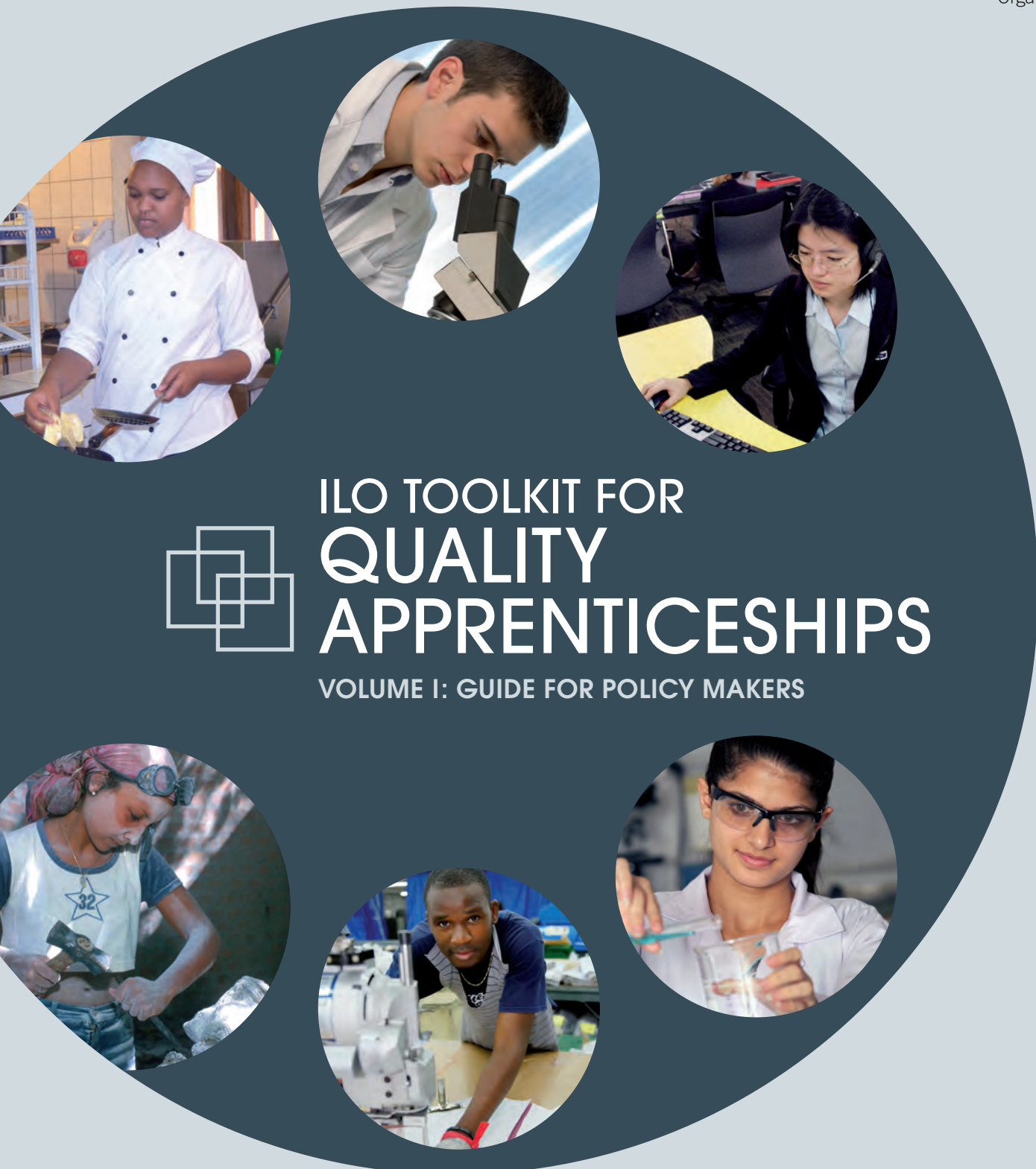




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ILO TOOLKIT FOR QUALITY APPRENTICESHIPS

VOLUME I: GUIDE FOR POLICY MAKERS

Skills and
Employability
Branch
Employment
Policy
Department



ILO TOOLKIT FOR
QUALITY
APPRENTICESHIPS

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October 2017

Skills and Employability Branch
Employment Policy Department

International Labour Organization – Geneva

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First published 2017

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ILO Toolkit for Quality Apprenticeships
Volume I: Guide for Policy Makers

ISBN 978-92-2-131375-5 (print)
ISBN 978-92-2-131376-2 (web pdf)

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This publication was produced by the Document and Publications Production,
Printing and Distribution Branch (PRODOC) of the ILO.

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Foreword

The global youth unemployment rate has risen since 2007, reaching over 13 per cent in 2017. These are averaged-out figures, and some countries and regions are significantly harder hit than others. Moreover, young people are over-represented amongst the unemployed, accounting for over 35 per cent of unemployed people globally, despite accounting for just over 15 per cent of the world's labour force.

The participation rates of young people in the labour market worldwide – that is, the share of young people that are either employed or unemployed – continue to follow a long-term downward trend: from 53.3 per cent in 2000 to 45.8 per cent in 2016, and during that time the gap between young male and female rates has persisted. In 2016, for instance, the participation rate for young men stood at 53.9 per cent, while that for young women was 37.3 per cent – a gap of 16.6 percentage points. These figures are contained in a recent review of employment and social trends throughout the world and per region (ILO, 2016a).

Policy-makers have been searching for responses to the negative employment effects of the global financial crisis. There is no one-size-fits-all answer to this situation; but policy-makers are rediscovering, or discovering for the first time – whether at the national, regional or global level – the importance of Quality Apprenticeships, which offer a tried and tested way of enabling young people to make the transition from the world of education to the world of work. Quality Apprenticeships play a key role in enhancing youth employability through the acquisition of relevant skills, personal development and a recognized qualification. They also offer a real opportunity to experience the world of work and to start the process of building a career.

Quality Apprenticeship systems contribute towards matching skills in demand in the labour market with skills acquired in education and training systems. This, in turn, requires a collective effort on the part of governments and their different agencies, the social partners – employers' associations and trade unions - and also training providers.

The ILO promotes Quality Apprenticeships as a top priority, since they not only help young people to move into decent jobs but also enterprises to find the workers they need for the future. The ILO is committed to enhancing knowledge of what works and how, by providing technical assistance and building capacity at the national level.

Governments and the social partners are increasingly asking for advice on ways in which to build up Quality Apprenticeship systems and programmes. They look to the ILO as an international development agency and knowledge centre to help them apply the research findings and agreed principles inherent in Quality Apprenticeships to their own circumstances in their own countries.

This volume aims to provide the advice they seek.

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Acknowledgements

This ILO toolkit (volume I) is a joint effort and reflects the contributions of experts from the ILO and many countries.

The list of contributors include: Alessandra Molz, Ashwani Aggarwal, Christine Berendt, Christine Hofmann, Gabriel Bordado, Ilca Webster, Ippei Tsuruga, Jeffrey Bridgford, Josee-Anne La Rue, Jürgen Menze, Kazutoshi Chatani, Laura Brewer, Marta Makhoul, Matthias Risler, Michael Axmann, Michael Reinhold, Nikhil Ray, Olga Strietska-Illina, Paul Comyn, and experts from the Inter-American Centre for Knowledge Development in Vocational Training (ILO/Cinterfor). A European Commission funded project on quality apprenticeships and youth guarantee brought useful inputs to this publication.

A draft toolkit was reviewed by tripartite experts at a two-day meeting in October 2016. The expert participants of the meeting included: Anke Bahl, Sigve Soldal Bjorstad, Jeffrey Bridgford, Michael Axmann, Michel Carton, Kazutoshi Chatani, Patrick Daru, Shri Virjesh Kumar, Aggrey Mlimuka, and Mohammed Mwamadzingo. The toolkit was finally presented to the participants from 15 countries in the *Learning Forum for Quality Apprenticeships* organised in September 2017.

The toolkit is prepared after extensive consultations. At the initial stage Michael Axmann started the work, Kazutoshi Chatani prepared an initial draft, Jeffrey Bridgford enriched it, Paul Comyn provided extensive feedback to it. Jeffrey, Kazutoshi and Ashwani also wrote or revised a number of chapters. Ashwani Aggarwal edited and finalised the toolkit after close consultation with ILO field experts.

Ms Azita Awad Berar, Director, Employment Policy Department, ILO and Girma Agune, Chief, Skills and Employability Branch, ILO provided guidance and advice to the production of this publication.

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Acronyms and abbreviations

ACVT	Advisory Committee on Vocational Training
BBL	<i>Beroepsbegeleidende Leerweg</i> – apprentice pathway in the Netherlands
BEd	Bachelor of Education
BIAC	Business and Industry Advisory Committee
BIBB	German Federal Institute for Vocational Education and Training
BOL	<i>Beroepsopleidende Leerweg</i> – TVET student pathway in the Netherlands
Cedefop	European Centre for the Development of Vocational Training
CVET	Continuing Vocational Education and Training
EC	European Commission
ETF	European Training Foundation
ETUC	European Trade Union Confederation
EU	European Union
HI	Higher Education
ILC	International Labour Conference
ILO	International Labour Organization
INDELA	Institute for the Development of Learnerships and Leadership Assessment
IOE	International Organisation of Employers
ITUC	International Trade Union Conference
IVET	Initial Vocational Education and Training
NSNL	National Skills Needs List
OECD	Organisation for Economic Co-Operation and Development
RNCP	National Register of Professional Qualifications
SENAC	Serviço Nacional de Aprendizagem Comercial
SENAI	Serviço Nacional de Aprendizagem Industrial
SENAR	Nacional de Aprendizagem Rural
SENAT	Serviço Nacional de Aprendizagem do Transporte
SETABS	Sector Education and Training Advisory Boards
SMEs	Small and Medium Sized Enterprises
SRV	National Council for Vocational Education and Training (<i>Samarbeidsrådet for yrkesopplæring</i>)
TUAC	Trade Union Advisory Body
TVET	Technical Vocational Education and Training
ULR	Union Learning Representatives
VET	Vocational Education and Training
VPETA	Swiss Vocational and Professional Education and Training Act

1 Introduction: How to use this Guide?

1.1 What is the ILO Toolkit for Quality Apprenticeships?

The ILO Toolkit for Quality Apprenticeships is a resource to improve the design and implementation of apprenticeship systems and programmes. It provides a comprehensive but concise set of key information, guidance and practical tools for policy-makers and practitioners who are engaged in designing and implementing Quality Apprenticeships.

The ILO Toolkit presents examples of good practice from ILO constituents around the world, and demonstrates how Quality Apprenticeship systems and programmes can be developed in practical terms. It consists of two volumes: *Guide for Policy Makers* (Volume 1, this publication); and *Guide for Practitioners* (Volume II).

This first volume, the *Guide for Policy Makers*, presents the defining features of the ILO approach to Quality Apprenticeship systems and aims to support policy-makers in their design and further development of these systems. The second volume, to be published later, focuses on the practicalities of developing Quality Apprenticeship programmes, and is intended to enable practitioners – human resource managers, trade union representatives, teachers and trainers from technical and vocational education and training (TVET) institutions and employees of local/sectoral coordination support services – to design, implement and monitor these programmes.

1.2 Who can use this Guide?

As mentioned above, this volume, the *Guide for Policy Makers*, is designed for policy-makers – governments and their training agencies, employers and their associations, trade unions and also training providers – who are involved in designing and developing such systems. It will enable them to gain a better understanding of the ways in which policy-makers in other countries have constructed their own apprenticeship systems.

1.3 What is in the Guide?

The Guide is structured in the following way. Chapter 2 presents the ILO approach to Quality Apprenticeship systems and demonstrates what differentiates them from other forms of skills training and work-based learning. Chapter 3 lists their benefits and gives examples of international commitments that have been made to promote them. Chapter 4 introduces the six building blocks that make up the foundations of a sound well-functioning Quality Apprenticeship system.

The following six chapters provide a detailed presentation of each building block: meaningful social dialogue; robust regulatory frameworks; the stakeholders' clear roles and responsibilities; equitable funding arrangements; strong labour market relevance; and inclusiveness. These building blocks are

interdependent and come together to provide the essential underpinning for the ILO's approach to Quality Apprenticeship systems. These chapters provide examples of good practice, illustrating the ways in which policy-makers in various countries are already making strides towards developing the building blocks - or some components of these building blocks.

At the end of each chapter, there is a checklist that stakeholders may use to evaluate the different elements of their own systems, and to identify what needs to be clarified or strengthened to ensure that their national apprenticeship programmes might be considered as a "Quality Apprenticeship system". The checklists will also provide guidance to those countries that do not have an apprenticeship system, with a view to helping them establish a sound and sustainable Quality Apprenticeship system.

1.4 How to use this Guide?

This Guide is conceived as a comprehensive but concise reference tool for policy-makers in developing Quality Apprenticeship systems. It is understood that apprenticeship systems are at different stages of development in the various countries, and policy-makers will have priorities that reflect their own national circumstances. They may need information on issues relating to the entire system or to specific building blocks, and the examples of good practice presented in this Guide are selected specifically to cater to this need.

The intention is to illustrate the range of countries committed to developing Quality Apprenticeship training and the diversity of approaches taken - and not to endorse the different individual apprenticeship systems in part or in their entirety.

This Guide presents the ILO approach to Quality Apprenticeship systems and sets out to meet the varying needs expressed by policy-makers.

2 What is an ILO Quality Apprenticeship?

2.1 An ILO definition

The ILO first defined apprenticeship in the Apprenticeship Recommendation, 1939 (No. 60), which was then superseded in 1962 by the detailed and wide-ranging Vocational Training Recommendation (No. 117). The 1962 Recommendation emphasizes the importance of the link to the labour market and stresses that apprenticeships should be systematic and long-term, correspond to a specific occupation and to established standards, have a substantial work-based component, and be based on a written contract (box 1).

BOX 1

1. Definition of apprenticeship - Vocational Training Recommendation, 1962 (No. 117)

‘Systematic long-term training for a recognised occupation taking place substantially within an undertaking or under an independent craftsman should be governed by a written contract of apprenticeship and be subject to established standards’.¹

Within the 1962 Vocational Training Recommendation, there is a specific set of Paragraphs on apprenticeship training (Paragraphs 47-54) that spell out a series of requirements for apprenticeship training. It lists the conditions necessary for occupations to be recognized as ‘apprenticeable,’ and for the establishment of an appropriate regulatory framework for apprenticeships. It makes detailed proposals as to the content of apprentices’ contracts and the accreditation and supervision of enterprises wanting to take on apprentices. It notes the need to take particular account of entry requirements; duration; the relationship between on-the-job and off-the-job training; assessment; qualifications; remuneration; accident insurance; and paid holidays.

All in all, Recommendation No. 117² provides a valuable and precise starting point for defining apprenticeships. Over the years, since its adoption, the ILO has been involved in numerous initiatives to support apprenticeship training, and it has promoted the concept of a Quality Apprenticeship system to emphasize the quality and relevance of training to the labour market. Such a system has the following key features:

Quality Apprenticeships are a unique form of technical vocational education and training, combining on-the-job training and off-the-job learning, which enable learners from all walks of life to acquire the

1 Paragraph 46 of the Vocational Training Recommendation, 1962 (No.117), available at: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R117 [28 February 2017].

2 Recommendation No. 117 was, however, replaced by the Human Resources Development Recommendation, 1975 (No. 150), which, in turn, was replaced by the Human Resources Development Recommendation, 2004 (No. 195). Neither of these two Recommendations (Nos. 150 and 195) makes any specific reference to apprenticeships as such.

knowledge, skills and competencies required to carry out a specific occupation. They are regulated and financed by laws and collective agreements and policy decisions arising from social dialogue, and require a written contract that details the respective roles and responsibilities of the apprentice and the employer; they also provide the apprentice with remuneration and standard social protection coverage. Following a clearly defined and structured period of training and the successful completion of a formal assessment, apprentices obtain a recognized qualification.

While there are many different ways in which young men and women may be offered a combination of on-the-job and off-the-job training, the ILO approach to successful Quality Apprenticeship systems is based on six key building blocks:

- meaningful social dialogue
- a robust regulatory framework
- clear roles and responsibilities
- equitable funding arrangements
- strong labour market relevance
- inclusiveness

These six building blocks will be further developed in Chapters 4-10.

2.2 National definitions

There is no single, standardized definition of apprenticeship training used across countries, but varied approaches that have been developed over the years to correspond to national needs (box 2).

The Brazilian definition highlights the link between theory and practice and progression through a structured programme, as well as the importance of an apprenticeship contract. In Germany, the 2005 Vocational Training Act puts the emphasis on systematic training linked to a specific occupation. The Fijian definition highlights the contractual link between the apprentice and the employer, and the acquisition of the skills required to carry out a particular type of employment. In South Africa, the emphasis is on the combination of on-the-job and off-the-job training, assessment and the requirements to practise in a particular occupation. In the United States, the emphasis is also on the balance between on-the-job and off-the-job training, as well as on the ways in which apprenticeship programmes are organized.

BOX
2

2. Some examples of national definitions of apprenticeships

Brazil



An apprenticeship is a process for the methodical technical and vocational training of adolescents and young people, developed through theoretical and practical activities organized in tasks of progressive complexity. These activities are implemented through an apprenticeship contract and based on programs organized and developed under the guidance and responsibility of qualified entities (Brazilian Ministry of Labor and Employment, 2013).

Germany



An apprenticeship should, ‘through a systematic training programme, impart the professional skills, knowledge and qualifications (vocational competence) which are necessary to engage in a form of skilled occupational activity in a changing working world’ (Federal Ministry of Education and Research, 2005).

Fiji



An apprentice is ‘a person, including a person under training, who is bound by a contract to serve an employer for such period as the (Fiji National Training) Council shall determine with a view to acquiring knowledge, including theory and practice in an employment in which the employer is reciprocally bound to instruct that person’ (Fiji National Training Act, 1973).

South Africa



“Modern apprenticeships are a combination of on-the-job training and related classroom instruction, in which apprentices learn the practical and theoretical aspects of the designated trade. Apprentices need to do a trade test at the end of their training at the Institute for the Development of Learnerships and Learnership Assessment (INDLELA), after which they will be certified, if successful and be recognised as artisans within the relevant industries in terms of the applicable Bargaining Council agreement” (Department of Labour, Republic of South Africa).

United States



“Apprenticeship is a combination of on-the-job training and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. Apprenticeship programs can be sponsored by individual employers, joint employer and labor groups, and/or employer associations” (United States Department of Labor, 2017a).

Table 1 provides a comparison of some elements of the definition of apprenticeship in Latin American countries. As may be observed from the table, most of the countries combine on-the-job and off-the-job training, and nearly half of them have a job contract; however, few of them undertake an assessment and certification of competencies/qualifications, which are widely recognized by employers in their recruitment processes (Fazio et al., 2016).

TABLE 1 1. Comparison of some elements of the definition of apprenticeship in Latin American countries

COUNTRY	A job (contract/ agreement between employer and apprentice)	With structured training (defined training plan)	On-the-job + off-the-job training	Assessment and industry-recognized certification of acquired competencies/ qualifications
BRAZIL	Yes	Yes	Yes	No
CHILE	Yes	Yes	No	No
COLOMBIA	Yes	No	Yes	No
COSTA RICA	No	No	Yes	No
MEXICO	No	Yes	Yes	Yes
PERU	Sometimes	Yes	Yes	Yes

Source: Fazio et al., 2016

The key to understanding a Quality Apprenticeship system is to examine the way in which the definition of apprenticeship is interpreted and then implemented in a given country, either via additional legal texts and regulations, collective bargaining agreements, or on the basis of experience and practice. It is this perspective that will be further developed in greater detail throughout this Guide.

2.3 Apprenticeships and other forms of work-based learning

There is often a certain level of confusion surrounding the various terms associated with apprenticeships. Consequently, when defining the term “apprenticeship”, it is also helpful to clarify the distinction between apprenticeships and other forms of work-based learning (WBL), such as informal apprenticeships, traineeships and internships.

Informal apprenticeships are to be found in the informal economy and provide for the transmission of appropriate skills from an experienced craftsperson to a young person, usually covering all skills of a trade. These do not follow a curriculum, do not lead to qualifications and are regulated by social norms and traditions rather than laws and regulations.

Internships and traineeships provide young people, who have finished their studies or are still studying, with an opportunity to learn in a workplace - usually covering specific aspects of a job or an occupation, but not all skills needed for it – while working in a particular sector of the economy or in a

specific occupation. Typically these programs also don't follow a curriculum or lead to qualifications based on an assessment of skills, but with internships and traineeships in particular, the differences between the two depend significantly on how the stakeholders in a particular country define them.

As stated earlier, the ILO is promoting the concept of Quality Apprenticeships, which are apprenticeships based on six building blocks that emphasize the quality and relevance of apprenticeships to the labour market.

As seen in table 2, apprenticeships are clearly distinct from other forms of work-based learning and provide specific advantages, particularly in terms of working conditions and the quality of learning opportunities. In short, apprenticeships are a form of work-based learning, but not all forms of work-based learning are apprenticeships.

TABLE
2

2. Typical differences between apprenticeships and other forms of work-based learning

	APPRENTICESHIP	INFORMAL APPRENTICESHIP	INTERNSHIP	TRAINEESHIP
Tripartite governance	Yes	No	No	No
Remuneration	Yes	Possibly	Probably	Possibly
Written contract	Yes	No	Possibly	Possibly
Social security coverage	Yes	No	No	No
Legal framework	Yes	No	No	No
Programme of learning	Yes	No	No	Possibly
On-the-job training	Yes	Yes	Yes	Yes
Off-the-job training	Yes	No	No	No
Formal assessment	Yes	No	No	No
Recognized qualification	Yes	No	No	No
Duration	1-4 years	Variable	Up to 12 months	Up to 12 months

Source: ILO, on the basis of Steedman, 2012.

Apprenticeships and traineeships, in particular, are often bracketed together, but they are not the same. As may be seen from a more detailed exercise referring specifically to European countries (table 3), there are considerable differences, particularly in terms of educational levels, content, on-the-job training, length, employment status, compensation, governance and actors.

TABLE
3

3. Typical differences between apprenticeships and traineeships in Europe

	QUALITY APPRENTICESHIP	TRAINEESHIP
Scope	Full qualifying professional or vocational education and training profile	Complementing educational programme or individual CV
Goal	Professional profile/qualification	Documented practical experience
Educational level	Usually EQF* level 3-5	Traineeships can be found as part of programmes on all EQF levels – common forms in (pre) vocational education, in higher education and after graduation (sometimes compulsory)
Content	Acquisition of the full set of knowledge, skills and competences of an occupation	Vocational and/or work/career orientation, acquisition of parts of knowledge, skills and competences of an occupation or a profession
On-the-job learning	Equally important to coursework	Usually complementing coursework or optional extra
Length	<ul style="list-style-type: none"> • Determined, middle- to long-term • Usually up to four years 	Varying, short- to middle-term Usually less than one year
Employment status	Employee status Contracted/employed apprentice	Student/trainee often based on an agreement with employer or school; sometimes volunteer status or not clearly defined status Student/trainee often based on an agreement with employer or school
Compensation	<ul style="list-style-type: none"> • Remunerated – amount collectively negotiated or set by law • Quality Apprenticeship allowance, which takes into account net costs and benefits for the individual and the employer 	Varying remuneration, often unpaid Unregulated financial compensation
Governance	Strongly regulated, often on a tripartite basis	Unregulated or partly regulated
Actors	Often social partners, training providers	Individuals, companies, state, educational institutions

Source: European Commission, 2013b, p.8.

* ESF: European Qualifications Framework (European Commission, 2017)

In Australia, for example, the difference between a traineeship and an apprenticeship is that a traineeship can be either a full-time or part-time employment-based training arrangement, usually for around 12 months (apprenticeships usually last for three to four years), and is generally in a non-trade related area (Australian Department of Education, 2017).

Are these distinctions significant?

As the European Commission has pointed out – ‘our analysis by country has shown that apprenticeships have consistently yielded positive employment outcomes and not only in countries typically associated with the dual training system like Germany and Austria’. The evidence is less persuasive for traineeships (European Commission, 2013b, pp. 9 and 13).

For apprentices, the answer is a resounding ‘YES’; Quality Apprenticeships provide systematic training and a recognized qualification, offer remuneration and some social security benefits, and enhance opportunities to enter the labour market.

For employers, the answer is also ‘YES’; Quality Apprenticeships provide ‘work-ready’ and skilled employees - and thus help to solve recruitment problems.

For governments, the answer is also ‘YES’; Quality Apprenticeships facilitate the transition of young people into the labour market, and thus ease the problem of skills mismatch and youth unemployment.

These benefits will be addressed in greater detail in Chapter 3.

2.4 Checklist

You may use the following checklist to evaluate the definition of apprenticeship used in your country, to decide which elements could potentially be strengthened.

KEY FEATURES	YES	NO
In your country:		
Is apprenticeship defined and regulated by an official document (e.g. laws, ministerial decrees, collective agreements, and/or policy decisions arising from social dialogue)?		
If “YES”, does the definition of apprenticeship include the following:		
• a combination of on-the-job training and off-the-job learning?		
• training to carry out a specific occupation?		
• a written contract that details the roles and responsibilities of the apprentice and the employer?		
• a written contract that provides the apprentice with remuneration and standard social protection coverage?		
• the opportunity to obtain a recognized qualification on the successful completion of a formal assessment?		

If you have answered “NO” to any of these questions, it might be worth examining ways in which the definition of apprenticeship in your country could be clarified and/or strengthened with a view to ensuring that apprenticeships have minimum standards and might be considered as Quality Apprenticeships.

3 Why are Quality Apprenticeships an attractive policy option?

International organizations, governments, trade unions and employers' associations at the global, regional and national levels have increased their calls for the development and/or improvement of Quality Apprenticeship systems and programmes. This chapter sets out to explain why these bodies and institutions are taking a keen interest in these systems. The first part of the chapter lists a series of examples of commitments that have been taken internationally and nationally to support the promotion of Quality Apprenticeships. The second part makes a case for Quality Apprenticeships, and puts forward a rationale for the benefits that they bring.

3.1 Examples of global and national commitments to promote Quality Apprenticeships

This section introduces some examples of the way in which international, regional and national stakeholders have contributed to the promotion of Quality Apprenticeships.

3.1.1 International Labour Organization

At the 101st Session of the International Labour Conference (2012), the ILO adopted a resolution entitled *The youth employment crisis: a call to action*. The resolution reiterated the importance of linking education, training and the world of work through 'enhanced technical vocational education and training (TVET), including apprenticeships, other work-experience schemes and work-based learning'. It called on governments to give serious consideration, as appropriate, to:

- Improving the links between education, training and the world of work through social dialogue on skills mismatch and standardization of qualifications in response to labour market needs, enhanced technical vocational education and training (TVET), including apprenticeships, other work-experience schemes and work-based learning.
- Improving the range and types of apprenticeships by:
 - complementing learning at the workplace with more structured institutional learning;
 - upgrading the training skills of master craftspersons and trainers overseeing the apprenticeships;
 - including literacy training and livelihood skills; and
 - strengthening community involvement, especially to open more occupations for young women and other vulnerable groups of young people.
- Regulating and monitoring apprenticeship, internship and other work-experience schemes, including through certification, to ensure they allow for a real learning experience and not replace regular workers.

