

11th ADB International Education and Skills Forum

Applying a Fresh Lens to Unlock the Power of Human Capital

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Triple Helix model for collaboration

Universities, Industry and Government

In a case of **Thailand**

Office of National Higher Education Science Research and Innovation Policy Council (NXPO)
Ministry of Higher Education, Science, Research and Innovation



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Directorate of Human Capital Strategy and
Organizational Planning



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Triple Helix model for collaboration

Workforce & Skills Development and Higher Education Transformation



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3-5 December 2025 | Metro Manila, Philippines



Policy



Budgeting



Incentives

Government

Tackle Pain points :
• Non-formal Education
• Inequality

Highly skilled Manpower Development Mechanisms

Supply-side

- Educational Institutes
- Vocational schools/ TVET
- Higher-Education Institutes

Universities

Short Term

Desirable and Future Skills

Job Matching

Universities Connecting
Campus Tours / Job Fairs

Re-skill / Up-skill
GenNX Model, Tax Incentives

Pre-recruitment & Co-creation
WIL, CWIE, HIFI

Long Term

Design Specialized Curriculum
HE Sandbox

Demand-side
(Production and service workplace)

Industry

Tax Incentive

- BOI, Revenue Department
 - Merit-based Incentives
 - Thailand Plus Package
 - STEM Employment
 - Future Skill Training

Funding

- Competitiveness Fund: Training Grants



STEM One Stop Service



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Job Matching & Universities Connecting

Connecting with partners to promote collaboration

TPCA THAI BOARD OF INVESTMENT TAIWAN PRINTED CIRCUIT ASSOCIATION THAILAND TRADE AND ECONOMIC OFFICE THAI-THAI COOPERATION OFFICE

dynamo Unimicon 欣興電子 YK 亞基工程 GCE 泰康科技集團 Unitech FPD 友訊集團

Online JOB MATCHING

TOP PRINTED CIRCUIT BOARD (PCB)
Companies from TAIWAN

a structure for assembling electronic components and their connections into a unified circuit that allows electrical current to pass between components

THE EVENT WILL BE HELD ON :

JOB POSITIONS :

- ✓ Engineer
- ✓ QA/QC
- ✓ Marketing & Sales
- ✓ Human Resource Administrator
- ✓ Chinese Interpreter
- ✓ Supply Chain (Logistic)

START AT 1.00 PM - 5.00 PM

WEDNESDAY 5 JUNE, 2024

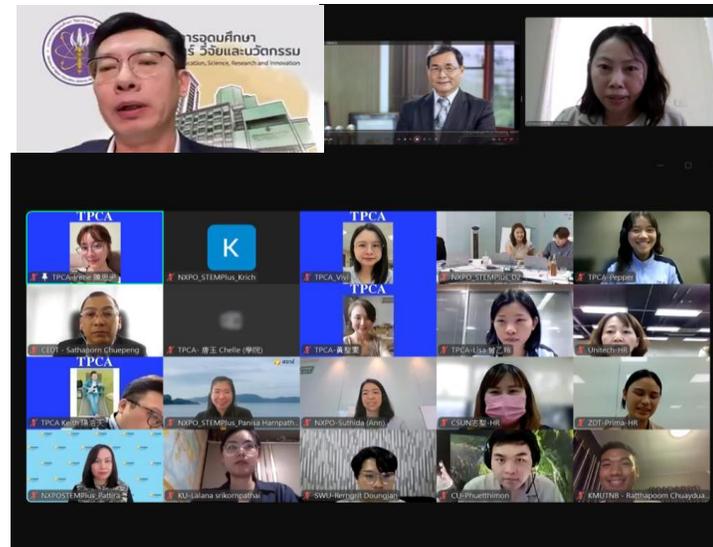
Salary up to 40,000 Baht

Have an opportunity to work in Taiwan

Any major welcome
No experience needed

Contact
082-9176719 (K.Attasith)
086-3593595 (K.Mayravee)
064-5635429 (K.Pornnipa)

For More Information
www.stemplus.or.th



- **Job Matching** – NXPO with partners, BOI and TPCA, connect Thai graduates with industries
- **Education-Industry Collaboration** – Strengthening ties to co-develop highly skilled manpower for industry needs



Desirable and Future Skills

Defining the skills needed to meet future industry demands

Skill Mapping

Desirable and Future Skills

Skill-based Curriculum Deployment

Skill Verification

Skill Transcript

Demand-side

Supply-side



Modern Agriculture

- Data Analytics
- Crop Management
- Livestock Management
- Aquatic animals' Feeding and management
- Analytical Thinking



Digital Marketing

- Social Communication for Marketing
- Analytical Thinking
- Advertisement for Marketing
- Website Analysis
- Marketing via e-mail
- Marketing Strategic Planning



Tourism

- Travel Planning
- Product commercialization and Tourism Service
- Customer Service
- Event Management Risk Management



Data Scientist

- Customer Comprehension
- Data planning and preparation
- Data Analytics
- Data Visualization



