









International Labor Office



9 - 11 August 2017

# The future of vocational training Overview and strengthening

Overview and strengthening guidelines

ILO REGIONAL OFFICE FOR LATIN AMERICA AND THE CARIBBEAN INTERAMERICAN CENTRE FOR KNOWLEDGE DEVELOPMENT IN VOCATIONAL TRAINING

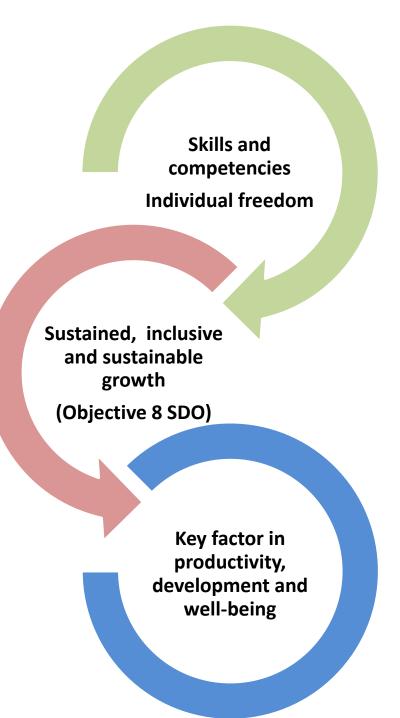


#### **Part I: Overview**

- 1. Human talent as an end and means for development in Latin America and the Caribbean
- 2. Advances, lags and gaps in vocational training
- 3. Institutional, financial and governance models
- 4. 10 Guidelines for promoting and strengthening vocational training systems



1. Human talent as an end and means for development in Latin
America and the Caribbean





## Technological revolution and labour competencies



New production paradigm called Industry 4.0



Demand for new, advanced skills



Dynamic process of job creation and destruction



Increasing risk of greater inequality

**Human developement agenda** 



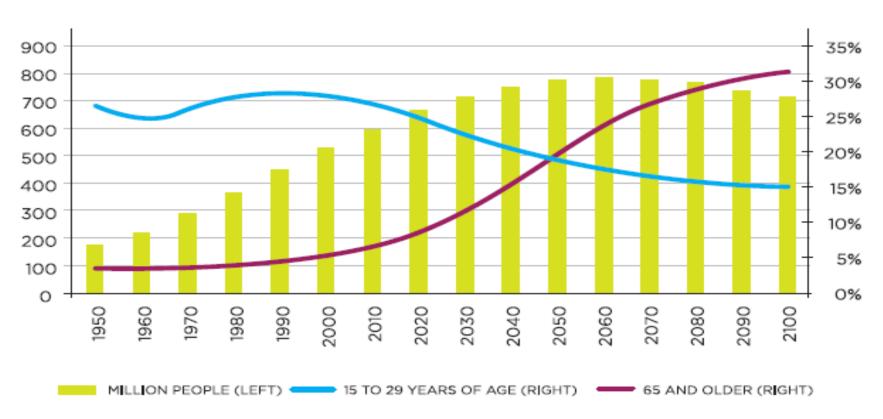
## Skills gaps and the occupational future of young people

- Increasing the participation of young people in education, training and the labour market
- Continuing to improve the quality and relevance of education and training.
- Continuing to improve vocational training systems

