



International
Labour
Organization

ILO Toolkit for Quality Apprenticeships

Volume 2: Guide for Practitioners

► Overview



ILO Toolkit for Quality Apprenticeships

Volume 2: Guide for Practitioners

► Overview



Edited by: Ashwani Aggarwal

Skills and Employability Branch, Employment Policy Department

Copyright © International Labour Organization 2020

First published 2020

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publishing (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

ILO Toolkit for Quality Apprenticeships. Volume 2: Guide for Practitioners
For developing, implementing, monitoring and evaluating apprenticeship programmes.
Overview

ISBN: 978-92-2-032183-6 (print)
978-92-2-032184-3 (web PDF)

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

Design and layout by the International Training Centre of the ILO, Turin - Italy

Printed in *Italy*

Foreword

The ILO Centenary Declaration for the Future of Work adopted in 2019 came at a time of transformative change, driven by technological innovations, demographic shifts, climate change and globalization. These all have profound impacts on the nature and future of the world of work, and the place and dignity of people within it. Among other things, it called upon the ILO to direct its efforts towards promoting the acquisition of skills, competencies and qualifications for all workers throughout their working lives in order to address existing and anticipated skills gaps, and to pay particular attention to ensuring that education and training systems are responsive to labour market needs. Acknowledging the growing relevance of apprenticeship in addressing skills mismatch and smoothing transitions into the world of work and between jobs, the ILO has decided to place an item on Standard-Setting on Apprenticeships on the agenda of the 110th Session (2021) of the International Labour Conference.

Although its benefits are widely recognized, apprenticeship in its modern form is relatively complex, involving as it does the delivery of training via a multiplicity of venues and channels – enterprises, training institutions, assorted intermediaries and even on-line platforms – that requires effective coordination and collaboration. Other stakeholders, including workers' and employers' organizations, play a major role, with government typically providing the legal and regulatory framework. For many countries seeking to introduce apprenticeship for the first time, or those wanting to sustain and develop a pre-existing apprenticeship system, there are not only policy issues to address, but also many practical and operational challenges involved in delivering good quality apprenticeships.

The ILO has therefore developed the *ILO Toolkit for Quality Apprenticeships*, a two-volume resource aimed at supporting policy-makers and practitioners in improving the design and implementation of apprenticeship systems and programmes. Whereas volume 1 is a guide to policy issues, this volume offers comprehensive, practical guidance to developing and implementing apprenticeship programmes. Combining diverse national good practices with ILO experience, it includes over 125 tools and guides from more than 40 countries and institutions worldwide. Each tool can be adapted to fit national and local contexts and applied in different countries. Besides apprenticeship programmes, this Toolkit can also be used for other TVET programmes. For example, it contains tools for identifying skills needs, preparing occupational profiles and curricula, and developing instructional and learning materials and post-training transitions and evaluations.

Furthermore, this Toolkit highlights recent innovations and suggests strategies for strengthening apprenticeships in the fast-changing world of work. Considering technological advances, digitalization and the growing importance of digital skills, it offers over 20 digital tools that can play an integral part in the delivery, monitoring and evaluation of apprenticeship programmes, and maximize their benefits for individuals, enterprises, the economy and society as a whole.

Srinivas B. Reddy

Chief

Skills and Employability Branch

ILO, Geneva

Sangheon Lee

Director

Employment Policy Department

ILO, Geneva

Acknowledgements

The *ILO Toolkit for Quality Apprenticeships (Volume 2)* is the result of a joint effort and reflects the contributions of experts from governments, employers' and workers' organizations, the ILO and other development agencies, the private sector, non-governmental organizations, and national training authorities and providers. It includes examples of the tools and practices of many public, private and not-for-profit organizations from more than 40 countries. Thanks are due to all those who directly or indirectly contributed to the Toolkit. Special thanks go to the Swiss Development Corporation (SDC) and the Ministry of Foreign and European Affairs of the Grand Duchy of Luxembourg for substantially funding the Toolkit.

Thanks are also due to the members of the expert committee for providing excellent inputs and comments on the drafts of the Toolkit, guiding the process, supporting the collection of tools and participating in the meetings. A list of members follows:

ILO HQ: Ashwani Aggarwal (Co-ordinator of expert committee), Christine Hofmann, Josée-Anne Larue, Mergim Jahiu, Rafael Peels (ACTRAV) and Samuel Asfaha (ACTEMP).

ILO field offices: Albert Okal and Ilca Webster (Africa), Hassan Ndahi and Michael Axmann (Latin America and the Caribbean), Gabriel Bordado, Julien Magnat, Kishore Kumar Singh and Tanjel Ahsan (Asia), Patrick Daru and Yasser Ahmed Hassan (Arab States).

External institutions: Akustina Morni (International Organisation of Employers), Guido Beltrani, Brigitte Colarte-Dürr and Rahel Guntern (Swiss Agency for Development and Cooperation) and the Donor Committee for dual Vocational Education and Training (DC dVET).