EV expert

- Power System and Structure
- Battery System
- Data Storage and analytics
- Charging system
- Maintenance

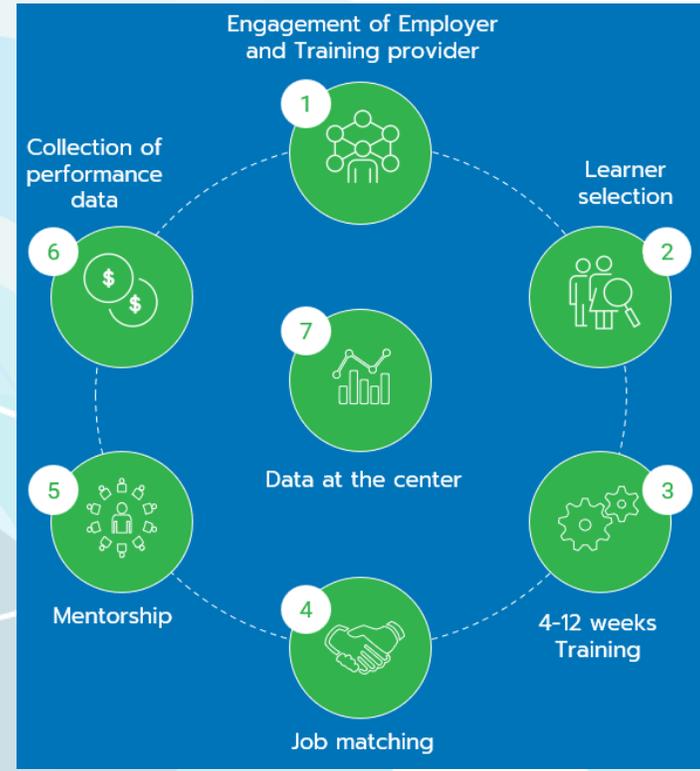
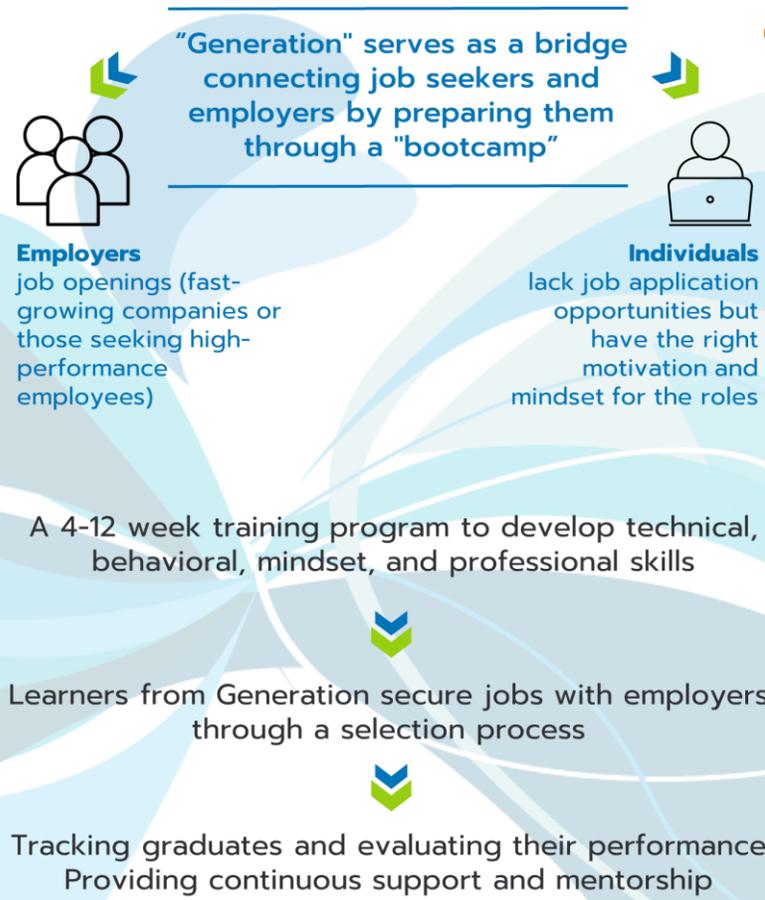


Initiative “Generation model” in Thailand



Bridging the gap between job seekers and employers

- Intensive Program within 3-4 months
- Re-/up-skill Disadvantages for employment



Junior Software Developer



355 individuals completed the training.
The average **employment rate: 80%.**

Senior Care Professional (SC)



26 individuals completed the training.
The average **employment rate: 100%.**



Work-integrated Learning (WiL)



Empowering the manpower with the skills industry demands

Objective



- To enhance the competitiveness through manpower production and development since vocational education to master degree with skills and knowledge corresponding to real industrial demands
- To resolve manpower mismatch between industrial sector and academic sector (mismatch). Mutual benefits can effectively occur among all sectors.