The resolution called upon the social partners to encourage enterprises to provide apprenticeship places and engage in collective bargaining on terms and conditions of work of apprentices (ILO, 2012a).

3.1.2 G20

The Labour and Employment Ministers of the G20, the central forum for international cooperation on financial and economic issues which is composed of 19 countries plus the European Union, called on their Member States in 2012 to share experiences ‘in the design and implementation of apprenticeship programmes and explore ways to identify common principles across the G20 countries’ (G20, 2012). Four years later, the Group reiterated its call for action on apprenticeships and adopted the ‘G20 Initiative to Promote Quality Apprenticeship’ (box 3), acknowledging that ‘apprenticeship has proven to be an increasingly useful method to deliver vocational training globally’. It agreed to undertake further meaningful actions to increase the quality, quantity and diversity of apprenticeships, examples of which are also to be found in box 3 (G20, 2016).

BOX 3

3. Examples of actions proposed by the G20 Initiative to Promote Quality Apprenticeship (2016) (excerpts)

- Establishing national goals or targets to develop, expand and improve apprenticeship programmes, including for higher education levels.
- Raising the quality of apprenticeships by fully engaging social partners (governments, employers’ and workers’ organizations) in the design, development and delivery of apprenticeship and ensuring a strong work-based training component (i.e. dual training systems, effective career guidance, and integration with formal schooling and skills recognition systems).
- Promoting apprenticeship programmes in a broad array of occupations and sectors, particularly emerging sectors and those with skill shortages.
- Fostering the engagement of businesses in the apprentice systems, making apprenticeships more attractive to employers, in particular SMEs, by reflecting their skills needs in training programmes, addressing legal and regulatory disincentives, and promoting an adequate/ appropriate sharing of costs among employers, providers and public authorities.
- Ensuring that apprenticeship programmes offer good working and training conditions, including appropriate wages, labour contracts and social security coverage, as well as respect for labour rights and occupational safety and health.

3.1.3 L20 and B20

The trade unions (Labour 20 – L20) and employers’ associations (Business 20 – B20) of the G20 Member States also joined forces to promote apprenticeships. In cooperation with global trade unions and employers’ associations (ITUC, IOE, BIAC and TUAC) they agreed on “Key Elements of Quality Apprenticeships” in 2013 (ITUC, 2013), and jointly emphasized the key principles in making apprenticeships work – as may be seen in box 4.

BOX
4

4. Global social partner principles for Quality Apprenticeships (excerpts)

- There must be a shared responsibility between governments, employers and trade unions adequate to national circumstances.
- High-quality vocational schools, with highly qualified and motivated teachers and up-to-date equipment are an indispensable prerequisite for effective learning.
- Effective entries into apprenticeships should be available, not only for young people but also displaced adults who either need to move into a new industry, or need to update their skills for the evolving needs of business.
- Strategies for lifting the status of apprenticeships should be developed, so that they are positively seen as a pathway towards a satisfying career.
- Apprenticeship systems need their own contractual arrangements consistent with national law and practice.
- Apprenticeship systems must be workplace centred.
- Apprenticeship programmes should reflect gender equity objectives.
- Apprenticeships should encourage entrepreneurship and innovation through the development of skills and general business knowledge as well as responsible business conduct.

3.1.4 Council of the European Union

In 2013, the European Union (EU) Member States adopted a Council Declaration on the *European Alliance for Apprenticeships*, a multi-stakeholder platform to promote the quality, supply, image and mobility of apprenticeships (Council of the European Union, 2013). It concluded that ‘high-quality apprenticeship schemes can make a positive contribution to combating youth unemployment by fostering skills acquisition and securing smooth and sustainable transitions from the education and training system to the labour market. Such schemes are particularly effective when embedded in a comprehensive approach at the national level that combines education, training and employment measures’. It continued by stating that: *‘the effectiveness and attractiveness of apprenticeship schemes should be encouraged by their adherence to several common guiding principles’*. It highlighted the following principles:

- a. Establishing an appropriate regulatory framework, whereby the responsibilities, rights and obligations of each party involved are clearly formulated and are enforceable.
- b. Encouraging national partnerships with social partners in the design, implementation and governance of apprenticeship schemes, together with other relevant stakeholders such as, where appropriate, intermediary bodies (chambers of commerce, industries and crafts, professional and sectoral organisations), education and training providers, youth and student organisations, and local, regional as well as national authorities.
- c. Ensuring adequate integration of the apprenticeship schemes into the formal education and training system through a system of recognised qualifications and competences which may allow access to higher education and life-long learning.
- d. Ensuring that the qualifications and competences gained and the learning process of apprenticeships are of high quality with defined standards for learning outcomes and quality assurance, in line with the Recommendation on the establishment of a European Quality Assurance

Reference Framework for VET, and that the apprenticeship model is recognised as a valuable learning tool, transferable across borders, opening up the route to progress within national qualifications frameworks and aspiration to high-skilled jobs.

- e. Including a strong work-based high-quality learning and training component, which should complement the specific on-the-job skills with broader, transversal and transferable skills, ensuring that participants can adapt to change after finishing the apprenticeship.
- f. Involving both employers and public authorities sufficiently in the funding of apprenticeship schemes, whilst ensuring adequate remuneration and social protection of apprentices, and providing appropriate incentives for all actors to participate, especially small and medium-sized enterprises, and for an adequate supply of apprenticeship places to be made available.
- g. Covering multiple sectors and occupations, including new and innovative sectors with a high employment potential, and taking into account forecasts of future skills needs.
- h. Facilitating the participation of young people with fewer opportunities by providing career guidance, preparatory training and other targeted support.
- i. Promoting apprenticeship schemes through awareness-raising targeted at young people, their parents, education and training providers, employers and public employment services, while highlighting apprenticeships as a pathway leading to excellence which opens up broad educational and professional opportunities, including apprenticeships as one of the options for the implementation of the Youth Guarantee schemes.³

3.1.5 Country level

A glance around the world also shows that governments are increasingly interested in developing and/or improving apprenticeship systems and programmes. This takes many forms. Indeed, a number of countries have:

- Recently amended or developed legislation, or are in the process of amending, legislation, which is directly linked to TVET – Belgium, Bulgaria, France, Italy, Romania and Spain;
- Recently amended or developed legislation, which is indirectly linked to technical vocational education and training – Ireland, with the establishment of Quality and Qualifications;
- Carried out national reviews and subsequent reforms of apprenticeships – Australia, Ireland, India and the United Kingdom;
- Making important efforts to revamp their apprenticeship law of programmes – a number of countries in Latin America and the Caribbean, including Jamaica, the Bahamas, Trinidad and Tobago, Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru (Fazio et al., 2016);
- Developed new national strategies to support apprenticeship training - Germany, with the *Alliance for Initial and Further Training 2015-2018*, Denmark, with *Improving Vocational Education and Training*, and Norway with a *tri-partite Social Contract on Apprenticeships*;
- Introduced new funding mechanisms – United Kingdom, with the Apprenticeship Levy, and New Zealand with its 'Apprenticeship Reboot' programme;

³ The Youth Guarantee scheme was set up by European Council in April 2013. It recommends that Member States should 'ensure that all young people under the age of 25 years receive a good-quality offer of employment, continued education, an apprenticeship or a traineeship within a period of four months of becoming unemployed or leaving formal education' (Council Recommendation of 22 April 2013 on establishing a Youth Guarantee).

- Completely restructured their administrative structures for implementing apprenticeship policy – for example in the Netherlands and the United Kingdom;
- Embarked upon the process of reviewing occupation profiles, learning outcomes and curricula in existing apprenticeships and developing a series of new ones – Ireland;
- Strengthening social dialogue, elevating the status of apprenticeship programmes and linking them to labour market demand in Jamaica;
- Private sector non-profit initiative for dual apprenticeships in Uruguay; and
- Working with the support of the ILO to promote the development of apprenticeship programmes and/or systems – Brazil, Algeria, Bangladesh, Costa Rica, Indonesia, Jamaica, Morocco, United Republic of Tanzania, Tunisia, Uganda and Zambia.

In India, the National Policy on Skill Development and Entrepreneurship 2015 focuses on apprenticeship as one of its key programmes for creating skilled manpower. The policy proposes to pro-actively work with industry, including the MSME sector, to facilitate over twenty-fold increase in apprenticeship opportunities in the country by 2020 (box 5).

BOX 5

5. Example of country-level initiative - India

The Government of India launched the National Apprenticeship Promotion Scheme (NAPS) on 19th August 2016 to promote apprenticeship training and incentivize employers who wish to engage apprentices. NAPS has provision for the sharing of expenditure incurred by employers in both providing training and a stipend to the apprentice.

NAPS was launched with an ambitious objective of increasing the engagement of apprenticeship from 2.3 lakhs (0.23 million) to 50 lakhs (5 million) cumulatively by 2020.

A user-friendly online portal (www.apprenticeship.gov.in) has been launched in order to facilitate the easy processing of the entire apprenticeship cycle and for the effective administration and monitoring of the scheme. The portal provides end-to-end service for the employer from registration and mentioning vacancy to submitting claims, and for the apprentice from registration to receiving and accepting offer letters online.

The Apprenticeship Act was also amended to ensure that employers engage a larger number of apprentices and to encourage employers to comply with the provisions of the Act.

Source: Government of India, 2017a.

3.2 Benefits of Quality Apprenticeships

The benefits of Quality Apprenticeships are many and varied and accrue to all stakeholders, in a variety of ways. The following sections will illustrate this.

3.2.1 Facilitating the school-to-work transition

The 97th Session of the International Labour Conference, 2008, acknowledged the importance of apprenticeships as an ‘effective means of bridging school and the world of work for young people by making it possible for them to acquire work experience along with technical and professional training. This helps overcome their lack of work experience when trying to get a first job’ (ILO, 2008).

Research undertaken for the European Commission has shown that apprenticeships consistently lead to positive employment outcomes. On average 60-70 per cent (and up to 90 per cent in some cases) of apprentices secure employment immediately upon completion of their apprenticeship – for example in Austria, Belgium, France, Ireland and the United Kingdom. “Indeed, the high effectiveness in relation to employment outcomes of apprenticeship programmes, especially those associated with the dual training system, has led a number of Member States to introduce similar schemes akin to this system or to embark upon major reforms of their apprenticeship system” – for example in Belgium, Cyprus, Italy, Romania and Spain (European Commission, 2013b, pp. 9-10).

In Brazil, an impact assessment of the Apprentice Act shows that apprentices, after graduating, have a greater chance of finding a non-temporary formal job and earning higher wages in the short- and medium-term relative to comparable people who did not benefit from such a programme (Corseuil et al., 2014).

Moreover, apprentices are more likely to find employment than the wider cohort of TVET students, as may be seen from the striking example provided by the Netherlands (box 6).

BOX 6

6. Relative success in finding work after a TVET pathway – the Netherlands

In the Netherlands ‘there are two pathways for gaining a TVET qualification: the work-based apprenticeship pathway, (*beroepsbegeleidende leerweg – BBL*) and the school-based pathway (*beroepsopleidende leerweg – BOL*). The originality of the Dutch system lies in the fact that the qualifications are the same and of equal value (ETUC/Unionlearn, 2016, p. 48). Figures show that ‘with respect to job opportunities, there is a clear difference between BBL and BOL’. In 2012, among those successfully completing the BBL route, the unemployment rate was low (3 per cent), but for those successfully completing the BOL route it was between 11 and 30 per cent, depending upon the level of the qualification. Moreover, the average time needed to find a first job was one month for BOL students but only some two weeks for BBL apprentices (Government of the Netherlands, 2014, p. 76).

Securing a first job can present real challenges for young people. Employers are reluctant to hire young people who have no work experience and whose ‘work-readiness’ is unknown. Employers ask whether these young people will fit into the work culture of the enterprise, whether they are mature enough to take the job seriously, and whether they have the right technical and soft skills to do the job properly. It is difficult for employers to make these judgments in a short interview. Quality Apprenticeship programmes enable employers to run an extended recruitment process, whilst training young people to carry out the specific activities that the enterprise needs. At the same time, apprentices have an opportunity to make well-informed choices about their training and career options – and to show what they can do and what productivity potential they can offer.

3.2.2 Promoting coordination between the world of education and the world of work

Quality Apprenticeship programmes provide a systematic means of forging collaboration between TVET institutions and the labour market. This allows enterprises to influence the design and delivery of the curriculum and training modules prepared by TVET institutions, and at the same time it enables trainers from TVET institutions to understand better what knowledge, skills and competence are required in the workplace. This mutually reinforcing collaboration helps to improve the quality and the effectiveness of the overall training experience and to reduce the potential for skills mismatches.

In Australia, for example, coordination between employers providing on-the-job training and the TVET institute offering off-the-job training is a core characteristic of the apprenticeship system, and a benefit for apprentices (or trainees), employers and the economy (box 7).

BOX 7

7. Promoting coordination between the world of education and the world of work – Australia

Toyota Australia has formed a partnership with the Kangan Technical and Further Education Institute (TAFE) in Victoria to take shared responsibility in supporting their Australian Apprentices. Toyota and the Kangan Institute meet on a monthly basis to discuss the progress of the Australian apprentices, issues that may be arising, and possible improvements to the training programme. They have found, for example, that a mandatory mentoring programme for Australian Apprentices in the workplace has directly contributed to successful Australian Apprentice outcomes. The partnership has enabled the development of an industry and enterprise tailored Certificate in Training and Assessment to support the mentoring programme, and Toyota has many workplace mentors who hold this qualification (Commonwealth of Australia, 2011a, p. 50).

3.2.3 Making good business sense

Enterprises invest in Quality Apprenticeships because it makes sound business sense. Quality Apprenticeship programmes provide a stable and reliable pipeline of qualified workers, increase productivity, lower the cost of recruitment and also enhance employee retention - according to the American Department of Labor (box 8).

BOX
8

8. Advantages for employers – United States

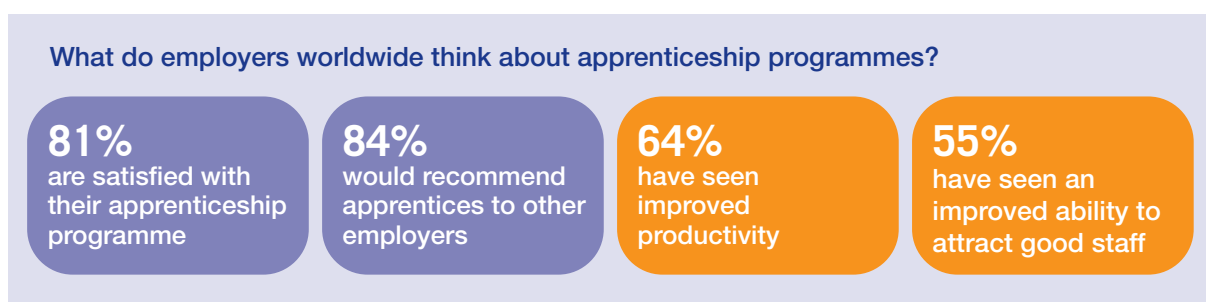
First and foremost, Quality Apprenticeship helps businesses develop highly-skilled employees. Quality Apprenticeship programs also reduce turnover rates, increase productivity and lower the cost of recruitment.

Additional benefits include:

- Customized training that meets industry standards, tailored to the specific needs of businesses, resulting in highly-skilled employees.
- Increased knowledge transfer through on-the-job learning from an experienced mentor, combined with education courses to support work-based learning.
- Enhanced employee retention: 91% of apprentices that complete an apprenticeship are still employed nine months later.
- A safer workplace that may reduce worker compensation costs, due to the program's emphasis on safety training.
- A stable and reliable pipeline of qualified workers.
- A systematic approach to training that ensures employees are trained and certified to produce at the highest skill levels required for the occupation (United States Department of Labor, 2017b).

Worldwide, the opinion of employers about apprenticeships is usually positive (figure 1). According to an Inter-American Development Bank report, a large majority of employers are satisfied with apprenticeships - and a majority of them reported improvement in productivity (Fazio et al., 2016).

Figure 1: Employers' opinion about apprenticeships



Source: Fazio et al., 2016

Another benefit is the positive impact of apprenticeships on an enterprise's ability to innovate. Well-trained workers are more likely to understand the complexities of an enterprise's production processes, and are therefore more likely to identify and implement ways in which technological improvements can be made (Lerman, 2014a, p.14).

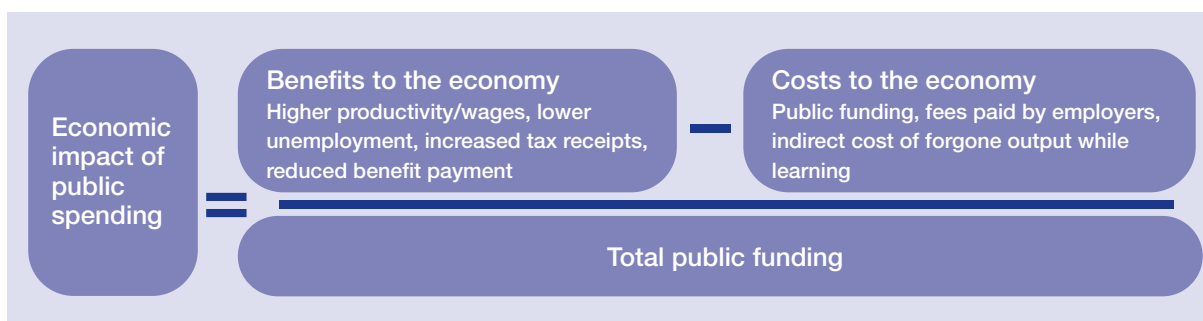
Over time the benefits that accrue to businesses on the basis of a skilled workforce far outweigh the initial investment in new apprentices. As will be seen in greater detail in Chapter 8, enterprises recover the training costs and reap net benefits as apprentices learn what is needed to do the job and become more productive.

3.2.4 Providing cost-effective TVET delivery

The advent of new technologies and other factors are causing continuous changes in skill demands in the labour market. It is particularly cost-intensive to anticipate future skill needs, equip TVET institutions with the latest facilities and tools, update curricula and training modules and, in addition, to upskill teachers and trainers. This does not constitute a one-off investment.

If the public authorities - and any other funding providers - are able to broker a partnership between the world of education and the world of work, TVET institutions and enterprises can tap into each other's resources (e.g. equipment and facilities, accumulated know-how and experience). By sharing the costs of training, enterprises and government agencies responsible for TVET are likely to share the benefits of training.

Figure 2: Economic returns to public investment – United Kingdom



Source: National Audit Office, 2012

As has been reported by the United Kingdom National Audit Office (figure 2), the economic returns to public investment may be considerable. The net present value to the economy of £1 of government investment in apprenticeship training is estimated to be between £16 and £21.

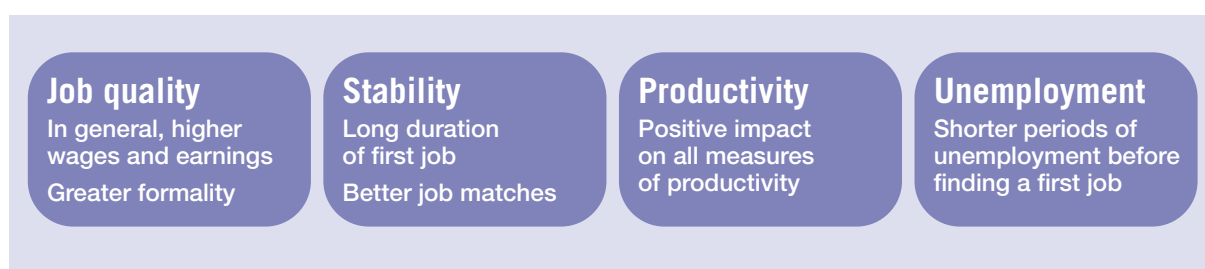
This issue will be developed further in Chapter 8.

3.2.5 Quality Apprenticeships are good for small- and medium-sized enterprises (SMEs)

SMEs are particularly significant in the context of local labour markets and often play a significant role in supporting local employment and driving forward the local economy. They often make use of Quality Apprenticeships to deal with skills shortages and the future development of the enterprise, and to enable young people to acquire specialized skills required to produce high-quality goods and provide high-quality services. SMEs have also been found to benefit in terms of improved access to the latest technological innovation gained through apprentices in their off-the-job training in TVET institutions (Fazio et al., 2016).

The Inter-American Development Bank report, *Apprenticeships for the XXI Century: A model for Latin American and the Caribbean*, states that Latin American and Caribbean (LAC) countries are interested in apprenticeships for a variety of reasons, including productivity, innovation, mismatch between skills demand and supply, and the career ladder (Fazio et al., 2016). The main impacts of apprenticeships, as per the report, are summarized in figure 3.

Figure 3: Summary of the main impacts of apprenticeships in LAC countries



Source: Fazio et al., 2016.

The rationale for promoting Quality Apprentices is compelling. There is an overwhelming consensus, emanating from international organizations, as well as from social partners at the international level, that they offer a variety of benefits - and that certain steps should be taken and certain principles respected, with a view to supporting their design and implementation.

3.2.6 Checklist

You may use the following checklist to evaluate if there is evidence for – and an awareness of – the benefits of apprenticeships among the government, employers and young people.

RATIONALE FOR PROMOTING QUALITY APPRENTICESHIPS	YES	NO
In your country, is there evidence to show that:		
• Apprenticeships facilitate the school-to-work transition?		
• Apprenticeships promote coordination between the world of education and the world of work?		
• Apprenticeships make good business sense?		
• Apprenticeships provide a cost-effective way of delivering TVET?		
• Apprenticeships are good for the development of small- and medium-sized Enterprises (SMEs)?		
• Are the government, employers, trade unions and young people aware of the benefits of apprenticeships?		
• Are you aware of the international and regional initiatives to strengthen apprenticeships?		

If you have answered “NO” to any of these questions, it might be worth examining ways in which evidence could be collected to inform the development of a Quality Apprenticeship system in your country. The evidence on the benefits of apprenticeships is a key factor in building awareness for various stakeholders, which may act as a catalyst for the establishment of a clear framework for a successful and sustainable Quality Apprenticeship system.

4 Key building blocks for Quality Apprenticeship Systems

The ILO approach to developing successful Quality Apprenticeship systems is based on six key building blocks:

- Meaningful social dialogue
- A robust regulatory framework
- Clear roles and responsibilities
- Equitable funding arrangements
- Strong labour market relevance
- Inclusiveness

Figure 4: Building blocks of Quality Apprenticeship systems



4.1 Why are these building blocks so important?

Quality Apprenticeships form a bridge between the world of education and the world of work, based on social dialogue involving the social partners – employers and their associations and trade unions, who are best placed to identify the training that is needed and the way that it should be provided.

Quality Apprenticeships require a robust and stable regulatory framework, which establishes the overall conditions for designing and implementing systems and secures decent work for apprentices.

Quality Apprenticeships are built on the support and commitment of numerous stakeholders who have a clear understanding of their roles and responsibilities. They also have a common purpose, which ensures the coherence of the entire system.

Quality Apprenticeships generate both costs and benefits for the public authorities, employers and apprentices themselves. There must be a clear overall understanding that costs are shared equitably to ensure that all stakeholders are willing to participate on a long-term basis.

Quality Apprenticeships prepare young people for occupations and their participation in the labour market. This implies that employers and apprentices must know which occupations and skills are in demand, and how these skills will be recognized.

Quality Apprenticeships are not just designed for one social group. If they are to offer opportunities for all, there is a need to take positive action to increase diversity, improve reporting and accountability, incorporate a level of flexibility and enhance advice and support.

5 Social dialogue

According to the ILO Director General Guy Ryder: ‘When you look at apprenticeship systems around the world, the most important success factor is practically always social dialogue. Apprenticeships work because they link classroom and workplace training and because they tap the knowledge of both employers and workers on what training is needed and how to deliver it’.⁴

5.1 Introduction

The aim of this chapter is to define social dialogue and then present a series of examples demonstrating ways in which it is central to the functioning of Quality Apprenticeship systems, at both the national and sectoral levels.

Social dialogue, a cornerstone of the ILO’s work, includes all types of negotiation and consultation or even simply an exchange of information between, or among, representatives of governments, employers and workers, on issues of common interest relating to economic and social policy - as may be seen in [box 9](#).

BOX 9

9. Common forms of social dialogue

- **Information sharing:** one of the most basic and indispensable elements. In itself, it implies no real discussion or action on issues, but it is nevertheless essential.
- **Consultation:** beyond a mere sharing of information. This requires engagement through an exchange of views, which can, in turn, lead to more in-depth dialogue.
- **Negotiations and the conclusion of agreements:** while many institutions make use of consultation and information sharing, some are empowered to reach binding agreements. Those institutions that do not have the mandate to do this normally serve in an advisory capacity to ministries, legislators and policy-makers.
- **Collective bargaining:** an integral or widespread form of social dialogue and a useful indicator of the capacity within a country to engage in national-level tripartism. Collective bargaining takes place at enterprise, sectoral, regional, national and even multinational level.

The main goal of social dialogue itself is to promote consensus building and democratic involvement among the main stakeholders in the world of work. Successful social dialogue structures and processes have the potential to resolve important economic and social issues, encourage good governance, advance social and industrial peace and stability, and boost economic progress.

⁴ Speaking at the launch of the B20 and L20 ‘Joint Understanding on Key Elements of Quality Apprenticeship,’ 18 June 2013, in Geneva.

However, in order for social dialogue to take place effectively, the following conditions must exist:

- Strong, independent trade unions and employers' associations with the technical capacity and the access to relevant information to participate in social dialogue;
- Political will and commitment to engage in social dialogue on the part of all the parties;
- Respect for the fundamental rights of freedom of association and collective bargaining; and
- Appropriate institutional support.

Social dialogue deals with a variety of different industrial relations issues – political transition, employment policies, wages, social security, the informal economy, gender equality, fundamental rights at work, the greening of the economy, and labour law (ILO, 2013a).

Social dialogue may also deal with Technical Vocational Education and Training (TVET) - and more specifically apprenticeship training.

5.2 Social dialogue and Quality Apprenticeships

Social dialogue is particularly important for the design and implementation of Quality Apprenticeship training policy. Indeed the ILO has agreed that its member States should “define, with the involvement of the social partners, a national strategy for education and training, as well as establish a guiding framework for training policies at national, regional, local, and sectoral and enterprise levels”.⁵ A study on the comparative analysis of national skills development policies of 12 countries finds that collective bargaining can foster a learning culture and ensure quality of learning at the workplace (Aggarwal, 2013).

