeply entrenched in industrial relations, legislation, and history. [There is] very powerful union involvement and they're worried about what would happen to their workers, not unreasonably, because everything is see through a lens of worker against corporate big business" (K 1).

Before moving into a more detailed description of the framework as it was implemented, it is worth emphasising a particularity of the AQF. It is not a credit framework in the sense that an individual could complete *x* hours in one program and then import them into another program to replace *y* hours of study. The unit is considered to be the qualification, which is one reason there are multiple levels of qualification below degree standard. However, qualifications are composed of competencies, which are themselves approved at national level through a quality control process. The role of the Registered Provider is to create a qualification by drawing on a cluster of pre-defined competencies. The easiest way to consider this is as a two-level hierarchy, where approved competencies cohere into approved qualifications. The implications of this approach will be explored below.

4.4 Implementation

The intention was to roll out the AQF from 1995 to 2000, but by the time it was fully in place it had already begun to change in response to sectoral pressures. When the AQF went "live" in 1995 there were 12 initial levels (Table 1). One of the most interesting—and telling—features is the overlaps

between the sectors. As presented, the schools do not overlap at all with higher education. The higher education sector is free of overlap at bachelor's level and above. As laid out in the table, really the only levels where there is a possibility of significant cross-sectoral credit portability are diplomas and advanced diplomas. The qualifications framework appears to maintain the three educational silos already existing in Australia, raising questions about its ability to address key features 2-5 as listed on page 41-42. As presented here, it maintains the hierarchy of schooling, VET and HE.

		Doctoral Degree
		Masters Degree
		Graduate Diploma
		Graduate Certificate
		Bachelor Degree
	Advanced Diploma	Advanced Diploma
	Diploma	Diploma
	Certificate IV	
	Certificate III	
Senior Secondary	Certificate II	
Certificate of Education	Certificate I	

Table 4.1: AQF (Australian Qualifications Framework Advisory Board, 1996, p.2)

The 1996 guide introduces the idea of pathways through, and across, the qualifications framework:

> The AQF is a system of rational interconnections. As such, the AQF makes a specific commitment to removing traditional barriers, and underpins operational and policy decisions in support of the pathways concept. The AQF supports efficient continuous learning and the elimination of wasteful repetition of learning by promoting:
>
> - the articulation of education and training programs—programs designed so that they interconnect in variety of logical ways, across schools, TAFE, adult education centres and university, across fields of study and across qualifications levels
> - credit transfer arrangements official credits granted towards qualifications and through formal arrangements at institutional level (p.9)

This concept is illustrated through a diagram showing how the 12 levels were designed to fit together and promote student mobility and credit portability (Figure 1). One notable feature here is the ubiquitous nature of recognition of prior learning (RPL) throughout the pathway system. The

guide does not provide any further information on establishing a pathway or on developing a system for equitable RPL.

One of the questions raised in the AQF Guide of 1996 is what a person with a specific level of qualification "can actually do" (p. 16). For the vocational education and training sector the response to this question is expressed in terms of work competencies that are arranged in training packages. Currently, it is relatively straightforward to visit the *training.gov.au* website (Government of Australia, 2024) and see how the competencies are defined and how they inter-relate. When designing programs, providers can bring together clusters of competencies either into targeted bespoke training packages available across Australia, or into more specific accredited courses. The training packages, having wider scope, provide a way to understand the working of the system.

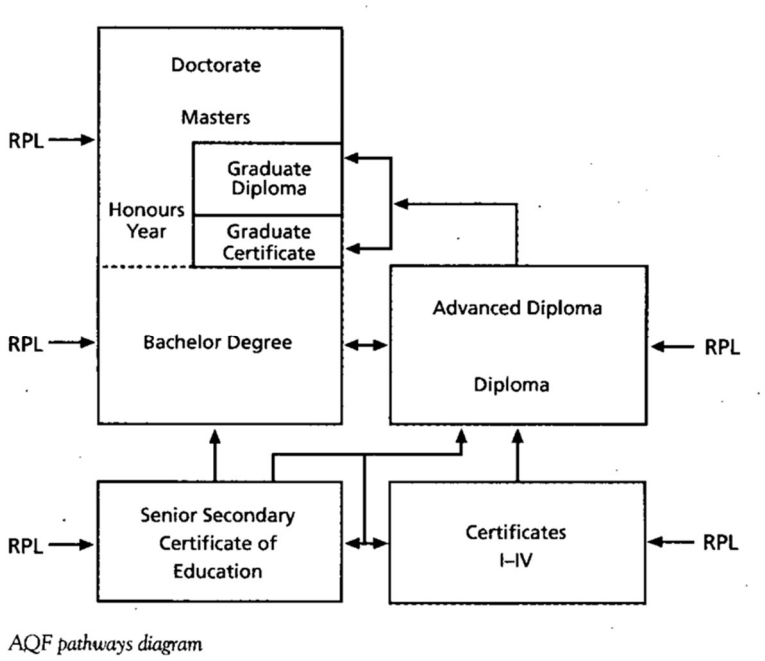

Figure 4.1: AQF Pathways. (Australian Qualifications Framework Advisory Board, 1996, p.10)

For example, the *Transport and Logistics Training Package* was updated in October 2022 and contains one Certificate I, eleven Certificate IIs, seventeen Certificate IIIs, thirteen Certificate IVs, six Diplomas and two Advanced Diplomas (Government of Australia, 2024a). One of these is *TLI33021 - Certificate III in Heritage Locomotive Assistant or Steam Locomotive Fireman.* This training package contains ten competencies, one of which is *TLIF2006 Apply accident emergency procedures*.

Details of competencies are found on another website, *vetnet.gov.au* (Government of Australia, undated). This site provides a list of work contexts, considerations, consultations, possible legislation, and so forth. The implementation guide states each competency has a specific assessment plan listing performance evidence, knowledge evidence and assessment conditions (Australian Industry Standards, 2022), though at the time of review (2024) assessments were not in

place for many competencies. *TLIF2006* has three elements with 10 performance criteria such as "hazards are identified, risks assessed and control measures implemented." Though this is listed as a single criterion, it is notably complex and multi-faceted, and could be interpreted in a number of ways. It appears that units of competency are often composed of compound skills that may be open to different understandings of what is involved.

The necessity to have any training package approved by quality assurance bodies can have unintended outcomes. One informant from the VET sector stated "it was actually these training packages that limited the ability for TAFEs [public colleges with a vocational focus] in particular to be more flexible" (K 2). One solution to this challenge would be for the TAFEs to have self-accrediting status; the fact they do not, while universities do, is a sore point.

In Australia the VET sector is very much seen as a residual choice for those who cannot get into higher education (Keating, 2003). This perception is partly as a result of a belief that the returns to VET are not very high and partly because higher education retains a high level of cultural cachet. Such a difference of status is liable to create strong boundaries between sectors, despite the AQF's stated intention to "encourage parity of esteem between academic and vocational qualifications" (Australian Qualifications Framework Advisory Board to MCEETYA, 2002).

Programs in higher education institutions have been much less deeply affected by the competency-based approach, though it has seen more application over the last ten years (K1). It is yet to become an organising principle in the way it has in VET, perhaps because higher education institutions do not need to go through the same quality assurance processes as VET providers. The higher education sector retains a good deal of autonomy, meaning that their qualifications are stand-alone and, while they map directly onto AQF through level of qualification, have less of an imperative to be explicit about the level and form of competencies gained.

The principles and approach of the AQF has been generally consistent since its implementation in 1995, but there have been alterations in the delivery mechanisms, particularly within the VET sector. One of the most significant is that the bodies charged with managing the system have been reconfigured a number of times. Management within the system has several aspects, but there are three central responsibilities: managing the qualifications, registering training organisations, and communicating about the framework.

Government played a significant role in the management of the qualifications and associated competencies, including development of training packages, until 2016. At this point, responsibility for training packages was transferred to Industry Reference Committees, groups of experts in particular industries who were interested in contributing to training and development. These committees were supported by bodies called Skills Service Organisations. The products were approved by the Australian Industry and Skills committee before formal adoption by territories and states for use throughout Australia (NCVER, 2020). The development process was guided by a number of standards and quality assurance expectations and appears complex and somewhat onerous. The development and approval process changed again in early 2023, as will be discussed later in this chapter.

Currently, the responsibility of registering training organisations is primarily conducted by the Australian Skills Quality Authority (ASQA) rather than state level organisations. However, the state of Victoria (Australia's second most populated) has its own quality assurance agency (Victoria Registration and Qualifications Authority, VRQA). It is interesting to note that ASQA specifically mentions maintenance of rigour in RPL as one of its priorities while VRQA does not. Adherence to the AQF structure is seen as a universal requirement irrespective of quality agency. There are substantial amounts of documentation around standards and expectations, and a strong emphasis upon accountability. RTOs are not allowed to deliver training beyond the scope for which they are registered and are monitored for compliance.

The final responsibility is communication, including maintaining lists of RTOs and qualifications available to learners and subsequently making them available to interested parties. This is the responsibility of the Australian Government through the websites mentioned above. There are currently 3979 registered training organisations across Australia, including all universities and TAFE colleges, and around 59,000 qualifications and training packages. The information load is significant.

There is another category of program alongside training packages, known as "accredited courses." These are far faster to develop and are intended to be nimble and responsive to changing circumstances. They are designed to be local both in terms of geography and scope, so an accredited course does not have the breadth or national reach of a training package. The appropriate Industry Skills Council has responsibility to endorse these qualifications for delivery, not least by ensuring they do not simply duplicate existing training packages.

Recognition of prior learning (RPL) was presented as a key consideration when the AQF was introduced, and Figure 1 emphasises the importance of RPL throughout the qualification framework. As mentioned earlier, the formal documentation tends to contain little detail on the actual process. The high-level information available on sites such as *training.gov.au* also lacks detail, instead pointing potential learners towards the training organisations for more information. A brief review confirms there is no standard national approach to the process. The *training.gov.au* website states "All RTOs must provide access for students to an RPL assessor who you will need to provide evidence that your knowledge and skills meet the required standards" (Government of Australia, 2024). One example qualification is *TLI31222 Certificate III in Driving Operations,* which contains five core units and ten electives. There are 58 providers of this course in Australia. One private RTO charges $3495 or $233 per unit for the course. The fee charged for RPL is $200 per unit. There is also a credit transfer fee of $25 per unit. A public provider for the same qualification changes between $3135 and $5260 for the qualification (depending on subsidy status of the student). RPL is encouraged by this TAFE, but the fee is assessed on an individual basis so it is difficult to define the costs involved. Public providers specifically mention RPL from adult and community education, unlike private providers, so their interpretation appears to be closer to the initial spirit of the AQF.

K 1 commented "making lifelong learning a practical reality was a big mantra . . . one of the ways that we desperately need to do that is make sure that we recognise all prior learning and experience and make it 'trade-able' or 'aggregate-able' . . . Every university, every provider has a different

system. So one credit point at one university could be four credit points at another . . .” K 2 added to this concern, noting that “there’s an understanding in Australia that RPL just became too hard . . . Even in TAFE we didn’t recommend that people do RPL at times because the auditor and the regulator would come in and say ‘well, this person, who has just done RPL, hasn’t ticked this box, this box, and this box, therefore down you go’ and they did that.” It appears there are concerns about the consistency and workability of RPL, a key aspect of increasing system access.

As might be imagined from the complexity of the system in place, the initial introduction of the AQF and associated mechanisms was a multi-layered endeavour. Starting in 1999, an extensive review of progress was undertaken on behalf of the Australian Vice-Chancellors Committee (for HE) and the Australian National Training Authority (for VET). The specific focus was how training packages were affecting cross-sectoral qualification linkages, in the hope of defining a shared new policy for these arrangements. The results of the review were published two years later in an extensive report (Carnegie, 2001). Cross-sectoral qualification linkage is a narrow starting point for a review of the framework. As discussed earlier, really the only levels where cross-sectoral work is possible are the diploma and advanced diploma levels, representing the top levels of VET and the lowest levels of HE.

Carnegie (2001, p.17) helpfully lays out the meaning of credit within the AQF:

> ‘Credit’ is a term used specifically in the context of formally developed qualification linkages – it represents the agreed value, defined in terms of specific or general exemptions, of relating one qualification with another.

In other words, credits do not have an independent existence as representations of learning. They are being conceptualised in a purely quantitative way to represent the “discount” given as part of a later qualification to avoid duplicating the content of an earlier qualification. The notion of a credit-centred framework “did not receive the support of the sectors when the AQF was being developed. Such an approach was perceived as imposing an artificial precision upon the sheer diversity of programs required in a well-developed education and training system” (p. 14), underlining once more that the AQF is a qualifications framework and not primarily a system for credit portability. Carnegie (2001) does comment that there was government support for a more systemic setup, but that VET and HE providers pushed back against such an approach.

The Carnegie report identifies three types of barriers to cross-sectoral linkages:

> Sectoral: These include cultural differences (many of which are artificial), the different pedagogies of each sector, and concerns over losing sector identity and focus.
>
> Organisational: Organisational barriers include institutional autonomy, and associated control and diversity of qualifications content, especially in HE.
>
> External: External constraints include competition and other government policies, current funding arrangements, differing industrial relations systems, other regulations, and the role of professional associations. (Carnegie, 2001, p. xvii)

In addition, the report expressed concerns about the training package model, especially the notion of competencies as the fundamental unit of learning instead of teaching quanta: "Using competencies as the instrument for forging linkages is perceived to be more difficult than using modules" (p. xviii). Overall, the report expressed some significant concerns about the viability of cross-sectoral qualifications, which were, after all, one of the prime drivers of the AQF.

There were several further analyses of the AQF and the training system in which it was embedded over the following few years. One writer argues that the education system in Australia has been inescapably shaped by federalism and the autonomy of higher education institutions (Keating, 2003). In addition, the states and territories each have their own approach to certifying the end of schooling. This means that VET is the only one of the three sectors to be under federal influence, and therefore to see standardisation across Australia as desirable, or even useful. The analysis concludes that "The AQF . . . has two main purposes—cross-sectoral articulation and seamlessness, and a six-part framework for the alignment of VET qualifications. Despite the typical boisterous claims for the former, the latter is the major role" (Keating, 2003, p. 278).

A further examination of the operation of the AQF from the early 2000s suggested that RPL and credit transfer were being used more fully by people at higher levels of the AQF (Bateman & Knight, 2003). At diploma level, around 10% of students were applying RPL and a further 6.5% applying credit transfer. At certificate level, around a quarter of these proportions were using the same mechanisms. On the face of it, this suggests that RPL may be applied within the system (as learners go up levels) but less frequently on entry to the system from lifelong learning or adult and community education. The author goes on to raise questions about the value of RPL for equity and access, pointing out that no full critical study has been conducted and goes on to suggest RPL may have served its purpose and simple credit transfer should become the norm.

The Australian National Training Authority commissioned a report in 2004 to review the implementation of training packages. This survey also, necessarily, included the working of the AQF. The report supported the "labour market and educational value of industry-developed statements describing performance expected in the workplace and of industry-developed, nationally recognised portable qualifications linked to the AQF" (Schofield & McDonald 2004, p.3). In contrast, training packages were seen as more problematic. The report argued for a more streamlined training package process and much less concern with the "rules." While this is a reasonable recommendation, from their inception the AQF and VET have been heavily regulated in the name of quality assurance, reflecting a low-trust relationship between VET and higher education. As one analysis expresses it, "qualifications frameworks are a mechanism for bringing a level of 'regulation' to the education and training industry and its various layers and sectors" (Baker, Peach & Cathcart, 2017, p. 71).

In 2011 a refreshed version of the AQF was approved for implementation by 2015. This included more specific definitions for the levels of qualifications (including new sub-levels), updates to qualification specifications, and pathways aimed at facilitating completion of qualifications (Bowman & McKenna, 2016). New language was introduced in the accompanying guide: "The learning

outcomes are constructed as a taxonomy of what graduates are expected to know, understand and be able to do as a result of learning. They are expressed in terms of the dimensions of knowledge, skills and the application of knowledge and skills" (Australian Qualifications Framework Council, 2013, p.14). This kind of language is strongly reminiscent of that used for competencies.

Tying learning outcomes so tightly to the framework level of qualifications was a new approach. Another innovation was the provision for multiple qualifications at one level.

> The criteria for each level and the descriptor for each qualification type include the three dimensions of the learning outcomes. The levels criteria are expressed broadly to allow for more than one qualification type to be located at the same level. The descriptor for each qualification type is more specific to underpin consistency in graduate outcomes for the qualification type regardless of the discipline. (Australian Qualifications Framework Council, 2013, p.11)

Specifically, the proliferation of qualifications was at level 6 (associate degree and advanced diploma), level 8 (Honours BA, graduate certificate and graduate diploma), and level 9 (Coursework, Research and Extended forms of master's degree). Multiple qualifications at the same level effectively introduced a lower-level qualification in higher education and collapsed two previous levels in the same sector. It could be seen as an attempt to bind VET and HE together more tightly.

One striking comment from this review was more general than the details of levels. Bowman and McKenna (2016) include the following statement: "Twenty years after the introduction of a national training system, it is still difficult to find a consistent statement about its purpose, objectives and key elements" (p.16)

Despite these shortcomings, it is important to acknowledge that the AQF has come to hold a central place in Australia's educational ecosystem and, more than this, within the industrial system. As Key Informant 2 said, "AQF, especially in the trades area, is part of our industrial system . . . a trade apprenticeship for example, which is a Certificate 3, the acquisition of that triggers more pay, it triggers [various benefits] through the status of an apprentice. So the AQF became linked through the union movement . . . as part of how people progress to different positions and different levels of pay."

Before moving on to consider the continuation of the AQF it is important to pause and consider the question of equity and access. These values are commonly incorporated into the rationale for implementing qualifications or credit frameworks (Blackmur, 2004), yet as Bateman & Knight (2003) argue, it is difficult to find robust data supporting the claim that frameworks—or indeed RPL—do produce more equitable results for historically marginalized groups. Australia is no exception. Data would have to be collected at a local level, and identification of some groups, such as lone parents, would be difficult. Nonetheless, equity and access were identified as strong drivers behind the development of the AQF by all stakeholders over the first few years (Carnegie, 2001). A review of equity and access conducted in 2011 concluded that the tender-based system of funding VET

suppliers did not effectively support these values (Allen Consulting, 2011). There is no indication that this conclusion led to any changes in implementation.

References to equity and access in the current AQF documentation are limited. One is the claim the framework "supports individuals' lifelong learning goals by providing the basis for individuals to progress through education and training and gain recognition for their prior learning and experiences" (Australian Qualifications Framework Council, 2013, p. 9). The standards applied to VET more generally do address the issues of equity and access, but from a specific perspective:

> Good vocational education, training and assessment includes making adjustments to meet the learning and assessment needs of individuals. An open mind, common sense and tailoring training and assessment to individual circumstances should ensure individuals achieve the standards employers and RTOs expect. Adjustments can be made to assist learners to access and participate in VET. Adjustments are reasonable if they achieve this purpose and take into account factors such as the nature of the learner's ability and disability, the views of the learner, the potential effect of the adjustment on the learner and others, and the costs and benefits of making the adjustment. (Australian Industry Standards, 2022, p. 75)

The focus here is on recognising the individual needs of learners within the system. This is an important consideration. However, it is quite different from efforts intended to ensure the system is more available to those who have been historically disadvantaged within education. It seems in this regard the AQF may have some distance to go.