#### **Youth in ALC: Opportunity and Challenge**



FIGURE 1: Share of the youth and elderly groups in the total population

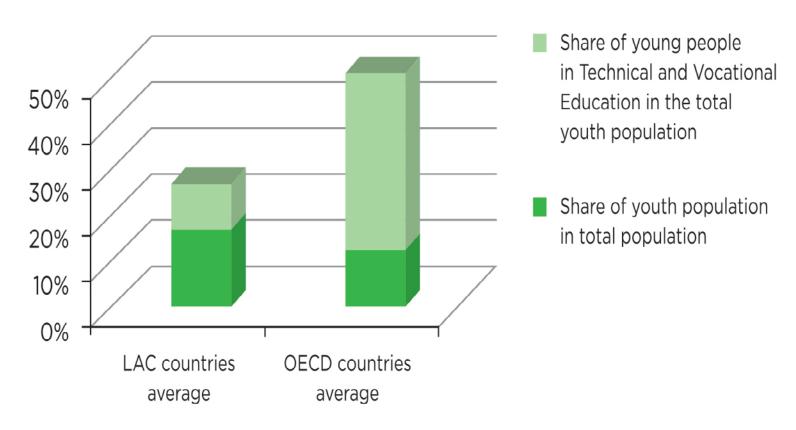


Source: CELADE



#### Improve the attractiveness of VT

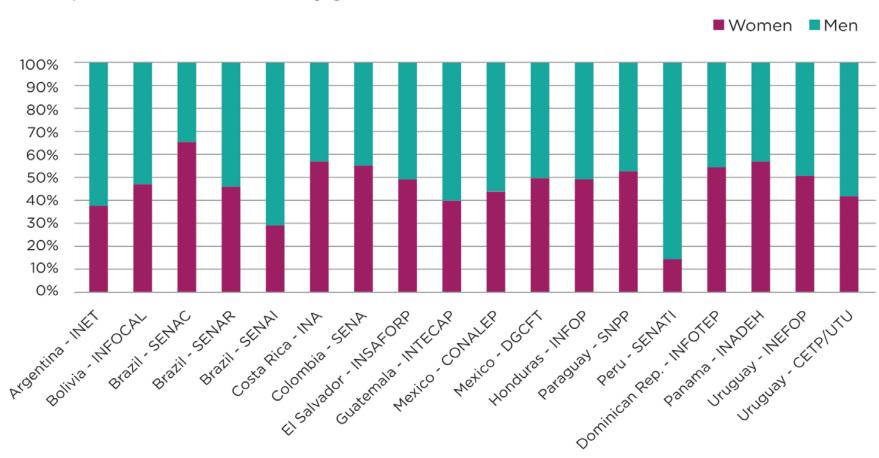
FIGURE 2: Young people in TVE in LAC and OECD countries





#### The gender bias in vocational choices

FIGURE 3: Participants in VT institutions by gender





## Continuing to improve the quality and relevance of education.

- LAC has improved educational achievement indicators in the past two decades.
- 1990->2010:
  - Avg. Years of educ. 8.2 -> 10.2
  - Primary 95%
  - Secondary 73%
- However, the increase in coverage has not brought good news in terms of quality.

#### TABLE 2:

Percentage of students who do not reach the baseline level of proficiency (2) in PISA

Skill areas	LAC	OECD
Mathematics	63%	23%
Reading	45%	18%
Science	50%	23%

TERCE Test 2013	Level I and II
Mathematics	83%
Reading	61%
Science	79%



## Continuing to improve vocational training systems

TABLE 4:
A single gap through different perspectives

Study	Tipo Type of gap	Tipo Type of gap		
IDB <sup>50</sup>	Socioemotional Skills		22.9	
	Knowledge		8.7	
	Specific		4.4	
World Bank	Inadequate training 2010	Inadequate training 2010		
CAF 2016	Enterprises that see education	LAC	34.0	
	as an obstacle:	OECD	17.0	
		All countries	22.0	
Manpower Survey	Difficulty filling vacancies:	2013	39.0	
		2014	48.0	
		2015	42.0	

Source: Prepared by the authors on the basis of the sources mentioned.



