

Digital Transformation of TVET: Digital Skills for a Future-Ready ASEAN Workforce

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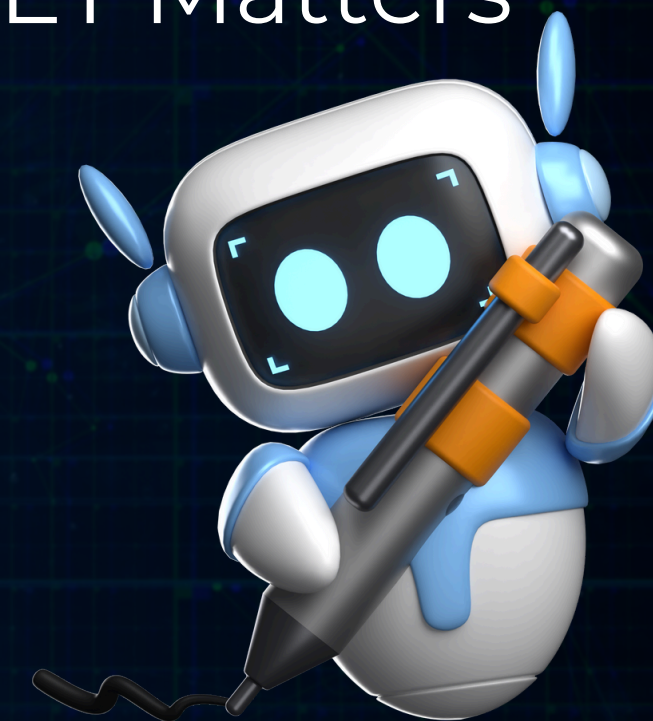
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Outline of presentation

1. Setting the Context - Why digital transformation in TVET Matters
2. Understanding the ASEAN Skills Landscape
3. Defining Digital Transformation in TVET
4. Powering the Future Workforce (Core digital skills)
5. ASEAN-level Initiatives and Country Best Practices
6. Challenges to Overcome: Bridging the digital divide
7. Key Enablers for Digital TVET
8. Roadmap for Digital Transformation in TVET
9. Call to Action: Building a Digital Future Together
10. Closing Vision : A Digitally Skilled ASEAN: Resilient, Competitive and Future-Ready



Why Digital Transformation in TVET Matters?

- The world of work is changing faster than ever
- Industry 4.0, Industry 5.0, automation and AI are reshaping jobs
- ASEAN economies must stay competitive in the global market

Manual roles



Tech-enabled
roles

A Transformed Global Labour Market by 2030

“Broadening digital access is expected to be the most transformative trend – both across technology-related trends and overall – with 60% of employers expecting it to transform their business by 2030.”

-Future of Jobs Report 2025

Skills Gaps in ASEAN

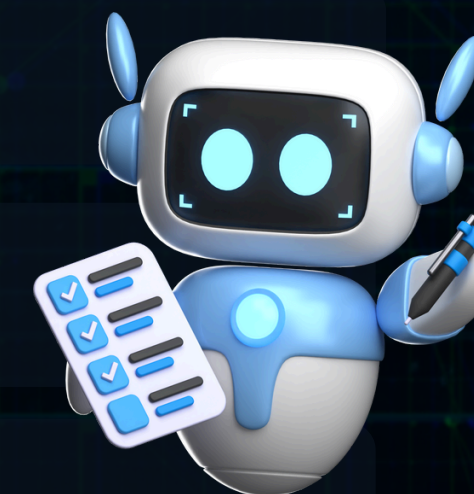


56% of workers will
need digital upskilling
in the next 5 years

-World Economic Forum

In-demand skills:

- basic digital literacy
- data analytics
- cloud computing
- digital project management



Beyond Computers in Classrooms



Integrated Technology into Curriculum, Delivery and Assessment



Use of EdTech Tools (LMS, VR/AR simulation, AI tutors)



Blended Learning Models (online + hands-on)



