WORLD'S BEST PRACTICE GUIDE

IN PROFESSIONAL TECHNICAL EDUCATION AND TRAINING

VOLUME 3



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ABOUT THE WFCP

The World Federation of Colleges and Polytechnics (WFCP) is a member-based international network of colleges, polytechnics, university colleges, institutions and individuals of professional technical education and training. The Federation provides leadership in delivering workforce education for the global economy.

The WFCP began as an informal network borne out of a desire to have a forum for the almost 4,000 professional and technical education and training institutions around the world to meet regularly, learn from each other, and share experiences. The first meeting was held in 1999 in Quebec City, Canada, along with the first World Congress of the WFCP and officially formalized as a network in 2002 with the 2nd World Congress held in Melbourne, Australia.

Today, the Federation represents colleges, institutes, and polytechnics, united by the mandate to prepare students for complex professional roles in a changing society so that they can emerge as leaders and innovators in their chosen careers.

Acting as the united voice for its members, the Federation enables the:

- promotion of its members to their communities;
- influence on the development of policy;
- access to information and experiences that allow each to learn from each other;
- sharing best practices;
- offering of an online community;
- promotion of partnerships to improve staff and student mobility;
- development of partnerships to deliver international contracts;
- organization of the bi-annual World Congress to enable knowledge exchange; and,
- positioning of its members on crucial issues such as inclusiveness, expectations of excellence in professional and technical education and training.

To learn more about the WFCP and how to become a member, please visit wfcp.org.

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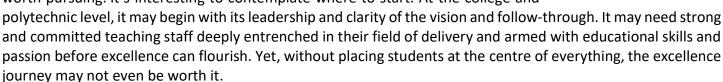
INTRODUCTION

The World Federation of Colleges and Polytechnics is pleased to present the third volume of the World's Best Practice Guide in Professional and Technical Education and Training. As in our two previous editions, this third volume features award winning institutions, individuals and projects engaged in professional and technical education and training (PTET) from around the world.

"EXCELLENCE IS NEEDED NOW, MORE THAN EVER"

Craig Robertson, Chief Executive Officer, TAFE Directors Australia; WFCP Chair

In my home country, national and provincial governments have committed to excellence in vocational education and training. It's easier said than done, but still worth pursuing. It's interesting to contemplate where to start. At the college and



Excellence is a relative concept. It is difficult to measure excellence without an external frame of reference. Most education systems rely on articulated standards or performance and outcomes measures to frame excellence. There is another way.

The federation has 1000s of colleges and polytechnics operating in most locations around the globe. Many have been at the game for decades and even centuries, and others are new, having been formed by governments to help build the capability in the economy and offer education opportunity to citizens. The opportunity the federation offers is the chance to learn from the excellence of others. That's the purpose of the **WFCP** *Awards of Excellence*. Not only celebrating success and excellence but operating as an example for others.

There was high interest in the 2020 Awards, with 113 nominations. They came from across the world, including Australia, Brazil, Canada, China, Fiji, Kenya, Spain, the United Arabic Emirates, the United Kingdom and the United States. The 2020 submissions demonstrated the innovation, dedication, and spirit of the individuals and institutions in the professional technical education and training sector. In more normal times, we would have been in San Sebastián in the Basque Country, Spain, in early October to hand out the awards. This year, the ceremony was virtual.

As countries tackle the rebound from the economic and social upheaval that has characterized 2020, excellent professional, technical, education and training will be critical because we need to make sure that many people who have been displaced from work can catch-up and do so with the most up-to-date capabilities. New demands will need new responses. We are sharing the success stories from the award winners in this handbook to learn from their innovative approaches to embrace new ways for responding to these challenges and changes.



AWARD CATEGORIES

ACCESS TO LEARNING AND EMPLOYMENT — To be awarded to an individual, institution or institutional association that has developed effective channels to increase access to learning and employment for students.

APPLIED RESEARCH – To be awarded to an individual, institution or institutional association that has demonstrated excellence in addressing real-world challenges through applied research.

ENTREPRENEURSHIP — To be awarded to an individual, institution or institutional association that has demonstrated excellence in integrating entrepreneurship into academic curriculum and/or implemented innovative entrepreneurial activities.

SUSTAINABLE DEVELOPMENT – To be awarded to an individual, institution or institutional association that has demonstrated excellence in advancing environmental sustainability through knowledge, tools, practices and technologies.

LEADERSHIP DEVELOPMENT – To be awarded to an individual, institution or institutional association that has demonstrated excellence in developing the next generation of college leaders.

HIGHER TECHNICAL SKILLS – To be awarded to an individual, institution or institutional association that has demonstrated excellence in programs accredited as higher education leading to an applied bachelor's degree and leadership in recognition of the groundbreaking approach to degree-granting in professional and technical education and training.

STUDENT SUPPORT SERVICES – To be awarded to an individual, institution or institutional association that has demonstrated excellence provision of services that support students throughout their college experience.

PARTNERSHIP WITH INDUSTRY – To be awarded to an individual, institution or institutional association that has demonstrated excellence in partnering with industry to improve access to jobs and meet the skills needs of the 21st century workforce.



LOOKING FORWARD: SAN SEBASTIÁN 2022

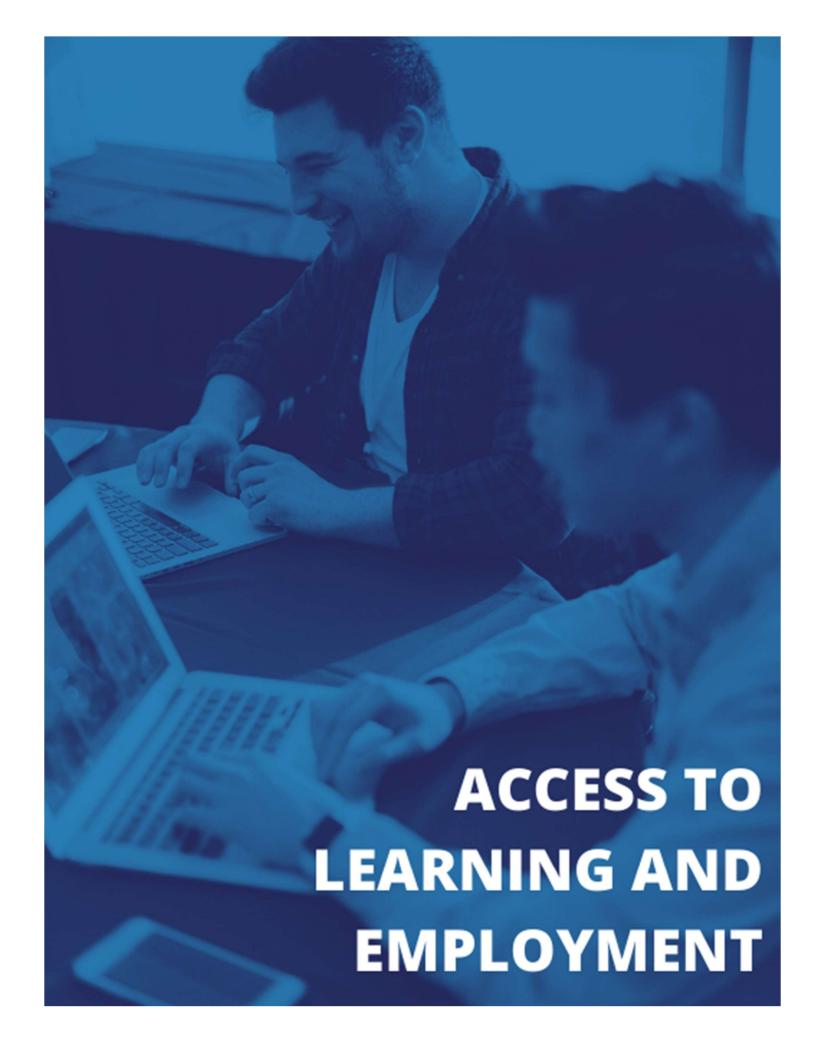
The World Federation of Colleges and Polytechnics organizes a World Congress biannually. The international gathering attracts experts and professionals in the field of professional technical education and training from all continents.

The WFCP 2022 Congress will be held in Donostia-San Sebastián, the Basque Country (Spain) from June 13 – 17, 2022. Join with leaders of associations, colleges and polytechnics to celebrate excellence in professional and technical education and training!

Tknika, the Basque Centre of Research and Applied Innovation in Vocational Education and Training (VET) which is part of the Deputy Ministry of Vocational Education and Training of the Education Department of the Basque government, is host for Congress. Tknika has been widely recognized for its innovation and workforce development success.

More details coming soon.







GOLD: ACCESS TO LEARNING AND EMPLOYMENT

PROJECT: VIETNAM TVET REFORM PROGRAM (VTRP)

AWARD RECIPIENT: CHISHOLM INSTITUTE

COUNTRY: AUSTRALIA

INTRODUCTION

Chisholm Institute is one of Victoria, Australia's largest government-owned Vocational Education and Training providers. Chisholm's record of educational excellence has been built over a substantial history spanning more than 20 years. With more than 300 nationally recognised vocational education programs across a diverse range of career fields, Chisholm offers relevant education with real job prospects.

With world-class facilities across eight campuses in Melbourne and south-east Victoria, Chisholm welcomed 41,000 local and international students in 2019. The Institute also offers online, workplace and secondary school learning options. Globally, Chisholm programs are delivered through partnerships in Vietnam, China, Qatar and Micronesia to over 5,000 students.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

The Vietnam TVET Reform Program (VTRP) was funded by the Government of Vietnam through the Ministry of Labour, Invalids and Social Affairs (MOLISA) and implemented through a partnership comprising of the Directorate of Vocational Education and Training (DVET), Chisholm Institute (Australia) and Advanced International Joint Stock Company, Vietnam (AIC).

The primary goal of the project was to enhance the vocational education and training system in Vietnam and to develop a skilled workforce in order to service the country's future economic growth.



The Hon. Gayle Tierney, Minister for Training and Skills, Victoria, Australia, visiting colleges across Vietnam in 2019

Chisholm Institute was selected to provide access to the Australian vocational framework, chosen by the Government of Vietnam due to its global reputation for meeting industry needs, and its demonstrated ability in ensuring consistency of delivery across all providers through a stringent quality assurance approach. The VTRP resulted in teacher training for more than 350 Vietnamese vocational teachers, the development of 12 Australian qualification packages aligned to Vietnam industry needs and was implemented as a trial across 25 vocational colleges throughout Vietnam.

With Chisholm's input into the VTRP, Vietnam's vocational training system has seen the capacity uplifting of 25 Vocational Colleges across the country. These organisations are now capable of delivering internationally recognised qualifications that meet the Australian Skills Quality Authority (ASQA) regulatory standards and Australian Qualifications Framework (AQF) requirements up to Advanced Diploma level.

To achieve this benefit to higher applied education at the international level, the VTRP applied ASQA Standards, for Registered Training Organisations (RTOs), 2015 by:

 Designing and developing competency-based curriculum in close consultation with local industry to inform standards and alignment with international best practice



- Investing in colleges through both hardware and software upgrades, bringing facilities and equipment to international standards
- Providing both teacher training and vocational training to teachers to prepare them to deliver internationally recognised programs
- Providing ongoing quality assurance and mentoring for teachers to ensure quality compliance.

RESULTS AND ACCOMPLISHMENTS

The VTRP project has enhanced the vocational education and training system in Vietnam and developed a skilled workforce able to service future economic growth.

Key outcomes for Vietnamese colleges and industry have included:

- Developing Vietnam's vocational training system by increasing the capacity of 25 vocational colleges
- 350 Vietnamese vocational teachers completing the Certificate IV in Training and Assessment, enabling them to deliver accredited training
- The adoption of competency-based training, moving away from traditional lecture-based transmission of theory, which has arguably facilitated the most improvement in graduates' acquisition of skills
- Improved industry engagement with colleges has allowed industry representatives the opportunity to provide feedback on skill requirements
- Introducing assessment practices that are specific to local industry skills requirements
- Graduates that are job ready

As of January 2020, 724 students achieved internationally recognised Australian qualifications at Diploma and Advanced Diploma levels. This reflected a 93% student retention rate across the trial project.



Hundreds of Vietnamese teachers celebrate receiving their Certificate IV in Training and Assessment certificates

Key outcomes for students included:

- Associated soft skills training including English, communication, problem solving, self-direction in learning, and confidence
- Career counselling, workplace preparation and opportunities for further education abroad
- Strong employment outcomes, as evidenced by Mr. Vu Xuan Hung Director of Department of Formal Training (MOLISA), who said: "Right after graduating, from November 2019 to now, there were 477/724 graduates with jobs, of which 40 are working or currently working to complete the procedures to go to work abroad such as the US, Canada, France, Germany, Japan and South Korea" (15 January 2020)
- Five courses achieved 100% employment outcomes.



Engineering students with a Chisholm trade mentor during a regular visit to support delivery



INTERNATIONAL VALUE

The cross-border program implications are that graduates achieved internationally recognised qualifications, providing them with greater mobility for employment and further studies. One graduate is now undertaking a Master's program in Korea on scholarship and others are working or undertaking further study in Japan, USA and Australia.

The VTRP was designed alongside the Vietnamese government, with the local context carefully considered. The overall framework is transferable to other countries seeking to establish or enhance their vocational education sector.

This project had a significant focus on teacher development, providing Vietnam with a core group of teachers who have undertaken professional development, focused on the delivery of technical and vocational education. This builds the foundation for transitioning to increasingly competency-based delivery across the sector. The improved teaching standards will ultimately benefit the delivery of future qualifications.

The primary innovation in the Vietnam TVET context has been the application of Australian quality standards, leading to the award of Australian (and internationally recognised) qualifications.

WORDS OF WISDOM

Lessons learned included:

- The importance of Government commitment, investment and unwavering support in driving a quality outcome, was critical to the project success
- A teacher mentoring program within a well-defined support framework and regular in country visits and

- local support was a key activity to ensure a successful outcome
- Cementing the importance to the vocational colleges of strengthening and maintaining ties with industry, and therefore student employment outcomes
- Focus on improving the overall understanding of compliance processes and greater transparency in assessments of students with relevant feedback
- Having a holistic approach to the project. Thinking beyond the facilitation of Australian qualification delivery, and where possible including a focus on employment outcomes using supportive strategies such as career counselling, preparation for work webinars, panel discussions with industry and advisory sessions on further study abroad.

NEXT STEPS

Utilising the investment already undertaken by the Government of Vietnam, with 350 teachers educated to deliver vocational qualifications, facility upgrades, transition of qualifications to Vietnam – the next step is to ensure greater economies of scale by increasing the volume of graduates per annum to service the needs of industry to support economic growth.

The Government of Vietnam is committed to encouraging students to continue their studies in Vietnam or offshore. Therefore, there is an opportunity to develop more pathway options for students to undertake higher education in Vietnam or offshore.

Future objectives include expansion of the trial program into more Vocational Colleges across Vietnam and to support this, the development of a sustainable teacher development model.

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SILVER: ACCESS TO LEARNING AND EMPLOYMENT

PROJECT: ETHAZI LEARNING & HIGH-PERFORMANCE MODEL

AWARD RECIPIENT: TKNIKA, BASQUE VET APPLIED RESEARCH CENTRE

COUNTRY: SPAIN

INTRODUCTION

Tknika, the Basque VET Applied Research Centre, is promoted by the Deputy Ministry of Vocational Education and Training of the Education Department of the Basque Government.

Innovation and applied research are at the core of Tknika in its ongoing efforts to place Basque Vocational Training at the European forefront. Tknika is modelled after some of the world's most advanced vocational training centres. Through networking and direct involvement by the Basque Vocational Training teaching staff, the Centre develops innovative projects in the areas of technology, education and management.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION



FP Euskadi Learning spaces

ETHAZI Learning & High-Performance model, which implies a disruptive methodological change, was born over a decade ago from the approach to the Basque productive sector, as illustrated in this video. Thus, the so-called "High-Performance cycles" were created in response to Basque companies' needs. That is, the need of having employees with a competitive profile- 21st century skills- who respond to the needs of companies and society in general. Furthermore, Euskadi VET centres and CONFEBASK, Basque **Business** Confederation, started working together driving the flourishment of soft skills in Basque VET students in order to get well formed competitive workers.



FP Euskadi Learning Model

The central element on which the whole ETHAZI Learning & High-Performance model is articulated is collaborative learning based on challenges (see Figure 1). Thus, introducing a problem situation, turning it into a challenge, as well as the entire process until achieving a result, is structured around both the technical and specific skills of each cycle, as well as soft skills that are strategic at that time.

In all cases, the problem situations are presented to a class split into teams, where the work process must make it possible for students to experience the situation as a challenge. As of this point, they will have the opportunity to generate the knowledge necessary to contribute to the best solutions

ETHAZI Learning & High-Performance model has four main characteristics:

- 1. It is intermodular: The design of challenges is as close as possible to the situations of performance in the work reality of each training cycle. Thus, the lectures given per subject by a specific teacher disappear. The timetables, as are traditionally known, are disrupted and organised per challenge;
- 2. It has self-managed teaching teams per cycle: the promotion of teamwork from the teaching team which can adjust, for example, their schedules and use of spaces to the students' learning needs. Each teacher is fully available to students during their working hours;
- 3. It includes evaluation to evolve in competency development: The evaluation is integrated as a key element in the students' own learning process, providing frequent feedback on their evolution;
- 4. Learning spaces are adapted: The spaces' design mainly addresses the characteristics of flexible, open and interconnected spaces that foster environmental situations that favour active-collaborative work. In other words, workspaces are much more than the walls forming a classroom. These are flexible, comfortable spaces with good acoustics, flexible connections and spaces that facilitate the use of ICTs and whose walls can be painted.

RESULTS AND ACCOMPLISHMENTS

ETHAZI started as a pilot in the 2013-2014 academic year in 5 Basque VET centres. Currently, in the 2020-2021, the learning model is in the phase of deployment and implementation in around 40% of the Basque VET student population, which is currently learning throughout this innovative and disruptive learning model.

| Year | 13 -14 | 14 - 15 | 15 - 16 | 16- 17 | 17- 18 | 18- 19 | 18-19 |
|--|--------|------------|------------|-----------|-----------|-----------|-------|
| № of Participating Cycles | 5 | 18 | 91 | 142 | 225 | 279 | 337 |
| Nº of Centres Implanting the Model | 5 | 5 | 30 | 47 | 52 | 63 | 74 |
| Nº of Teachers In training & Implanting the model | 25 | 90 | 455 | 1646 | 1650 | 1953 | 2359 |
| Nº of Students | 100 | 450 | 2275 | 3550 | 5625 | 6975 | 10100 |

Throughout the year, Basque VET teachers get different learning actions aimed at developing the talent of teachers and implementing the model. These include, to name but a few examples, Initial ETHAZI Training, ETHAZI Advanced Training (e.g. Values 4.0, STEAM, Digital Skills, and Creative Thinking), and Entrepreneurial Culture.

Several publications have highlighted ETHAZI benefits to students. Thus, Eizagirre-Sagardia et al. (2017) found that Basque VET students see challenge based collaborative learning as a natural learning environment for developing soft-skills where they acquire greater level of independence which will be valued once they enter the workforce.

INTERNATIONAL VALUE

ETHAZI has been mentioned worldwide. Last year European Commissioner Marianne Thyssen's, at the institutional opening of the 2019 VET International Congress in San Sebastián, regarded Basque VET as one of the best in the world, and a source of inspiration and learning for many in Europe and beyond. Years earlier, ETHAZI was mentioned by the OECD Outward Looking School & Decoystem (2015) as a good example to develop the entrepreneurial competences.

Since 2017, TKNIKA is a UNEVOC-Centre. The main objective of TKNIKA as a UNEVOC-Centre is to contribute to the improvement in the standards and quality of VET in Euskadi. ETHAZI plays a key role fulfilling this objective.



Melanie Williams (2019), Associate Dean at the Australian William Angliss Institute, researched different pedagogical models and said that "there is no reason why ETHAZI could not be adapted to Australian conditions" highlighting the transferability of the embedded processes and values within ETHAZI.



FP Euskadi workshops

WORDS OF WISDOM

This is an organizational change that needs a global vision of all the actors involved in the change: teachers, school management team, etc. A system vision is required. The results of this learning model are obtained in the medium and long term.

Networking is essential for the success of processes such as teacher training and their accompaniment (mentoring), as well the flexibility of all the organization.

NEXT STEPS

In this moment we are working hard to consolidate the model. This means that the teams of teachers who are using this learning model know it and work on it better. This is our priority in this moment.

Reinforce and delve into aspects related to the digitization and sustainability of the model.

Promote the updating and adaptation of regulations to accompany the implementation of innovative learning models.

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BRONZE: ACCESS TO LEARNING AND EMPLOYMENT

PROJECT: PREPARE STUDENTS A CRAFTSMAN-LIKE CAREER FOR THE SUSTAINABILITY OF

PERSONAL GROWTH AND DEVELOPMENT

AWARD RECIPIENT: HANGZHOU VOCATIONAL & TECHNICAL COLLEGE

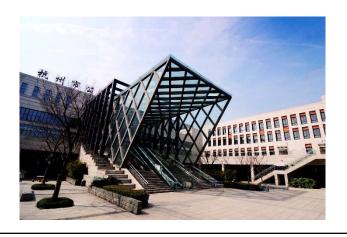
COUNTRY: CHINA

INTRODUCTION

Hangzhou Vocational & Technical College (HVTC), founded in 1964, is sponsored by the local government as a non-profit institution dedicated to vocational and career education. Now with 713 faculty and staff members, the college offers 36 majors (by the nine secondary

schools) to approximately 13,000 full-time students.

Long committed to career preparedness, HVTC is also a lifelong learning stage for technical laddering of the general workforce. It was accredited by the state authority as a national model college for vocational education excellence and was named China's "Top 50" regarding graduates' competency and "Top 50 Asia-Pacific Vocational Colleges".





AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Effective school-industry partnerships make modern apprenticeships possible in HVTC, which is the pilot college named by the education authority for the said new practice. The collegiate innovation park, as a state-level incubator, is a giant lab in which stakeholders, including the local government, the college itself and the corporate partners, are working hand in hand on converting an idea into real business. Now the park is home to 112 companies established and run by **HVTC** students, including four high-tech firms accredited by the state authority.

Partnership among the local authorities, HVTC and corporations enables the college-based Public Vocational Education Center, funded by the municipal

government for technical laddering and lifelong learning, to offer complimentary courses to people in the trades of mechanical engineering, automation, food & drug monitoring, etc. They acquire knowledge today and will be active in all walks of life tomorrow.

HVTC owns four state-level curriculum databases on majors like Elevator Mechanic and Apparel Design. This is actually an online lifelong learning system for students or adults pursuing career laddering, provide select normal and micro lectures under the school-industry partnership. The system sees, on average, a web traffic of 56,000 visits annually.

HVTC never keeps learning resources to itself. A nationwide alliance, for example, was cofounded by HVTC and another eighteen vocational schools for the training of elevator mechanics. The alliance itself is also a long-term welfare

program covering fourteen colleges from less-developed regions in China. The program has hitherto provided free admission for more than 360 students from there, all affected by financial hardship, to HVTC's academic programs. It also helps find them ideal jobs, based either in Hangzhou or their hometowns, with a decent pay that can afford a good life with the whole family.

Programs for international students to land jobs with necessary skills, knowledge and an understanding of China has proven very effective. HVTC provides for them long-term academic programs in which they spend the first six months acquiring Chinese language and other knowledge and the rest working as trainees at workshops in partnership with the college. It helps them find a job in Chinese ventures back home since they are proved technically skilled, they understand the corporate culture of China, and they have some knowledge of Chinese language.

RESULTS AND ACCOMPLISHMENTS

HVTC places focus on career preparedness and therefore makes workplaces another classroom, where hands-on training is considered a superb means of learning to help students understand corporate culture that may assure career success. Statistics show an employment rate above 98% in five consecutive years for HVTC graduates, of whom over 90% feel grateful to their Alma Mater and over 85% have gained from their employers a comment of recognition.

Instructional programs provided by HVTC's Public Vocational **Education Center expectably** help prepare those pursuing career technical laddering for intermediate or advanced test certificates. The HVTC online training network, in plentiful supply of select courses for free, can be accessed 24 hours a day to meet personal requests. HVTC also casts eyes on less-developed regions. Students in poor financial condition from fourteen vocational colleges of the said regions, if eligible, are provided admission to HVTC. Special programs funded by corporate partners enable college to enrol candidates from the

developed central and western China for its most popular majors, exposing them to necessary skills and knowledge that helps land a job to support the family.

The "skills + knowledge" model of HVTC also works well for international students. The program which started in 2018 with South Africa, for instance, has enrolled a number of local students to the major of Elevator Mechanic. The graduates are now working back in South Africa for the local Chinese ventures.

INTERNATIONAL VALUE

Based on a widening school-industry partnership that enables HVTC to pool resources from government, companies and trade associations, the on-going practice of modern apprenticeships and hands-on training via start-ups is considered an approach to effective learning and job placement. This also provides an open access to the college's technical education for povertystricken students and adults in need of career laddering in China, and for international students from South Africa, the Philippines or elsewhere. Some HVTC programs are non-profit for international students. They provide select lectures on both and knowledge, and allow students an internship at the college's corporate partners. Being an apprentice can help them grow skills and start a sound career back in their home countries. The programs could be something of a work plan for other countries' reference.

WORDS OF WISDOM

HVTC favors a win-win outcome with agreements signed to have students mentored by a part-time faculty of 786 technicians from corporations contracted, along with the nine "workshop classrooms" for hands-on training. This has been proved effective instructionally to put students under the mentorship of both college teachers and corporation staff, and in turn they will grow expertise all necessary to the benefit of their employers.

HVTC places priority on individual development and see it a mission to work with corporate partners. Schemes for skill and knowledge acquisition, together with the



textbook and curricula planning, are made in line with the law of career development. This assures the college's teaching quality. Hence the competency of HVTC graduates conform highly to the labor market. Graduates then make a contribution to the regional economy. HVTC also offers free vocational lectures for members of the community who wish to pursue more knowledge for work.

NEXT STEPS

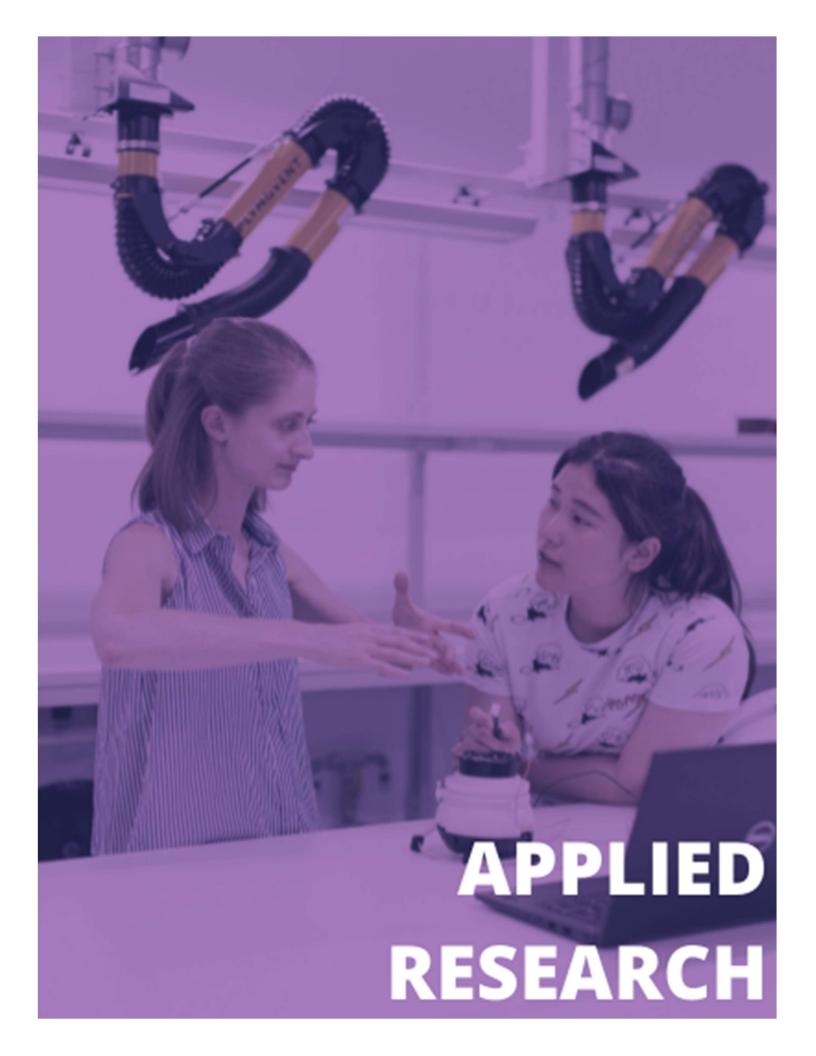
HVTC is motivated by an ambition to become first-class in China and renowned worldwide in the next few years. Additional jobs as follows, to this end, are to be fulfilled.

- Hire more faculty members of great competency from worldwide.
- Use the city's public education center to enlarge the population of trainees acquiring high-tech knowledge and skills as a good part of the regional economy.
- Upload an online cross-border training and exchange platform that provides open and free access to the excellence of HVTC's curricula and resources.
- Establish learning and instructional standards in compliance with the global vocational education practices, enrich the college's "skills + knowledge" educational model for intentional students, and offer more college education and training programs for students from developing countries.

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GOLD: APPLIED RESEARCH

PROJECT: TO SERVE THE TRANSFORMATION AND UPGRADING OF INDUSTRY THROUGH ESTABLISHING PLATFORMS FOCUSING ON INTELLIGENCE AND INNOVATION

AWARD RECIPIENT: WUXI INSTITUTE OF TECHNOLOGY

COUNTRY: CHINA

INTRODUCTION

Wuxi Institute of Technology (WXIT), founded in 1959, is an independent and full-time public higher vocational college. It was authorized by Ministry of Education of the People's Republic of China and now is under the jurisdiction of Jiangsu Education Department. It is one of the first group of 28 "National Model Higher Vocational Colleges". In 2012, WXIT was approved to offer four-year bachelor educational programs by collaborating with Jiangsu University to train high-quality professional and technical talents. In 2019, it ranked No. 4 in the "Competitiveness Ranking of Chinese Vocational Colleges" and was awarded "High-level Vocational Colleges with Chinese Characteristics (level A) (only ten colleges won this award in China).



Wuxi Institute of Technology



Intelligent Manufacturing Engineering Center

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

WXIT attaches great importance to applied technology research and leads the development of social service throughout the nation. WXIT has vigorously implemented the technology development plan based on innovative application and provides talents and technical support for the transformation and upgrading of local industries. It has established a "National Advanced Manufacturing Technology Promotion and Service Base", a "National Production-education Integration Platform", 5 provincial-level research centers and 5 municipal-level technology application platforms. Based on these platforms and centers, WXIT has built up more than 10 high-level training bases serving the practical teaching of 40 majors and

providing technical support and services for hundreds of local enterprises.

WXIT has signed cooperation agreements with Siemens, Schneider, Rockwell, Huawei and other Fortune 500 companies and leading enterprises, as well as more than 200 companies from local governments and industry associations. In the past two years, it has signed more than 100 technical service contracts every year, with an annual fund of over 30 million yuan. It has owned over 1,000 valid patents, including 1 US patent, 9 PCT patents, among which 100 patents have been successfully transferred and implemented in practice, which ranks No. 7 in vocational colleges of China and was awarded "Leading College in Patents in Wuxi" for 3 consecutive years. In the past three years, WXIT has



won two provincial-level awards and two municipal awards for scientific and technological progress, one first prize and two third prizes in philosophy and social science in Wuxi.

In the past five years, the funding used for scientific research has reached 125 million yuan. By far, the national and provincial level research items presided by WXIT has been over 60. With the advent of the intelligent era, WXIT is leading the completion of 9 national industry standards related to intelligent manufacturing. At present, more than 300 companies have signed college-enterprise cooperation agreements with WXIT, over 50 well-known companies provided WXIT with more than 100 million yuan worth of equipment, and 38 companies have set up scholarships or contracted classes in WXIT. Currently, there are 7 applied research teams (including 5 provincial science and technology innovation teams) in the field of intelligent manufacturing and new material forming and processing technology, publishing more than 150 highlevel scientific research papers and completed more than 500 patents annually. WXIT has been awarded the "Service Contribution Top 50" in Chinese vocational colleges, "National Vocational Skills Qualification Institute", "Best College in Industrial Service Contribution" in Wuxi.

RESULTS AND ACCOMPLISHMENTS

WXIT aims to be "the best home of students and the best partner enterprises" and has won a high reputation through training thousands of high-level talents and providing all-round technical support and services for local enterprises. It focuses on the industrial fields of the Internet of Things, high-tech equipment, new materials, artificial intelligence, cloud computing and big data, which have been attached great importance by Chinese government. Based on the first-class intelligent centers and platforms that integrate talent training, production demonstration, scientific research, and application services, WXIT annually receives more than 6,000 people from enterprises and colleges to get applied technology innovation training. Since 2014, students have won more than 1,000 awards in various technical skills competitions including 18 first prizes in

the National Vocational Technical Skills Contest teachers have published more than 150 high-level scientific research papers and completed more than 500 patents annually, most of these achievements have been integrated into their daily teaching resources, which to a large extent improves the teaching effectiveness and students' learning effect. Through applying technology innovation based on industrial needs, WXIT helps thousands of enterprises from project development and technological transformation to assisting them in brand promotion and market expansion.

INTERNATIONAL VALUE

Based on the practice of running schools for decades, WXIT has built a growing applied technical skill accumulation model composed of the four elements "platform, project, technology and resource". It gathers innovative resources through applied technology platforms, leads the establishment of innovation teams through projects, and cultivates high-quality technical talents by keeping teaching resources in sync with the advanced technology of enterprises. This mature model of the applied technology research has been widely applied by the branch schools of WXIT such as "Wuxi Institute of Technology-Taksin College Thailand" "Wuxi Institute of Technology- Delong College Indonesia" "Thailand-China Rayong College of Mechanical and Electrical Engineering" and transnational talent training program with the Higher Education Ministry of South Africa. This model has attracted a large number of colleges at home and abroad to come over to exchange and study. WXIT annually receives over 200 batches of delegations from governments, organizations, enterprises, colleges and foreign missions.

WORDS OF WISDOM

Vocational colleges should be aware of the effect of gathering innovative resources through the construction of platforms and the importance of building innovative teams through projects to improve the teachers' innovation ability in science and technology. In addition, vocational colleges should realize that the basic guarantee for training



talents is to keep teaching resources and technology progress together. Therefore, vocational colleges should aim at the target of advanced key technologies concerned with modern industry to construct a dualfunction platform of applied technology research and professional teaching. Based on these platforms, vocational colleges are able to guide teachers and students to work together to solve practical problems of enterprises in the field of applied technology. Through project research, teachers and students can accumulate the core technologies which have been acknowledged by enterprises and used as the updated teaching resources.

NEXT STEPS

In the coming years, WXIT will focus on the research and development of the key technologies in the field of intelligent manufacturing, production design and logistics, make full use of its technological advantages in the field of intelligent manufacturing to serve the regional industrial transformation and upgrading. Taking technological innovation, talent training and faculty team building as the goal, WXIT will continue to enhance the research and development of applied technology. In the next 3 years, WXIT aims to provide technical services for over 2,000 small and medium-sized enterprises. Based on the highlevel Intelligent Manufacturing Platforms and national intelligent manufacturing standard system, WXIT will high-quality intelligentcontinue provide manufacturing-related training for at least 30,000 students and employees form local enterprises. Based on the ASEAN Vocational Teacher Training Center on campus, WXIT will undertake an annual of over 200 ASEAN teachers' technical training.

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SILVER [TIED]: APPLIED RESEARCH

PROJECT: APPLIED RESEARCH AT COLLÈGE LA CITÉ

AWARD RECIPIENT: COLLÈGE LA CITÉ

COUNTRY: CANADA

INTRODUCTION

Firmly established in Ottawa, Canada for more than 30 years, Collège La Cité is the largest French-language college of applied arts and technology in Ontario. With 140 post-secondary programs and student success as our top priority, our mission is to train a competent, committed, and creative workforce which can contribute to the economic, social, and cultural development of the Francophone community in Ontario and society. The applied research initiatives extend our mission by contributing to socio-economic development in supporting innovation in the community thanks to the work of our faculty, research personnel and students in dedicated facilities.



Part of the team of the Technologie Access Center in Bio-innovation, from left to right: Julien Le Roy, researcher, Roch Brunet, research associate, Caroline Larose and Aurélie Richer, research assistants and Christine Langlois, supervisor.



The artificial intelligence team of the Center of Expertises in Smart Prototyping, from left to right: Sonia Wang Dane and Alexandre Villeneuve, students, Alain Mouttham and Gaël Giordano, researchers, Nathalie Méthot, Director of the Office of Applied Research and Innovation, Nathaniel Larouche, student and Manel Sorba, research associate.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

La Cité recently committed to a new pedagogical approach to transform student learning. The new strategic plan "Impact 2023" has a vision of creating stimulating and fertile environments to enable experiential learning in partnership with the community. The applied research component at the College remains central to the implementation of the

new strategic plan. Indeed, it provides our students with learning experiences that are directly linked to the needs of the industry. It creates partnerships which will have an impact on the economic, social, and cultural development of the region. It makes state-of-the-art equipment and spaces available to young entrepreneurs and businesses that would otherwise be inaccessible. Finally, the College becomes the point of attraction and



innovation with a significant impact on the development of our communities.

Over the past twelve years we have increased our capacity to support small and medium-sized enterprises (SMEs) and social innovation within the community by developing four research areas: bio-innovation, smart prototyping, social innovation and food transformation. In each case, the applied research programs are developed according to the needs of the community. Our average annual growth rate is 60% in terms of the number of projects completed and revenues from grants and clients. Besides, we are part of the top colleges in Canada for revenues in applied research.



Collège La Cité's campus in Ottawa

Hundreds of projects have been completed at La Cité in collaboration with industry. Many of them have resulted in commercial success with product improvement or development process, such as our ongoing partnership with RISEHoP/Lallemand in agricultural biotechnology. By working in facilities with startup for more than five years, La Cité strengthens its research capacity and provided research experience to students. addition, Lallemand, a Canadian multinational that produces mycorrhizae adopted new technologies, increased its R&D investments and improved its competitiveness. La Cité enhanced its reputation as a major research partner, improved its research facilities,

as well as created professional development opportunities for several employees.

La Cité collaborates with smartcone technologies inc. (SCTI) a company based in Ottawa that aims to improve people's safety by researching and developing IoT technologies to make safety more intelligent, cost-effective, adaptable, scalable, and mobile. The research team at the Center of Expertise in Smart Prototyping brings a multi-disciplinary expertise to support SCTI's core businesses - smart mobility solutions with at the core cybersecurity, sensors, wireless communications, artificial intelligence, and mechanical and electronic design and construction.

RESULTS AND ACCOMPLISHMENTS

In 2008, La Cité initiated the first applied research program in the field of biotechnology and created the Office of Applied Research and Innovation. By accelerating innovation in businesses, our business model is based on partnerships with the industry, co-funded with public and private grants, where intellectual property ownership is transferred to the companies. Our research teams involve Faculty, research staff and students who work closely with private companies and institutions. We secured more partner grants and \$1 than \$20 million in funding from million in cash contributions from industry which contributed to the development of an innovation ecosystem in the Ottawa region through the activities of our two main applied research centers:

La Cité's Technology Access Center in innovation contributes to the biotechnology sector, a major innovation hub in Canada. Since 2008, more than 200 applied research projects were conducted with the private sector in agricultural biotechnology, industrial biotechnology, and health biotechnology, involving over 250 students from the Bachelors of Biotechnology program. The applied research facilities include two labs dedicated to the research activities in microbiology and genetics.



The Centre of Expertise in Smart Prototyping launched in 2019 focuses on smart mobility, smart infrastructure and smart health. The multidisciplinary team Faculty and engineering students support projects with industry that aim to use artificial intelligence and new prototypes cybersecurity to develop for connected and autonomous vehicles and drones, smart infrastructure for situation awareness, and clinical decision support systems.

INTERNATIONAL VALUE

Nathalie Méthot, Director of the Office of Applied Research and Innovation (OARI) participates in international conferences such as the 5th World Conference on Research Integrity in Amsterdam (2017), ISPIM Ottawa (2019) and promotes the applied research in Colleges to foreign representatives in Canada. La Cité has increased its international presence in 35 countries in the last 10 years, with an important growth in the number of international students, from 50 to 1000. We participate in international events with EDU Canada in Africa and Europe. We currently have 15 mobility agreements, with partners from different countries promoting student exchanges placements. Meetings with commercial delegates in foreign embassies allow us to discuss potential partnerships in training and applied research. We intend to extend our presence beyond the international scene by reaching the Moon thanks to our the "Moon participation in IoT programme", in partnership with SmartCone.

WORDS OF WISDOM

As academic institutions, we have the important role of training the next generation of workers. Our goal is to prepare them for the challenges of tomorrow by supporting the development of essential skills such as creativity, collaboration, communication, engagement, and problem solving. We also have the opportunity to support small companies to bring news innovations to our society, by bringing our specialized expertise and desire to contribute to the community. Our advice is to keep in

mind this vision while developing research programs make a real difference. Reflect on what you would like to accomplish in the next years. Promote and celebrate the successes. Cherish collaboration among team members. Seek for advice from the one ahead of you and work hard. We have learned that it is important to develop long-term relationships with the industrial and community partners, with constant communication and shared vision.

NEXT STEPS

In the future, one important goal will be to involve an increasing number of students in the applied research activities to support the development of crucial competencies in our changing society. Moreover, we will keep connecting with the industry sectors we serve to adapt our research areas to their needs and priorities. We will keep exploring collaboration opportunities with institutions other such colleges, universities, and research centers to offer the best solutions for industry. Finally, we will continue to advocate for the importance of the applied research in colleges in the innovation ecosystem, by participation in funding opportunities that support research initiatives, applied research projects and the acquisition of research infrastructure. To achieve this goal, we will make sure to demonstrate the impact of our applied research initiatives that are possible thanks to the important federal funding from the Natural Sciences and Engineering Research Council of Canada.

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SILVER [TIED]: APPLIED RESEARCH

PROJECT: RESEARCH PARTNERSHIPS & INNOVATION

AWARD RECIPIENT: RED RIVER COLLEGE

COUNTRY: CANADA

INTRODUCTION

Red River College (RRC) is Manitoba's largest institute of applied learning, with an applied research enterprise that was formally established in 2004. With just over 15 years of applied research under its belt, RRC has quickly gone from a newcomer on the Canadian research scene to consistently being named one of the top 15 research colleges in Canada, according to Re\$earch Infosource Inc.

In 2019, RRC expanded its R&D reach by welcoming its third Technology Access Centre (TAC), a specialized R&D centre affiliated with publicly funded colleges and cégeps. RRC is the only post-secondary institute outside of Quebec with three TACs.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Since 2004, Research Partnerships & Innovation at RRC has received funding from the Natural Sciences and Engineering Research Council of Canada (NSERC) for 70 applied research enterprises and projects, ranging from Improving the Energy Performance of Buildings – Sustainable Infrastructure Technology Research Group, to the Vehicle Technology & Energy Centre, using Manitoba-grown pulses as an egg replacer in baked goods, and 3D modelling and performance optimization of vertical axis wind turbine using computational fluid dynamics.