4.5 Continuation

At the time of writing, the Australian Qualifications Framework has been in place for almost thirty years alongside a set of mechanisms for quality control and provider recognition. While the policies around the framework have seen changes over the years, the actual framework itself has experienced few changes over its lifetime. The AQF appears deeply embedded in the VET sector, not least because approval of training packages requires the links to AQF levels to be made clear.

The most significant changes were likely those introduced in 2013, which were reviewed in 2019. Shortly after this review Australia, like every nation, was caught up in responding to the COVID epidemic. This means that a number of the 2019 recommendations appear not yet to have been considered at the time of writing. The submissions to the review, however, make interesting reading in their own right. One of the most complete is a submission from the National Centre for Student Equity in Higher Education (NCSEHE) at Curtin University. Their suggestions were:

1. Recognise more flexible shorter form qualifications
2. Remove of enterprise and social skills as assessable components of qualifications (often as core transferable skills)
3. Explicitly engage with the relationship of qualifications and levels to clarify how multiple qualifications at the same level resemble each other—or differ

4. Encourage states and territories to align secondary school completion certificates or be more deliberative about the differences
5. Modernise the measurement of volume of learning to reflect contemporary study modes
6. Measure the volume of learning in hours rather than equivalent full-time years (Trinidad, 2019)

These suggestions push towards a more flexible, granular way of thinking about the AQF and could potentially make it easier to gain recognition for learning. However, it is important to acknowledge the challenges such developments would pose to quality control as conceived within the Australian system. The AQF remains highly regulated and rule-based, and a proliferation of ways to achieve credit may imply a proliferation of those rules.

The recommendations coming out of the 2019 review are worth quoting at length because they are likely to shape the next few years of the AQF.

1. A less complex AQF structure with a primary focus on the qualification types in the AQF (Degrees, Certificates etc.).
2. A single and clearer taxonomy comprising eight bands of knowledge and six bands of skills more flexibly applied. Application is not rigidly locked to other bands (or levels).
3. Contemporary definitions of knowledge and skills are used. Knowledge, Skills and Application are defined in terms of action – the information to inform action, the capabilities to take action and the context for action.
4. Using these features, the AQF is refocused on the design of qualifications linked to learning outcomes for individual qualifications.
5. Additional information is included to help define qualification types, particularly for qualifications leading to Nationally Recognised Training delivered through the VET sector, for apprenticeships and for research-oriented qualifications.
6. General capabilities (such as digital literacy and ethical decision making) are identified for use in individual qualifications.
7. The AQF Pathways Policy is revised to broaden guidelines for credit recognition across AQF qualifications and to define and provide for recognition of shorter form credentials, including micro-credentials, towards AQF qualifications.
8. A prototype national credit points system is developed for voluntary adoption by institutions and sectors.
9. Qualification types are realigned against [a] revised taxonomy including the addition of a higher diploma qualification. VET certificates can be more meaningfully titled to reflect their purpose.
10. The Senior Secondary Certificate of Education is more clearly defined and represented in the AQF in terms of its role in preparing young people for a range of pathways into VET and higher education (including with credit).

11. Volume of learning is expressed in terms of hours, not years, and applied as a benchmark for compliance and quality assurance.
12. An ongoing governance body for the AQF is established to give effect to decisions of the Review of the AQF and to provide advice on revisions to the AQF where required in the future.
13. AQF policies are updated or assigned to the relevant agency, with redundant policies removed. The AQF is more consistently referenced and applied in VET and higher education sector standards and guidelines. (Expert Panel for the Review of the Australian Qualifications Framework, 2019)

It is interesting to note that recommendations 7 and 11 reflect the proposals from the NCSEHE and do point towards greater flexibility. However, there are also some missed opportunities in the review. For example, recognition of prior learning, whether within the framework or from outside it, is not mentioned in the recommendations. Similarly, the equity and access potential of the framework, which need not be restricted to RPL, receives no attention.

The final recommendation is perhaps reflected in a change to training packages implemented in January 2023. At that time, the responsibility for oversight was moved into the Department of Employment and Workplace Relations, which established ten "Jobs and Skills Councils" of employers, unions and governments to oversee the ratification of training packages. The rationale is that these councils will align efforts and build stakeholder confidence (Department of Employment and Workplace Relations, 2023). This move is the latest amendment of the governance of the framework, which has seen direct government involvement wax and wane over the years.

The most important, and in some ways most disruptive, change suggested by the review is implied by several recommendations but not stated directly. The "biggest improvement is unlocking the levels. De-locking the application piece—skills, knowledge, application" (K 1). In other words, rather than the shift from application through skills to knowledge being a hierarchical feature of the framework, each of these three concepts should be fully represented at each level. This re-conceptualisation has the potential to go a considerable way towards addressing parity of esteem issues by strengthening the common ground between conceptions of learning at the different AQF levels.

Most of the recommendations of the 2019 review have not been implemented, partly because of the COVID pandemic and partly because of the sheer scale of change these ideas represent. "I can see the benefit of what they are talking about in that new AQF, but the quantum of change to bring it in when we are talking about an industrial relations system that is AQF-linked, is quite significant" (K 2). Private training providers and unions were identified by this respondent as the groups most resistant to changes in the AQF, for similar reasons regarding the customisation of systems to the existing framework.

Since the review was completed, new developments include the publication of a *Universities Accord* (Government of Australia, 2024b). Those involved in the Accord were "asked to examine Australia's higher education system and create a long-term plan for reform" (p. 2). The Accord appears to have

gained wide recognition as a viable roadmap for universities in Australia. One striking aspect is the intention to aim for a tertiary attainment target of 80%. Interestingly, the Accord states that "achieving new higher education and broader tertiary attainment targets will require concerted effort to bring those who are not currently participating in tertiary education into the system, rather than simply shifting existing students between the higher education and VET sectors" (p. 8). This implies a need to improve the ability of learners to move into the post-secondary system—precisely the less-developed aspect of the AQF.

Equity is highlighted as a priority concern. "Australia will be unable to meet its skill needs without increasing attainment of historically under-represented cohorts in tertiary education . . . This will require much higher participation among groups historically under-represented in higher education, and students from these groups will need adequate support to succeed throughout their learning journeys" (p. 9). Once again this is an area that AQF could support, but may not have done so historically. One recommendation calls for "a comprehensive system of modular, stackable and transferable qualifications" (p. 28). Attaining this objective would involve broadening and deepening the AQF.

It is notable, as pointed out by the key informants, that the recommendations of the Accord align very clearly with the main directions of the 2019 AQF Review. In both cases they may be summed up in the idea that more can be done with the framework than is currently done and that it may allow broader objectives to be achieved.

One area with potential for development with a nimbler AQF is micro-credentials, but the pressing challenge of quality assurance has not yet been solved. Without a rigorous quality vetting such credentials cannot appear on the AQF. "We need a website that lists all the micro-credentials that are quality-assured, that you can stack and do something with, but universities warned us off bringing it within the AQF because that would stifle innovation" (K 1). Instead of bringing the micro-credentials into the AQF there was an attempt to enhance the credit recognition policy to recognize them as external qualifications that could be imported into AQF. This subtle—but important—difference represents an example of a political concern preventing the application of the AQF to an aspect of education that on first glance it would appear to be designed to address.

Overall, there seems little reason to doubt the continuation of the AQF as a central mechanism of the Australian VET sector and as a touchpoint for the design of future systems. Its significance for other sectors is less clear, though it is reasonable to conclude that it does, at least, provide a common language for education across the country and between the levels of government involved in its delivery. If the recommendations of the Accord and the 2019 Review are adopted, it will serve as more than a communication device, with the potential to evolve into a central organising principle of the post-secondary sector in Australia.

4.6 Observations regarding the AQF

The introduction of the Australian Qualifications Framework in 1995 was not centrally motivated by the advantages such an approach might bring in terms of credit portability or simplified access to

learning. The primary motivation appears to have been to help to organise a quasi-market in vocational education and training by creating a range of defined "products" with a clear progression implied. The relative non-engagement of schooling and higher education systems has proven to limit the utility and value of the AQF significantly.

One impression of the framework, and the system of education introduced alongside it, is complexity. In this review a number of changes in responsible agencies and other structures have been glossed over to avoid becoming too buried in detail. The complexity of the context is reflected in the AQF, which

> . . . has resulted (as the 2014 National Commission of Audit Report observes), in vocational education and training becoming particularly complex because of the continual requirement to balance the needs of the education, industry and community sectors, as well as adhere to the cumbersome governance arrangements across the Commonwealth—state divide. (Bowman & McKenna, 2016, p. 15)

The story of VET in Australia could be read as a cautionary tale regarding the extraordinary challenges of creating a quasi-market in a traditionally public sector area. The notion that such a change will bring value for money and efficiency is undermined by the scale and expense of the infrastructure needed to incorporate market mechanisms responsibly. The effort put into quality control has probably been the most significant investment in the transformation of the VET sector, while the potential of the qualifications framework has perhaps not been fully realised.

The question of the utility of the qualifications framework can be asked in its own terms; that is, has the AQF supported the development of a national VET sector? In general terms it can be argued that it has. However, point 1 of the 2019 review (focus on qualifications) raises questions regarding the added value of the AQF. If the framework is essentially a hierarchical listing of qualifications it is hard to see how it offers a great deal more than a numbered list would do. From this review it appears that a way of mapping learning going beyond qualifications (and inside them) may be necessary to justify the complexity and cost of a framework.

Another under-developed aspect of the AQF is student involvement. There appear to be few occasions for students to have their say regarding the operation or the principles of the framework, and indeed it is not clear how they could influence it. The framework is highly government and institution-centric. For example, the mechanism for approval of training packages is dauntingly bureaucratic and high-level, and it would be challenging for a learner to consider going forward for RPL. Indeed, the cost of RPL from a private provider may be close to the cost of a course, making such a strategy of marginal value. The framework has little room for flexibility to meet learner needs and appears far more focused on creating clear, strong boundaries than weakening them to support learner mobility.

Initially equity and access were cited as part of the rationale for the AQF, but over the years they have largely faded from the conversation, in part, perhaps, because of difficulties assessing these features of a system and how they are changing over time. It would, however, be valuable to

maintain these aspects of the framework front and centre in conversations about possible development and modernisation. It would be important to ask whether the framework does indeed support equity and enhance access, and if it does not, what sorts of other strategies might do so.

Overall, the Australian Qualifications Framework has been successful in providing a way to design qualifications and assign them to a level of study, as well as promoting standardisation of qualifications across Australia. This success has been accompanied by a number of key limitations. The AQF does not appear to work well as a means of bridging between educational sectors such as VET and higher education or schooling. The incorporation of micro-credentials and other sub-qualification learning remains problematic. Student mobility and learning portability does not appear to be greatly increased by the AQF, except in the geographical sense given that all states and territories operate from a common set of measures.

It is hard to disagree with a summative statement originally written over twenty years ago: "Compared to the other and best-known national qualifications frameworks, such as those of New Zealand, Scotland, England and Wales, South Africa and the prospective Irish Framework, the AQF is weak" (Keating, 2003, p. 279). However, this weakness may not represent a failure on the part of the framework, but rather a design choice. A weak framework leaves in place strong institutional and sector boundaries. It seems possible that threatening those boundaries may have diminished the possibility of achieving the small amount of collaboration among polities the AQF has helped to bring about.

4.7 Summary of lessons learned

Reviewing the development, implementation and continuation of the AQF leads to the identification of a number of lessons for the development of similar systems.

1. Qualifications frameworks do not lead spontaneously to specific outcomes such as enhanced credit portability but depend for their effects on the details of their design. A weak framework allows strong institutional and sectoral boundaries to be maintained, while a strong framework must inevitably make those borders more porous.
2. Qualifications frameworks may describe the current state of an educational field rather than transform it. In the case of the AQF, the shape of the VET sector upon its introduction determined the shape of the framework, rather than the AQF changing the field.
3. For a qualifications framework to change opportunities open to learners, credit portability and the ability to import credit into the framework (e.g. through RPL) are key considerations. The mechanisms for these functions would ideally be uniform and uniformly applied.
4. Low trust environments are limiting, irrespective of the formal structure chosen for mobility. In the case of the AQF this manifests in two dimensions: between governments and between sectors.

5. A measure of learning going beyond and below qualifications would seem to offer the most potential for portability and flexibility. For example, a notional credit scale onto which everything else was mapped would provide a common language for achievement and provide a standard set of equivalencies.
6. Data on equity and access alongside attention to the details of who was moving and why would enhance the ability of a system to attend to these priorities. Without a baseline based on data, it is hard to assess the success of a framework in ensuring that traditionally marginalised groups can benefit from the new structure.
7. Quality assurance can be complex and resource-consuming when working across sectors and jurisdictions. This appears germane to the Australian case because of the market-based philosophy underpinning the framework, which relies upon the quality of the product for credibility.
8. Some jurisdictions may choose not to engage with a broad multi-jurisdictional framework, but this need not undermine the framework completely. As long as systems are compatible there can still be effective communication between different approaches.
9. Despite the claims made regarding the learner-centredness of the framework a truly transparent approach without a significant need for specialised knowledge remains elusive. This is especially concerning when different institutions are offering the same courses under different conditions and there is no easy way for a learner to assess the pros and cons of each offer.

5. Case Study: Scottish Credit and Qualifications Framework

5.1 Executive summary

The Scottish Credit and Qualifications Framework (SCQF) has existed for over twenty years in its present form. Its aim is to provide a common currency (credits) to link learning of more than ten hours' duration irrespective of the context or form of that learning. Government involvement in its development has varied over time, though the initiation of the framework came shortly after Scotland regained a government in 1999.

The approach of those managing the SCQF has been to create a way to capture learning through a "sector-agnostic" system that could be mapped onto—rather than change—the fundamental practices of institutions. Credit-rating bodies have responsibility to assess the credits appropriately associated with specific learning experiences, which may vary significantly in volume and level. These bodies are generally educational institutions and will rate their own programs and third-party offerings.

While the SCQF has developed a strong reputation as an equitable and inclusive approach to credit portability and educational access, closer examination suggests a more nuanced conclusion is warranted. Lifelong learning and community-based education are less prominent in the Scottish system than twenty years ago, and opportunities to recognise prior learning in the SCQF are individualised and lack data aggregation. Institutions retain high levels of control over learning, especially in terms of student selection and recognition of prior learning. There is reason to be concerned about the effectiveness of the framework in encouraging and supporting non-traditional learners. Insights include the following:

1. Any system of credits to represent learning needs to have a constant, reliable value.
2. The representation of volume of learning, while a key consideration, remains challenging. This is particularly true at sub-qualification level.
3. A general credit framework works well in general areas, but there needs to be a way to represent the content of learning to facilitate accumulation of specialised knowledge.
4. Without data, aspirations around equity and access appear likely to remain invisible and unaddressed.
5. The boundaries between qualifications *within* a framework may weaken without the boundaries *around* the framework being affected.
6. In order to be effective, RPL needs to be transparent and accessible. There is a case for management by a cross-sectoral agency.
7. A framework that does not disrupt institutional practices may be well-accepted, but it may not reach its full potential to support learners.
8. While institutional buy-in is important, having an overarching body can help development of a consistent system.

5.2 Overview of the Scottish Credit and Qualifications Framework (SCQF)

As a relatively small country within an ambiguous constitutional alliance with a dominant neighbour, Scotland has often been careful to do things differently from England. As a much poorer country than its neighbour, there has also been a tendency for Scotland to be more interested in social equity and inclusion, especially within an education system that has always been Scottish rather than British. The discourse around aspects of that system, such as the Scottish Credit and Qualifications Framework (SCQF), has often emphasised its difference and equity even when the data to support that claim are more ambiguous.

The SCQF is included in this study in part due to its reputation as a world-leading approach to credit portability and barrier-free access. It also represents a highly developed, comprehensive framework for mapping learning of remarkably short duration and every possible level into a single currency of credit points. The SCQF is a significantly ambitious approach as it sets out to recognise a broader range of learning than many other frameworks and to identify common elements among quite disparate educational experiences. Any discussion of credit frameworks has to recognise and address the Scottish initiative.

One important characteristic of the SCQF is its voluntaristic nature; institutions are not required to apply the framework either within their programs or in credit transfer. Despite this, the framework is very widely implemented throughout the Scottish education system. The nature of that implementation on a day-to-day level is less clear. There are scant data on the actual use of credit points, which tends to be a local concern at the institutional level. One benefit for institutions in embracing the SCQF system is that they have retained a high level of control over its implementation, including the recognition of prior learning, and there appears to be limited centralised data on what that implementation looks like.

Qualification and credit systems have two types of boundary. There are internal boundaries, between types of institutions and programs, and external boundaries, which reflect how easy it is to move into the system in non-traditional ways. While internal mobility is a benefit for learners, it may be that the greater effect on equity comes from increased permeability of the external boundary. A pressing question regarding the SCQF is whether the claims for increased equity and accessibility are manifest in a more permeable external system boundary. As shown in this review, this is not an easy question to answer.

The people involved in the Scottish system are very open about the challenges the system faces and the distance it still has to travel. More than twenty years into the experiment there is still a great deal that is not known. However, it also represents a remarkable opportunity to learn from a high-profile and well-known framework.

5.3 Initiation

The SCQF has garnered a reputation as one of the best established and most successful frameworks in the world, despite being formally launched only in 2001. In many ways, the framework was

evolutionary rather than revolutionary. Scotland had been developing and implementing some of the structures that came to underpin the SCQF since at least 1984, and the framework as implemented could be seen as a way to pull those structures together. As well as the instrumental aspects of SCQF implementation, it also represented a continuation of a particular philosophical approach towards qualifications in a policy environment valuing consent and collaboration.

Scotland is one of four nations making up the United Kingdom (the others are Wales, England, and Northern Ireland). The population of the country is 5.4 million (2019). The governance of the Scottish education system is complex and tightly tied to arrangements in England and the EU. However, Scotland has always had its own school system, featuring comprehensive schools for around 60 years. This is slightly different arrangement from England, which has always had more private and religious schools, and, indeed, more school differentiation broadly. In Scotland there is an assumption that equal treatment in schools enhances equity, though in practice the nature of the catchment area has a strong influence on the school experience of young people.

Post-schooling there are two formal educational sectors. Further Education colleges tend to offer more vocational programs and are generally easier to access. Universities provide most higher education, though colleges have begun to offer increasing amounts of higher education programming. Universities in Scotland are public and funded by the Scottish Government, as are the colleges. As in many locations, the universities experience considerably more autonomy than the colleges. For a number of decades there was an active community learning service in Scotland, but its profile has fallen in recent years as local authority funding has become more constrained (Barr, 2018).