Data-Driven Program Design

TECHNOLOGY-DRIVEN

Skills that Power the Future

DIGITAL
LITERACY

TECH-
ENHANCED
PROBLEM
SOLVING

DATA SKILLS

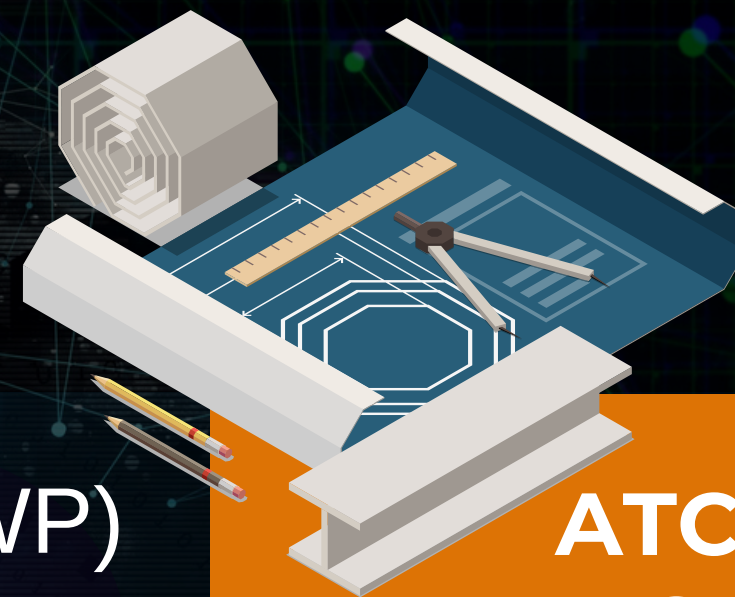
DIGITAL
COLLABORATION

EMERGING
TECH SKILLS

FUTURE

TVET in the ASEAN

- ASEAN TVET Council (ATC) Work Plan (WP) 2021-2030
- ASEAN HRD Roadmap
- ASEAN Comprehensive Recovery Plan
- Senior Labour Officials Meeting (SLOM)-Working Group Work Plan
- Senior Officials Meeting on Education (SOM-ED) Work Plan
- ASEAN Strategic Action Plan for SME Development 2016-2025



ATC Work Plan Outcome 2:

Improved digital readiness, resilience to disruptions and ability to adjust of TVET systems and TVET institutions



The ASEAN Experience in Digital Transformation

Brunei Darussalam

Digital Economy Masterplan 2025

- ✓ Focuses on Brunei Darussalam's digital transformation, ensuring businesses invest in digital skills training for their employees.
- ✓ Encourages companies to adopt ICT-based upskilling programs and support the nation's digital economy goals.
- ✓ Promotes collaboration between government, businesses, and educational institutions in digital literacy and innovation.

Cambodia

Skill Development Road Map (2023-2035)

- ✓ Focuses on developing digital and green skills in response to Industry 4.0 advancements.

Indonesia

- On-the-Job Training and Apprenticeship Programs** • ✓ Integrates theoretical education with hands-on experience, **ensuring workers gain industry-specific skills** in real work environments.
- ✓ Helps businesses train potential employees before hiring, **ensuring they meet company-specific requirements.** ✓ Encourages partnerships between businesses, educational institutions, and government agencies to create structured apprenticeship pathways.

Malaysia

Perkasa Modal Insan (PMI)

- ✓ A strategic initiative aimed at upskilling and reskilling worker in priority industries.
- ✓ Focuses on Industry 4.0 readiness, equipping workers with digital and automation-related skills.

Reference: Promotion of Business Engagement Models for Upskilling and Reskilling the ASEAN Workforce Report

The ASEAN Experience in Digital Transformation

Singapore

Skills Development Partners (SDPs)

Trade Associations and Chambers (TACs) and Professional Bodies (PBs) support sector-based training.

✓ Supports **skills-based practices and promotes skills recognition.**

✓ Strengthens connections between skills frameworks and enterprise transformation.

SkillsFuture Course Fee Subsidies

✓ Offers up to 70% subsidies for SkillsFuture-supported courses.

✓ SMEs are eligible for enhanced funding support.

✓ Covers a **wide range of training providers and programs aligned with national skills frameworks.**

Thailand

Thailand 4.0 Strategy

✓ Aims to transform Thailand into a high-income, innovation-driven economy.

✓ Emphasises **skill development in high-tech industries, such as robotics, automation, and digital technologies.**

✓ Encourages business partnerships with educational institutions to ensure workforce readiness.