Over the last 15+ years, ~\$85 million has been invested by industry, government and funding agencies in research infrastructure (specialized facilities and equipment) at the College to support community needsdriven applied research, education and related training. Research equipment and infrastructure are used for student-focussed education and training in nearly 60 courses, by over 170 faculty and more than 1,800 students.

In 2019, RRC's Prairie Research Kitchen was awarded the Research Partnership Award from the Canadian Association of Research Administrators (CARA) for their ongoing partnership with Prairie Fava, a start-up business based out of Glenboro, Manitoba that promotes fava flour as a protein-rich gluten alternative.

Additionally, Jan Sanderson, a research chair with the College's School of Health Sciences and Community Services, has been named a member of the Order of Canada, in recognition of her lifelong commitment to the health and well-being of young children. Sanderson was among 120 new companions, officers, and members of the order announced by Canada's Governor General in December 2019.

RRC also received its first grant from the Canadian Institute of Health Researchers (CIHR) in 2019, for the research project: "Facilitating transitions and access across the pregnancy continuum of care — A Health System Intervention for Indigenous Women Living in Northern Manitoba." The project, led by Dr. Patricia Gregory from the College's Nursing Department, will receive \$944,444 over four years.

The College's approach to applied and work-integrated learning translates to a graduate employment rate that consistently exceeds 94%; providing an estimated \$357,000,000 benefit to Manitoba's economy in 2016-17 (based on a cost-benefit formula developed by Colleges and Institutes Canada). Over the last five years,



more than 1,000 students have engaged in applied partnerships with SMEs or developed their own business ideas and social innovations. Students are empowered to deepen their skillset by working alongside industry through work placements and co-op programs.

RESULTS AND ACCOMPLISHMENTS

RRC is geographically situated at the heart of North America. This proximity to major centres for regional industry – agriculture, manufacturing, extreme weather testing and more – is a benefit not only to our own operations, but the research and development of the industry partners we are proud to work alongside.

Recent highlights include:

 Receiving federal funding to open the College's third Technology Access Centre (TAC). The Prairie Research Kitchen officially opened in 2019, and serves food development companies and entrepreneurs throughout Canada



Prairie Research Kitchen

 The grand opening of the Smart Factory, the result of a \$10-million investment by the federal government through Western Economic Diversification Canada. The Smart Factory is an experiential learning facility and technology demonstration site. It combines emerging technologies in metals additive manufacturing, collaborative robotics and autonomous factory vehicles, flexible robotic work cells, industrial automation, high-speed 3D laser metrology, industrial networking, and many more.



Smart Factory robot

 The MotiveLab, a 7,000 square-foot extremetemperature climatic test facility, for evaluation of the performance of on- and off-highway vehicles.



MotiveLab

• Launching "Genome360," an initiative created by Genome Canada and a consortium of partners with the goal of building a hub for genomics and phenomics capabilities in Manitoba. Part of the investment included the iSeq100, a next generation sequencing (NGS) device which is housed in the College's Life Sciences lab. RRC is the first educational facility in Western Canada to have such a device, which provides students with the handson training needed to excel within laboratories and to thrive as practitioners in this growing field.



INTERNATIONAL VALUE

The College has a demonstrated benefit to higher applied education at the international level through several key initiatives and partnerships. Red River College's Science of Early Childhood Development (SECD) team partnered with the Aga Khan Development Network (AKDN), training more than 6,000 parents, caregivers, educators, leaders and policy makers in 43 countries on the importance of early childhood development. The SECD team have trained more than 70 people that are now tutors and instructors of this material in their global regions.

The College's 1,400 international students (from 60+ countries), like their domestic counterparts, have the opportunity to take part in applied research. Domestic students also can participate in projects abroad.

Over the past five years, the College's ~550 partnerships with Canadian and/or international organizations (SMEs, large companies and community organizations), have resulted in new or improved products, processes, and/or services.

WORDS OF WISDOM

With more than 15 years in operation, Research Partnerships & Innovation at RRC knows the value of building from and connecting to existing applied research expertise and facilities. Applied research must respond to local/regional need and relevance. Our operation understands the importance of focus, and that the College can't be everything to everybody. We support and enhance regional clusters to enable knowledge and technology transfer, and work with small- and medium-sized enterprises, which are vital to the local economy.

It's important to develop and build a strong centralized team who share the vision of your institution and have a passion for research, and to foster internal as well as external relationships. We ensure that students and faculty are engaged in a meaningful manner, and that our applied research and innovation supports community economic development.

While one may wish to strive for perfection, it is often more important to just get started!

NEXT STEPS

Significant considerations to ensure the sustainability of the research enterprise are to find ways to help with the advocacy to government on the impact and importance of ongoing applied research. It is vital to impress upon the future generations what research has accomplished, with the intent that the future is in their hands and the possibilities are endless; and one way to do that is incorporating research into academic programs.

Key takeaways include:

- Executive support needs to be evident and real to achieve success.
- Anecdotes and success stories are essential to politicians, bureaucrats, partners and the institution.
- Relationships are essential to successful partnerships – and need to be maintained.
- Consultation and cooperation (both externally and internally) are the norm.
- Intellectual Property must not be an impediment!
- Funding will have peaks and valleys need to plan for both.
- Growth will lead to rankings (this is both good and bad).
- Patience and persistence pay.

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BRONZE: APPLIED RESEARCH

PROJECT: APPLIED RESEARCH IMPLEMENTED BY TEACHERS AND STUDENTS' TEAMS TO

PROMOTE THE ANIMAL HUSBANDRY DEVELOPMENT

AWARD RECIPIENT: JIANGSU AGRI-ANIMAL HUSBANDRY VOCATIONAL COLLEGE

COUNTRY: CHINA

INTRODUCTION

Jiangsu Agri-animal Husbandry Vocational College, as the construction unit of Highlevel Vocational College with Chinese Characteristics, is the only one to cultivate talents

majoring in agriculture and animal husbandry science & technology in southeast of China. It has more than 14,600 full-time students and four campus which are Phoenix Road Campus, Jiangsu Modern Livestock Science & Technology Park, Jiangsu Chinese Medicine Science & Technology Park, Zhongmu Beikang Pharmaceutical Co., Ltd and Jiangsu Sujiang Boar Co., Ltd.



AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

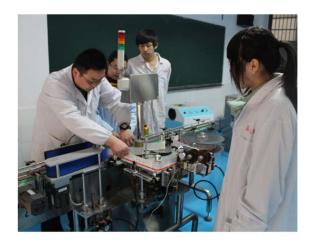
With the acceleration of China's agricultural modernization, the animal husbandry production mode transforming to large scale, intensification, intelligence and ecology, with related applied research and promotion becoming the important driving force to the transformation. JAHVC adheres to the concept of "closely linked to the agricultural and animal husbandry industry chain, closely combined with production, research and education, closely following the development of regional growth pole" which have large effects on the applied research and innovation. By encouraging applied research and innovation, the teacher and student teams are well-organized to take part in selecting and breeding new varieties of livestock and poultry, promote new breeding technologies and develop new veterinary drugs, which promoted the transformation of China's agriculture industry and improve talent-cultivation.

JAHVC establishes National Waterfowl Gene Bank, Jian gquhai Pig Breeding Conservation Farm and 15 provincial applied research platforms including Jiangsu Provincial High Technology Laboratory of Veterinary Biopharmaceutical. Through close contact with industry enterprises, the teacher and student teams played a great role to bring benefit to enterprises and help farmers build wealth to reinvest in their enterprise.

RESULTS AND ACCOMPLISHMENTS

Focusing on the practical needs of local enterprises in animal husbandry variety improvement, ecological breeding and safe drug Use, JAHVC actively implemented applied research and innovation promotion projects to help enterprises solve technical problems. JAHVC also helped villages to overcome poverty by formulating plans, seeking for supporting policy, and promoting the up-dated technology. In addition to accelerating the development of agriculture and

animal husbandry, JAHVC provided effective carrier and fresh teaching resources for teachers and students to carry out the educational activities integrating "work, study and applied research", which improves teachers' innovation ability and teaching ability, with students' technical application ability improved at their work position of industry.



INTERNATIONAL VALUE

The project results have been successfully popularized and adopted by many agricultural vocational colleges in China, among which the innovation and practice of "Integration of Working, Learning and Research in Cultivating Modern Animal Husbandry Talents with Technologies and Skills in higher vocational college" won the second of national education achievements by Ministry Education. By publicizing and promoting the successful experience of our college to overseas, it has been widely recognized by international peers, which will definitely benefit the world.

WORDS OF WISDOM

Guided by "closely linked to the agricultural and animal husbandry industry chain, closely combined with production, research and education, and closely following the development of regional growth pole", JAHVC innovates and practices the talent cultivation mode of "integration of industry, education and research", and "combination of industry, education and innovation". With the cooperation and

integration of teaching, production and scientific research in terms of function and resource advantages, it cultivates high-quality applied talents with sustainable development of ability and provides strong talent support and technical guarantee for regional agriculture and animal husbandry industry.

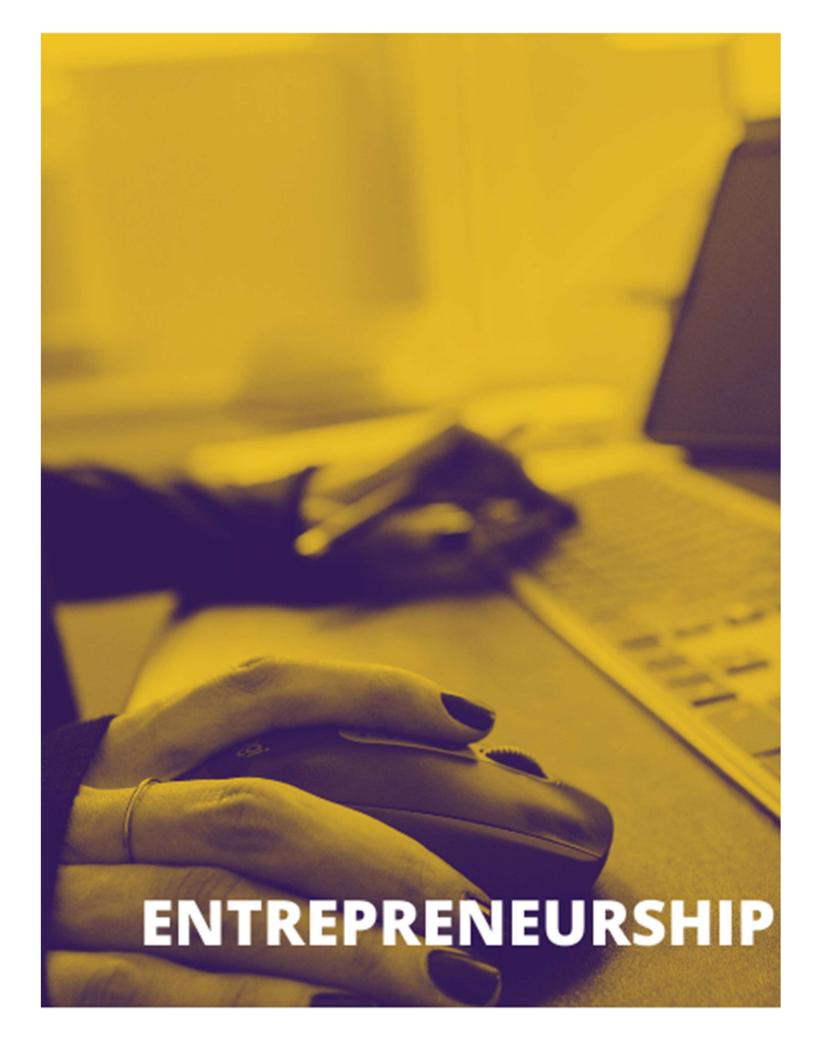
NEXT STEPS

Carrying out applied research and innovation for the eastern China's industry chain on the field of "hog, waterfowl, food, veterinary medicine, and aquatic products", JAHVC creates three systems in scientific and technological innovation, social service, and university-enterprise cooperation, builds three platforms in talent cultivation by combining industry and education, science and technology innovation service and cooperation organizations such as Higher Vocational Education International Alliance for Agri-husbandry to promote the communication and cooperation with the world vocational education institutions, and enhance the sustainable development of global agriculture and husbandry.



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GOLD: ENTREPRENEURSHIP

PROJECT: INTEGRATING INNOVATION AND ENTREPRENEURSHIP EDUCATION (IEE) WITH TVET TO

SERVE PUBLIC WELFARE ENTREPRENEURSHIP

AWARD RECIPIENT: CHANGSHA SOCIAL WORK COLLEGE (CSWC)

COUNTRY: CHINA

INTRODUCTION

Founded by the Ministry of Civil Affairs (MCA) in 1984, Changsha Social Work College (CSWC) is a higher education institute jointly supervised by the Hunan Provincial Government and MCA. CSWC is a Double High-Level Higher Vocational College, a National Model Vocational College, a member of China Education Association for International Exchange (CEAIE), a National Civil Policy Research Base, and an MCA Talent Cultivation Base in Changsha. With an area of 68.2 hectares, CSWC offers 47 programs, 18 of which are related to modern services making it the largest and most comprehensive vocational college specializing in modern services.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

CSWC is student-centric and has established an IEEoriented system aiming to help students start up their businesses and make a difference to the community. Specific measures CSWC has taken include the following:

- Adjust the specialty cluster setup. To respond to the transformation and upgrading of the modern service sector, CSWC has established two nationally recognized high-level specialty clusters (Aged Care Services and Management and Modern Funeral Technology and Management) and four provincespecific specialty clusters (Social Management and Services, and Modern Business Services etc.). The programs we offer match 70% of the demand of the modern service industry chain in China. IEE is well integrated into CSWC's specialty cluster development.
- Establish an innovation-oriented talent cultivation system.
 - a) A "Four-in-One" curriculum system integrating IEE basic courses, special technical courses, elective courses and practice courses.
 - b) An IEE-integrated practice system.
 - c) An incubation support system.
 - d) Combining courses with competitions and competitions with incubation.

- Build an industry-college collaborative IEE platform.
 - a) CSWC has taken the lead to set up the China Rehabilitation Vocational Education Group, the China Aged Care Vocational Education Group and the China Modern Funeral Vocational Education Group to integrate industry resources.
 - b) Collaborative Innovation Centers for Applied Technologies have been set up to promote the transformation of IEE achievements for local economic development, including the Collaborative Center for Old-Age Health and Support, ZTE Smart City Research Institute and a variety of other related organizations.
 - c) Joint incubation platforms have been set up with communities, industries and enterprises in order to translate project results and drive employment and entrepreneurship.
 - d) As an MOE first-batch modern apprenticeship program pilot, CSWC, together with Wanzhonghe Community Service Company, sets up an aged care demonstration base to cultivate talents and promote startups.
- Integrate public welfare entrepreneurship resources and shape the values of social responsibility and humanitarianism.
 - a) A public welfare entrepreneurship platform has been set up by integrating the resources of



- governments, enterprises, industries, communities.
- b) A credit system-based public welfare entrepreneurship incubation system and demonstration mechanism have been set up to support and incubate a large number of social work agencies, and high-quality social work projects.
- c) CSWC is the home to Hunan Social Work Incubation Base, focusing on poverty alleviation, special groups, common concerns, and cultivate public welfare projects.

RESULTS AND ACCOMPLISHMENTS

This project aims to help students start up their businesses and make a difference to the community.

- 100% of CSWC students have received IEE courses. 80% have been engaged in innovation practice, 6% in startup practice, and 5% have started up their own businesses. 70% of CSWC students have participated in various entrepreneurship competitions. In the past five years, CSWC graduates have set up more than 1,050 companies, creating over 5,000 jobs for alumni.
- CSWC has signed over 500 contracts with companies including Fortune Global 500 companies like Bosch and ZTE in research and talent training. 75.53% of CSWC graduates work for MSMEs or start up their own businesses in the western region.
- Together with local businesses and communities, CSWC has built incubation platforms and created jobs for over 2000 people. In the past three years, the public welfare entrepreneurship incubation base has worked with over 100 communities and social organizations and provided services for 12,000 households with over 300,000 volunteer services annually.
- CSWC graduates have grown into exemplary entrepreneurs in Hunan and China and have won many national awards including Women Champions, Professional Masters, Chinese College Student Entrepreneurial Stars, and Self-Reliant Stars

etc. The startups of many have provincial and even national presence.

INTERNATIONAL VALUE

In order to cultivate innovative entrepreneurs with international vision, CSWC has carried out IEE cooperation with 41 institutions in 15 countries and regions, including the United States, Germany and Japan and other countries, taking the lead in international higher applied education.



China-Germany Geriatric Nursing Cooperation Project

- Build an international innovation platform for joint research and sharing. Together with Google, ARM, Bosch, CSWC has developed international industrycollege collaborative standard development platforms. Based on these platforms, geriatric care robotics, intelligent pantry organizing systems, intelligent VR crutches and other innovative projects have been created and shared.
- Create public entrepreneurship with interdisciplinary international students. The "Smart Water Saving System" developed by CSWC's international students from Laos, South Korea, and Malaysia has won the gold medal of 2019 China "Internet Plus" Competition.





First Prize of China Internet+ Innovation Competition

- Together with international higher applied educational institutions, CSWC proactively promotes entrepreneurship training.
- Provide China solution to serve the "Belt and Road Initiative".

WORDS OF WISDOM

To alleviate the strain on IEE teachers, since 2010, CSWC has sent one third of its teachers with a total number of 338 to the United States, Israel, Canada, Germany and other countries to exchange best international IEE practice.

To address the systematic bottleneck, CSWC is implementing an IEE-oriented systematic improvement project to improve the IEE standards, and reform the curriculum system and teaching model.

In response to the demand for high-quality platforms for technological innovation and incubation, CSWC is building a R&D center for intelligent manufacturing and intelligent old-age care urgently needed for the strategic emerging industries in the region.

NEXT STEPS

Innovation-driven development. CSWC is looking forward to working with international colleagues to explore new ways and models for the cultivation of innovative and entrepreneurial talents, contributing to the community with a shared future for the mankind.



CONTACT

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SILVER: ENTREPRENEURSHIP

PROJECT: IKASENPRESA

AWARD RECIPIENT: MARIA PILAR DIEZ MINTEGUI, TKNIKA, BASQUE VET APPLIED RESEARCH

CENTRE

COUNTRY: SPAIN

INTRODUCTION

Tknika, the Basque VET Applied Research Centre, is promoted by the Deputy Ministry of Vocational Education and Training of the Education Department of the Basque Government.

Innovation and applied research are at the core of Tknika in its ongoing efforts to place Basque Vocational Training at the European forefront. Tknika is modelled after some of the world's most advanced vocational training centres. Through networking and direct involvement by the Basque Vocational Training teaching staff, the Centre develops innovative projects in the areas of technology, education and management.



Ikasenpresa Congress

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Ikasenpresa creates an innovative educational context and uses a practical learning methodology that includes the management of new technologies, work tools, and communication. The programme helps teachers to better manage the "Business and Entrepreneurial Initiative" compulsory module in the curriculum.



Ikasenpresa World coffee

Ikasenpresa is a programme that has evolved over the years due to the coordination and resources of Tknika and all the work carried out by the teachers working on the programme.

The programme uses the creation of companies as a methodological tool and from Tknika it has been structured around the number 6

- 6 phases/steps in the creation of a company
- 6 didactic units full of different dynamics and activities to develop in the classroom
- 6 evaluations proposals to measure the work done by the students and to try to encourage their evolution throughout the 6 phases

So, over the academic year, students create a small company in which they carry out all business-related activities, such as designing a corporate image, administration, marketing, and buying and selling. Core building blocks of the programme include:

- Creating a start-up as a learning tool;
- Developing students' skills to prepare them for employment;
- Presenting entrepreneurship as a viable option

RESULTS AND ACCOMPLISHMENTS

TKNIKA has seen an annual increase in the number of VET centres participating in the programme, as well as the number of student's "mini-companies" created. Evolution of Ikasenpresa programme:

| ACADEMIC YEAR | VET SCHOOLS INVOLVED | STUDENT COMPANIES CREATED |
|------------------|-------------------------|---------------------------------|
| 05-06 | 5 | 7 |
| 06-07 | 21 | 34 |
| | | |
| 16-17 | 73 | 630 |
| 17-18 | 78 | 823 |
| 18-19 | 81 | 890 |
| 19-20 | 82 | 1070 |
| 20-21 | 83 | 1203 |

The data on the evolution evidences the benefit that Ikasenpresa has for higher applied education.

In the 2020/2021 school year, there are 233 teachers from 83 TVET Centres taking part in the Ikasenpresa programme, with the involvement of more than 6200 students.

More than 99% of teachers and 79% of students surveyed in the academic year 2019-2020 said that they would recommend the Ikasenpresa programme.



Ikasenpresa Trade Show

INTERNATIONAL VALUE

Over the years, the programme has designed an important source of resources between syllabus, activities and dynamics collected in a series of teaching materials. All this material is used in the Basque TVET Centres and can also be used internationally for the benefit of teachers and students from other countries. For example, The Ikasenpresa model has been successfully implemented by all VET providers in the Basque Country and is currently being replicated in Chile.

UNESCO-UNEVOC identifies and shares promising Technical and Vocational Education and Training (TVET) practices for the benefit of the global TVET community, including policy makers and practitioners. Ikasenpresa is one of the 10 Promising Practices identified by them. The aim of this database is to share knowledge of established innovative practices that promote TVET in a thought-provoking way within a particular local or regional context.

WORDS OF WISDOM

- An organization leading the project is required.
- It cannot be a fixed and immovable model. It must be a model built with the contribution of the teachers participating in the project.
- The support from participating centers and schools, and especially from their management teams is required.
- It is essential to carry out direct activities with the students.



