

The Transformation of NKHS



Presenter:

Principal Meihui Liu

Taipei Municipal Nangang Vocational High School



Information about NKHS



Our Campus

Land Area : 93,517 m²
Ninety three thousand and five hundred seventeen square meters

Floor Area : 90,946 m²

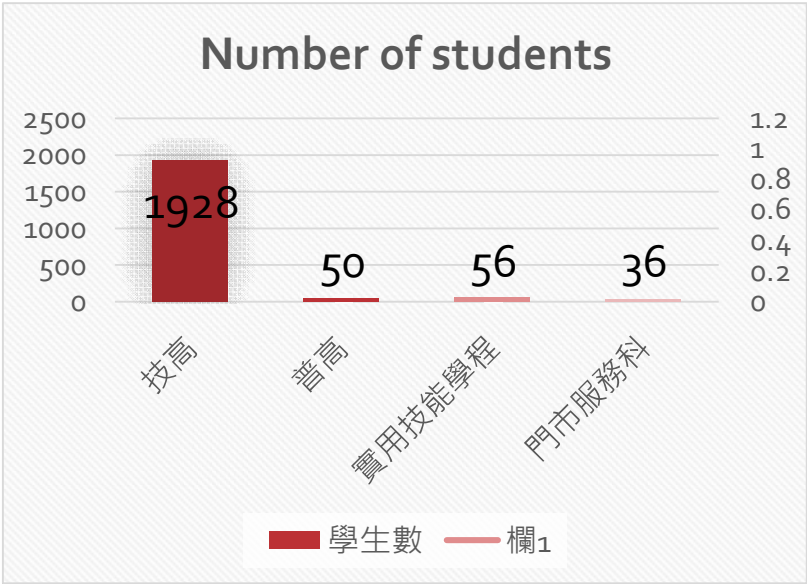
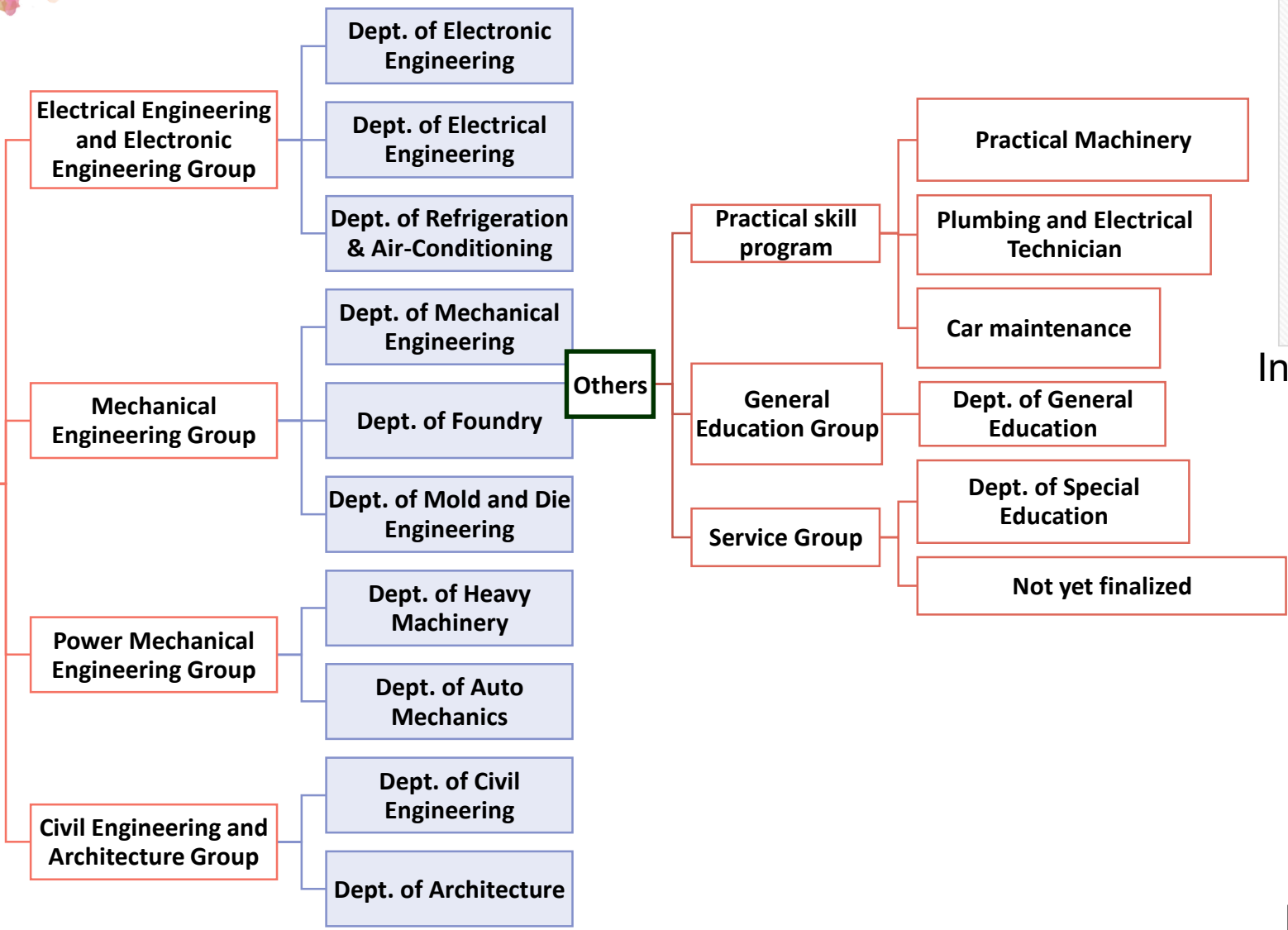