Digital Economy Promotion Agency (DEPA) – Digital Upskilling

✓ Supports business digital transformation through ICT skills training.

✓ Funds digital literacy programs for SMEs, large enterprises, and government employees.

✓ **Partners with universities, industry experts, and incubation centres** to provide digital skills training.

Reference: Promotion of Business Engagement Models for Upskilling and Reskilling the ASEAN Workforce Report

The ASEAN Experience in Digital Transformation

Vietnam

National Strategy on Industrial Revolution 4.0 (IR 4.0)

- ✓ Focuses on **digital transformation in key industries** such as manufacturing, logistics, finance, and agriculture.
- ✓ Prioritises the development of a tech-savvy workforce by **integrating AI, IoT, robotics, and automation skills.**
- ✓ Encourages collaboration between businesses and educational institutions to ensure workforce readiness.

Viet Nam Skill Development Program

- ✓ Focuses on **reskilling and upskilling workers in digital, automation, and technology-driven industries.**
- ✓ Provides **subsidised training programs** in collaboration with tech firms and industry associations.
- ✓ Targets both employees and job seekers, ensuring continuous learning opportunities.

National Innovation Center (NIC)

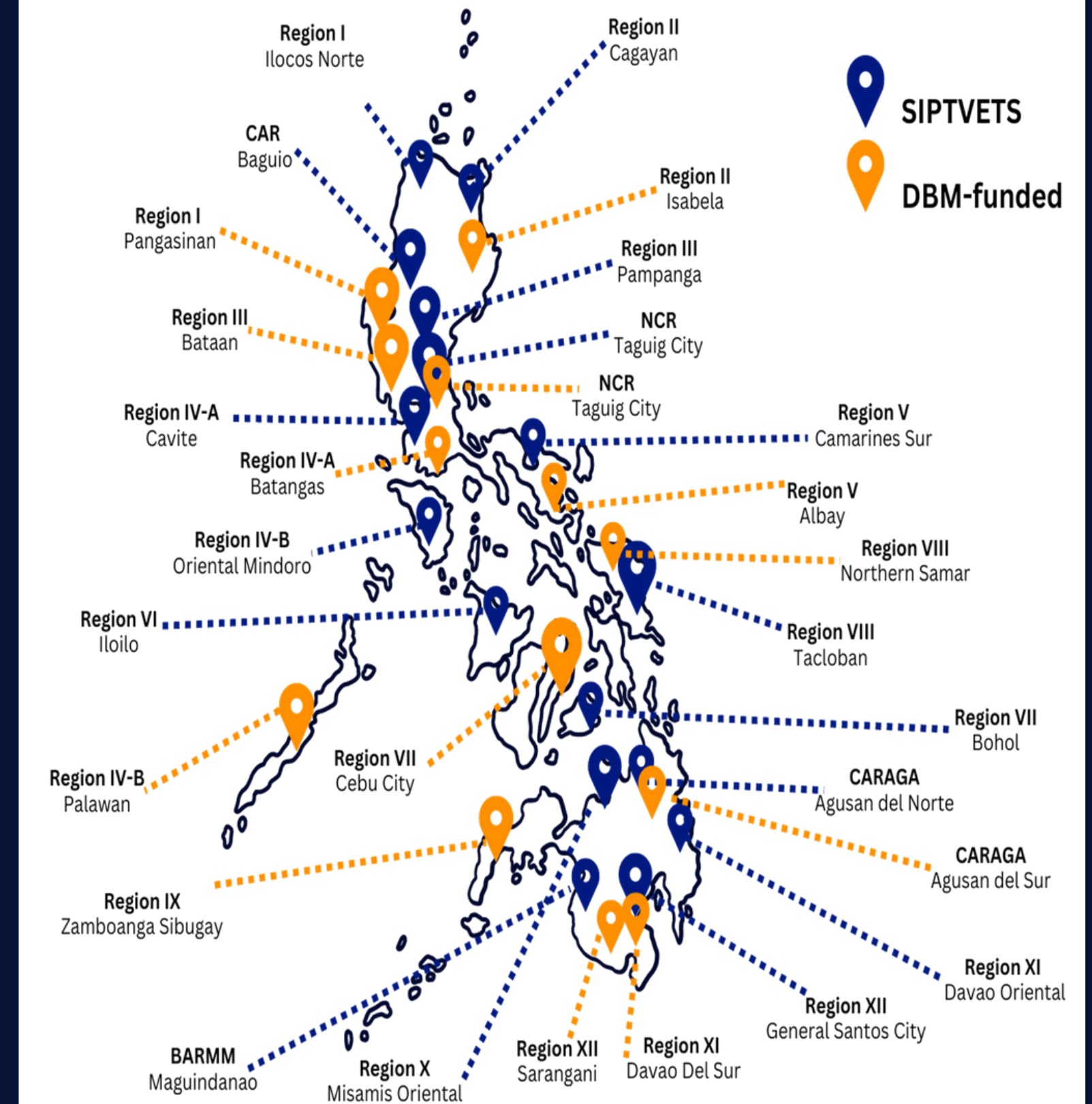
- ✓ A hub for entrepreneurship, research, and digital skills training.
- ✓ Provides **specialised training programs in advanced manufacturing, AI, and big data.**
- ✓ Supports businesses with innovation grants, R&D funding, and digital transformation initiatives.