The most significant recent change in the Scottish educational context took place in 1999, when Scotland regained a national government after 300 years. Before this, Scottish policy was determined by a branch of the UK government called the Scottish Office. It is very much in the interest of the Scottish Government to ensure that Scottish policy is both successful and distinctive from the rest of the UK. One key example is university fees. In England, undergraduate students pay fees of up to £9000 per year. In Scotland, there are no undergraduate fees for Scottish residents or for EU students (in the expectation of reciprocity from EU universities). English domiciled students do still have to pay fees in Scotland, which addresses both the issue of Scots taxpayers paying for non-Scottish students and the possibility of "fee-flight" to Scotland from England.

The philosophical and pragmatic pre-history of the SCQF began in 1984, when outcomes-based modules were introduced in vocational education, both at school and post-school level. In the early 1990s an analogue was introduced for the higher education system, known as the Scottish Credit Accumulation and Transfer (SCOTCAT) system. SCOTCAT permitted some bridging between academic and vocational qualifications, particularly at sub-degree level. At the same time, Scottish Vocational Qualifications were introduced as a way to capture competencies developed and delivered in the workplace. In 1999 the original modular system merged completely with school qualifications to cover all academic qualifications below higher education. This development, as well as the Scottish Vocational Qualifications, paralleled systems being introduced in England and Wales

at the same time. By the end of the 20th century, Scotland essentially had three qualifications sub-systems in place (Raffe, Gallacher & Toman, 2007).

In 1997 a very significant report for the future of higher education in the UK was published. Known as the Dearing Report, "Higher education in the learning society" (National Committee of Inquiry into Higher Education, 1997) laid out a number of critical changes for higher education across the UK. An appendix to the main report, known as the Garrick Report after the committee chair, dealt with Scotland. The first recommendation was as follows:

> We recommend to providers of higher education programmes in Scotland, the Quality Assurance Agency [a UK statutory body], the Scottish Qualifications Authority and the Scottish Advisory Committee on Credit and Access that they should together consider and adopt an integrated qualifications framework based around level of study and Scottish Credit Accumulation and Transfer Scheme credit points.

The Scottish Office responded to this recommendation by recommending in turn that the various parties should take this forward (Scottish Office, 1998). This is an important point—there is no legislation establishing or requiring institutions to refer to the SCQF, and the benefits of doing so are not always clear. It is simply recommended, yet the level of uptake has been remarkably high. The work passed seamlessly to the new Scottish Government when it came into existence a year later and the framework was a reality only four years after publication of the Garrick Report.

Analysis has suggested there are four factors that led to the relatively straightforward implementation of the SCQF (Raffe, 2003): incrementalism, voluntarism, partnership and pragmatism. The SCQF can be seen very much as an incremental development of the previous situation, where many of the philosophical characteristics of the framework were already established. For example, the idea of outcomes-based education and the use of modules had already been in place for over a decade before SCQF. At the most basic level, SCQF could be seen as simply pulling together the strands of existing frameworks.

The SCQF started as voluntary and continues to be voluntary to this day. While all the stakeholders have chosen to be part of it this should not be read as implying the framework is bottom up or was requested by students and instructors. It is very much driven by high level organisations and government (Raffe, 2003). The leads to the third factor, partnership. In early 2000 there were four partners involved in developing the SCQF: the Quality Assurance Agency, the Scottish Qualifications Authority (SQA), Universities Scotland and the Scottish Executive [the executive branch of the Scottish Government] (Raffe, 2003). The lack of representation from the colleges and vocational sector, as well as from lifelong learning agencies, at this stage of development is striking. Further education[2] has resented not being at the table since the development and implementation process (Raffe, 2003) though this has been addressed in recent years through inclusion of specific college representation. The rationale may originally have been that the SQA oversaw the qualifications used

[2] Further education refers to the public college sector, primarily delivering vocational education.

throughout non-university study and so could represent those sectors, unlike universities, which had autonomy and needed to be present. However, the initial acceptance of this lack of voice for certain institutions and students underlines the top-down nature of the framework.

Finally, the framework can be considered as pragmatic. It did not set out to transform the post-secondary sector by introducing a new system but to establish a common language among existing systems. "It's a kind of common language. We've got lots of qualifications called lots of different things, but if they're all mapped to the SCQF then that gives the consistency" (K 1). The SCQF sees qualifications as a social phenomenon rather than absolutely inflexible measure of learning, assigning them value based on the credibility of the awarding body and allowing considerable flexibility in the interpretation of key factors. It also respects the existing power dynamics within educational fields, with higher education having more self-determination than any other institutions (Raffe, 2003). This pragmatism can be considered as both a strength and a weakness, as it makes it far more challenging for the framework to significantly augment opportunities for access or to challenge elitist views of higher education. The current rationale for the SCQF remains highly pragmatic according to K 1: "It was about bringing these different systems and structures that were in place in those different sectors together."

Because the SCQF was developed and implemented very quickly, albeit on the back of existing frameworks, it was inevitable that there would be more work to do after it was launched. When it was introduced as a conference in December 2001 the real work of understanding what the framework would mean for Scotland was just beginning. As one commentator put it:

> The SCQF is a product of opportunism — its architects saw an opportunity to combine and further develop the component frameworks that were then being created — but it was also driven by broader objectives, including a desire to widen access and the perceived need to make the system more responsive to economic needs. (Raffe, 2007, p. 491)

5.4 Implementation

The SCQF was officially launched in December 2001. The launch document described the framework's general aims as to:

- help people of all ages and circumstances to access the appropriate education and training over their lifetime to fulfil their personal, social and economic potential; and
- enable employers, learners and the public in general to understand the full range of Scottish qualifications, how the qualifications relate to each other, and how different types of qualifications can contribute to improving the skills of the workforce. (SCQF 2001, vii)

There is an important point in the launch document. It states:

> The SCQF will make the relationships between qualifications clearer. It will clarify entry and exit points and routes for progression within and across education and training

> sectors. It will also maximise the opportunities for credit transfer. In these ways it will assist learners to plan their progress and learning. It will not, however, demonstrate equivalence of qualifications. (SCQF, 2001, p. v)

Avoiding any claim to "equivalence of qualifications" was key to the flexibility and voluntarism of the framework. This means that there was no claim that all awards at level 6 represented the same amount of learning at the same level of difficulty. As Figure 1 (below) shows, level 6 includes Highers, the academic subject-based school-leaving certificates used for entrance to university, and Scottish Vocational Qualification level 3 qualifications, typically workplace-based preparatory courses. On an intuitive level a case could be made for some degree of compatibility, since both qualifications might be taken by a young person moving from school to post-school life, and the hours of study required for each are relatively similar. However, it is not unreasonable to ask what it actually means to have two qualifications on the same level if there is no claim to equivalency.

The current document does not address this issue, simply describing levels in the following way:

> The Scottish Credit and Qualifications Framework has 12 levels. The different levels indicate the level of difficulty of a particular qualification. The Level Descriptors outline the general outcomes of learning at SCQF levels under five broad headings:
>
> - knowledge and understanding;
> - practice (applied knowledge and understanding);
> - generic cognitive skills (e.g. evaluation, critical analysis);
> - communication, numeracy and IT skills; and
> - autonomy, accountability and working with others.
>
> The Descriptors allow broad comparisons to be made between qualifications and learning and allow learners, employers and the public in general to understand the range of skills and learning that should be achieved at each level. (SCQF, 2023b, ¶3)

Despite this statement, the levels are not always straightforward. The access levels (1-3) in the SCQF are intended to capture learning below upper secondary schooling. These levels might be relevant to adults who experience difficulties with learning, those who need to strengthen literacy and numeracy abilities, and people who have English as an additional language. These three groups of learners, with disparate educational experiences and needs, are considered on the same level. The descriptions of the levels are available in an online tool (SCQF, 2023d).

The second dimension of the framework is the amount of learning at a specific level.

> Credit points are a way of showing how much time it takes, on average, to complete a qualification or learning programme. Along with the Level Descriptors, they allow learners, learning providers and employers to compare different qualifications at the same or even different levels. (SCQF, 2023b, ¶4)

To gain credit, the learning must be associated with one of the levels and have a notional study time commitment linked to it. For example, if a learner completes a ten hours of notional study time at

Higher level, they will obtain one SCQF credit at Level 3. The system is designed to be based on mutual trust, so if the study time is certified by one of the trusted bodies the learner can claim to have that credit and put it on their resumé and so forth. Applying that credit to future study either in the same institution or another is not straightforward. While it provides a common language, the SCQF does not provide automatic translation. It is up to the receiving institution to decide whether, and how much, past study should count towards current study. One way to think about this is that learning can be mapped to—but not always through—SCQF points.

There are two telling features of the framework graphic (Figure 1). The first is the way the three columns are separated, reflecting previous qualifications frameworks and also the sites of delivery. Reading from left to right, they would be schools, universities, and then colleges and similar vocational delivery. The framework graphic constitutes a visual reinforcement of sectoral separation. Sectors could alternatively have been listed with the SCQF level as the central emphasis and examples folded under the levels irrespective of sector. The second is the complete lack of reference to community or lifelong learning. Those who know the system may be able to read their inclusion into the Access levels, but the possibility of transferring credits in from these sectors is not a communicative priority for this graphic. The way the framework is presented does, however, make it clear the SCQF is builds on the previous, established, qualifications systems.

The following year the SCQF partners listed the next steps for moving the framework into the centre of Scottish education:

- informing learners, the public and employers of the implementation and features of the new national framework for education and training
- agreement by SQA, HEIs (Higher Education Institutes) and others on some SCQF-wide arrangements and guidelines for credit rating and levelling
- agreement between various key national, regional and local bodies, Scottish Executive Departments and Agencies on the timetable for full adoption of the SCQF in their varying sectors
- the development of arrangements by which all other assessed learning outcomes can be recognised for credit
- the development of clear routes for progression and credit transfer, and articulation of programmes
- the main sectors of education and training bringing their qualifications and programmes into accordance with the SCQF, and describing all provision and learner achievement in terms of the national framework. (SCQF 2002, pp.8-9).

The Scottish Credit and Qualifications Framework				
SCQF level	SQA National Units, Courses and Group Awards	Higher Education	SVQs*	SCQF level
12		**Doctorates**		12
11		**Masters**	**SVQ 5**	11
10		**Honours Degree** **Graduate Diploma/Certificate****		10
9		**Ordinary Degree** **Graduate Diploma/Certificate****		9
8		**Higher National Diploma** **Diploma in Higher Education**	**SVQ 4**	8
7	**Advanced Higher**	**Higher National Certificate** **Certificate in Higher Education**		7
6	**Higher**		**SVQ 3***	6
5	**Intermediate 2** **Credit Standard Grade**		**SVQ 2**	5
4	**Intermediate 1** **General Standard Grade**		**SVQ 1**	4
3	**Access 3** **Foundation Standard Grade**			3
2	**Access 2**			2
1	**Access 1**			1

Figure 5.1: The original SCQF graphic (SCQF, 2001, p.5)

A review of the implementation of the SCQF was published three years later (Gallacher et al., 2005). The authors raise—and then do not completely answer—a number of significant questions, including what the SCQF actually adds to the opportunities for learners offered by the component frameworks. The three types and settings of education are not woven together into a single credit continuum, meaning that moving from column to column still relies on an individual learner taking action to have their experience (primarily formal education) recognised. This setup leads to a broader question regarding the specific purpose of the SCQF and which of these two aims better describes the desired function:

- A more limited function as an 'enabling' or 'communications' framework, an instrument of change rather than an agent of change. In this view the emphasis is on maintaining and extending the Framework, developing links with other frameworks in UK and Europe, and similar activities of this type.
- A more extensive remit in which the Framework is itself an agent of change, proactively encouraging openness and flexibility. In this view the emphasis is not just on maintaining the Framework, but on considering how it can contribute to a wider agenda of change. (Gallacher et al., 2005, pp. 8-9)

The final bullet point in the list of "next steps" cited above is that educational providers should bring their work into alignment with the SCQF, implying that the second function is part of the picture. The SCQF is seen as a way to change education and its alignment across the board, not simply as a way to talk about existing provision—a deeply radical ambition for a qualification framework (though a logical extension of the idea). The review concludes, however, that "so far there is little clear evidence that SCQF has itself been an agent of radical or substantial change within the structures of lifelong learning in Scotland" (Gallacher et al., 2005, p. 46). In practice, at that time the SCQF was predominantly a way to develop a common language across sectors and qualifications systems.

The review provided a number of recommendations for the future of the framework. Two of them were the following:

> – Respondents recognised that there is now a need to establish new structures for the control, management and administration of the Framework, which will be better suited to enabling it to move forward to its next phase of development.
> – There is a view among a number of respondents that the Framework has so far made only limited contribution to developing cross-sectoral agreements and enhanced opportunities for credit transfer. If this is to continue to be an objective associated with the establishment of the Framework, there is a need to consider how it can be achieved more effectively. (Gallacher et al., 2005, p. 9)

The year after the review the group charged with managing the framework changed. Since 2006, the framework has been managed by a group called the "SCQF partnership" (Raffe, 2007), a company limited by guarantee and a Scottish charity. The current membership of the partnership is the College Development Network, the Quality Assurance Agency for Higher Education, Universities Scotland and the Scottish Qualifications Authority, along with an independent chair, a representative of employers, and a quality specialist (SCQF, 2023). Two changes are notable: the inclusion of the college sector in the management of the framework and the exclusion of the Scottish Government. The SCQF is now demonstrably arms-length from the national government. The aims of the SCQF Partnership, as of 2023, are to

> – ensure that, where appropriate, all assessed learning and qualifications in Scotland are included on the Framework;
> – extend the recognition of informal and non-formal learning across our education and skill system;
> – develop and promote the Framework as a Lifelong Learning tool;
> – develop relationships with other frameworks internationally. (SCQF, 2023a)

These aims are broadly consistent with the initial goals for the framework, though there are aspects of the wording that could be clearer. For example, "where appropriate" in the first point appears to hedge the issue of ambition—just how much of the Scottish qualification ecosystem does the framework intend to incorporate? Similarly, the idea of a "lifelong learning tool" can be interpreted in a range of ways—is it simply a means to "count" learning, a proactive mechanism for moving

credit seamlessly around the system, or could it be both? Finally, while the recognition of non-formal and informal learning is an opportunity afforded by the design of the SCQF, it is not always clear how this can be accomplished. The recognition of prior learning is done within local provision rather than centrally, so the standards and processes for such recognition are necessarily diverse. As K 1 commented "we always encourage learners to consult with a few institutions if they're looking to gain exemption because you might get a different answer."

Many of the key functions of the SCQF are decentralised, including the process of assigning credit to a specific course or program. The Credit Rating Bodies (CRBs) responsible for allocating credits include colleges, universities, the Scottish Qualifications Authority, the SCQF Partnership and eight other organisations, such as the Scottish Police Institute (SCQF Partnership, 2019). Different CRBs may be accountable for different quality assurance processes managed through a range of organisations. This complexity is mitigated to some degree through the provision of a shared guidebook for credit allocation, which provides a list of criteria and processes both for learning offered by the CRBs and those they are assessing for third party providers (SCQF, 2015). In the case of third-party providers, the CRBs have a fair amount of responsibility, including collecting annual reports from the third-party organisations regarding the delivery of the learning and any changes in the program. CRB charges for credit-rating third party programs are in the order of £5,000-20,000.

An institutional representative commented ". . .we could then design something from scratch and then credit rate it ourselves and put it on the SCQF as a recognised qualification across Scotland . . ." (K 2). To some extent the CRBs have the same sort of options long available to universities to value and evaluate their own programs.

Figure 2 is the representation of the SCQF adopted in 2017. The re-organisation of the graphic is significant. The table is still divided into the three columns, but this time apprenticeships have been added and more detail provided under SQA awards. This may reflect the inclusion of further education and vocational providers in the SCQF partnership since 2006. At the same time, instead of simply higher education, the centre column refers to "qualifications of higher education institutions," most likely intended to signal that not only universities can provide higher education. That column is still portrayed in a different colour than the other four columns, however, suggesting sectoral differentiation is not yet completely irrelevant. It is notable that, once more, there is effectively no indication that other forms of learning can be imported into the framework.

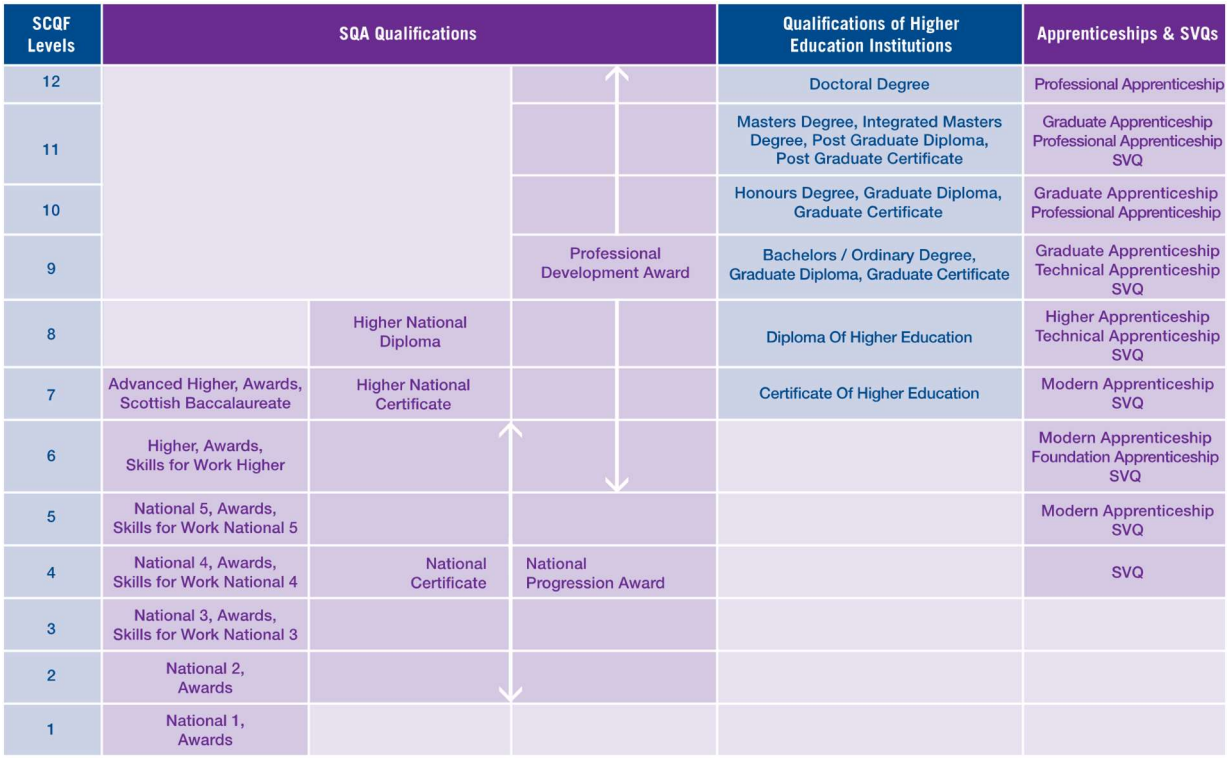

Figure 5.2: SCQF graphic 2017 (SCQF Partnership, 2019).