Across OECD countries, *‘the engagement of social partners – both employers, unions, and professional associations is necessary to ensure that the organisation and the content of vocational programs meets the needs of employers, the wider economy and students... Social partner engagement is also crucial both for national level policy development and to ensure adequate policy implementation.’* (Fazekas and Field, 2013)

The relationship between social dialogue and Quality Apprenticeship training takes various forms in different countries. Tripartite, and also bipartite, bodies exist in many countries to formulate, implement and monitor apprenticeship training policy. Similarly, apprenticeship training may be the subject of negotiations between the governments and the social partners - or just between the employers' association and trade unions.

In the EU, the cross-industry social partners at European level have engaged strongly in the European Alliance for Apprenticeships. In 2013, they signed a Joint Declaration with the European Commission and the Council Presidency (from Lithuania), and they engaged on apprenticeships through their Framework of Actions on Youth Employment. Through their work on the quality and effectiveness of apprenticeships, and their Joint Statement from 2016, they have provided an important push for the upcoming *European Framework for Quality and Effective Apprenticeships*.

⁵ Paragraph 5(a) of the ILO Human Resources Development Recommendation, 2004 (No. 195), available at: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R195 [accessed 28 February 2017].

5.3 Tripartite and bipartite bodies

5.3.1 National level

In Europe, in most countries, trade unions and employers' associations are formal members, often with equal representation, of tripartite TVET committees dealing with the different aspects of policy design and implementation of apprenticeship training. These bodies include:

- Bulgaria – the National Agency for Vocational Education and Training
- Cyprus – the Apprenticeship Board
- Denmark – the National Council of Vocational Education and Training
- France – the National Council for Employment, Vocational Training and Guidance
- Germany – the Federal Institute for Vocational Education and Training
- Ireland – the Apprenticeship Council
- Luxembourg – the Committee for Vocational Training (via the Chambers)
- Netherlands – the foundation “Cooperation Organization for Vocational Education, Training and the Labour Market” (SBB)
- Spain – the General Council for Vocational Training (ETUC/Unionlearn. 2016)

In Norway, for example, the social partners – employers' associations and trade unions – have representatives, most often the majority, in bodies dealing with apprenticeship policy, at intersectoral, sectoral and regional/local levels, covering issues such as overall quality, training programmes, curriculum development, career guidance, and assessment (box 10).

BOX 10

10. Social dialogue and TVET in Norway

According to the legal framework, the social partners have representatives, most often the majority, in all important advisory bodies at national and county level for upper secondary TVET:

- The National Council for Vocational Education and Training (*Samarbeidsrådet for yrkesopplæring – SRY*); give advice on an overarching level on quality issues;
- Nine Vocational Training Councils (*Faglige råd*) give advice to specific groups of trades on the training programme structure, curriculum development and quality issues; the County Vocational Training Board (*Yrkesopplæringsnemnda*) for each county gives advice on quality, career guidance, regional development and the provision in the county to meet the local labour market needs;
- The trade-specific Examination Boards (*Prøvenemnder*) are situated in each county and are responsible for the trade and journeyman's examination;
- National and regional TVET Appeals Boards (*Klagenemnder*) cater for candidates who fail the trade and journeyman's final examination (Norwegian Directorate for Education, 2014, p. 9).

In other regions of the world, Africa for example, trade unions and employers' associations are represented on a number of tripartite bodies in South Africa dealing with different aspects of TVET policy,

notably: the National Skills Authority, which advises the Ministry of Labour on skills policy and strategy and their implementation; the South African Qualifications Authority, which oversees the development and implementation of the National Qualifications Framework; and the Quality Council on Trades and Occupations, which is responsible for overseeing the design, implementation, assessment and certification of occupational qualifications (ILO, 2017, forthcoming).

In Asia, the social partners are represented in India on the tripartite National Council for Vocational Training, which advises the Ministry of Labour and Employment on the definition of standards for syllabi, equipment, duration of courses, methods of training and certification. They are also represented on the Central Apprenticeship Council, which advises the Government on policies, norms and standards in respect of the Apprenticeship Training Scheme.

In Latin America, the social partners in the Dominican Republic are members of Board of Directors of the INFOTEP, a national vocational training institution.

5.3.2 Sectoral level

At the sectoral level, trade unions and employers' associations are particularly active. Sectoral bodies, made up of representatives of trade unions and employers' associations, have a central role to play in furthering and implementing skills development policies, whether in terms of initial vocational education and training (IVET) or continuing vocational education and training (CVET) - or both. This is often the case in Europe, with Denmark, France, Germany and the Netherlands having particularly well-developed models.

In the Netherlands, the role of the sectoral bodies has recently changed. Previously, there were 17 sectoral 'knowledge centres', which were responsible for the production of qualifications and assessment criteria, the accreditation of companies and quality assurance for on-the-job training. These centres have now been replaced by more broadly-based sectoral chambers (technology and the built environment; mobility, transport, logistics and maritime; healthcare, welfare and sport; trade; ICT and the creative industry, catering and hospitality; business services; and specialist crafts), which fall under the coordination of the Cooperation Organization for Vocational Education, Training and the Labour Market (SBB).

There are further examples of social partner involvement in sectoral bodies in Africa and Latin America. In South Africa, for example, the Sector Education and Training Authorities (SETAs) provide an institutional framework for the social partners to develop and implement sectoral skills plans. In Brazil, they participate in the S-System Councils – the National Services for Industrial Training (SENAI); SENAC, for commerce and the service sector; SENAR, for rural workers; and SENAT, for transport workers; they are also represented on the Sectoral Technical Committees of the SENAI, which are responsible for defining vocational profiles for curriculum design (ILO, 2017). In Dominican Republic, INFOTEP has sectorial consultative committees, where representatives of workers and employers provide inputs for the planning and management of dual training.

5.4 Social dialogue strategies and negotiations

5.4.1 National level

In many countries, the social partners are also involved in the formulation of national apprenticeship strategies.

In Germany the Federal and Regional Governments (Länder), as well as the social partners, agreed upon a joint strategy, the *Alliance for Initial and Further Training 2015-2018*, which acknowledges the need to increase the number of apprenticeship places (by 20,000 from 2014-15), the number of pre-apprenticeship places (by 20,000), and the proportion of young migrants participating in apprenticeship training (Federal Ministry for Economic Affairs and Energy, 2017). In Denmark, a new reform, *Improving Vocational Education and Training*, was adopted in 2014, following discussions between the Government and the social partners. It acknowledged the need to: increase the percentage of 16-17 year olds in apprenticeship training; improve the completion rate; enhance the overall quality of the training; and to strengthen the overall trust in apprenticeship training. In more practical terms, the reform also proposed to: introduce minimum entry requirements in Danish and mathematics; enable apprentices to specialize more gradually, by reducing the 12 vocational access routes to four broader areas and by introducing a foundation course; and to offer apprentices the opportunity to obtain a general upper-secondary qualification providing access to higher education. In South Africa, the Government and social partners signed a national skills accord in 2011 to expand skills in the country. It was agreed that companies employing artisans should train sufficient apprentices to ensure the replenishment of this group of skilled workers over time, and that sectoral skills plans should include targets for apprenticeships. The Government committed that state-owned enterprises would enrol at least 20,000 persons as apprentices and learners. In June 2017, the United States Department of Labor announced that it was establishing a Task Force on Apprenticeship Expansion to identify strategies and proposals to promote apprenticeships, especially in sectors where apprenticeship programmes are insufficient. The task team will comprise members presenting the perspectives of both employers and trade unions.

5.4.2 Sectoral level

In a few countries, sectoral level bargaining may deal with the issue of apprenticeship training.

In Germany, there are numerous examples of agreements, appeals and declarations of intent that have been signed by the social partners to maintain and create apprenticeship training places and to take on apprentices – once their training has successfully finished. The social partners in the chemical industry agreed to offer an average of 9,000 training places for apprentices for the years 2011, 2012 and 2013; in Deutsche Telekom they agreed to keep the apprentice rate at 2.9 per cent of the workforce for the years 2011-13, which corresponds to 13,000 training places; and in Volkswagen they agreed to offer 1,250 places for 2010-14. Agreements were also reached at the regional level– in the plastics processing industry in Bavaria and Baden-Württemberg, the social partners agreed to increase the number of apprentices by 1.5 per cent in 2011, 2 per cent in 2012 and 3 per cent in 2013, and in the metalworking and electrical industry in Lower Saxony they agreed to take on 1,000 apprentices per year. The social partners in many sectors also agreed to take on apprentices once their training had successfully finished; for example, in Deutsche Telekom, they agreed to offer full-time permanent contracts to 4,700 apprentices during the period 2010-12 (Bispink and WSI-Tarifarchiv, 2012).

Another example comes from the French automotive services sector. In 2015, the social partners signed a joint national agreement regarding the qualitative and quantitative development of apprenticeships in the automotive industry (*accord paritaire national relatif au développement qualitatif et quantitatif de l'apprentissage dans les services de l'automobile*). It contained a number of educational and apprenticeship objectives. Inter alia, it set out to:

- increase expenditure on apprenticeship training;
- fix the number of apprentices to be trained over a three-year period;
- tackle the issue of early termination of apprenticeship contracts;
- continue initiatives to improve the transition to work rate;
- increase the number of trained in-company mentors year on year;
- increase the participation of female apprentices;
- examine ways of increasing the participation of young people with a disability;
- make an effort to integrate young people with no secondary school qualification;
- improve information and guidance and pre-apprenticeship; and
- link training more directly to the needs of the apprentice.

Social dialogue in apprenticeship training, both at the national and the sectoral level, is strong in many countries throughout the different regions of the world, but not everywhere. It remains a challenge to ensure that the views of employers in a number of countries, and of trade unions in many countries, are heard and able to contribute to the development of apprenticeship programmes. Having an appropriate institutional framework that promotes social dialogue is also a challenge in many parts of the world. In some countries, agreements emanating from social dialogue may also form one of the basic elements of a sound regulatory framework, a subject that will be examined further in Chapter 6.

5.5 Checklist

You may use the following checklist to evaluate social dialogue in your country’s apprenticeship system to decide which elements could potentially be strengthened, and to judge whether your system could be described as a Quality Apprenticeship system.

SOCIAL DIALOGUE	YES	NO
In your country:		
• Do the social partners – employers’ associations and trade unions – enjoy the rights of freedom of association and collective bargaining?		
• Are there tripartite and/or bipartite bodies that formulate, implement and monitor regulatory framework and strategy for apprenticeship training?		
• Are the social partners formally involved in the design of apprenticeship systems at national and/or sectoral level?		
• Are the social partners formally involved in the implementation of apprenticeship systems at national and/or sectoral level?		
• Do the social partners have the adequate technical capacity to participate in social dialogue at the national and/or sectoral level on apprenticeship training?		
• Are the social partners formally involved in the accreditation of training institutions?		
• Are the social partners formally involved in the accreditation/ registration of enterprises that train apprentices?		

If you have answered “NO” to any of these questions, it might be worth examining ways in which social dialogue could be strengthened in your country’s apprenticeship system. The involvement of the social partners, in the form of trade unions and employers’ associations, in the design, development and implementation of apprenticeship programmes, is a key factor in the success and sustainability of Quality Apprenticeships.

6 Regulatory framework

6.1 Introduction

Quality Apprenticeships require a robust regulatory framework that establishes the overall conditions for the design, implementation, monitoring and evaluation of Quality Apprenticeship systems. Internationally, there is no single dominant model, but rather a variety of legal regulations and decisions emanating from structures of governance which vary from one country to another according to the different national contexts. For instance, a number of aspects may be left to stakeholders to negotiate in some countries, while they may be regulated by law in others.

The aim of this chapter is to explain the nature of the regulatory framework for Quality Apprenticeships and to present examples of good practice drawn from three different perspectives – the national, sectoral and enterprise levels.

The main functions of a regulatory framework are to:

- Clearly define apprenticeships;
- Specify the status of “apprentice” (employee or trainee), as well as the terms and conditions for apprentices - including working conditions, remuneration, social protection and grievance mechanisms;
- Set out the institutional mechanisms for governing and managing apprenticeships and how social dialogue will play a role;
- Clarify the rights, roles and responsibilities of all relevant stakeholders including the nature of agreements between the employer, apprentice and other institutions;
- Specify the trades and qualifications covered under apprenticeships;
- Clearly state the duration of the apprenticeship, the proportion of on-the-job and off-the-job training involved, the processes for assessment and certification of learning and the qualification or license to be issued at the end of the apprenticeship;
- Outline mechanisms for ensuring the quality and relevance of apprenticeship training including eligibility requirements for training institutions and enterprises;
- Inform sustainable, equitable funding arrangements for apprenticeships including cost sharing between the government, employers and apprentices;
- Recommend measures for promoting social inclusion and gender equality; and
- Specify monitoring and evaluation arrangements for apprenticeships.

The European Commission considers a robust institutional and regulatory framework has typically eight different functions (box 11).

BOX
11

11. Functions of institutional and regulatory framework– The European Commission

- Sets the standards for the main training and skills development requirements in order to ensure the learning content and quality of the programme;
- Provides a clear outline of the rights, roles and responsibilities of all relevant parties and, in some cases, institutionalizes the specific role of key actors, notably the social partners;
- Specifies the status of the apprentice (e.g. employee, trainee);
- Outlines the basic apprentice-related terms and conditions, including (where applicable) entitlement to remuneration and other benefits;
- Determines the (minimum) duration of the training as well as the distribution of time between school- and work-based training;
- Specifies quality assurance mechanisms;
- Defines the contractual arrangements between the educational institution, employer and apprentice, usually reflected in an apprenticeship agreement, and conflict resolution mechanism; and
- Sets the minimum qualifications and length of previous professional experience for trainers both at the educational institutions and within the companies.

Source: European Commission, 2013b, pp. 14-15.

Regulatory frameworks for Quality Apprenticeships can be seen to operate at three different levels. The first level primarily involves laws enacted at the national or state/regional level and enforced throughout the jurisdiction concerned – by means of acts, decrees and regulations. The second level primarily consists of decisions that have been made by sectoral bodies and agreements achieved by collective bargaining (see Chapter 5). The third level is made up mostly of the contractual arrangements that are agreed between the employer and the apprentice (and/or their representatives).

6.2 Regulation at national level

The main legal instrument governing Quality Apprenticeships is to be found in national laws. However, the way in which the legislation deals with Quality Apprenticeships differs from country to country – table 4 summarizes some of these differences. A number of countries – Belgium (the French-speaking part), India, New Zealand, the United States and Zambia – have enacted a specific law on apprenticeships as the main legal instrument governing this type of technical vocational and education training.

TABLE
4

4. Types of legislation for apprenticeships

LEGISLATION ON QUALITY APPRENTICESHIPS	COUNTRIES
Specific law on Quality Apprenticeships	<ul style="list-style-type: none"> • Apprenticeship Act, Algeria – 1981 • Cooperation Agreement on Dual Training, Belgium – 2008, amended in 2015 • Apprentices Act, India – 1961, last amended in 2014 • Industry Training and Apprenticeships Act, New Zealand – 1992, last amended in 2014 • National Apprenticeship Act, Sri Lanka – 1971 • National Apprenticeship Act, United States – 1937 • The Apprenticeship Act, Zambia – 1965 • Apprenticeship Act, Morocco – 2000
Law with a broader scope containing regulations on Quality Apprenticeships	<ul style="list-style-type: none"> • Legislative Decree No. 81, Italy – 2015, Articles 41 to 47 • Manpower Act, Indonesia – 2013, Articles 21-30 • Vocational Training Act, Germany – 2005 • Basic Vocational Education and Training Act, Denmark – 2013 • Vocational and Professional Education and Training Ordinance, Switzerland – 2003 • Vocational Training Act, Tunisia – 2008

Regulation across a broader context (e.g. the Labour Code) may cover apprenticeships in some countries. For example, the latest additions to the regulatory framework on apprenticeships in Italy are to be found in sections 41-47 of a general legislative decree on work relationships. Indonesia is a similar case, where regulations on apprenticeships are embedded in sections 21-30 of the 2013 Manpower Act. In the Philippines, apprenticeship training is covered by the Labour Code, which is in the process of being amended so as to encourage employers to participate more fully in national apprenticeship programmes.

In Denmark, Germany and Switzerland, laws refer to TVET in general – but in practice they are primarily devoted to apprenticeships, which are the most prevalent form of TVET in these countries.

Clearly, it is not just a question of having a law – important although that might be – but of implementing the legislation, and many countries have a variety of secondary legislation in the form of decrees, etc. to ensure that the original law is put into effect.

In France, the 2014 Law on Vocational Training, Employment and Social Democracy was complemented by a number of decrees clarifying the terms and conditions of various elements of the Apprenticeship Tax; and in Algeria, the 1981 Apprenticeship Law was complemented by Decree No. 04-65 (2004), which stipulates the participants involved in preparing the training programme; the contents of the training programme; and the nomination of the in-company mentor. In Brazil apprenticeship has been regulated by the Consolidation of Labour Laws, with updates to its laws promulgated in 2000, 2005 and 2008, and secondary legislation – such as the Administrative Rule setting up the National Registry of Vocational Apprenticeship (2012) and the Normative Instruction to regulate the inspection of apprenticeship proposals (2012) (Brazilian Ministry of Labor and Employment, 2013). In Germany, the concerned ministry issues training regulations for each recognized training occupation that prescribes minimum standards for the in-company component of initial vocational education and training.

In India, the Federal Government, in consultation with State governments, employers' and workers' organizations through the Central Apprenticeship Council, established an Apprenticeship Act in 1961, (amended in 2014). In addition, it developed Apprenticeship Rules to guide stakeholders in implementing the Act. The main characteristics of the Act are contained in [box 12](#).

**BOX
12**

12. Main contents of the Apprenticeship Act - India

Governance and management of apprenticeships

- Regulatory Authorities and Apprenticeship Advisers for monitoring the implementation of apprenticeships in accordance with the law;
- Offences and penalties for non-compliance with the law.

Details of apprentices' training

- Qualifications and age for being engaged as an apprentice
- Number of apprentices in an enterprise
- Reservation of training places for vulnerable groups
- Obligations of employers and apprentices
- Financing
- Contract of apprenticeship and conditions for termination of the contract
- Period of apprenticeship training
- Basic training, on-the-job training and related instruction of apprentices
- Hours of work, overtime, leave and holidays
- Health, safety and welfare of apprentices
- Employer's liability for compensation for injury
- Conduct and discipline
- Status of apprentices (trainees and not workers)
- Settlement of disputes
- Holding of test, granting of certificate and conclusion of training
- Reporting by enterprises
- Offer and acceptance of employment after completion of training

Source: The Apprenticeship Act, 1961, and the Apprenticeship (Amendment) Act, 2014, of India.

In addition, the regulation of apprenticeship training is often influenced by the existence of other laws, which relate to other parts of the education and training system – funding, quality assurance and administrative structures. In Ireland the 1967 Industrial Training Act has been complemented by: the 2000 National Training Fund Act, which regulates in part the funding of apprenticeships; the Qualifications and Quality Assurance Act, which established the supervisory body, Quality and Qualifications Ireland (QQI) (responsible for quality assurance); and the 2013 Further Education and Training Act, which set up the new administrative structures for implementing apprenticeships. In Australia, the

basic legislation regulating apprenticeship training is the 2001 Apprenticeship and Traineeship Act, which has been complemented by the 2011 National Vocational Education and Training Regulator Act setting up the Australian Skills Quality Authority. This legislation led to a set of Standards for Registered Training Organisations (RTOs) (2015) and an Australian Apprenticeship Support Network Code of Conduct, which is designed to assist apprentices and employers ‘entering into a Training Contract with a clear understanding of each other’s obligations and expectations’.⁶ In the Dominican Republic, the Labor Code (articles 255 to 257) provides the legal framework for apprenticeships. It stipulates provision of a contract, compensation not less than minimum wages, and a regulatory body to regulate apprenticeships.

The legal provision relating to apprenticeship training may be brief or detailed. An example of a detailed legislative text is the German Vocational Training Act (2005). The Division devoted to initial vocational education and training contains the following sections:

- Recognition of training occupations
- Establishment of the initial training relationship, including the obligations of apprentices, the obligations of training enterprises, remuneration, the beginning and end of the initial training relationship
- Suitability of training premises and training staff
- The register of initial training relationships
- Examinations
- Representation of interests, including further training and retraining
- Vocational training for special groups of persons

In some countries – Australia, Canada, France, Italy, the United Kingdom and the United States – the responsibility for some aspects of TVET, and more specifically apprenticeship training, are devolved to the States, regions or territories. However, there are often agreements at the national level to ensure the mutual recognition of qualifications. In Canada, for example, the provinces and territories manage their own lists of Quality Apprenticeship trades, reflecting their differences in geography, population, industry and economic reality. Despite this, it has been acknowledged that skills certification varies across provinces and territories, and this has led to the setting up of a nationally recognized certification for certain selected occupations – the ‘Interprovincial Standards Red Seal Program’ occupations. These ‘Red Seal’ occupations are managed by the Canadian Council of Directors of Apprenticeship, a coordination body among the federal, provincial and territorial governments (Canadian Apprenticeship Forum, 2017).

In some countries, the regulatory framework, whilst loosely linked to legal provisions, may be determined in a more flexible fashion, and such a case is to be found in the United Kingdom, or more specifically, England. The Government has introduced developments in apprenticeship training on the basis of consultations, reports and reviews – the *Wolf Report* and the *Richard Review*. In its implementation plan for the future of apprenticeships in England, the British Government highlighted a number of recommendations from the *Richard Review*, which formed the basis of its future policy-making as regards apprenticeship training (box 13).

⁶ The Australian Apprenticeship Support Network Code of Conduct is available at: <https://www.australianapprenticeships.gov.au/programs/australian-apprenticeship-support-network-code-conduct> [accessed 28 May 2017].

BOX
13

13. Recent proposals for changes to the regulatory framework in England

In his November 2012 report, Doug Richard made a number of recommendations to make the programme more rigorous and more responsive to employers' needs. These included:

- Redefining Apprenticeships to be targeted only at those who are new to a job or role that requires sustained and substantial training;
- Focusing on the outcome of an Apprenticeship – what the apprentice can do when they complete their training – and freeing up the process by which they get there;
- Ensuring a trusted, independent assessment;
- Having recognised industry standards as the basis of every Apprenticeship and linking to professional registration in sectors where this exists;
- Requiring all apprentices to have reached Level 2 in English and maths before they can complete their Apprenticeship
- Ensuring government funding creates the right incentives for Apprenticeship training, with the purchasing power for investing in Apprenticeship training remaining with the employer
- Greater diversity and innovation in training - with employers and the government safeguarding quality (United Kingdom Government, 2013, p. 6).

6.2.1 Status of apprentice and social security provisions

Apprentices in some countries have the status of employees, which entitles them to certain rights, regarding remuneration and social security coverage. Apprentices are deemed to be employees in countries such as Australia, Canada, the United Kingdom, France, South Africa, the United States, Brazil, Chile, Colombia, Denmark, Ireland, Italy, Luxembourg, the Netherlands and Norway. However, the remuneration, benefits and social security coverage available for apprentices varies considerably. In some cases, apprentices are paid less than the minimum wage.

However in other countries, such as Egypt, India, Sri Lanka and Indonesia, apprentices are not treated as formal employees, even though they may receive a stipend or allowance. In these countries there is either no or limited social security coverage (see for example the case of India in [box 14](#)).

BOX
14

14. Status of apprentices – India

The Apprenticeship Act in India specifies that an apprentice, in general, is a trainee and not a worker. However, when apprentices are undergoing training in a factory or a mine, the relevant provisions of the Factories Act and the Mines Act shall apply in relation to their health, safety and welfare – as if they were workers within the meaning of those Acts. They are entitled to leave and holidays as observed in the enterprise.

If apprentices sustain a personal injury caused by an accident arising out of – or in the course of – their training as an apprentice, their employer shall be liable to pay compensation, which shall be determined and paid in accordance with the provisions of the Workmen's Compensation Act (Pleaders, 2015).

During the Learning Forum on Quality Apprenticeships organised by the ILO in Nairobi in September 2017, all 14 participating countries from Africa informed that apprentices in their countries have the status of ‘trainee’ and not of an employee. In Kenya, however, they are considered as employees.

In this connection, it is important to recognise that the status of the apprentice as employee or otherwise is determined in relation to the national legal code or tradition and thus not directly comparable between countries. So a ‘trainee’ in some countries may have better remuneration and protection than apprentices in other countries even though they may be considered employees under the local law. Nevertheless, the regulatory framework in a country, as stated earlier, should ensure the quality of apprentice training, remuneration, working condition including leave and duration of work, occupational safety and health, compensation against injury at the workplace.

In Latin American and Caribbean (LAC) countries, formal wages for apprenticeship-type programmes are contingent upon whether the programme is targeted to in-school or out-of-school youth. They are also linked to the type of contract that regulates the relationship between the apprentice and the employer. In Mexico, employers do not pay a wage to apprentices who are attending programmes that are fully integrated into the formal education system, as they are legally considered as students and not employees. In other countries, however, apprentices have similar labour rights as other workers, although they are subject to special provisions regarding the number of hours worked, the duration of their “employment” period, holidays, and remuneration. In Brazil, for example, the apprentice has access to social security contributions, unemployment insurance, and to the savings/severance fund (*Fundo de Garantia do Tempo de Serviço – FGTS*), a fund accessible in case of illness, the purchase of a house, or a sudden termination of employment. More details on apprentices’ remuneration is covered in Chapter 8.

Social security provisions

In many countries, young people find themselves without adequate social security coverage. In fact, many of them face difficulties finding formal employment and often have to rely on precarious or informal employment. With limited contributory capacity and unstable jobs, the extension of social security coverage to young people is a key challenge in many countries. National social security systems⁷ usually combine contributory (including social insurance schemes) and non-contributory (tax-financed) schemes, such as universal child benefits or social assistance. While tax-financed benefits play an important role in ensuring a basic level of social protection, social insurance benefits can guarantee higher levels of protection. Elements of social security coverage are discussed below.

Health protection and sickness benefits: Unless there is a national health service in place that ensures effective access to health care for young people, young workers will need health insurance coverage for effective access to health services. Where health insurance coverage is voluntary, many young people will not insure themselves (even where subsidized coverage mechanisms are available), wrongly believing that they will not need health coverage. Apprenticeships can help them overcome this challenge by providing mandatory health protection through social health insurance or other means. In addition, cash sickness benefits are also an important means of ensuring income security during illness.

⁷ The terms “social protection system” and “social security system” can be used interchangeably to refer to a coordinated set of contributory and non-contributory schemes and programmes.

Employment injury, disability and old-age pensions: It is important that young people join a pension scheme at an early stage in their career to guarantee income security in their old age through employment or apprenticeships. In many countries, the benefits level of contributory pensions is largely determined by the contribution history during the working life. As many young people are often involved in precarious employment before they obtain formal employment, they risk receiving only a basic income in old age. In addition, many pension schemes provide not only old-age pensions but also disability, employment injury and survivor benefits. With Quality Apprenticeships, young people can be covered by pensions and disability benefits at an early stage of their careers, enhancing income security and access to health care in retirement.