Reference: Promotion of Business Engagement Models for Upskilling and Reskilling the ASEAN Workforce Report

Regional TVET Innovation Centers in the Philippines

DBM-Funded RTICs

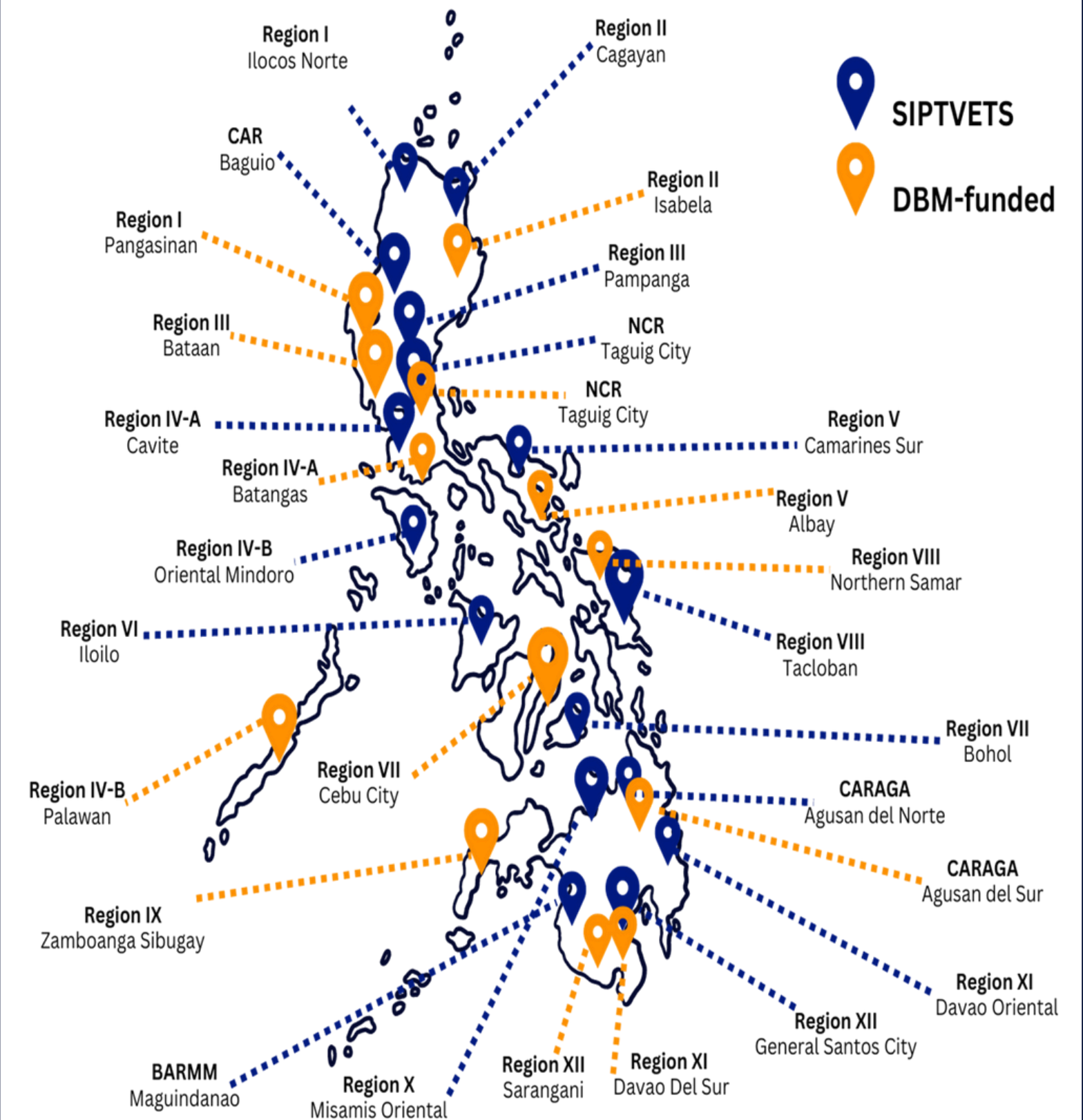
- Completed RTICs
 - RTIC-Isabela of Arts and Trades (ISAT)
 - RTIC-Balicutro College of Arts and Trades (BCAT)
 - RTIC-Cebu
 - RTIC-Zamboanga Sibugay Polytechnic Institute (ZSPI)
 - RTIC-Mariveles
 - RTIC-NCR
 - RTIC-Urdaneta
- On-going Construction
 - RTIC-Agusan Del Sur School of Arts and Trades (ASSAT)
 - RTIC-SOCCSKARGEN Manpower Development Center
 - RTIC-San Francisco Institute of Science and Technology (SFIST)
 - RTIC-Batangas
 - RTIC-Puerto Princesa School of Arts and Trades
- Contract Terminated
 - RTIC-Korphill, Davao