## Lack of systems to improve the quality and relevance of VT



#### Disarticulated stages



A "jungle" of qualifications



Heterogeneous quality



**Asymmetries and information failures** 

#### Skills anticipation and uncertainty management









#### **Application of SENAI prospective model**

- Countries: 22
- Technicians and specialists trained: 78
- Completed studies: 22
- Learning and practice community: (evc.oitcinterfor.org)
- Prospective studies database (oitcinterfor.org)









## La anticipación de competencias y el manejo de la incertidumbre

- There is plenty of room for working on demand anticipation.
- There still is no integrated utilization of the information about the labour market
- To use new information sources (SPE, Regional observatories)
- Studies conducted under SENAI model cover less than 10 sectors, which accounts for less than 2.5% of all sectors of activity included in the 4-digit ISIC or ISCO



## The role of enterprises as learning places



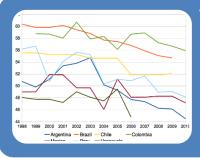
#### Learning at the workplace

- Human talent is a pillar of the sustainability of enterprises
- Enterprises are the best places to develop labor competencies



Regulations, operation and coverage of apprenticeship programmes in LAC are very heterogeneous

- Apprenticeship laws or standards in at least 17 countries
- Resurgence of Company-VTIs partnerships for Quality Apprenticeship



The proportion of participants in apprenticeship programmes in the region is significantly low

- New arrangements and incentives are needed
- New partnerships between enterprises and training institutions



### Table 9: Participants in VT and in apprenticeship programmes in member institutions

Country	Institution	Participants	Apprentices	App/1000 workers
Brazil	S System	6,842,449	412,888	5
Colombia	SENA	4,069,644	345,206	17
Peru	SENATI	510,852	5,328	<1
Panamá	INADEH	63,074	2,124	1
Chile	SENCE	880,315	1,283	<1
El Salvador	INSAFORP	322,534	1,908	1
México	CONALEP	305,246	1,150	<1
Paraguay	SNPP	177,173	1,020	<1
Guatemala	INTECAP	351,292	975	<1
Dominican Rep.	INFOTEP	694,388	433	<1
Costa Rica	INA	132,850	289	<1
Honduras	INFOP	205,744	189	<1

TABLE 8: Ratio of apprentices to youth population in three European countries

País	Young people aged 15-24 (1)	Apprentices in VT 2015 (2)	Apprentices to total of young people	Apprentices per 1,000 employed workers
Alemania	8,420,528	1,337,004	15.9%	39
Suiza	344,532	80,500	23.4%	44
Austria	1,001,562	128,078	12.8%	32

**14 millions**: Additional number of apprentices in LAC to reach the ratio of Germany.



#### Characteristics of quality apprenticeship:

- Be based on social dialogue
- Employers' leadership
- Sound legal framework
- Shared financing arrangements



The coordination between formal education and vocational training

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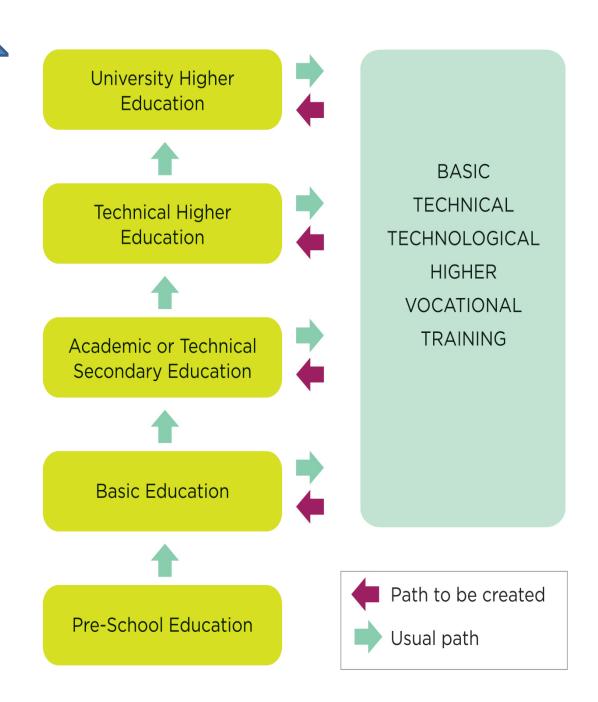
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## National Qualifications Frameworks as a way of linking educations and VT in LAC