Unemployment benefits: While first-time jobseekers are usually not covered by statutory unemployment insurance, apprentices with previous contribution records may enjoy statutory coverage by unemployment insurance, which can facilitate their job search. For example, in Germany, after three years of apprenticeship, jobseekers are eligible for a maximum of 12 months of unemployment insurance benefit at 60 per cent of their previous year's salary.

Maternity protection and family benefits: Maternity benefits, as well as child/family benefits, are an important means of social protection for those apprentices with family responsibilities.

The examples of Austria, Germany and Switzerland (see [box 15](#)) show how successful apprenticeship systems are linked to the social security system.

**BOX
15**

15. Mandatory social insurance for apprentices in Austria, Germany and Switzerland

In Austria, Germany and Switzerland, all apprentices are insured under the social insurance system from the first day of their employment, as are all other employees. They enjoy the full range of social insurance coverage, including for health, employment injury, disability, old age, survivorship, maternity, sickness and unemployment. The social insurance contribution is proportional to their wage or salary and is usually shared between the apprentice and his/her employer.

In Austria, apprentices are insured in the case of employment injuries: both apprentices and their employer are exempted from paying contributions.

In Germany, if an apprentice earns less than EUR 325 per month, the employers cover the full social insurance contribution on their own. While other employees need to be insured for five years until eligible for pensions, in the case of employment injury or occupational disease, apprentices will receive benefits from the first day, if necessary.

In Switzerland, apprentices up to the age of 25 years are exempted from contributions to the second-tier old-age pension scheme.

Sources: Swiss Federal Social Insurance Office (BSV), 2016; German Statutory Pension Insurance Scheme (DRV), 2016; and Austrian Social Security (SV), 2016.

6.3 Regulation at sectoral level

The scope and degree of detail of laws on Quality Apprenticeships vary considerably from one country to another. Some countries regulate Quality Apprenticeships in detail at the national and, where appropriate, state or regional level; in other countries, the responsibility is shared - or even delegated to - the social partners and other stakeholders, to decide at the sectoral level.

Mention has already been made in Chapter 5 of the role that ‘knowledge centres’ and ‘sector chambers’ play in setting the rules for apprenticeship training in the Netherlands. There are other examples of sectoral bodies - ‘trade committees’ in Denmark, for instance, and SETAs/SETABs in South Africa – which have a significant influence on regulatory frameworks.

In Denmark approximately 50 ‘trade committees’, which are made up of representatives of the social partners, are responsible for just over 110 apprenticeships. They have a number of regulatory responsibilities, notably:

- Formulating learning objectives and final examination standards, based on the key competences required in the labour market;
- Determining the regulatory framework for individual courses within boundaries set by the legislative framework, in terms of the duration of the programme and the ratio between on-the-job and off-the-job training;
- Providing accrediting for enterprises that want to take on apprentices; and
- Issuing journeyman’s certificates (Cedefop, 2014a, p. 37).

In South Africa, on the basis of the 2008 Sector Skills Development Act, the Sector Education and Training Authorities (SETAs – soon to be known as SETABs – Sector Education and Training Advisory Boards), which are also made up of the social partners and government representatives, have certain responsibilities in terms of apprenticeship training. They are primarily responsible for developing and implementing sectoral skills plans within the framework of the national skills development strategy.

6.4 Regulation at enterprise level

The most significant example of regulation at the enterprise level is the contract signed by an apprentice and an employer, establishing the terms and conditions under which Quality Apprenticeship training takes place. In Fiji, for example, a contract is signed by the apprentice, the employer and the Director of the National Training & Productivity Centre (Fiji National University, 2017).

In Luxembourg, the contract is the subject of the detailed description in the Law on the Reform of Vocational Education and Training (sections 20-40), and the appropriate professional chambers prepare the model contracts. These must be signed by the employer and the apprentice and, where appropriate, by the apprentice’s statutory representatives.

In the United Republic of Tanzania, an apprenticeship contract covers different elements, as presented in [box 16](#).

BOX
16

16. Content of the apprenticeship contract – United Republic of Tanzania

The contract must include:

- Name of the parties entering the agreement
- Applicable law and regulations
- Duration of training
- Training content
- Working/training conditions- wages and allowances, social security coverage, working and training hours, leave entitlements, occupational safety and health
- Roles and responsibilities of the employer, apprentice and education/training institution
- Testing and certification
- Termination of apprenticeship contract
- Probation period
- Dispute settlement
- Confidentiality.

In Morocco, the apprentice and the employer also sign the contract (box 17).

BOX
17

17. Content of the apprenticeship contract – Morocco

The apprenticeship contract includes the following:

- The identity, age and address of the contracting parties
- The field of activity of the host enterprise
- The number of employees in the enterprise
- The number of apprentices trained in the company
- The trade or qualification for which the apprentice will be trained
- The duration of the apprenticeship
- The trial period
- The period during which the apprentice undertakes to remain with the enterprise after the apprenticeship
- The identity of the in-company mentor.⁸

In Australia, the legal framework underpinning an apprenticeship consists of two documents, a training contract and also a training plan. The former is signed between the apprentice and the employer and the latter between the apprentice and the TVET institution, and details about both can be found in [box 18](#).

⁸ Morocco : *Loi No. 12.00 portant institution et organisation de l'apprentissage* (Act concerning the institution and organization of apprenticeship).

BOX
18

18. Training contracts and plans – Australia

What is the training contract?

If you want to do an apprenticeship or traineeship, you will need to sign a training contract. This is a legal contract which shows that you and your employer have come to an agreement. Some of the things you will have agreed upon include:

- the qualification you are working towards
- how long it will take to complete
- the number of hours in training and employment provided each week
- your obligations to each other
- what to do if you have a problem
- the off-job and on-job training arrangements.

A training plan describes the formal off-job training you will do with a training provider as part of your apprenticeship or traineeship.

What is the training plan?

The training plan will include:

- the core and elective units that you will be doing as part of your qualification
- the training provider who will be delivering the training
- whether training will be delivered on-job or off-job, or a mix of both (under some traineeships the training is done wholly on-job)
- where and when the training will occur (*Work Ready, 2017*).

6.5 Quality assurance system

Apprenticeship training takes place in a company and vocational school, although part of the training might also be dispensed in another location. Typically, a majority of time is spent on-the-job training in a workplace, which makes it much more challenging to ensure quality of training compared to a school-based TVET programme.

Quality assurance for apprenticeships occurs at all levels: at the system level, at all training places and processes (training providers) and at the assessment and certification level. It takes the form of standard setting, monitoring the implementation of apprenticeships, assessing and certifying competences acquired by apprentices and evaluating the labour market relevance of training. These issues are elaborated throughout this Guide; this section provides an overview of the quality assurance system. Examples of quality assurance of apprenticeships in Germany and Mexico are given in [box 19](#).

System level

Quality assurance at the system level is carried out by enacting law, policy and regulations that set the standards and norms for apprenticeships, and by establishing a national tripartite institution. The equal participation of the social partners in such institutions, accountability and transparency in operations, and the participation of knowledgeable stakeholders - are all essential elements to ensure quality in the processes of such institutions.

Standard setting

A quality apprenticeship system recommends standards and norms for training by all training pro-

viders, as well as working conditions during on-the-job training at a workplace. Standards are typically prescribed for the:

- Qualification and experience of trainers at the workplace and teachers at the school
- Ratio of trainers and teachers to apprentices
- Duration of the apprenticeship
- Ratio of theory and practical work
- Ratio of on-the-job and off-the-job training
- Training facilities in a company and school
- Accreditation/ registration of companies
- Accreditation/ registration of TVET institutes
- Accreditation of trainers, teachers and assessors
- Pedagogy and training delivery
- Log books for apprentices
- Inspections and monitoring
- Learning outcomes of a qualification
- Assessment and certification

Norms for working conditions may include working hours, holidays and standard social security provisions.

Quality assurance for apprenticeships is generally part of the TVET system in a country, which assigns quality assurance functions to specific institutions. Accordingly, these responsible institutions ensure that all companies, training providers and other institutions adhere by these standards and norms.

Monitoring the implementation of apprenticeships

Quality in apprenticeships is also assured through monitoring the process of training both at a school and the workplace. Competent institutions as per the regulatory framework (for example, chambers in Germany for in-company training, and State government for the training component in school; Central and State Government Directorate of Apprenticeships in India) carry out inspections to observe and check compliance with the standards in each school and company. Labour inspectors also check compliance with labour laws. The use of logbooks or work diaries is also an important instrument in this process.

Assessment and certification

Countries use a variety of assessment methods, including formative and summative methods to check the learning progress and attainments against the learning outcomes of qualifications. A nationally recognized qualification is issued to successful apprentices. Additional information on this matter is contained in Chapter 9.

Evaluation

Tracer studies and feedback from employers and apprentices provide information about the quality and relevance of training. In Australia, a biannual survey of employers is carried out to ascertain whether they use and are satisfied with nationally accredited training, including apprenticeships (Fazio et al. 2016). In the United Kingdom, studies to compare the wage and employment returns of individuals who acquired qualifications from apprenticeships versus other learning routes or leaving education are conducted throughout their lives (Ibid.). Additional information is given in Chapter 9.

Support services

Quality apprenticeship systems have support services to develop the capacity of institutions and per-

sons providing apprentices. These include guidelines/manuals and training programmes for various stakeholders, including: company trainers, mentors and TVET school teachers; learning materials for apprentices; assessment tools for assessors; and good practices case studies.

**BOX
19**

19. Quality assurance of apprenticeships in Germany and Mexico

GERMANY

The Vocational Training Act and training regulations set the legal frame for quality assurance of the in-company part of the training. An essential component is the institutionalized involvement of the social partners. The quality assurance of the school part is the task of the federal states.

Quality assurance at system level

The Vocational Training Act defines the overall objectives of the apprenticeship, sets the frame for the in-company training and regulates the involvement of the social partners. Training regulations establish nationwide minimum standards for each occupation that have to be met by all training companies. They are elaborated together with professional experts nominated by the social partners and have the force of law. The social partners are involved in the governance of the system on all levels following the principle of equal participation.

The amended Vocational Training Act from 2005 explicitly assigns the task to work towards a continuous development of quality in vocational education and training to the Vocational Education and Training Committees of the chambers.

Quality assurance for the in-company training

Quality assurance of the in-company training is set along the legal requirements. Accordingly a training company has:

- to prove its suitability as a training place;
- to elaborate an in-company training plan for each apprentice based on the training regulation of the occupation;
- to employ an in-company trainer with the required personal and pro-

MEXICO

Quality assurance for apprenticeships has been facilitated by its adoption within the formal technical education system and use of competency based training – it is to some extent easier to determine which competencies they can learn at school and which ones they can develop on the job.

Programme delivery

Each apprentice has an individually designed training plan that establishes all of the learning activities that he/she is expected to engage in, alternating between classroom instruction (20 per cent of their time during the apprenticeship period) and work-based learning (80 per cent). Each activity responds to a workplace-specific context and details the academic requirements, job skills, expected learning results, learning settings, and timing in which each of these will be developed. The learning plan involves a rotation to various workstations in different units of the firm, all of which are related to the required curriculum content for the selected area of study or career track followed by the student. In-plant learning is articulated at all times, with the required learning plan established by the educational institution. In some cases, apprentices might need to attend school more regularly for a period of two to three weeks to receive intensive academic training in areas that they might not have the chance to develop while in the firm or to strengthen certain skills that employers might report are still weak.

Assessment

The evaluation process is ongoing. It occurs during classroom and work-based learning. Work-based learning is monitored through the continuous measurement of the attainment of learning objectives and established

fessional qualifications (the latter is proved via an examination at the responsible chamber); and

- to assure that the apprentice keeps a record book.

Those requirements are controlled by the chamber in charge, which also advises the companies on all training issues. The final examination is taken by an independent committee of the chamber involving employer, employee and vocational school representatives.

Many companies have internal quality assurance systems. Besides there exists a range of specific instruments for the quality assurance of the in-company training, e.g. regular self-assessment of the apprentices.

From 2010 on there was a three-year pilot project initiative on “Quality development and assurance in in-company vocational education and training” financed by the Federal Ministry of Education and Research (BMBF). It was aimed especially at small and medium enterprises in order to tackle the question of quality systematically and consistently.

Quality assurance at the vocational schools

The quality assurance of the school part is the task of the federal states. The framework curriculum is usually either directly adopted by the individual federal states or adapted into state-specific curricula for the vocational schools.

Source: Apprenticeship Toolbox, 2017a.

results identified in the rotation plan. For this purpose, there are weekly reports that detail the apprentice’s individual in-firm progress on the basis of the rotation plan. The apprentice is required to submit a weekly report describing all of the activities performed and the learning he/ she has acquired in the process. These reports are validated by the company-assigned trainer and reviewed by the tutor assigned by the school. Once the apprentice has met all of the requirements of his/her learning plan (including school credits) and based on all of the evaluations and reports submitted, the corresponding academic credential is granted (upper secondary technical degree).

Quality assurance

The programme is executed by a technical-pedagogical team that operates in every participating school. The team is led by a manager of outreach relations who is responsible for interacting with participating enterprises and liaising with both school tutors (in charge of supervising student progress on an ongoing basis) and the enterprise trainer (trained to supervise the apprentices’ learning in the workplace). Each firm agrees to implement a quality-assurance process, which aims to track the quality of the student’s in-firm learning process. This process allows one to follow student performance and progress through each workstation or learning activity. The weekly progress reports record and grade student learning and provide the necessary information to document student progress. The key aspect of quality assurance mainly relies on public educational institutions, particularly school tutors. It is their responsibility to ensure that learning plans comply with the requirements of the competency-based curriculum framework; negotiate with firms the exact sequence of rotation plans and verify that the latter provide a developmental path to apprentices; monitor student and firm compliance with the learning and rotation plans; and collect, in collaboration with the firm trainer, weekly reports on the apprentice’s performance.

Source: Fazio et al., 2016.

At the EU level, the network on European Quality Assurance in Vocational Education and Training (EQAVET) has developed web-based guidance on quality assurance in work-based learning. This builds on six key steps: Design, Improve, Respond, Communicate, Train, and Assess.⁹

Quality Apprenticeships systems require a regulatory framework that sets out basic legal and contractual conditions for designing and implementing Quality Apprenticeship programmes – but to be successful, they are contingent upon the support and contribution of numerous stakeholders with a clear understanding of their roles and responsibilities, and this will be examined in Chapter 7.

6.6 Checklist

You may use the following checklist to evaluate the regulatory framework for the apprenticeship system in your country, to decide which elements could potentially be strengthened, and to judge whether your system could be described as a Quality Apprenticeship system.

REGULATORY FRAMEWORK	YES	NO
In your country:		
• Is there a national law that sets out the legal and regulatory framework for apprenticeships?		
• Does the regulatory framework provide a clear outline of the rights, roles and responsibilities of all relevant stakeholders?		
• Does the law provide for the establishment of an oversight or regulatory body whose role is to ensure that all stakeholders comply with the rules governing their roles and responsibilities?		
• Are the social partners (employers' associations and trade unions) represented on the regulatory body?		
• Does the regulatory framework stipulate the standards for the main training and skills development requirements for the successful completion of the apprenticeship?		
• Does the regulatory framework determine the minimum and maximum duration of the apprenticeship?		
• Does the regulatory framework determine the minimum and maximum duration of the on-the-job training and off-the-job training?		
• Does the regulatory framework stipulate that a written contract is signed between the employer and apprentice, or between the employer, apprentice and training institution/chamber/intermediary body?		
• Does the regulatory framework outline the basic apprenticeship-related terms and conditions, including entitlement to:		
• Remuneration?		
• Leave in line with that of other workers?		
• Safety and health measures, and compensation for injury at work?		
• Does the existing regulatory framework set minimum qualifications for TVET teachers and trainers?		
• Upon successful completion of the apprenticeship, does the apprentice obtain a recognized TVET qualification?		
• Does the regulatory framework specify the funding arrangements between government and employers?		
• Does the regulatory framework specify a quality assurance mechanism?		
• Does the regulatory framework define policy measure to promote gender equality and social inclusion in apprenticeships?		

If you have answered “NO” to any of these questions, it might be worth examining ways in which the regulatory framework of the apprenticeship system in your country might be strengthened. The existence of a clear set of regulations underpinning the different elements of an apprenticeship system is a key factor in the success and sustainability of Quality Apprenticeships.

7 Roles and Responsibilities

7.1 Introduction

Many stakeholders are directly or indirectly involved in the design and implementation of Quality Apprenticeship systems and programmes. This broad involvement forges a common understanding and a collective spirit that holds the system together. Indeed, it is precisely this intense and sustained collaboration between these stakeholders that makes Quality Apprenticeship systems successful. Clearly, the reverse is true, when the different stakeholders are unable to work together; this situation is to be avoided at all costs.

The aim of this chapter is to present the key stakeholders involved in Quality Apprenticeships and to describe their roles and responsibilities. It will clarify how stakeholders may be involved and explain how the individual parts of the entire system interact. It is important to note that the descriptions of roles and responsibilities in this chapter are indicative, and thus should not be treated as a rigid model. Institutional settings differ from country to country, and the roles and responsibilities of the key stakeholders also vary. This chapter focuses on the following key stakeholders (figure 5):

- Young people and apprentices
- Enterprises and employers
- Workers' representatives in enterprises
- In-company trainers/supervisors/mentors
- TVET institutions offering Quality Apprenticeship courses
- TVET teachers and trainers
- Local/sectoral coordination support services
- Employers' associations
- Trade unions
- Ministries and public administrations in charge of education and employment

Figure 5: Key stakeholders directly involved in Quality Apprenticeships



7.2 Young people and apprentices

The most obvious key stakeholders, of course, are young people and the apprentices themselves. They need to inform themselves before entering into a Quality Apprenticeship so as to have a better understanding of what it involves, what the alternatives could be, and what is required in terms of activities and commitment. This is particularly important because in some countries there is a relatively high level of non-completion/early termination, which may be explained in part by the mismatch between what the apprentice wants to do and what is offered by an apprenticeship programme.

The stakeholders' main roles and responsibilities are to:

- Gather information about education and training opportunities, as well as potential employment opportunities, so as to take informed decisions over future career choices;
- Understand the aims, strengths and weaknesses of the different training pathways; and
- Understand the obligations expected of apprentices by other stakeholders.

Once they are enrolled, they need to:

- Learn their trade conscientiously and diligently;
- Attend off-the-job and on-the-job training as per schedule;
- Engage fully and take on responsibilities gradually as the training progresses;
- Follow the safety instructions carefully and protect the equipment and facilities of the enterprise and the TVET institution;
- Follow all lawful instructions of supervisors and trainers in the workplace;
- Build up a good working relationship with the in-company mentors, as well as the teachers and trainers in the TVET institution;
- Meet the obligations of apprentices mentioned in the contract;
- Regularly complete assignments and undertake all scheduled assessments; and
- Be aware of employment options after completion of the training.

Public authorities increasingly make a particular effort to bring the responsibilities to the attention of future apprentices, as may be seen in the Irish case in [box 20](#).

BOX 20

20. Apprentices' responsibilities – Ireland

As an apprentice, you have responsibilities just like other workers. You must work with care and skill and follow your employer's instructions, provided they are reasonable and lawful.

You have a duty to be diligent, honest and not wilfully disruptive. You also have to take care of your own health and safety and that of others in the workplace.

Apprentices will need to complete all phases of training and all assessments required by their particular apprenticeship.

Make sure you:

- Are registered by your employer as an apprentice within two weeks of being recruited
- Attend your off-the-job training when it is scheduled
- Complete any outstanding off-the-job training assessments
- Return your on-the-job phase results on time
- Know about and comply with your obligations under the Apprenticeship code of practice.

Source:

<http://www.apprenticeship.ie/Documents/ApprenticeshipCodeOfPractice.pdf> accessed 28 February 2017.

7.3 Enterprises and employers

Individual enterprises and employers have a key role to play. If they do not see the benefits of apprenticeship training and do not want to recruit apprentices, then there is no apprenticeship system.

Enterprises that take on apprentices typically have to be approved as ‘training and learning venues’ to ensure that they comply with specific standards pertaining to training provisions and working conditions. In some countries, enterprises – particularly micro- and some small- and medium-sized enterprises – may be unable to provide opportunities for training in line with the required learning outcomes; consequently, they join together to offer an apprentice a place or train an apprentice employed by a “group training organization, which is responsible for rotating their apprentices between different workplaces.

The main roles and responsibilities of enterprises and employers are to:

- Recruit and train apprentices to fill current or anticipated vacancies and to bring young people with fresh ideas and modern practices into the workplace;
- Train apprentices in the interests of society, as Quality Apprenticeships add to the supply of skilled workers who are available throughout the labour market;
- Conclude a Quality Apprenticeship contract with each apprentice using an established template;
- Pay apprentices the salary or remuneration according to the standards set, and provide for full social security coverage;
- Appoint an appropriate in-company mentor/trainer/supervisor to accompany the progress of the apprentice and provide the necessary budget, working time and degree of autonomy for him/her to carry out this role;
- Comply with all applicable occupational safety and health regulations;
- Provide on-the-job training in line with the training programme agreed with other Quality Apprenticeship partners, and liaise with them to monitor and evaluate the apprentice’s progress;
- Release the apprentice from work and pay the remuneration to attend any off-the-job training, including assessment as provided for in the training plan;
- Respect the regulations for young people at work (e.g. no night shifts, no overtime work), if the apprentices are underage as defined by the Labour Code;
- Ensure that apprentices are protected against different forms of abuse and harassment; and
- Provide a certain portion of apprenticeship places for young people with learning difficulties, disabilities and other limitations, and take the necessary measures to accommodate their needs.

In their campaigns to attract employers to participate in apprenticeship training programmes, the public authorities often spell out what the role and responsibilities of employers are, as may be seen in [box 21](#), in the case of the State of Queensland in Australia.

BOX
21

21. Employers' responsibilities – Queensland, Australia

During the apprenticeship or traineeship the employer must:

- Deliver training as negotiated in the training plan;
- Provide, or arrange to provide, the facilities and range of work as specified in the training plan, ensuring the apprentice or trainee is adequately supervised by a qualified person;
- Pay the wages and provide the entitlements specified in the relevant industrial relations instrument;
- Release the apprentice or trainee from work and pay the appropriate wages to attend any off-the-job training, including assessment as provided for in the training plan;
- Discharge all lawful obligations of an employer, including those relating to workplace health and safety;
- At reasonable intervals of not more than three months, update the training record; and
- Negotiate a training plan within 28 days where the current training plan has ended due to change of training organisation or transfer of training contract (Queensland Government, 2015).

7.4 Workers' representatives in enterprises

Workers' representatives in enterprises are responsible for:

- Representing the interests of apprentices in the running of the Quality Apprenticeship systems at the enterprise level and, in particular, ensuring appropriate working and training conditions (e.g. with regard to occupational safety and health, wages and allowances and working hours) for apprentices;
- Preventing exploitative practices under the guise of training; and
- Providing apprentices with advice for training activities, in those enterprises that have Union Learning Representatives (ULRs) and/or works councillors.

As presented by the Advisory, Conciliation and Arbitration Service, Union learning representatives (ULRs) in the United Kingdom may have a significant role to play, particularly in terms of policy implementation (box 22).

BOX
22

22. Union learning representatives: What do they do? – United Kingdom

ULRs are the driving force behind union learning and are instrumental in helping to identify and deliver learning opportunities for union members, representatives and other professionals. They raise awareness of the value of lifelong learning, particularly for people who have had limited access to education in the past.

The role doesn't end with recruiting new members, and getting them involved in union learning or pairing them up with potential education providers. ULRs also support them throughout their learning programme, and represent them or negotiate on their behalf on all manner of learning issues.

ULRs are recognised as union representatives and have the same statutory rights as other union reps. They are allowed reasonable time off to train and perform their duties, and have protection against unfair dismissal on grounds of their ULR work (ACAS, 2013).

7.5 In-company mentors/trainers/supervisors

In-company mentors/trainers/supervisors are directly responsible for interacting with apprentices, imparting practical training, and introducing them into the work during the on-the-job part of the training.

Their main roles and responsibilities are to:

- Ensure that the apprentices work and learn in the occupation as specified in the contract;
- Plan, organize and implement the Quality Apprenticeship training in the enterprise;
- Monitor, assess and record the progress of the apprentices' skills acquisition;
- Act as the focal point for the Quality Apprenticeship programme, coordinate with other sections and workers in the enterprise, as well as with external partners involved in the training process (e.g. TVET institution, public authorities for education and employment);
- Prevent and resolve conflicts by mutual agreement, and if this is not possible, follow the predetermined conflict settlement procedures (e.g. in-company staff regulations, collective agreements, Labour Code);
- Provide special care for apprentices with learning difficulties, disabilities and other limitations; and
- Ensure safety and security at work for apprentices.

An example of the suggested role of in-company mentors/ trainers/ supervisors from Tunisia is given in [box 23](#).

BOX
23**23. Role of in-company mentors/trainers/supervisors – Tunisia****How to organize in-company training – Practical information sheet****Welcome**

The first day is very important for integrating the apprentices successfully. It is a matter of getting to know them, ascertaining what they have learned previously, and asking them what they already know about the company and its processes so as to adapt any explanations to their appropriate level of knowledge; it also involves showing them the company and introducing them to colleagues, presenting the workstation, work expectations and the general working conditions.

Training

Provide training to apprentices as per the established training agreement path and the position to be assigned to the apprentices. Raise awareness of regulatory and safety issues, the values associated with the profession and behaviour in the workplace. Train the apprentices in the use of company software.

Guidance

Appreciate the work carried out; the apprentices need to know if what they are doing corresponds to what is expected. For this, it is necessary to assess positively what is done well by the apprentices and to encourage them - whilst making them aware of any shortcomings. Advise the apprentices on behaviour. If difficulties arise, it is necessary to discuss them immediately and understand the causes.

Conduct regular follow-up discussions to go over with the apprentices what needs to be done on a weekly basis. Ensure that the tasks are related to the established training plan, take stock of the skills acquired, deal with possible behavioural problems, and deal with potential problems of skills acquisition. Develop the tools required to carry out the training plan. Communicate regularly with the TVET institution (via the apprentice's manual and the mentors/trainers/supervisor's manual).

Evaluation

Propose a form of evaluation progressively, based on the guide to assessing professional behaviour. Define with the apprentices the behaviour that will be evaluated and ask them to undertake a self-assessment, then compare and explain the results. Make an assessment at the end and compile the evaluation documents. Assess the achievements in the light of objectives initially set. Comment on the results obtained by the apprentices. Participate in assessments with the TVET institution (European Training Foundation (ETF) and Tunisian Ministry of Vocational Training and Employment, 2017).

7.6 TVET institutions offering off-the-job training

TVET institutions have a series of roles and responsibilities, notably:

- Implementing the institution-based learning components of the Quality Apprenticeship programme;
- Contributing to the design and development of apprenticeship training programmes;
- Supporting partner enterprises in establishing an effective in-company training plan, following the overall objectives of the apprenticeship programme;
- Building the capacity of teachers and trainers responsible for the delivery and assessment of apprentices; and
- Nominating a TVET teacher or trainer as the focal point for coordination with external partners.