Regional TVET Innovation Centers in the Philippines

ADB-Funded RTICs

- RTIC Civil Works Awarded and Construction in Progress
 - RTIC-General Santos National School of Arts and Trades (GSNSAT)
 - RTIC-Tuguegarao
 - RTIC-Tagoloan
 - RTIC-Iloilo
- Awaiting for Contract Award
 - RTIC-NCR
 - RTIC-Zamboanga
- Ongoing Procurement
 - RTIC-Northern Mindanao School of Fisheries (NMSF)



TESDA Online Program

5,537,395

Total Registered Users

7,360,023

Total Enrolled Users

for the period October 2024 to May 2025:

187
Courses

439,668
Registered
Users

1,128,103
Course
Enrollments

752,327
Completers

23
Full Qualifications



Inter-Agency Council on the Philippine Digital Workforce Competitiveness Act (RA 11927)

- *Focuses on digital skills and technology mapping to identify workforce strengths and training needs.*
- *Aims to enhance digital competencies across various sectors.*
- *Led by the Department of Labour and Employment (DOLE), ensuring workforce adaptability in the digital economy.*
- *Align Department of Education, Commission on Higher Education and Technical Education and Skills Development Authority curricula and funding to skills standards, industry links, and local government participation.*

SkillsUpNet PH - Employer-led Skills Development

- equips Filipino workers with skills that drive economic growth and business competitiveness
- focuses on high-growth industries such as IT-BMP
- to provide competitive grants (USD 20,000-80,000) to employer network



Challenges to Overcome/Closing The Digital Divide

- 1. Unequal access to technology and internet;*
- 2. Limited trainer capacity in digital tools;*
- 3. Funding constraints for tech integration; and*
- 4. Curriculum gaps vs industry demands*



