

ANNEX B: APEC FRAMEWORK ON HUMAN RESOURCES DEVELOPMENT IN THE DIGITAL AGE

I. Background

The emerging digital age and fourth industrial revolution is having an unprecedented impact on the way people live and work. Recognizing that all economies face challenges in meeting human resources demands in this new era, in 2016 APEC committed to strengthening efforts to ensure decent work and work life quality for all, especially socially vulnerable groups, by providing access to quality inclusive education and vocational training; boosting entrepreneurship; improving social protection; and enhancing regional cooperation.

The world of work is going through major structural changes, with technological advancement, increased fragmentation of production, growing demand for new skills and shifting employment relationships. Technology, digitalization and automation promise to improve productivity, increase economic output and create high-skilled jobs – bringing immense economic and social opportunities in all economies. Adopting digital technologies and automation techniques can not only increase labour productivity but also enable the development of new business models, new markets and job opportunities.

However, at the same time, digital technology may be disruptive with far-reaching effects on productivity, employment and well-being. These changes will likely render some occupations obsolete and expose more workers to vulnerable employment¹ (e.g. own-account and unpaid family workers, which already account for 50 per cent of jobs in Southeast Asia and the Pacific, and 40 per cent in East Asia). Furthermore, industry sectors, such as manufacturing are at risk. Evidence shows that the risk of automation could deny poorer economies the opportunity for economic development resulting in new digital divides and greater inequality. This could result in “premature de-industrialization” in many developing economies before reaching the threshold of industrialization achieved by developed economies. (Rodrik, 2015).²

Advancement in technology has led to a pressing need for human resources development including research into the implications for the labour market, education, training and reskilling. This coupled with on-going labour market analyses will support targeted investment consistent with economic needs. Evidence-based policy is required to ensure that labour market participants are employable and prepared for the challenges and opportunities in the new digital age.

II. Purpose

The Framework puts forward an appropriate set of policy directions and measures to support economies to prepare labour market participants for the challenges and opportunities in the world of work today and beyond. In view of the challenges and opportunities associated with digitalization, it is important for APEC to be used as a regional platform for policy dialogue and cooperation on Human Resources Development in the Digital Age.

The Framework complements existing initiatives, such as the APEC Education Strategy and contributes to global efforts including the ILO’s “future of work centenary initiative” and the United Nations’ Sustainable Development Goals as well as fostering shared prosperity for our region, particularly Goal 4 to ensure inclusive and equitable quality education for all and promote lifelong learning and Goal 8 to create new dynamism for growth, achieve sustainable, innovative, and inclusive growth, employment and decent work for all.

III. Objectives:

¹ According to 2016 (ILO) report: “ASEAN in Transformation: How Technology is Changing Jobs and Enterprises?”, automation could have significant implications for labour-intensive manufacturing sectors. It could result in large displacement of mostly low-skilled workers. In the auto sector alone, over 60% of salaried workers in Indonesia and 73% in Thailand could be displaced by automated production. In Viet Nam, about 75% of workers in electronics and 86% in apparel and footwear are also at risk of automation.

² Rodrik, D. (2015). “Premature Deindustrialization,” NBER Working Paper No. 20935.

Objectives of the framework are to:

- i. provide high-level strategic direction on strengthening regional cooperation in human resources development in the digital age;
- ii. outline common policy challenges in building human capital in the face of rapid technological change; and
- iii. identify and take action in priority areas of collaboration where APEC can add value.

IV. Priority Areas and Actions

APEC members will boost regional cooperation in the following priority areas to address common policy challenges in building and adapting human capital in the digital age:

1. Future of work in the digital age and labour market policy implications

(i) *Joint and Regional/ APEC research activities to:*

- examine the impacts of new technology and digitalization on the world of work; and to provide APEC member economies a good indication of where, when and how digitalization and new technology will change production processes. This will include examining the opportunities and challenges from “Industrialization 4.0”, “Digital trade” and “E-commerce”.
- assess the impact of digitalization and automation on labour market outcomes, demand and supply, and policy intervention, including structural adjustment policies to increase workforce participation, support the reintegration of displaced workers and sectoral, occupational and geographical mobility;
- examine labour market challenges for vulnerable groups and policy measures that support their adaptability to structural change; and
- identify new growth sectors and business models for job creation and opportunities for labour market policy reforms to encourage workforce participation.

(ii) *Regional/ APEC policy discussions to:*

- generate policy-relevant discussion among APEC economies in order to identify clear recommendations for public interventions as appropriate;
- identify approaches to government-wide policies that support labour market adaptability, employment, life-long learning and workforce participation; and
- initiate policies to promote innovation and entrepreneurship in the digital age.

