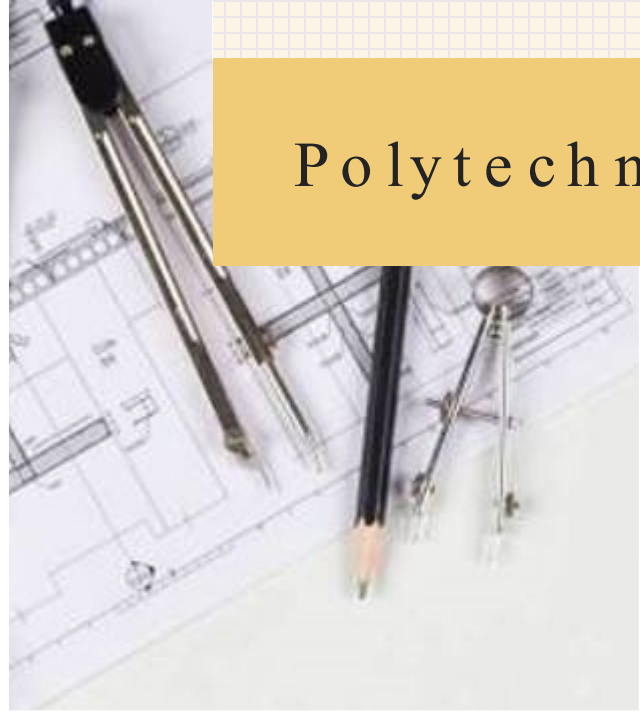




Building Excellence in Teaching for Diploma faculty members

B. SHADRACH,
DIRECTOR, CEMCA



Polytechnics in India

- 1916 onwards or even earlier
- Many in numbers (4500?)
- Traditional courses
- Benefits: Job-ready, lesser cost, lesser time, industry exposure
- Challenges: Technology, infrastructure, industry connect, faculty and curriculum, attracting students



British Columbia Institute of Technology (BCIT)



With over 47,000 students enrolled annually, BCIT is one of British Columbia's largest post-secondary institutions. Their goal is to be integral to the economic, social, and environmental prosperity of British Columbia through its applied education model of student learning.

Some specific examples of international value include establishment of a Canadian national center for smartgrid research to deal with the significant challenges of the worlds aging utilities infrastructure (BCIT Smart Microgrid). This research program included participation from global manufacturers and now the findings are benefiting any islanded or remote locations with power sustainability needs. This includes Institutes of higher education in China, Brazil, the Netherlands, Germany, Saudi Arabia, Turkey and the USA.

Another example is the progressive approach that BCIT's Natural Health & Food Products Research Group has made in the identification of fraudulent health and food products.

Vancouver Canada, like many other cities in the world can experience excessive rainy weather. BCIT has developed a program of research around construction quality to prevent leaky condos. These best practices are now in the process of implementation in the USA, France, Japan, Germany, Belgium, and the Netherlands.

Shaanxi Polytechnic Institute

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.

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.

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.



Nanjing Institute of Industry Technology (NIIT)



boosts the implementation of the national strategy of mass entrepreneurship and innovation. NIIT actively supports its teachers to carry out site application technology research and development;

promotes teachers and students to participate in innovation and entrepreneurship; serves regional economic development, industrial restructuring, upgrading through scientific and technological innovation; and constructing of provincial high-end government college-industry- research.

In the past 5 years, students of NIIT won 104 first prizes in the National Innovation and Entrepreneurship Competition, obtained 366 patents, and had more than 200 autonomous student innovation teams and R&D projects annually. The number of approved invention patents and utility model patents are taking a leading role in similar institutions in China

Of the 600 students winning national and provincial recognition, 65% of them have patents, or innovation and entrepreneurship competition awards above the provincial level.

Tknika, the Basque VET Applied Research Centre

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

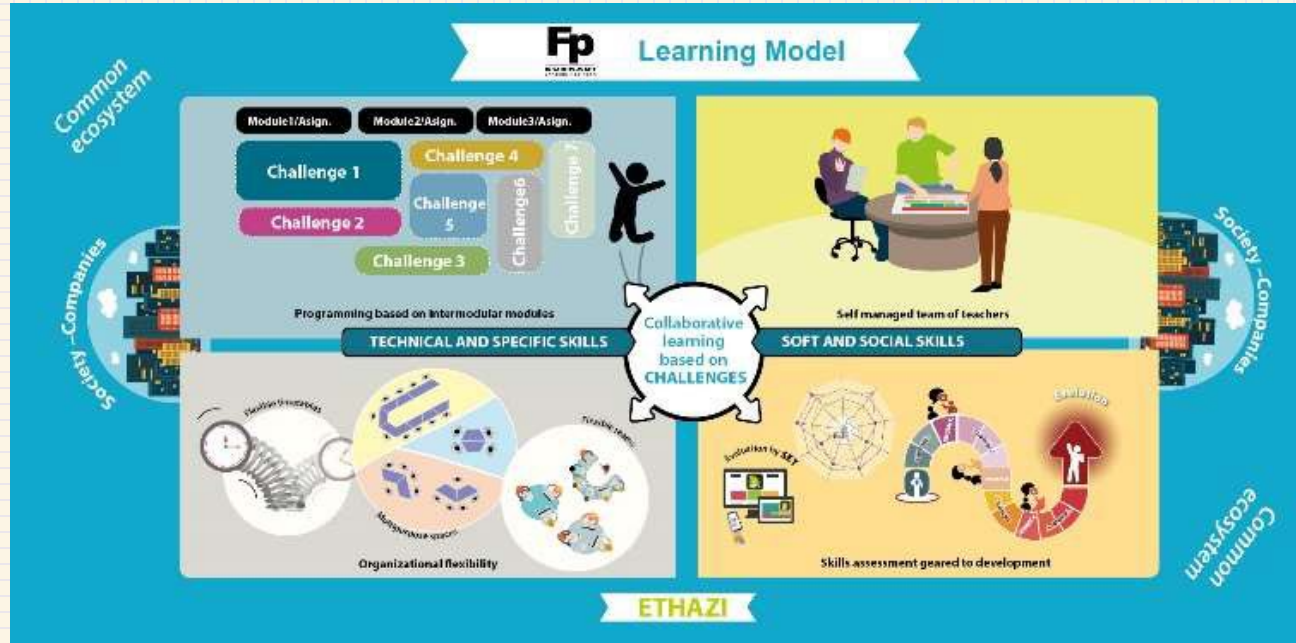
It is intermodular: The design of challenges is as close as possible to the situations of performance in the work reality of each training cycle. Thus, the lectures given per subject by a specific teacher disappear. The timetables, as are traditionally known, are disrupted and organised per challenge;