Level	Education	Examples of qualifications
8		Doctorates
7	Tertiary, Postgraduate	Postgraduate degrees. Master's degrees. Specialization degrees
6		University
5		Technologists-Technicians
4	Secondary	Supervisors and highly qualified workers
3	Technical secondary	Skilled vocational training
2	Vocational training	Semi-skilled vocational training
1	Basic	Basic vocational courses

Source: Adapted from Tuck (ILO, 2007)



## The certification of prior learning also makes the education-work linkage easier

TABLE 11:
Ratio of certified workers to VT participants in a sample of countries

Countries	Total of participants in programmes 2015	Certified individuals 2015	Certified/ participants
Argentina - MTEySS	122,795	7,778	6.33
Chile - ChileValora	880,315 <sup>67</sup>	63,844	7.25
Colombia - SENA	4,069,644	108,086	2.65
Guatemala - INTECAP	348,165	3,767	1.08
México - CONOCER	758,348 <sup>68</sup>	98,931	13.04

Source: Prepared by the authors on the basis of data from the ILO/Cinterfor Survey. 2016. Participants of virtual modalities were not included in the total of participants for Colombia.



## 2.6. The use of new educational technologies in vocational training

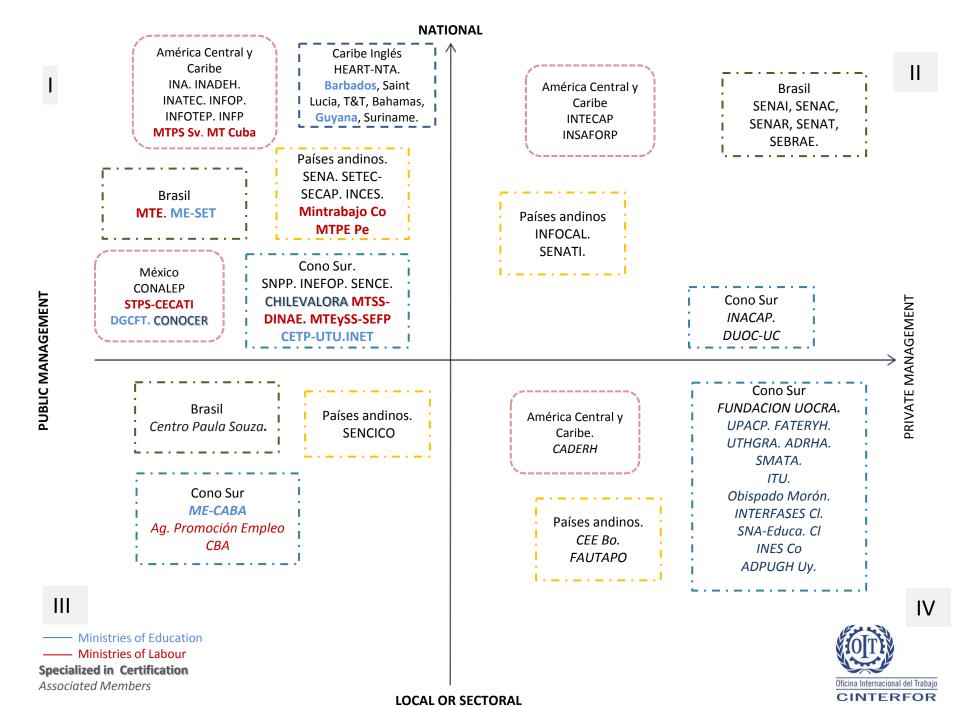
TABLE 12: Participants in distance training in some vocational training institutions