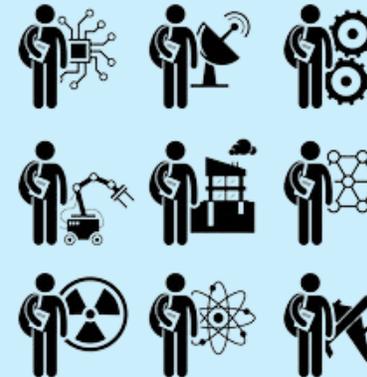
Learning



- Learning with syllabus to increase deep knowledge, theory and technical principles for specific profession
- Learning with syllabus to increase skills in industrial sectors and stimulate students to get more understanding in industry.



Target



- ✓ Ready manpower to propel Thailand's industries
- ✓ Standard enhancement for competitiveness



Workplaces
Working experience and compensation



Academic Institutes



Smart Services (SS)
Project Management



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Work-integrated Learning (WiL)

Empowering the manpower with the skills industry demands



Dormitories



Workplaces



Colleges



Execution



Other activities





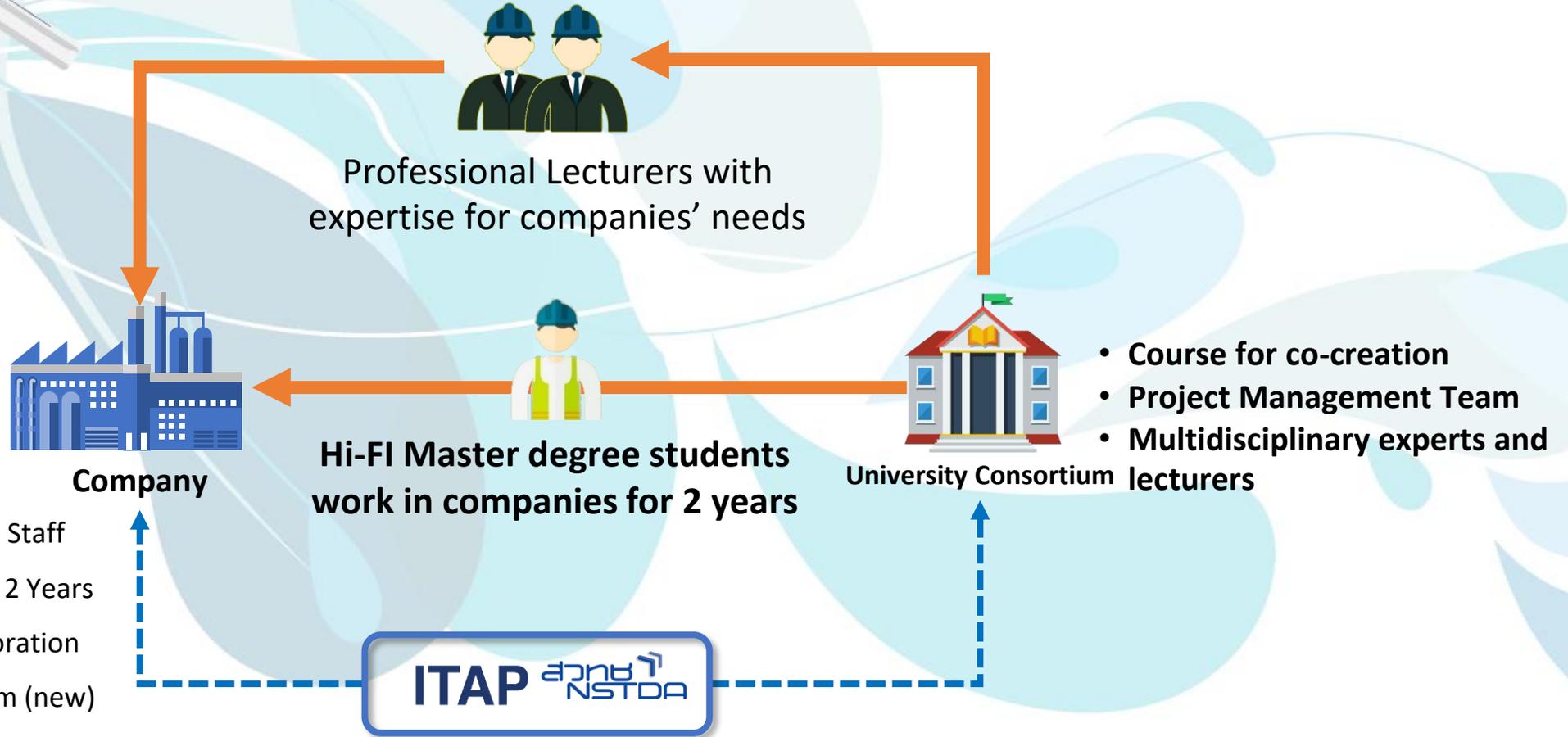
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HI-FI Consortium

Higher Education Transformation as "Mechanism" for Industrialization



- Fulltime (middle) Staff
- Gain Work Value 2 Years
- Specialist Collaboration
- Workforce System (new)