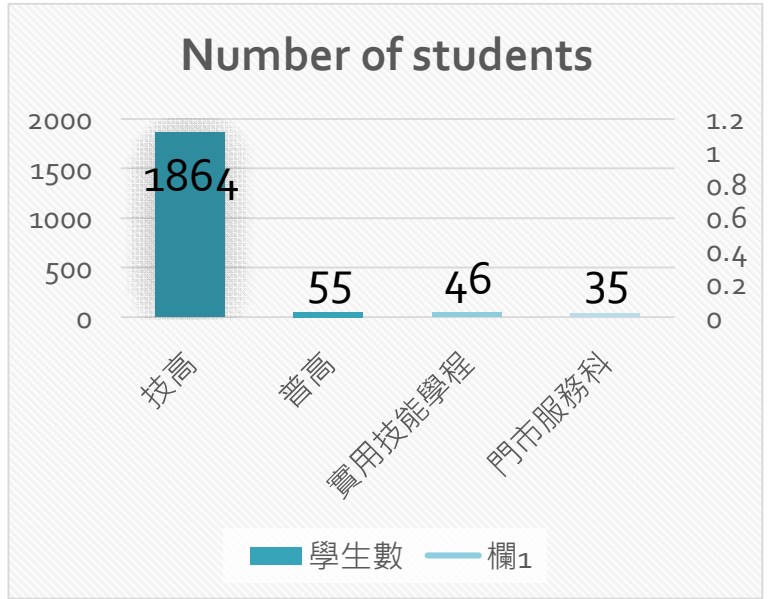
Summary of NKHS



Technical & Vocational High School



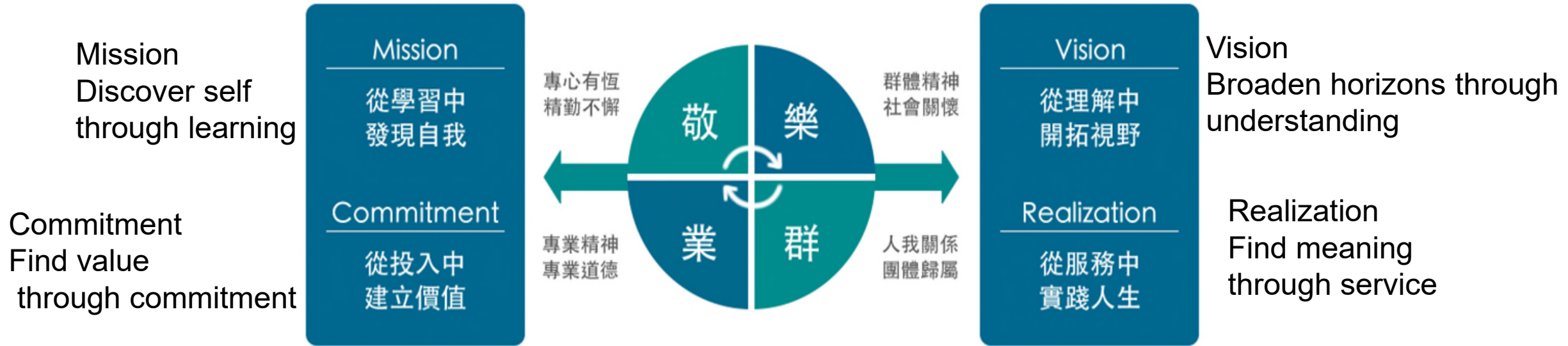
In 2022, 67 classes, 2070 students



In 2023, 66 classes, 2000 students



School Vision –All-round winners for this generation



敬: respect
業: profession
樂: happiness
群: company

Encourage students to complete the mission, strengthen commitment, focus on practical approach to broaden horizons
– Dedicated and Respectful Students from NKHS

Prepare students' professional success with dedication and all-round development. Every student can find their own specialty so as to achieve the vision
“all students are winners”