NEXT STEPS

- Integrate the rest of the teachers (not only those of the entrepreneurship subjects) in the project.
- Adapt the students' evaluation model to a system based on the entrepreneurial competence of the students and not in a system based in the products made by students.
- The business ideas of the created companies should take into account innovation, sustainability, social economy, etc.

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BRONZE: ENTREPRENEURSHIP

PROJECT: ESTABLISHMENT OF PACIFIC TECHNICAL AND FURTHER EDUCATION

AWARD RECIPIENT: DR. HASMUKH LAL

COUNTRY: FIJI

INTRODUCTION

My name is Hasmukh Lal. I was the founding Director

and inaugural CEO of Pacific Technical and Further Education (Pacific TAFE) at University of the South Pacific (USP), a regional university owned by 12 countries in the Pacific. Through my multidisciplinary academic leadership, formal technical, vocational and professional qualifications were developed on entrepreneurial basis with no funding support from University and the member governments. The qualification offerings generated revenue which was used to run whole operations and generate surplus for continuous improvements, expansions, and developments. These developments took place from 2013 to 2019.



AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Entrepreneurial leadership of mine is shortlisted for award as it allowed job creation, new streams of enrolment and income for the university and pivoted brand profiling. USP did not have formal technical and vocational qualifications as it was a higher education institution from establishment.

2013 Plan Through to 2018 Strategic consultations there was a consistent demand from most member countries to have vocational qualifications to meet certain entry and para-professional labor market demands. Significant percentage of students do not score marks to gain admission into degree studies and hence there were social and economic imperatives for alternate post secondary education.

USP included establishment vocational qualifications as one of its strategic objectives in the Plan and I was at the

helm of leading it. To develop qualifications, robust assurance structure was developed quality and approved by university Senate. This involved establishing various Industry Programme Advisory Committees (IPACs) as per Terms of Reference. Industry practitioners. professionals and associations were involved based on relevant expertise and experience for each qualification/programme development. This gave onset confidence from industry on the standards expected from the graduates of vocational programmes. Yearly enrolment and income growth are testaments. In addition, I established Workforce Development Training Unit to engage with industry at another level by offering short courses (workshop types), a demand that cannot be met by qualifications.

RESULTS AND ACCOMPLISHMENTS

The establishing objectives of Pacific TAFE was to respond to labour market demand that cannot be



met by degree programmes. Most enterprises in the Pacific are small to medium and hence technical and vocational graduates served the purpose.

Through entrepreneurial leadership of mine, 35 vocational and up-skilling professional programmes/qualifications were developed offered from 2013 to the time of nomination for this award early this year. This significantly and on yearly basis increased enrolments and income of Pacific TAFE which resulted in growth in university's income and surpluses. In the Strategic Plan, the University had a target of 16 vocational qualifications to be internationally accredited and recognised from 2013 to 2018. The accreditations target was met before time which profiled university's brand and made it possible to fill much needed skills void in the member countries.

INTERNATIONAL VALUE

Universities and training providers which rely on government funding need to rethink the way of doing business given the economic catastrophe caused by the pandemic. Governments will have increasing competing priorities and hence imperatives will be on training institutions be entrepreneurial to generate extra revenue to sustain operations to mitigate any potential cuts in funding. Furthermore, given increasing competition in tertiary training sector compounded with borderless online delivery, private providers need to escalate their level of entrepreneurial activities to remain financially viable. I have proven to earn millions for the institution through my entrepreneurial leadership in a geographically scattered exceedingly small market, the best practises and success stories are transferrable to all.

WORDS OF WISDOM

Education has become a commodity and leading will be through an enterprising wav innovative, self sustainable and maintaining competitive edge. Traditional educational leadership in professional, technical and education context should become something of past and business signals need to be picked from existing evolving dynamics. You must be on springboard to challenge institutional norms and bureaucracies to get entrepreneurial returns. Stakeholder engagement, relationship building and maintaining is paramount. One needs to be on top of the game to do continuous 'environment' scanning for opportunities, identifying niche areas to be converted into business advantage and in the Pacific, keeping pulse on donor investments in training and development is crucial.

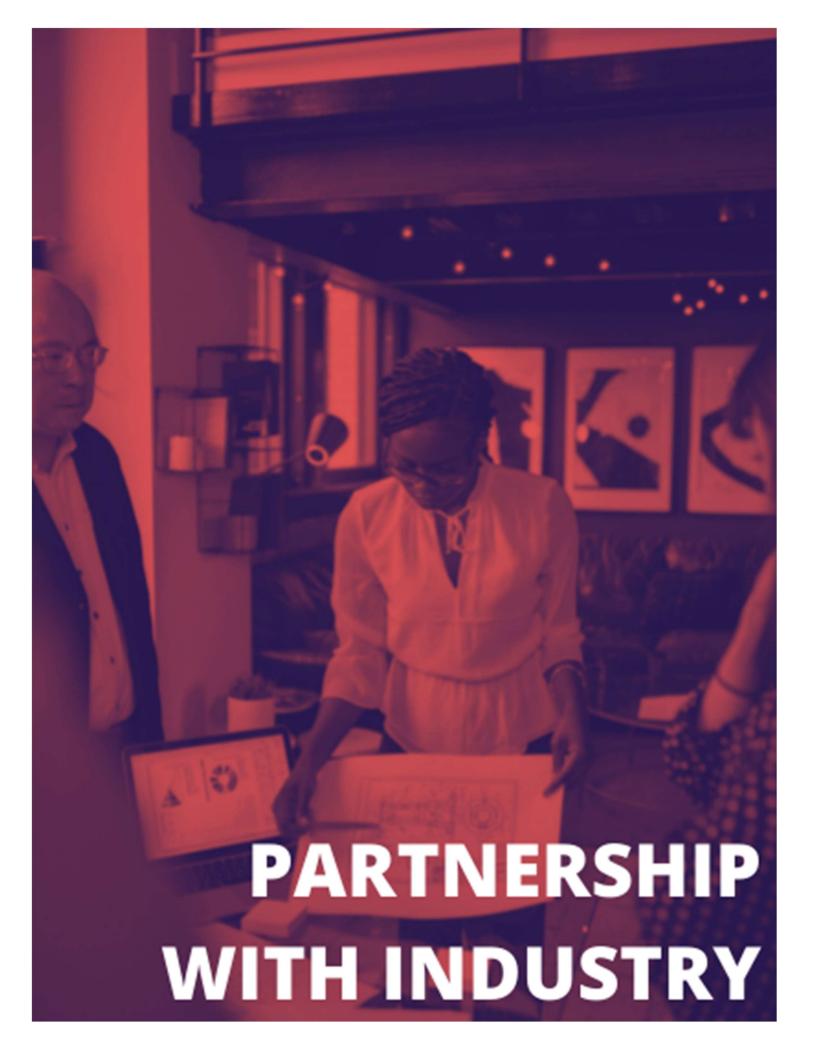
NEXT STEPS

Pacific TAFE will continue as established on rock solid footings. Time bound changes will be anticipated. After my employment from Pacific TAFE, I have established my consultancy business as Oceania Skills Solutions and through this I will commercially advise institutions that want to be entrepreneurial to generate more enrolment, income and develop onset quality programmes/qualifications. I have been awarded Asia Pacific first runner up for entrepreneurial leader in higher education by Accreditation Council of Entrepreneurial & Engaging Universities this year. Hence, being shortlisted is my second international recognition as an academic entrepreneur.

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GOLD: PARTNERSHIP WITH INDUSTRY

PROJECT: PATHWAYS TO SKILLS AND JOBS IN THE 21ST CENTURY

AWARD RECIPIENT: SOUTH METROPOLITAN TAFE AND RIO TINTO IRON ORE

COUNTRY: AUSTRALIA

INTRODUCTION

SM TAFE is one of Western Australia's largest registered training organisations, delivering training and education to communities and industry in the southern metropolitan region of Perth and beyond. SM TAFE's strategic vision to become a national leader in delivering future skills plays a key role in driving our activities, with a focus on partnering with leaders in industry to provide our state with the skills and capabilities for a smart future. SM TAFE trains over 24,000 students annually, across 12 campuses and is embedded as a key provider of training in dozens of industries.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION



The world is currently experiencing a major industrial transformation known as 'Industry 4.0'. The impact of technology across the mining value chain, one of Western Australia's and the world's most crucial industries, creates significant impacts on current and future workforce skills, as well as ways of working. The skills needed for jobs in the industry have already shifted and there is anticipated to be a further increase in demand for greater skills in contemporary data and digital technologies as human-to-machine interface evolves, big data and information sharing continues to change the nature of work.

In late 2017, a partnership between South Metropolitan TAFE (SM TAFE) and Rio Tinto Iron Ore (Rio Tinto) was announced for the purpose of developing new, industry first qualifications in automation for the resource industry's pathways to jobs and skills of the 21st

Century. The project was developed for the purpose of articulating the skills required to work with emerging automated technologies, one of the major cornerstones of the Industry 4.0 revolution. The project was funded by Rio Tinto through their community investment fund, with the organisation recognising the impact such an investment would have within the resources sector and the Western Australian community generally. With a joint imperative to equip workers for the skills of tomorrow, the project is an example of the outcomes that can be achieved through government, industry and education working together for the benefit of the community.

The project has been defined by its highly collaborative approach with industry. The establishment of the WA Resource Industry Collaboration (also known as the WA VET Collaboration), as part of the project's plan to engage widely with industry, has seen a group of dedicated government and non-government organisations work together to co-design the qualifications.

As a result, the automation project has seen the development of three pioneering, Australian-first qualifications in automation, including the Certificate II in Autonomous Workplace Operations, Course in Working Effectively in Automated Workplace (Micro-Credential), and the Certificate IV in Autonomous Control and Remote Operations. These qualifications have been developed to provide new and existing



workers with the skills needed to work with autonomous technologies. They include the first accredited qualifications in automation in Australia, with the skills described within these qualifications having application beyond the resources sector.

RESULTS AND ACCOMPLISHMENTS

This project came about from the Skilling Futures Initiative, which intends to identify the future skills and corresponding vocational education and training (VET) curriculum that Rio Tinto, and the broader Western Australian workforce will require, when faced with rapid technological change and increasing automation. The intended objective and final outcome was to increase the employability of the existing and future workforce through VET.

Yes, this project reached its objective with the development of three new nationally accredited qualifications in automation, providing both existing and future workers with various pathways and the knowledge and skills needed to work effectively in an automated workplace. These qualifications give Western Australian workers the opportunity to gain modern, portable qualifications, with skills that can be used right across the resources both now and into the future.

INTERNATIONAL VALUE

The success of this project is helping to raise the profile of vocational education and training and highlight the pivotal role of Technical and Vocational Education and Training (TVET) in developing and providing the skills required for workforces to advance with Industry 4.0 technologies.

The work achieved by the WA Resource Industry Collaboration and between SM TAFE and Rio Tinto has significance in other emerging sectors such as space, with remote operations in environments of extreme heat, dust and isolation reflected in the mining environments of the Pilbara region, of which the automation project is primarily modelled upon. These emerging industries will have global implications, and

the opportunity to model the experience, lessons and work of the automation project within international higher applied education settings.

WORDS OF WISDOM

This project has been incredibly complex, with each success being the culmination of a series of problems to solve and challenges to overcome. The nature of the project being without precedence and without a clear picture of what the 'end goal' might look like, meant that project was a true 'Action Learning' process. Our advice to organisations starting out on a major collaborative project would be to focus on the end goal and keep in mind the key principles of the project, while always being open to learning along the way and embracing challenges as opportunities for creativity and action learning.

NEXT STEPS

SM TAFE continues to be focussed on our vision of being a national leader in delivering future skills. Partnerships such as the Pathways to Skills and Jobs in the 21st Century project are critical to achieving this vision, and we are continuing to partner with organisations to progress this. SM TAFE is currently partnering with the University of Western Australia on the Industry 4.0 Resources Energy & Digital Interoperability Testlab (UWA 14.0 ERDi Testlab), working with the Curtin University led Future Battery Industry Cooperative Research Centre (CRC) and is the lead member of the TAFEcvber consortium, collaborating with Austcyber to support the development of Australia's cyber security training capabilities.

These strategic projects are critical to ensuring we can deliver future skills and support Western Australia's industry to keep pace with an evolving global economy.

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SILVER: PARTNERSHIP WITH INDUSTRY

PROJECT: NINGBO POLYTECHNIC'S INNOVATIVE PARTNERSHIPS WITH INDUSTRY

AWARD RECIPIENT: NINGBO POLYTECHNIC

COUNTRY: CHINA

INTRODUCTION

Ningbo Polytechnic (NBPT), the Exemplary Vocational College "Modern Apprenticeship" pilot college, and the Executive Vice President & Secretariat Unit of the National Joint Conference of Vocational & Technical College Presidents, is also a construction unit of High-level Vocational Colleges and specialities with Chinese Characteristics in China. It has received multiple accolades, including China's Top 50 Most Influential Vocational Colleges and 2019 Top 50 Asia-Pacific Vocational Colleges. NBPT fosters skills highly relevant to the local economy. With 33 programs spanning 7 sectors (including Intelligent Manufacturing, Green Petrochemicals, AI, and Supply Chain Management etc.), NBPT hosts 10,000 full-time students and offers an additional 20,000 part-time learning opportunities. Student employment rates after graduation is over 98%; employer satisfaction rate has been 99% for the past 3 years.



AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

NBPT is recognized for its successful partnership with industry through innovative and diversified platforms and channels that are beneficial to students and all stakeholders, which has been hailed as uniquely successful and globally relevant.

NBPT has devoted itself in partnering with industry in following ways:

 Forming international partnerships to improve teaching quality — drawing on successful TVET models internationally, NBPT collaborates with the world's top TVET players: Dresden University of Technology (to provide IHK-certified mechatronics training programs), Nottingham College (to jointly found the first recognized EAL Center in China), and businesses such as Swiss +GF+ and Japan's FANAC (to jointly found training facilities). Additionally, we have joint programs with colleges in Canada and Australia. Those partnerships accelerate international competitiveness improvements of skilled talents.



- Working with multiple stakeholders on global collaboration projects in 2017, NBPT launched 'the Belt & Road Alliance for Industry & Education Collaboration' with CEAIE, undertaking multiple international projects building industry-education ties among about 100 public, private, and TVET stakeholders across China. TVET Research Institute for Developing Countries, jointly founded by NBPT and China's MoE in 2012, has sent numerous missions to Sri Lanka, Bangladesh, Laos, Cambodia, Kenya, and South Africa to understand local demands for skills and inform the design of TVET curriculum China offers internationally.
- Providing international training opportunities home to the only China Aid Vocational Training Center, NBPT develops, delivers, and evaluates TVET training programs for other developing countries. We partner with over 60 corporations including the China Merchants Group, Ningbo-Zhoushan Port, Geely Auto, and Haitian Group to jointly design curriculum and courses, deliver learning content, and establish training facilities.
- Partnering with the private sector to establish TVET schools globally NBPT has established learning centers in Benin, Sri Lanka, and Malaysia, creating localized learning content and standards to meet local industry demands. For example, the Sino-Africa (Benin) TVET Institute, founded in 2016 by NBPT and Zhejiang Tianshi Group, has produced over 400 skilled workers from short training programs to dual diploma programs for Benin, Cote d'Ivoire, Burkina Faso, Niger, Guinea, and other West African countries.



RESULTS AND ACCOMPLISHMENTS

NBPT aims to cultivate skilled workers and engage in applied research to assist industry to support local community and economy and students' sustainable development, thus to improve the recognition of TVET among students & parents and local community& industry.

NBPT advances reform in TVET skills training, with an emphasis on partnering with industry and on integrating theory with practice. Through partnerships with Haitian Group, Geely Auto, Longxing Logistics, and other top companies, NBPT develops learning content directly relevant to companies' real projects, work-flows and assessment criteria. Over 1,800 NBPT graduates have been employed by Haitian Group, Asia's largest producer of Injection Moulding Machines, which collaboration was recognized by China's MoE for its success and won multiple national awards.

By sharing research personnel with local industry, NBPT helps companies develop new technologies, tackle technical challenges, and increase profitability and competitiveness. It brought Ningbo Yonghua Resin Company out of deficit to achieve total sales of over RMB1.5 billion eventually; assisted Henghe Materials & Science Technology Co., Ltd. to be one of China's top petroleum resin producers with annual sales exceeding RMB 3 billion. Collaborating with the private sector, NBPT has founded an innovation center where one research project successfully developed breakthrough techniques for utilizing C5 and C9 products and received a national grant of RMB 13.29 million.

As one of the MoE's 'Modern Apprenticeship' Pilot Colleges, NBPT works with large corporations and SMEs to develop pilot modern apprenticeships. Such programs feature innovative practices student/apprentice management, industry-standard assessment criteria in student evaluation, alignment of teaching goals with industry demand, new practices in tracking internship as learning credits, and more involvement from businesses in skills development. For example, **NBPT** is localizing China's apprenticeship model scheme through redesigning



courses both matching China's industry situation and meeting Britain's EAL certification standards.

INTERNATIONAL VALUE

NBPT has been hosting international students for nearly a decade in programs such as Mechatronics Engineering, Civil Engineering, IoT, Art & Design, and International Business etc. Working with industry, Additionally, NBPT has offered training for 3,250 trainees from 122 developing countries in TVET, Port Management, Engineering, Automotive Technology. In 2018, 45 students from Timor-Leste finished 1-year vocational seminar majoring in Electronics & Hospitality in NBPT, which were acknowledged by former first lady Isabel Ruak Ferreira H.E. for success. The experience has resulted in courses and criteria that meet international TVET standards, allowing overseas students to remain competitive on the global job market.

Working with industries, NBPT seeks to understand what Belt and Road countries' needs in TVET development and provides learning plans, content, and standards. NBPT and AVIC International have jointly delivered training programs in Electrical Engineering commissioned by the Kenyan MoE. Working with SIPPR Engineering Group and Zhongyuan International Engineering Design & Research Institute, the designs of TVET development/school upgrade for Laos, Rwanda, and Myanmar have been highly rewarded by local national governments.

WORDS OF WISDOM

The lesson NBPT has learned is that collaboration and exchange with the world's top TVET players is important. The experiences and the ways other nations have proven successful Industry and college cooperation across a range of situations (region, industry and talent demand etc.) has been the source of success.

The experience NBPT could share with TVET players are exploring reform in TVET and involving private sectors in skills cultivation that multiple interests are based

on; assisting local business in R & D and innovation that increase the return to TVET and allows professional faculties to grow up and keep updated with industry to improve the teaching quality; partnering with multiple stakeholders either public or private; large or small/medium, international or domestic for better TVET practice.

NEXT STEPS

NBPT will actively respond to the challenges of the sustainability of effective partnership with industry. Thus, NBPT will continue effort to form a long-term mechanism for partnering with the various sectors in skills development. NBPT will be improving its governance capacity, institution, and approaches.

Private sector stakeholders will be continually nominated to NBPT's governance council to participate in decision-making and provide funds, equipment, technologies, and trainers for skills development. In turn, NBPT will keep on using its research capabilities to help the private sector tackle technical challenges and supplies in-demand skilled workers. More explorations like these will be made for better and long-term cooperation mechanism.

Also, NBPT will maintain a high-quality teaching staff team with global vision by allowing them to get regular opportunities to gain extra work experience in the private sector, to attend training programs abroad and teaching abroad, which further consolidates their expertise and benefits local businesses and skill personal training.

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BRONZE: PARTNERSHIP WITH INDUSTRY

PROJECT: SHENZHEN POLYTECHNIC AND THE HUAWEI CORPORATION CULTIVATE TECHNICAL TALENT AMONG COLLEGE STUDENTS FOR THE ICT INDUSTRY

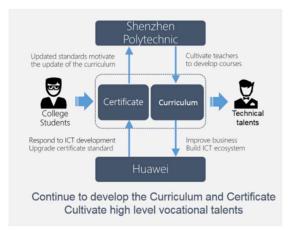
AWARD RECIPIENT: SHENZHEN POLYTECHNIC

COUNTRY: CHINA

INTRODUCTION

Together, Shenzhen Polytechnic and the Huawei Corporation build specialties, design courses, and cultivate talents to serve the specific needs of the ICT industry. Teachers from Shenzhen Polytechnic integrate the certificate of Huawei into the curriculum and cultivate their college students to be certificated technical talents. As a result, these students are prepared to work well in the ICT industry after graduation.

Both Shenzhen Polytechnic and Huawei keep close cooperation in order to routinely update the curriculum and certificate, thus ensuring that the needs of the newest talents in the ICT industry are adequately satisfied.



Cooperation of Shenzhen Polytechnic and Huawei

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

The 3-year period of study for the students in Shenzhen Polytechnic is divided into three phases. Semesters 1-2 constitute the phase of public basic courses. Semesters 2-3 make up the phase of professional basic And Semesters 4courses. 6 account for the phase of the Certificate Course. In Phase 3, there are different certificate directions for the students to choose, such as Data Communication, Mobile Communication, etc. In each direction, the student may obtain 3 levels of certificates. which include: The Assistant Level-HCIA Certificate, The Professional Level-HCIP Certificate, and The Expert Level-HCIE Certificate.

The students are trained and prepared according to 7 identified abilities in the curriculum. These 7 abilities

include: enterprise application analysis, the knowledge of ICT products, project organization, protocol understanding, logical and analytical thinking, network design architecture, and network fault diagnosis. As a result, these students are prepared to work well in the ICT industry after graduation.

If a student is clever and diligent enough, this student may achieve the highest-level certificate, which will help facilitate a better job after graduation. This curriculum built by Shenzhen Polytechnic and Huawei has accomplished many achievements in practice. More than 5000 students in Shenzhen Polytechnic and

More than 5000 students in Shenzhen Polytechnic and more than 500 international students from more than 30 countries have studied the courses in this curriculum and benefited from it.