• **ITAP mechanism** monitors and evaluates project quality

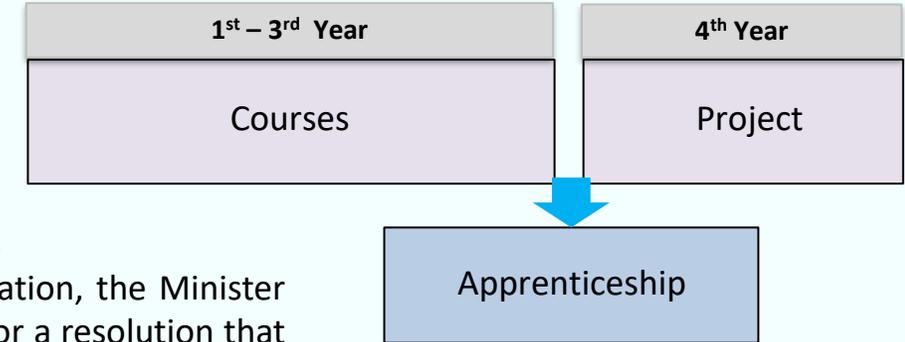


Higher Education Sandbox : Special Curricula Program



Unlocking the restricted rules for new higher education model testing

- To encourage universities being relevant in new global contexts



Higher Education Act B.E. 2562 Section 69

For the benefit of creating innovations in higher education, the Minister may propose to the Policy Council and to the Cabinet for a resolution that higher education institutions/departments are able to provide educational or learning innovation different from the higher education standards.

Existing higher education standard

- ~~Study period~~
- ~~Credit~~
- ~~Lecturer qualification~~
- ~~Learner qualification~~
- ~~Quality assurance system~~
- ~~Course revisit~~



- New higher education standard
- New quality assurance system

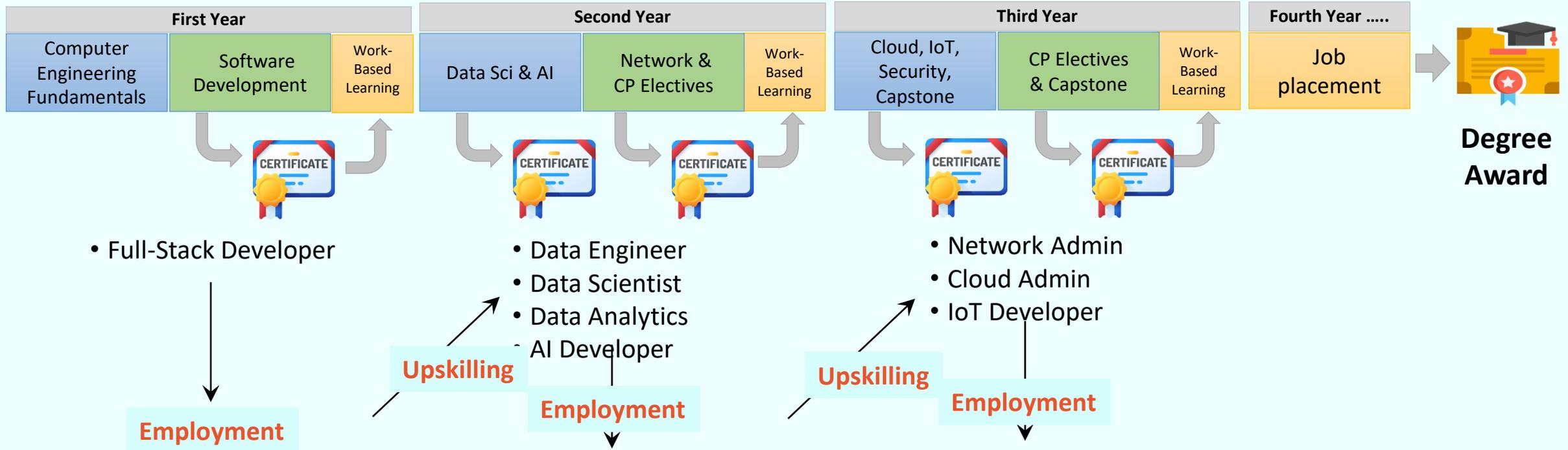




Higher Education Sandbox : Special Curricula Program



Computer Engineering and Digital Technology, CU



Industry Partners
(Over 200 Firms)



Industrial Internship (Coop+): Rapid Competency Enhancement for Graduates to Meet Short-Term Industry Needs

Recruitment



Demand-driven Course Development

Pre-session Course

Common Module (online platform)
DEGREE PLUS

Module 1: Inside Tomorrow's Tech: Semiconductors, Smart Electronics & CEO Insights (Required)

Module 2: Digital and Analog Electronics/ Circuit Design and Analysis (Electives)

Module 3: Test Hardware Knowledge/ Testing and Verification (Electives)

Bootcamp (10-Day Onsite Training at a University Laboratory)

MATLAB simulation | Basic Analog & Digital

Basic Instrument | Basic Semiconductor

Soft skills: Project management & Problem solving

Internship

Workplace-Based Training
(6 Months or More)



The instructors consist of subject-matter experts from both the industrial sector and higher education institutions.