These roles and responsibilities may be stipulated in law or by the TVET regulatory framework, which sets the quality requirements for training organizations delivering specific qualifications. In the case of Switzerland these roles and responsibilities are covered by law, in section 21 of the Swiss Vocational and Professional Education and Training Act (VPETA) of 13 December 2002 (box 24).

BOX 24

24. Article 21 of the Vocational and Professional Education and Training Act – Switzerland

TVET institutions shall be responsible for the classroom instruction segment of TVET programmes, which covers both vocational and general subjects.

TVET institutions shall have an independent education mandate to do the following:

- Help learners to develop their personal and social skills as they attend lessons on vocational and general subjects;
- Help learners to develop their particular talents and offer special courses that take account of the needs of both specially talented persons and persons with learning difficulties; and
- Design TVET programmes in such a way as to promote true gender equality and discourage discrimination against people with disabilities.

Attendance of TVET institution courses is mandatory.

TVET institutions may organize both initial and continuing job-related VET courses. TVET institutions may work with professional associations and enterprises to organize courses for groups of enterprises and other training providers.

TVET institutions may coordinate activities to enable various TVET stakeholders to work together (Swiss Confederation, 2017).

7.7 TVET teachers and trainers

TVET teachers and trainers take on the following roles and responsibilities:

- Planning, organizing and delivering off-the-job training in TVET institutions within the framework of the overall apprenticeship programme;
- Interacting with their counterparts in partner enterprises in order to ensure optimal coordination between the off-the-job and on-the-job elements of the training programme;
- Monitoring the learning progress and skills development of apprentices on a regular basis;
- Updating their knowledge, skills and competence in their own professional field and adapting their training methods on a regular basis;
- Taking on work experience in partner enterprises in order to update their understanding of the skills requirements of the different occupations and to experience personally the learning environment of apprentices in enterprises; and
- Providing special care for apprentices with learning difficulties, disabilities and other limitations.

In order to carry out these roles and responsibilities TVET teachers and trainers will need to be well qualified – and, in the case of licensed occupations linked to apprenticeships, hold the necessary professional certifications. [Box 25](#) gives an indication of the qualifications that are required in one particular country, Austria.

BOX 25

25. Qualifications for teachers and trainers in VET institutions – Austria

Part-time vocational school teachers are trained in a three-year bachelor course at university institutions of education. The first and third year of the study are completed on a part-time basis; the second is a full-time study year. Graduates are awarded the academic degree Bachelor of Education (BEd).

Greatly simplified, the following three groups of part-time vocational institution teachers can be distinguished:

- Group 1: Teachers of general education subjects and teachers of business administration
- Group 2: Teachers of occupation-related theory
- Group 3: Teachers of occupation-related practice

The prerequisite for obtaining the teaching diploma for part-time vocational institutions in Groups 1 and 2 is the certificate of secondary education and VET diploma which grants access to tertiary education from a specialist VET institution, the upper secondary school-leaving certificate or the certificate providing general access to higher education (HE) for skilled workers and graduates of three- to four-year full-time VET institutions and relevant training.

For Group 3 it is necessary to furnish proof of a relevant master craftsperson certificate or an equivalent relevant qualification as well as the general university entrance qualification. In addition, as well as personal aptitude, at least three years' relevant professional practice is required for admission to HE study programmes (Tritscher-Archan, 2015, p. 28).

7.8 Local/sectoral coordination support services

Chambers of commerce and industry, chambers of crafts and professional associations (e.g. of lawyers, architects, or electricians) may provide local/sectoral coordination support services.

On the other hand, these services might be provided by group training organizations (GTOs), which directly employ apprentices, manage their training, support their needs and hire them out to employers – particularly SMEs that may not be able to provide a full training programme for their apprentices.

Whilst the roles and responsibilities will vary considerably according to institutional arrangements, the main roles and responsibilities may include:

- Facilitating cooperation between enterprises and TVET institutions;
- Providing templates of cooperation agreements between enterprises and TVET institutions and templates of apprenticeship contracts;
- Coordinating the stakeholders involved in Quality Apprenticeships;
- Establishing and maintaining close relations with the regional administration in charge of supervising TVET institutions and with the body in charge of assessment and certification;
- Encouraging and facilitating improvements in the quality of Quality Apprenticeship training in enterprises and TVET institutions;
- Steering the Quality Apprenticeship scheme through the different phases, from design and pilot implementation to the ongoing organization of Quality Apprenticeship training by the regional and local partners;
- Promoting apprenticeships and supporting SMEs so that they can participate in apprenticeship schemes; and
- Ensuring that courses are in place for the selected occupations, and that each participating enterprise and TVET institution agree upon their training plans.

In Germany, this role is carried out by a ‘competent body’, a legally defined expression for the organizations that support and monitor the provision of in-company training (box 26), and in Australia, this role is taken on by GTOs (box 27).

BOX
26

26. Coordinating bodies – ‘Competent bodies’ – Germany

The state has transferred the task of monitoring the in-company training to the ‘competent bodies’, which are listed in the Vocational Education and Training Act (2005). The Chambers of Commerce and Trade and the Chambers of Skilled Crafts supervise the majority of dual training carried out in Germany.

According to the Vocational Training Act, the competent bodies have the following tasks:

- Supervising vocational training preparation, vocational training and retraining;
- Maintaining the directory of apprenticeships (in the skilled crafts, this is the ‘Apprentices’ Register’);
- Employing training counsellors that advise the enterprises on all training issues
- Running a register of trained training staff, organizing the aptitude assessment of the training staff;
- Assessing the quality of the training facility;
- Conducting the intermediate and final examinations or journeyman examination; and
- Monitoring and supporting the mobility period abroad of apprentices and learners (Apprenticeship Toolbox, 2017b).

BOX
27

27. Group Training Organizations – Australia

Group Training refers to an arrangement where Group Training Organisations (GTOs) employ apprentices and trainees and place them with host employers. GTOs undertake employer responsibilities, which include:

- Selecting and recruiting apprentices and trainees;
- Undertaking the employer responsibilities including wages, allowances, superannuation, workers compensation, sick/holiday pay and other employment benefits;
- Managing the quality and continuity of training, both on and off the job; and
- Providing the additional care and ongoing support necessary for the apprentice to successfully complete the Apprenticeship/Traineeship Training Contract (Australian Government, 2017a).

7.9 Trade unions

Trade unions, either at the national intersectoral or sectoral level, also play a significant role in the development and implementation of Quality Apprenticeship systems.

They have the following roles and responsibilities:

- Engaging in social dialogue and actively participating in policy-making regarding Quality Apprenticeships, particularly at the sectoral level within sectoral skills councils;
- Building confidence and trust among stakeholders;
- Where appropriate, incorporating Quality Apprenticeships into the agenda of collective bargaining and collective agreements; and
- Supporting the design, implementation, monitoring and evaluation of Quality Apprenticeship programmes - including the development of competency and qualification standards – and participating in the assessment of competences.

7.10 Employers' associations

Employers' associations, either in the form of inter-sectoral confederations or sectoral organizations, play a leading role in the development and implementation of Quality Apprenticeship training systems.

They have the following roles and responsibilities:

- Engaging in social dialogue and actively participating in policy-making regarding Quality Apprenticeships, particularly at the sectoral level through sector skills councils;
- Building confidence and trust among stakeholders;
- Providing advice to policy-makers and assisting member enterprises;
- Informing and encouraging enterprises to offer Quality Apprenticeship positions;
- Where appropriate, incorporating Quality Apprenticeships into the agenda of collective bargaining and collective agreements;
- Supporting the design, implementation, monitoring and evaluation of Quality Apprenticeship programmes;
- Contributing to the development of occupational competency and qualification standards;
- Participating in assessment certification procedures; and
- Providing training for enterprises so that they can deliver quality on-the-job training.

Employers' associations and trade unions come together in many countries, often in the context of sector skills councils, as mentioned in Chapters 5 and 9. In France 'consultative professional committees', which are composed of representatives of employers' associations, trade unions and the public authorities, have an important role to play within each sector ([box 28](#)).

BOX
28

28. Advisory Professional Committees - France

'Advisory professional committees' advise on:

- Qualification needs in the light of the development of occupations
- The content of vocational qualifications
- The positioning of National Education Qualifications in vocational qualifications frameworks.

Their role provides for the registration of vocational qualifications within the National Register of Professional Qualifications (RNCP).

There are 14 advisory vocational committees, organized by major professional sectors. Each has 40 members in four institutions: employers' associations; trade unions, public authorities and qualified personalities. A representative of the employers' associations and a representative of the trade unions take it in turns to assume the presidency and the vice-chairmanship of each committee (Eduscol, 2012).

7.11 Ministries and public agencies responsible for vocational education and training and employment

It goes without saying that Ministries, whether of Education or Labour or Social Affairs, depending upon national circumstances, have particularly important roles and responsibilities. These include:

- Formulating and adopting a national strategy to promote Quality Apprenticeships in collaboration with the social partners – employers' associations and trade unions - and other stakeholders;
- Incorporating Quality Apprenticeships into the national development plan and/or the national employment policy, where appropriate;
- Promoting social dialogue on Quality Apprenticeships by means of a formal coordination mechanism;
- Developing and implementing an appropriate legal and regulatory framework, in consultation with the social partners;
- Supervising the implementation of agreed arrangements for funding Quality Apprenticeship training, for example via the collection of levies on the one hand, and the disbursement of subsidies and incentives on the other;
- Supervising the implementation of the accreditation of TVET institutions and programmes based on the established quality standards and of the administration of public and private TVET institutions;
- Supervising the implementation of programmes for training TVET teachers and trainers;
- Engaging in promoting apprenticeship training; and
- Monitoring and evaluating the different apprenticeship programmes.

Governments may decide to delegate some of these responsibilities to national agencies, like SOLAS in Ireland (SOLAS. 2015), the National Apprentice and Industrial Training Authority in Sri Lanka (NAITA,

2017), and the National Council on Vocational Training in India (Government of India, 2017b) – and the Federal Institute for Vocational Education and Training (BIBB), which is presented in [box 29](#).

**BOX
29**

29. Ministries and public agencies responsible for vocational education and training and employment – Federal Institute for Vocational Education and Training – Germany

One of BIBB’s fundamental tasks is to “take part in the drafting of vocational training regulations and other ordinances” in accordance with the instructions of the responsible Federal Ministry (Section 90.3.1 of the VET Act). Research into vocational training establishes the prerequisites for designing, revising and adapting training regulations to keep pace with economic, technological and societal change. An agreement reached between the Federal and Regional (*Länder*) governments in 1972 lays down the procedure for coordinating vocational training regulations and framework curricula, as will be presented in greater detail in Chapter 9.

In addition to these tasks, the Federal Institute for Vocational Education and Training also:

- Helps to prepare the annual Report on Vocational Education and Training issued by the Federal Ministry of Education and Research;
- Helps to compile VET statistics issued by the Federal Statistical Office;
- Supports and funds pilot projects, including support studies;
- Takes part in international collaborative activities in the field of TVET;
- Assumes on behalf of the Federal Government additional administrative tasks aimed at advancing TVET;
- Supports inter-company training centres and provides assistance in the planning, establishment and ongoing development of these facilities;
- Maintains the official register of recognised occupations that require formal vocational training; and
- Carries out the tasks described in the Law on the Protection of Participants in Distance Learning and helps improve the quality and increase the amount of vocational distance learning on offer by supporting and funding development projects

Source: Federal Institute for Vocational Education and Training. 2011, p. 18.

As has been seen, there are many stakeholders involved in the design and implementation of a Quality Apprenticeship training policy – and their role is essential to ensure that Quality Apprenticeship training corresponds to the needs of apprentices, employers and the state. In addition, families and communities influence young people’s perception of apprenticeships, and have the potential to influence government and enterprises in offering Quality Apprenticeships. Bringing these various stakeholders together in the different consultative bodies is a major challenge, but nevertheless important to ensure that the system enjoys their support – as well as that of the different beneficiaries who are called upon to provide funding (the subject of Chapter 8).

7.12 Checklist

You may use the following checklist to evaluate the roles and responsibilities of stakeholders in your country's apprenticeship system to decide which elements could potentially be strengthened, and to judge whether your system could be described as a Quality Apprenticeship system.

ROLES AND RESPONSIBILITIES OF KEY STAKEHOLDERS	YES	NO
In your country:		
Are the following stakeholders involved in the design of apprenticeships?		
• Young people and apprentices		
• Enterprises that train apprentices		
• Workers' representatives in enterprises		
• In-company mentors/trainer/supervisors		
• TVET institutions offering off-the-job training		
• TVET teachers and trainers		
• Local/sectoral coordination support services		
• Trade unions		
• Employers' associations		
• Ministries and public administrations in charge of Technical Vocational Education and Training and employment		
Are the following stakeholders involved in the implementation of apprenticeships?		
• Young people and apprentices		
• Enterprises that train apprentices		
• Workers' representatives in enterprises		
• In-company mentors/trainer/supervisors		
• TVET institutions offering off-the-job training		
• TVET teachers and trainers		
• Local/sectoral coordination support services		
• Trade unions		
• Employers' associations		
• Ministries and public administrations in charge of Technical Vocational Education and Training and employment		
Are the roles and responsibilities of the following stakeholders clearly defined?		
• Young people and apprentices		
• Enterprises that train apprentices		
• Workers' representatives in enterprises		
• In-company mentors/trainer/supervisors		
• TVET institutions offering off-the-job training		
• TVET teachers and trainers		
• Local/sectoral coordination support services		
• Trade unions		
• Employers' associations		
• Ministries and public administrations in charge of Technical Vocational Education and Training and employment		

If you have answered “NO” to any of these questions, it might be worth examining ways in which the role and responsibilities of the key stakeholders in your country’s apprenticeship system might be clarified. The mutual understanding of clear roles and responsibilities within an apprenticeship system is a key factor in the success and sustainability of Quality Apprenticeships.

8 Funding arrangements

8.1 Introduction

Establishing an optimal and equitable funding arrangement is a core aspect of designing Quality Apprenticeship systems. Who shares the financial burden, and how can a fair distribution of costs among the relevant stakeholders be determined? In considering the financial model, it is clearly important to consider the costs and benefits of Quality Apprenticeships, and how they accrue to apprentices, employers and governments alike.

The aim of this chapter is to outline the costs and benefits of Quality Apprenticeship training, which will inform subsequent discussions and negotiations on funding arrangements. Linked to the matter of funding arrangements is the issue of incentives for employers and apprentices to promote their participation in apprenticeships. Depending on the socio-economic context surrounding skills development and desired policy outcomes, governments may provide financial incentives to promote the participation of employers in Quality Apprenticeship programmes. They may also provide stipends and additional support to vulnerable groups, women and disabled persons. Incentives may be financed by taxpayers (i.e. public expenditure to support Quality Apprenticeships), and/or by employers (i.e. via a grant from a fund set up on the basis of an employers' levy) and distributed to apprentices and/or employers who train apprentices.

Cost distributions arrangements vary, but the most commonly observed pattern of cost distribution is the following:

- Employers bear the costs of on-the-job training, wages/allowances and social security contributions
- Apprentices receive lower remuneration/ allowance than skilled workers
- Governments finance off-the-job training in TVET institutions, the administration of the scheme and incentives for employers, where they exist.

8.2 Cost-benefit structure of Quality Apprenticeships

Costs and benefits – both financial and non-financial – of Quality Apprenticeships are different for each stakeholder - enterprises, apprentices and governments. Clearly, a number of costs and benefit factors are applicable in some countries, but not in others, depending upon the type of apprenticeship system in place. Moreover, it is also important, although difficult, to view the benefits and costs of Quality Apprenticeships over a broader time period – not just throughout the duration of the Quality Apprenticeship itself, because the positive impacts of training materialize in the short term, but predominantly in the long-run. In addition, there are also non-financial and latent benefits and costs, which are similarly hard to quantify.

Table 5 summarizes the costs and benefits of Quality Apprenticeships for enterprises and employers, apprentices themselves, and the public authorities, for the duration of the apprenticeship and the period following it.

TABLE
5

5. Summary of costs and benefits of Quality Apprenticeships, by stakeholder

		COSTS	BENEFITS
ENTERPRISES	During the Quality Apprenticeship	<ul style="list-style-type: none"> • Wage/ stipend • Social security contributions • Time for in-company mentors • Costs for training materials, space, equipment • Costs for recruitment and administration 	<ul style="list-style-type: none"> • Contribution to the production of goods and services • Subsidies and incentives • Payments from training funds • <i>Improvements in reputation, through participation in apprenticeship training</i>
	After the Quality Apprenticeship*		<ul style="list-style-type: none"> • Savings in recruitment and initial training costs • Higher productivity and quality • More loyal workforce • Savings from reduced labour turnover • Innovation • Wage stability
APPRENTICES	During the Quality Apprenticeship	<ul style="list-style-type: none"> • <i>Opportunity cost of working in an unskilled job</i> 	<ul style="list-style-type: none"> • Wage / stipend • Social security coverage • No fees to be paid for learning to acquire a qualification • Higher quality and relevance of training compared to school-based training
	After the Quality Apprenticeship*		<ul style="list-style-type: none"> • Enhanced employability • Higher wages • <i>Enhanced job satisfaction</i>
GOVERNMENT	During the Quality Apprenticeship	<ul style="list-style-type: none"> • Subsidies and incentives • Costs for providing off-the-job training in a public institute • Cost for regulatory body 	<ul style="list-style-type: none"> • Governments are responsible** for education and pre-employment training of youth. They make a significant cost saving from apprenticeships compared to investing in school-based TVET • Tax revenue from apprentices • <i>Savings on employment programmes (e.g. active labour market programmes) and benefits for unemployed people</i>
	After the Quality Apprenticeship*		<ul style="list-style-type: none"> • Higher tax revenue • <i>Savings on employment programmes (e.g. active labour market programmes) and benefits for unemployed people</i>

Note: *Italicised items represent non-monetary or latent costs or benefits.*

Source. ILO.

* When the employers recruit apprentices after completion of training as employees.

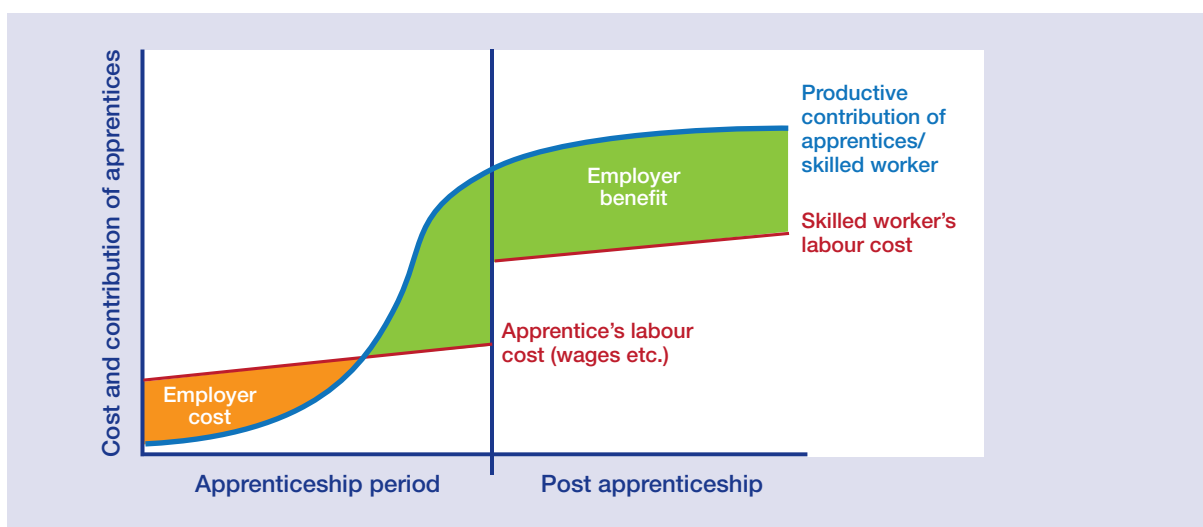
** The ILO Human Resources Development Recommendation, 2004 (No. 195).

Quality Apprenticeship programmes vary in many aspects (e.g. duration, proportion of on-the-job and off-the-job training, technical complexity, the extent to which apprentices engage in the production process or the provision of services, geographical location), and as such their costs and benefits need to be considered on a case-by-case basis. Nevertheless, numerous studies, admittedly based on a restricted number of countries, demonstrate that they result in positive returns to apprentices, employers and governments.

8.2.1 Enterprises

Generally speaking, in the early stages of a Quality Apprenticeship, there is a net cost to enterprises because the initial expenditure of training (e.g. wages/ allowance, social security contributions, time for in-company mentors, training materials, etc.) outweighs the initial contribution of apprentices to the production of goods and services. As apprentices learn skills and become more productive, however, the costs and benefits start to even out, and employers recover the initial investment in training, as may be seen from a stylized cost-benefit analysis during and after a Quality Apprenticeship programme shown in figure 6. Some employers have positive returns within the apprenticeship period, while others only see their investment pay off after accounting for reduced turnover, recruitment and initial training costs.

Figure 6: Cost and benefit of Quality Apprenticeships to enterprises



Source: Lerman. 2014b, p. 1.

The most extensive recent studies of the costs and benefits of apprenticeship programmes have focused on German and Swiss enterprises and provide quite divergent results for the two countries. As may be seen from table 6, gross costs in Switzerland are higher, but enterprises on average obtain significantly higher benefits when training apprentices, and this turns into a net benefit of 2,739 Euros per apprentice over a three-year period. In Germany, on the other hand, enterprises have lower gross costs, but significantly lower benefits - and this results in a substantial net cost of 22,584 Euros per apprentice over a three-year period. Moreover, 60 per cent of all training enterprises in Switzerland achieve positive net benefits, while in Germany 93 per cent of training enterprises incur net costs. This difference can be explained by a combination of three considerations: the relative pay of apprentices, which is higher in Germany than in Switzerland; the differences in the tasks when on-the-job, as Swiss apprentices do more productive work (83 per cent compared to 57 per cent for German apprentices); and the amount of time apprentices spend on-the-job, which is higher in Switzerland than in Germany (Wolter and Ryan, 2011). Over a period of three years, Swiss apprentices are at work for an average of 468 days compared to 415 in the case of German apprentices), and they spend only 13-21 per cent of their time having no direct value to the company compared with 31-57 per cent of German ones (Lerman, 2014b).

TABLE
66. Net cost to the firm of training an apprentice (three-year programme)
in Germany and Switzerland (in Euros for year 2000)

	GROSS COSTS	BENEFITS	NET COSTS
GERMANY	46,608	24,024	22,584
SWITZERLAND	54,393	57,132	-2,739

Source: Wolter and Ryan, 2011.

According to another study of apprenticeships covering a sample of 100 German firms, the majority of enterprises recover their investment during the training period. However, the net costs differ widely, some firms gaining more than 10,000 Euros and others experiencing net costs. It was also found that the net costs are inversely related to the quality of the apprenticeship: the higher the quality of training, the higher the probability of recovering costs during the training period (Rauner et al., 2011).

A study of four-year apprenticeships in Canada estimated that the average gross costs ranged from about C\$78,000 for cooks to C\$275,000 for construction electricians, while the average revenue generated by the apprentices ranged from C\$120,000 for cooks to C\$338,000 for construction electricians. This means that employers earned a positive return on their apprenticeship investments during the training period: the average benefit was 1.38 times the average cost (Canadian Apprenticeship Forum, 2006).

Another study, this time relating to a developing country – India - examines the costs and benefits of short- and long-term formal apprenticeships, as defined by the Indian Apprentices Act 1961, in a limited number of case studies in the light and heavy manufacturing sector and retail and hotel industry. The study concludes that ‘the cases re-affirm that apprenticeships create more benefits than costs; investments are in fact recovered during the apprenticeship period or immediately within the first year itself when apprentices are retained’ (ILO, 2014b, p. viii).

A recent comparative study published by a consortium representing European employers’ associations, *The cost-effectiveness of apprenticeship schemes – Making the business case for apprenticeships*, came up with the following key messages:

- In well-functioning apprenticeship systems, enterprises recoup their investments over time in terms of a better skills fit and through the partial productive activation of learners during training. If apprentices are then hired into regular employment, additional payback comes in terms of immediate productivity upon graduation, fostering of enterprise culture, and higher employee loyalty, therefore making apprenticeships an effective means of recruitment.
- The return on the enterprise’s investment in apprenticeships will be reached earlier when schemes are demand-driven and when employers can select the candidates, contribute to curriculum design, and deliver parts of the training. For SMEs, notably micro-enterprises, the cost/effectiveness of apprenticeship schemes depends on additional factors such as duration of the scheme and time spent in the enterprise; retention of apprentices or support in administrative management (Business Europe, 2016, p.3).

These studies refer to countries that already have existing apprenticeship systems. Often employers in countries with little or no experience of apprenticeship training are reluctant to embark on such devel-

opments because the net costs are unknown and/or incalculable. A detailed study commissioned by the Bertelsmann Foundation provides a response for one country – Spain - a country with very little experience of apprenticeship training. The study develops three models: one that is close to the Swiss model transposed to Spain lasting three years (Model 1); one that is close to the existing Spanish model lasting two years (Model 2); and an extension of Model 2 lasting three years (Model 3). It applies them to ten different occupations in six sectors of the Spanish economy and, in addition, includes two different wage variables, 300 Euros per month and 530 Euros per month. The results show that training programmes in all occupations are capable of generating net benefits to employers before the end of a training period, and that key variables are the level of the apprentice's wage, the length of the apprenticeship and the size of the enterprise (Walter and Mühlemann, 2015, pp.74-75).

8.2.2 Apprentices

The most important benefit of Quality Apprenticeships for apprentices is to be found in better employment opportunities and career prospects, thanks to the relevant knowledge, skills and competence acquired. In financial terms, apprentices receive some wages/allowances even during training, whereas young people who join TVET institutions and/or universities may pay fees.

Table 7 presents some of the benefits that apprentices may obtain in eight different countries – Australia, Austria, Denmark, England (United Kingdom), Germany, Netherlands, Norway and Switzerland. In all countries, they receive a wage during the on-the-job period, and, with the exception of Australia and Norway, a wage for the off-the-job period. The apprentice wage is 50 per cent of a skilled worker's wage in Austria; 30-70 per cent in Denmark; 63 per cent in England (on the basis of the metalworking industry); 25-33 per cent in Germany, 30-80 per cent in Norway and 20 per cent in Switzerland, depending upon the year of the programme. The enterprise covers the social security costs of apprentices in Austria, Germany, Netherlands, Norway and Switzerland.