In addition, Shenzhen Polytechnic, together with 27 other high vocational colleges, have built an online



National Teaching Resources Library for ICT majors according to this curriculum, while offering some online courses in English. There are more than 45,000 users that have studied in these online courses. The aggregate learning times of users on the National Teaching Resources Library has reached more than 10,000,000 log-ins.

The university (Shenzhen Polytechnic), the enterprise (Huawei) and the students are all the "winner".

RESULTS AND ACCOMPLISHMENTS

In the project, more than 1000 students received a certificate from Huawei while more than 180 other students received the certificate of the highest level (HCIE: Huawei Certificate of ICT Expert).



Vice Premier of China offering high praise for the achievements of Shenzhen Polytechnic

The number of the students who passed the certificate of HCIE takes up 1.8% of the total number of HCIE worldwide, and that number is the largest number among all the colleges and universities in the world. The students who have received the certificate of Huawei in Shenzhen Polytechnic are working in related positions after graduation and their work greatly motivates the development of the ICT industry. The achievements of the project were recognized in 2018 as it was granted the National Education Special Prize (held every 4 years). This top-level prestigious award is the only Special Prize among 1,400 high vocational colleges in China.

Shenzhen Polytechnic has been recognized by Huawei in 2012 as a Top Ten Excellent Partner, and by the Excellent Huawei Authorized Information and Network Academy in 2017 to 2019.

In regard to competition, the students from the ICT related majors in Shenzhen Polytechnic have won more than 15 first prizes in China in recent years, including 3 champions in the Huawei ICT Global Competition. There were more than 100,000 students from all over the world that attended the Huawei ICT global competition in 2019.

INTERNATIONAL VALUE

The cooperation between Shenzhen Polytechnic and Huawei is meant to cultivate talents for the development of the Global Information & Communication Technology Industry. In recent years, Shenzhen Polytechnic and Huawei have not only coordinated projects to cultivate more than 5000 students in China, but also ran international programs and projects to cultivate international ICT talents.

Shenzhen Polytechnic has successfully run a student and teacher exchange program with the UTHM and Politeknik Sultan Salahuddin Abdul Shah in Malaysia since 2008, and a student exchange program with the Singapore ITE since 2016. It has also conducted a vocational training program with Plovdiv University in Bulgaria since 2018, held an interview and exchange from the National TV station of Algeria in 2018, and held a training program with Duale Hochschule Baden-Württemberg Heidenheim in 2019. Furthermore, more than 30 countries including Algeria, South Africa, Canada etc. have come to Shenzhen to take part in study with Huawei and the ICT technology.

WORDS OF WISDOM

This project organically combines ICT professional education and Huawei certified engineer standardized training, effectively connecting higher vocational education and post-graduation education. According to Huawei certification standards, the curriculum system should be reconstructed, and a training system that is



line with industry standards and maintains "professional skills + professional quality" order to established in should be realize precise high-level training and employment of talents. The main issue for the effectiveness of school enterprise cooperation is that the professional ability of school graduates does not match the talent demands of enterprises. Our project grasps the two key points of "school curriculum" and "enterprise certification", so that the supply side and the demand side are interconnected, thus allowing both sides of supply and demand to work together. With the cultivation of highquality talents as the core, the school improves the teaching quality and reputation, and enterprises get a lot of suitable new employees In order to reduce the cost of human resources, we have explored a cooperative mechanism of complementary advantages and collaborative development between school and enterprise.

NEXT STEPS

Technology in the ICT industry changes rapidly. The needs of the talents in the ICT industry changes rapidly too. The latest technologies such as 5G, artificial intelligence, and cloud computing have emerged in recent years.

In order to keep up with the pace of development, Shenzhen Polytechnic focuses on cultivating teachers who have a grasp on the latest technologies. Therefore, the college keeps close corporation with Huawei. Every year, more than 30 teachers in ICT specialties go to Huawei to learn the newest technologies.

In practice, Shenzhen Polytechnic has built a National Finance Aided Training Base, which includes the Huawei Mobile Communication Lab, Huawei Cloud Computing and Service Lab, Huawei Data Communication Lab, Huawei Optical Transmission Lab, etc. Furthermore, Shenzhen Polytechnic has built some virtual simulation labs, including the Huawei LTE Star Training Platform, Huawei ENSP Training Platform, etc.

As virtual simulation training platforms are convenient for teaching and promotion, Shenzhen polytechnic will build a national virtual simulation lab in the future. This lab will cover and utilize the latest technologies of the ICT field as it develops a series of online modules to benefit students and enterprises all over the world.

CONTACT

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GOLD: SUSTAINABLE DEVELOPMENT

PROJECT: A WHOLE-INSTITUTIONAL APPROACH FOR GREEN TVET

AWARD RECIPIENT: SHAANXI POLYTECHNIC INSTITUTE

COUNTRY: CHINA

INTRODUCTION

Shaanxi Polytechnic Institute (SXPI) was founded in 1950. It is one of the leading government technical and vocational education and training colleges in China. SXPI is located in Xianyang, an ancient city with over 3000 years history. Over the last 70 years, SXPI has graduated 130,000 learners. Currently SXPI has over 21,000 students living on campus engaging with 66 individual programmes in areas such as manufacturing, electronics and electrical, mechanical engineering, information technology, business, public service, automotive, logistics, civil works, textile, clothing and arts. Over the last decade SXPI has been pursuing sustainable development by adopting a whole-institutional approach.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Shaanxi Polytechnic Institute (SXPI) is achieving its sustainable development goals by adopting a whole-institutional approach that includes greening of the physical campus, greening curriculum and training approaches, and pursuing research in green topics focused on the community and workplace.



Over the last decade, SXPI has actively implemented environmentally focused initiatives focused on achieving the goal of being a sustainable institution by 2025:

 Established green programmes in Renewable Energy Vehicle Technology and Photovoltaic Power Generation Technology which are very popular with our students. A total of 2512 SXPI students

- graduated from the two programmes and nearly all have been employed. With its high employment rate, it is expected that more and more students will want to be part of these innovative programmes in the future.
- Initiated a campus wide promotional campaign as essential awareness-raising and cross-cutting themes for sustainable development, using posters, signs and social media, to first, encourage the reduction of unnecessary use of consumables such as paper, water, electricity, and plastic bags and second to think about the impact that their actions have on the environment. This campaign has encouraged the introduction of environmentally friendly actions in classrooms, washrooms, canteens, student dormitories, lecture facilities and workshops. These actions include the introduction of environmentally friendly electric light systems, vehicles surrendered in favor of using public transport (buses, taxi, the metro) and the introduction of bike-sharing systems.
- Installed a smart micro-grid using wind power and solar panels to generate renewable energy for one of its main buildings, the Xingzhi building, which, at the same time, is being used as a training tool to educate teachers and students the fundamentals of renewable energy principles and technology. The power generated by the micro-grid is stored in batteries and provides the lighting for the building.



- Utilised the large store of geothermal water located beneath the campus as year-round source for the showering facilities for the 23,000 students and teaching staffs living on campus and to provide heating during the winter months.
- Implemented sustainable building policies and standards that ensures new and replacement buildings in the campus include systems that reduce the use of water, dust and noise, prevents underground water from being polluted, and encourages the recycling of water. Building requirements specify the use of 'green construction materials' including thermal insulation, waterproof material and energy saving glass.
- Actively encouraged the use of information and communication technologies in administration, assessment and teaching and learning throughout all programmes at SXPI. This initiative promotes the concept of the paperless office, reduces the production of print resources for students and helps in reducing the cost of office and teaching supplies.

RESULTS AND ACCOMPLISHMENTS

The green and sustainable initiatives pursued by SXPI have benefited the institution directly and indirectly.

- Graduates leave SXPI with an understanding of sustainability and with the hands-on experience of applying sustainability principles to their field of practice. They develop a sense of responsible global citizenship that encompasses their actions in the workplace and personal lifestyles.
- Teaching staff have been engaged in the upgrade of general and professional curriculums with focus on including of green and sustainable knowledge, skills and attitudes. These upgraded curriculums are also focused on work-ready practices such as interpersonal skills, team spirit, creativity, innovation and entrepreneurship. This ensures our student access to the most relevant green knowledge and skills which benefit them both on employment and lifelong learning in a sustainable way.

Graduates leave SXPI with an understanding of sustainability and with the hands-on experience of applying sustainability principles to their field of practice. They develop a sense of responsible global citizenship that encompasses their actions in the workplace and personal lifestyles. Teaching staff have been engaged in the upgrade of general and professional curriculums with focus on including of green and sustainable knowledge, skills and attitudes. These upgraded curriculums are also focused on workready practices such as interpersonal skills, team spirit, creativity, innovation and entrepreneurship. This ensures our student access to the most relevant green knowledge and skills which benefit them both on employment and lifelong learning in sustainable way. Employers work collaboratively with SXPI in co-developing programmes and events that reflect sustainability practices.

INTERNATIONAL VALUE

SXPI provides an example to other international polytechnics and colleges on the processes and procedures required to successfully introduce green and sustainable practices into their teaching, learning and administrative operations. For the last decade, SXPI has engaged in a number of innovative and creative international sustainability activities. For example, SXPI engaged in a Sino-New Zealand model programme to re-design existing curriculums so as to integrate competencies relevant to sustainable development.

SXPI actively participated and posted the findings of its sustainable educational practices on the UNESCO-UNEVOC TVET Forum in October2019. The forum reach is extensive with more than 6526 active members from 188 individual countries. One member from Jamaica replied to the post with the saying, this is an excellent initiative that will benefit the environment and the country including its people. Other developed and developing countries can adopt some of your practices as this is a great way to contribute positively to the environment. All TVET training institutions/Polytechnic



intuitions should include/incorporate some aspects of sustainable TVET.

WORDS OF WISDOM

SXPI has engaged in several innovative and creative international sustainability activities that could inform international TVET providers on the processes and procedures required to successfully introduce green and sustainable practices. These include,

- Establish and maintain international student and teacher exchange programs, focused on areas of common interest such as renewable and sustainable energy technologies - wind, solar, hydro-electric, and geothermal. These initiatives encourage participants to gain a global perspective on sustainability.
- Purposefully implement the use of information and communication technologies in monitoring, reporting, and recording teaching and learning activities. These initiatives encourage the concept of the paperless office, reduces the production of print resources for students and helps in reducing the cost, and resulting waste, of office and teaching supplies
- Develop international curriculum development partnerships focused on the creation and delivery of joint international qualifications on sustainable practices. These initiatives enable international acknowledgement of learner achievement and encourage global mobility.
- Disseminate findings, good and bad, at sustainability focused international forums.
 These initiatives allow institutions to benchmark progress with emerging practices.

NEXT STEPS

As an institute committed to improving its green and sustainable practices, we at SXPI believe that we have an ongoing responsibility to reduce the impact on the environment by ensuring that our teachers, students, workers, industry partners and wider community are educated in the benefits of sustainability practices across our campus. Initially, we educated our stakeholders by undertaking detailed green research,

through a variety of means, to demonstrate decisions made were based on the most up to date information on sustainability and the green agenda. One of the barriers to the continued uptake of sustainable practices in SXPI, and other institutes, will be the absence of applied research to support and validate the processes and practices to be implemented. To help to move forward, we need to:

- Undertake substantial research to deliver solutions to sustainability problems using a multi-disciplinary approach,
- Promote sustainability research across institutions and industrial bodies so that we don't duplicate work,
- Identify and communicate funding opportunities and support teams and their project ideas for sustainability research.

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SILVER: SUSTAINABLE DEVELOPMENT

PROJECT: "THREE ORIENTATIONS" FORESTRY TALENTS TRAINING PROGRAM

AWARD RECIPIENT: JIANGXI ENVIRONMENTAL ENGINEERING VOCATIONAL COLLEGE

COUNTRY: CHINA

INTRODUCTION

Jiangxi Environmental Engineering Vocational College (JEEVC) is a full-time public vocational college authorized by the People's Government of Jiangxi Province and under the administration of Jiangxi Provincial Forestry Bureau. Founded in 1953, JEEVC currently has 9 academic schools and 51 majors, with 15000 full-time students and nearly 600 staff. JEEVC was rated as high-level vocational college & specialties with Chinese characteristics approved by the Ministry of Education, 2019 Top 50 Asia-Pacific Vocational Colleges, Top 50 Typical Employment in China, National Ecological Civilization Education Base and the first AAA Scenic Area Campus in Jiangxi Province.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Jiangxi province is known as one of the "greenest provinces". The forest coverage rate is 63.1%, ranking the second in China. It is an important ecological barrier in South China and has a large demand for forestry professionals. Since forest careers need work in tough environment, do hard work that requires strength and stamina, it's very difficult for college to recruit students to study forestry, and many forestry graduates tend to find jobs in other fields.

According to the statistics of vocational education guidance center of State Forestry Administration, the supply-demand gap of forestry technical personnel is more than 8000. JEEVC tried to figure it out in 2011. Under the support of Forestry Bureau, Education Department, Human Resources and Social Security Department in Jiangxi province, "three orientations" policy of targeted recruitment, targeted training and targeted employment was jointly released, formed a sustainable personnel training model for forestry. After many years of practice, it provides important personnel guarantee for the sustainable development of environment and makes outstanding contribution to the sustainable development of forestry ecology.

Jiangxi Environmental Engineering Vocational College cooperated

with Nankang government, Nankang furniture association, Jiangxi Free Kingdom Furniture Coy Ltd to jointly build Jiangxi green ecological furniture center and Gannan furniture engineering technology research center.

Our forestry students will do internship at the centers in the fourth semester. The on-hands experience can help them know more about the real job. Most of them choose to stay after graduation, which will provide human resources support for the transformation and upgrading of furniture industry in this region.

According to the needs of the furniture industry in central China, we would strengthen practical teaching and improve the training model on sustainable development. In recent years, JEEVC successively has opened 45 lectures in 18 towns, about 20,000 people accept wood-processing skills training, effectively improve the personnel quality of the furniture industry. In return, these people provide technical services for furniture companies in Nankang, create economic benefits for companies nearly 100 million yuan.

RESULTS AND ACCOMPLISHMENTS

In Jiangxi province, there are not enough younger forestry technicians to take over from older forestry technicians. People engaged in forestry careers have been seriously aging. For example, Anyuan County Forestry Bureau has not recruited forestry technicians from 1996 to 2012. Since 2013, Xingan County has recruited 6 forestry technicians from forestry colleges, only 1 stay at last, and the situation of forest farm workstations in remote areas is even worse.

In view of the difficulties of recruitment and retention, our college has trained nearly 1000 "three orientations" forestry technicians for 99 counties in Jiangxi province during the past six years. These young foresters bring fresh vitality to the grass-roots forestry work. They use unmanned aerial vehicle (UAV) and remote sensing monitoring technology to do forest resource survey, use cloud computing to record and analyse forestry data, promote the local information construction, and ensure the efficient and sustainable development of forestry.

According to the demand of forestry enterprises and institutions, our college specially offers career quality course on forestry, integrates theory with practice, enables students to continuously work on productive practice projects during the learning process, emphasizes student-centered learning, and promotes the cultivation of forestry inter-disciplinary talents. And relying on various platforms such as skill master studio to improve teachers' scientific research and innovation ability and promote the improvement of teaching quality.

INTERNATIONAL VALUE

Our college will deeply integrate the Internet with traditional forestry, deconstruct and reorganize the traditional industry forestry chain, promote the "Internet +" green ecological development, as well as build a smart forestry platform. We will carry out international cooperation with overseas universities, including exchange of foreign teachers and students, overseas training and lectures for teachers, international educational forums, international competitions, etc. Relying on the advantages of forestry industry technology, we will develop internationally general professional standards, curriculum systems and teaching resources in the field of forestry, and promote the college to become the industry benchmark in the world, improve the forestry and furniture professional platform, cultivate talents for countries and enterprises under the Belt and Road Initiative.

WORDS OF WISDOM

- Serving the local economy and society. Guided by Xi
 Jinping's socialist ideology with Chinese
 characteristics in the new era, we should link up the
 construction of ecological civilization, the rise of
 central China, the revitalization and development of
 Southern Jiangxi Province Soviet Area and the
 strategy of Rural Revitalization.
- Adhere to characteristics and integrate production and education. As Jiangxi's only forestry vocational college, we should give full play to the geographical advantages of the original Central Soviet Area of Southern Jiangxi. We should stick to the school running orientation of "red leading, green development, based on ecology, serving the local" and the professional layout of "big ecology and great environmental protection". We should focus on the integration of production and education, cooperation between school and enterprise, 1 + X certificate pilot, high quality teacher team construction, the construction of high-level professional clusters with architectural interior design and forestry technology as the core, information integration development and international education programs.

NEXT STEPS

By 2022, the college will improve the ability of supporting characteristic industries, the construction of ecological civilization, the development of regional industry, personnel training and rural revitalization, collaborative education of school and enterprise. According to the strategic demand of the Belt and Road Initiative, the ability to carry out international education and internal governance will be significantly enhanced, and we will strive to become a national high-level higher vocational college recognized as regional benchmark and industry leader in China. By 2035, the school running indicators and comprehensive strength of the college will reach the international advanced level and



become an international level higher vocational college with excellent teaching conditions, distinctive professional characteristics, good talent training quality and strong social service ability.

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BRONZE: SUSTAINABLE DEVELOPMENT

PROJECT: RAGS TO RUNWAY-RED CROSS/KANGAN SUSTAINABLE FASHION

COLLABORATION

AWARD RECIPIENT: KANGAN INSTITUTE

COUNTRY: AUSTRALIA

INTRODUCTION

The collaboration between Kangan Institute and the Australian Red Cross began in 2015 and is set to continue well into the future. Kangan Institute currently provides training across diverse study areas, from fashion through to automotive, trades, business, hospitality and more. Fashion courses attract approximately 600 students per year. Our annual sustainable fashion program with Australian Red Cross is one we are especially proud of and has set a precedent for how our organisation engages with industry and community to build a better future. Our bronze award for WFCP 2020 TVET Excellence for Sustainable Development Award provides other educators with new ideas in sustainable practices and how they can be incorporated into everyday curriculum and learning experiences.





AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Kangan Institute partners with the Australian Red Cross on an annual sustainable and circular fashion design program that provides fashion students with hands-on learning experience in creating sustainable fashion designs. Studies have found that Australians throw away 6,000 kg of fashion and textile waste every 10 minutes, and that 85% of textiles purchased by Australians end up in landfill every year — which makes it all the more pertinent that fashion design educators play a role in paving the way to a more environmentally sustainable future for this industry.

The program is based on the philosophy of reduce, reuse and recycle – fashion diploma students are tasked

to select pre-loved donated garments, textiles and unsaleable materials from Red Cross warehouses, in exchange for providing some voluntary work at Red Cross.

They also have the option to source other sustainable fabrics, such as fabrics made from recycled plastic or biodegradable biopolymer made out of algae.

They are then challenged to transform these materials into runway showpieces that are showcased to over 300 guests at Kangan Institute's annual fashion show held as part of Melbourne Fashion Week. Students work to a different theme each year, such as the Australian-inspired Great Southern Style theme in 2018 and the luxurious Eco Luxe theme in 2019.

Students are taught and encouraged to embrace sustainable techniques throughout the process of design and transformation. They are taught four circular design strategies — Design for Low Waste, Design for Low-impact Materials and Processes, Design for Longevity and Design for Recyclability to improve the garment's lifecycle and enable circularity. These strategies involve reclaiming textile waste, applying zero-waste, upcycling and reconstruction techniques during design and creation and the use of sustainable eco-fabrics. Throughout this process, students are also encouraged to ensure their completed garments are exhibit quality, polished workmanship, innovation and runway appeal.

This annual sustainable fashion design program is a significant variation from traditional fashion design practises where designers start by developing a design and then purchasing or sourcing the materials to create the piece. This program challenges Kangan Institute students to start by assessing the recycled materials that they have on hand – and creating unique, one-of-akind designs that makes the most of these materials. Through this process, students learn to rethink how and where materials are sourced, and start building the foundations for future careers as sustainable designers. Through the annual fashion show, industry and community guests are provided with real-world inspiration to explore upcycling as a viable approach to creating fresh, runway quality designs.

RESULTS AND ACCOMPLISHMENTS

The program objectives are simple. To create a Partnership with Global Care Brand-Australian Red Cross and Fashion design students with benefits to both organisations for a circular and sustainable economy on all levels –Social corporate responsibility and "giving back" via volunteering with Australian Red Cross, rescuing garments, textiles, and other items destined for landfill and turning them into designer pieces, ethically sourced, ethically designed and constructed for longevity. Awareness is the key –awareness for the planet, humanity and creating solutions moving forward. This partnership exposes students to the work

that Red Cross does beyond the retail shops. Red cross benefits from students volunteering thereby raising awareness regarding global issues around the world.

Students learn how to resources that would have gone to landfill but more importantly learn about the ways to implement sustainability from the onset-whilst they are studying. Students embrace the sustainable techniques throughout the process of design and transformation such as the four circular design strategies — Design for Low Waste, Design for Low-impact Materials and Processes, Design for Longevity and Design for Recyclability. students are also encouraged to explore zero waste, subtraction cutting and textiles innovations such as vegan leather and making their own fabrics from pre-existing textiles. New techniques are being birthed by students under their mentor's guidance every year. The students of today are the innovators, agitators and activists for the sustainable solutions of tomorrow.

INTERNATIONAL VALUE

We live in a time where the world seeks options & answers to the plague that is COVID-19 but also the plague that is fast fashion which is choking the planet at an alarming rate. In this association with Australian Red Cross we have assembled a highly qualified & talented group of educators to create and maintain our Ethical Design & Sustainability program

Sustainable, ethical fashion design education & innovation will seek & identify the next generation of talented, fearless & creatives on a global scale.

To teach & mentor their development into the brave new world of fashion development is our aim.