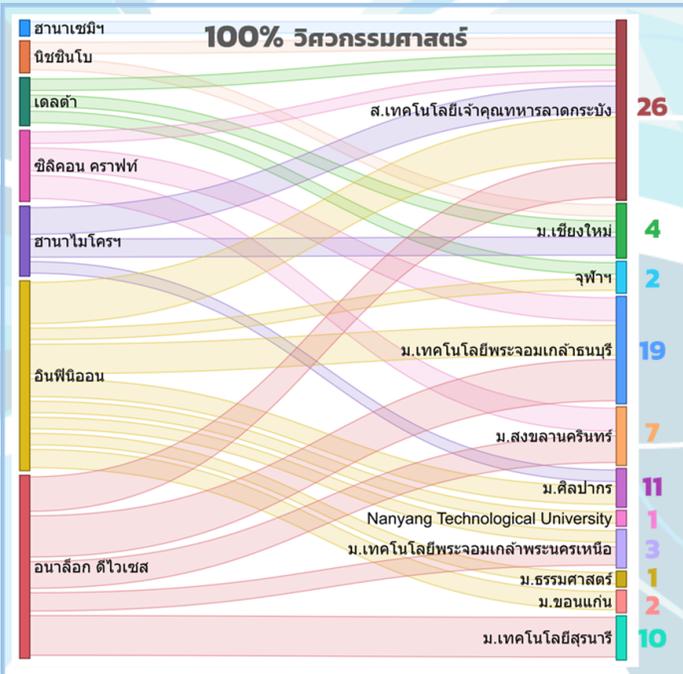
Common Module 1: Inside Tomorrow's Tech: Semiconductors and Smart Electronics
โปรแกรมแบบเปิดที่กรมส่งเสริมการค้าระหว่างประเทศ "Semiconductor and Advanced Electronics" Common Module 1

Common Module 2: Digital and Analog Electronics / Circuit Design and Analysis
โปรแกรมแบบเปิดที่กรมส่งเสริมการค้าระหว่างประเทศ "Semiconductor and Advanced Electronics" Common Module 2

Common Module 3: Test Hardware Knowledge / Testing and Verification
โปรแกรมแบบเปิดที่กรมส่งเสริมการค้าระหว่างประเทศ "Semiconductor and Advanced Electronics" Common Module 3

Skill Mapping

ตำแหน่งงาน	ตัวอย่างสมรรถนะเชิงเทคนิคด้านเทคนิคต้นตอ	ตัวอย่างสมรรถนะเชิงเทคนิคต้นตอ			
		1) Semiconductor Fundamentals	2) Circuit Design & Analysis	3) Microelectronics	4) Failure Analysis
Front End	Digital IC Designer	Level 1	Level 2	Level 2	Level 1
Back End	Equipment Engineer	Level 2	Level 2	Level 2	Level 2
	FA Analysis Engineer	Level 1	Level 1	Level 1	Level 3





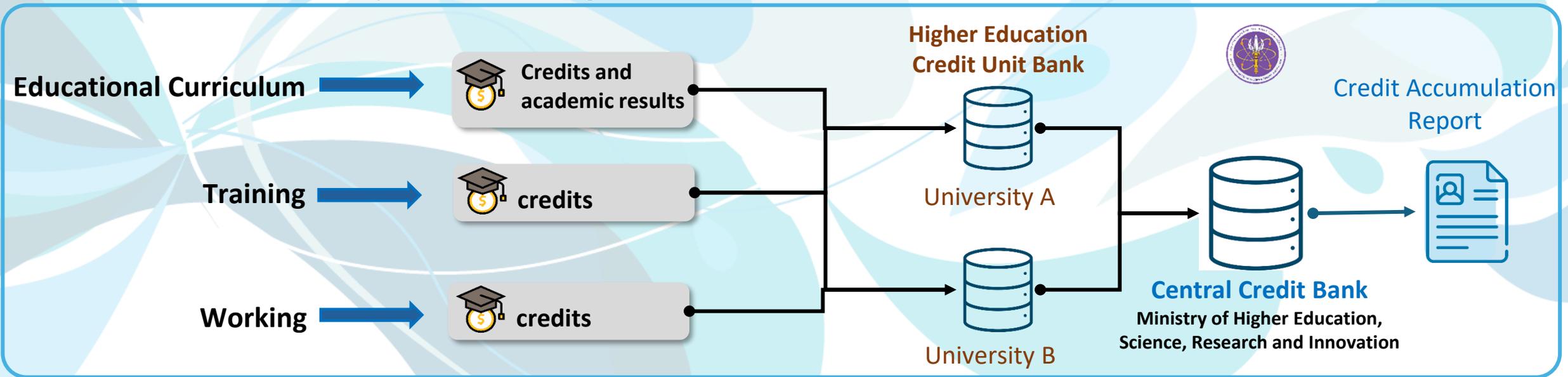
Promote and support the development of education to promote lifelong learning (Life-Long Learning)