Other experts and institutions that provided tools and/or reviewed drafts include: Jérôme Hügli and Claudia Lippuner (SERI); Nazarene Mannie, Kathleen Elsig, Anna Zongolowicz and Leila Rafi (Global Apprenticeship Network); Erwin Seyfried (on behalf of SDC); Manon Bosma (Accenture); Sandra Rothboeck (Swisscontact); Erik Swars (SFIVET); Bartelijne van den Boogert (VET Toolbox); Alexis Hoyaux (LuxDev); Gert Janssens (Enabel); Nader Nabil and Sebastian Krull (GIZ); Andrew Hall, Chris Cooper and Simon Perryman (British Council); Asad-Uz-Zaman (Bangladesh); Rajesh Agarwal, R.P. Dhingra, Anita Srivastava, Surojit Roy and Pangkhuri Borgohain (India); and Pooja Gianchandani. Bolormaa Tumurchudur-Klok, Manzoor Khaliq, Paul Comyn, Jean-François Klein, Stefano Merante, Sylwia Golawska, Cheryl Chan, Jongwoo Lim, Fernando Vargas, and Gonzalo Graña also reviewed the Toolkit. There were also consultations with other external institutions, including the Organisation for Economic Co-operation and Development (OECD), European Alliance for Apprenticeships (EaFA), United Nations Educational, Scientific and Cultural Organization (UNESCO),

European Training Foundation (ETF) and the European Centre for the Development of Vocational Training (Cedefop).

The Toolkit was also reviewed by 44 experts from government and social partners from 11 developing countries (Albania, India, Malawi, Myanmar, Namibia, Pakistan, Rwanda, South Africa, Sri Lanka, Uganda and United Republic of Tanzania (hereafter Tanzania), who participated in the programme on quality apprenticeships in the International Training Centre of the ILO in Turin.

Ashwani Aggarwal conceptualized, designed and led the development process of the Toolkit. He also wrote many sections, revised, edited and finalised the Toolkit, after Simon Field and Winfried Heusinger had prepared an initial draft. Sylwia Golawska provided extensive support in finalising the Toolkit.

Sangheon Lee, Director, Employment Policy Department, ILO, and Srinivas B. Reddy, Chief, Skills and Employability Branch, ILO, provided guidance and advice in the production of this publication.

Table of contents

	Foreword	iii
	Acknowledgements	xii
	Acronyms and abbreviations	xiii
Overview		1
	1.1 What are quality apprenticeships?	2
	1.2 Benefits of quality apprenticeships	3
	1.3 ILO Toolkit for Quality Apprenticeships	7
	1.4 Key features of the toolkit	9
	1.5 The tools and how they are selected	11
	1.6 How should practitioners use the tools?	12
	1.7 Structure of Toolkit 2	13
Module 1 The quality apprenticeship training life cycle		1
	1.1 Introduction: The quality apprenticeship training life cycle	1
	1.2 Understanding the apprenticeship policy framework and system	2
	1.3 Stages in the apprenticeship training life cycle	3
	1.4 Country guides	6
Module 2 Developing quality apprenticeship programmes		1
	2.1 Establishing an institutional framework for social dialogue	1
	2.2 Identifying skills needs in sectors and occupations	7
	2.3 Developing occupational profiles and curricula based on skills needs assessments	13
	2.4 Providing instructional and learning materials	20
	2.5 Checklist	24
Module 3 Preparing quality training places		1
	3.1 Engaging and registering enterprises to provide apprenticeship training	1
	3.2 Formulating apprenticeship agreements	12
	3.3 Building partnerships in apprenticeship programmes	15
	3.4 Ensuring the capacity of TVET providers to provide the off-the-job component of apprenticeships	23
	3.5 Preparing staff to train and mentor apprentices	27
	3.6 Checklist	34

Module 4 Organizing apprenticeship training 1



4.1	Attracting candidates to join apprenticeship training	1
4.2	Recruiting apprentices	8
4.3	Developing a training plan	13
4.4	Effective training delivery methods	18
4.5	Monitoring, assessment and certification	25
4.6	Social inclusion	34
4.7	Checklist	39

Module 5 Post-training transitions and evaluation 1



5.1	Transition to the labour market or into further education and training	1
5.2	Evaluation of quality apprenticeship programmes	7
5.3	Checklist	17

Module 6 Innovations and strategies in apprenticeships 1



6.1	Innovations and emerging trends in apprenticeships	1
6.2	Strategies for promoting quality apprenticeships	19
	Annex I: Who should drive or lead apprenticeships?	25
	Bibliography	27

List of tools

Module 2	Developing quality apprenticeship programmes	
Tool 2.1.1	Institutional framework for social dialogue in Norway	5
Tool 2.1.2	Social dialogue platform in Germany	5
Tool 2.1.3	Apprenticeship Steering and Technical Committees in Zanzibar	6
Tool 2.1.4	Developing social dialogue skills through role play: A training exercise	6
Tool 2.2.1	Skills shortage research methodology, Australia	10
Tool 2.2.2	How to conduct a quick and simplified sector analysis, Asian countries	11
Tool 2.2.3	Questionnaire for sector selection and assessment of frame conditions, DC dVET	11
Tool 2.2.4	Sector skills plan of merSETA, South Africa	11
Tool 2.2.5	Guide on employer skills survey, ILO/ETF/Cedefop	12
Tool 2.2.6	Workforce planning, including for apprentices at company level, the United States	12
Tool 2.3.1	Development of training regulations, including occupational profile, Germany	17
Tool 2.3.2	Handbook for developing curricula using occupational profiles, Switzerland	17
Tool 2.3.3	Guide for developing curricula based on occupational standards, Jordan	18
Tool 2.3.4	Manual for developing qualification and occupational standards, Bosnia and Herzegovina	18
Tool 2.3.5	A guide to developing and implementing qualifications that meet industry needs, VET Toolbox, British Council	18
Tool 2.3.6	Examples of occupational standards from the United Kingdom, Germany, Canada and Australia	18
Tool 2.3.7	A sample apprenticeship standard for a boatbuilder programme, England	19
Tool 2.3.8	A sample curriculum for the qualification of electrician (steel plant), India	19
Tool 2.3.9	Transferable skills in vocational education and training, VET Toolbox, GIZ	19
Tool 2.3.10	Conceptual and programmatic framework for life skills and citizenship education in the Middle East and North Africa, UNICEF	19
Tool 2.4.1	REALTO – Online platform to capture experiences, create learning content and connect different learning venues in Switzerland	21
Tool 2.4.2	Online learning management system, including mobile app for occupational competence, South Korea	21
Tool 2.4.3	Instructional material including 3D animated models, India	22
Tool 2.4.4	Training and assessment implementation aids, Germany	23
Tool 2.4.5	Learning material for apprentices, Austria	23