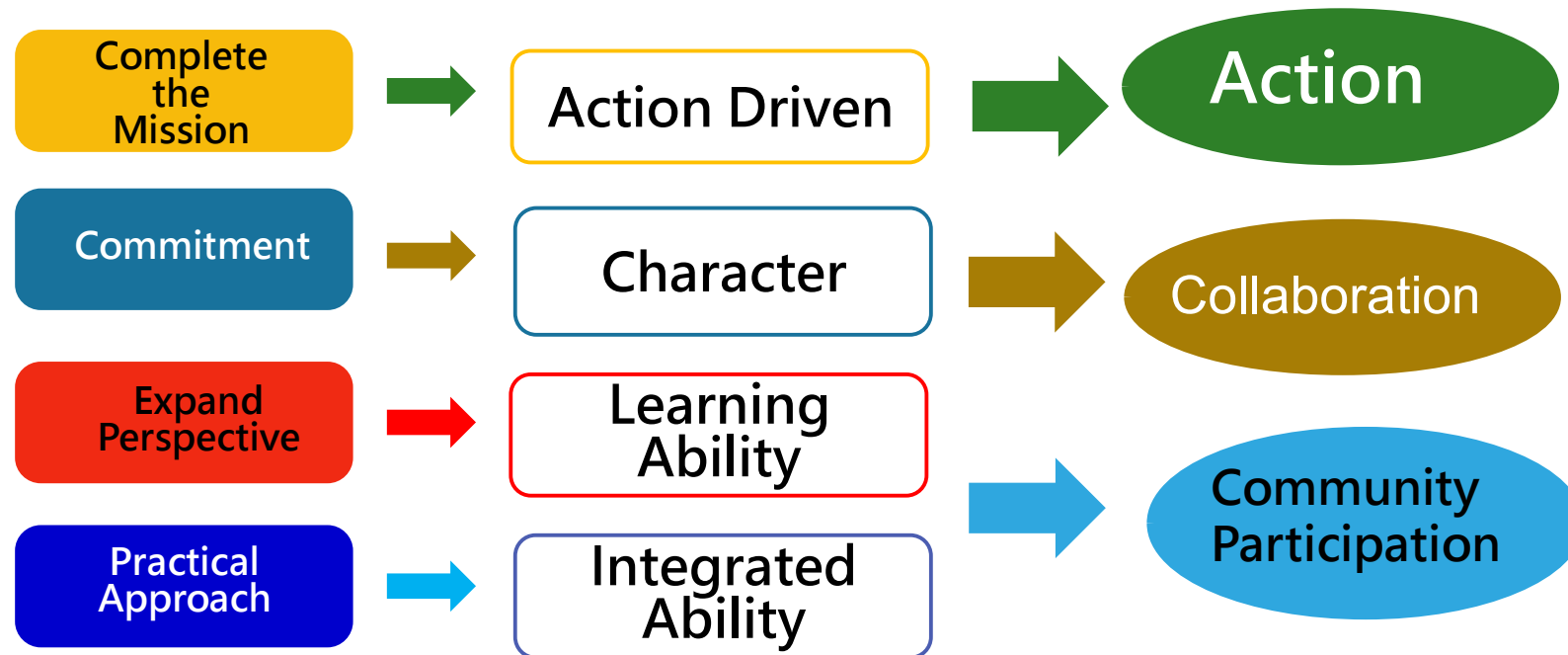
Student Vision



Student vision

Skill

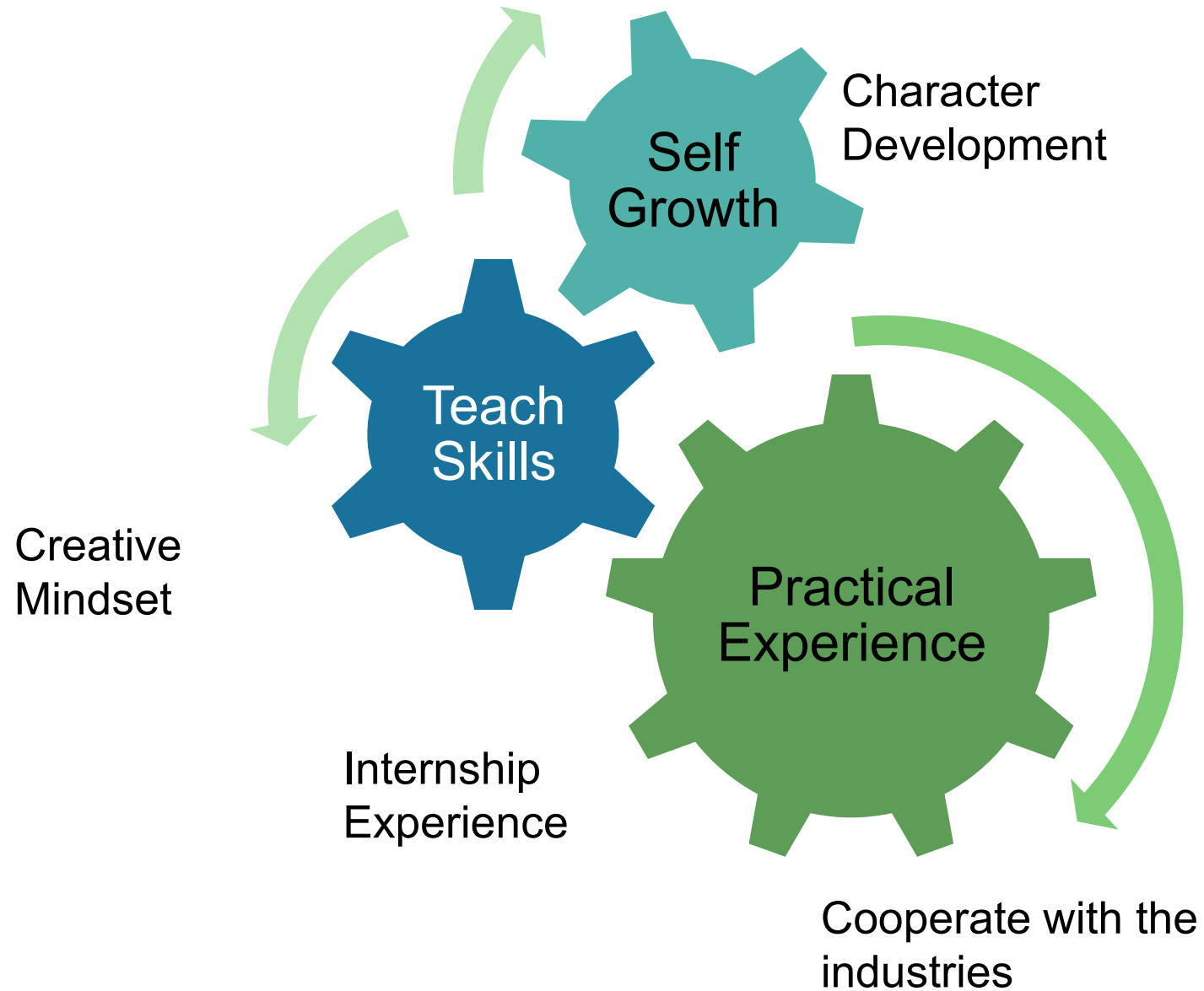
Core Competence



Improve professional ability, build character,
and cooperate with others



Educational Goal





Taipei vocational education development vision and promotion policy



Goals and Plans



- ◆ Multifaceted, leading, foresight policies
- ◆ Cooperation with Industries
- ◆ Skill Competitions
- ◆ Innovation Exhibition
- ◆ Improve equipment and facility in apprenticeship

Solid knowledge, Industrial resources, Skill actuation,

Practical ability

ISA and SIEP Skill learning programs

- ◆ International Youth English Camp
- ◆ New Southbound International English Camp
- ◆ Second Language Program
- ◆ Incorporated International Issues
- ◆ Internship Abroad Programs
- ◆ Support System
- ◆ Service to Remote Villages and Disadvantaged Group

International Competitiveness and social participation

Flexible programs and Learning

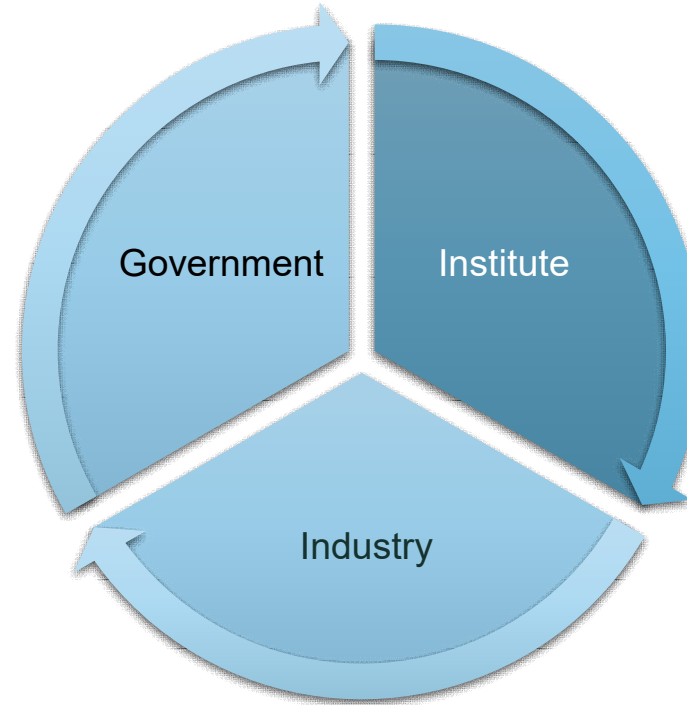
- ◆ Develop program with multidimensional expertise
- ◆ Teaching center
- ◆ Industry-academia cooperation research and project
- ◆ Talent training and classes for enforcement
- ◆ Maker education

Integration





Implementation of government-industry-institute alliance



- ◆ Report to education bureau for cooperation matters
- ◆ Co-organize internship abroad programs, specialist training and enterprise internship projects
- ◆ Early recruitment project of the students by the enterprise
- ◆ Financial need scholarships in connection with special saving account
- ◆ Develop programs with framework for the 12-year Basic Education Curriculum Guidelines
- ◆ Industry-Institute Cooperation Agreement signed by both parties

- ◆ Set up cooperative education system team in school
- ◆ Review the cooperative education projects

- ◆ Discuss with Cooperative Education System Department
- ◆ Software or hardware donation from the industry
- ◆ Further education for teachers
- ◆ Internship programs and visit enterprise or industry.
- ◆ Sign the Cooperation Agreement and set up the training center