Related announcements from the Ministry of Higher Education, Science, Research and Innovation

Announcement of the Higher Education Commission on **Guidelines for the Operation of Credit Units in Higher Education** , 2022

Announcement of the Higher Education Commission on **the Criteria and Methods for Transferring Credits and Academic Results in Higher Education**, B.E. 2022

Guidelines for the operation of higher education credit units



* It is expected that the connection with the university credit repository will begin in 2025 .



Guidelines for the operation of credit units in higher education, 2022

❑ Objectives

- 1 Promote and support **learners to have lifelong learning** without **specifying the age and qualifications** of the learners, linking both **Degree education and Non-degree education**
- 2 Promote learners **to be able to accumulate credits** earned from degree education, non-degree education, and informal education in **the credit bank**.

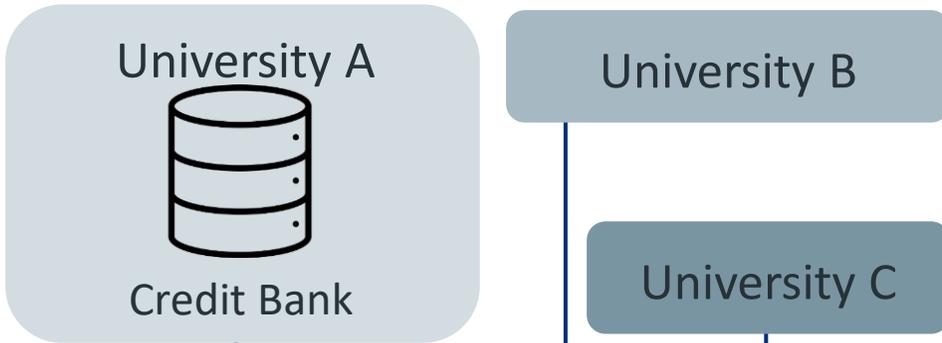
❑ Credit Unit Principles

- **The credit bank** operated **by the higher education institutes**, the **central credit bank** operated by **the Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation**, are connected in digital form.
- Students **can accumulate credits in the credit bank throughout their lives**, regardless of their ages and qualifications, including the duration of credit accumulation and the duration of study, but **must be up-to-date with advancements in that field**.

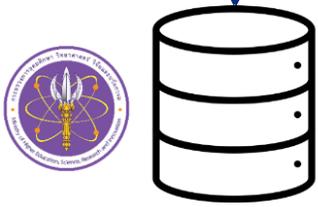
National Credit Bank System



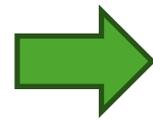
National Credit Bank System



collected



National Credit Bank



Transcript



Job Matching





Current operations



Digital Knowledge Repository

Chulalongkorn

University operated by the General Education Center (GenEd Chula)

- Chula MOOC
- GenEd
- CUVIP
- Courses from the private sector



Mahidol University Learning Platform

มหาวิทยาลัยมหิดลเปิดแหล่งเรียนรู้ MUX

ที่ตอบสนองต่อความต้องการของผู้เรียนให้สามารถเข้าถึงแหล่งข้อมูลการเรียนรู้ได้ทุกที่ ทุกเวลา



ประหยัดเวลาและระยะทาง

เนื่องจากเป็นระบบการเรียนการสอนผ่านออนไลน์ ผู้เรียนจึงสามารถเข้าเรียนในช่วงเวลาใดและเรียนที่ไหนก็ได้



เข้าถึงได้ง่าย

ผู้เรียนสามารถเข้าเรียนผ่านอุปกรณ์สื่อสารทุกชนิด



ผู้เรียนเป็นศูนย์กลาง

ผู้เรียนสามารถเลือกวิชาที่อยากเรียนได้ตามใจชอบ



ปฏิสัมพันธ์ระหว่างผู้สอนและผู้เรียน

ผู้เรียนสามารถสร้างปฏิสัมพันธ์ระหว่างผู้สอนผ่านระบบ Personal Message



Skill Online Master's Degree Program Thammasat University vs. SkillLane



Highly skilled Manpower Development Platform

STEMPlus One-Stop Services (OSS)