Tool 2.4.6	A handbook for instructors on managing a training workshop to maximize learning potential, Viet Nam	23
Module 3 Preparing quality training places		
Tool 3.1.1	Compendium of resources for determining the quality of in-company VET, BIBB, Germany	8
Tool 3.1.2	How intermediaries (GTOs) support enterprises in apprenticeships, Australia	8
Tool 3.1.3	Engaging the business sector in VET: Working tool for policy dialogue and project design, DC dVET	8
Tool 3.1.4	A practical guide and e-learning course on quality apprenticeships for enterprises, ILO and IOE	9
Tool 3.1.5	Guide for employers seeking to develop and implement apprenticeship programmes, the United States	9
Tool 3.1.6	Engaging employers in apprenticeship opportunities, OECD and ILO	9
Tool 3.1.7	Accreditation of enterprises providing apprenticeships, the Netherlands	10
Tool 3.1.8	Sample checklist to confirm the eligibility of enterprises to implement apprenticeships, Asian countries	11
Tool 3.1.9	Suitability of enterprises to provide apprenticeship training, Austria	11
Tool 3.2.1	Sample apprenticeship agreement, Switzerland	14
Tool 3.2.2	Sample apprenticeship agreement, Tanzania	14
Tool 3.3.1	How to establish partnership at the local level, Asian countries	22
Tool 3.3.2	Memorandum of understanding between employer and TVET provider, Tanzania	22
Tool 3.3.3	Cooperation between stakeholders from business, government and society, Germany	22
Tool 3.4.1	Standards for TVET providers, Australia	25
Tool 3.4.2	Handbook for quality management in TVET providers, Cedefop	25
Tool 3.4.3	Quality assurance of TVET providers by sector skills council, South Africa	26
Tool 3.4.4	Training manual on the management of education and vocational training institutions, VET Toolbox/LUXDEV	26
Tool 3.5.1	In-company trainer standards, ASEAN countries	31
Tool 3.5.2	Guide for in-company trainers – examples from Brazil, Egypt, Ghana, Kosovo, Mexico, Pakistan, Saudi Arabia and Thailand	31
Tool 3.5.3	Guidance on how to train trainers, Austria	31
Tool 3.5.4	Training course for in-company trainers, United States	31
Tool 3.5.5	Qualification and training of TVET teachers and trainers, Switzerland	32
Tool 3.5.6	Publication on vocational teachers and trainers in a changing world, ILO	32

Tool 3.5.7	Networking portal for practitioners, South Africa	33
Tool 3.5.8	Apprenticeship Support Services, EAfA	33
Tool 3.5.9	Guidance on how to support apprentices in the workplace, United Kingdom	33
Module 4	Organizing apprenticeship training	
Tool 4.1.1	Digital video platform “Film your job”, France	4
Tool 4.1.2	Digital vocational orientation at school, Germany	4
Tool 4.1.3	Vocational guidance and counselling services, Switzerland	5
Tool 4.1.4	Careers portal, South Africa	5
Tool 4.1.5	Promotional materials for apprenticeship, Canada	5
Tool 4.1.6	Best practice guide to youth career programmes, Australia	6
Tool 4.1.7	Promotional materials for apprenticeship, Germany	6
Tool 4.1.8	Online match-making platform connecting schools with workplace volunteers, United Kingdom	7
Tool 4.1.9	Using technology to connect employers and students, United Kingdom	7
Tool 4.1.10	Online vocational guidance, Austria	8
Tool 4.2.1	Online portal for apprenticeship, India	11
Tool 4.2.2	The European job mobility portal	11
Tool 4.2.3	Guide to apprentice recruitment for employers, United Kingdom	12
Tool 4.2.4	An online apprentice test designed to match training employers and apprentices, Austria	12
Tool 4.2.5	Procedure for recruiting apprentices, Switzerland	13
Tool 4.2.6	A mechanism for transferring an apprentice, South Africa	13
Tool 4.3.1	Sample rotation plan, Asian countries	16
Tool 4.3.2	Scheduling apprentices’ training time between different venues, Germany	16
Tool 4.3.3	An enterprise training plan, Germany	16
Tool 4.3.4	A TVET provider training plan template, Australia	17
Tool 4.4.1	12 training methods for use by in-company trainers, Germany	21
Tool 4.4.2	Manual for the instruction of vocational trainers in industrial and technical trades, Afghanistan	21
Tool 4.4.3	Lesson planning and action-oriented teaching – a manual for secondary technical schools, Afghanistan	23
Tool 4.4.4	Teaching and training methods in apprenticeship: A review of research, United Kingdom	23
Tool 4.4.5	Approaches to effectively engage apprentices and students to lower the drop-out rate, NetWBL	24