Institution / Country	Total of participants	Distance participants	Ratio of distance/total participants
SENAC - Brazil	1,476,972	116,999	7.90%
SENAI-Brazil	3,415,058	1,226,761	35.90%
SENAR - Brazil	1,133,199	113,853	10.04%
SENA - Colombia	7,143,250	3,073,606	43%
INA - Costa Rica	132,850	44,050	33.15%
INSAFORP - El Salvador	285,741	439	0.20%
INTECAP - Guatemala	351,292	23,920	6.8%
INFOP - Honduras	205,744	32,684	15.90%
SNPP - Paraguay	145,058	15,523	10.70%
SENATI - Peru	510,852	37,503	7.30%
INFOTEP - Dominican Republic	649,800	15,925	2.50%
Totals	15,449,816	4,701,263	30.43%

Source: ILO/Cinterfor Survey, 2016. Data shown for SENAR, SENA, INA and INTECAP are from 2016. Other data are from 2015

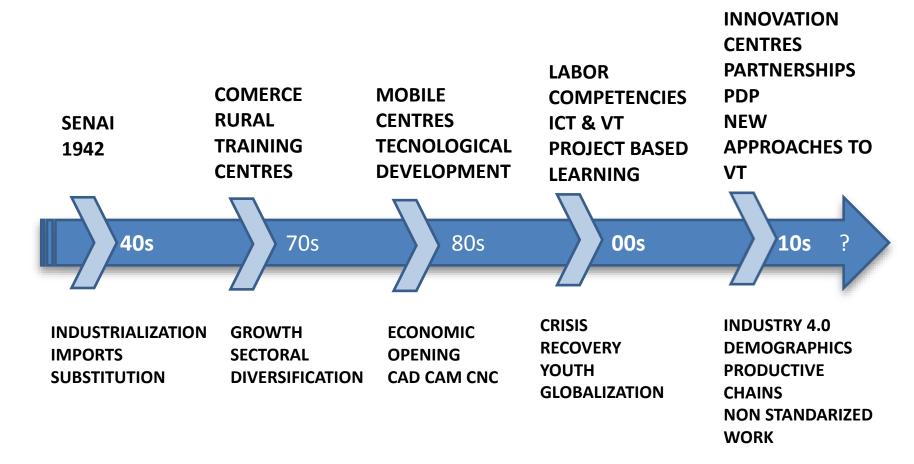


## 3. Institutional, financial and governance models





## Vocational Training: it's time for reinvention





Overview of the evolution of training centres toward support of productive development

1950s-1970s 1970s-2000s 2000s

**VT** centres

Classrooms Workshops Training sessions Training and technology development centres

Classrooms Laboratories Tests and assays **Innovation centres** 

Laboratories
Basic, applied
research.
Design.
Innovation

#### Previous paradigm:

train, coach, class-based, classrooms and workshop exercises.

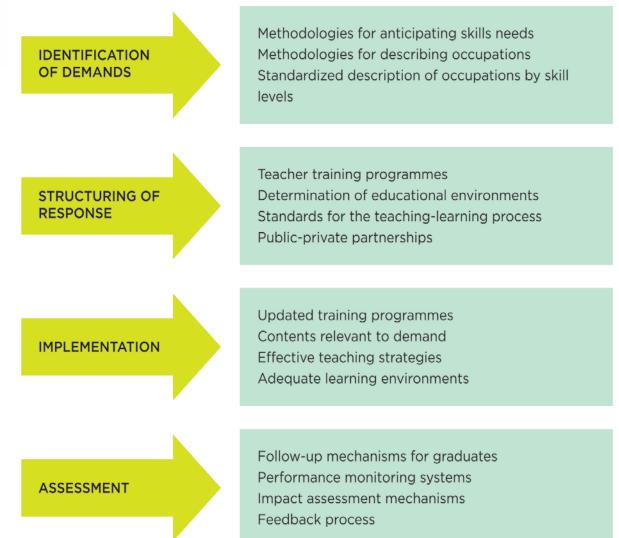
Teaching material: books, flipcharts, photocopies, guides and handbooks, tools, adapted machines.