TABLE
7

7. How apprentices' wages and social security contributions differ across countries

COUNTRY	Do apprentices receive a wage during the on-the-job period?	Do apprentices receive a wage during the off-the-job period?	What is the apprentice's wage compared to the skilled worker's wage?	Who defines the minimum apprentice wage?	Do employers pay social security contributions for an apprentice?
AUSTRALIA	Yes	No	-	Depending on the programme, the wage is defined by sectors at national and regional levels. In some cases it is up to individual enterprises	-
AUSTRIA	Yes	Yes	On average 50% of the skilled worker wage	Sectors at regional level	Yes, but the state covers parts of the insurance costs
DENMARK	Yes	Yes	30-70% of the skilled worker wage, depending on the year of the programme	Sectors	No
ENGLAND (UK)	Yes	Yes	On average 63% of the skilled worker wage (metalworking industry)	Individual company according to the national regulations	No (for apprentices under the age of 25)
GERMANY	Yes	Yes	25-33% of the skilled worker wage, depending on the year of the programme	Sectors at regional level	Yes
NETHERLANDS	Yes	Yes	-	Sectors	Yes
NORWAY	Yes	No	30-80% of the skilled worker wage, depending on the year of the programme	Sectors at national level	Yes
SWITZERLAND	Yes	Yes	On average 20% of the skilled worker wage, depending on the year of the programme	Individual company but employer/professional associations provide recommendations. As a result apprentice wage varies by sector.	Yes

Source: Kuczera, 2017, pp. 27-28.

In other countries – in France for example – apprentices are paid a proportion of the statutory minimum wage, which is also contingent upon age and progress within the apprenticeship. As of January 2017, the apprenticeship wage varied considerably from 370.07 Euros in the first year for under 18 year-olds to 1,154.61 Euros in the third year for those aged over 21 years (table 8).

TABLE 8 8. Minimum monthly pay rates for apprentices (% of the minimum wage in Euros) – France

(as of 1.1.2017)	UNDER 18	AGE 18-20	OVER 21
First year	25%	41%	53%
Second year	37% – €547.70	49% – €725.33	61% – €902.96
Third year	53% – €784.54	65% – €962.18	78% – €1,154.61

Source: *L'apprenti*, 2017.

In India, trade apprentices are paid a monthly stipend as a proportion (70-90 per cent) of the minimum wage of semi-skilled workers (table 9), which varies with progression in training to enable them to sustain their day-to-day expenses. The stipend does not vary with age. The expenditure on the stipend for trade apprentices is borne by the employers (Government of India, 2017b).

TABLE 9 9. Rates of stipend for trade apprentices – India

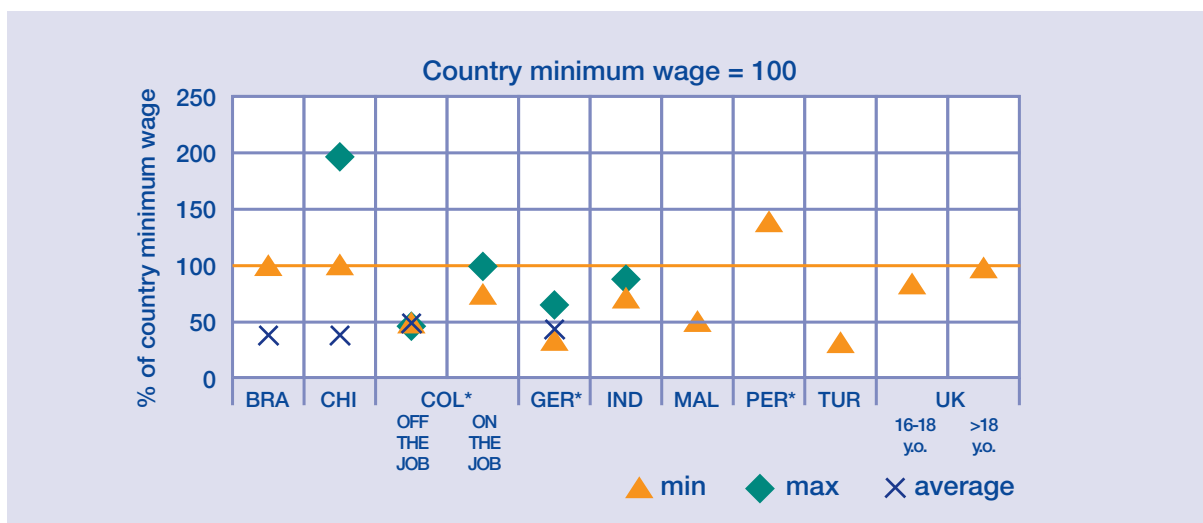
PERIOD OF APPRENTICESHIP TRAINING	RATES OF STIPEND (PER MONTH)
First year	70% of minimum wage of semi-skilled workers
Second year	80% of minimum wage of semi-skilled workers
Third and fourth year	90% of minimum wage of semi-skilled workers

Among the Latin American countries, Mexico and Costa Rica¹⁰ do not provide wages to apprentices; Brazil and Peru provide apprentices with the respective country's minimum wage; Peru requires employers to pay apprentices a monthly wage of no less than 50 per cent of the minimum wage; and Chile provides apprentices with wages above the minimum wage. In Colombia apprentices receive a stipend that varies and is inversely proportional to unemployment rates (about 50 per cent of the minimum wage during the classroom training phase, 75 per cent of the minimum wage if the national unemployment rate is above 10 per cent, and 100 per cent of the minimum wage if the unemployment rate is below 10 per cent during the on-the-job training phase (Fazio et al., 2016)).

¹⁰ Even though Costa Rica's proposed apprenticeship legislation does not suggest full integration with the education system and instead mostly targets the out-of-school population, the current debate in Congress establishes that the apprentice will be considered a student and not an employee. As such the apprentice will not receive a wage (currently under the most widely accepted law project 19.019).

To sum up, most countries recommend wages/ allowance to apprentices that are a percentage of the minimum wage – increasing as the apprenticeship progresses (as does their productivity). Few countries consider age and unemployment rate as criteria. Figure 7 gives an analysis of wage dynamics for some countries.

Figure 7: Apprenticeship wages as a percentage of countries' minimum wage



Notes: *Colombia and Germany apprenticeships' remuneration increases along the different phases of the programme.
**Peru data refers to a pilot programme.

Source: Fazio et al., 2016, p.43.

Another financial benefit for apprentices accrues through future earnings. There is evidence that apprentices go on to earn more than TVET students. The Netherlands provides a clear point of comparison, given that apprentices and TVET students obtain the same qualification, which is of the same value. The gross hourly wage for entry-level jobs for apprentices (at level 4) stood at 13.40 Euros, but for TVET students (at level 4) it was 10.05 Euros (Government of the Netherlands, 2014). These figures on differentials in pay are also reflected in an American study. In the short term, defined as the sixth year after enrolment, participation in registered apprenticeships was associated with an average gain of earnings of US\$ 6,595 over the earnings of non-participants (Reed et al., 2012). In addition, the American study estimated that, over the career of an apprentice, the average earnings gain associated with completing the registered apprenticeship programme would be US\$ 240,037 (US\$ 301,533 including benefits) than non-participants over their careers (Ibid.).

8.2.3 Governments

Costs and benefits are even more difficult to calculate for governments, as the expenditure on apprentices in TVET institutions is often not identified separately within the overall costs of TVET training. Given that Quality Apprenticeship schemes generally lead to lower unemployment and higher earnings for young workers, governments also save on social security and active labour market policy-related expenditures (e.g. unemployment benefit) and gain more tax revenue (e.g. payroll tax, value-added tax). While the scale of savings depends on the cost of labour market policies and welfare schemes, recent studies confirm a significant economic return to governments investing in Quality Apprenticeships.

In the aforementioned United States example, the total State and Federal costs of administering the registered apprenticeship programme for five States (Florida, Georgia, Missouri, Pennsylvania and Texas) was estimated at an average of US\$ 131 per apprentice, and the cost related to the TVET institutions (Community Colleges) were estimated at US\$ 587 per apprentice. This comes to a total average cost of US\$ 718 per apprentice. Over the career of a skilled worker it is estimated that this investment will bring in an average of US\$ 19,875 in tax benefits, which works out to a return of US\$ 27.7 for every dollar invested - and if other potential costs (unemployment insurance, food stamps, welfare and administration costs) are taken into consideration, the total benefits are just under US\$ 36 per dollar spent (Ibid.).

A study about costs of different modes of TVET delivery in Burkina Faso, conducted by the French Development Agency (AFD), clearly showed that dual training apprenticeships were the least costly compared to centre-based training or centre-based training with industry attachments (table 10).

TABLE
1010. Comparison of CAMA's¹¹ annual training costs – Burkino Faso

TYPE OF TRAINING	DURATION	LEVEL OF ENTRY	COST OF TRAINING (IN CFA FRANCS)
Apprenticeship or dual training hairdresser (CFA)	2 years	Primary level, little or no schooling	35 000 (literate) 50 000 (non-literate)
Residential training hairdresser (CCP)	2 years	Last year of primary minimum	200 000
Residential training hairdresser (CACP) with internships	2 years	4th year of college	350 000

Source: Richard and Boubakar, 2010.

Given that Quality Apprenticeships represent a cost-effective way of developing workforce skills and facilitating the smooth transition of young people from the world of education to the world of work, there are good policy reasons for governments to encourage and support employers financially. Where employers are reluctant to offer apprenticeship places, governments may decide to promote apprenticeships through a range of incentives - financial (direct subsidies or tax benefits) or non-financial (measures to support employers in their administrative procedures). But there is, of course, a risk that some employers will be more interested in having access to subsidized cheap labour and in employing apprentices rather than other workers.

11 CAMA = Learning Centre for Crafts (Centre d'apprentissage des métiers de l'artisanat)

8.3 Incentives to promote Quality Apprenticeships

While Quality Apprenticeships make more economic sense in the medium- to long-term, as discussed earlier, their benefits do not necessarily materialize in the short-run. An emphasis on short-term advantages may well discourage enterprises from investing in Quality Apprenticeships – although this is not the case in all countries. In Germany, where Quality Apprenticeships are well established, there are no incentive schemes, apart from subsidies provided to enterprises that train disadvantaged groups of workers (e.g. workers with a disability). However, in some other countries, governments provide incentives to enterprises to encourage them to take on apprentices, either in the form of tax exemptions, subsidies or grants linked to levy schemes.

Countries offer incentives to promote participation in apprenticeship programmes for apprentices and employers. Those directed to apprentices typically cover learning materials, allowances for learning away from home, and food and transportation in the form of stipends, as well as additional support to vulnerable groups, women and disabled persons. Those directed to employers, on the other hand, contribute to a reduction of the on-the-job training and social protection costs to encourage employers to comply with country's labour regulations, and a reduction in their tax burden (Fazio et al., 2016).

As may be seen from table 11, a mix of financial mechanisms is used. Generally, tax exemptions are not available in some countries – England (the United Kingdom) being an example. In others, such as Australia and Austria, they have been phased out and replaced with subsidies. In Denmark, for instance, there are neither tax subsidies nor subsidies, but access to grants from a levy scheme, the Employer Reimbursement Fund - payment into which is mandatory for all employers. Nonetheless, Canadian employers who take on apprentices can benefit from a tax credit. The tax incentive is given as a reward for 'job creation' and effectively reduces the cost of training apprentices.

Some incentive schemes are funded by a levy on employers (e.g. a certain percentage of the wage bill is taxed away to fund skills development activities). Brazil, Denmark, and The United Republic of Tanzania, for example, have skills development levies in place. In the United Kingdom, an apprenticeship levy system is now in operation, as of 2017.

Canada offers an 'Apprenticeship Incentive Grant' and 'Apprenticeship Completion Grant' to eligible apprentices. In Australia, apprentices can take out loans on favourable conditions. In fact, successful completion of apprenticeship training reduces the amount borrowed by 20 per cent. Repayment of loans starts when former apprentices begin earning more than a minimum income threshold. Several large cities in the United Kingdom offer in-kind support to apprentices, such as a discount local transportation card.

TABLE
11

11. Financial incentives for enterprises

	TAX INCENTIVES	SUBSIDY	LEVY SCHEME
Australia	Tax incentives depend on the qualifications the programme leads to	Subsidy in specific cases, e.g. the person being trained has a disability	No ¹²
Austria	Tax incentives abolished in 2008 and replaced by targeted subsidies	From 2008 targeted subsidies are available per apprentice (the amount depends on the year of apprenticeship), for additional training, for the training of instructors, for apprentices excelling on the final assessment, for measures supporting apprentices with learning difficulties, to measures supporting equal access to men and women to apprenticeships	A levy fund in the construction sector covering all regions and a levy fund in the electro-metallic industry of one province (Vorarlberg). It is negotiated by the employers and trade unions
Belgium (Flemish Community)	Payroll tax deduction	Direct subsidy depending on the number of apprentices and programme duration	No
Denmark	No	No	All enterprises – including in the public sector – pay a contribution to the Employer Reimbursement Fund (AER) based on the number of full-time employees. The amount is DKR 492.50/ full-time employee four times a year. Enterprises with apprentices get their expenses for trainees refunded when they are at VET institution (i.e. salary, transportation). AER also pays grants to motivate employers who establish extra training places.
England (UK)	No	Contributions from employers who pay the levy are topped up with a 10% contribution from the government. Grants to enterprises and education and training institutions offering apprenticeship to 16-18 year-olds	Universal levy set at the rate of 0.5% of payroll, applying to the proportion of payroll above GBP 3 million
Germany	No	No	In the building sector. They are negotiated by employers and trade unions
Netherlands	Tax exemptions (abolished in 2014)	Subsidy from 2014 to employers providing apprenticeships of maximum EUR 2 700 per student per year (depending on the duration of the apprenticeship and the number of training enterprises asking for subsidy)	No

Source: Kuczera. 2017, pp. 19-20.

¹² In 2017, the Australian government announced the establishment of the Skilling Australians Fund, which is to be 'funded by increased levies on specified subclass visas dependent on company turnover' (Fowler and Stanwick, 2017).

It is important to note that incentives might be conditional. Incentives given to apprentices upon the successful completion of their training programme (e.g. Apprenticeship Completion Grant in Canada) are an example of conditionality. Governments may target certain occupations by providing incentives with a view to addressing skills shortages in priority sectors. Australia, for example, offers a variety of incentives for employers, as may be seen in [box 30](#) – particularly in the case of employers who take on apprentices in priority occupations where there is a clear shortage of skilled workers. In addition, there are incentives for taking on adults, as part of regional employment policies, for certain under-represented social groups, and for young people with a disability.

**BOX
30**

30. Overview of the Australian Apprenticeships Incentives Programme

The objective of the Australian Apprenticeships Incentives Programme is to contribute to the development of a highly skilled and relevant Australian workforce that supports economic sustainability and competitiveness.

This is achieved by encouraging:

- genuine opportunities for skills-based training and development of employees; and
- people to enter into skills-based training through an Australian Apprenticeship.

The National Skills Needs List (NSNL) identifies occupations that are deemed to have a national skill shortage. The NSNL is used to determine eligibility for a number of payments available under the Australian Apprenticeships Incentives Programme. The aim of the Programme is to increase the relevant national skills base in Australia by providing additional payments for Australian apprentices working towards a priority occupation.

The eligible priority occupations are aged-care workers, child care workers, disability care workers and enrolled nurses.

- Commencement/Recommencement/Completion – NSNL
- Commencement/Recommencement/Completion – non-NSNL in priority occupations
- Support for Adult Australian Apprentices
- Rural and Regional Skills Shortage Incentive
- Nominated Equity Groups Commencement Incentive
- Declared Drought Areas Commencement and Completion Incentives
- Mature-Aged Workers Commencement and Completion Incentives
- Assistance for Australian Apprentices with Disability

Source: Deloitte Access Economics, 2012.

In Latin America, the sharing of apprenticeship costs between the government and employers is contingent upon whether the programme is targeted to out-of-school or in-school young people. Beneficiaries of the out-of-school apprenticeship programmes – particularly those with limited resources – can receive stipends or scholarships from the government to meet costs, including transportation, food, and learning materials. The employer covers the costs of on-the-job training, including

costs related to the status of the apprentice as an employee (wages, vacation time, transportation, social security), and those related to training (staff time dedicated to training, monitoring, mentoring, assessing, and certifying the apprentice and enabling adequate facilities for learning to take place). National training institutes provide off-the-job training for out-of-school youth, which is funded by a tax on employers' payrolls – so, indirectly, employers also fund off-the-job training. As regards the apprenticeship training of in-school students, for instance in Mexico, the government meets the costs of off-the-job training and provides a monthly stipend to students (Fazio et al., 2016). **Box 31** provides details of incentives provided by governments in Latin America and Caribbean countries to promote apprenticeships.

**BOX
31**
31. Incentives to promote apprenticeships in Latin America Countries

In Latin America, the main public incentives for apprentices are subsidies to cover their costs of participation in the programme, while the main incentives for firms include tax breaks, reduced dismissal costs, and training and wage subsidies. In the case of Apprenticeship Law Systems like that of Brazil, in which firms must hire 5 per cent of their workforce as apprentices, negative incentives in the form of payment of fines for noncompliance – equal to up to five minimum wages per apprentice not hired except in the case of reoccurrence when the fine is doubled – may also act as a motivating factor for some firms to take up apprentices. Similarly, in the case of Colombia, where the hiring of apprentices is compulsory for firms that have more than 15 employees with the exception of firms in the public and construction sectors, noncomplying firms must pay a fee equal to 5 per cent of the total number of full-time employees times the value of the minimum wage.

Incentives to Apprentices

Mexico: Monthly stipend to students over the duration of the apprenticeship.

Incentives to Employers

Waiving/reduction of labor costs of apprentice under employee status:

Brazil: Reduction of wage earmarked toward severance emergency fund (*Fundo de Garantia do Tempo de Serviço*) for formal workers from 8 per cent to 2 per cent for apprentices.

Waiving of dismissal costs

Chile: 50 per cent of the minimum monthly wage over the period of a minimum of six months, maximum one year.

Tax breaks

Brazil: Tax breaks to medium and large firms that hire apprentices.

Negative incentives

Colombia: The law makes the hiring of apprentices compulsory for firms that have more than 15 employees, with the exception of firms in the public and construction sectors. If firms do not comply with this obligation, they must pay a fee used to finance an entrepreneurship fund (multiplying 5 per cent of the total full time employees of the firm by the value of the minimum wage).

Source: Fazio et al., 2016.

India has set an ambitious target of a twenty-fold increase in apprenticeship opportunities in the country by 2020, and has launched a National Apprenticeship Promotion Scheme to provide incentives to employers for trade apprentices. The government will share 25 per cent of the prescribed stipend, subject to a maximum of Rs. 1500 per month per apprentice, and also share the cost of basic training with employers (Government of India, 2015).

Although more research is required, there is some evidence that, all in all, the benefits of funding apprenticeship systems outweigh the costs, both for enterprises and for governments. Indeed, these costs are investments for future social and economic development – and in some countries, governments do provide incentives, in many different forms, so as to encourage employers and apprentices to participate in apprenticeship systems. Finally, as to the apprentices themselves, on the basis of this evidence, the financial benefits for them are clearly positive. If all the actors see the long-term benefits, perhaps at some point no incentives will be needed to promote apprenticeships.

8.4 Checklist

You may use the following checklist to evaluate the funding arrangements for the apprenticeship system in your country, to decide which elements could potentially be strengthened and to judge whether your system could be described as a Quality Apprenticeship system.

EQUITABLE FUNDING ARRANGEMENTS	YES	NO
In your country:		
• Are initiatives taken to calculate the costs and benefits, both financial and non-financial, of apprenticeship training for enterprises?		
• Are initiatives taken to calculate the costs and benefits, both financial and non-financial, of apprenticeship training for apprentices?		
• Are initiatives taken to calculate the costs and benefits, both financial and non-financial, of apprenticeship training for governments?		
• Do governments finance off-the-job training?		
• Do governments provide employers with incentives to take on apprentices?		
• Do employers finance on-the-job training?		
• Do employers remunerate apprentices for the on-the-job training period?		
• Do employers remunerate apprentices for the off-the-job training period?		
• Are current funding arrangements sufficient to sustain apprenticeship training?		

If you have answered “NO” to any of these questions, it might be worth examining ways in which the funding arrangements for apprenticeship training in your country could be clarified and supported. The equitable funding of apprenticeship systems is a key factor in the success and sustainability of Quality Apprenticeships.

9 Labour market relevance

All countries are facing the challenge of a mismatch between the skills that are needed by employers in the labour market and those possessed by graduates coming out of TVET institutions or universities. Although there are various reasons why employers find it difficult to fill vacancies that have nothing to do with the availability of skilled workers – poor wages and working conditions, unattractive locations, limited career opportunities, precarious contracts – the skills gap is often a real concern, as has been indicated by the International Organisation of Employers (IOE):

'Many researchers have pointed to labour market mismatches as one of the reasons for weak employment trends. Sometimes, the skills that are demanded by employers are simply not available because the education system in the affected countries is weak or unresponsive to labour market needs. Education and training systems may not be sufficiently up-to-date to meet the demands of the new world of work which requires a new generation of workers with entirely different skills sets' (IOE, 2015, p. 5).

In Brazil, the National Professional Apprenticeship Forum made ten recommendations to improve quality and relevance of apprenticeship programmes. These are: assessing training practices at national and state levels; carrying out sectoral labor market analysis; building sectoral tripartite committee(s) or other coordination mechanisms; carrying out skills needs analysis; training of vocational teachers and in-company trainers; designing relevant curricula; preparing a cost-shared financing scheme; developing a legal framework; improving monitoring, assessment and certification; and measuring the impact of programmes.

The aim of this chapter is to give an overview of the ways in which current and future skills' demand is assessed and how that information is used to inform the planning of apprenticeship programmes. It will also present the ways in which skills gained by apprentices are assessed and certified in the form of qualifications.

9.1 Skills needs assessment and anticipation

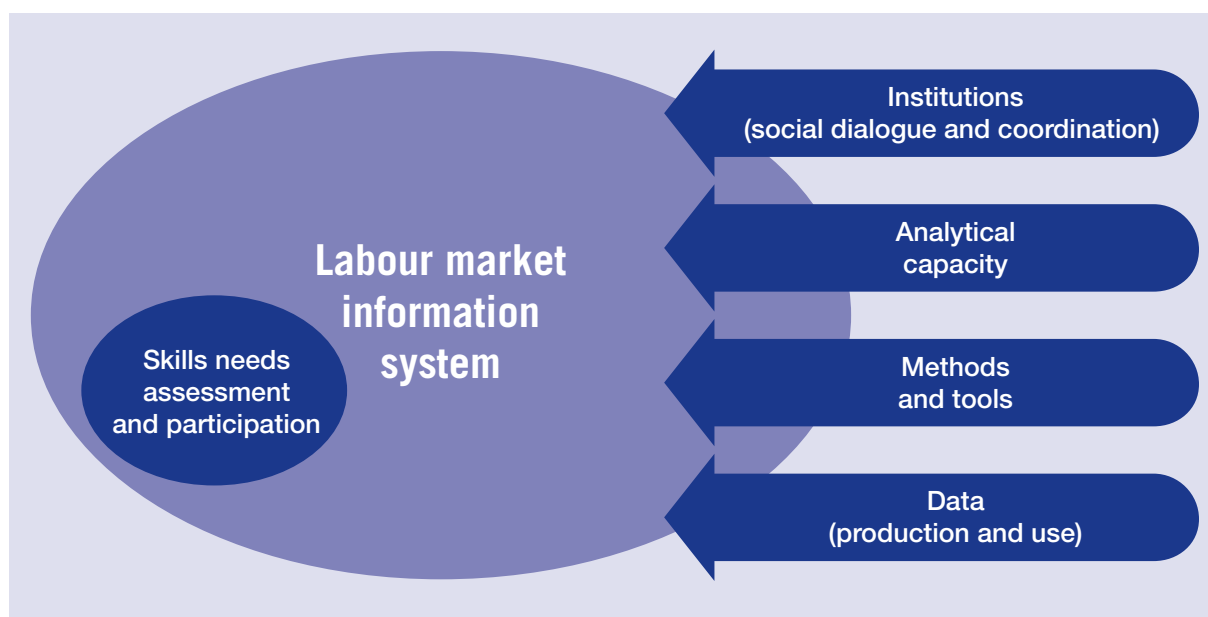
Quality Apprenticeships are recognized as offering an effective and efficient way of bridging this divide. However, this can only be achieved successfully if there is a knowledge of the supply and demand for skills. It must be ascertained which skills are needed in what sectors, and what the social partners can do collectively to provide these skills. A skills system in a country should have a sub-system/mechanism for “skills needs assessment and anticipation” that functions in coherence with the Quality Apprenticeship system to ensure that apprenticeship programmes align with the labour market demand.

The ILO describes skills needs assessment and anticipation (ILO, 2015a) as ‘activities to assess future skills needs in the labour market in a strategic way, using consistent and systematic methods’. It aims to provide information to all labour market actors about current and potential future skills needs and imbalances so that they can make decisions, develop measures and take actions with a view to

meeting the needs and avoiding the imbalances. It can be done at regional, national and/or sectoral level.

As a component of a broader labour market information system, skills needs assessment and anticipation can be broken down into a number of key elements, namely: data, methods, tools, analytical capacity and institutions (figure 8).

Figure 8: Essential components of skills needs anticipation



Source: ILO, 2015a, p 4.

There are several methods for skills needs assessment and anticipation. The ILO considers social dialogue as a cornerstone of any method: it is critical for obtaining inputs from labour market actors, for informed decision making, and for the implementation of findings and recommendations. Therefore, social dialogue needs to be embedded into institutional structures and procedures. The approach promoted by the ILO, as may be seen in figure 9, is to identify relevant data and tools; translate this data into indicators, trends and scenarios; analyse these outputs and prepare strategies directly with the social partners; and establish arrangements that are conducive to matching demand for, and supply of, skills through systematic social dialogue.

Figure 9: The ILO approach to skills needs assessment and anticipation



Source: ILO, 2015a, p. 4.

9.1.1 Institutional framework

In every country, a number of organizations are involved in skills needs anticipation - for example, the Ministries of Labour and Education, the National Skills/TVET agency, sectoral skills bodies, the statistical office, employment services, education and training institutions, and employers' and workers' organizations. Each of these institutions brings some core advantage and resources, and can thus complement the roles of the others. For example, sector skills councils generally have the mandate to collect skills demand and supply data in the specific sectors; public employment services collect data on vacancies and jobseekers; statistical offices collect and analyse all statistical data; and universities and research institutions often have the necessary technical staff who analyse labour markets (Ibid.).

However, countries need to have a 'lead' institution, which ensures cooperation and coordination between all the other institutions. In a broader survey of 61 countries, carried out by the ILO (in conjunction with CEDEFOP, the ETF and the OECD), the Ministries of Education and Labour and other public authority agencies (usually public employment services) were generally the lead institution in terms of skills anticipation exercises. However the level of the social partners' involvement was very high – in 75 per cent of high-income countries and 96 per cent of middle- and low- income countries, employers' associations and trade unions (and other stakeholders) participated in the discussion of results, and 79 and 92 per cent, respectively, were consulted on the policy response. The level of involvement was particularly high at the national level, and also at the sectoral level (Kriechel and Velter, forthcoming).