Manpower solutions and facilitation

Supporting various forms of human development in one place

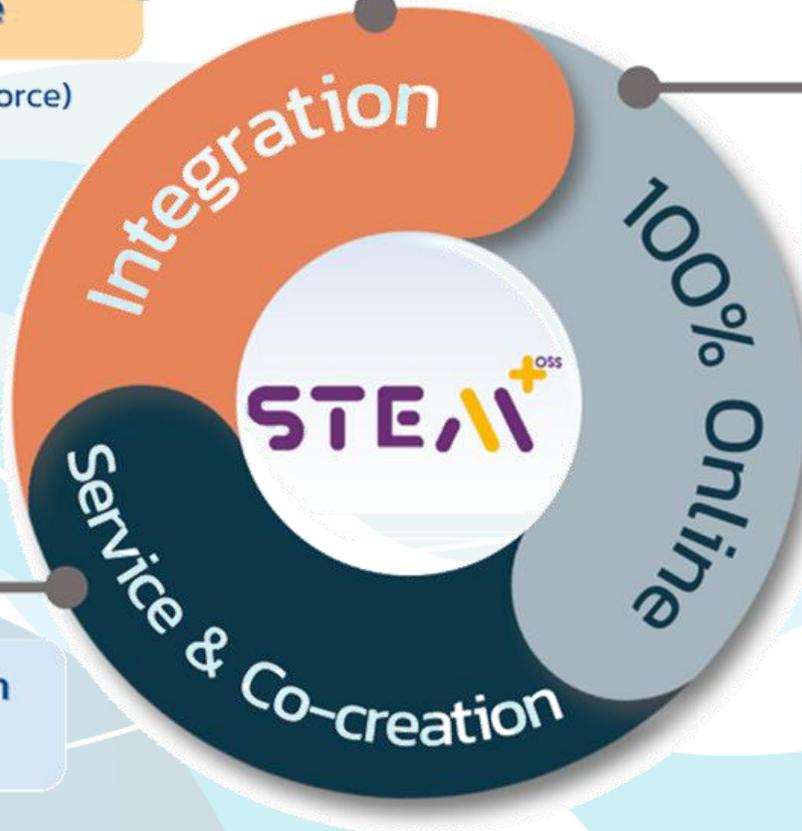
- ◆ Thailand Plus Package (STEM Workforce)
- ◆ Merit - based Incentives
- ◆ Competitiveness Fund
- ◆ Talent Thailand Platform
- ◆ Higher Education Sandbox



Connecting Demand - Supply in human development

New model

- ◆ Industrial Co-research
- ◆ Work-Integrated Learning
- ◆ Upskill/reskill
- ◆ Sandbox