WORDS OF WISDOM

Fashion schools can collaborate to produce, from a global pool, the next generation of couturiers who will challenge, change & break all the rules to create revolutionary pathways into the new world of sustainable fashion.



NEXT STEPS

The innovations & answers we seek will come from the development of the next generation through education.

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GOLD: HIGHER TECHNICAL SKILLS

PROJECT: REFRIGERATION AND AIR CONDITIONING TECHNOLOGY **AWARD RECIPIENT**: JIANGSU VOCATIONAL INSTITUTE OF COMMERCE

COUNTRY: CHINA

INTRODUCTION

Founded in 1952, Jiangsu Vocational Institute of Commerce (JVIC) was selected as one of China's 56 characteristic high level vocational colleges in 2019. There are more than 13,000 full-time students in JVIC, more than 700 teachers and other staff members. JVIC has been selected to be one of the top-50 in service contribution and the top-50 in international influence for three consecutive years according to Annual Report on the Quality of Higher Vocational Education in China.





AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

This project is designed to develop a solution for developing the specialty of refrigeration and air conditioning technology of higher vocational education in Kenya on the basis of the experience of the specialty of refrigeration and air conditioning technology of Chinese higher vocational education.

The project will be implemented by the 22 deans and key teachers, who have received training with the help of the standard training instruments and equipment in China, to help African countries to establish their own higher vocational education systems. The project was jointly signed by the Ministry of Education of China and the Ministry of Education of Kenya to assist Kenya to upgrade and transform colleges and polytechnics. It was implemented by Jiangsu Vocational Institute of

Commerce and AVIC International Complete Equipment Co., Ltd.

The former designed the education solution and provided the 5-month training for the teachers and the latter provided the training instruments and equipment. The project will provide intellectual support and talent reserve for the development of the industrial chain of refrigeration and air conditioning technology in Kenya.

The project began in 2014. The training for teachers was completed in Oct. 2019. It took the team members five years to develop the solution for the specialty of refrigeration and air conditioning technology of higher vocational education in Kenya after their investigation, design, demonstration and implementation. It consists of 8 core courses syllabus and corresponding textbooks, the operation methods and training of 23 teaching instruments, more than 200 practical training projects



and a set of professional assessment standards. There are 800 teaching hours in total. The courses cover refrigeration, electronics, machinery, control and other disciplines.

Based on the culture of Kenya, the ways of thinking of Kenyans and the current situation of education in Kenya, the solution developed under the project has a wide range of universality, demonstration and industrial docking. The solution, with a wide coverage, covers the entire industrial chain and it can be copied. It fills a gap of Higher Vocational Education in Kenya.

The project has been highly appreciated by the Ministry of Education of China and the Ministry of Education of Kenya. The Ministry of Education of Kenya specially sent a letter of thanks for the outstanding contributions to the project made by the three teachers who had been sent to Kenya.

RESULTS AND ACCOMPLISHMENTS

Jiangsu Vocational Institute of Commerce has been vigorously promoting the pilot work of modern apprenticeship. The modern apprenticeship was first implemented in the specialty of refrigeration and air conditioning technology under the project and the specialty has been selected to be one of the third batch of modern apprenticeship pilot projects of the Ministry of Education of China. The specialty cooperates with more than 20 enterprises, which cover all the production and operation links in the upper, middle and lower reaches of the refrigeration and air conditioning industry chain. It has won the high recognition of enterprises in the industry. The employment rate of students has kept around 99% and more than 90% of the graduates engaged in work related to their major. Many enterprises including some Fortune 500 companies like York (Wuxi) Air Conditioning and Daikin Air Conditioning (Shanghai) come to recruit students before their graduation. The modern apprenticeship was implemented in developing the solution for the specialty of refrigeration and air conditioning technology of higher vocational education in Kenya. Our rich experience in training students makes the higher vocational education features of the project more distinctive and the project more practical.

Jiangsu Vocational Institute of Commerce has experienced teachers. 22 deans and key teachers were trained in the project. They will be leaders of the refrigeration and air conditioning technology in Kenya. They will help to found the specialties of refrigeration and air conditioning technology in more than 20 higher vocational colleges in Kenya and their work will benefit the whole country.

INTERNATIONAL VALUE

- **1.**The purpose of this project is to build a classic case of the cooperation between governments and the combination of school teaching resources and enterprise equipment resources under the cooperation framework of the ministries of education of the two countries so as to help and promote the vocational education in less developed countries as a whole.
- **2.** China has its own characteristics in professional technology, market mechanism and wide adaptability of products. The solution to be exported to Kenya will be helpful to build a quality training system so as to benefit the product market and the general public of the country as soon as possible.
- **3.** The project has explored the beneficial experience of Higher Vocational Education in industrial development service, radiation mode of higher vocational education, cooperation with government, combination of colleges and enterprises and overall solution export, and it has made important contributions to international higher vocational education.

WORDS OF WISDOM

1. This project promoted good technical standards, realized the successful cooperation between governments and school-enterprise cooperation at the international level. The government provides policy support, communication and coordination, enterprises provide technical equipment support, and schools provide teaching standards and services.



- **2.** Realize the localization of teaching idea and teaching method, simplify teaching language, cultivate students' independent operation ability, and strengthen safe operation process. According to the language and learning requirements of Kenyan students, we modified the teaching plans, teaching PPTs, teaching methods and assessment methods during training the teachers.
- **3.** We actively carry out cultural exchanges with African students and build friendship with them. The project has played a positive role in promoting the integration and development of differentiated vocational education in the world and the cultural exchanges between different countries and nationalities.

NEXT STEPS

- **1.** In 2021, Kenyan students will go to China for post-following teaching and corporate post-following training. Learn how to teach, manage laboratories, and develop talent development plans. They will also study in businesses and visit manufacturing plants.
- **2.** We will transfer this model to Cote d 'Ivoire and use the teaching standards in Kenya to develop educational talent for refrigeration and air conditioning in Cote d 'Ivoire.
- **3.** In the future, the experience and results of this project will be applied to Gabon, Zambia, Uganda, Ghana and other African countries. We have signed agreements with several African countries, and have reached cooperation intentions with 11 countries, including Benin, Tanzania and Uzbekistan.

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SILVER: HIGHER TECHNICAL SKILLS

PROJECT: CERTIFICATE TO DIPLOMA TO DEGREE (C2D2D) PATHWAY PROJECT

AWARD RECIPIENT: BEIJING COLLEGE OF FINANCE AND COMMERCE

COUNTRY: CHINA

INTRODUCTION

With 6000 full time students and 670 staff across 5 campuses, BCFC is offering 25 diverse programs such as Accounting and Finance. As the research base of international trade and business, BCFC is renowned for its applied innovation in modern business and is identified as the "business think tank" in Beijing, providing highly technical workforce and intelligence service for the municipal government and the industry. BCFC is making unremitting effort to deliver technical training, academic support and vision enrichment to students, to integrate the curriculum with industrial and international outlook and to benefit the industry and community with consistent engagement.





Photos by BCFC Publicity Studio (Left: Simulated working environment for intelligent accounting and taxation system at BCFC; Right: Students from BCFC Business School participating a Smart Retailing training program at a partner company)

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Certificate to Diploma to Degree (C2D2D) Pathway Project was initiated in 2015 by Beijing Municipal Commission of Education to build a natural pathway connecting high schools, vocational colleges and universities for higher technical skills. Two major issues are addressed here: one is to meet the local students' needs for degree education; the other is to meet the industrial requirements for higher skills of employees with international horizon and sustainable

development. To attain these goals, BCFC has embraced joint education, working with local high schools, prestigious local and overseas universities as well as with trade unions and companies.

The project recruited students from grade 9 graduates from middle secondary schools. Upon completion of the first two years of study, students obtain the advanced certificate of secondary education awarded by the partnering high school. BCFC then leads students to diploma upon completion of three years of higher



vocational education. In the last two years of the project, BCFC provides students with the access to local and overseas tertiary study to upgrade their higher technical skills and to obtain bachelor's degree.

From 2015 to 2019, BCFC enrolled 2384 students in the C2D2D project, among whom 10% were eligible for entering international universities. Beijing municipal government provides financial support to eligible students who meet the entry requirements by international universities, which covers the full overseas tuition fees and international flights. In 2020, more than nine million CNY is sponsored for 79 eligible students to cover their overseas study scholarship.

Driven by the C2D2D pathway project, BCFC has increasingly expanded its links with local and international partners in higher applied education. By the end of 2019, BCFC has completed course mapping and credit recognition with eleven international universities including Northeastern University of the U.S., University of Central Lancashire of the U.K., Curtin University of Australia, Toi-Ohomai Institute of Technology of New Zealand. Strong financial support from Beijing government also promotes the global mobility of students and teachers under the project.

In C2D2D project, BCFC works closely with local and global company partners, building on the students' technical skills by delivering courses, workshops, and practicum. Intelligent finance center, business information sharing center, intelligent logistics training base and intelligent marketing training base were jointly built by BCFC and the enterprises. More than 100 off-campus training bases were set up in collaboration with medium and large enterprises to carry out modern apprenticeship program.

RESULTS AND ACCOMPLISHMENTS

This 7-year full-time C2D2D pathway project aimed to provide higher technical skills critical to the industrial transformation and upgrading in Beijing, to promote the international mobility of students and faculty, to build a national and international pathway for students to progress in tertiary education system.

In the past five years of practice, we have achieved very positive results and accomplishments. To build a local and international network of educational and employment pathway, BCFC maintained close contact with local and international partners so as to create a flexible and stable framework for students.

Meanwhile, BCFC successfully held talks, workshops and seminars with its international partners both at home and abroad to reach international course articulating agreement and credit transfer. The extensive connection with international community enables the institution and staff members to develop their professionalism in an international perspective.

To pave the way for students' learning journey and make them world-ready, BCFC embedded international language and culture by setting up an IELTS and academic English research sector. Furthermore, BCFC also organized students to the learning and research visits with overseas cooperative universities and English summer camps. Students are delighted to see their increasing confidence and cultural awareness gained in the attempts as well as better proficiency in English and cross-cultural communication.

BCFC C2D2D Pathway Project has benefited professional and technical education and training by articulating professional courses and involving intensive participation of industry and companies. This process witnessed increasing interaction among national and international partners, students, faculties and institutions

INTERNATIONAL VALUE

The fostering of visionary and self-motivating workforce for the industry is a worldwide issue. C2D2D pathway project has proved that a coherent policy is required to support the adaption of VET to meet the current needs of learners, industry, community or society. Another aspect is a win-win method should be used to connecting one college with its university or company partners. For example, a college's partnership with enterprises not only contributes to holistic curriculum



and teachers' professional development, but also help companies more easily screen competent candidates for their jobs.

Driven by the project, BCFC has increasingly expanded its links with international universities in higher applied education. BCFC successfully held talks, workshops and seminars with its 11 international partners in six countries on apprenticeship, industry-school cooperation, and vocational education. The experience gained in course mapping and exploring new opportunities is transferable and applicable, benefiting institutions engaging in international academic cooperation.

WORDS OF WISDOM

In the process of building the pathway in professional and technical education, the most difficult part is to maintain consistency and coherence in professional courses at different levels of qualifications. A coherent system of professional competencies is required to support the curriculum development at different levels.

Language is still the fundamental barrier for international communication and cooperation in VET. International universities usually set language proficiency requirements so that the applicants could continue their study and life in a foreign context. Lack of proficiency in foreign language also limits the scope of international cooperation among faculties and institutions worldwide.

Moreover, it seems necessary to implement international evaluation and recognition of professional standards among different systems to promote the comparability of qualifications from different countries and institutions.

Experience could be shared from policy making to coordination mechanisms among participants and stakeholders in vocational education and training.

NEXT STEPS

In order to ensure sustainability of C2D2D project, BCFC will deepen cooperation with companies and trade unions to update content of learning, facilities and resources for practical training. BCFC will embark on professional modules reform to integrate curriculum with national qualifications framework, linking learning outcome with qualification certificates.

A third-party international benchmarking of qualifications will be initiated to facilitate the international comparability of professional standards, and promote the international mobility of students.

Foreign language and cross-cultural elements will be included in the structure and content of learning and it is expected to expand overseas network for learning and apprenticeship opportunities.

Meanwhile, BCFC will make unremitting effort to explore the ways of sponsorship for students studying overseas, seeking public-private-partnership availability.

The experience drawn from the C2D2D pathway project and a third market cooperation model may apply to our educational cooperation with belt and road countries and institutions.

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BRONZE: HIGHER TECHNICAL SKILLS

PROJECT: REAL-WORLD PROBLEM SOLVING IN A SOLIDARY TVET

AWARD RECIPIENT: ELECTRONICS AND COMMUNICATION DEPARTMENT OF CIFP DON

BOSCO LHII
COUNTRY: SPAIN

INTRODUCTION

The Electronics and Telecommunications department is one of the six technical departments of the CIFP Don Bosco LHII which has trained qualified technicians for over 60 years. The team of professors is committed to active and collaborative methodologies to be able to work all the professional competences that are demanded from the labour. Teachers and students, together, travel throughout Europe in search of new experiences through mobility projects and innovation projects and participate in scientific and technological competitions to demonstrate the projects that have already been developed in the classroom.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

The challenge-based learning is the way to interact with students. Each challenge presents a problem to which a solution is given through a multidisciplinary technical project. This problem can be found everywhere. Even when the partners (students and teachers) are in another country, students should work in a collaborative way using ICTs. There are no subjects, but real problems of companies and life in general that naturally address multiple disciplines of the knowledge.

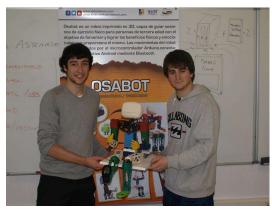
The last challenge students face every school-year is the most real of all and focuses on solving a real and current world problem, something that is happening must and should be solved or improved! Students have the freedom to seek and propose these problems. There are only two conditions: it must be a real problem and it must be given a solidary solution. This framework makes learning to enter a scenario in which all the competencies necessary to solve a real problem are activated: the students should empathize with the problem and understand the people who suffer from that problem, they should be creative and create different alternatives for the solution, the deadlines should be planned, the results should be transmitted, etc. and last but not least: humanize both teachers and students.

Thus, in the projects from the last decade such as: prostheses of hands and arms for people in need (being

part of the international network called "Enable the future"), or robots that guide the daily physical exercises of the elderly living in nursing homes, or automatic and personalized medication dispenser for patients who must remain at home and may have a neurodegenerative disease, or boats that feed independently of renewable energy sources etc. have been developed.



Hand 3D printing



Osabot

RESULTS AND ACCOMPLISHMENTS

The immersion in real-world problems implies that students become the protagonists of their learning, they stimulate their involvement and motivation and their preparation for the real world. Finding solutions to these types of challenges helps them develop their creativity and, at the same time, fosters their critical and entrepreneurial spirit. These students analyse, design and execute the most appropriate solution to address the challenge. This requires a deeper understanding of the theme on which these challenges are based and usually acquire higher level knowledge, which also prepares them for university. This means that they sometimes acquire knowledge and contents that are not written in the curricula, such as the industry 4.0 competences.

We also exploit their communication skills with real people (companies, associations, individuals) by explaining what they have investigated and determining the solutions they have thought to address those challenges. In the end, students perceive that the research and solutions provided have a utility in the society in which they live and they feel that what they are doing (implicitly their learning process) is worth it. As they work and live experiences with students from other countries they are more used to be in contact with different cultures and tradition. hence demonstrate being more tolerant and closer to the foreign students; they think as a community (global) to act locally. They cease to be students and they become true professionals. Some of them surpass our

knowledge and skills without even finishing the school year!

INTERNATIONAL VALUE

Most of our projects have been developed in collaboration with other state TVET centers even with international collaboration. When dealing with human issues and solving them, the benefit is international and for everybody. Unfortunately, there are real life problems everywhere because human issues do not understand about nations, but fortunately and just because of it, this way to teach can be implemented everywhere. This advanced model of the PBL (The challenge based learning) that can be implemented in any school, no matter where it is, creates a new generation of leaders who will face the common challenges of the future (climate change, environmental care, new energetic model, health,...) with warranty and it will help to achieve the United Nations' Sustainable Development Goals.

WORDS OF WISDOM

This way of working with students implies that teachers have to work as a team as well. This is the first of the obstacles one may find. By not planning the learning process in subjects but in multidisciplinary challenges all the steps to be taken must be agreed within the team of teachers and at the beginning it is not easy to articulate these dynamics with fluency. It takes time, patience and practice. There must be a spirit of trust, transformation and constant improvement in the team of teachers. Teacher training is key.

Besides, it is difficult to find a company, association or a professional that truly believes in the potential of the TVET students from the beginning. When one knocks at their door a big effort has to be made in order to convince them to let TVET students "in". Our advice, four Ps: patience, prudence, perseverance and positivity.



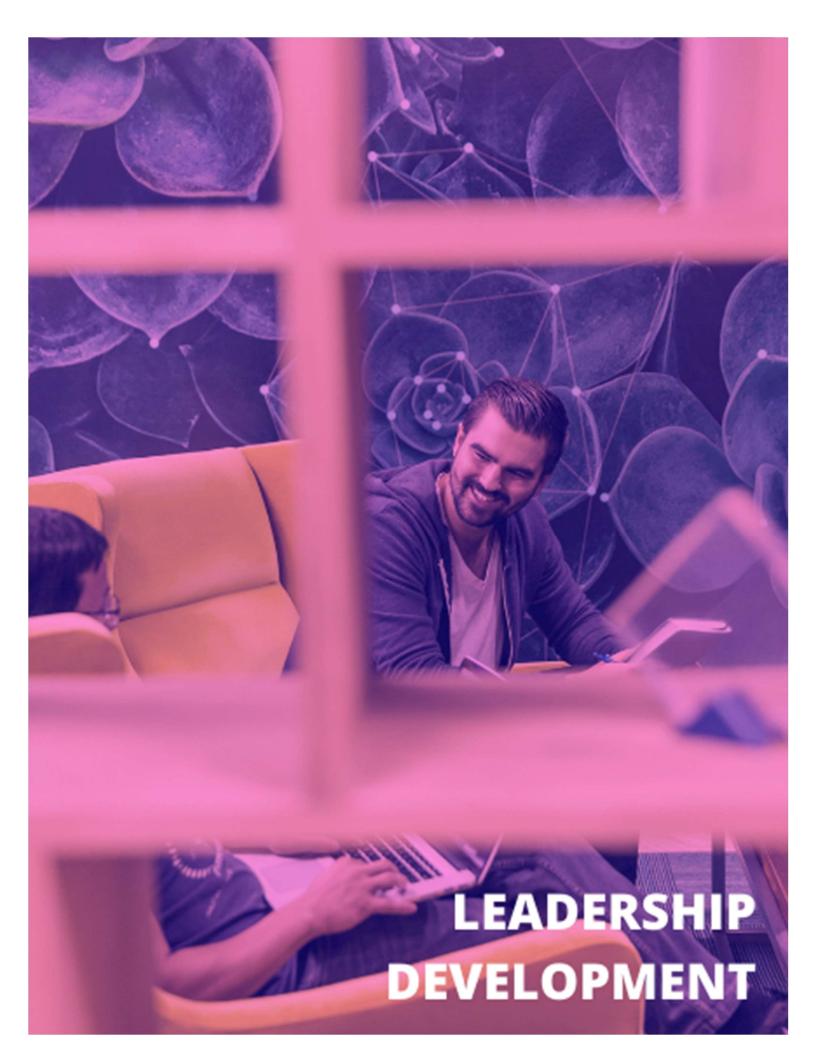
NEXT STEPS

The initiative described, more than a project, is a way of working, it is a way of doing and acting that is already in the DNA of the professors of the Electronics and Telecommunications Department at CIFP Don Bosco LHII. We usually develop around ten projects every school year, so the next step is always: what solidary projects will we build?

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GOLD: LEADERSHIP DEVELOPMENT

PROJECT: LEADERSHIP DEVELOPMENT, INNOVATION AND ENTREPRENEURSHIP **AWARD RECIPIENT**: WUHAN RAILWAY VOCATIONAL COLLEGE OF TECHNOLOGY

COUNTRY: CHINA

INTRODUCTION

Wuhan Railway Vocational College of Technology (WRC), located in Wuhan, Hubei, P. R. China, was founded in 1956. As a unique railway vocational college with over 60 years of history, WRC focuses on the railway industry and has been committed to nurturing railway technical staff with honesty, integrity and professional ethics. Realizing the significance of leadership development of students and combining the national policy of production-education integration designed for higher vocational colleges, WRC has been actively involved in developing leadership in a production-education integration mode. The program plan has been co-developed, in which leadership, vocational spirit and skills are integrated organically.



AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

For over 60 years, WRC has maintained its tradition of creating an all-round development growing environment and peaceful and vigorous campus for students. Democracy mechanism has been established for faculty, staff and students to participate in the management of the school through such channels as president' mailbox, reception day of school leaders and students' participation in school office meetings. Students' Union with 57 affiliated students' clubs, is a well-organized mechanism and generates relative autonomy in students' campus life, and is an incubator for future leaders.

WRC attaches great importance to students' participation in voluntary activities and

community service. They learn to become mentally and physically healthy people, with honesty, virtuousness, aspiration, social responsibility awareness, generosity and great technical skills.

Peer education and adolescent health education are merged into WRC's bigger network of leadership development. The two types of education involve participants in vivid cooperative events, lectures and problem-solving group work, so as to nurture leading participants to conduct similar education among their peer classmates and schoolmates.

Students' Talks is a platform built by WRC and excellent speakers have become shining and exemplary models among our students. In 2019, 160 speakers shared their stories in Students' Talk and some of our excellent speakers were invited to talk in other colleges.



WRC has provided a big platform to our students, faculty and staff for igniting the spark of their talents. Students as teams have won prizes of innovative contests in consecutive 5 years. Faculty and staff are honoured with achievements while boosting their leadership qualities.