When the SCQF was introduced in 2001 the discourse strongly reflected the emphasis on lifelong learning current at the time. Given this, it is reasonable to expect the framework to have effective mechanisms to credit lifelong and lifewide learning as a fundamental acknowledgement of diverse life experiences. The operation of Recognition of Prior Learning (RPL) within the SCQF remains localised and potentially inconsistent, however. The SCQF Partnership provides an online "tool" to help with RPL (SCQF, 2023c). There are three scenarios and three outcomes selectable within the tool, as shown in Table 5.1.

Given this number of inputs and outputs there are nine permutations of RPL, each with a recommended action, as shown in Table 5.2. It is worth showing all nine permutations to underline a fundamental point about the RPL system. None of the permutations offers automatic acceptance of pervious learning as a contribution to future learning, even when both are rated in terms of SCQF points. In every case, there remains a degree of unpredictability about the outcomes, even if learners are able to navigate the relatively high-level language and potentially unfamiliar terminology. For example, the term "articulation" is used without explanation. It would not be unreasonable to conclude that a learner could not assess the amount and form of RPL available to them, much less claim it, without professional support. The depth or form of data required to support or reject such a conclusion does not appear to be described in an accessible way within the system. As K 1 stated, "a national policy on RPL would be a good thing."

Scenarios	Outcomes
A. Learning through personal experience, no certification	1. Recognition through a reflective process
B. Learning through a professional body, certificated but no existing SCQF rating	2. (Advanced) entry into a non-SCQF-rated program/ evidence professional standards.
C. Learning that is both certificated and SCQF rated	3. (Advanced) entry into a SCQF rated program

Table 5.1: Inputs and outputs of the Scottish RPL system (Numbering by current authors)

Scenario	Outcome	Action
A	1	Contact Skills Development Scotland or a Jobcentre Plus
A	2	If learning providers do this, they should provide a person to contact
A	3	Contact the person in the "receiving" organisation with the authority to assign credit
B	1	Contact a Community Learning Team, Skills Development Scotland or a Jobcentre Plus
B	2	If learning providers do this, they should provide a person to contact
B	3	If learning providers do this, they should provide a person to contact
C	1	Work with guidance counsellor, employers and other organisations
C	2	Contact the receiving learning organisation and enter documentation to named contact. Otherwise arrange 1-to-1 meeting.
C	3	Follow policies of "receiving" learning organisation, which is under no obligation to accept previous credits.

Table 5.2: Permutations of scenarios and outcomes (SCQF 2023c)

A review conducted in 2022 described some features of RPL within the SCQF that could act as constraints. For example, institutions have a predetermined maximum proportion of a program that can be credited to a learner through RPL. This condition might not be as significant in itself, but the review also points out that "it is unlikely a learner would get the same credit at all institutions because institutions have autonomy over their policies and agreements" (Whittaker, 2022, p. 13). In other words, both the amount of RPL a learner may claim and the proportion of the program it covers will vary between institutions. The review describes this situation but does not make any specific recommendations.

Scotland tends to present a picture of deep concern with social justice throughout its education system, often contrasted with other parts of the UK (Raffe, 2003). However, a recent reflection on the future of the Scottish educational system points out that "in reality, Scotland now has the UK's

lowest number of school leavers from the poorest fifth of the population going to university" (Barr, 2018, p. 930). The document further notes that "after years of neglect we have created, almost by default, a denuded post-school/tertiary education sector with derisory levels of adult skills training and a paucity of adult/community education provision" (p. 935). The SCQF does not appear to offer a demonstrably effective solution in terms of providing equity and access for learners historically excluded from learning.

The Key Informants were asked what their reflections on the SCQF were, and what advice they would give to a jurisdiction looking at a framework approach to qualifications. They said:

> I think the SCQF framework has allowed so many different qualifications to be placed on it. So whether it's volunteering qualifications, some of the Prince's Trust or just things that support communities . . . as long as there's an assessment process taking place, appropriate to that level, and to that group of learners, then we can slot that in. (K 2)

> Think really carefully about what kind of framework you want to have, whether you want a tightly regulated framework or a much more open devolved framework. The quality assurance is different for those. [The key is] promotion, promotion, promotion. It'll take time and it's never finished. Getting it into other aspects of the education system. (K 1)

5.5 Continuation

The SCQF appears to be well-embedded within the Scottish educational landscape. It has been mapped to a range of other frameworks, such as the European Credit Transfer and Accumulation System, with some success. According to the SCQF Partnership, there are now 10,578 programmes owned by 308 organisations credit-rated for the SCQF, plus another 726 owned by third party organisations (SCQF Partnership, 2023e). The framework sits at the centre of formal post-school provision in Scotland and does go some way to provide a level of common terminology for the different sectors involved.

In 2022-23 there was a flurry of activity in Scotland concerning the future of the education system as a whole. The Independent Advisor to the Scottish Government on Education Reform produced a report (known as the Muir Report) with a number of significant and far-reaching recommendations, including the creation of a single national agency for Scottish education. There was a section on the SCQF, which would be brought into the single agency. In part it read:

> In particular, it was felt that SCQF has the potential to play an enhanced role in Scottish education to support all learners progress seamlessly on their learning journeys, recognising and valuing different types of learning (formal, informal and non-formal) . . . RPL, where recognition and value is given to formal and informal learning no matter where that has taken place, can help all learners to identify transferable skills and learning achieved and plan next steps in learning. (Muir, 2022, p. 71)

This language, while phrased positively, suggests the SCQF partnership could be supporting more learners to achieve their aims by doing more to ensure learning that isn't formal is still valued and counted. There also seems to be a suggestion that RPL could be used more extensively and effectively.

One of the recommendations of the Muir Report was consultation with the Scottish population. This occurred through late 2022 and early 2023, with the final consultation report coming out in early 2023. Over 38,000 people contributed to the consultation, including 5,671 written responses and surveys. The consultation identified three central values:

> Ambitious – The Scottish education system will be ambitious by having high expectations for all learners and enabling each child and young person to develop and achieve their ambitions.
>
> Inclusive – The Scottish education system will value, respect, recognise, and represent the diversity of all children and young people, and provide equitable educational experiences and opportunities for all learners.
>
> Supportive – A hallmark of the Scottish education system will be to engage each child, young person, and adult meaningfully and appropriately in an education process that provides the necessary supports for all learners to progress, achieve, and realise their personal ambitions. (Campbell & Harris, 2023, p. 17)

While the Muir Report considered Scottish education from "cradle to grave" the consultation focussed far more strongly on children and young people. The third value mentions adults, one of 15 mentions in a 92-page document, with only four of these mentions presenting adults as learners rather than parents, carers, and so forth. The values listed above appear to be just as appropriate for post-school education as they are for schools, and it is perhaps a missed opportunity that they were not presented in a more system-wide manner.

Nonetheless, in June 2023 the Lifelong Learning and Skills Directorate published a "framework for decision-making" (Scottish Government, 2023) regarding post-school education. It includes a central commitment:

> That opportunities are available to all based on their ability to learn and that learning presents a pathway out of poverty. That learners who need it most are financially supported to complete their chosen pathway. That we work hard so that those who face the greatest barriers to accessing opportunities are supported and encouraged to do so, based on a genuine understanding of what they need to succeed and, that we use the strength of our social research on poverty and society to further support this work. (¶5)

After reviewing these documents, it seems reasonable to conclude there is some awareness in the educational policy community that equity and access remain significant challenges for education in Scotland. In contemplating the future of the SCQF it seems there may well be enhanced emphasis

on these areas of unrealized potential, perhaps as one of the tools available to a unified educational agency.

5.6 Observations regarding the SCQF

Scotland in general, and the SCQF in particular, have a very strong reputation for social justice. This dates back, perhaps, to the notion that in the 19th century talented young people (mainly male) would be talent-spotted by local teachers and ministers for support and access to university. The myth of radical educational meritocracy continues to colour perspectives on education in Scotland even when the situation on the ground may be somewhat different. This does appear to have some bearing on understandings of the SCQF as it is implemented.

One unavoidable observation regarding the SCQF is the extent to which the credit points system appears to be ungrounded within broader educational systems. The levels bring together types of learning from the three major provider sectors (schools, vocational education and colleges, and higher education), but it is not entirely clear how the levelling has been done. For example, it is an open question whether all work completed within a degree program should be considered as Level 9. This would tend to suggest there is little differentiation between the years of a degree. But then an Honours degree, which takes only one year longer than an Ordinary degree, merits a separate level. There are many questions of a similar nature raised by the matrix. The claim that the levels do not represent equivalency of learning adds to the confusion, prompting the observer to ask exactly what the levels mean in that case.

The points, based on assessed level of learning and "notional" learning hours, also appear to be somewhat arbitrary in two dimensions. The first concerns the idea of notional learning hours, which are defined as:

> The time required for a typical learner at a specified SCQF Level to achieve the learning outcomes. It includes all the learning activities required for the achievement of the learning outcomes, as well as the assessment. (SCQF, 2015, p. 50)

This definition conflates the idea of demonstrated learning outcomes, or competencies, and time of study. When writing a curriculum and attaching SCQF points to it an educator would have to estimate how long a "typical" learner would take. Handling volume of learning is often challenging within credit and qualifications frameworks because it is so important to acknowledge learning to the correct degree. However, it is unclear that this approach is a simple, transparent solution.

How the allocation of points and level supports learner mobility is also unclear. The receiving institution retains responsibility for deciding how much credit to recognise and for what, so it seems learners' experience and learning is really assessed twice, once for the framework and again for actual entry to a program. The credit given for any particular piece of learning may well vary by institution, a significant factor for working adults attempting to secure recognition for their study. Another way to think about this is that the SCQF permits mapping of experience *to* the credit

framework but not *through* the credit framework to future study. Until these issues are resolved, the SCQF could be regarded primarily as an alternative formal qualifications system.

Both key informants referred to a tension within a system of "delocalized credits" as used in the SCQF. Having points based on level and volume of learning does not help address questions regarding the content of learning. This leads to significant resources being allocated to the assessment of the specifics of knowledge gained. The lack of information regarding topic of learning in SCQF credits partly explains the difficulty in applying the credits rated on the framework. This appears to be an inevitable product of an abstract credit system, of little consequence regarding general credits but highly important if an individual is accumulating knowledge in an increasingly specialised area.

One indicator of this possibility is the difference in esteem given to different types of learning. K 1 reflected "I don't think you could ever say [parity of esteem] has been achieved." There is an assumption that academic learning in higher education has the most status and that learners will wish to work "uphill" towards it. It seems that such an assumption would tend to reinforce sectoral boundaries and might discourage learners who are primarily interested in the pragmatics of employment. As K 2 commented "in some areas it's still a battle to say 'well, it's at SCQF level 6 it's equivalent to a Scottish Higher.'"

Finally, it is perhaps worth highlighting once more the issues of equity and access. One of the difficulties regarding these areas is knowing exactly what an equitable situation would look like. Traditionally Scotland has struggled with poverty (correlated with class), but, notably, in the Muir Report there is recognition of intersectionality, a reflection, perhaps, of recent Scottish experience such as the settling of large numbers of refugees in urban areas. It appears there is a will to address equity and access but not yet a clear enough picture of what this would mean in a credit and qualification framework.

The starting point, however, may be to simplify access to credit points. While quality assurance is critical—otherwise the framework is completely meaningless—creation of a level playing field is also essential. At the moment, the external boundary of the SCQF may be reinforced by the complexity of principles and practices required to cross it. For people who may already be skeptical about the value of education this may well be a very difficult bridge to cross.

5.7 Summary of lessons learned

The lessons to be learned from the SCQF are not necessarily those one might expect given its reputation. People often view the framework as offering radical degrees of credit portability and straightforward access for those who learn in the community or workplace. In effect, it is the ways in which it does not fulfil those expectations that point to the most important and informative aspects of the system.

1. Any system of credits to represent learning needs to have a constant, reliable value. Credits are the currency of learning frameworks and as such they need to be transparent, equally valued everywhere, and the value assigned should equal the value that can be used.
2. The representation of volume of learning, while a key consideration, remains challenging. The educational preparation of somebody who has completed one course at a certain level and another person who has completed twenty can be considered legitimately different. Currently, the SCQF, in common with other frameworks, has not yet developed a clear way to assign value to sub-qualification learning.
3. A general credit framework works well in general areas, but there needs to be a way to represent the content of learning to facilitate accumulation of specialised knowledge.
4. Without data, aspirations around equity and access appear likely to remain invisible and unaddressed. The interests of individual institutions may not be considered as supporting diversity, and will tend to overcome un-evidenced attempts to enhance access.
5. The boundaries between qualifications *within* a framework may weaken without the boundaries *around* the framework being affected. In this case, a credit and qualifications framework may simply be an innovative way to portray existing formal awards.
6. In order to be effective, RPL needs to be transparent and accessible. There is a case for ensuring it does not rely on institutions but is managed by a cross-sectoral agency.
7. A framework that does not disrupt institutional practices (for example, acceptance of RPL credit) may be well-accepted, but it may not reach its full potential to support learners.
9. While institutional buy-in is important, having an over-arching body can help development. It is notable that the two periods of the SCQF's existence where equity and access were strongly promoted both featured government involvement.

6. Case Study: British Columbia Transfer System

6.1 Executive summary

The British Columbia Transfer System (BCTS) in its present form began to be created in 1989, when precursor approaches were recognised as insufficient for a growing postsecondary sector. There was also a perception that student mobility was an important issue for government, and that if the institutions did not act then the province would. Since that time increasing numbers of institutions have joined the transfer system and the mechanisms for credit portability have diversified. The BCTS is regarded as a strong model for cross-sectoral transfer throughout North America.

The BCTS is based around a fundamental philosophy of course substitution. The learner may be able to apply credits from specific courses at one institution to further study at a second institution. This approach sounds relatively straightforward, but the mechanics and policy instruments for facilitating this process are complex and have to be created with due respect for the various institutional cultures involved. It is worth emphasising that the BCTS does not have a system of non-localised credits against which learning is mapped; instead the equivalencies are drawn directly between courses.

As with many qualifications systems one of the hopes of the BCTS was to increase equity within, and ease access to, post-secondary education. BCTS has a remarkable amount of data on students, including substantially longitudinal information. There is an opportunity for this data to be analysed in order to shed light on equity questions, but there is a significant amount of information not collected, such as ethnic background and socio-economic status of learners. So while there is a logical argument that easing movement from a local community college to a research university (or vice-versa) would help all learners achieve their goals, it would be hard to empirically demonstrate despite the remarkable depth of data.

There are a number of insights arising from the BCTS worth taking into account in the design of any future system:

1. Changing circumstances, even when not directly related to the post-secondary sector, can have significant impacts on the work of credit transfer systems.
2. The decision to engage institutions in the development and management of credit transfer pathways was wise but the limitations of this approach become apparent when attention shifts from boundaries between institutions to the boundary around the sector as a whole.
3. The internal and external boundaries of a post-secondary system are not inherently linked in terms of strength or permeability.
4. Leaving Prior Learning Assessment and Recognition (PLAR) to institutions, especially when PLAR-based credit may have limited transferability, does seem to create an area of inconsistency and potential inequity.

5. The lack of inclusion of certain key professions within the articulation committee structure can be seen as a product of the nature of integrated professional programs as opposed to course-based academic programs.
6. The notion of parity of esteem is a difficult one when the original design was to develop a hierarchy of institutions.
7. The establishment of equivalences, even on the level of courses, is not a simple process and requires considerable administrative and academic input.
8. Internationalisation of a post-secondary system creates complexities around the external boundary of the system.
9. Awareness of students regarding the possibilities of transfer and access to the information they need to make decisions may be an issue depending on the design of the credit transfer system.
10. Monitoring equity effects of the credit transfer system is challenging.

6.2 Overview of the British Columbia Qualifications Framework (BCQF)

The British Columbia Transfer System (BCTS) is included as a case study not only because it is the "home" system of the researchers and sponsors of this research, but because it represents a mature version of a particular approach to credit portability. It has earned significant accolades across Canada and beyond for the effectiveness and inclusivity of transfer, as well as for successfully navigating the political and institutional shoals inevitably surrounding any attempt to create system-wide consistency. One helpful factor may have been a report, now more than sixty years old, calling for a California-style systemic approach to post-secondary education in the province. A second factor may have been the relatively small population of the province (around 5 million) and the clarity with which the Canadian constitution places control over education in provincial hands. Taken together, these factors create the potential for localised solutions to issues far harder to tackle on a larger scale.

The BCTS does not function through a non-institutional credit system used as a "currency" to bridge between institutional credits. Its heart lies in the concept of course equivalencies and pathways constructed around these equivalencies. Higher level agreements, such as block transfer or shared degrees, are based on accumulation of course-level equivalencies. There are 60-plus committees with responsibility for oversight of the equivalency system in a range of disciplines, though these committees do not actually negotiate the course equivalencies, which is in the hands of institutions. The underlying approach is not simple, and it is notable how much technological tools have helped to increase its viability over the last few years.

One side-effect of the complexity was the recognition early on that research could contribute substantively to the design and management of the system, and BC has very strong data on the performance of the BCTS. There are a number of blind spots in these data, but overall they represent an impressive approach to understanding the dynamics of a large and complex system.

The BCTS is a central organising principle within the BC post-secondary system, with strong credibility and a good track record. There are ways in which the system could be developed, as well as emerging challenges, and these will be discussed in this case study. The authors would like to express their appreciation to the individuals who gave up their time to present their experiences with the BC system and thank them for their candour and openness.

6.3 Initiation

To some extent the idea of credit transfer is implied in the early thinking about the British Columbia post-secondary system. In 1962 the president of the University of British Columbia (UBC) chaired the committee producing the Macdonald Report (Macdonald, 1962), which set out a plan for post-secondary education in the province following the California template. This would involve three different types of institutions: colleges, undergraduate universities, and research universities. The colleges would be local institutions providing vocational and technical education up to two years long (equivalent to the contemporary associate's degree). There would be two undergraduate universities in Victoria and the Lower Mainland, delivering bachelor's level qualifications. At the pinnacle of the system would be the University of British Columbia, the sole research university for the province. Given this framework, pathways through the system would likely involve multiple institutions for many students. If articulation was to be possible (other than upon completion of a qualification) some sort of credit transfer would be needed.