Tool 4.4.6	A digital platform providing online apprenticeships and career coaching services for apprentices, France	24
Tool 4.5.1	A guide for monitoring and assessing apprentices' performance, United States	29
Tool 4.5.2	Online mock tests and online assessment, India	29
Tool 4.5.3	An apprenticeship logbook, Bhutan	29
Tool 4.5.4	An apprenticeship logbook, Denmark	30
Tool 4.5.5	Sample logbook, Asian countries	30
Tool 4.5.6	Mobile logbook, British Columbia	30
Tool 4.5.7	Model documents for reporting on apprentice performance, Switzerland	31
Tool 4.5.8	Rules and conditions for formative and summative assessment, South Africa	31
Tool 4.5.9	Assessment and certification system, Denmark	31
Tool 4.5.10	How final assessment is organized, Switzerland	32
Tool 4.5.11	How examiners for the apprenticeship final assessment are chosen and trained, Switzerland	33
Tool 4.5.12	How final assessment is organized, Germany	33
Tool 4.6.1	Integrative apprenticeships for learners with special needs, Austria	37
Tool 4.6.2	Guidance on how to make apprenticeships and workplace learning inclusive for those with disabilities, ILO	37
Tool 4.6.3	A special, shorter apprenticeship programme for vulnerable youth, Switzerland	38
Tool 4.6.4	Tools for the identification of apprentices who are at risk of dropping out and guidance for trainers, VET teachers and parents on dealing with this situation	38
Module 5 Post-training transitions and evaluation		
Tool 5.1.1	Information on apprenticeship opportunities and post-apprenticeship pathways, Switzerland	5
Tool 5.1.2	How to design, plan, implement and evaluate an employment fair, ILO, Egypt	5
Tool 5.1.3	Guide to starting and improving a business, ILO	6
Tool 5.1.4	The master craftsperson qualification – higher level vocational qualifications for graduate apprentices, Germany	6
Tool 5.1.5	Europass to promote mobility between countries in the EU	7
Tool 5.2.1	Online survey for graduate apprentices, EAN	11
Tool 5.2.2	Guide to tracer studies, ETF, ILO and Cedefop	11
Tool 5.2.3	A survey of apprentices to assess the system, United Kingdom	11

Tool 5.2.4	QualiCarte – a tool that allows employers to self-assess how well they manage apprentices, Switzerland	12
Tool 5.2.5	A review of methodologies for measuring the costs and benefits of in-company apprenticeship training, ILO	12
Tool 5.2.6	Assessment of returns on apprenticeship investment, India	12
Tool 5.2.7	Analysis of the costs and benefits of apprenticeship to employers, Germany	13
Tool 5.2.8	Set of indicators for assessing work-based learning, IAG	14
Tool 5.2.9	Apprenticeship outcomes performance matrix, United States	14
Tool 5.2.10	Evaluation tool for apprenticeship policy and system, ILO	15
Tool 5.2.11	Review of the apprenticeship system in Italy, Cedefop	16
Tool 5.2.12	Evaluation framework for Modern Apprenticeships in Scotland, OECD	16
Module 6 Innovations and strategies in apprenticeships		
Tool 6.1.1	Guide to the design and delivery of pre-apprenticeships, Learning and Work Institute	13
Tool 6.2.1	Resource guide for upgrading informal apprenticeships in Africa, ILO	24

List of figures

Overview

Figure A	Quality apprenticeship building blocks	3
Figure B	Representation of countries by region	9
Figure C	Applicability of tools	12

Module 1 The quality apprenticeship training life cycle

Figure 1.1	The quality apprenticeship life cycle	2
------------	---------------------------------------	---

Module 2 Developing quality apprenticeship programmes

Figure 2.1	Steps in an establishment skills survey	8
Figure 2.2	Developing curricula based on labour market demand analysis	13
Figure 2.3	Developing curricula based on occupational standards	16

Module 3 Preparing quality training places

Figure 3.1	A stylized model of the costs and benefits of apprenticeships for enterprises	2
Figure 3.2	The training skills needed by an in-CT	28
Figure 3.3	The pedagogical interventions of a TVET teacher	29

Module 4 Organizing apprenticeship training

Figure 4.1	Steps for recruiting apprentices for an enterprise	9
Figure 4.2	Scheduling on- and off-the-job training	14
Figure 4.3	The project-based method: learning the complete work process	19

Module 5 Post-training transitions and evaluation

Figure 5.1	Pathways of vocational and professional training in the Swiss system	4
------------	--	---

List of tables**Overview**

Table A	The different roles of the two toolkits	8
---------	---	---

Module 3 Preparing quality training places

Table 3.1	Summary of the costs and benefits of quality apprenticeships for enterprises	3
Table 3.2	Generic description of partnerships at national, sectoral and local levels	15

Module 6 Innovations and strategies in apprenticeships

Table 6.1	Pre-apprenticeship programmes	12
Table I.1	Types of apprenticeship by management body, South Korea	26

Acronyms and abbreviations

BIBB	German Federal Institute for Vocational Education and Training
CBC	competency-based curriculum
Cedefop	European Centre for the Development of Vocational Training
CVET	continuing vocational education and training
DC dVET	Donor Committee for Dual Vocational Education and Training
EaFA	European Alliance for Apprenticeships
ESS	employer/establishment skills survey
ETF	European Training Foundation
EU	European Union
GAN	Global Apprenticeship Network
GIZ	German Corporation for International Cooperation (<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i>)
GTOs	Group Training Organisations
ICT	information and communication technology
ILO	International Labour Organization
in-CT	in-company trainer
IOE	International Organisation of Employers
IVET	initial vocational education and training
KPI	key performance indicator
LMI	labour market information
MoU	memorandum of understanding
NCS	National Competency Standards
NIMI	National Instructional Media Institute
OECD	Organisation for Economic Co-operation and Development
off-JT	off-the-job training
OJT	on-the-job training
OS	occupational standard
RTOS	Registered Training Organizations
SDC	Swiss Agency for Development and Cooperation
SFIVET	Swiss Federal Institute for Vocational Education and Training
SMEs	small and medium-sized enterprises
TVET	technical and vocational education and training
VET	vocational education and training



► Overview

The dual vocational education and training system, in which apprentices spend time in both a host company and in vocational school, is a key element of success in the Swiss education system, and the main VET model in Switzerland.