WRC as a whole has successfully won the awards as one of the first demonstration higher vocational colleges in China, one of the first modern apprenticeship pilot institutes of Ministry of Education, construction unit of high-level vocational colleges and programs in China. These have proven WRC's leading role among higher vocational education institutions.

When Covid-19 broke out in Wuhan, China, our faculties and students did not hesitate to join the battle against virus in their own ways. 1000s of our students' dorm rooms were requisitioned as quarantine rooms for the close contacts, which got prepared within 24 hours through our joint efforts. It is a reflection of strong solidarity of leadership and great sense of social responsibility of WRC as well as dedication of our faculties, staff and students.

RESULTS AND ACCOMPLISHMENTS

With the aim to stimulate students' creativity, innovation and entrepreneurship (I&E) have been introduced into the curricula. We develop I & E courses and optimize the practice platforms to encourage students to start I & E programs. Various activities including forum, salon, lecture and road-show are held regularly and excellent I & E programs are selected to be financially supported by WRC. Chen Zirong and his team won the 1st prize in the 12th college students' science and technology works competition in Hubei. Li Tianlong started an environmental protection technology company.

Since 2010, students have been participating in "Little Orange Lamp" and other voluntary activities in railway stations during Chinese Spring Festival. Up to now, 12,000 volunteers have provided services for passengers. From 2014 to 2019, students as teams have won prizes in 35 innovative and technical competitions; Major honours of faculties include National Outstanding

Vocational College President (2009) and National Excellent Teacher (2017), 9 technical teachers/experts winning national and provincial honours, 20 teachers winning awards for their outstanding performances in Teaching Competence Competitions at different levels (2013-2019).

WRC's efforts are rewarded as good employment reputation, and the graduate employment rate has been above 98% in recent years. According to the statistic data from the follow-up survey of our graduates in the past 10 years, over 85% of them have remained in their work units since they started a career in enterprises and no less than 30% out of the above percentage hold leading or administrative positions at different levels in the units.

INTERNATIONAL VALUE

WRC takes the initiative to conduct joint programs with foreign government departments, colleges and universities and industries to cultivate young leaders of railway industry.

In September 2016, WRC hosted seminars for 59 officials from 15 Southeast Asian and African countries. In October 2018, WRC hosted a seminar for 35 scholars, deans and experts of universities, vocational colleges and polytechnics from Indonesia, Tunisia, Panama and Ethiopia. In January to March 2017, a WRC faculty team trained the local technicians for in Kenyan Mombasa-Nairobi Railway. In May 2017, WRC hosted a leadership academy of international higher education with Consortium of Internationalisation from US. Since April 2016, WRC has cooperated with 35 Thai technical colleges and trained 129 high-speed railway technicians for Thailand, hosting seminars for 126 faculties and 176 presidents and administrators from over 10 Thai vocational colleges. In April 2019, WRC co-established the world's first Lu Ban High-speed Railway Institute in Thailand with our Thai partner.



WORDS OF WISDOM

We believe it is of vital significance that a mature network of leadership development is well formulated and constructed, with each dimension featuring distinctive values, events and outcomes. WRC has long been people-oriented and putting premium on programming quality development plan (leadership development) at three levels, namely, college, faculty and support staff, and students. WRC sets targets for its development and takes lead in such categories as college administration, teaching management, student support management and internationalization progress, for which WRC has been made prestigious.

WRC embeds integrity, sense of personal and social responsibility, innovation initiatives and inclusiveness in students' technical study and developmental events. Students have wide access to and are encouraged to partake in varieties of domestic and international study and competence-based events. In WRC community, all members---students, faculty, staff and administrators, have sound understanding of what graduates the job market desires and work together to cultivate such students.

NEXT STEPS

Despite of the global pandemic, WRC is now continuing to expand its nexus with both national and international institutions that are interested in cooperation and sharing experience with us. We will maintain contact by conducting regular virtual workshops and meeting online. In the special context, we have planned sustainable education schemes of fully utilizing the Internet to give both face-to-face and online lectures to students, as well as virtual practical training for international students.

We will update our leadership development plan with circumstances varying and add new measures and methodology to make the plan more adjustable and pertinent. In the fast changing and highly competitive job market, we convert our mindset and reach out for more developing opportunities for WRC students to make them more confident, inclusive. At the same time,

WRC hopes to attract more international students online and share high-speed railway technology and high-speed railway spirit.

CONTACT

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SILVER: LEADERSHIP DEVELOPMENT

PROJECT: STUDENTS' LEADERSHIP DEVELOPMENT **AWARD RECIPIENT**: QINGDAO TECHNICAL COLLEGE

COUNTRY: CHINA

INTRODUCTION

Qingdao Technical College (QTC) is one of China's top advanced vocational education institutes and takes the leading role of "Student Support Service" affinity group of WFCP. QTC has 13 national -level exemplary majors, 198 out-campus industrial training bases co-built with many enterprises such as Haier, Tsingtao Beer, and other well-known companies and more than 20

overseas training bases in Singapore, South Korea, and Japan as well. QTC maintains a partnership with 101 institutions and organizations from 31 countries and regions around the world. Teacher training bases were established in partner institutions and organizations in 8 countries and regions such as New Zealand.





Students take Part-time President's Assistant Each Year

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

This project is mainly oriented to the leadership training of students. Through effective system design, platform building, and project exercise, it explores a path through the whole process and multi-dimensional participation in student leadership training.

The project attaches great importance to the training of international talents, and has established friendly cooperation and exchanges with 101 colleges and universities (institutions) in 31 countries and regions; promoted the establishment of semester exchange study and study tour mechanisms with schools in many countries and regions, and received International students; selected students to participate in various large-scale international competitions and conferences, and support our students to study abroad for further study and overseas internships and employment.

The project strives to promote the all-round development of students. Through the "excellent talent training plan", this project exercises and trains students through famous teachers and skilled master studios, honor courses, student assistants, clubs, and other ways. The establishment of a basic quality training school for college students allows the backbone of students to lead the improvement of the quality of other students, while their leadership is also improved in the experience. This project pays attention to the physical and mental development of students and makes every effort to improve the physical and mental health of students.

The project actively cultivates technical talents, actively introduces corporate power, establishes a skill competition system of "everyone participates, colleges have competitions, full professional coverage, and active class competitions", implements the "Innovation and Entrepreneurship Pilot Program" to enhance students' employment competitiveness and innovation

and entrepreneurship capabilities, and carries out peer counseling to promote the improvement of students' technical skills relying on the academic counseling center.

RESULTS AND ACCOMPLISHMENTS

The international vision of students has been broadened. Students have increased their knowledge in international competitions and conferences and improved their abilities in international exchanges and learning. A large number of outstanding graduates such as Wang Weihuan, who successfully started a business in Nigeria, emerged.

Students have an active and open mind. The employment rate of students reaches 98%, 75% of students can stay in Qingdao for employment, and the employment rate of the top 500 companies reaches 7%. The proportion of students registered as volunteers has reached 100%, and more than 35% of students have been commended and rewarded at all levels each year. Volunteer groups such as Li Xinyi who actively went to India to participate in international volunteer activities emerged.

The professional abilities of students are developed. More than half of the past presidents of the "Xiaoqiang Home Appliance Repair" association have obtained the national senior professional qualification certificate. The students participating in China's "University Student Volunteer Service to the West Program" have become the backbone of the construction of the western region, and some of them have been named "Excellent Volunteers of the University Student Volunteer Service to the West Program".

INTERNATIONAL VALUE

The project was effectively promoted in some schools in partner countries and regions, and related solutions were effectively used for reference and promotion, and exchanges were conducted in relevant working forums and conferences, providing a feasible way for the development of international similar professions and projects. This approach is conducive to the

improvement and promotion of the global youth student leadership training program.

WORDS OF WISDOM

Education is about influence rather than indoctrination. The essence of leadership is influence rather than authoritarianism. To influence others, you must first shape yourself. Therefore, the cultivation of student leadership should focus more on the inner growth of students, and then form good thinking and behavior habits, so that they can continue to move in the right direction.

NEXT STEPS

We would like to sort out the existing platforms and initiatives in the project to form a more scientific level and content mix to meet the needs of more types of student leadership development. In the next ten to fifteen years, a training model of "everyone has the opportunity and exercise in everything" and a "multi-dimensional, multi-level" evaluation system will be established to foster the leadership of all students and provide more opportunities for their overall growth.

CONTACT

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BRONZE: LEADERSHIP DEVELOPMENT

PROJECT: LEADERSHIP INSTITUTE

AWARD RECIPIENT: SHERIDAN COLLEGE - CENTRE FOR PEOPLE AND ORGANIZATIONAL

DEVELOPMENT **COUNTRY**: CANADA

INTRODUCTION

Sheridan College's Centre for People and Organizational Development (CPOD) was created in 2013 to help implement aspects of a new and transformational *People Plan*. Leadership Effectiveness and Management Development were identified as two top priority areas among 11 areas in the *People Plan*. In 2015, CPOD launched the *Leadership Institute*, a suite of programs offering a tiered approach to leadership training, from foundational courses for individual contributors and front-line leaders to advanced senior level programming. The *Institute* supports Sheridan's Talent Management strategy and helps the institution to develop its future leadership capacity to cultivate innovation, lead change and deliver the goals and objectives of its Strategic Plan.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

The Leadership Institute was a strategic action based on our People Plan — a transformational strategy developed in collaboration with an external consultant following extensive consultation with over 400 Sheridan stakeholders. Sheridan's approach to leadership training is based on a sustainable, in-house model that keeps costs relatively low and provides consistency and continuous improvement over time. It's also part of a robust approach to talent management that also includes coaching and performance development programs. Sheridan's experience in this arena offers best practice examples that other institutions may learn from.



People Plan Review

The Leadership Institute evolves and responds to changing needs and is a place where various concepts, theories and practical skills are explored as they relate to leadership at Sheridan. Offerings expand based on employee needs in support of Sheridan's mission to cultivate resourceful, highly skilled, and creative people and communities through cross-pollinated, active learning and the relentless incubation of new ideas.

The *Inspiring the Leader Within* series is based on a belief that everyone is a leader at the college. A combination of classroom, self-directed and virtual learning, the workshops are offered to all Sheridan employees who would like to further explore and develop their skills and knowledge in the area of leadership (e.g. Embracing Change and Building Resilience, Conflict Management, Creative Problem Solving, Leadership Foundations, Discover Your Unique Signature Strength)



The Leadership Essentials program is an integral and foundational program designed to increase the capacity of our leaders to manage in the complex environment of postsecondary education. A combination of required and elective courses, these workshops are open to all those in a formal managerial/leadership role at Sheridan (e.g. Leading Effective Change, Coaching Essentials, Crucial Conversations, Leading Self)

As part of Sheridan's *Leadership Institute*, participants in *Leadership Intensive* embark on a journey of reflective practice for six months which includes inclass workshops, 1:1 leadership coaching, readings, videos, case studies, computer simulations, and a deep dive into the concepts of leading self, leading others and leading Sheridan. The time commitment for this program is significant (includes homework and a final project) and participants are nominated by their senior team member.

The New Leader's Onboarding program (NLOP) is designed to make new leaders feel welcomed and is intended to provide an overview of the comprehensive services available. The NLOP aligns with the People Plan and Sheridan's strategic plan, Galvanizing Education for a Complex World. NLOP not only provides structured on-boarding for new leaders, but also supports one of the empowering enablers in our strategic plan that refers to a Flourishing Workforce that embraces lifelong learning as well as personal and professional fulfillment.

RESULTS AND ACCOMPLISHMENTS

Commencing in 2015, CPOD launched workshops in two programs along with the *Leadership Intensive* program. *Inspiring the Leader Within* offered courses in Embracing Change and Building Resilience, Dealing with Difficult Behaviours, Conflict Management, and Crucial Conversations for Employees, to name a few. Over the past 4 years, a total of 511 employees have completed one or more of these workshops. During the same period, CPOD delivered a series of *Leadership Essentials*

workshops to administrative leaders on subjects ranging from Leading a Change Process to Coaching Essentials. During this period 591 employees completed one or more of the nine workshops offered. *Leadership Intensive*, a 7-day program over six months for senior administrators who were nominated by their leaders, has seen a total of 86 individuals to date graduate from the program.

Leadership development ultimately is in service of our learners. Both stability in leadership and a commitment to continuous learning and innovation by senior leaders in an organization can impact the student experience. A pivotal role in our Faculties that have impact on students is the Associate Deans, each of whom plays a significant administrative role in overseeing their suite of programs and the faculty members who teach in those programs. When CPOD launched the Leadership Institute, we had a high volume of new leaders in these roles, some of whom had never attended leadership courses. Additionally, this group had some very specific leadership tasks that were unique to them based on the Faculty Collective Agreement and other job-specific leadership challenges/opportunities. As a result, a cohort-based program was created specific to them to include coaching/mentoring support to ensure this group could learn and share their expertise together and carry it on post-program. To date, 14 of the Associate Deans have completed the Leadership Essentials program, and a further 21 are enrolled in various stages of the program.

INTERNATIONAL VALUE

Leadership and succession planning to ensure future leaders are ready to move up in an organization and successfully advance its strategic objectives are essential to colleges and polytechnics around the world, especially those in areas where the availability of qualified talent may fall short. Sheridan's approach to leadership training is based on a sustainable, in-house model that keeps costs relatively low and provides consistency and continuous improvement over time.



It's also part of a robust approach to talent management that also includes coaching and performance development programs. The CPOD team is comprised of five professionals with a wealth of expertise and experience in organizational development and professional development, who have a vested interest in advancing the goals of the organization in which they play a critical part. Sheridan's experience in this arena offers best practice examples that other institutions may learn from.

WORDS OF WISDOM

Transformational change of the kind laid out in the People Plan requires commitment from the top and buyin from the broader community that the change is needed and has professional and personal benefits. Since the People Plan was launched in 2012, Sheridan has experienced change in the Presidential role twice, however, each change of leadership has brought with it a renewed commitment to the *People Plan's* priorities. To be successful, CPOD and the programming it delivers needed to earn credibility among the organization as a whole. That it has done so is a testament to the professionalism of its employees and the positive relationships they have forged with their peers and colleagues across the institution. The number of employees who have registered for and completed successive workshops through the Leadership Institute, along with their compelling testimonials, is another strong measure of success. One final piece of importance was having the entire senior leadership team engage in the top tier program, Leadership Intensive as an intact team.

NEXT STEPS

Sheridan College is committed to continuous learning and improvement. To that end, we continue to assess the impact and efficacy of our leadership development and programming. Work is currently underway to refine our leadership programs to support our developing talent management program. This may include utilizing our participants in Leadership Intensive to play a role in

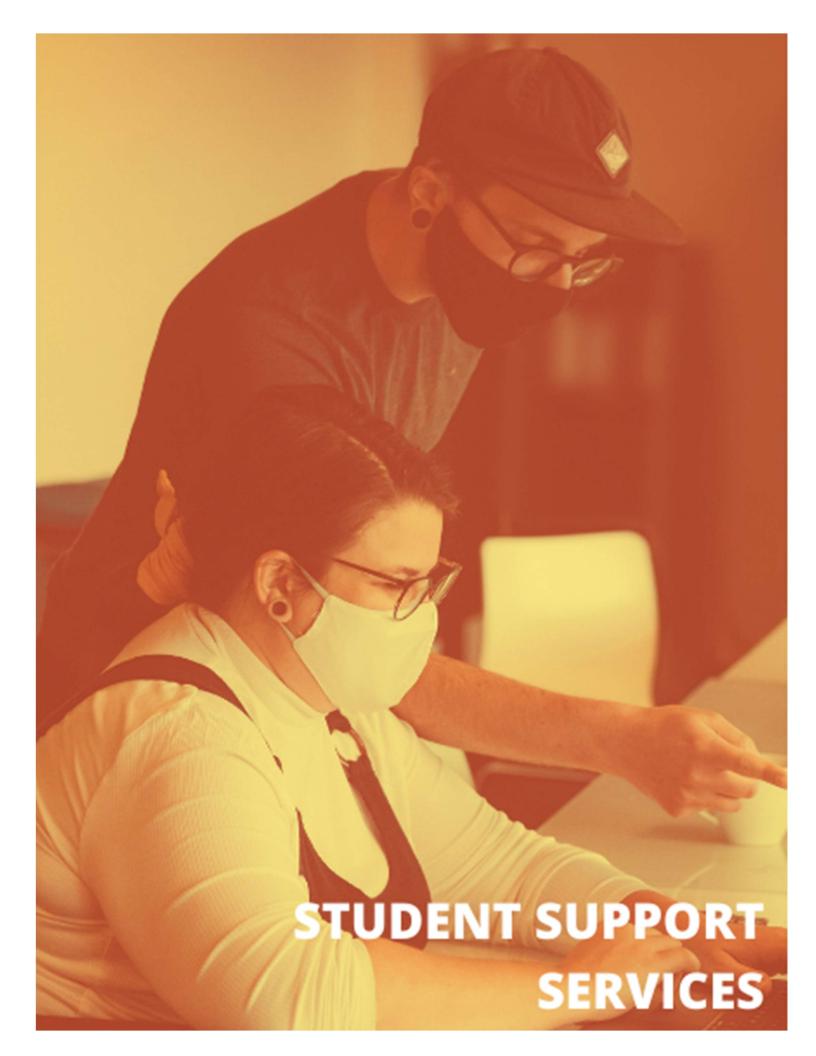
supporting our leaders in the other program offerings (e.g. mentoring, facilitators). As well, we are exploring the utilization of additional leadership assessments and simulations. We are also examining our overall approach, leadership competencies and program content to ensure we reflect the imperatives of equity, diversity and inclusivity.

CONTACT

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GOLD: STUDENT SUPPORT SERVICES

PROJECT: LEARNER SUCCESS STRATEGIES

AWARD RECIPIENT: KAREN HARRIS, LAKELAND COLLEGE

COUNTRY: CANADA

INTRODUCTION

Karen Harris has a big heart for all students and helps them in any way she can. During her almost 40-year career in education, Karen has taught various subjects in secondary schools, implemented one of the first computer networks in Buffalo Trail Public School Division, taught life skills at Lakeland College, and is now a Learner Success Strategist. She's also a professional speaker and workshop facilitator, teaching people how to decrease stress and improve concentration and focus. In a volunteer capacity, she's served on a school's crisis team, coached and managed basketball teams, and held leadership roles in community organizations.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

The Learner Success Strategist position was created in 2017 to enhance the college's academic services. In 2017, Lakeland College had numerous employees dedicated to providing counselling, wellness, advising and accessibility services. Many faculty and staff were helping students academically, but it was in addition to other responsibilities.

Lakeland recognized an opportunity to round out student success programming by developing a position with a sole focus on student academic performance. As a result, the Learner Success Strategist position was created. Karen Harris is the only person who has held the position and she quickly made it her own.

The leadership and vision Karen brought to the position is exceptional. Rather than a cookie-cutter approach, she pulls from her extensive tool kit of strategies and techniques to meet the needs of students. Each student has a unique learning pattern, and through discussions and observations, she's able to determine the person's sensory style, learning style, and personality type. She processes that information and then creates an individualized strategy to enhance their learning. That she's often able to do this during one session is truly remarkable.



The most popular tool she uses to destress students and get them in the right mindset for learning is poi balls. The poi ball routine she uses addresses a condition known as Homolateral Repatterning. The routine gets the right and left hemispheres of the brain working more seamlessly together. This results in improved focus and concentration, among other things.





Karen's singular focus on student success has led her to change her work hours to accommodate student schedules. She works later on weekdays and occasionally on Saturdays. This level of commitment is appreciated by students and staff alike. Follow up is also an integral part of her work. She checks in with students to monitor improvement and, if needed, modify strategies.

To create awareness of the services she provides, Karen regularly connects with faculty members. An arrangement has been made with faculty that in their absence - and in lieu of cancelling classes - Karen covers their class when she's available. She uses this time to connect with students and share notetaking, time management, and study skills. This initiative has been so successful that Karen now visits almost every class at the beginning of the academic year to provide success strategies, introduce services and share her contact information.

RESULTS AND ACCOMPLISHMENTS

In the past 15 years, Lakeland College has introduced many new services and initiatives to help students succeed in and out of the classroom. Early alert systems are in place to flag when a student is struggling academically. Faculty are quick to refer these students to Karen for assistance.

Each academic year Karen meets with about 250 to 300 students, helping them learn more about their learning styles and providing tips and techniques to spark improvement in class and in other areas of their lives.

Perhaps the most significant indicator of the success of the work Karen does is the word-of-mouth referrals she receives. Students who've benefitted from her help often tell others. In fact, it's very common for new students to reach out to her when they arrive at Lakeland because their sibling or friend says, "When you start your program, go see Karen first. She'll help you succeed."

Karen regularly receives hand-written notes, emails and phone calls from students thanking her for everything she's done for her. Here's one example:

"Karen, thank you so much for everything that you have done for me over the past five weeks! You have made a significant impact in my life and I cannot thank you enough. You have given me many valuable skills to use along the way and have made me more aware of myself. This will help me succeed even more, so thank you! I wish I would have done this sooner but better late than never!"

INTERNATIONAL VALUE

International student recruitment is on the rise at Lakeland College. With students arriving at Lakeland from all parts of the globe, the international department has recognized that these students often need extra support to adjust to Canadian academic expectations. Karen is there to help them from day one.

As for transferable skills across international boundaries, Karen has a toolbox that all Learner Success Strategists should have as they relate to student learning, studying and evaluation. Her exercises with poi balls crosses all borders as the exercise results in lower anxiety levels. For many students who suffer with test anxiety, this activity has made a world of difference.

Karen is quick to share her knowledge with faculty, staff and students throughout the college and beyond through workshops, in-service sessions or informal chats over coffee. She's more than willing to share her expertise with a broader audience through virtual sessions.