Though the Macdonald Report was accepted and implemented in good faith, not all of the recommendations were implemented seamlessly (Andres & Dawson, 1998). In November 1968, students at Simon Fraser University protested the lack of transfer opportunities for Vancouver City College students who had enrolled in 1st and 2nd year university transfer courses. Students transferring from colleges were not getting university credits for all the courses previously taken at college (Simon Fraser University, 2010). That same year, the Academic Board (formed as a result of Macdonald Report recommendations) sponsored a conference at which the decision was made to develop the first standing committees for specific disciplines. The impetus came from the perception that if the institutions did not solve their transfer issues then government intervention was likely (Gaber, 2005). In the same year, each university started to publish its own Transfer Guide, listing equivalent college and university courses which students would use to plan for their education (Andres & Dawson, 1998).

A new body, the Post-Secondary Articulation Coordinating Committee, set Principles and Guidelines for Transfer which were used by universities until 1989 (Gaber, 2005). In 1989, in response to a report entitled Access to Advanced Education and Job Training in British Columbia (known as the "Access for All" Report), the BC Council on Admissions and Transfer (BCCAT) was established (Andres & Dawson, 1998). BCCAT is funded by the provincial government to function as an arms-length advisory committee. The Minister of Post-Secondary Education and Future Skills has the authority granted by the College and Institute Act (British Columbia, 1996) to:

- establish articulation committees to advise the Minister on the equivalence of courses given at one institution or university as compared to courses given at another institution or university;
- require an institution to participate in the work of an articulation committee;
- establish committees consisting of members of boards, presidents and employees of institutions and other persons.

(Part 2, Subsections 3(l), 3(m), and 3(o)), cited in BCCAT, 2022, p. 2)

The minister has a further power not cited by BCCAT, which is the ability to "require an institution to accept, as the equivalent of a course of instruction taught at the institution, a course of instruction taught at a university or another institution which the minister has decided is equivalent" (Part 2, Subsections 3(n)). The minister can, where desired, override institutional level decisions regarding credit transfer. In effect this appears to be a limit on the autonomy of institutions.

BCCAT adopted a pathway structure upon its formation, with subject pathways relying on course-level equivalencies. These pathways rely on the advice of articulation committees (BCCAT, 2023). As an example, an individual—either a learner or institution staff member—could consult the transfer guide and see that a specific second level English course at Capilano College could be used as an equivalent to a specific second level English course within a degree at Simon Fraser. In 1997, the BCCAT implemented system-wide examination of transfer models to determine whether alternative approaches, such as block transfer, could replace or supplement course-to-course transfer (Dennison, 2000). One of the key conclusions was that course-to-course transfer continued to be a viable system, though there was support for the idea of exploring alternatives as a means of system improvement (as previously proposed by Finlay, 1997).

In 2000, guaranteed transfer credit for all courses completed within an associate degree was introduced, effectively addressing the concerns raised by students in 1968 (Gaber, 2005). The following year, all institutions formally approved such a guarantee (Soles, 2001). This can be considered as the introduction of block transfer alongside course-based transfer. In 2003, the BCCAT expanded its role around admissions by forming an admissions committee and undertaking several research projects to help better understand student mobility, capacity, and demand. The same year witnessed the passage of the *Degree Authorization Act* (British Columbia, 2002), which allowed colleges to grant applied baccalaureate degrees as well as giving authority to university colleges to grant applied master's degrees (Gaber, 2005). It is worth noting that these changes, along with the increasing number of institutions considered research universities, constituted a significant step away from the Macdonald Report framework. Another such step was the inclusion of three private universities in the BC Transfer Guide—the reference handbook for the BCTS—in 2005.

The boundary between initiation and implementation of the BC system is fuzzy rather than abrupt. While it is clear the system has been fully implemented for some time, there are several candidates for the precise evolution representing full implementation (the formation of BCCAT, the turn to admissions, the College and Institute Act, or several other milestones), suggesting the BC system has

developed in an emergent way, changing when opportunities presented themselves but always within the tension between institutional autonomy and student mobility.

6.4 Implementation

At the current time, the BC admissions and transfer system can be considered as well-established within the province. There are 40 member institutions, including all BC public institutions, two out-of-province institutions, and several private institutions in BC (BCCAT, 2023a). This does not mean, however, that there is a universalist approach to these matters. Rather, there is a series of arrangements with different implications for students and for institutions.

The possible options for transfer are publicised in a searchable database available through *bctransferguide.ca* (BCCAT, 2024). Through an open search, the number of total agreements can be found, as shown in Table 1. The original approach of course-to-course transfer (the idea that a course at a certain institution is equivalent to a course at another) is the first row of the table. The possible combinations run into many thousands. Since the credit transfers in this category are between the many, many courses across 40 institutions, there is no easy way to define the total. To give an idea of scale, there are 267 options for transferring 200-level English course credit into UBCV alone, and BCCAT refers to "over 300,000 course-to-course agreements" (Winsemann, 2023).

Block transfer agreements are where a receiving institution agrees to accept a cluster of courses/programs as equivalent to a cluster of its own programs. Usually this is organised by year, with, for example, one year of study at a college accepted as equivalent to university first-year. This type of transfer has expanded over the last twenty years to 1387 agreements. These arrangements may bring benefits both to institutions, who have predictable and locked-in recruitment, and to students, whose path may be clear from the initiation of their studies.

Type	**Number**
Course to course	300,000+
Block transfer	1387
International Baccalaureate	669
Advanced Placement	664
Adult Basic Education	445
English as an Additional Language	235
Degree partnerships	20

Table 6.1: Number of options listed under each type of transfer (BCCAT, 2024)

The third row represents transfers of credit between international baccalaureate and BC institutions, with 669 examples. There are also 664 agreements for transfer of advanced placement credits, usually gained in high school. It is perhaps not surprising that these numbers are so close given that international baccalaureates often involve advanced study and it may be an important reason for students to study in this type of program. Adult Basic Education (445) and English as an Additional Language (235) are next and represent important ways for people to gain access to post-secondary education. Finally, there are 20 degree partnerships, a limited number given the number of institutions.

The impression gained by this review is the scale and complexity of credit transfer in British Columbia, particularly given the relatively light touch management of the system. Credit transfer opportunities are developed at grassroots level, between the various institutions involved. However, the importance of the overarching structure in enabling these opportunities should not be understated.

The central apparatus of the BC transfer system remains BCCAT, though it has expanded well beyond the initial focus on course-to-course equivalencies. One of the most important functions of BCCAT is communication, in terms of collating and distributing information on transfer options. In recent years a great deal of this function has moved to open-access web-based systems, for example the transfer guide website (BCCAT, 2024), which provides anybody interested with a way to explore the transfer system. While BCCAT advocates for the development of opportunities for credit transfer, it does not participate directly in their development. Instead, BCCAT develops tools to support admissions and transfer.

In common with many arms-length organisations in British Columbia, BCCAT has a ministerially appointed steering group, or council. There are 20 members, one of whom is the BCCAT Executive Director. The remaining members are institutional representatives with a range of positions. At the time of writing, Council includes university presidents, doctoral candidates, provosts, registrars, and instructors. The relationship between Council and BCCAT staff is high level; Council members review and approve initiatives and provide advice and support, but the operational responsibility lies with the team of 11 employees, which manages a number of distinct functions.

Articulation committees are an important part of the structure managed by BCCAT. There are 65 such committees, each dealing with issues arising within a subject area. Many are based around a traditional academic discipline, for example, Biology, while others are more strongly focused on professional and vocational areas such as carpentry. Reviewing the list of committees reveals some notable gaps. For example, teacher education and law are missing from the list. Practical nursing is included, but not nursing more broadly. It would be interesting to understand more about why some disciplines are included and some not. One possible factor is the expectations of the licensure bodies, which play a major role in shaping and constraining the programs. Block transfer offers an exciting possible strategy here because it brings a level of clarity to pathways (K 1).

The articulation committee for an area comprises instructors, institutional contacts, program advisors, and registrars, many of whom have specific roles such as chair or system liaison person.

The committees are expected to be committed to maintaining the agreement and building trust in the articulation process by adhering to common academic standards and to truth, fairness, transparency, and communication (Finlay, 2009). The main business of the articulation meetings is reviewing articulation requests that are not yet completed and receiving reports from institutions, with a strong focus on building knowledge, networks and understanding between the institutions involved. Chairs of articulation committees (and other interested parties) come together in a Joint Annual Meeting. At this event awards are given, presentations around current issues and research are delivered, and a range of meetings are held. Once again, the focus is on information and knowledge-building.

The BC Transfer Guide website (BCCAT, 2024) is a significant project for BCCAT. As noted above, it includes many thousands of pieces of information and really would not be viable without web technology. BCCAT can reasonably state that all the transfer information in the province is available to anybody, though a review of the website suggests that some level of experience with the online system and an understanding of institutional policies would make it much easier to navigate. It appears as if it could be challenging for an adult basic education learner with little understanding of the system to use it, though an instructor or an academic advisor would be well-positioned to do so.

Articulation in BC is based on inter-institutional agreements, and BCCAT produces a guide to institutions who are planning articulation (BCCAT, 2023), which sets out criteria for when institutions should articulate with other institutions, when they should not, and how to plan for and maintain any such agreements. Included within the document is a list of principles, which are as follows:

- Focus on students (no need to repeat learning, but also avoiding credit for learning not attained)
- Academic integrity
- Parity of esteem (between institutions seen as having different academic status, such as colleges and universities)
- Equivalency (similarity between courses where credits are transferable)
- Reciprocity (courses are transferable in both directions)
- Communication (easy for students to get information about transfer)
- Transparency (institutional rules for articulation and steps to articulation should be public)
- Efficiency (quick, simple processes)
- Respecting disciplinary expertise (BCCAT, 2023, pp14-15, notes in brackets by current authors)

It would be difficult to challenge any of these principles as being important in any credit transfer scheme. When they are brought together in application, however, a number of contradictions and grey areas emerge. For example, parity of esteem and academic integrity will play out in different

ways in different contexts. A professor at a university could argue that academic integrity prevents full recognition of the parity of a college course, for example. BCTS has accepted development of the perception of parity as "a major part of the work" (K 2). As one informant commented, "colleges are seen as 2nd class citizens . . . by third or fourth year [learners] need to study with somebody who is an expert. But why is English 100 a stumbling block? The focus is on parity of scholarship rather than parity of teaching" (K 1). This aligns with significant questions about the meaning of esteem within the BC system given that learners may be in an equally strong pedagogic environment in more local institution.

Other principles may be equally challenging to realise. The complexity of the BCTS mitigates against the principle of communication. Transparency is not under the control of the BCTS since publicising this information would be an institutional concern. In these and many other ways it is easy to see why attainment of these principles is challenging.

One notable aspect of the articulation process is that learning outcomes should not be used as a basis for articulation. Learning outcomes have not been universally adopted in BC (BCCAT, 2023, p. 20), and assessors will want to see full details of course content and process. Whilst BCCAT is not positioned to impose any requirements upon the post-secondary institutions, it is possible that having learning outcomes as a standard approach across the province might be significant in terms of transfer approaches and accessibility.

Another limitation is that institutions receiving credit transfers may not recognise courses completed through Prior Learning Assessment and Recognition at a sending institution "on the basis that PLAR credit is determined in relation to each institution's specific courses and guidelines" (BCCAT, 2023, p. 21). PLAR, or Recognition of Prior Learning as other jurisdictions call it, is not regulated by BCCAT but affects BCCAT's work directly. It seems illogical that if an institution considers prior learning experience as equivalent to a course and another institution sees that course as equivalent to its own, the operation should be commutative. In other words, if A = B and B = C, then A = C. The non-acknowledgment of mutual equivalencies also seems to reflect less trust between institutions than might be ideal in a transfer system. From a learner perspective, it also mitigates against transfer—if you could start a program locally but it is unclear that a desired transfer to UBC will be possible, why not just start at UBC in the first place? (K 1)

The BC Transfer Guide (BCCAT, 2024) provides and shapes the context for all the transfer activity in the province between public institutions as well as private institutions who are most engaged with the wider system. Its strength lies in the degree to which the institutions are seen as the initiators and managers of the credit transfer process, with BCCAT providing support and information based on cross-system aspects of credit transfer. This situation should ideally ensure an equitable and approach with equal value given to equal work at an equal level across the province. One of the challenges is the complexity and detail of the process, with each institution involved in transfer needing to commit considerable time and expertise to establishing a transfer agreement. The processes may not be at all clear to students, and the guide appears to discourage—both explicitly and implicitly—the notion of institutional level agreement on credit transfer for a single student. It

seems as if an individual who wanted to complete a credit transfer outside the agreed possibilities might have to fall back on an individual PLAR and therefore would benefit little from the credit transfer system.

In addition to supporting credit transfer in the BC post-secondary system BCCAT conducts research in the area. It is unusual for a credit transfer organisation to have a research branch built into the structure, and this arrangement has proven extremely helpful. BCCAT is a partner in the Student Transitions Project (STP), which is a collaborative research project between Ministry of Post-Secondary Education and Future Skills, Ministry of Education and Childcare, BC public post-secondary institutions and BCCAT (Heslop, 2023). Due to the existence of a Personal Education Number (PEN) in British Columbia, students can be tracked through the K-12 system to public post-secondary. This information can then be shared with the STP after appropriate safeguards to ensure anonymity of the data, such as replacing PENs with a consistent but randomly generated ID number. Student pathways can still be tracked but their identities are completely protected.

Based on this data Figure 1 shows the mobility of students in the single year 2021-22 among four types of institutions: colleges, research-intensive universities, teaching-intensive universities, and institutes. The number in brackets under the institution type is the total enrollment for that type of institution (e.g., 76,000 across all colleges). There were 343,800 unique academic credit registrants and 14% utilised some form of credit mobility. The looped arrows show numbers of students who left a type of institution and then returned to the same type, for example, the 2800 who left colleges and returned to colleges. The double-ended arrows show transfer numbers between institution types, which adds up to 31,300 students. For example, 1200 students moved from the three institutes in BC to research-intensive universities, while 3500 moved from the research-intensives to institutes. The overall picture is one of significant multi-dimensional student mobility and credit transfer.

Year-to-year analysis shows, however, that student mobility in BC is falling. In 2021-22 60% of people attaining a bachelor's degree did so at the same institution in which they started, over 10% more than earlier cohorts (Heslop, 2023). The overall mobility rate for students has fallen over the last 13 years from 19% in 2008-09 to 14.4% in 2021-22. Part of the explanation for this may be that more institutions now offer bachelor degree completion, making mobility less necessary. A further factor is the increasing numbers of international students, who are less mobile than domestic students. In general, "mobile students are more likely to be female, Indigenous, domestic, age 19 to 25, and earned an Associate Degree, Certificate or Diploma in Arts and Sciences, Health or Human and Social Services before switching institutions" (Heslop, 2023, p. 8).

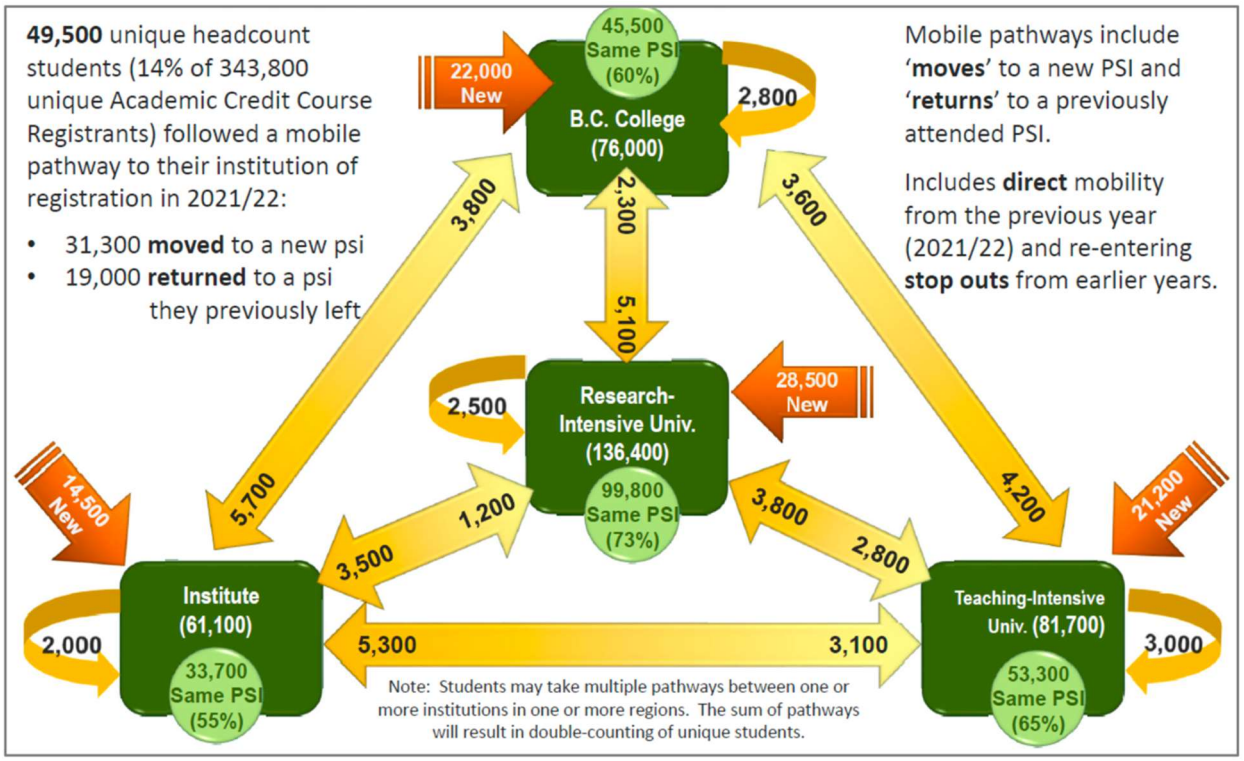

Figure 6.1: Student transitions in British Columbia (Heslop, 2023, p. 23)

At this point the impact of the BC Credit Transfer System on equity is unclear. There is a logical argument that individuals who are less advantaged in the system may start at more local, more vocational institutions and then choose to progress to more academic settings. If this premise is accepted, it follows that more transfer between colleges and research-intensive universities is a good thing, and likely to be beneficial for historically marginalised groups. There are, however, a couple of problems with this argument. The first is that it preserves the Macdonald Report hierarchy of institutions and therefore contradicts the notion of parity of esteem. The second is that it overlooks the expansion of institutions granting bachelors' degrees, which decouples mobility from educational access to some degree. Historically marginalised groups may be able to complete many higher education programs without the need for transfer to another institution part way through their study. The connection between equitable access and transfer is no longer as iron-clad as it once was, which may be an indicator of increased system efficiency (K 3).

Another important consideration is that equity may be more about initial access to the post-secondary system than mobility within it, and data showing changes in access would lie with individual institutions. Institutions in BC do not record the data that would permit responsible analysis of access for different learner subgroups (BCCAT, 2023b). The current exception is Indigenous identity, which students may choose to disclose. Any more detailed data collection would require significant development work and any technical system, whomever developed it, may not provide the necessary data in an appropriate form. One simple example of a complication is that many people in Canada have ethnic and cultural identities reflecting diverse geographical and

historical settings and experiences. It seems unlikely that the challenges of recording identity respectfully and meaningfully will be fully resolved in the short to medium term. Studies have, in the past, attempted to examine socio-economic status using postal code education and income levels, but more precise classification is elusive (K 3).