About two-thirds of all young people in Switzerland take up an apprenticeship when they are about 15. Their job prospects are excellent as they are able to learn the skills that businesses require.

Johann N. Schneider-Ammann (former Swiss President), June 2016

Quality apprenticeships are cost-effective and can contribute to lowering youth unemployment rates, preparing skilled workers for a rapidly changing world of work and enhancing the productivity and competitiveness of enterprises. Governments, workers' and employers' organizations and international organizations are calling for the improvement and expansion of apprenticeships. For example, Labour and Employment Ministers of the G20 called on their member States to take action on apprenticeships and adopted the G20 Initiative to Promote Quality Apprenticeship (refer to section 3.1.2 of Toolkit 1). Similarly, member States of the ILO will discuss establishing a new International Labour Standard on apprenticeships during the International Labour Conference in 2021. Even while the world is deliberating on the best strategies to address the current and anticipated skills mismatches due to fast changing world of work, the World Economic Forum states that the future of work requires a return to apprenticeships.¹

Many countries, however, face challenges in scaling up and sustaining apprenticeship programmes and, increasingly, are seeking advice from the ILO. Therefore, the ILO has developed the *Toolkit for Quality Apprenticeships*, a two-volume resource guide intended to improve both the design and the implementation of apprenticeship systems and programmes. While the first volume provides advice to policy-makers on establishing or improving apprenticeship systems, this second volume provides guidance and tools for practitioners (see box A) to develop, implement and evaluate apprenticeship programmes.

This overview starts by explaining the ILO's approach to quality apprenticeships and then provides information on the users, key features and structure of this second volume of the Toolkit. It also explains how to use the tools presented in the Toolkit.

¹ See <https://www.weforum.org/agenda/2019/12/apprenticeships-future-work-4ir-training-reskilling/> for further details.

Box A Who are the apprenticeship practitioners?

A practitioner is a person who has a role in the design, planning, implementation, monitoring and evaluation of an apprenticeship programme. Examples of practitioners include the following:

- trainers, mentors, supervisors and human resources officers in an enterprise
- managers and teachers of TVET providers
- employment services providers and school counsellors
- labour inspectors
- experts and staff of other institutions involved in the development of standards, qualifications, curricula and learning aids; examinations and certification; monitoring and evaluation of apprenticeship programmes.

The types and roles of practitioners in a country depend on its policy and legal framework.

▶ 1.1 What are quality apprenticeships?

The ILO has developed the concept of quality apprenticeships to ensure that apprenticeship programmes are of sufficiently high quality and that they properly address labour market demand.¹ The first volume of the Toolkit outlined a framework for quality apprenticeships with the following key features (ILO, 2017, pp. 3–7):

- ▶ a tripartite system of governance
- ▶ remuneration
- ▶ a written agreement
- ▶ social security coverage
- ▶ a legal framework
- ▶ a programme of learning
- ▶ duration
- ▶ both on-the-job and off-the-job learning components
- ▶ a formal assessment process
- ▶ a recognized qualification.

The framework also provides guidance on developing quality apprenticeship systems based on the six building blocks shown in figure A. These are discussed in chapter 4 of volume 1 of the Toolkit.

¹ The International Labour Conference in 2021 and 2022 will discuss the establishment of a new standard(s) on apprenticeship, which may provide a definition of apprenticeships.

▶ Figure A Quality apprenticeship building blocks



Source: ILO, 2017.

▶ 1.2 Benefits of quality apprenticeships

Quality apprenticeships offer a variety of benefits to different stakeholders, particularly to apprentices, enterprises and government (ILO, 2017). These include:

- ▶ facilitating transitions to employment
- ▶ matching skills supply with fast-changing labour market needs
- ▶ increasing productivity and promoting sustainable enterprises
- ▶ offering a cost-effective form of VET delivery.

These benefits are discussed in chapter 3 of volume 1 of the Toolkit.

Apprenticeships can provide a strong foundation for a rewarding career. There are examples of apprentices who go on to become the chief executives and chairpersons of some of the best companies in the world (see box B).



Voices on Apprenticeships: A Skilled Workforce for the Future



Why are apprenticeships important?

Video: *Why are apprenticeships important? Views of ILO constituents and stakeholders,*
<https://www.youtube.com/watch?v=gK9UCDxg514>

Box B From apprentice to chief executive



- Mr Peter Voser, Chairman of ABB, started his career as a commercial apprentice in a bank in Switzerland.
- Mr Sergio P. Ermotti, Group Chief Executive Officer at UBS, started his career as a commercial apprentice in a bank in Switzerland. He stated:

It's no secret that apprenticeships are close to my heart – I know first-hand how effective this kind of education can be and how far it can take someone. After all, I started my career as an apprentice at a local bank in Lugano, Switzerland. And I dedicate time every year to advocate for apprenticeship programs, especially in countries where the apprenticeship system is not yet as well established as in my home country ... Young people learn in the real business world, develop critical communication and teamwork skills, and bring their own perspectives to bear. On top of this, work-based learning adapts in real-time based on what's happening in the industry and environment.

Source: <https://www.linkedin.com/pulse/agile-learning-changing-world-sergio-p-ermotti/>

Governments, enterprises and the apprentices can all benefit from positive returns on their investment in apprenticeships (see box C).