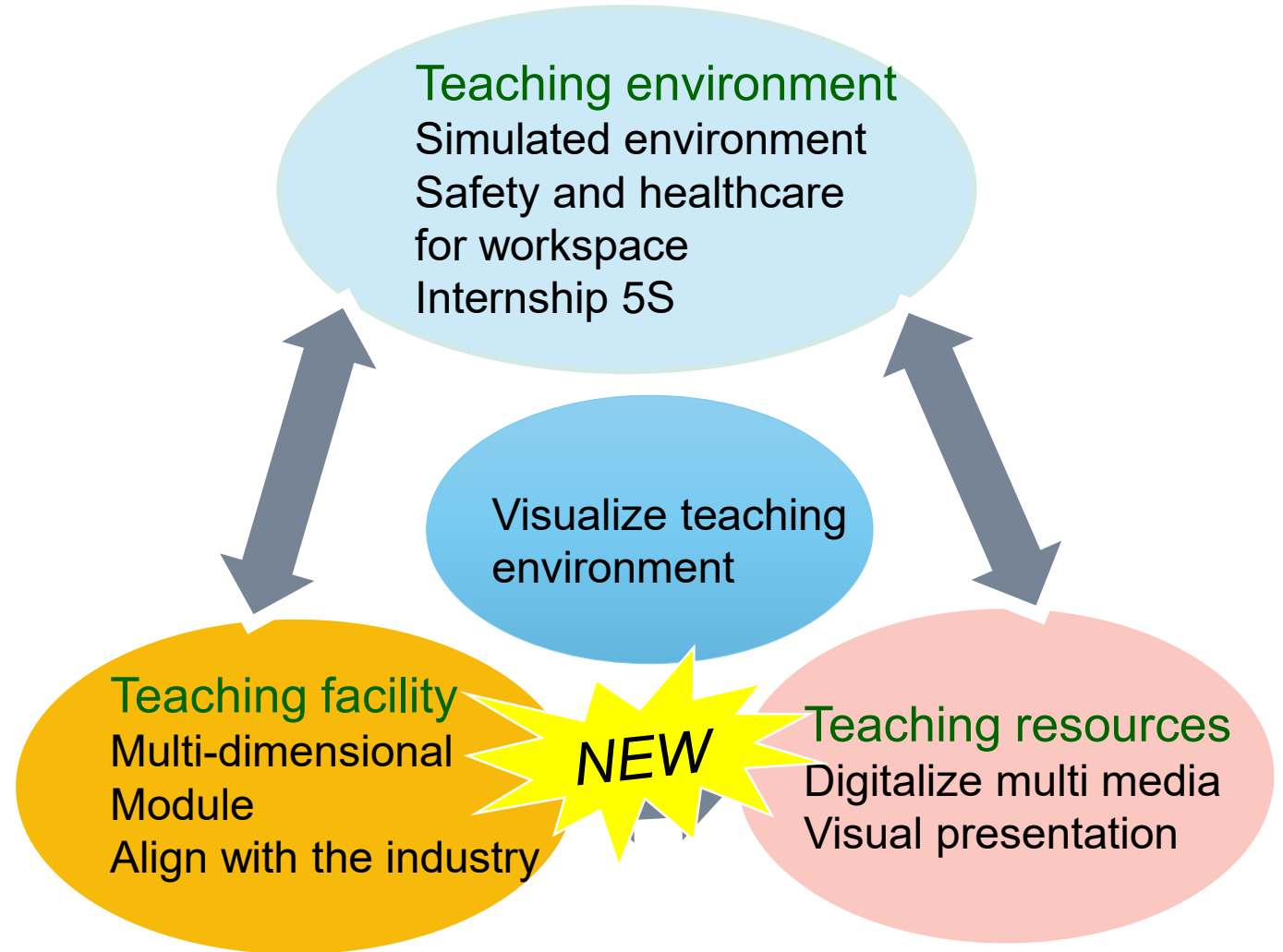
Creating a visual teaching environment



Old equipment and facility
Do not align with the industry
Insufficient space
Complicated layout



Transform the teaching environment





Creating a visual teaching environment



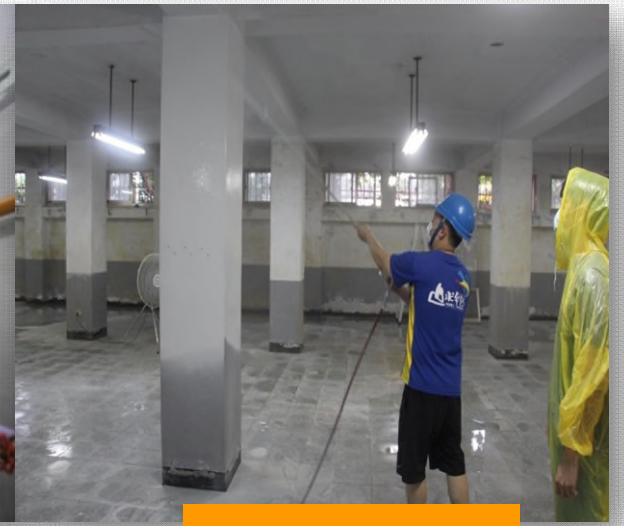
100%



100%



100%



100%

Cooperative effort from both teachers and students to transform the teaching environment



Internship field update and enterprise integration



100%



100%



100%



100%

Teaching environment of the refrigeration & air conditioning class
After renovation, it is now the National Examination Site