#### New paradigm:

develop socioemotional skills and abilities.
Project-based learning, problem solving, collaboration.
Teaching material: Internet, networks, learning objects.



FIGURE 12: Mechanisms for assuring the quality of training



Source: ILO/Cinterfor



#### CINTERFOR 3.2. Resources for skills development: between traditional and new

# International Labour Organization

**SOURCE** % payroll tax

**Others** 

INFOCAL (1,0)

**INSTITUTION (%)** 

INA (1.5)

SETEC (0,5)

**INATEC (2,0)** 

SENATI (0,75)

**INFOTEP (1,0)** 

INCES (2,0)

SENA (Imp. CREE)

INEFOP (0,125 + 0,125)

INADEH (Education Insurance)

INET, SENCE, CONALEP, UTU

(Presupuesto nacional)

SINAFOCAL (1,0)

Bolivia SENAC. SENAI. SENAT (1,0)

Brazil

Costa Rica

**COUNTRY** 

**Ecuador** El Salvador

INSAFORP (1,0) INTECAP (1,0) Guatemala INFOP (1,0) Honduras

> Nicaragua Paraguay Peru Dominican Rep.

**Uruguay** 

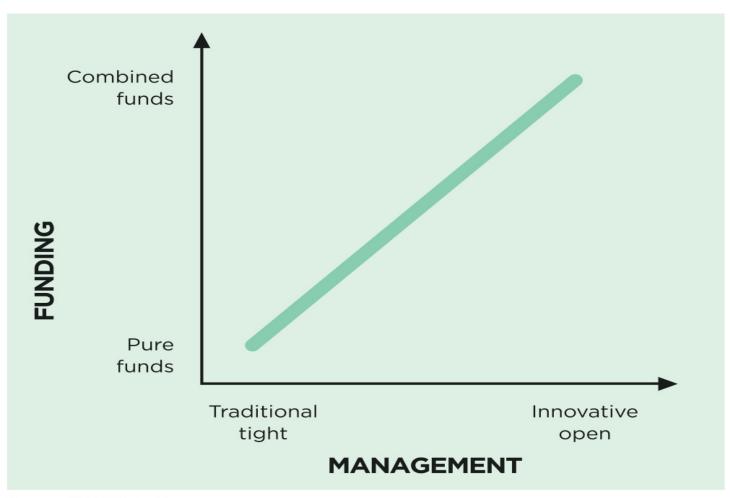
Venezuela SENAR (2.5 + 0.1 Rural output)Brazil Colombia

Panamá

Ar, Ch, Mx, Uy.

International Labour Organization
CINTERFOR

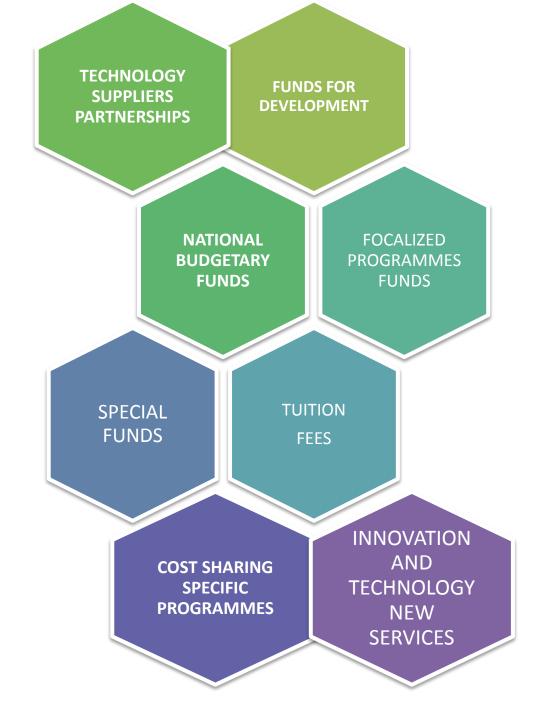
FIGURE 13: Management style vs. Funding sources