Box C Return on investment for apprenticeships



- In the United Kingdom, the economic return on public investment in apprenticeships is considerable. The present net value of each £1 of government investment in apprenticeships is estimated to be between £16 and £21 (National Audit Office, 2012).
- A study by the Centre for Economics and Business Research (Cebr) in the United Kingdom estimated that workers who have completed apprenticeships increase productivity by £214 per week on average (Cebr, 2013).
- A study of Indian small and medium-sized enterprises (SMEs) revealed that the benefits of offering apprenticeship training surpass the costs if apprentices are retained (ILO, 2014).
- In the United States, the return on investment for apprenticeships is \$27.7 for every dollar invested by government (Reed et al., 2012).
- In the Netherlands, wages for entry-level jobs for apprentice graduates are 30 per cent higher than those for graduates from school-based TVET (Government of the Netherlands, 2014).
- In Canada, the average benefit of apprenticeships to employers was shown to be 1.38 times the average cost (Canadian Apprenticeship Forum, 2006).



Historically, apprenticeships have been considered primarily as a means of facilitating the school-to-work transition for young people. However, rapid transformations in the world of work are placing new demands on older workers to acquire new and update existing skills throughout their working lives. In this context, the apprenticeship model is empowering youth with broad-based skills to acquire new skills throughout their career, as well as reskilling older persons to adapt to new demands in the workplace (see box D and the link to the Lifelong learning video).

Box D How can apprenticeships empower youth to keep pace with a fast-changing world of work?



There is a growing recognition that occupation-specific technical skills alone are insufficient to ensure lifelong employability. Apprenticeships should, therefore, also help develop broad-based soft skills, or transferable skills, such as learning to learn, communication, teamwork and digital skills, so as to build a strong foundation that enables workers to keep pace with the fast changes in the world of work. For example, in Germany, apprenticeship programmes aim to provide apprentices with full vocational capacity, also known as comprehensive action competence, in a wide range of activities so that they cope with the constantly changing requirements of working life (BIBB, 2014).



Video: Lifelong learning – Reinventing careers with IBM apprenticeships: Block chain specialist after losing nursing job,
<https://www.youtube.com/watch?v=9WTKJbbv5N8>

▶ 1.3 ILO Toolkit for Quality Apprenticeships

The *ILO Toolkit for Quality Apprenticeships* consists of two volumes: *Volume 1: Guide for Policy Makers (Toolkit 1)*; and *Volume 2: Guide for Practitioners (Toolkit 2 – this volume)*. The two volumes are linked to each other with the first volume providing guidance to policy-makers establishing or improving the policy framework and systems through the six building blocks for quality apprenticeships (figure A). The second volume, based on the six building blocks, guides practitioners in developing, implementing, monitoring and evaluating apprenticeship programmes. Both volumes provide comprehensive but concise information, guidance and examples of good practices and practical tools.

The two volumes of the ILO Toolkit deal with two different levels of the design and implementation of apprenticeships:

- ▶ The system level, addressed in Toolkit 1, concerns the design of an apprenticeship system and regulatory framework (usually nationally determined). It designates the place of apprenticeships within the education and training system, governance and social dialogue arrangements at national and regional levels, the law governing apprenticeships, funding arrangements and other policies related to apprenticeships.
- ▶ The programme level, addressed in Toolkit 2, refers to the processes and practices involved in developing and delivering apprenticeship programmes for particular occupations through high quality on- and off-the-job training. Additionally, it covers the monitoring and evaluation of apprenticeship programmes.

High quality system architecture provides the policy, regulatory and institutional framework that underpins the design and delivery of quality apprenticeship *programmes*, so the system and programme levels are closely intertwined.

The “architects” of apprenticeship systems are primarily policy-makers – the target audience of Toolkit 1. Those who create and implement apprenticeship programmes are primarily apprenticeship practitioners – the target audience of Toolkit 2. While the Toolkit distinguishes system and programme levels, the boundaries between the two levels are not always clear-cut: some policy-makers are also involved in implementing apprenticeship programmes, while many practitioners contribute to the development of apprenticeship policy at the system level.



© ILO

► Table A The different roles of the two toolkits

	Toolkit 1	Toolkit 2
Target group	Policy-makers Those involved in the development of apprenticeship policy	Practitioners Those involved in implementing apprenticeship programmes
Level	System National level – policy, law, place of apprenticeship within education system and role in labour market	Programme Sectoral, regional and local level – development and delivery of specific apprenticeship programmes
Examples	Establishing national and sectoral level bodies for social dialogue, including government, social partners and other stakeholders in apprenticeship	Mechanisms for social dialogue at sectoral, regional and local level to develop and deliver individual apprenticeship programmes
	Policy objectives ensuring that apprenticeship is closely related to labour market needs	Evaluation techniques, such as tracer studies that can identify the labour market outcomes of individual apprenticeship programmes. Mechanisms to use such information to monitor and quality assure programmes
	Policy objectives, strategies and incentives for inclusion, with reference to specific groups of individuals	Specific tools, such as pre-apprenticeship, and measures to lower drop-out rates and reduce the risk that those who struggle will not complete programmes