Internship field renovation and enterprise integration



100%

Automobile Division Electric
Vehicle Repair Factory



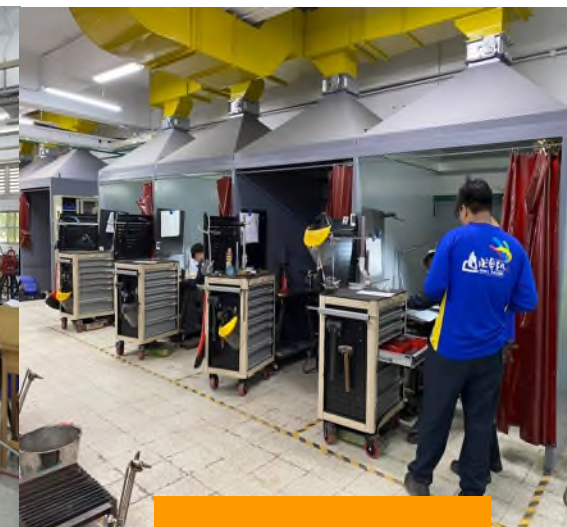
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Mechanical lathe equipment



100%

Indoor wiring practice site



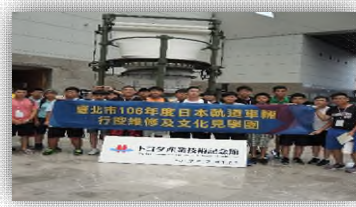
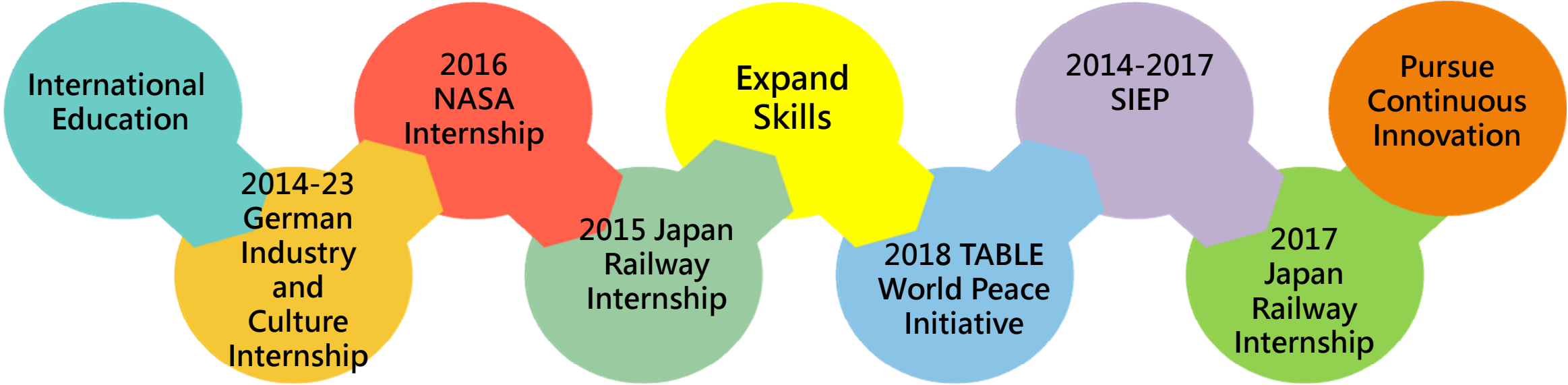
100%