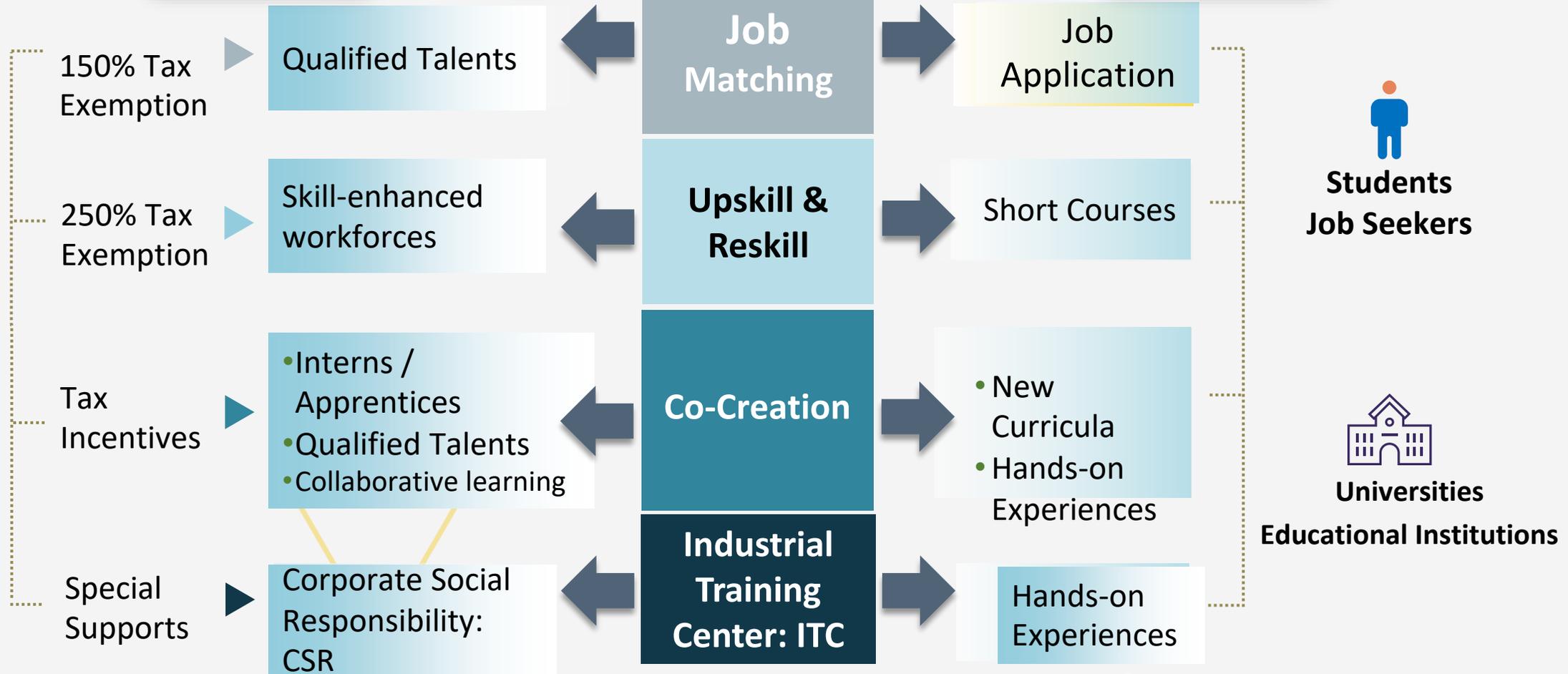


Accessing the service through the information system 100%.

- ◆ Certification for a training course (Tax exemption 250%)
- ◆ Certification for a job position (Tax exemption 150%)
- ◆ Notification of manpower needs
- ◆ Search for training courses.
- ◆ Search for a job.

Demand

Supply





Incentive Packages

for High-Skilled Workforce Development

Activity	Benefits	Conditions
Employment (New)	<p>Thailand Plus Package (Revenue Department)</p> <ul style="list-style-type: none"> • Tax incentives on hiring STEM personnel <p>BOI</p> <ul style="list-style-type: none"> • Personnel training contribution 	<p>Thailand Plus Package (Non-BOI)</p> <ul style="list-style-type: none"> • 150% (1 Jan 2023 – 31 Dec 2025) <p>BOI</p> <ul style="list-style-type: none"> • 50% not exceeding 5 million baht 2 years (<100,000 baht/person/month) For start-up enterprises (up to 5 years)
Human Resource Development in The Organization	<p>Thailand Plus Package (Revenue Department)</p> <ul style="list-style-type: none"> • Tax incentives for workforce training <p>BOI</p> <ul style="list-style-type: none"> • Funding for personnel training costs (Training grants from Competitiveness Fund) 	<p>Thailand Plus Package (Non-BOI)</p> <ul style="list-style-type: none"> • 250% (1 Jan 2023 – 31 Dec 2025) <p>BOI</p> <ul style="list-style-type: none"> • 50% not exceeding 5 million baht 2 years (<100,000 baht/person)
Admission of internships	<p>BOI</p> <ul style="list-style-type: none"> • Announcement of the Board of Investment 21/2564 (Merit – based Incentives) 	Exemption of additional corporate income tax of 200% of investment
Establishment of specialized training centers	<p>BOI</p> <ul style="list-style-type: none"> • Announcement of the Board of Investment 21/2564 (Merit – based Incentives) 	Exemption of additional corporate income tax of 100% of investment



Thailand Plus Package



Tax measures: To support the relocation of production bases by foreign investors

- Stimulate employment of STEM personnel (Royal Decree) Issue No. 777 – Exemption from corporate income tax 1.5 times)
- Promote the private sector to use tax benefits to systematically develop personnel skills in organizations (Royal Decree) Issue No. 778 – Exemption from corporate income tax 2.5 times)



Operating results

- New hires **13,075 rates** From 212 organizations
- Income estimate **4,438 million baht per year**
- Certified training courses **1,767 courses** From 165 training units
- **451,137 trainees**

To create highly skilled personnel for modern industries

- Support the private sector and educational institutions in developing high-performance human resources.
- Promote Thai workers to Reskill and Upskill to support new technologies
- Create a skilled workforce that meets industry needs
- Raise the country's competitiveness with high-quality manpower

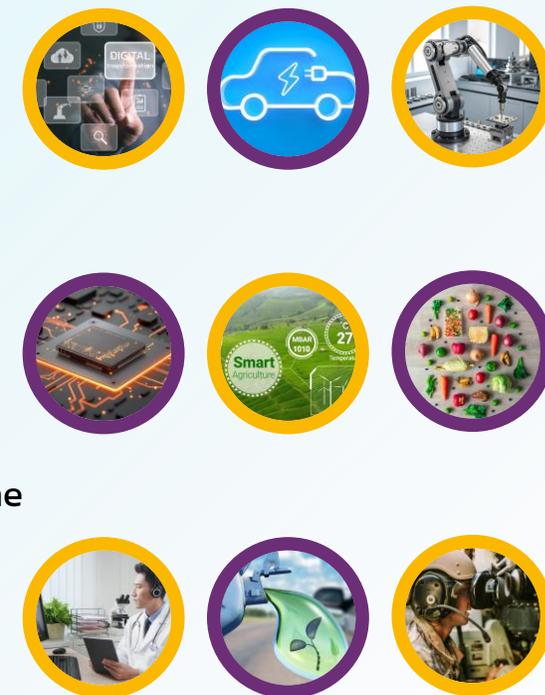
Developing a highly skilled workforce
For target industries

100,000 people



Students entering the labor market Personnel in the labor market

30,000 people **70,000 people**



THANK YOU



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