WORDS OF WISDOM

Karen's greatest accomplishment has been to take each learner from where they are at and find ways to make them a better learner. Her approach utilizes a metacognitive approach where students begin to think about how they think and learn. They identify who they are as learners and then build multiples strategies to learn. When students become better thinkers and



learners, they are more successful. Thus, key lessons are to help students identify what has made them successful and to add new strategies to their arsenal. In layman's vernacular, build a bigger toolbox for students to use and they are more likely to reach higher levels of academic success.

"We often forget that we, at our core, are very instinctual. Learning is very innate for each person. By knowing more about ourselves and how we react to situations, not only does learning become easier, so too does life," says Karen.

NEXT STEPS

The creation of the Learner Success Strategist position has been very beneficial to Lakeland College and its students. It is a position that Lakeland will continue well into the future. While no employee is irreplaceable, everyone at Lakeland recognizes how difficult it will be to fill Karen's shoes. She has many strengths, but there are two that stand out: her commitment to her professional growth which ultimately benefits students, and her ability to create a bond with each person she assists. She is humble and commends students for their efforts and hard work before acknowledging praise for herself. She is a difference-maker for Lakeland and the many students who she has worked with over the years.

Lakeland recognizes the positive difference that this position and Karen can make for our students. This role and Karen Harris exemplify what "Leading and Learning" has meant for Lakeland since the college's inception in 1913.

CONTACT

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SILVER: STUDENT SUPPORT SERVICES

PROJECT: TRANSFORMATIONAL INCLUSIVE PRACTICE LEADERSHIP TO IMPROVE POSITIVE PROGRESSION OUTCOMES FOR THOSE STUDENTS WITH SPECIAL EDUCATIONAL NEEDS AND DISABILITIES (SEND)

AWARD RECIPIENT: DR PAUL PHILLIPS, CBE PRINCIPAL AND CHIEF EXECUTIVE WESTON

COLLEGE COUNTRY: UK

INTRODUCTION

Dr Phillips CBE (Principal & CEO of Weston College) is an exemplary UK National Leader of Further Education (NLFE) who has demonstrated a 20-year commitment, creating a highly innovative student support model of inclusive practice - recognised, regionally, nationally and internationally for its positive progression outcomes for students with special educational needs and disabilities (SEND). As a result, the College is recognised as just 1 of 3 National SEND Centres of Excellence in the UK and has led to the UK, in creating a positive culture of mental health through an innovative Body and Mind framework for all students/staff.



AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

With 6% of people with a learning disability in the UK in paid employment nationally, Dr Phillips was determined to increase the social mobility of learners with SEND when he joined the College in 2001. On his arrival in 2001 the College's SEND provision lacked visibility, being disconnected from the main site with just eight enrolments. By contrast in 2018-19 - the College supported 1078 students with SEND (502 with High Needs), progressing 32% of its students with SEND into paid employment. with 153 students with SEND accessing the College's University Centre (Rated TEF Gold in 2017) – with 27% receiving 1st class honours.

The project relates to transformational inclusive practice that has been embedded by Dr Philips to achieve these outcomes, by creating a College wide ethos of inclusion, creating a specialist SEND student support model working in partnership with stakeholders e.g. local authorities/SEND organisations/employers and shared

with Schools/Colleges and Universities across the UK, with visitors from Europe, the Middle East and China also showing a keen interest in his work.

For Dr Phillips to achieve his vision of outstanding student support for SEND learners, (and engage a whole College approach), he knew he had to place inclusive practice at the heart of the College's strategic plan.

He did this by:

Changing culture — e.g. by immediately moving the SEND faculty to the heart of the College next to his office giving a clear signal to staff and governors that inclusive practice would be his priority.

Investment in specialist staff/CPD. In 2007 Dr Phillips, spearheaded the College's Foundation Degree (FdA) in Inclusive Practice, so the College could 'grow its own' inclusive practice experts, to sustain an innovative 'person-centred' SEND student support model, delivered using highly trained in-house lead

practitioners. This created staff degree specialisms in autism/Asperger's/specific learning difficulties (SpLD)/social, emotional and mental health/deaf and/or hard of hearing/behavior for learning/ADHD/visual impairment /speech and language/dyslexia and profound and complex learning difficulties (PCLD).

Leadership and partnership with inclusivity at the core of the College's leadership board, innovative SEND projects have been able be advanced quickly e.g. Creating the UK's first FE based specialist residential training centre for students with autism (£1.5m) Weston Bay and creating a dedicated Sensory Learning Base for high need SEND students (£1m) — both in partnership with local commissioners.

Extending in house expertise to create a positive culture mental health & wellbeing for students/staff. Through investment in a lead specialist mental health practitioner together with enhanced CPD e.g. mental health first aid training (182 staff trained) and the creation of a 'Body and Mind' framework for sustainment.

RESULTS AND ACCOMPLISHMENTS

Creating an outstanding person-centred teaching and learning model for SEND students.

This has been achieved through strong leadership from Dr Phillips, delivered by highly skilled practitioners in state-of-the-art facilities for example specialist autism training facilities and specialist high needs training facilities. The model has been sustained with further investment in CPD. To date 77 staff have taken the College created (FdA) in Inclusive Practice qualification. In 2012, this CPD was honoured with an Association of College's (AoC) Beacon Award, with the College winning another Beacon Award (2017) for the College's specialist autism provision.

Improved outcomes for SEND students into employment

In 2018-19, Dr Phillips' strategy progressed 32% of its SEND students into paid employment, with over 300 employers engaged to bridge the 'inclusive' skills gap with high quality SEND employability, apprenticeship and degree pathways being created - all designed to sustain an inclusive/diverse workforce.

Sharing best practice and creating a positive culture of mental health

All of the above work led to Dr Phillips being awarded the highest UK education award, the Queen's Anniversary Prize for his strategic inclusive practice work, which has been shared with over 100 College's with the College being 1 of 3 National SEND Centres of Excellence. Through Dr Phillips' innovative 'Body and Mind framework, (which won an AoC Beacon in 2018/2019), the College's welfare support team engaged with 4,447 students with wellbeing initiatives with 92% of students stating that the mental health support model has helped them stay at College and achieve.



INTERNATIONAL VALUE

The development by Dr Phillips of the College's dedicated autism training centre Weston Bay (the first linked to general FE in the country), has been welcomed by students, parents and professionals both

regionally and nationally as best practice to unlock undiscovered potential for students with autism. This has high application internationally. According to National Autistic Society, just 15% of those with autism



have full-time jobs, whereas 35% of students with autism progress into paid employment within Weston Bay. The (FdA) in Inclusive Practice CPD model created by Dr Phillips also offers standardisation across the world.

Equally, in a bid to tackle the mental health crisis, and using the well documented link between increased physical activity and improved health & wellbeing, Dr Phillips has also ensured a strong programme of inclusive well-being activities. across the College through 'Body and Mind' with 1534 students/staff benefiting from regular 'Have a Go' sports, healthy eating and wellbeing sessions (e.g. Make-up advice, mindfulness), tackling a range of issues from low self-esteem, confidence building, friendship circles, smoking cessation etc. - designed to build peer networks and increase resilience for 21st Century life.

WORDS OF WISDOM

Quote from Dr Paul Phillips CBE:

'When I arrived at the College (2001), which was under performing and in poor financial health, it wasn't easy to convince governors/staff of my vision to put SEND learners at the heart of the strategic plan. However, I was formidable in my approach, as I believe that if you get teaching right for this group of learners, then you get it right for everyone. In my opinion outstanding teaching and learning is all about a 'personal individualised' approach and the best practice developed for SEND learners has gone benefit all our learners. Because the model is all about overcoming personal barriers to learning using staff - success highly trained rates across all College areas have been exceptionally high. This has allowed to win a significant us contracts e.g. NEET/Apprenticeships/Prison Education turnover from £9m (2001) - £67m growing the today (including the creation of University Centre Weston (TEF Gold) with 1000+ HE students.'

NEXT STEPS

Dr Phillips has been able to sustain the sharing of best practice through being a UK National SEND Centre of Excellence lead, and with SEND students being six times more likely to present with a mental health difficulty (Emerson and Hatton, 2007), Dr Phillips has further invested in mental health practitioners to focus on the mental, social and emotional needs of both students and staff – together with embedding Body and Mind activities across all college courses.

Technology continues to be used to great effect (as a Microsoft Showcase College) with Dr Phillips creating sustainable partnerships e.g. Big White Wall - enabling students and staff to access support 24/7 to discuss mental health safely and anonymously. The goal for the future is to offer virtual SEND/mental health/wellbeing support to students across the UK, using the College's highly trained practitioners. This vision took a step closer during COVID19, with the creation of #MyVirtualCollege which seamlessly switched over timetables within 7 days to lockdown, with virtual support inbuilt to ensure outstanding interactive remote teaching model - using Microsoft Teams with impressive lockdown attendance at 96%.

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BRONZE [TIE]: STUDENT SUPPORT SERVICES

PROJECT: "SUNSHINE PROJECT"— HELP STUDENTS GROW INTO TALENTS

AWARD RECIPIENT: TOURISM COLLEGE OF ZHEJIANG

COUNTRY: CHINA

INTRODUCTION

Established in 1983, Tourism College of Zhejiang (TCZJ) is a public college of higher tourism education under the administration of Zhejiang Provincial Department of Culture and

Tourism, and jointly supported by the Ministry of Culture and Tourism of the People's Republic of China and the People's Government of Zhejiang Province. Located in the historical and cultural city of Hangzhou, a well-renowned tourist spot where G20 Summit was held, TCZJ currently offers 27 tourism-related majors with more than 14,000 full-time students and nearly 600 faculty members. What's more, it was the first college passing TedQual by UNWTO nationwide.



AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

TCZJ attaches great importance to the integration of industry culture, corporate culture and campus culture, cultivating students' professional qualities and humanities. "Sunshine Project", a core initiative designed to foster a high-quality campus culture of TCZJ, is an important carrier for the cultivation of high-quality talents.

Since its launch in 2009, through continuous enrichment, improvement, and innovation, "Sunshine Project" has established a goal oriented toward professional literacy, humanities, and physical and mental accomplishment for ten years, with a view to the

student training approach based on "Sunshine & Coordinate," Sunshine & Deed," "Sunshine & Service," "Sunshine & Inspiration," "Sunshine & Sailing," and "Sunshine & Moral" as six of the systematic frameworks.

"Coordinate" is to help students understand majors, know themselves, and find their positioning; "Deed" is a comprehensive quality program set by the school for positive students; "Service" means a one-stop service that is ubiquitous and meticulous in TCZJ; "Inspiration" is a variety of funding provided by TCZJ to students with financial difficulties to help and encourage each student to successfully complete their studies; "Sailing" means entrepreneurship and employment services provided by

TCZJ and our society; "Moral" is the core highlight of the six frameworks.

The core evaluation in this system is the annual selection of three major awards: "Star Class," "Star Dormitory" and "Sunshine Pacesetter." It has become a grand event for students to show their personal talents and team spirits.

"Star Class" can be listed as the most measured and spotlighted one in the "Sunshine Project" series of selection procession, in which more than 200 classes of the whole school compete for 10 places. The set-up of a "Star Dormitory" is conducive to further standardizing students' code of conduct, cultivating students' good living abilities, creating a comfortable, clean, and lovely living space, training students' good communication skills, mutual awareness and mutual love with the buildup of harmonious interpersonal relationships. "Sunshine Pacesetter" mainly evaluates students' excellent performance in curriculum learning, skills competition, innovation and entrepreneurship, etc.

Overall, the "Sunshine Project", in which students' comprehensive quality and employment quality have been greatly improved, has become popular among students with its role of being a vital carrier in students' management services, such as volunteering service in G20 Hangzhou Summit, and World Internet Conference.

Moreover, every year, the school provides students with high-quality internships and employment opportunities in Europe, North America, the Middle East, Hong Kong, Macao, and Taiwan, etc., and provides high-quality graduates for transnational enterprises.

RESULTS AND ACCOMPLISHMENTS

Through ten-year persistence of implementing the "Sunshine Project", students' humanistic literacy, vocational skills, innovation and entrepreneurship have been fully cultivated and improved, such as:

 students have won over 800 awards at varied competitions, including about 160 international and national awards in recent 5 years.

- TCZJ Entrepreneurship Center was awarded as Model Center in Zhejiang Province.
- the school sets up special funds of 1 million RMB annually to support students' employment and entrepreneurship and support over 10 students' innovative projects every year.
- 5% of fresh graduates choose to start their own businesses.
- various forms of job fairs, cooperated with government and enterprises, have been organized every year and 87% of graduates preferred tourism industry.



For many years, graduates' employment competitiveness, starting salaries, and employer satisfaction have been among the top, and evaluation of graduates' satisfaction to TCZJ also ranked top 5 in the province.

Actively carrying out the strategy of developing globally, committing to creating an international education environment, and comprehensively upgrading the internationalization level, TCZJ is among the first colleges with international features in Zhejiang Province, and also the first college qualified to recruit international students. So far, TCZJ has established linked cooperation with 48 overseas institutions and 85 leading tourism companies throughout the world.

According to the 2019 China Higher Vocational Education Ranking, TCZJ ranked highly among more than 1400 vocational colleges, and ranked No.1 among 24 tourism vocational colleges nationwide.



INTERNATIONAL VALUE

At present, TCZJ runs the Sino-Australian International Hotel Management School in Qiandao Lake Campus as a joint program as well as the Sino-Russian Tourism Institute in Moscow, and the Sino-Serbian Tourism College in Belgrade. Every year, over 10% of graduates have experiences of overseas study, research, hands-on training and internship, and exchanges. 85% of faculty members have the experience of studying, training and working abroad.

Moreover, TCZJ has been awarded the "Outstanding Education Top 50", "Social Service Top 50" among more than 1,400 higher vocational colleges across the country. Since its establishment in 1983, TCZJ has never stopped pursuing its international reputation and teaching excellence in managing the honorary Gold Brand of TCZJ. TCZJ turned out to be in the first place in internationalization level among all regional colleges in 2018, according to officially released assessment, and also has been selected as the national "International Influence Top 50" for consecutive 3 years since 2017.

WORDS OF WISDOM

A great leap from traditional mode of "students' "students" management" to service" indeed intrigues an idea innovation. We have to view the novel concept and process of "serving students" as a qualitative jump in students' work innovation. The core ideal of student services under the "Sunshine Project" genuinely guides education participants how to observe the true value of the service from another perspective. Each activity and link of the school's education with the teaching changes will bring out "moving" or "surprising" effects to the students involved through various activities under the existing conditions. It is a great honor to attend WFCP.

We would like to thank the committee for all the well-rounded arrangement, and cherish every moment for understanding and learning vocational education in different countries, especially the latest achievements and development in the field of higher vocational education. We hope all the attendees will make

continuous efforts to construct a higher platform for sharing information, exchanging experiences and professional discussion in near future.

NEXT STEPS

With the assistance of the platform offered by WFCP, we are looking forward to establishing connections with many of higher vocational colleges and learn from one another. We will continuously enhance the interinstitutional cooperation, stimulate vocational colleges' vitality and promote the international development of higher vocational education in China. Furthermore, we will enlarge the experiences exchange and international cooperation with more vocational institutions across different countries and regions, share and promote the best practice of vocational and technical stage, boosting the development of striding advance in vocational and technical education. The everlasting mission of "Sunshine Project" is to bring sunshine into the hearts of every student from TCZJ with being full of educational atmosphere.

As is well known, symbolic "Sunshine" is sincere, understanding, nice, smiling, healthy, intelligent, noble and efficient, representing a prospective vision of fostering young students at home and abroad with much care from TCZJ.

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BRONZE [TIE]: STUDENT SUPPORT SERVICES

PROJECT: "TRIPARTITE MENTORING + ALL-FOR-ONE" STUDENT SUPPORT SERVICE SYSTEM **AWARD RECIPIENT**: ZHENGZHOU RAILWAY VOCATIONAL AND TECHNICAL COLLEGE

COUNTRY: CHINA

INTRODUCTION

Since being founded in 1951, Zhengzhou Railway Vocational and Technical College is one of the leading institutions for railway vocational education in China. Over the years, in addition

to the college keeping up with rail transit technology development, notable results are also achieved in the areas of talent nurturing, social responsibility, scientific research, and international cooperation. It has respectively been ranked into the Top 50 Chinese vocational colleges in Teaching Management, Students Management and International Influence and has been figured into the Construction Plan of High-Level Vocational Colleges and Specialties with Chinese Characteristics in 2019, thus ushering in a new era of its development.

AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

With its "Tripartite Mentoring + All-for-One" student support service system, Zhengzhou Railway Vocational and Technical College has cultivated thousands of outstanding technical talents which entails the significant advancement in the railway industry of China and many other developing countries.



The "Tripartite Mentoring + All-for-One" student support system targets at strengthening the high-quality craftsmen team of China's railway industry. Since enrollment, every student would be paired up

with a growth mentor, an academic mentor and a business mentor who will provide them with guidance on "ethics, knowledge, technology" and helping them achieve sound development in all aspects.

During the freshman basic education, a growth mentor is designated to each class to nurture students in areas of values, morality, psychological and life counseling, and also their sense of collective pride and patriotism, so as to instill in them a thoughtful, life-loving and virtuous character.

On the second-year professional learning stage, esteemed teachers or scientific researchers in the department will take up the responsibility of providing personalized guidance in professional studies, interest development, technical skill nurturing, innovation & entrepreneurship training, career planning, etc.

During the third-year internship, technical experts from the college's cooperative enterprises are roped in to mentor students' professional education and occupational ethics education, on a "masterapprentice" relationship whereby students can learn the practicalities of enterprise management system, work procedures and safety regulations in the line of



work and thereby rapidly enhance their social adaptability and employment competitiveness.

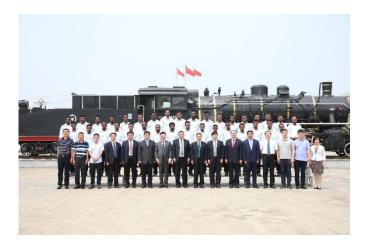
At the same time, the college is committed to building a multidimensional and comprehensive student support service system with its state of the art teaching facilities, unique campus culture, myriad community and international exchange activities entailing solid fundamentals for the cultivation of international high-quality rail transit talents.

It has invested heavily into the construction of modern rail transit comprehensive training bases and has created a vibrant campus learning environment of the hardware facilities and software platforms integration.

It has created an immersive railway culture theme campus, which empowers students with spiritual consciousness and initiatives.

It has strongly advocated students to develop and participate in various associations, and supporting them with funding, venues, publicity and technical guidance.

It has established close cooperative relations with more than 30 foreign institutions and provides students with opportunities of cross-border and international exchanges in order to broaden students' horizons and improve their international competitiveness.



RESULTS AND ACCOMPLISHMENTS

"Tripartite Mentoring + All-for-One" student support service system covers the whole process of students' growth and benefits them for life. With the foundation laid in school, a large number of its graduates quickly grow into technical elites and backbone in enterprises. According to the report provided by Mycos in 2018, the employment satisfaction and employer's satisfaction of our graduates are both higher than similar model vocational colleges in China. It is shown on the Honors List of "2017 TOP100 Monthly Pay for Graduates of Higher Vocational Colleges" that the average monthly salary of our graduates was 4320 Yuan, ranking 27th in China and 1st in Henan Province.

In addition, this powerful system has also further enhanced the reputation and popularity of the college. The admission score of the college has been ranked first among vocational colleges in Henan Province for years. Since 2018, the "Post-graduate Class" has been held for three consecutive years to recruit undergraduates to receive their technical skills education. The college has been elected as a member of the Chairman Committee of the National Association of Presidents of Higher Vocational Colleges, the standing Director of the fifth Council of China Vocational and Technical Education Association, the vice chairman and secretary general of The International Association of Eurasian Transport Universities, and the vice chairman of Sino-Russia Transportation University Alliance.

INTERNATIONAL VALUE

Relying on the mature and effective school-enterprise collaborative education mechanism, the "Tripartite Mentoring + All-for-One" student support service system has outstanding advantages in promoting the overall development of students in terms of their cross-border mobility, and achievement of gainful employment. On this basis, our school actively shares its talent training model and student service system through its international cooperation with the aim of promoting the inclusive development of vocational education and the advancement of international



transportation. Since 2016, the college has successively undertaken the technician training for the Nairobi-Mombasa Railway, Saudi Mecca Light Rail, Ethiopia-Diibouti Railway and China-Laos and had conducted high-speed railway training for Russian and Thai teachers. For countries along the "One belt and One Road ", the college has built 2 branch faculties, 2 teaching centers, 1 training base, and has trained 440 local students and teachers, thus lending its knowledge and support to build a community with a shared future for mankind.

WORDS OF WISDOM

As a classification of academic pursuit, vocational into education is deeply rooted modern industrial training. Similarly, the talent training model and student support service system of vocational education are also inseparable from the practices of modern industry. With the principles of industryeducation integration and dual education, vocational colleges and enterprises have jointly established a technical skills talent training system and student support service system, which has promoted the allround integration of resources, personnel, technology, management, and culture of both sides, and has also further improved the overall operating efficiency of related industries and engendering promotion of the high-quality development of the entire economic ecology.

NEXT STEPS

The fourth industrial revolution is currently being vigorously panned out. The combination of 5G and artificial intelligence technology coupled with traditional rail transit technology will unprecedented evolution in human transportations, as well as new challenges to rail transit vocational education. In 2019, the "High-speed Train Intelligent Operation and Maintenance Team" of Zhengzhou Railway Vocational and Technical College is esteemed as the first batch of national-level vocational teaching innovation team by the Ministry of Education in China. On this achievement,

the college will henceforth actively pursue the application of cutting-edge technology into professional education and the innovative talent training model, so as to better equip our students for the transportation of the future.

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