Refrigeration and air
conditioning practice field

Internship factories for each department



Promote Various Internship Exchange Programs Abroad





Technical Teaching Centers Of Taipei



100%

Electric vehicle Technology
Teaching center



100%

Energy-saving Technology
Teaching Center



100%

Automation Technology
Teaching Center



Current stage

–government-industry-institute alliance



Cooperate with SIEMENS

SIEMENS

Ingenuity for life

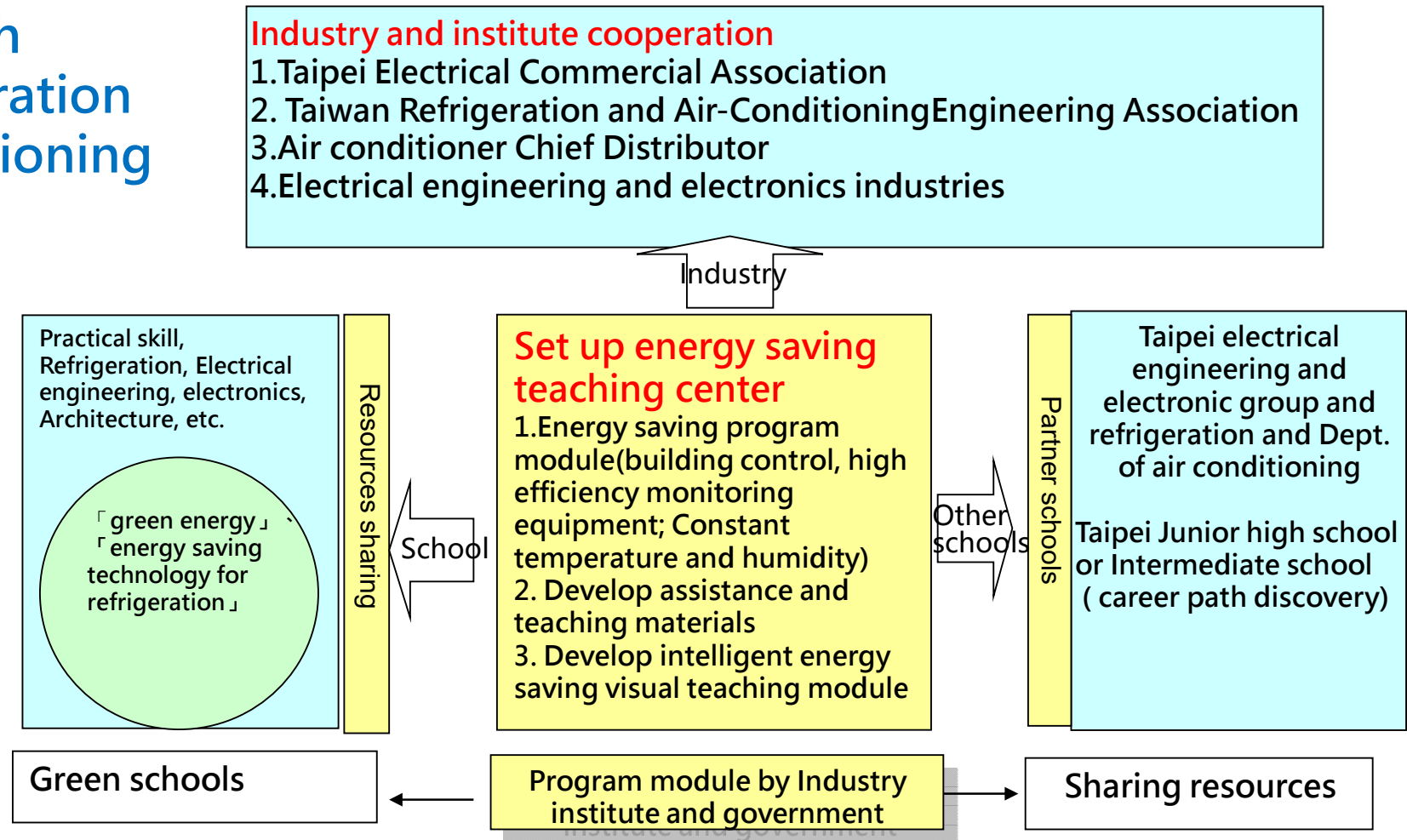
- Set up a training center for automation & drives by SIEMENS in 2015 to develop expertise of Industry 4.0
- Set up an automation training center for Taipei vocational high school in 2016 and organize internship program to obtain SMCP certificate.
- 271 students trained from 2015 to 2023
- 1 year internship program in SIEMENS
- Organize a trial training program for expertise in digital science in 2018-2022 to allow vocational high school students to have internship opportunities in enterprise.
- Cooperation strategy:

Facility	Software	Teaching materials	Teacher	Certification	Internship
<ul style="list-style-type: none">• S7-1200• Logo!8• Provided by automation training center	<ul style="list-style-type: none">• TAI V15• Sponsored by SIEMENS	<ul style="list-style-type: none">• S7-1200• Logo!8• Sponsored by SIEMENS	<ul style="list-style-type: none">• Teacher DING, YI-NENG go to other schools to provide a program to prepare career start• Itinerant teachers provided by Taipei City Government	<ul style="list-style-type: none">• SCE• Sponsored by SIEMENS	<ul style="list-style-type: none">• SIEMENS and other similar industries