Assessing equity impact also requires baseline data upon which to build a counter-factual (a view of what would have happened if a specific policy was not in place). One way to achieve this alternative perspective is to use historical data. However, the context of post-secondary education in Canada has been changing substantively and rapidly. For example, the Truth and Reconciliation Commission's calls for change (Truth and Reconciliation Commission of Canada, 2015) may have made as much difference in Indigenous engagement with higher education as anything the institutions have done over the last decade. In summary, there is a logical case to justify the belief that increased mobility is a necessary contribution to increased equity, but little chance of developing quantitative data to test that claim.

Overall, BC has implemented an institutionally-driven, centrally-facilitated model of credit transfer. The mechanisms in place have benefitted many thousands of students over the years and will likely continue to do so. Some of the thorniest issues have not been addressed fully, however, such as a consistent approach to individual transfer pathways and rigorous assessment of equity impacts.

6.5 Continuation

The British Columbia Transfer System appears to be well-embedded across post-secondary education in the province. Throughout its long history it has effectively adapted to changes in post-secondary policy and institutions while maintaining a clear focus. It is interesting to speculate—and impossible to know—in what form credit portability would continue if BCCAT were discontinued.

One question for the BC Transfer System is how necessary its continuation will be if de-diversification of institutions continues. The Macdonald Report (1962) was very clear about the hierarchy of institutions across the province and the extent to which it would mirror the California system. Sixty years later, the system has undergone significant re-alignment, with most institutions now offering undergraduate degrees and many colleges and teaching universities offering master's degrees. Doctoral degrees remain the prerogative of the research-intensive universities, but the majority of students appear able to complete the level of study they choose in one institution, a tendency reflected in the earlier findings from the Student Transitions Project. If the trend were to continue, with increasingly similar offerings at different institutions, the significance of a centralised approach to transfer might be less clear.

Another question for any such system is how well it balances the needs of students against the resources of institutions and other components (Finlay, 2009). There appears very little reason to be concerned about the value for resources committed so far to the transfer system, but it is possible that the rationale could be seen as less compelling going forward, on two grounds. The first is that the system could be considered to have reached a plateau, with such widespread engagement that there are few possibilities for expansion left open. The second, even more obviously, is the

diminishing number of students who are transferring between institutions. These grounds could lead to a perception that the system is now in maintenance rather than growth mode, suggesting sustainability could be achieved with less resource.

It is possible that further development of the system would require engaging with areas formerly seen as lying within institutional autonomy. While the Transfer System generally and BCCAT in particular have focused on movement within the system, there has been far less work around the overall boundary of the BC post-secondary system. Institutions and the programs within them still retain complete control over who can gain access to education. A project of BCCAT, ultimately spun-off into its own organisation, was EducationPlannerBC, which aimed to pull the application process for all institutions to one place. While successful on this measure, the project did not lead to any more standardisation of entry requirements. This outcome can be rationalised through the diversity of institutions in British Columbia, where the University of British Columbia can be expected to be harder to enter than an open-access college program, but de-diversification of institutions might lead to re-examination of that rationale.

One of the clearest examples of the tension between transfer-friendly policies and institutional autonomy is PLAR. As mentioned earlier, credit gained through PLAR at one institution may not be transferrable to another. This could effectively block a learner's progress. There may be some small benefit arising from this situation to the original institution (in that they capture the learner) but there seems to be no clear benefit to the student or to the system more broadly. Even the benefits to the receiving institution seem unclear. This appears to be an obvious contradiction to the principles of the transfer system but addressing it would involve direct engagement with institutional processes.

Inter-disciplinarity raises institutional issues for transfer. The sheer breadth of some fields means that programs are reluctant to cede control over transfer credit (Rhodes, 2019), leading to onerous and staff intensive review processes. This is particularly the case when inter-disciplinary credits are considered for application to a specific discipline. While there have been calls for more consistent procedures and evaluation of these credits, this once again lies within the remit of institutions rather than BCCAT.

In a similar way, many professional programs remain outside the BC Transfer System. There are nine teacher education programs in the province, for example, with substantially different program designs. In this case the entry requirements to the programs are similar since they are derived from provincial legislation. Credit transfer between these nine might be desirable, yet it would be challenging given the depth of the design differences and the need to ensure there were no learning overlaps or gaps. Making professional programs such as these amenable to transfer would necessitate significant program alignment, an institutional responsibility.

An important consideration in any educational re-think is the need to recognise the claims of Indigenous people. Over the last several years British Columbia has been working hard to respond to the calls for action within the Report of the Truth and Reconciliation Commission (Truth and Reconciliation Commission of Canada, 2015). One appropriate response would be for the post-

secondary system to recognise learning within community settings, such as language or cultural expertise, as having value. There is currently no mechanism for this kind of recognition (though it feasibly could be occurring within individual PLAR agreements), a further example of a development that would involve amending the boundaries of the system more than practices within the system, and of the power of institutions in determining where the external boundary should lie.

Finally, there is no coherent approach to international credit transfer even though the number of international students continues to increase. Clarity in this regard would be a benefit both for students and for the institutions involved. Course to course equivalencies may not offer a viable way to manage the scale or variety of the credit claims by outgoing and incoming students. The potential downside of not having a standardised approach is the potential for inconsistency. For example, one institution might accept courses from an international source as part of admission and give credit for those courses. When the learner tried to transfer to another institution for further study the receiving institution may choose not to recognise those credits. This form of uncertainty undermines learner confidence in the system as well as presenting difficulties in marketing BC education as a coherent brand.

The conclusion emerging from these thoughts on continuation of the BC transfer system is that many of the ways in which the system could increase its reach and expand its influence involve amended institutional practices. It may be that the system has reached its limit without beginning to move into aspects of education that have, until now, fallen squarely within institutional autonomy. After a third of a century of work, BCCAT and the system generally have demonstrated their ability to evolve and address new challenges. It seems extremely unlikely that their work will be rolled back, but it remains hard to predict the next stage of development for the system.

6.6 Observations regarding the BCTS

The initial observation is the amount that the BC Transfer System has achieved over the last 35 years. The infrastructure of transfer is complex and profound, and has been built around perpetually increasing institutional inclusion. While issues around credit transfer are sometimes challenging there is little evidence that this has led to lessened institutional investment in any case.

One interesting aspect is the extent to which institutions have taken on responsibility for the mechanics of credit transfer. While a province-wide organisation (BCCAT) works to create a friendly context for transfer and a set of consistent guidelines for all involved, the actual agreements, equivalencies, and procedures are set at local institutional level. The College and Institutes Act (British Columbia, 2002), as discussed earlier, does set out a legal expectation for colleges and institutes to participate in credit transfer, but the equivalent act for universities specifically gives universities the power to decide whether they will accept credit transfers (British Columbia, 1996a). The BCCAT approach to institutions has been described as “cajoling” (K 2), and this has seen some success. The degree of engagement in transfer mechanisms is notable given that institutional interests are not always aligned with credit transfer. The sending institution may lose a student part way through a program, failing to receive income and fees for the balance of the program. The

receiving institution is losing income and fees for the transferred credits as well as taking a reputational risk. The willingness of institutions to engage in a process that is not always aligned with their interests is a tribute to their support of the values attached to transfer credit and commitment to the benefit of the student.

There is another side to this situation, which is the uncounted costs of the administrative work being carried out in articulation committees and on a day-to-day level within institutions. It would be challenging to quantify, but there seems little doubt that significant institutional resources go into supporting the transfer system. On the face of it, the BCTS appears very affordable, with a very limited staff delivering the work of BCCAT and Education Planner. However, the work of institutional representatives and administrators, if costed, would be significant. Even though these people are already employed by institutions, there are opportunity costs involved in the time they dedicate to transfer issues. The pivotal role of institutions in the transfer system does not come without a resource cost.

The focus on credit portability within and across the post-secondary system is clear from the achievements of the last several decades. Portability across the external boundary of the system has received much less emphasis. This does, to a large extent, reflect the influence of institutions in the transfer system. Individual colleges, universities and institutes remain the gatekeepers of the post-secondary system. Acknowledging this is not to disparage the institutions' commitment to enhanced access, but it does highlight an area of the transfer system with potentially less consistency for aspiring students.

Institutional control over access also tends to reinforce the importance of Grade 12 completion as a hard requirement for system entry. In British Columbia a high school diploma, or adult equivalent, is the standard requirement for post-secondary study. While some programs offer dual credit (that is, post-secondary credit for work completed in high school) the pathway is folded within the high school diploma rather than providing an alternative. People without a high school diploma are frequently expected to take courses to bring them to Grade 12 level before moving on to a specific area of study. For adults with family responsibilities or substantial workplace experience this could prove to be a disincentive to study. Most institutions do offer pathways for mature people (generally over 19) without high school graduation to enter study, but it is hard to assess the success of these pathways, or even the number of students using them, because of the complexity of admissions processes and the diversity of experience and education people bring to this category. Several universities in BC have statements about the small number of people who are admitted in this category and may recommend applying to upgrading courses at colleges (McQuarrie, 2013).

The use of PLAR, recognition of international qualifications, and attribution of value to Indigenous cultural knowledge are also tied up within questions of system access. It would be useful to consider the desired future shape of the external boundary of the system if student mobility is to be maximised. BCCAT is well-placed to serve as as a clearinghouse for a range of different entry pathways into the post-secondary system (K 1).

The transparency of the transfer system to students could perhaps be more fully developed. The representation of the system contained in the various websites and other media seems to be pitched at professionals within the system and, in the judgement of the present authors, would be challenging for learners to understand. Once again this reflects the institutionally centred approach to transfer, but it seems it may add complication for learners who do not have an institutional advisor to translate the system for them. Somebody who studied and completed a range of courses before taking time out of study, for example, might not have institutional support for the legwork of clarifying how the previous credits could be applied. While the tools are relatively straightforward for a person who understands the principles of transfer, they are less so for somebody who is learning the system.

The BC transfer system deserves to have a good reputation across Canada and internationally. There can be little doubt that opportunities for student mobility have increased very significantly with the support of BCCAT. There remains work to be done, however, and this work does appear to challenge institutional autonomy more directly than the achievements to date. The transfer system was originally designed to work with institutions having differentiated missions but has done well to accommodate the current, less-diversified network of educational institutions.

6.7 Summary of lessons learned

Reviewing the development, implementation and continuation of the British Columbia Transfer System leads to the identification of several lessons for the development of similar systems:

1. Changing circumstances, even when not directly related to the post-secondary sector, can have significant impacts on the work of credit transfer systems. Possibly the most pressing in the case of British Columbia is the increased attention and validity given to Indigenous knowledge, leading to concerns around how this knowledge can be represented responsibly and respectfully in a post-secondary credit transfer system.
2. The decision to engage institutions in the development and management of credit transfer pathways was a wise one in many ways. It created and maintained institutional buy-in and limited the centralised costs associated with the development and maintenance of the credit transfer system. Institutions rose to the challenge despite transfer not being necessarily in their interest or mandate. The limitations of this approach become apparent when attention shifts from boundaries between institutions to the boundary around the sector as a whole.
3. The internal and external boundaries of a post-secondary system are not inherently linked in terms of strength or permeability. BC demonstrates a situation where the external boundary has been affected very little by significant weakening of internal boundaries. The external boundary may be politically more challenging to change since it necessarily involves areas of institutional autonomy.
4. Prior Learning Assessment and Recognition (PLAR) is seen by many as a key element of increased equity and student mobility. Leaving PLAR to institutions, especially when PLAR-

based credit may have limited transferability, does seem to create an area of inconsistency and potential inequity.

5. The lack of inclusion of certain key professions within the articulation committee structure can be seen as a product of the nature of integrated professional programs as opposed to course-based academic programs. Inclusion of a rationale for this situation developed and recorded as a positive choice would be more helpful than simply leaving blanks as missing components of the system.
6. The principle of parity of esteem is a difficult one to fulfil when the original design was to develop a hierarchy of institutions. De-diversification of institutions may go some way to enhance parity of esteem, but the experience of learning at different institutions is likely to be significantly different. It would be helpful to develop a clear set of principles and commitments around this concept.
7. The establishment of equivalences, even on the level of courses, is not a simple process and requires considerable administrative and academic input. Finding ways to simplify the approach could aid the responsiveness and efficiency of a credit transfer system.
8. Internationalisation of a post-secondary system creates complexities around the external boundary of the system. If the aim of internationalisation is to maximise revenue from international students, then credit transfer should be strictly limited, whereas building international mobility would benefit from increased opportunities for transfer.
9. Awareness of students regarding the possibilities of transfer and access to the information they need to make decisions may be an issue depending on the design of the credit transfer system. If the intention is to have administrators and academics in a central advising role these aspects may be less important, whereas an approach built around student self-direction requires significant clarity, transparency, and consistency.
10. Monitoring equity effects of the credit transfer system is challenging. Access patterns change over time, and without a counter-factual it is impossible to assess the impact of any system change. The inability to identify students by ethnic group, for example, may represent a significant challenge to understanding attendance and retention patterns of under-served groups. It would be helpful to have a fully developed logic model to link actions on the ground to potential effects for students.

7. Reflections on Case Studies

This chapter will review the case studies, identifying key issues and insights arising across the different systems. Although the frameworks examined are quite different there are common observations and questions as well as a number of perspectives that can only be identified by comparing the approaches. It is probably worth saying immediately that no single system emerges as better than the others or having all the answers. All of the frameworks have pros and cons depending on the intended outcomes. One complicating factor in terms of assessing the strengths and weaknesses of each system is the tendency for there to be an espoused reason for their development as well as less acknowledged, but extremely significant, influences. Nonetheless, there remains much to be learned.

An immediate impression is the extent to which each of the credit transfer systems has come to be viewed as embedded within the post-secondary sector. While there were reservations about its direct applicability to particular institutions, none of the key informants suggested that it was not a valuable part of the post-secondary system structure. Similarly, both literature and interviews reflected a rather pragmatic view of the transfer system. While there certainly are philosophical questions that could be asked—some of which are mentioned in this chapter—the predominant issues are more to do with practicalities and logistics rather than principles. Most key informants had less understanding of the history of their specific transfer system than one might expect, though their knowledge of current structures and issues was exemplary. Two key informants did stress the importance of understanding the history of the transfer system, but they were outliers among the group interviewed.

This chapter begins with a discussion of high-level differences between the reviewed frameworks. There is then a section on the political context of the frameworks before discussion of the issues that emerge most strongly from examination of the case studies.

7.1 High-level differences between the cases

The four qualifications frameworks included in this study are remarkable in several ways, and one of the most striking aspects is their diversity. While the rationales for their development are relatively consistent, the means chosen to reach those ends vary significantly even when the same sort of language is used. "Framework" refers to a range of mechanisms, each of which articulates differently to the post-secondary sector. Table 7.1, below, indicates selected similarities and differences.

	European Credit Transfer and Accumulation System (ECTS)	British Columbia Transfer System (BCTS)	Scottish Credit and Qualifications Framework (SCQF)	Australian Qualifications Framework (AQF)
Multi-jurisdictional	X			X
Multi-sectoral		X	X	X
Centralised QA			X	X
Framework currency	X		X	

Table 7.1: Presence of selected features in reviewed frameworks

As shown, two of the frameworks are multi-jurisdictional, spanning across different governmental structures. Presently, the ECTS is used by around 47 countries to a great or lesser extent while the AQF spans the national, state and territorial governments of Australia. While both Scotland and British Columbia have a degree of articulation with other jurisdictions, they are not intrinsically multi-jurisdictional. These two settings also share the smallest population, at around 5 million, whereas the other two frameworks cover a larger number of people.

Three of the reviewed frameworks are multi-sectoral, covering at least VET and higher education. Addition sectors might include secondary schooling and private education and training. The ECTS has aspirations to be multi-sectoral and may yet achieve this breath of reach. Currently, however, the ECTS is concerned exclusively with the higher education sector, a complex endeavour in its own right.

Two frameworks—the AQF and SCQF—have centralised quality assurance mechanisms. In the other two cases, it is largely left up to institutions to manage this aspect of their work, though it should be acknowledged that every framework has defined expectations for what can be articulated and how it can be articulated.

Finally, there are different "currencies" in the frameworks. The ECTS and SCQF have credit systems that do not rely on institutional credits. The work done by learners is essentially translated into a universal credit system representing the scale and the level of learning. This concept is more developed in the SCQF than in the ECTS, though even here translating back into a claim for academic credit in a new program is not always smooth. The other two frameworks use existing academic units as their currency—qualifications in the case of Australia and courses in the case of British Columbia.

These differences reflect both the different contexts in which the systems operate and the diversity of functions they are expected to fulfil. The primary challenge for the SCQF and the BCTS was connecting different forms of credit and credit accumulation within their jurisdiction. For the ECTS it was finding a way to bridge across different philosophies and ways of counting credits in different higher education regimes, making a common framework currency very valuable. In the AQF there was a need to tie sectors and jurisdictions together. While this has only been partially successful the task might appear even more daunting if it had to be done at a more granular level than qualifications.

The ultimate aim of this research was to develop suggestions for the BC transfer system to consider in its search for continuing improvement. These suggestions, laid out in the following chapter, are largely derived from triangulating the differences between systems described in the chart above.

7.2 Political context

One of the most striking commonalities across the frameworks is their governmental origins. In none of these examples did the post-secondary sector come together and make a case for more coordination of learning. The depth of involvement of the relevant state (national or sub-national) varies between the examples, probably with the Australian Qualification Framework (AQF) showing the highest level of explicit state involvement and the British Columbia Transfer System (BCTS) showing the lowest. Even so, BC does have specifically enabling legislative language and the responsible Minister has the ability to require institutions to accept transfer credit. While in some of the examples a case can be made that the post-secondary sector proactively adopted credit portability before it could be imposed, the impetus was governmental in every case.

The arguments for creating the frameworks do, necessarily, reflect this governmental origin. In broad terms, two arguments underpin their creation. The first is to do with human capital and workforce management. Human capital theory links the productivity and success of a national economy with the skills of the workers within it (Becker, 1964). Though there is considerable debate about whether the link between education and productivity is direct or indirect (mediated by the health of the workers, the availability of capital plant, etc.) there is an established body of thought viewing national economic strength as deeply influenced by the abilities of workers, for which education level is a standard proxy (Sweetland, 1996). In other words, the more educated the workers within an economy, the higher the Gross Domestic Product (GDP).

Human capital theory began to be influential in political thinking in the early 1990s, and the obvious implication was that the state should be doing everything possible to encourage educational upgrading among the population. These ideas found expression recently in an address to the National Press Club (Australia) on the rationale for a Jobs and Skills Roadmap: "To increase productivity and labour force participation, and, in the process, support sustained real wage growth and sustainable GDP growth. The quantity and quality of human capital investment is critical to increasing productivity, which in turn should raise real wages and enhance labour force participation" (Dawkins, 2023, ¶19-20). This line of reasoning could have been laid out anytime over

the last 30 years. From this perspective, qualifications frameworks have the potential to enhance national economic viability by making it easier for individuals to maximise their qualifications.