Source: ILO/Cinterfor



DIVERSIFYNG VOCATIONAL TRAINING FINANCING SOURCES





3.3 Social dialogue in training: a space to strengthen and expand





#### **LAC: VT FIGURES**

**67** 

39 PUBLIC
27 PRIVATE

10925 CENTRES AND OPERATIVE UNITS

USD **4,2** BILLIONS ANUALLY INVESTED

39% OWN CENTRES
55% OUTSOURCED CENTRES
6% MOBILE UNITS

165
THOUSAND
TEACHERS

**15,4** MILLIONS PARTICIPANTS

4,7 MILLIONS
DISTANCE
LEARNERS



# 10 Guidelines for promoting and strengthening vocational training systems for work and for life in Latin America and the Caribbean



1. Promote the alignment of productive development policies with technological change.



2. Build upon social dialogue



3. Ensure a regulatory framework that covers the core aspects of an integrated vocational training system



4. Make sure sufficient, sustained and guaranteed -by- law funding is provided.





5. Promote lifelong learning and coordination between formal education and vocational training.



6. Foster quality apprenticeship.



7. Increase the quality and relevance of training by constantly improving institutions, developing knowledge and creating relevant information..



8. Use more effective teaching methodologies and approaches, based on evidence, and constantly improve them, considering experience and assessment.



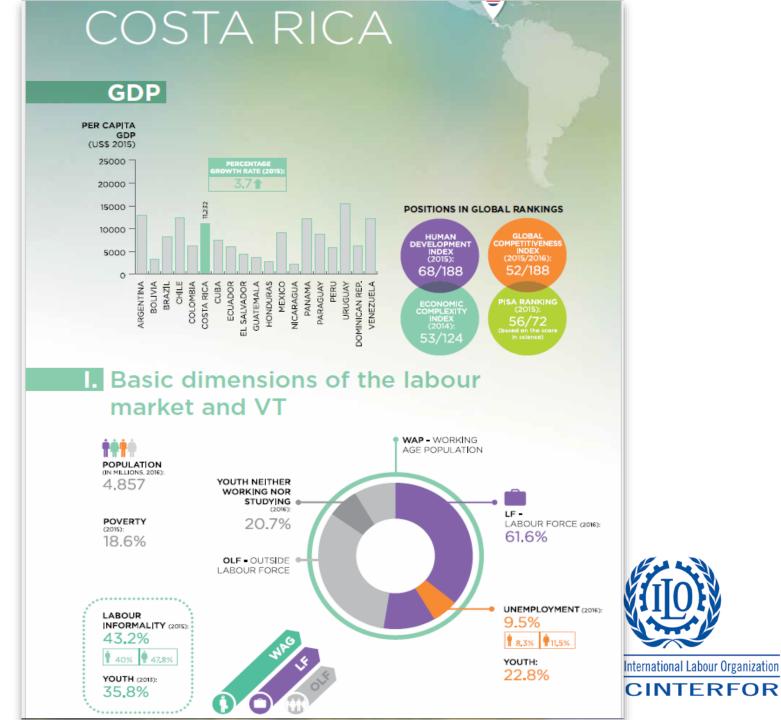


9. Promote equal opportunities and social inclusion.

10. Coordinate with employment and vocational guidance services and with active labour market policies.



Parte II
Resumen
de los
escenarios
nacionales



COSTA RICA

### II. Progress, lags and gaps in education and vocational training

**DEVELOPMENTS WHICH ACCELERATE SOLUTIONS AND ANSWERS** 

## Part II Country overviews

GAPS AND NEEDS

III. General overview of VT

VT SUPPLY:

VT FINANCING:

**ENGAGEMENT OF SOCIAL STAKEHOLDERS** 

SPECIFIC SOURCES CONSULTED:





International Labor Office

## THEEND