Individual countries have taken policy decisions to improve and reinforce the cooperation between the different agencies involved in skills needs assessment and, inter alia, vocational education and training. In France, for example, as part of the Grand Social Conference in 2013, where the then French President announced a series of measures to increase the number of apprentices to 500,000 by 2017, it was also decided to set up the Network Employment Skills (box 32).

BOX
32

32. Employment and Skills Network – France

In France, it was decided, at the Grand Social Conference in June 2013, to bring a number of different agencies together under the supervision of the Employment and Skills Network, with the aim of:

- Strengthening our collective capacity for observation and forecasting: the Network aims to create a space for exchange and dialogue between actors involved in the observation and forecasting of jobs and skills, to produce collective expertise on skills for the future, and to disseminate this work to the representative bodies and actors of economic development, employment, vocational training and counselling and guidance.
- Anticipating the skills of tomorrow to support professional change and develop quality jobs, adapting the skills of young people in initial VET, employees and jobseekers to the needs of the economy, and facilitating professional, transition are all decisive factors for competitiveness and employment. Forecasting and anticipation play a vital role in shedding light on the choices to be made by labour market actors in terms of economic and technological developments and the provision of lifelong learning' (France Stratégie, 2006).

9.1.2 Methods and tools

A variety of methods are used to collect and analyse data on skills demand, for example:

- Quantitative employment projections by sector and occupation, based on macroeconomic modelling, referred to as “forecasts”;
- Qualitative methods, including focus groups, round tables, expert interviews, foresight and scenario development;
- Surveys among employers, i.e. establishments or enterprises; and
- Tracer studies of school/training graduates and school-to-work transition surveys.

Tools are guidelines and instruments that provide good practice on the use of data sources, methodologies and approaches relevant to a specific aspect of skills needs anticipation. The ILO has developed many tools, some together with Cedefop and ETF (box 33). No single method and tool can be suitable in all contexts. In order to achieve reliable and meaningful results, a combination of different methods, sometimes both quantitative and qualitative, is necessary in a given situation (ILO, 2015a).

BOX
33

33. ILO tools for skills needs analysis and anticipation

Skills for trade and economic diversification: A practical guide

Addresses anticipation of skills needs in promoting trade strategies and in exporting industries.

Anticipating skill needs for green jobs: A practical guide

Addresses approach to analysing and anticipating skills needs for the green economy and sustainable development.

Guide to anticipating and matching skills and jobs:

A compendium of tools for guidance and assistance in designing methods, instruments and institutional solutions to meet the challenge of matching current and future skills and jobs:

- **Volume 1: Using labour market information**

Provides guidance on the principal types of data, data sources and indicators that can answer key policy questions related to overcoming or preventing skills mismatch.

- **Volume 2: Developing skills foresights, scenarios and forecasts**

Addresses quantitative and qualitative methods of anticipation and forecasting of future skills needs at a macroeconomic level.

- **Volume 3: Working at sector level**

Addresses methods, processes and institutional mechanisms of skills identification and anticipation at sectoral level.

- **Volume 4: The role of employment service providers**

Addresses the role of public employment services and private employment agencies in skills anticipation and matching, including the collection and use of relevant labour market information.

- **Volume 5: Developing and running an establishment skills survey**

Provides guidance on the implementation of surveys among employers (establishments) on skills shortages and gaps, recruitment difficulties and training measures.

- **Volume 6: Carrying out tracer studies**

Assists training providers and analysts in designing and implementing surveys among their graduates on their employability, how their skills are used, and how those skills relate to gaps in the labour market.

9.2 Use of information on skills needs

According to the above-mentioned joint study on 61 countries undertaken by the ILO, ETF and Cedefop, the information on skills needs is used by a majority of the countries in developing policy, updating occupational standards, developing apprenticeship programmes, revising and designing training programmes, and the upskilling of trainers (Kriechel and Veiter, forthcoming) This study also demonstrates the extent to which the skills needs information is used by the social partners. Generally, they use it primarily for influencing the policies of the Ministries of Education and Labour and for informing collective bargaining. However, 34 per cent of the employers' associations and 57 per cent

of trade unions use it for developing and funding apprenticeship (or work-experience) programmes (Ibid). One of the direct uses of skill needs assessments in Australia, Northern Ireland and Turkey, for example, is to promote apprenticeships in occupations and industries with a greater demand for skilled labour.

Individual countries have set up agencies that cover aspects of skills anticipation and use the information for TVET training, particularly at sectoral level. In Canada, for example, as may be seen in [box 34](#), sector skills councils are responsible for providing sector-specific information on skill needs that, inter alia, inform the revision and development of apprenticeship programmes.

**BOX
34**

34. Task of sector skills councils – Canada

Tasks of sector skills councils in Canada include the following:

- (a) Providing labour market intelligence in the form of sectoral studies, labour market forecasting and analysis
- (b) Formulating skills profiles and national occupation standards to promote skills standardisation
- (c) Developing skills development tools, career information and youth work experience programmes (Cedefop, ETF, ILO, 2016, p. 106).

In Brazil, for example, the National Apprenticeship Services (for the industry, for commerce and the service sector, for rural workers for transport workers) have been set up to provide a variety of TVET services at the sectoral level. SENAI, the National Apprenticeship Service for Industry, engages in skills anticipation exercises, which aim to identify technological and organizational change in the industry and its impacts on future training and qualification needs in both quantitative and qualitative terms - and in the provision of TVET products, such as apprenticeship training (Ibid).

9.3 Translating skills needs into training and certification

It is evident from the previous section that skills assessment and anticipation exercises lead to developments in TVET policy and programmes - including apprenticeship training policy and programmes. This section will examine the ways in which information on skills needs are translated into training and certification.

In Denmark, for example, there is a clear link between the identification of the needs of the labour market and the development of apprenticeships training, via the deliberations of the Advisory Council for Initial Vocational Education and Training at the national level, the ‘trade committees’ at the sectoral level, and via the advisors from the training committees at the local level ([box 35](#)).

BOX
35

35. From skills anticipation to skills certification – Denmark

The process from the identification of new skills needs to the introduction of a new qualification involves many stakeholders. This is formally stipulated in Danish legislation, which states that the content of the qualification should as far as possible be based on analyses and prognoses of qualification demands.

The process includes the following actors and activities:

- The Advisory Council for Initial Vocational Education and Training advises the Minister of Education on emerging demands for new qualifications and the closure and/or revision of existing qualifications based on labour market data.
- To support the work of the advisory council, the national trade committees produce an annual report on labour market developments relevant to the future demands of skilled workers in different occupations within the sector they represent.
- In addition, the trade committees and the Ministry of Education may commission studies on future skills needs within a sector or an occupation, or cross-sectoral development relating to, for example, developments in robotics or transversal skills.
- The local training committees act as advisors to the local VET institutions and are co-authors of local curricula (Apprenticeship Toolbox, 2016).

In Germany the linchpin for the entire process is the vocational training regulation, which by law defines: the designation of the training occupation; the duration of the apprenticeship; the profile of the training occupation – the typical skills, knowledge and capabilities of the occupation in a concise form; the general training plan – an outline of the syllabus structure and time allocations for teaching the required skills, knowledge and capabilities; and the examination requirements. The process is complex and inclusive. Similar arrangements of developing training regulations for apprenticeships are also found in Australia and other countries.

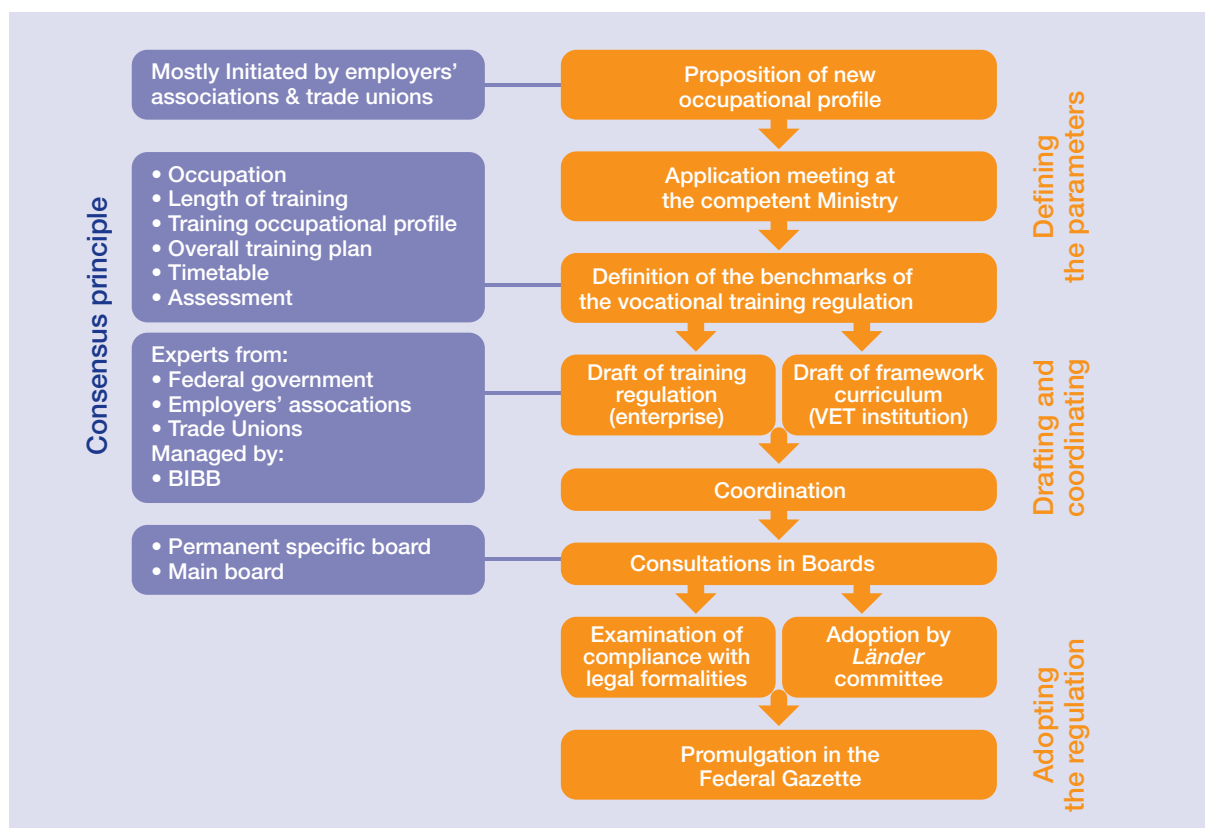
In a (very) simplified form, as may be seen in figure 10, the development of a vocational training regulation in Germany is divided into three stages, as follows:

- Defining its parameters
- Drafting and coordinating
- Issuing the training regulation

Defining the parameters

As a general rule, the social partners develop the parameters on the basis of a skills anticipations initiative, when they see a need for creating a new occupation or revising an existing one. They submit a proposal to the Ministry that is responsible for issuing the training regulation.

Figure 10: Developing a Vocational Training Regulation – Germany



Source: Federal Institute for Vocational Education and Training, 2011.

Drafting and coordinating

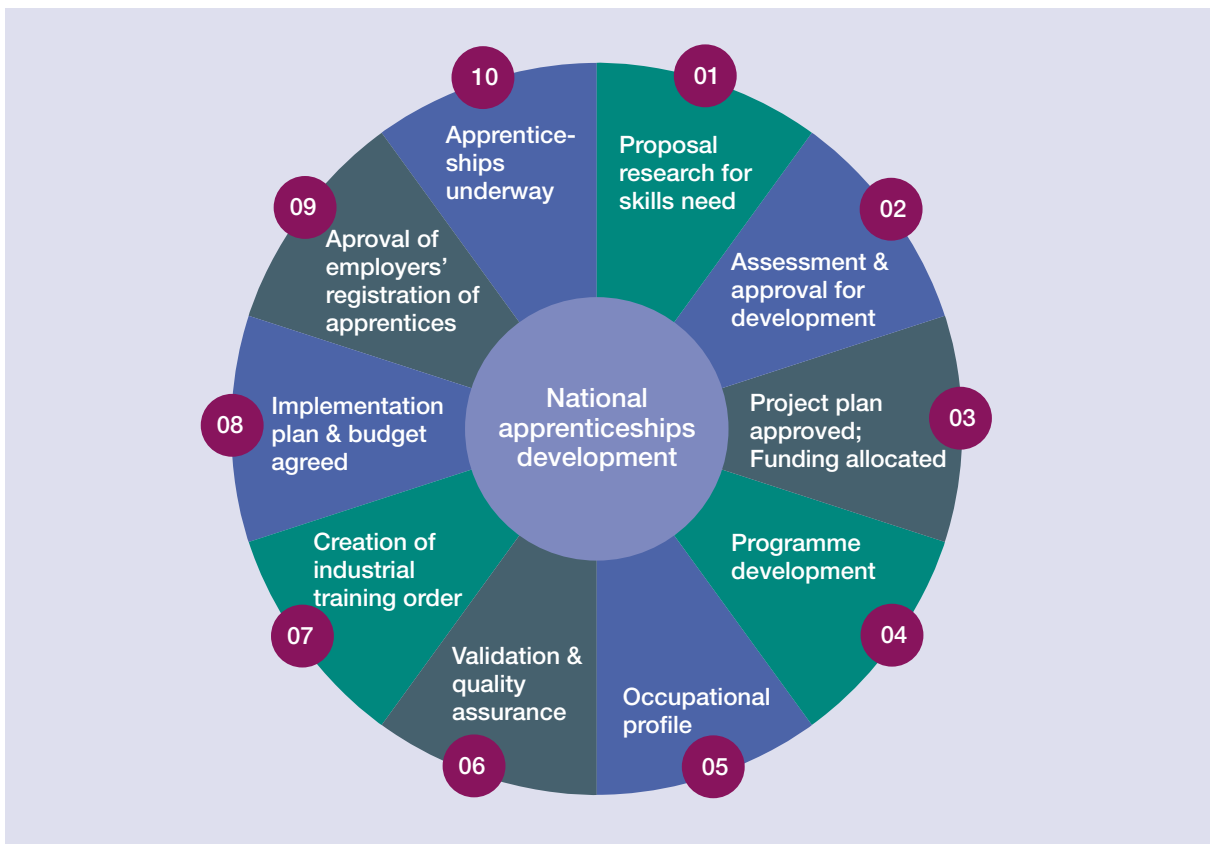
The Federal Institute for Vocational Education and Training (the BIBB in German) asks the umbrella organizations of the employers and the trade unions to nominate experts who, together with the BIBB, will collaborate in drafting the documents for developing the new training regulation or revising the existing one. The training regulation comes in two parts: the provisions section, including the designation, the occupational profile and the assessment requirements; and the annex, which contains the general training plan.

Adopting the regulation

When all is agreed, then the training regulation and the accompanying framework curriculum are approved by the Federal-Regional (*Länder*) Coordination Committee for Vocational Training Regulations/Framework Curricula and are valid for the entire country (Federal Institute for Vocational Education and Training, 2011).

In Ireland too the process is complex and inclusive. The anticipation of skills needs is the starting point of a rigorous 10-step process which leads on to skills certification in the form of a qualification providing the basis for Quality Apprenticeship training, as may be seen in figure 11.

Figure 11: Critical path to the development of a national apprenticeship qualification – Ireland



Source: An tSeirbhís Oideachais Leanúnaigh agus Scileanna (SOLAS, 2017a).

The process starts off with an indication of skills needs; it then develops and approves, inter alia, an occupational profile, standards, curriculum and assessment; it subsequently approves the validation and quality assurance of the apprenticeship programme; and finally the apprenticeship is ready to be launched, as follows:

Step 1 – apprenticeships are employer-led in Ireland, and the industry-led consortium is required to provide evidence of demand for an apprenticeship proposal on the basis of the anticipation of skills needs.

Step 2 – the Minister for Education and Skills, with support from the Apprenticeship Council, which is made up of representatives of employers' associations, trade unions and training providers, is required to assess and approve the proposal for development.

Step 3 – SOLAS, the public agency responsible, inter alia, for apprenticeship training, the Higher Education Authority (HEA) and the Apprenticeship Council approve the development of the project plan and allocate the funding.

Step 4 – the industry-led consortium develops the programme, which should contain the occupational profile; the programme and standards including the curriculum and assessment; quality assurance for the on- and off-the-job training; and apprenticeship programme administration. In addition, the industry-led consortium is required to provide key documents, such as the professional award type descriptors, the validation policies and criteria, and the quality assurance guidelines for the apprenticeship.

Step 5 – the Apprenticeship Council reviews and approves the occupational profile, ensuring that there is no overlap with existing apprenticeships.

Step 6 – Quality and Qualifications Ireland, which is responsible for the external quality assurance of further and higher education and training, approves the validation and quality assurance of the apprenticeship programme.

Step 7 – SOLAS creates the Industrial Training Order.

Step 8 – SOLAS and the HEA agree on the implementation plan and budget.

Step 9 – SOLAS approves the registration for apprentices presented by the employer.

Step 10 – the industry-led consortium launches the apprenticeship.

9.3.1 Skills assessment and certification

‘Skills assessment and certification’ is a component of a quality assurance system and aims at assessing if apprentices have acquired the defined set of learning outcomes of a qualification. Providing apprentices with recognized qualifications improves their labour market mobility and gives greater social recognition to the skills developed through apprenticeship programmes. It also provides greater confidence to prospective employers that the apprentice has achieved the level of competency required in a specific occupation.

Many countries have prescribed both formative and summative assessment. They also issue a nationally recognized qualification to those who successfully pass the assessment. An increasing number of countries are aligning their apprenticeship qualification with the National Qualification Framework (NQF) - if it exists in the country. This can facilitate the vertical and horizontal mobility of apprentice graduates in the education and training system. Germany has aligned two years apprenticeships to level 3, and three years apprenticeships to level 4 of the NQF.

Because quality apprenticeship programmes also involve an education and training institution, skills certification often includes these institutions in the assessment process. The introduction of competency-based training and an assessment approach demands that greater attention be paid to the ability to perform tasks and achievement of competences set by industry to perform a specific job or occupation. In some countries, separate assessment centres are in place to test the competences of apprentices (e.g., trade testing centres in South Africa and Malawi).

In India, upon completion of the training period, the trade apprentices participate in an All India Trade Test (AITT) for Apprentices conducted by the National Council for Vocational Training (NCVT). Successful candidates receive the National Apprenticeship Certificate (NAC), which is a nationally recognized qualification for those seeking employment (Government of India, 2017a). In Germany, an independent committee of the chamber, comprised of the employer, employee and vocational school representatives, conduct the final examination of apprentices (Apprenticeship Toolbox, 2017a).

9.4 Guidance, counselling and support services

A Quality Apprenticeship system should provide good information about career choices and employment prospects, as well as counselling and mentoring – before, during and after the apprenticeship. It helps young people make an informed choice about what apprenticeship and career they might take up, based on their skills and aptitude and what is required by the various occupations. It also helps to reduce gender segregation and is a tool for the inclusion of vulnerable groups and persons with disabilities. The effectiveness of guidance and counselling services increases if combined with personalized support. However, an ETUC report states that only 14 per cent of youth aged 15-24 years throughout the EU received advice from a guidance counsellor (ETUC/Unionlearn, 2016).

The counselling services are usually provided through the public employment services (PES). In some countries, the PES provide information and support to help a young person find an apprenticeship place, as well as post-employment counselling to help persons find employment. The services may also include training to develop core competences, interview skills, the preparation of résumés and job application.

Guidance and mentoring during apprenticeships at the workplace and school improves completion rates. For example, a key success factor of Denmark's Basic Vocational Education and Training Act (Erhvervsuddannelsesloven – EGU) is the effective support and mentoring provided to the apprentice, together with an individualized approach towards his/her learning needs and abilities (European Commission, 2013b).

Supervisors and trainers in enterprises also require guidance and support services to be fully competent themselves in guiding and supervising the practical training of apprentices at the workplace. In Australia, the Department of Education and Training maintains a dedicated website¹³ to provide quick and easy access to information regarding Australian apprenticeships. The information includes:

- Australian Apprenticeship Support Network providers (Apprenticeship Network provider) (box 36)
- Australian Apprenticeships programmes
- Employer incentives
- Information and support for apprentices looking to start their own business
- Support and assistance for apprentices during their apprenticeships
- Support and advice for people looking to start apprenticeships, whether in school, just out of school, or mature-age.

13 <https://www.australianapprenticeships.gov.au/about>

BOX
36

36. Australian Apprenticeship Network

The Australian Apprenticeship Support Network (Apprenticeship Network) will provide advice and support services tailored to the needs of employers and apprentices throughout the apprenticeship lifecycle – from pre-commencement to completion – through:

- Universal services for all employers and apprentices, providing essential administrative support, payment processing and regular contact; and
- Targeted services for employers and individuals assessed as needing additional support to complete the apprenticeship.

New pre-commencement services including screening, testing and job-matching will be available to targeted clients to get the right apprentice in the right apprenticeship with the right employer. New targeted in-training support services, such as mentoring, will help apprentices and employers at-risk of not completing the apprenticeship arrangement to work through issues and difficulties. Apprenticeship Network providers can also provide assistance to individuals who may be unsuited to an apprenticeship to identify alternative training pathways.

Source: Australian Government, 2017b.

As part of Lithuania's vocational activation policy, students in general education schools visit enterprises to become familiar with real work places. VET providers also organize career days and visitor days, when students present the advantages of VET to their peers in general education schools.

The ETUC has recommended the following quality criteria for guidance and counselling:

- Do apprentices have access to career guidance and counselling services provided by qualified professionals?
- Do the public authorities produce statistics to show the completion rate for apprenticeships? (ETUC/Unionlearn, 2016)

9.5 Evaluation

The evaluation of apprenticeship programmes provides information about their relevance to the labour market demand, which policy-makers and programme developers can use to improve the system and programmes. The evaluation methods include tracer studies of graduates, feedback from employers and cost-benefit analysis. Volume II of *ILO Apprenticeship Toolkit* will present these methods and sample tools.

Tracer studies are surveys administered on apprenticeship graduates to assess, inter alia, the employment outcome, income level and relevance of the programme to their jobs. The survey collects feedback from the participant's experiences on the labour market (duration of job search, methods of job search, employment status, enrolment in further studies, income level, etc.). Tracer studies should:

- Be valuable for a broad range of stakeholders;
- Cover a broad range of aspects of employment and work;
- Give some explanations of the causes of professional success/employment outcomes; and
- Analyse the impact of various features of education to get empirical based hints for improvement (Schomburg, 2016).

On the employers' side, the Australian National Centre for Vocational Education Research carried out a survey on the employers' use and views of the VET system. It regrouped the employers' opinions on the VET system and its effectiveness in meeting the skills needed. The survey made it possible to measure the employers' engagement and satisfaction with the VET system. It surveyed approximately 9,000 employers from across the country in 2015 (table 12) (Australian National Centre for Vocational Educational Research, 2015).

TABLE
12

12. Employers' satisfaction with vocational education and training (2015)

EMPLOYERS' SATISFACTION	
Percentage of employers satisfied that vocational qualifications provide employees with the skills required for the job	76.2
Percentage of employers satisfied that apprentices and trainees receive skills required for their job	81.7
Percentage of employers satisfied that nationally recognized training provides employees with the required skills	84.0

Source: The Australian National Centre for Vocational Education Research, 2015.

A cost-benefit analysis provides information about the costs and benefits of apprenticeships to apprentices, employers and governments. It can form the basis for designing an equitable funding mechanism – how can a fair distribution of costs among the relevant stakeholders be determined?

The pathway that leads from determining skills needs to designing and implementing apprenticeships, and to validating competences acquired by apprentices, ensures that apprenticeship training is in line with employers' needs and provides young workers with a strong foundation for finding employment. Moreover, this inclusive process, with intense involvement from the social partners, confers a seal of approval – which is important for quality assurance and, more prosaically, for recruitment purposes. Feedback from employers and graduates of apprenticeship programmes would help improve the quality and labour market relevance of the training.

9.6 Checklist

You may use the following checklist to evaluate the labour market relevance for your country's apprenticeship system, to decide which elements could potentially be strengthened and to judge whether your system could be described as a Quality Apprenticeship system.

EQUITABLE FUNDING ARRANGEMENTS	YES	NO
In your country:		
• Is there a system for assessing and anticipating skills needs?		
• If “yes”, are the social partners – employers' associations and trade unions – formally involved in the assessment and anticipation process?		
• Is there a mechanism in place to translate identified skills needs into the development of apprenticeship programmes and qualifications?		
• If there is a mechanism in place, are the social partners formally involved in the development of programmes?		
• Are the social partners involved in monitoring the implementation of apprenticeships?		
• Is a system for assessing the skills of apprentices in place?		
• Are the social partners involved in assessing the skills of apprenticeships?		
• Does successful completion of a Quality Apprenticeship lead to a nationally recognized qualification?		
• Is a system for providing guidance, counselling and support services to apprentices and employers in place?		
• Are tracer studies regularly conducted, and do the findings inform the reform of apprenticeship training programmes?		
• Are employer satisfaction surveys regularly conducted, and do the findings inform the reform of apprenticeship training programmes?		

If you have answered “NO” to any of these questions, it might be worth examining ways in which apprenticeship training in your country could be described as relevant to labour market needs. Labour market relevance is a key factor in the success and sustainability of Quality Apprenticeships.

10 Inclusiveness

The ILO Human Resources Development Recommendation, 1975 (No. 195) calls upon the countries to promote equal access to education, training and lifelong learning for:

- People with nationally identified special needs, such as youth, low-skilled people, people with disabilities, migrants, older workers, indigenous people, ethnic minority groups and the socially excluded;
- Workers in small and medium-sized enterprises, in the informal economy, in the rural sector and in self-employment; and
- Women and men.

Quality Apprenticeships should have special policy measures to ensure equal representation of all. The aim of this chapter is to gauge the level of inclusiveness of women, persons with disabilities and other vulnerable groups in apprenticeships schemes, and to present some practical ways in which they might participate more readily in Quality Apprenticeships programmes. Taking action to increase the diversity in apprenticeship schemes requires a range of measures including: awareness raising, setting targets/quotas, diversifying delivery, expanding occupational options, and addressing affordability. Targeted measures are essential to address the particular disadvantages faced by certain groups.

10.1 Quality Apprenticeships and gender

Women are generally under-represented in apprenticeship programmes. They represented 46.5 per cent in Jamaica (2014); 43 per cent of apprentices in Denmark (2015) and in Italy (2013); 40 per cent in Germany (2014); 37 per cent in the Netherlands (2013); 33 per cent in France (2013); and 20-33 per cent in Belgium, depending upon the type of apprenticeship; and a long way behind, 1 per cent in Ireland (2014) (ETUC/Unionlearn, 2016, pp. 51-71). In other countries outside Europe, Canada for example, they accounted for 14 per cent in 2014 (Statistics Canada, 2017), and in Australia, they accounted for 34 per cent of apprentices and traineeships, in terms of starts in 2015 (Torii and O’Connell, 2017), and in Egypt, they accounted for 15 per cent in 2012 (ILO and World Bank, 2013a).