Another aspect of this rationale is efficiency of the educational system. While the notion that credit portability may help learners avoid having to repeat areas already learned can be presented as being a positive for students, it is also beneficial for human capital accumulation. In essence, credit portability ensures that a given level of human capital attainment, at individual or societal level, is achieved with as little resource input as possible.

The second argument for frameworks is rooted in equity considerations. The starting point here is the notion that individuals should be able to access and move through post-secondary programs with as little friction as possible. Life circumstances alter a learner's trajectory, and credit portability (along with the concomitant student mobility) can make it easier to progress after such a disruption. In a similar vein, each jurisdiction contains groups who have historically been less able to benefit from certain types of post-secondary education (or indeed any at all). Credit portability and other forms of system flexibility may enhance the ability for members of these groups to fulfill their ambitions for post-secondary education. These ideas find expression once more in Dawkins' (2023, ¶21-22) address on the purposes of the Australian Jobs and Skills Roadmap:

> *To enhance equity and reduce disadvantage, by enhancing the ability of disadvantaged groups to obtain the skills and opportunities they need to be successful in securing good jobs. Increasing equity can be achieved by enhancing the ability of disadvantaged groups to obtain the skills and opportunities they need to be successful in securing and retaining good jobs. First Nations people, young people from low socio-economic backgrounds, people with disabilities, the long-term unemployed and migrants are all groups that should be the focus of attention. As should gender equity.*

These two rationales are not completely unrelated. Where they come together is in the ideal of the learner as a rational economic actor, making decisions deliberately to maximise the utility of their choices. Specifically, the effectiveness and usefulness of having a qualification framework depends upon the desire of learners to gain further education in the hope of gaining income and better working conditions more generally. It is worth noting that if somebody is making a lot of money as a welder and then returns to school for a degree in Latin and ends up working in a library (however happily) this can be seen as subverting the intent of increased mobility offered by a qualification framework. The central point is that even though credit portability may have equity benefits, workforce management and increased efficiency within the post-secondary system is an equally strong rationale. Qualifications frameworks are a value-driven political intervention in the human capital ecosystem.

Alongside these overarching political objectives are those reflecting the specific context of the framework. For example, the European Credit Transfer and Accumulation System (ECTS) began as an initiative to support students to move across Europe to study, which was seen as a vital component of the European project more broadly. The Scottish Credit and Qualifications Framework (SCQF) can

be seen as an attempt by the Scottish polity to differentiate itself from the English by claiming a progressive agenda. The AQF, as discussed in the case study, reflected an attempt to create a qualifications quasi-market. The BCTS gained momentum from student protests regarding the difficulty of transfer. Again, there is little evidence that in any of the cases examined the post-secondary institutions initiated the development of the qualification framework.

This makes the claim that the frameworks were implemented voluntarily less credible than would otherwise be the case. There is little evidence of direct compulsion to adopt credit transfer procedures in higher education, though it is fair to suggest there were strong expectations for adoption. The VET system in each jurisdiction (except the EU) was not provided with a real choice in the matter. The mechanism for credit transfer was presented as a way to attain parity of esteem and to assist students to achieve their aspirations, both desirable outcomes for the sector. VET is more directly regulated by the state than higher education in each case, making it advisable for the VET sector to work with the state-initiated framework.

7.3 Understanding the effects of qualification frameworks

Buried within the arguments for more efficient transfer systems is the subtle but important distinction between volume of mobility and ease of mobility. Volume of mobility is the number or proportion of students who actually take advantage of credit portability, which the cases broadly suggest is decreasing in BC while increasing in Europe. A qualifications framework could be set up to maximise this factor by, for example, making some level of mobility a pre-requisite for post-secondary qualifications. Increased volume of mobility could also mean that more people who would usually stop studying shortly after high school are continuing to study, which fits with the goal of increased participation in post-secondary study. Ease of mobility refers to a lack of barriers to credit portability so that learners wanting to transfer can do so with the lowest possible level of friction and the least amount of administrative effort. A qualifications framework could maximise this by generous and transparent transfer rules.

These two ideas are connected to some degree. The easier it is to move credit around the post-secondary system the more likely it is to happen. Yet neither of these aspirations is, in itself, an indicator of a framework delivering human capital or equity outcomes. Ideally, the qualifications framework would allow everybody who wanted to move between qualifications friction-free pathways to do so. The unknown factor is the demand from learners to exercise mobility in their studies, making it impossible to make claims such as "before we had the framework only 40% of learners who wanted to transfer were able to, now 80% can." This factor can be considered as a third dimension—the necessity or desire for transfer.

The three dimensions of volume, ease and necessity affect each other. When the need and ease are high, then the volume will also be high. However, a high need does not necessarily lead to easy transfer. For example, vocational and academic tracks were designed to be strictly separate from early high school onwards in many parts of the world for many decades. The mismatch between high need for mobility and low ease of mobility is the problem qualification frameworks set out to

address. Supportive transfer systems will be most valuable when there is high necessity for transfer, which is more likely to be the case when different education sectors are strongly differentiated. As differentiation reduces, such as colleges offering degree-level programs, learners can directly access the education to which they aspire and the need for transfer is lower.

One key informant commented that the transfer system did not have increased numbers of transfers (measured, for example, as the proportion of learners who transfer during a qualification) as a desired outcome. This is true to some degree for their system, but in the case of others, such as the ECTS, the underpinning aim was to get undergraduates to move around between European universities. In that case volume *is* a legitimate measure of the framework's effectiveness. There are also no other options for mobility in Europe so ECTS use has a high level of necessity and volume can be considered a fairly complete evaluation of effectiveness. In the case of the other frameworks, alternative mechanisms reduce the need for transfer and mean that the volume of credit portability is not a true measure of system access and student mobility. For example, in Scotland colleges within the VET sector have started to offer undergraduate degrees in partnership with local universities, a form of institutional "transfer" that is invisible to the SCQF.

As will be discussed in more depth later, one of the more transformative forms of credit portability concerns entry to the post-secondary system. If this were to be achieved it would be reflected in the volume of credit transfer within a qualification framework. However, this form of credit portability is usually managed at institutional level, making it a potentially unreliable system indicator. It would also rely on ease of credit portability for its viability, and the volume would vary with the need created by the design of the larger system.

Overall, ease of credit portability is the foundational idea for qualification frameworks. If in place it makes student mobility possible when it is needed. Ease is a difficult factor to measure, and volume is not a good proxy for ease due to the number of other influences such as demand and the necessity for transfer, both of which are system features. Essentially, there is a strong logical case for ease of learner mobility (and credit portability) as the ultimate goal even though it is hard to develop a clear-cut approach. In real life terms volume may be easier to measure, particularly within the European and BC frameworks, and might be understood as a *de facto* proxy for demand. While credit frameworks do not set out to increase the volume of credit transfer the volume of transfer may be an easy-to-understand rationale for the system. In other words, while ease of transfer is the better technical goal, volume may provide a better political rationale for the framework.

7.4 Credit transfer as a steering system

In none of the cases reviewed was the qualifications framework intended to change the educational system; in other words, to act as a steering system for the post-secondary sector. In each case there was an implicit promise that increasing student mobility would not disturb the fundamental relations within the sector. Universities would remain autonomous and have, at most, light touch external accreditation. VET would continue to focus on employment-related education and training

while retaining a more open access model. In some cases, this promise was upheld, but in others the outcomes have taken a different turn.

In the case of the ECTS the aspiration for the framework started out very simply as a way to make studying abroad more accessible and more clearly evaluated by home institutions. As noted in the case, by the end of the 20th century the ECTS was losing momentum. When the idea of a unified European Higher Education Area began to take shape, the ECTS became one of the mechanisms used to bring together the thousands of institutions across 27 nations to adopt a consistent approach to the volume of learning appropriate for different levels of higher education. The European Commission needed a standard to work from, and the ECTS framework was at hand (Wagenaar, 2018). While never intended as a steering system, the ECTS has had a significant practical effect on European universities.

In Australia qualifications frameworks have pervaded the post-secondary system and had a differential effect. VET has adopted the structures of the qualification framework as organising principles for the design and delivery of provision, basing programs around level and volume measures. Higher education has been slower to respond. While the framework's adoption by universities is continuing, programs are not being fundamentally altered. The qualification framework has acted as a powerful steering system in VET but not in higher education.

In each of these cases, this has been a deliberate product of the system design, which aimed for broad acceptability by avoiding any threat to existing structures. In Scotland there is a similar pattern, but the framework has been used to explain and communicate VET programs rather than as a design principle. In the case of BC, there is little evidence that the transfer system has influenced the design of the system or provided a broadly accepted common language.

One commentator on the SCQF reflected on system changes by saying "the framework did not compel these changes; it was an instrument of change but not an agent of change" (Raffe, 2007, p. 492). Another way of looking at this situation is that qualification frameworks provide a tool which can be used to change delivery but does not have to be used in this way. Frameworks can be additive or transformational in effect. Additive uses are primarily communicative, allowing a common representation of learning. Transformational uses adopt the frameworks as steering systems for educational sectors.

Any application of qualification frameworks along the continuum from additive to transformational is legitimate. Where the situation become more complex is cases where different educational sectors experience different implications within the same framework. In broad terms there are four sectors qualification frameworks are intended to cover: secondary education, VET, private post-secondary, and universities. In the case studies it was common for secondary education to sit mostly outside the framework even with the efforts jurisdictions such as Scotland are putting into their inclusion. Equally, universities were generally only peripherally involved in the framework, which might be explained by their role as receiving institutions concerned only with consumption of transfer credit rather than involved in its production. The main impact of the frameworks (except ECTS) is at the VET level, whether private or public sector. In all three of these cases the frameworks demonstrate

most impact on the conceptualisation of vocational education and how that learning can—and should—be represented.

7.5 External vs. internal system boundaries

When considering credit portability and student mobility across a post-secondary education system it is helpful to consider the boundaries within the system and around it. Within the system the boundaries are primarily between different forms of education such as VET and higher education. Greater permeability of these boundaries makes it easier for learners to move between different educational forms. In some cases, it is worth considering internal boundaries between institutions of the same type, such as when a learner starts a program at one college and then wishes to finish at another in a different location. Internal boundaries form a matrix framework, well-illustrated in the qualification framework graphics such as Figure 4.1. The internal boundaries in the cases reviewed were generally a mix of more and less permeable.

External system boundaries appeared much less permeable across all the cases. While there might be access pathways for learners with limited previous education were limited both in scale and scope. In every case admittance to programs was controlled by the institution responsible for the program and there were substantial differences in mission, philosophy, and practice across these bodies. A rapid scoping exercise suggests that public colleges were probably the most easily accessed while the highest entrance requirements tended to be associated with universities. The logic of these findings seems very clear, in that more advanced learning in an area of interest requires a higher level of preparation.

Each of the multi-sectoral frameworks claims to recognise adult and community-learning to some degree. This implies a need to represent non-formal and informal learning within a formal credit system, which suggests some form of conversion process should be in place. Currently the closest mechanism to this process is the recognition of prior learning (RPL) offered at an institutional level. Examination of the SCQF framework (Figure 5.1) or AQF (Figure 4.1) shows that the level of credits offered for adult and community learning tends to be different from the level offered in VET and higher education. This suggests that even when credits can be assigned, they may not substantively reduce the time or resources needed for a formal qualification. This illustrates the effects of a strong boundary around the post-secondary system, and the way in which such a boundary can be unintentionally reinforced by institutional actors continuing to work with established processes.

The management of internal and external boundaries can be seen as directly related to the ability of the framework to create non-traditional opportunities for learners to gain access to post-secondary education and move across it. The philosophy of lifelong and lifewide learning is not sustainable unless learning attained outside the formal system can be imported into it. Individuals' educational progress tends to follow trajectories which diverge over time, with those starting with more education gaining yet more as they move through the workforce and other life experiences (Membrive et al., 2022). Engaging older learners therefore requires accepting the greater distance they may have to travel to meet conventional entrance requirements. Providing alternative means to

cross the boundary into post-secondary education could be an important strategy in reducing that distance.

7.6 The elusive parity of esteem

One claim made for all the frameworks examined was enhancement of parity of esteem. This term refers to the notion that it should not matter where a particular piece of learning was acquired: private provider, college, university, high school or in some other context. For example, learning a particular level of math should not be seen as more valuable because it occurred in a university rather than a high school. Traditionally this has not been the case, with learning acquired in higher education always seen as having a higher status. Another way of conceiving this difference is skills versus knowledge, where vocational education focuses on skills and higher education on knowledge, with knowledge having higher status once more.

There was consistent evidence throughout this study that parity of esteem was not close to being achieved. Higher education was able to choose the level of engagement with qualification frameworks they wished and retained the ability to accept or decline transfer credits, often on an individual basis. Even the way frameworks are shown in graphics reinforces the differences, with VET consistently "lower" than higher education. There are two sorts of explanations for this situation, though they are not incompatible. The first explanation looks at the different missions of universities and colleges. In each of the contexts examined, higher education was seen as a much more selective form of education than college and vocational education. In broad terms, higher education institutions are far more likely to be at the receiving end of credit transfers, so it could be expected that their function would involve considerable gatekeeping.

The second explanation is more theoretical and, in some ways, creates more opportunity for change. It involves the "logics" of the framework and of the institutions and the level of divergence between the two (Raffe, 2007; 1988). A qualifications framework, or indeed any other transfer system, becomes more effective and efficient the more uniform learning is seen to be. It follows logically that the higher the level of equivalency between courses, qualifications, and experiences, the more legitimate moving between programs and providers becomes. This is not an argument that all learning is substitutable, but it does tend to pull towards less differentiation.

For institutions, however, the logic is quite different (Raffe, 2007; 1988). In any educational system with some degree of marketisation, the aim of an institution must be to develop and maintain a unique brand. A course in philosophy at Harvard must be seen as having higher value than a course at Boston Community College or the value proposition for Harvard will be undercut. For these purposes, lower levels of equivalency are more desirable.

In the conflict between these two logics, or sets of imperatives, institutional logic often prevails. Higher education institutions have the ability to walk away from the table if they do not retain significant control over the functioning of the credit economy and therefore effectively exercise a very significant degree of control over qualification frameworks. Key informants from each

jurisdiction, including those in higher education, identified this as source of friction within the frameworks.

Finally, even the most fully developed credit portability system is limited by the extent to which parity of esteem has been achieved in practice. It is perhaps also worth noting that this dynamic may go some way to explaining why separate frameworks for lifelong learning and vocational education were established in the EU, much to the chagrin of ECTS advocates. From the perspective of vocational education providers, it would be hard not to see the status differential implied by failure to achieve parity as anything but a distortion of the principles and practice—the logic—of a transfer system.

7.7 All credits are not created equal

Two of the frameworks examined in depth have their own "credit currency," and the following comments are particularly germane to these cases. However, they apply to the remaining frameworks in less explicit but equally powerful ways. If the inherent logic of qualification frameworks is taken to the extreme, there would be an argument for a complete lack of differentiation of credits: 10 hours of study at level five would equal any other 10 hours of study at level five. The only dimensions of the credit worth noting would be volume of study, perhaps represented in nominal hours or actual hours, and the level of study.

This would be highly problematic. Ten hours of dog grooming is clearly different from ten hours of dental technology. The topic, or the content, matters a great deal. At the same time, there is generic learning, such as language use, where the topic might be less differentiated. Using a billing system may be quite similar for dog groomers and dental technologists. For a truly efficient credit portability system, designed to avoid duplication or gaps in learning, some degree of engagement with content is necessary.

The implication is that credits (or other currency used within the system) have to be differentiated in some way. Each of the four frameworks approaches this quite differently. In the ECTS the credit framework is used to communicate the outcome of a course-to-course comparison conducted on an individual basis by institutions. This is perhaps the most bespoke way to conduct the task. In the Australian framework an individual's learning is considered as aggregated into qualifications to avoid the need for course-to-course scrutiny, and the content for these qualifications is itself created out of previously approved sub-units. This is a highly quality-assessment driven approach, where learning is examined and approved at several levels. The SCQF does not pre-determine equivalency (and explicitly states that courses are not assessed for equivalency) leaving receiving institutions to decide how much credit is portable. The BCTS has developed and applied the concept of pathways requiring certain credits to travel along. The pathways are built around explicit equivalences of courses.

Each of these approaches works, although they have different implications for learners depending on what the goal of the learner is. One of the key dynamics within these four systems is that it is easier to get credit for prior learning than to apply that credit to future learning. Even the ECTS,

where credit equivalency is agreed in advance, involves some work by institution and learner. The least "risky" of the four approaches for the learner is possibly the AQF, where the basic unit of credits is the qualification. However, there is a question regarding what the AQF actually adds in terms of credit portability. It seems unlikely that the notion of moving from level to level across qualifications was ever unsupported.

The third dimension of credits, which is not often acknowledged, loops back to the parity of esteem issues discussed earlier. This is the "status" dimension and the perception that credits at a certain level have different value depending on where they are attained. This is perhaps most vividly illustrated by the ability of higher education institutions to choose whether or not they will accept incoming credit. The inherent logic of all the credit transfer systems requires, if nothing else, that all credits of identical volume, topic and level should be considered as identical with the qualification framework. However, even this level of equivalency has proven elusive.

7.8 Learner mobility or localised programs?

Three of the four frameworks examined (European Union, Australia, Scotland and BC) have experienced a similar trajectory over the last twenty years in terms of the context within which they work. At the beginning of that period institutions were highly differentiated, meaning that the internal boundaries of the post-secondary system were strong and offered little permeability. Currently this is much less the case. In all jurisdictions the ability to deliver qualifications locally has increased considerably.

An example is the increased ability of community colleges (and equivalents) to deliver bachelor's degrees. The transition from VET to higher education has historically been challenging and could be seen as the primary transition for which credit transfer was designed. Both the range of institutions able to provide bachelor's degrees and the options for gaining access to them have widened significantly over the last few years. These include dual-credit arrangements, joint degrees, branch campuses, and online education. For many programs, the pressure to move to a specific location in order to study a certain subject at a given level is considerably less than was previously the case. While not every locality can realistically expect to have programs offered locally, the combination of options allows for many more study options.

Most key informants were relatively sanguine about growing program availability and were convinced that credit transfer would remain a vital part of whatever the landscape would look like in the future. Nonetheless, it seems reasonable to assume that the significance of credit portability within the overall picture may reduce to some extent, as shown in the British Columbia case study and the falling percentage of students who are transferring institutions in that system.

The question this raises is not whether a qualification framework is necessary or helpful; it seems clear it will be for some time to come. Rather the concern might be the cost and complexity of maintaining the framework as post-secondary systems become more accommodating to transfer while transfer becomes a more limited part of the student experience. The answer to this question also reflects what the framework is intended to do. If the plan is simply to function as a

communication tool, then frameworks can be quite simple and easy to put in place. When there is an intention of replacing study time at the receiving institution with imported credit the stakes are inevitably higher, meaning more resources are necessary to ensure rigour.