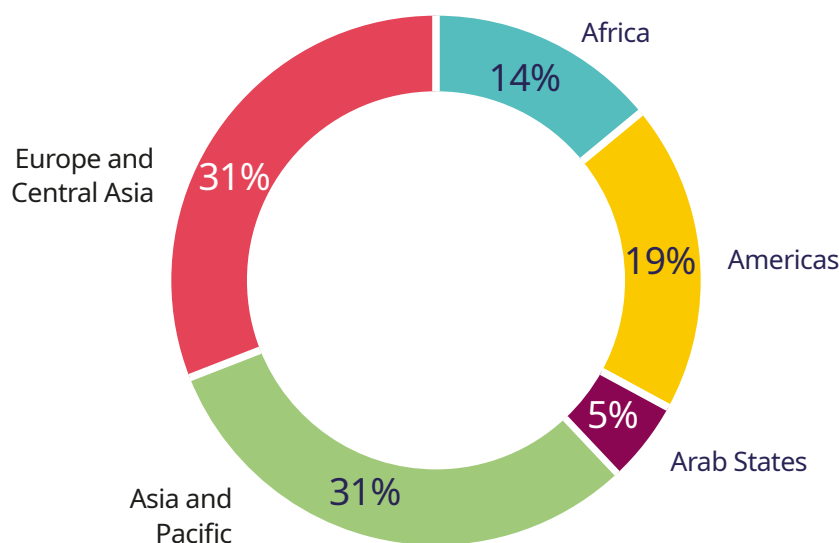
As explained in section 2.3 of Toolkit 1, quality apprenticeships can be distinguished from other types of work-based learning, including traineeships, internships and informal apprenticeships. These forms of work-based learning play a major role in the skills systems of many countries, but raise very different issues and are therefore best addressed separately. Accordingly, the ILO has developed a guide on upgrading informal apprenticeships, details of which are provided in section 6.2. The ILO, together with the International Organisation of Employers (IOE), has also developed a guide to assist enterprises in implementing apprenticeship programmes, which is cited in appropriate sections in this Toolkit.

▶ 1.4 Key features of the toolkit

The unique features of this second volume of the ILO Toolkit are listed below:

- ▶ offers comprehensive, practical guidance derived from diverse national practices and ILO experience
- ▶ presents over 125 tools, including publications and examples of good practice from more than 40 countries and development agencies
- ▶ includes tools from countries at different stages of economic development and with different levels of apprenticeship development, as well as representing regions from all around the world: Europe and Central Asia; the Americas; Africa; Asia and the Pacific and the Arab States (figure B)
- ▶ highlights recent innovations and emerging trends in apprenticeships; in particular, demonstrating:
 - » how technology is being used to enhance the effectiveness and efficiency of apprenticeship programmes (section 6.1.1)
 - » how apprenticeships are being used to bridge the skills gap in the digital economy (section 6.1.2)
- ▶ recommends strategies for promoting and transforming apprenticeships.

▶ Figure B Representation of countries by region





Use of technology in apprenticeships

Recognizing the ongoing process of digitalization of TVET and skills systems, as well as the rapidly increasing importance of digital skills, this Toolkit offers a range of digital technology tools that play an integral part in the successful design, delivery and monitoring and evaluation of apprenticeship programmes. Such tools enhance and enrich the learning process, encouraging greater engagement from apprentices and, simultaneously, increasing the attractiveness of apprenticeships for youth. Furthermore, technology tools also facilitate the acquisition of technical and transferable skills, especially digital skills, therefore improving apprenticeship graduates' employability and adaptability to the continually evolving world of work.

Digital technology tools provided in this Toolkit seek to enhance the effectiveness and efficiency of apprenticeship programmes by supporting practitioners in the following ways:

- ▶ **Promoting apprenticeships** – through online vocational and career guidance, including platforms that connect employers with students for these purposes.
- ▶ **Recruiting apprentices** – through digital platforms for matching apprenticeships and employers, and online tests designed to support the selection of future apprentices.
- ▶ **Enhancing learning experience** – through digital instructional and learning media, including 3D visualization as well as platforms that create shared digital spaces to capture learners' workplace experiences and support teachers in the creation of learning activities.
- ▶ **Providing early warning** – on behaviour, performance of apprentices and likelihood of their dropping out of a programme by the application of artificial intelligence and data analytics.
- ▶ **Creating stronger relationships and coordinated support** – between apprentices, enterprises and TVET providers, through portals connecting different learning venues.
- ▶ **Monitoring of training** – through online (self)assessment and the use of mobile log-books throughout the apprenticeship.
- ▶ **Strengthening of knowledge sharing and networking** – through the use of mobile apps and online portals.

▶ 1.5 The tools and how they are selected

This Toolkit presents over 125 tools that have been developed and used by various countries and institutions throughout the world. They are organized in four modules, with each module divided into sections that cover different stages of the apprenticeship programme. The tools are presented in boxes with a summary of the key features of each tool and a web link to the original document or material so that it is readily available to the reader. For the purpose of this Toolkit, a “tool” can refer to a particular procedure, process or template used in the development and management of apprenticeship programmes (for example, how assessment is organized in a given country) that can be applied in different countries, usually adapted to national and local contexts, or any apprenticeship-related resources, including documents and publications that provide guidance to practitioners. In addition to sample tools, each section of modules 2 to 5 also offers a standardized tool in the form of a set of steps involved in the implementation of a particular process.

How are the tools chosen?