(iii) *Development of joint programs, projects and initiatives to promote cooperation and exchanges of best practices to:*

- explore the role of labour market information system and data, and the role of public and private employment service in addressing the challenges and opportunities caused by globalization and digitalization as well as the way these institutions can be improved through Information and Communication Technology;
- examine the impact of structural adjustment on human resources development and to take into consideration the recommendations of the forthcoming APEC Economic Policy Report on Structural Reform and Human Capital Development;
- underscore the impact of the governance of work on APEC economies, considering gaps in decent work and increasingly fragmented production processes, as well as to examine new forms of employment relations and workers’ association in the context of polarization and personalization of work;

- assess new forms of work arising from increased digitalization, including the growth of virtual work and the “gig economy”³ under which the demand and supply of working activities is matched online or via mobile apps and its implications on the changing nature of employment relationships, social protection and labour mobility; and
- exchange good practices and innovative approaches in improving public employment service which will better respond to the diversified needs of workers in the digital era.

2. Skills education and training

(i) Joint and regional research activities to:

- anticipate and identify the future skills and competencies in the region that will be required to meet the need of emerging technologies and digitalization across the life-long learning continuum; and
- investigate and share information on the best means and best practice in teaching, learning, and distance-learning of those skills in need in the digital age.

(ii) Regional/ APEC policy discussions to:

- share views on the need for and implications of the adaptation of education and training systems;
- draw from the experiences of APEC member economies on how to improve implementation of TVET systems including quality assurance system that are better aligned to the needs of the labour market toward inclusive society;
- consider models for public private partnerships that will enable relevant institutional and local/central coordination mechanisms and structures to support skills systems to meet labour market needs;
- develop and implement industry-demand-driven 21st century competencies including technical and soft skills; and
- enhance the use of technology in expanding collaboration between government, academia and industry to develop 21st century competencies and entrepreneurship.

(iii) Development of joint programs and projects to promote cooperation and exchanges of best practices related to:

- developing flexible and innovative training programs to fill any gap in the supply of new skills and higher-skills for the digital age, including implementing domestic/local/sectoral qualification frameworks;
- initiating formal skills recognition for some medium-skilled occupations in migrant intensive sectors such as construction and domestic work;
- identifying how innovation and technology can be used to strengthen institutional capacity of Technical and Vocational Education and Training (TVET) system;
- striving to lift the quality of teaching, and participation at all levels in learning STEM disciplines; and
- expanding the use of information and communication technology to improve workforce employability in the digital age, including through lifelong learning.

3. Social protection

³ The “gig economy” includes two forms of work “crowd work” (jobs through online platforms) and “work-on-demand via apps” (e.g. Uber, Taskrabbit etc.)

(i) *Joint and regional research activities to:*

- study new social risks (intensification of work, effects on health and safety, blurring of the boundaries between work and private life, or discrimination) in order to inform new social protection policies and programs; and
- study new forms of social assistance (such as income support/replacement and community programs); and identify how digitization/new technological change will create circumstances that will require social protection solutions.

(ii) *Regional/ APEC policy discussions to:*

- consider how participatory social insurance schemes will need to adapt to new forms of employment;
- explore options that support the development of adequate social protection policies in the changing world of work, to ensure that social protection coverage for workers reflects diverse forms of employment; and
- promote access to social protection for women, the elderly, workers in the informal economy and in the sharing economy.

(iii) *Development of joint programs and projects to promote cooperation and exchanges of best practices to:*

- map out suitable social protection solutions that are adaptable to new forms of work in the digital age; and
- share experience on how social protection systems may need to be changed or adapted to meet new forms of work.

V. Implementing the priority areas of action through platforms for cooperation

The platform for cooperation should be through the existing HRDWG and complement existing Ministerial Statements such as the APEC Education Ministerial Statement adopted in Lima 2016 and HRD Ministerial Statement adopted in Ha Noi 2014. This could include:

- Strengthening cooperation through collaboration, representation and social dialogue.

Taking into account various levels of development amongst APEC economies, the framework will provide a platform to promote best practices, share information and strengthen capacity-building among APEC economies on human resources development in the digital age in cooperation with relevant partners. In particular progress in new technology may have implications for dialogue with social partners.

- Promoting linkages with other APEC initiatives.

Initiatives under this framework can be enriched and built from various initiatives under the APEC Strategy for Strengthening Quality Growth; Renewed APEC Agenda for Structural Reform; APEC Connectivity Blueprint; Framework for Youth Education, Employment and Entrepreneurship; APEC Education Strategy; and other relevant frameworks, to ensure mutual benefits among APEC economies on human resources development in the digital age.

- Promoting linkages with other APEC sub-fora, such as ECSG, GOS, PPSTI, PPWE, and GOFD.

VI. Proposed timeframe for the implementation of the framework

The proposed timeframe for implementation of the Framework is from 2017 to 2025 with progress to be reviewed in 2022 by the Ministers responsible for human resources development.