The balance of strategies available to enhance student mobility is, finally, a design decision. It is driven to some extent by the nature of the post-secondary context, but that in itself is also a product of specific design-decisions. What does appear to emerge from the case studies is a clear need for deliberative decision-making about the mix of approaches desired in a given context, rather than assuming that the decision can be made once, when a certain set of conditions prevail, and remain appropriate as conditions change.

7.9 Data and equity

One topic mentioned several times in the case studies is the limited extent of data collection regarding qualification frameworks. It may be more accurate to talk of the limited extent of data collation, since it appears that institutions may have some data that have never been brought together. The one exception to this, the BCTS, has strong data that have not been interrogated fully due, to some extent, to limited human resources dedicated to analysis.

There are two implications of limited data. Firstly, it becomes hard to know how many people are actually using the credit portability afforded by a qualification framework to support learner mobility. This makes estimates of the cost per learner, or the extent to which qualification frameworks really do expand access and progression opportunities, extremely hard to assess. Secondly, for similar reasons, it becomes enormously challenging to understand the equity impacts of qualification frameworks. While the logic discussed earlier clearly suggests that increased mobility is a good thing for equitable access, it seems surprising to have four systems operating for 20-35 years and not have data capable of testing this hypothesis. In other areas of educational policy, it is not unusual for measures intended to increase equity to result in unpredicted consequences (e.g., De Gayardon, 2017), often because the learners with the highest levels of cultural capital, and likely to be successful in any case, are more likely to learn about and utilise these mechanisms.

The authors of this review hoped to be able to bring an informed equity lens to qualification frameworks, but it has proven impossible to do so. This is a significant gap in the available information on qualification frameworks and there would be a great deal to be gained—both in terms of equity and in terms of building an argument for credit portability—if it were possible to engage with hard data regarding the working of the system.

7.10 Recognition of Prior Learning

The three comprehensive qualification frameworks included in this review (AQF, SCQF, BCTS) all express interest in, and support for, recognition of prior learning (RPL). In the terms used earlier in this discussion, it is seen as one strategy to increase the porosity of the boundary around the post-secondary system by allowing previous learning to be imported as credits. There is also an equity dimension to RPL, as it allows people who might not have had the option to attend post-secondary

education right out of school to re-engage more easily with study. The idea has also attracted some interest within the ECTS as a way to acknowledge the diversity of learning contexts.

Despite this espoused interest, none of the systems examined have a fully developed approach to RPL, meaning one that is consistent, coherent and clear. As institutions have retained control over their own entry requirements they have also been able to maintain individual ways of managing RPL. This has resulted in an enormous range of approaches within each jurisdiction. A learner with a certain range of educational experience might pay different amounts of money to do varying levels of paperwork in order to receive widely diverse levels of credit for their previous study. When they move from the institution who provided the RPL credits the receiving institution could accept only part of those credits. It is not impossible that a learner might do a great deal of work and pay an amount almost equivalent to class fees only to find they have accrued no transferable credits. There is a strong argument that this should not be the case. If an institution considers prior learning to be equivalent to a specific amount of work in their institution this should also be recognised by receiving institutions as equivalent.

It is difficult to see how these inconsistencies could be addressed without a centralised process for recognising prior learning. While this would fit well with the inherent logic of qualification frameworks, it is possible that institutions, particularly universities, would see it as a substantial intrusion on their autonomy. This appears to be a case where the interests of the institutions and those of the learners do not align particularly well. While it is not clear how better alignment can be produced, it is clear that the current approaches are not universally equitable or effective.

7.11 Learning outcomes

The basic principle of any credit portability mechanism is that two different learning experiences can be shown to be equivalent. The two most obvious ways to do this are either to argue that the experience is identical or that the outcomes are the same. Since the experience can never be shown to be equivalent (even with the same course different instructors, time of year or modality, among many other factors, render this impossible) focusing on learning outcomes makes sense. The learning outcomes should lay out what students demonstrably know and can do at the end of a program of learning, for example "at the end of this course students will be able to recognise and respond to the five most common first aid emergencies." In the AQF the same idea is represented by competencies. Although the language is different, when applied concretely to learning the idea is fundamentally the same.

One of the more useful aspects of learning outcomes is the extent to which they point to assessment possibilities. They often lead to simple assessments involving asking the learner to perform the task stipulated in the learning outcome and evaluating how well they do it. Grading can be almost a "yes/no" because the expectations can be so clear.

While learning outcomes have made some inroads in the Scottish and Australian cases there is still room for more development. Generally speaking, learning outcomes have been more widely

accepted in vocational education than in universities. The exception is some professional programs where licensing bodies set professional standards to be met during preparation.

Learning outcomes have a great deal of potential as a "currency" of a qualification framework. The AQF is already based upon this principle in the VET sector, with a multi-layered and complex representation of competencies stackable in different constellations. The challenge here is communication with employers and, perhaps to a lesser extent, to future receiving institutions. There could be an almost infinite number of combinations of competencies and reviewing them individually for each learner or job applicant would be a challenge. It is easy to understand the pragmatism behind the AQF's focus on qualifications as a way to represent clusters of competencies rather than list each one. As with many other areas of educational policy it is not difficult to drift into spurious precision, where there is a claim to more detailed understanding than could ever be demonstrated—or that would be useful to know.

Learning outcomes can span lifelong learning, work experience, VET and higher education in a logical and consistent way. Earlier the importance of volume, topic and level as dimensions of credits was discussed. Learning outcomes provide a possible solution. In the European and Scottish frameworks there is an abstract credit system intended to bridge across different learning experiences. This artifice can be avoided through the use of learning outcomes as transcendent currency, still able to rise above individual institutions and sectors but with a fundamental concrete referent.

However, it may not be easy to gain acceptance of the lack of reference to volume of learning within learning outcomes. This was a key debate within the ECTS (Wagonaar, 2018) and even within the most open system, the SCQF, there is still a nominal time equivalency for each credit point. Learning outcomes come with a number of important entailments, not least a fundamental challenge to the pedagogical thinking of institutions.

7.12 Micro-credentials and short qualifications

All four of the frameworks reviewed were considering ways to manage credits accumulated during short qualifications and micro-credentials. These two types of learning can be considered as identical for the purposes of this discussion, representing a way for workers to gain specific knowledge and skills within a targeted and limited program. They may or may not carry some sort of credit weighting. The Organisation for Economic Cooperation and Development released a position paper in 2023 expressing support for the potential of micro-credentials but pointing out the necessity for an appropriate policy environment for that potential to be realised (OECD, 2023).

The primary appeal of micro-credentials for labourforce management is the ability to provide concise, just-in-time training on pressing issues as they arise. A current example might be the need for a range of employees within a corporation to understand the working of generative artificial intelligence. In all four jurisdictions, credit-bearing programs need to go through some sort of quality assurance process before being certified. These processes may take several years. Probably the best designed system for this kind of short qualification is the AQF, where an industry group

could organise and certify a credit-bearing micro-credential relatively rapidly. The precise form this process might take is not yet clear.

Maximising the responsiveness of the education and training system would probably involve providing micro-credentials without a credit value assigned at source. The learner would then have to follow conventional RPL policies to have credit value assigned by a receiving institution, a high-risk option for learners that may tend to reduce the attractiveness of short qualifications to workers and learners. It could also undermine quality assurance processes and result in an explosion of programs of varying utility and portability.

There remains high interest in micro-credentials and the more traditional short qualifications, so there is much to gain from developing a consistent and fair way to assess them as part of the qualification landscape. However, as the OECD (2023) notes, a simple bolt-on approach will not be effective. There needs to be considered and careful educational policymaking to ensure they contribute all that they can.

7.13 Conclusion

While this discussion of findings has covered a range of topics arising from the study there are really two overarching points. The first is the highly political nature of each of these four initiatives. Whether approached through workforce management or through equity, political incentives and the operation of influence are crucial to the shape of the frameworks. These are not technical mechanisms designed to solve problems intrinsic to post-secondary education. This does not mean access and mobility are not limited, as they demonstrably are, but this may reflect the institutional logic of the sector as much as a flaw in the system.

The second insight is the commonality around the outstanding issues in each of the four contexts. No framework has managed to implement RPL in a really effective way, to address parity of esteem and the resulting dominant position of higher education institutions, or to develop the data allowing for thoughtful evaluation of frameworks. Different strategies in each of these areas produces different results including different ranges of unintended consequences.

Finally, then, the messages coming out of this review are for the need to consider the development of credit and qualifications frameworks very carefully, with a specific object and outcome in mind. As with many policy-centred questions in post-secondary education, implementation and understanding of its effects takes an extremely long time, during which the context of the work will change substantially. If the overall aim of the initiative is not clearly defined and borne in mind then inevitably the focus of those working within the system will shift to the pragmatic questions of making the framework function without reference to questions around how it will function, for whom it will function, and how that function can be understood and evaluated.

8. Research Questions and Recommendations

This chapter will address the four research questions which the study sets out to address. Each of the systems takes credit portability as the central problem in student mobility, but they address this problem in quite different ways, leading to useful comparative insights.

8.1 Research questions

a. What was the impetus and the process followed for development of qualifications frameworks?

There was great consistency across the motivations for creating qualifications frameworks (and the BC credit transfer system as well). The first goal was to make it easier for individuals to maximise their accumulation of human capital, hopefully leading to increased human capital in high demand areas within economies. The second was to increase equity by making it easier for people unable to move into post-secondary education at the traditional life-stage to do so later, when their work and life experience would be an asset. These two ideas, which can be summarised as efficiency and equity, were predominant in planning and implementation.

There were motivations particular to each context in addition to the main two. For ECTS the European project was a central concern, whereas the AQF attempted to establish a training market. The SCQF probably had the strongest initial concern with equity, while the BCTS was intended to parallel and supplement a strongly hierarchical post-secondary system.

In terms of process, groups of people at arms-length from government appeared consistently to play a key role in the design of the frameworks. Nonetheless it is important not to underestimate the influence of the state in the development of these systems. There is no evidence in any case that the post-secondary sector decided spontaneously to develop a qualification framework. In each case this development was a response to a governmental aspiration.

The development groups generally included representatives of the stakeholders of the qualification framework as a way to increase legitimacy and bring expertise to the design of the system. In certain cases, a stakeholder group was over-looked, such as in the SCQF in its initial configuration. This produced significant and predictable difficulties in the relationship with that group. It is notable that none of the groups developing the frameworks brought in consultants or outside experts. There seems to have been a strong conviction that people working within a specific system knew it best and were best placed to ensure any framework would fit within that system.

b. How are the frameworks practically applied, and in what ways do they work well and less well?

This question, though obvious, is hard to address based on this study. Each of the frameworks is predicated on the notion of active, consumer-minded learners who look for the most time and cost-efficient means to improve their educational position. However, humans make choices for all sorts of reasons and the notion of an economically maximising learner may be misleading. There is also the

question of the information available to learners. None of the frameworks appears transparent to learners, suggesting that institutional personnel are deeply involved in making the frameworks function. In all four cases, there appear to be irreducibly individual aspects of student mobility, even without complicating considerations such as RPL.

From talking with key informants and assessing the available evidence, the most common mechanism through which the frameworks affect a learner's progression appears to be that an academic advisor bringing it to their attention. For example, a learner goes to a college to find out about a program in which they are interested, and the advisor tells them they can apply some previous study to the new program. This research did not engage directly with learners, so it is not possible to look into application in more depth.

What the frameworks do well is to provide a common language that facilitates efficiency within post-secondary systems. This contribution should not be under-estimated. Enhanced understanding of how courses, programs, and other learning achievements articulate is a fundamental aspect of a system that avoids duplication and gaps. Qualification frameworks can bring a degree of order and coherence to systems that historically have often been strikingly unaligned. They function as resources permitting and supporting extensive re-thinking of post-secondary education. It is, however, important to recognise that while qualification frameworks can be used to make substantial change, they do not bring it about. While individual institutions have control over intake, for example, institutional engagement and support is a key aspect of system transformation.

What frameworks do less well is provide a transparent, simple way for learners to navigate themselves around the post-secondary system. The price of institutional control over entry is that institutions must invest considerable time and resources in making the qualifications frameworks operate. It would be simpler and cheaper for institutions to define entry requirements in advance and then maintain them. Qualifications frameworks do not permit this approach, at least not in every case, leading to expensive individualised assessments and solutions.

The lack of transparency for learners can be seen as a significant short-coming of the frameworks. The frameworks themselves are easy to understand and would be simple to implement if credits were fully standardised. As it is, the need to recognise volume, level, topic and, to a lesser degree, status of credits makes it hard for somebody new to the system to understand what they can and cannot do with accumulated credits. Even the BC transfer system, which specifically sets out to make it clear through the transfer guide which pathways will accept which credits, would require considerable expertise to use to best effect.

c. To what extent was equity of outcomes a priority in their development, and how well has this been fulfilled?

All of the systems identified equity as a priority of their development. This was not seen as incompatible with the human capital and economic outcomes of credit portability. Indeed, the two aims were generally seen as mutually reinforcing.

As noted earlier, none of the four frameworks systematically gathers and analyses data on the representation, access and inclusion of traditionally under-served groups. This makes it impossible to say whether the advantages of qualification frameworks accrue to the least served or most served learner populations. On balance, it seems likely that frameworks do widen access to some extent, but assessment of this benefit against the cost in complexity and resources invested in the framework is challenging. This is an area that would benefit from some attention in the near future.

It does also seem likely that an effective and affordable system of RPL would contribute to equity goals by providing a consistent way to recognise non-formal and non-traditional learning. This appears to be some way from fulfilment in all four systems. Creation of a coherent methodology for RPL where equal inputs would lead to equal outputs is possibly the single most important contribution to equity these four post-secondary systems could provide.

d. What lessons do the four credit and qualifications frameworks hold for systems considering such an approach?

First, despite the tendency of some jurisdictions to present the situation differently, in no jurisdiction is there a qualification framework that is fully inclusive and "automated." Rather, there is a mixed economy of credit transfer depending on the transfer partners, evolving policy environment, and individual learner characteristics. The lesson for the BCTS is that a mixed approach, with a variety of transfer strategies and approaches available to learners, appears to be inevitable. There is much to be gained by treating this as an opportunity rather than a limitation.

Second, any claim to increased access, mobility or equity needs to be backed up with data capturing that affect. While the logic model strongly supports the contribution of credit transfer in these areas, lack of empirical demonstration is a shortcoming.

Third, the tendency of higher education (especially "elite" universities) to shape the transfer system is significant and limiting for mobility. In most systems the admissions processes for individual institutions remain under the institutions' control and less transparent than they could be. This is not due to institutional self-centredness but rather arises from the power of institutional logic. While this could prove hard to overcome, there is a lot to be gained from open conversation around this issue, which can be highly frustrating for other stakeholders.

Fourth, the challenges of RPL have not been solved in any of the cases examined. Processes, costs, outcomes, and the utility of those outcomes vary significantly. This undermines the value of RPL substantially and reduces the ability to claim it as a benefit for learners. If RPL is to be recognised as a serious means to provide access to post-secondary education, it will need to better framed and more directly managed.

Fifth, the system credit approach (such as the SCQF and ECTS) where learning is translated into a standard measure for transfer appears to offer benefits in certain cases. For example, it can be sector agnostic, allowing college learning, lifelong learning, and cultural knowledge to come alongside each other. To maximise these benefits there needs to be a reliable way to apply credits not reliant on potentially varying responses from institutions.

Sixth, and finally, it appears especially difficult to increase the permeability of the external boundary of post-secondary systems. *Ad hoc* RPL appears to be less equitable or efficient than is necessary, and if a system is to assign value to increasingly diverse forms of learning there is an advantage in developing a set of deliberate strategies to address this boundary.

8.2 Recommendations

Based on the responses to the research questions a number of recommendations can be offered for the development credit and qualification frameworks. These recommendations are mutually reinforcing, but each also stands alone.

1. Maintain and extend a diversity of approaches

There are a wide range of approaches to supporting learner mobility, including localised programs, subject pathways, joint degrees and block transfer. Any future development should maintain this range of approaches and avoid the fallacy of a one-size-fits-all solution.

2. Expand pathways beyond the external boundary of the post-secondary system

One of the key ideas contained within a number of these recommendations is to extend credit transfer, and therefore student mobility, beyond the boundaries of the post-secondary system. The frameworks reviewed in this document have focused on mobility within the existing system (internal boundaries) and their most significant challenges concern mobility into the system (external boundaries). A deliberate strategy of making eternal boundaries more porous would be potentially helpful in supporting frameworks to attain their ends.

3. Collect and analyse equity data

It is deeply challenging to assess the effects of credit and qualification frameworks in terms of increased access for traditionally excluded groups without hard data. Collecting such data is not without its own issues, such as evolving definitions of equity-deserving groups, but simply choosing not to collect it undermines one of the major rationales for the expense and complexity of the framework.

4. Consider full implementation of a full credit and qualification framework

In addressing learner mobility a well-designed credit and qualification framework can systematically capture and recognise learning from non-formal education including cultural knowledge, micro-credentials, short qualifications, periods of study that did not lead to a qualification, and life-long learning. This should include framework credits, as implemented in the SCQF and ECTS, as a way to bridge between sectors. Less than a full implementation represents a compromise unlikely to fulfil its full potential for learners.

5. Implement open credits

An open credit system is one where there is an expectation that wherever possible institutional programs will contain a proportion of credits that can be filled from evidenced learning whatever the source or topic, such as short qualifications or micro-credentials. This is essentially a simplified and low tariff way to recognise prior learning. A standard expectation of 10-15% of credits being "importable" would reduce cost and time of study for learners in a highly flexible and efficient way, as well as reducing the demand for formal Recognition of Prior Learning.

6. Consolidate and regularise Recognition of Prior Learning

None of the frameworks reviewed had fully developed systems for Recognition of Prior Learning (RPL). Generally, RPL credit was left for the receiving institutions to assess, and very often their institutional interests lay in more limited recognition. This was often justified by concerns about the quality of previous learning. It did result, however, in considerable variability in the access and cost of RPL, and in the amount of credit given for a specific example of previous learning. To make a difference RPL should be easily achieved by learners and provide an equitable amount of recognition.

There recommendations are significant in terms of complexity and expense, and their viability will vary with context. However, this study provides evidence for the belief that they are necessary to achieve the full benefit of credit and qualification frameworks for adult learners.

8.3 Conclusion

This review of three international qualification frameworks, plus the BC transfer system, has given rise to six recommendations for areas BCCAT and the appropriate ministries may wish to consider. The issues being face in BC are remarkably similar to the knotty questions other frameworks are facing despite the difference in approach to credit portability. While it might not be viable to implement all six recommendations (although they do form a coherent package) hopefully they will provide food for thought. In terms of innovation, the judgement of the authors is that Recommendations 3, 5 and 6 have the greatest potential to make change, as they directly affect the external boundary of our post-secondary system. This has to be where a start is made to build ever better access.

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