In few countries (e.g., England), a majority of women are in apprenticeships (table 13). However, ‘while there appears to be a gender balance in Apprenticeships overall, in reality, men and women train in markedly different sectors, reflecting and emphasising occupational segregation in the workforce generally’. Women are significantly under-represented in high-quality sectors such as engineering, while men are under-represented in low-pay sectors such as childcare. Entry into apprenticeships should be a means of reducing such segregation, but there is little sign of a more diverse mix among apprentices’ (Newton and Williams, 2013, p.3).

TABLE
13

13. Apprenticeship starts in England by gender since 2009/10

	09/10	10/11	11/12	12/13	13/14	14/15	15/16
LEVEL (thousands)							
Women	139	246	276	279	233	265	269
Men	141	211	244	231	207	235	241
% OF TOTAL							
Women	49.6	53.8	53.1	54.7	52.9	53.0	52.8
Men	50.4	46.2	46.9	45.3	47.1	47.0	47.2

Source: House of Commons Library, 2016, p. 11.

This separation is also mirrored in Denmark and Germany. In Denmark, ‘the boys are more likely to choose a vocational training programme than the girls, and within the training programme, clear differences in choice can also be seen between the genders. Within ‘technologies, industry and transportation’, the boys account for just under 90 per cent of the students in 2014, whereas boys only account for about 14 per cent within the fields of health and education’ (Report/Perspective and action plan. 2016). In Germany in 2015, five most popular occupations chosen for apprenticeships by young women were office management clerk, medical assistant, salesperson, retail salesperson and dental nurse. Whereas young men’s choice was motor vehicle mechatronics technician, electrician, retail salesperson, industrial machine fitter and plant mechanic for sanitation, heating, and air conditioning systems (Federal Ministry for Education and Research, 2016, pp. 32-33). The differences have significant economic consequences. The salaries for third-year apprentices in ‘male dominated professions’ in Germany receive an average of 795 Euros per month gross, whereas in the ‘female-dominated professions’, they receive an average of 698 Euros (German Trade Union Confederation (DGB), 2016, p. 28).

10.1.1 Impediments to gender equality in Quality Apprenticeship systems

There are numerous reasons why women are less likely to participate in apprenticeship programmes. While many of these apply to TVET in general, some are specific to apprenticeship programmes.

Culture and traditional gender roles

Cultural and gender roles have a strong influence on women’s occupational choices and participation in vocational education and training. Young women choosing traditionally male-dominated Quality Apprenticeship occupations often face strong resistance, while young men choosing traditionally female occupations can be exposed to ridicule. Entrenched attitudes, often reinforced by family members, make it difficult for young women to pursue career paths in many occupations.

In societies with very pronounced gender roles, social norms may also limit the ways women and men can interact. This can restrict young women’s transportation options to and from a company or a TVET institution, interaction with male apprentices and supervisors, or their participation in a school-based study with male apprentices in the same classroom.

Gender stereotyping, self-limitation and self-selection

Gender stereotypes can lead to discrimination by employers and career counsellors as well as self-limitation by young women. Even in countries with relatively high gender equality such as Denmark, the United Kingdom and Germany, there is a clear gender-based bias in terms of the occupational choices of young women and men.

In many of the traditionally female-dominated occupations, such as hairdresser or beautician, wage levels are often relatively low and career development opportunities more limited, compared to those in manufacturing and other industries. Information about these potential limitations should be part of career guidance for young people, so that it can be taken into consideration when exploring career and Quality Apprenticeship pathways.

Lack of career guidance

Young persons are exposed to different socio-cultural factors influencing their career choices, the most important being family members and friends, school, the community and the media. These influencers might, however, repeat existing gender and occupational stereotypes when giving career advice to girls and boys. In many countries, career guidance services are not well developed, and young people often make career choices with very limited information about their options, including apprenticeships.

Safety concerns, sexual harassment and gender-based violence

An essential concern about young women's participation in apprenticeship programmes, especially in male-dominated occupations, is their safety from harassment and sexual violence. A recent UNESCO policy paper points out that gender-based violence in education and training institutions affects millions of young people worldwide. Such violence can take the form of bullying, physical aggression and sexual harassment by fellow apprentices, co-workers, teachers, trainers, employers, in-company mentors or supervisors. Gender-based violence can also take place on the way from or to the TVET institution or workplace. There may be increased risks, given that apprenticeships are delivered in two locations, the enterprise and the TVET institution (UNESCO, 2015).

Family responsibilities

Some apprentices, particularly young women, may have family responsibilities that can make it difficult for them to participate in apprenticeships.

Available Quality Apprenticeship occupations

In many countries, the choice of occupations where apprenticeships are available is often limited and concentrated around traditional trades and crafts, many of them in occupations that are regarded as 'male occupations'. Some of these apprenticeships are associated with hard physical work (builders, bricklayers, mechanics, and welders), and many young women dismiss them as career choices.

This has particularly been the case in Ireland. As the statistics given earlier in the text have shown, female participation rates are very low, because most of the apprenticeships on offer have been in craft apprenticeships in sectors such as construction, electrical, engineering and motor trades. This has been recognized, and Ireland is now in the process of designing and launching a series of new occupational apprenticeships.

10.1.2 What steps can be taken to improve the inclusiveness of apprenticeships for young women?

The Young Women's Trust in England has come up with a series of practical proposals to improve the inclusiveness of apprenticeship training for young women - taking positive action to increase diversity in apprenticeship programmes; improving reporting and accountability; making apprenticeships more flexible and affordable; and improving advice and support (box 37).

BOX 37

37. Making apprenticeships work for young women – England

Taking positive action to increase diversity in Quality Apprenticeships

In the case of apprenticeships where women's participation is disproportionately low, employers may take positive action to increase the participation of women.

- Setting targets for increasing the participation of women in the targeted sectors;
- Raising awareness amongst women of opportunities in the targeted sectors;
- Reserving places on training courses for women;
- Working with local schools, TVET institutions and directly with women and inviting them to open days, promotional events, shadowing opportunities and taster days;
- Providing mentoring to women who have an interest in the targeted sectors;
- Providing specific diversity training to all staff with recruitment responsibilities;
- Explicitly welcoming applications from women in advertisements and marketing material; and
- Adapting language in advertising and descriptions in jobs/apprenticeships to ensure they attract male and female candidates.

Employers and public sector agencies should develop a diversity action plan.

Improving Reporting and Accountability

- Organisations offering apprenticeships should publish the number of apprentices they employ, completion rates and destinations with the figures broken down by age, gender, ethnicity, disability, apprenticeship level and role;
- Employers should publish targets for the ratio of male to female apprentices along with a strategy for meeting these targets; and
- Public sector employers should lead the way on setting gender targets.

Making apprenticeships more flexible and affordable

- Governments and/or the social partners should commit to moving towards a single Living Wage for all age groups, regardless of apprenticeship status;
- Support to cover childcare costs should be made available to apprentices on the same basis as other workers; and
- There should be a greater availability of part-time and flexible apprenticeships.

Improving advice and support

There should be a renewed focus on the advice and support given to apprentices before, during and after their apprenticeship.

- Employers of all sizes should offer taster days, work experience and mentors with a specific focus on encouraging gender diversity;
- Providers of information, advice and guidance should be trained and encouraged to deliver advice that challenges gender stereotypes;
- Careers services should be widely publicised to ensure access to ongoing careers advice for women of all ages; and
- Young women working as apprentices in male-dominated sectors should be given access to mentors and additional support.

Source: Young Women's Trust. 2016.

Countries are taking affirmative actions to promote gender equality. In Ireland, employers of designated craft apprentices may receive a total grant of 2,667 Euros for each female apprentice recruited, in an attempt to promote the entry of women into the craft apprenticeships. Germany has taken a policy measure 'Girls' day' to motivate young girls and women to take up a vocational training programme. On the fourth Thursday of April every year, companies allow them to visit, gain an understanding of various professions, and make contact with those responsible for a traineeship at an early stage.

10.2 Quality Apprenticeships and people with disabilities

Quality Apprenticeship programmes have a great potential for benefiting persons with disabilities (PwD), because of their practical approach and effective learning transfer. This type of programme gives PwD a chance to prove their abilities to employers, and provides employers with the possibility of gauging their potential so that they can bring them into their enterprises (ILO, forthcoming). It is beneficial for apprentices and employers alike. Apprenticeship programmes that are inclusive of persons with disabilities can be an important bridge between this disadvantaged social group and productive employment.

Persons with disabilities, especially young persons with disabilities, face many barriers to entering work – prejudice, lack of work experience, skills mismatch, isolation from society, low schooling levels, inadequate learning methodologies, exploitation and transportation. Table 14 demonstrates how Quality Apprenticeships can contribute to solutions.

TABLE
14

14. How apprenticeships inclusive of disabled people bridge the gap between skills and employment

CHALLENGES FACED BY PERSONS WITH DISABILITIES IN SKILLS DEVELOPMENT AND EMPLOYMENT	HOW QUALITY AND INCLUSIVE APPRENTICESHIPS CAN CONTRIBUTE TO SOLUTIONS
Prejudice: Employers assume that disabled persons have a low productivity and need costly adaptations	-> Apprenticeships are opportunities for disabled people to demonstrate their work potential and the contributions they can make to a company
Lack of work experience is a key obstacle for young people in finding employment, especially for people with disabilities	-> Apprenticeship is a way out of the “inexperience-gap”. Through company-based training, apprentices accumulate valuable work experience
Isolation from society: In segregated training programmes, persons with a disability do not practise the social skills needed for employment.	-> During an apprenticeship, social skills are practised on a daily basis, like workplace relations, customer care, communication and problem solving
Low schooling levels: Particularly in developing countries, people with disabilities have reduced access and spend fewer years in education	-> Apprenticeship can motivate compensatory schooling: foundation skills (maths, literacy, etc.) are acquired more easily if used at the workplace
Inadequate learning methodologies: Classroom-based skills development can often not be adjusted adequately to individual learning needs	-> Workplace-based learning is “embedded” and supervised on a one-on-one basis – it is thus easier to adapt to individual needs and learning pace.
Exploitation: In segregated schools and workshops, work practices are often exempted from national labour laws (salaries, benefits, etc.)	-> Quality apprenticeships respect the national labour and youth code, including social benefits, remuneration and union affiliation
Transportation: When training institutions are located far away, disabled people, particularly in rural areas, are faced with transport challenges.	-> Apprenticeships can take place in local enterprises. Employers often cover transport, or apprentices can use their remuneration to pay for transport

Source: ILO, 2017.

Many employers are reluctant to hire persons with a disability because they lack any understanding about their abilities, and they fear their responsibilities for providing reasonable accommodations. Yet, employers stand to benefit by employing them due to reduced recruitment and training costs, as they are productive, capable workers who tend to stay with their employers longer. Also, in many cases, employers can receive tax, wage subsidy, and other benefits for hiring a person with a disability (*Disabled World*, 2015).

Statistics are difficult to obtain for Quality Apprenticeships and disability programmes because surveys do not usually record personal features such as disability. As a general rule, the proportion of persons with disabilities is low in apprenticeships. In Germany in 2015, there were 8,851 new apprenticeship contracts for persons with a disability (Federal Ministry for Education and Research, 2016, p.75). In England, as may be seen from table 15, there were 50,000 apprenticeship starts for people with a learner difficulty/disability in 2015/16, i.e., 9.9 per cent of the overall figure - but this is still half of the total proportion of people with disabilities (19.5 per cent).

TABLE
15

15. Apprenticeship starts for people with a learning difficulty/disability – England

	09/10	10/11	11/12	12/13	13/14	14/15	15/16
LEVEL (thousands)							
Learning difficulty/disability	26	37	40	43	38	44	50
No learning difficulty/disability	251	417	474	461	396	449	443
Not known	3	4	7	6	6	7	10
% OF TOTAL							
Learning difficulty/disability	9.4	8.0	7.7	8.4	8.7	8.8	9.9
No learning difficulty/disability	89.6	91.2	91.0	90.4	89.9	89.8	88.5
Not known	0.9	0.8	1.3	1.2	1.4	1.3	1.5

Source: House of Commons Library, 2016, p. 12.

10.2.1 Steps to improve the inclusiveness of apprenticeships for persons with a disability

Implementing inclusive apprenticeships requires local practical and institutional arrangements, as well as policy measures at the highest level. The impact is more likely to be achieved through coordinated action across all levels. At the practical level, overall coordination through a specific local institution will be highly conducive to a smooth inclusion process (ILO, 2017, forthcoming).

Inclusive apprenticeships require an enabling environment, policies and laws that put the principles contained in the United Nations Convention on the Rights of Persons with Disabilities into practice, and set the basis for mainstreaming disability in the provision of TVET. Effective and pertinent policies can only result from the participation of governments, the social partners, and representatives from disabled persons' organizations and TVET institutions in a combined process.

Governments

Governments play an essential role in creating a supportive legislative and social policy framework, and disability equality should be mainstreamed as a cross-cutting issue among all Ministries and governmental institutions. In terms of apprenticeships, government agencies have a role to play in coordinating, creating an enabling policy environment, providing services and support, and also funding:

- **Coordinating** – among the social partners, with the TVET institutions, individual employers, disabled persons organizations and other stakeholders. As well as promoting practical linkages among these institutions, governments can also promote a shared understanding of how to work on disability issues, and monitor how successful they are.
- **Enabling inclusive policy** – including disability issues in vocational education and training, ensuring that frameworks for quality apprenticeships have conditions for inclusion of persons with disabilities.
- **Providing services and support** – TVET institutions and employers need to make adaptations to carry through these changes, and government agencies and policies can provide guidelines, regulations, incentives, and technical support.

An example of incentives provided by the Australian Government is given in [box 38](#).

BOX
38

38. Supporting Australian Apprentices with disability

A range of assistance is available to support Australian Apprentices with disability, including Disabled Australian Apprentice Wage Support, which is paid to employers, and assistance for tutorial, interpreter and mentor services for apprentices. Disabled Australian Apprentice Wage Support (DAAWS) is an Australian Government incentive payable to an employer who employs an Australian Apprentice – who satisfies the disability eligibility criteria in an Australian Apprenticeship.

Source: Disabled World, 2015b.

TVET institutions

TVET institutions should be incorporating persons with disabilities throughout all vocational education and training, and in a way that is integrated with other apprentices. The process of developing an inclusive skills development system can be a lengthy one, as it involves reform through policies, budgets, infrastructure, a change in mindsets, as well as the training delivery itself. Alongside this process, there are practical measures to be taken in regards to mainstreaming, as follows:

- **Engaging in outreach activities** – to persons with disabilities to encourage and facilitate entry into workplace learning.
- **Making physical adaptations** – adjusting classroom and workplace training to make sure that persons with disabilities can participate productively.
- **Engaging employers** – TVET institutions, especially those with pre-existing relationships with employers, can play an important role in encouraging and demonstrating employers to take on trainees with disabilities.
- **Establishing partnerships** – together with disability organizations and other partners, TVET institutions can acquire the expertise and resources needed to make these changes.

BOX
39

39. SENAI Programme for Inclusive Actions – Brazil

In Brazil, there is specific unit within the Brazilian Service for Industrial Training (SENAI) – the Programme for Inclusive Actions (PSAI). This unit supports the SENAI training centres in their inclusion efforts. There are also focal points on disability in each of SENAI's regional departments, which assist with the implementation of inclusive apprenticeship. They are regularly trained by the PSAI and have formed a mutual support network. Furthermore, teachers and trainers receive training on disability inclusion. SENAI also includes disabled persons among their teachers and instructors – many of whom have previously been trained by SENAI.

Apprentices with all types of disabilities are accepted, and in principle, all occupations are open for training. Each candidate is considered depending on his/her individual abilities and limitations. If necessary, a PSAI member assesses the possibilities and feasibility of mastering a given occupation, together with the candidate in question. On the basis of the individual assessment, accommodations are made at the training centre and the company.

National legislation foresees that the curricula, teaching materials, training duration and exams can be easily adjusted, and that sign-language interpreters can be hired. Great efforts have been made to adapt existing training centres (and to build new ones) that are fully accessible. Disabled graduates receive the same, nationally recognized, certificates as non-disabled trainees. In the event that a graduate has limitations carrying out a specific task, this is noted on the certificate.

Approaching inclusion with a systemic view has been crucial to the success of this programme. The facilities and equipment, curricula, examination methods and people's attitudes – all were addressed simultaneously. Capacity building was organized at all levels - with managers and supervisors, teachers, trainers and even secretaries and canteen staff. The network of focal points has also proven to be highly beneficial. Furthermore, clear objectives and indicators, as well as their constant monitoring, were key elements and helped to disseminate the achieved results widely.

Further information can be found under the SENAI industry website at: <http://www.portaldaindustria.com.br/senai/en>

Employers and employers' associations

Employers and employers' organizations have the opportunity to take the lead in the area of the inclusion of persons with disabilities into apprenticeships. Other stakeholders will need the assurance that employers are willing to engage persons with disabilities in workplace learning. This may be achieved in the following way:

- **Sharing experience** – disseminating best practices and the possibilities relating to the hiring of persons with disabilities; in many countries, networks of enterprises and disabled persons' organizations are playing this role.
- **Taking on apprentices with disabilities** – initiating the process in an adaptive way to enable employers and apprentices to learn from each other and to develop more sustained inclusion.
- **Making disability-inclusive workplaces** – making a strong commitment to disability inclusion, by developing a disability management strategy and taking other measures to improve accessibility and inclusion in the workplace.

BOX 40

40. Employers' toolkit for inclusive apprenticeship

In the United Kingdom, there is a special toolkit designed for employers that want to develop a more inclusive and accessible apprenticeship offer. It provides practical information, sources of support and inspirational case studies of employers who have benefited from hiring and supporting apprentices from a diverse background, including persons with a disability.

Source: Learning and Work Institute, 2017

Support institutions

Institutions specialized in workplace inclusion, such as the public employment services, career guidance services and disabled persons' organizations, can play a crucial role in providing coordination and assistance in the following way:

- **Providing advice for young persons with disabilities** – offering career guidance and job-coaching, as well as supporting the transition to the labour market.
- **Coordinating with enterprises** – identifying enterprises that are willing - or have a potential to train - disabled apprentices; helping disabled young people to find a training company and to complete the recruitment process; and, providing advice on accessibility.
- **Guiding TVET colleges** – adapting curricula, training methods and assessments, and providing advice on accessibility
- **Acting as a help desk** – mediating, in the case of grievances, including with respect to the prevention of discrimination, exploitation and harassment.
- **Conducting evaluations and tracer studies.**

In South Africa, disabled learners receive intensive mentoring, coaching and support during their training. Proper planning is required for the success of this process. Companies need to ensure adequate support structures, such as in-company mentors and job coaches, who can help learners to master technical and practical skills.

Trade unions

Trade unions can advocate for disability inclusion among their members and develop a union-wide strategy for the inclusion of disabled workers in skills development. They can actively represent and protect the labour rights of apprentices with disabilities at the policy and sectoral level, within company work councils (where appropriate) and health and safety committees. They are in a unique position to promote positive, inclusive and respectful attitudes among co-workers, inform disabled apprentices about their rights, and to guide and support them in the case of grievances.

10.3 Other vulnerable groups

Women and persons with disabilities are not the only vulnerable groups. Migrants, refugees, indigenous people, ethnic, racial or religious minority groups, early school leavers, the socially excluded, persons in the rural areas and those with a low education level are generally under-represented in Quality Apprenticeships. In the United Kingdom, in 2015/16, 10.5 per cent of apprentice starters were from a Black, Asian or Minority Ethnic (BAME) background, which is substantially lower than the overall figure of 15.6 per cent for the BAME population aged 16 to 64 in England. The reasons for lower participation include negative views of apprenticeships amongst individuals, parents and communities, views on the 'suitability' of different occupations, a lack of good role models, and a lack of opportunities in areas with large BAME communities.¹⁴ In South Africa inequality also exists on the basis of race, gender and class (box 41).

¹⁴ <http://www.employer-toolkit.org.uk/ethnicity-3/> assessed 24 June 2017.

BOX
41

41. Unequal access to vulnerable groups – South Africa

A major limitation in the implementation of the learnership and apprenticeship systems is that they do not enable equal labour market access for all participants, particularly vulnerable constituencies and those who experience social inequality on the basis of race, gender and class. Learnership and apprenticeship opportunities have a limited geographical spread, concentrated in metropolitan areas in three more densely populated and affluent provinces. Almost 60 per cent are provided in Gauteng, Western Cape and KwaZulu-Natal. There is very little provision of or access to programmes in the poorer provinces where they may be needed most, in order to contribute to regional, and particularly rural, economic development.

Those participating in high-level skills learnerships and those employed at registration are more likely to be white and male, and gender and racial differentiation between sectors still largely reflects traditional occupational patterns. A critical constraint is that positive employment outcomes are least likely for women; those with low socio-economic status; those who are African; those with low educational levels; and those in low-status occupations and sectors.

Source: Kruss et al., 2014

Quality Apprenticeships should provide a safe and nurturing work environment without discrimination against anyone. Various studies have proved that a diverse workforce propels innovation and enhances profitability. It helps employers to have the best person for the job, and their workforce has a balance of different perspectives. In addition, it benefits business by reflecting a diverse customer base and the community that employers serve.¹⁵

There is a need to use innovative methods in pedagogy, develop flexibility in curricula, customise learning pathways and funding to attract vulnerable groups and meet their requirements in completing apprenticeships and gaining employment.

Many of the most successful companies have advanced diversity, strategies and are highly inclusive of minority groups (Partnership for a New American Economy, 2011). Approximately 90 per cent of Fortune 500 companies prohibit discrimination based on sexual orientation and gender identity, and almost 60 per cent of them extend benefits to the same-sex partners of their employees (DeCenzo et al., 2016, p.74).

TVET institutes and enterprises may also set diversity targets and actively increase the number of apprentices from minority or disadvantaged backgrounds and/or reserve positions. For instance, 50 per cent of the apprenticeship training seats in India are reserved for candidates belonging to vulnerable groups in order to bring the youth belonging to weaker sections of the society into the mainstream. They have reservation in jobs in the public sector. The quotas are set in accordance with their percentage of the population in the State.

¹⁵ <http://www.employer-toolkit.org.uk/ethnicity-3/> assessed 24 June 2017.

10.4 Small- and medium-sized enterprises (SMEs)

The proportion of small- and medium-sized enterprises (SMEs) is significantly less in Quality Apprenticeships. This may be attributed to a lack of comprehensive facilities to meet the standards and of trained instructors, as well as to administrative and procedural requirements that may be too taxing for them. Clearly, SMEs require some form of support to take on apprentices. This could come from intermediary bodies that would manage the recruitment process, produce education and training plans, set clear roles and responsibilities for the on-the-job training and organize the assessment activities, as well as deal with the administrative procedures.

In the German-speaking countries, this support is often provided, for example, by the Economic Chambers of the different provinces in Austria, or the Public Employment Services or Chambers of Commerce and Industry in Germany, or the Cantonal Offices for Vocational Training and Career Guidance in Switzerland (Bliem et al., 2017, pp. 14-16).

Moreover, as SMEs, and particularly micro enterprises, are often unable to provide all the different aspects of training required by the training regulations, these intermediary bodies manage the process and distribute the on-the-job training to a variety of micro-enterprises. In Australia, these intermediary bodies, known as group training organisations, carry out these tasks and others, as can be seen in [box 42](#) (OECD/ILO, 2017, p.25).

BOX 42

42. Group training organisations and SMEs

In Australia, group training organisations are not-for-profit organisations that receive government funding to directly employ apprentices, manage their training and support needs and hire them out to employers. The advantage of this model is that training offices boast institutional knowledge about navigating the apprenticeship system and supporting apprentices. In the Australian case study, the group training organisation ABN Training featured a dedicated training manager who was able to support apprentices through the programme by providing pastoral care and practical assistance with off-the-job training and theory requirements. This organisation has been successful in improving apprenticeship completion rates in the ABN Group above the state and national average.

In addition, as an OECD study has indicated, ‘specialised incentive mechanisms, including tax exemptions, subsidies, the provision of networks or custom placement assistance, can help to improve SME participation in apprenticeship programmes’ (OECD/ILO, 2017).

10.5 Pre-apprenticeship training

Quality Apprenticeships often have eligibility criteria for admission, which tends to limit the access of disadvantaged youth, including school drop-outs, to training places and eventual employment. In this context, targeted interventions that bridge the qualification gaps of disadvantaged youth help integrate them into mainstream training.

Pre-apprenticeship training programmes help potential apprentices to develop academic knowledge, skills and trade in readiness for an apprenticeship. The programme may combine basic literacy and numeracy skills training, and practical in-company training. Governments may financially support the companies that provide training places to disadvantaged youth who lack necessary qualifications to be an apprentice. In Germany, for instance, the federal employment agency provides pre-apprenticeship training for youth who lack qualifications for apprenticeships or those who are socially disadvantaged. The scheme combines vocational training and subsidised employment in enterprises. It is financed by the social security fund (European Commission, 2015). An example of pre-apprenticeship programme in Canada is given in [box 43](#).

**BOX
43**
43. Pre-apprenticeship programme in Canada

The Province of Ontario in Canada has pre-apprenticeship programmes for those interested in working in a trade, but who do not have the skills or experience to get an apprentice place. There are programmes for youth or adults who:

- graduated from high school
- left before finishing high school
- are unemployed or underemployed (age and eligibility for Employment Insurance are not considered)
- are Indigenous, newcomers to Canada, women, Francophone or youth-at-risk

The training is provided by different organizations, such as colleges or community agencies. It is free – costs for textbooks, safety equipment and tools are also covered. The training goes for up to 52 weeks and starts at different times throughout the year, and covers:

- safety training for skilled trades
- training to improve academic skills
- basic-level apprenticeship in-school training

Pre-apprenticeship training also includes a work placement for eight to 12 weeks.

Source: Employment Ontario, 2016.

Across the world, employers face the challenge of developing and retaining staff. At the same time, more and more employers are recognizing the benefits of employing under-represented groups of young persons. Workplaces that are inclusive give employers access to a wider pool of talent and create a positive image of the organization among staff and clients. Making Quality Apprenticeships inclusive provides employers with a new source of skilled workers, and gives young people an enhanced opportunity to enter the labour market.

10.6 Checklist

You may use the following checklist to evaluate the inclusiveness of your country's apprenticeship system, to decide which elements could potentially be strengthened and to judge whether your system could be described as a Quality Apprenticeship system.

INCLUSIVENESS - OPPORTUNITIES FOR ALL	YES	NO
In your country:		
• Are statistics on apprenticeships and under-represented groups collected?		
• Are there effective policy actions (e.g. awareness-raising campaigns) taken to encourage under-represented groups to take up apprenticeships?		
• Do governments provide employers with incentives to take on apprentices from under-represented groups?		

If you have answered "NO" to any of these questions, it might be worth examining ways in which apprenticeship training in your country ensures opportunities for all. Inclusiveness is a key factor in the success and sustainability of Quality Apprenticeships for all.

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ISBN 978-92-2-131375-5



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