Current stage—Develop and promote energy-saving technology programs

Cooperate with
Taiwan Refrigeration
and Air Conditioning
Association



The framework of promoting energy-saving teaching program



Current stage – Develop and promote Electric vehicle technology program

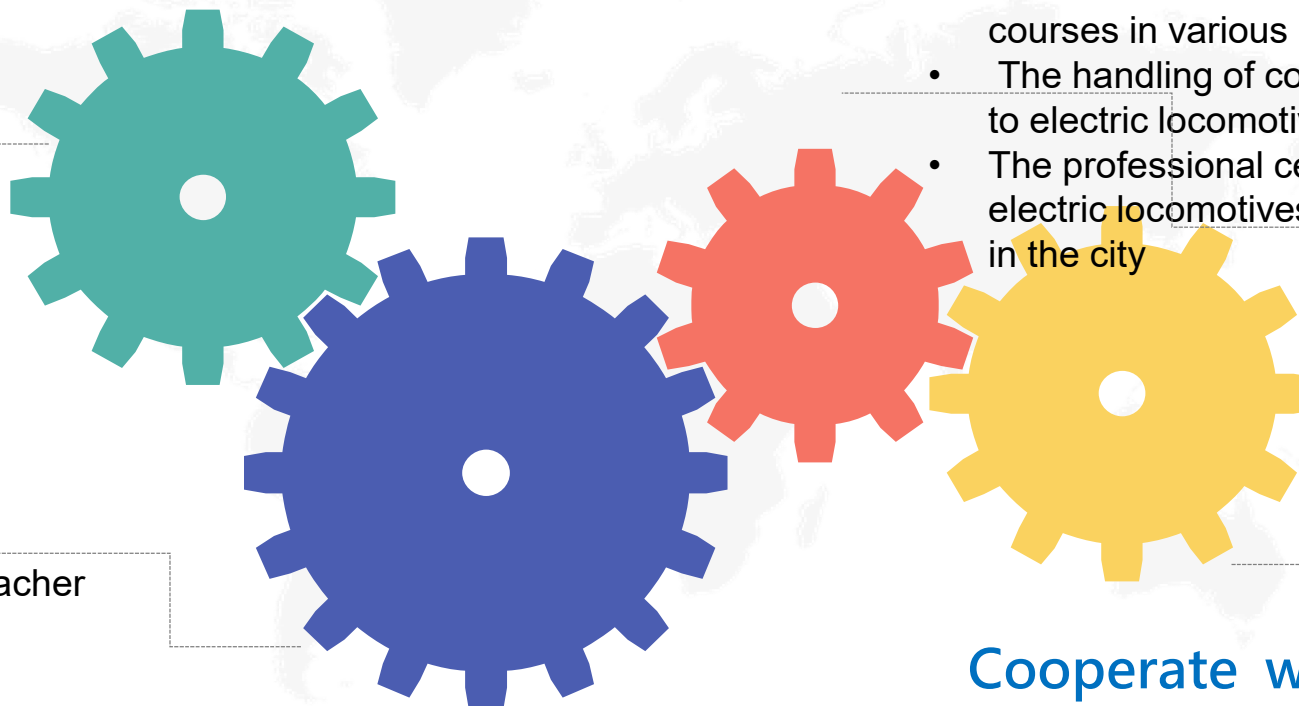


Lead-in period 2019-2020

- Industry donated equipment
- Practice site equipment planning and layout
- Collection and integration of course materials
- Teacher Industry Exchange
- Curriculum Development
- Establishment of teacher certification system for electric locomotive courses

Teacher training period 2020-2021

- Electric locomotive course teacher training
- Electric Locomotive Course Correction
- Teacher Technology Certification
- Learn from the industry



After 2021, course promotion period

- The establishment of practice sites for electric locomotive courses in various schools
- The handling of courses related to electric locomotives in the city
- The professional certification of electric locomotives for students in the city

Electric vehicle teaching technology center

Cooperate with
Kwang Yang
Industrial Company





Current stage – Develop and promote



- **Short-term assisting** : Set up a cooperative relationship by focusing on students' needs and combining resources from the government and industry. Cultivate talents and set up channels for technical exchange.





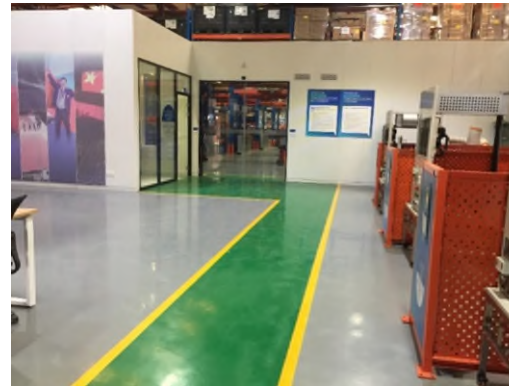
Industry- Institute cooperation to create a win-win situation with great success



➤ International skill contest through industry-institute cooperation



◆ Incorporate the experience learned in the international skill contest into learning programs





Achievement in the World Skills competition during 2013 to 2022



2022, 46th international skill contest

Refrigeration & air conditioning — gold medal

2019, 45th international skill contest

Refrigeration & air conditioning — Won

2017, 44th international skill contest

Refrigeration & air conditioning — Won

Refrigeration — Won

2015, 43th international skill contest

Refrigeration & air conditioning — gold medal

Vehicle engineering— bronze medal

Plaster technology & Drywall system - Won

2013, 42th international skill contest

Refrigeration & air conditioning — gold medal



Achievement in the World Skills competition during 2019 to 2022



Worldskills Competition
with excellent records

2 Gold
1 Bronze
4 Excellencies



臺北市府教育局

DEPARTMENT OF EDUCATION
TAIPEI CITY GOVERNMENT

THANKS



Internship work environment improvement

Project for improving internship environment and facility of
Taipei technical vocational high school

Facility improvement

Project for improving internship environment and facility of
Taipei technical vocational high school

The funding is from the Taipei Education bureau



No connection, no transformation!





Technical and Vocational Education is not only to equip students with professional skills, but also to cultivate them with good characters by giving them a hopeful and happy learning environment, based on their individual talents for a successful future.

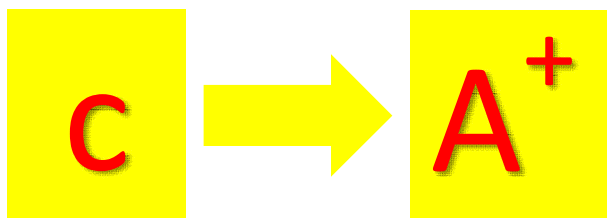




Professional technical training helps students make their dreams come true, from C to A+.



Inferior to superior





感謝您的聆聽

Thank you for listening