Key Enablers for Digital TVET



**Policy Support and
Regional Cooperation**



**Infrastructure
Internet Access • Devices
• Software •**



**✓ Teacher/Trainer Digital
Capacity Building**



**Industry Partnership For Content
And Internship**



Lifelong Learning Mindset

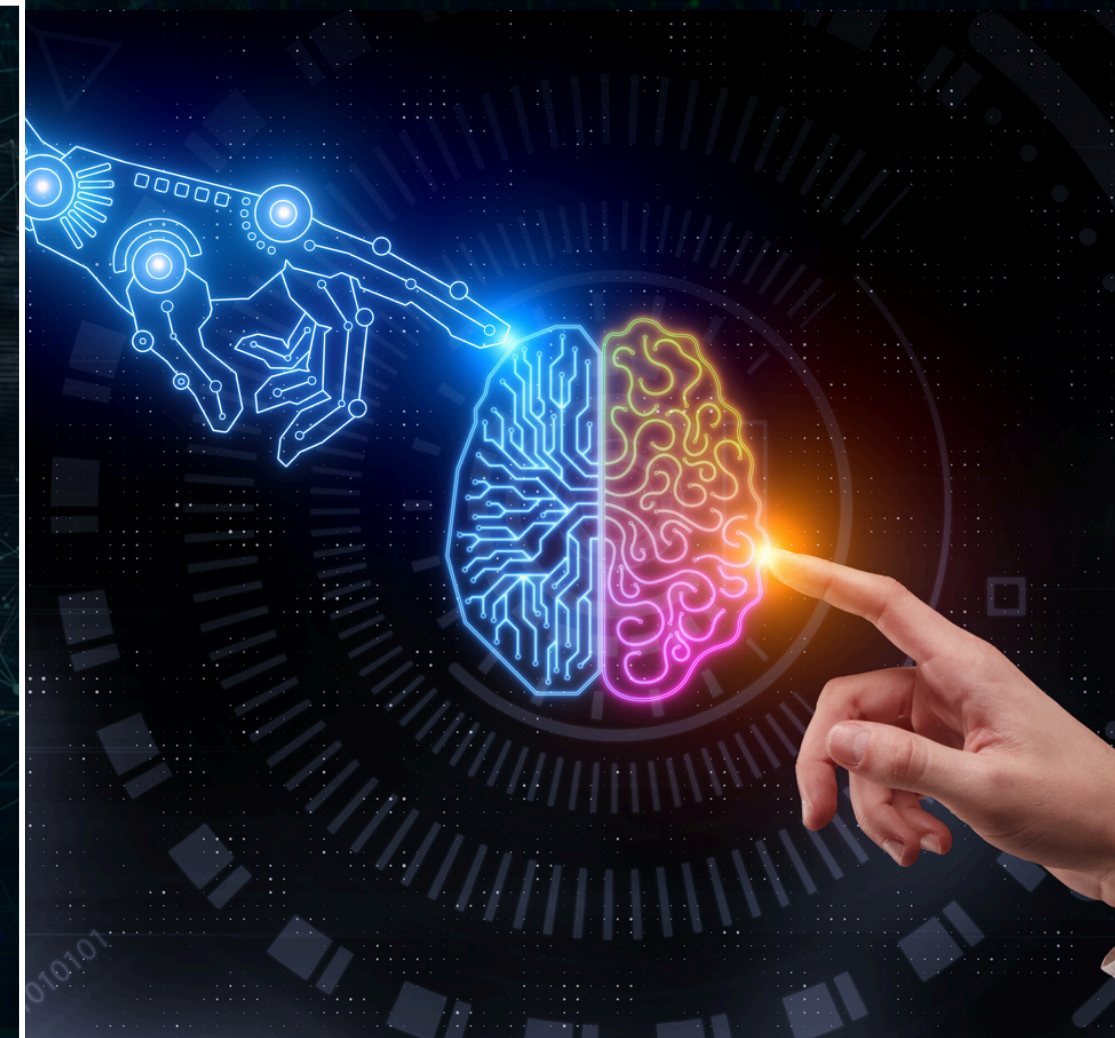
From Vision To Action

1. *Assess digital readiness of TVET Institutions*
2. *Align curricula with Industry 4.0/5.0*
3. *Invest in trainer upskilling*
4. *Develop regional standards and certifications*
5. *Foster cross-country collaboration in ASEAN.*



Building a Digital Future

- **For policymakers:** Invest and support reforms
- **For educators:** Embrace innovation and lifelong learning
- **For industry:** Partner with TVET to co-develop skills
- **For learners:** Be proactive in acquiring digital skills



TOWARDS A DIGITALLY SKILLED ASEAN:
RESILIENT, COMPETITIVE, FUTURE-READY

THANK YOU! SALAMAT PO!