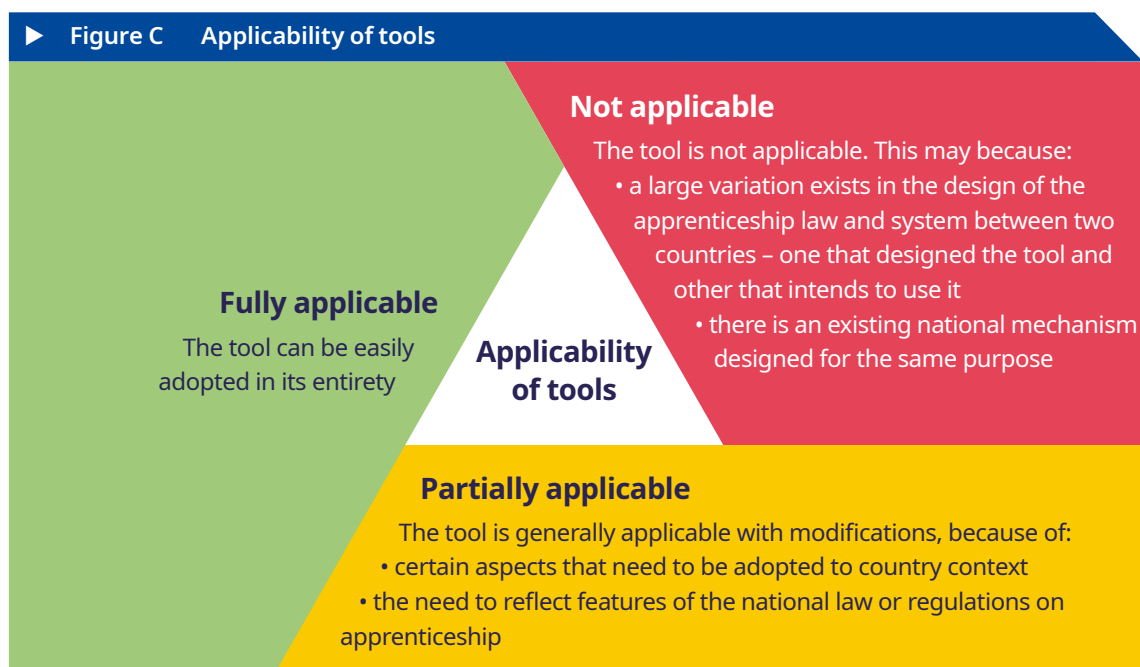
Following a literature review and consultations with development organizations, governments, social partners and experts from various countries, the ILO collected more than 500 potential tools from countries across the globe. Through a series of consultative processes, a final shortlist of over 125 tools was selected, based on the following criteria:

- ▶ The tools should come from different regions and countries in terms of geography and stages of development, to cater to the needs of users from a diverse range of countries with varied socio-economic conditions.
- ▶ The tools have been used successfully and are proven to represent good practices.
- ▶ The processes involved in using the tools are well-documented and provide the details needed by potential users, who may not have any prior experience in the development and implementation of apprenticeship programmes.

▶ 1.6 How should practitioners use the tools?

The tools presented in this Toolkit have been selected from a wide range of countries with different socio-economic conditions, therefore practitioners should bear in mind that not all tools will be applicable to their countries. Instead, practitioners should use this Toolkit as a source of guidance in delivering quality apprenticeships, to identify the relevant components of each tool and tailor them to their countries' specific needs and context. Some of the tools are in the national languages of the countries concerned. However, readers can use online translators, such as Google Translate, to translate the texts into other languages.

The applicability of the tools depends on a myriad of factors at the national, regional and local level. It is essential for users of this Toolkit to reflect carefully on their countries' particular circumstances, not only in terms of social and economic conditions, but also with regard to the place of apprenticeships within the broader policy framework and education system. For example, if apprentices have the legal status of employees, this will influence the nature of the apprenticeship agreement. For apprenticeships that are closely related to certain licensed trades, the transition of apprentices to the labour market is likely to be relatively straightforward, as apprentices would be awarded the licence following successful completion of the programme. National features such as these, and many others, will be extremely important in determining how apprenticeship is organized at the individual country level, and therefore how these tools can be applied (see figure C).



The online version of Toolkit 2 will be updated regularly, with new tools added and obsolete ones removed.



© ILO

▶ 1.7 Structure of Toolkit 2

Toolkit 2 is organized in seven modules.

The Overview module summarizes the ILO's approach to quality apprenticeships and clarifies the different roles of the Toolkit's two volumes. It also explains the target audience (practitioners), the key features and how to use the tools.

Module 1 sets out the quality apprenticeship life cycle and the processes involved. It also provides country examples of guides or manuals that offer guidance for various stakeholders to assist in the design and implementation of apprenticeships.

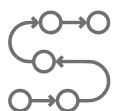
Each of modules 2 to 5 represents one of the four main stages of the apprenticeship life cycle and describes the key processes of each stage. Module 2 covers the development of a quality apprenticeship programme; module 3 addresses the preparation of quality training places; module 4 focuses on the organization and delivery of apprenticeship programmes, including both on- and off-the-job training; and module 5 discusses apprenticeship evaluation and post-training transitions of apprentices to the labour market or into further education and training.

Module 6 highlights the recent innovations and strategies for promoting apprenticeships.

Each of the sub-sections in those modules that describe the four main stages of the apprenticeship life cycle contains the following elements:



A description of the issue providing an overview of why this element is important in quality apprenticeships programmes.



A standardized tool designed as a set of steps required to implement a particular process.



Tips based on evidence of good practices, presented in green boxes.



Tools from different countries, presented in boxes with a summary of key features of the tool.



Digital technology tools.



The guide is also accompanied by a set of country and company case studies, which demonstrate examples of good practice in specific areas of planning, delivering, monitoring and evaluating apprenticeship programmes. The case studies are presented in blue boxes.



Modules 2 to 5 each contain a checklist to enable readers to evaluate the development and implementation of apprenticeship programmes in their national contexts and decide which elements of quality apprenticeships could potentially be strengthened.



Links to relevant videos or e-learning courses are provided where appropriate.

The dual vocational education and training system, in which apprentices spend time in both a host company and in vocational school, is a key element of success in the Swiss education system, and the main VET model in Switzerland.

About two-thirds of all young people in Switzerland take up an apprenticeship when they are about 15. Their job prospects are excellent as they are able to learn the skills that businesses require.

Johann N. Schneider-Ammann (former Swiss President), June 2016

ISBN: 978-92-2-032183-6



9 789220 321836