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;

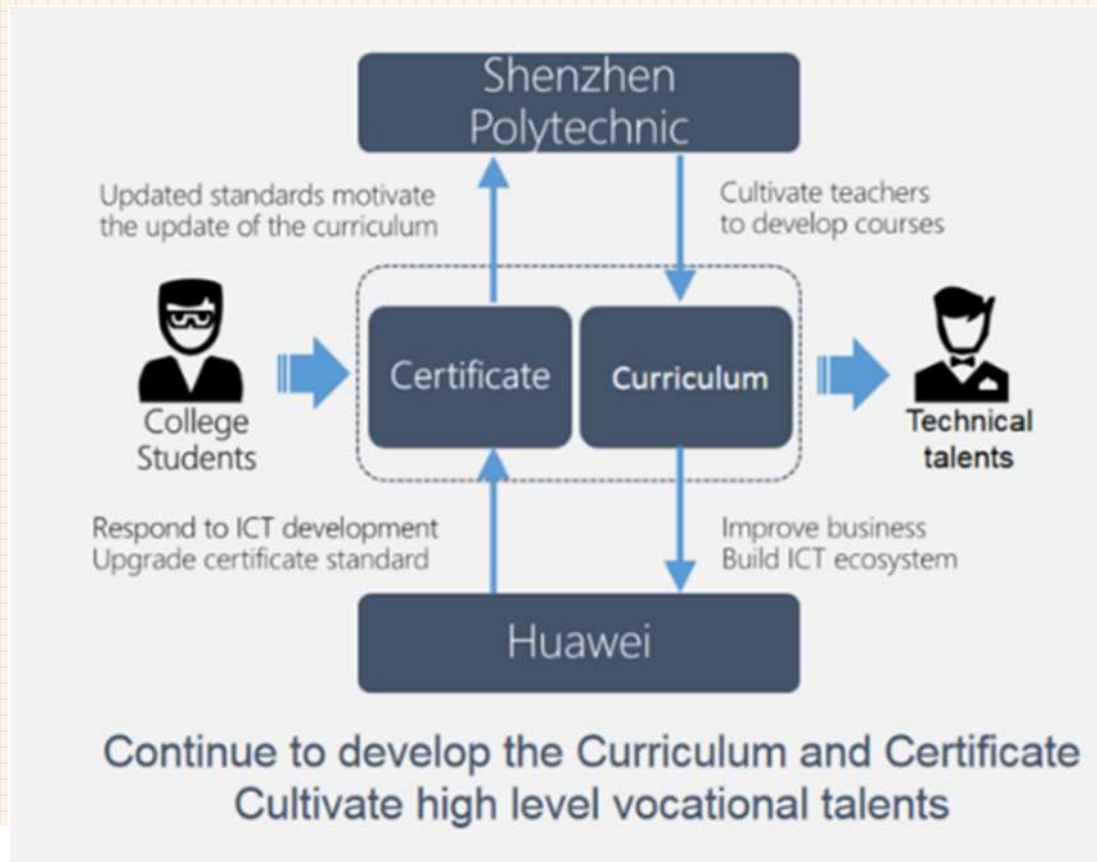
It includes evaluation to evolve in competency development: The evaluation is integrated as a key element in the students' own learning process, providing frequent feedback on their evolution;

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.

Tknika, the Basque VET Applied Research Centre



Shenzhen Polytechnic



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.

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.

Priorities of Polytechnics around the world

- **Teaching, learning and student success in Polytechnics**
 - Orientation towards students' success
 - Inclusive campus spaces
 - Promoting physical and mental health
 - Use of technologies to strengthen support services
 - Innovative teaching and learning practices
 - Assessment methods
 - Learning beyond classroom setting
 - Virtual and blended learning
 - World of AI and other IR 4.0 related developments
 - Work-integrated learning
- **Polytechnics and Industrial partnerships**
 - Response to labour market
 - Assistance to building sustainable economies at local and national levels
 - Role of polytechnics in economic recovery
 - Response and stimuli to new and emerging markets
 - Strengthening of communities
 - Help businesses to innovate through strategic partnerships
- **Safety, security and well-being**
 - Protecting communities from challenges and threats
 - Cyber awareness and safety
- **Transformative leadership and governance in Polytechnics**
 - Autonomy
 - Transparency
 - Change management
 - Community development
- **Polytechnics and SDGs**
 - Curriculum development
 - Greening and smart campuses
 - Net zero carbon future
 - Digitalisation
 - Solution-oriented applied learning
- **Equity, diversion and inclusion**
- **The list could go on**

Summary

Teachers are important





Thank you

PRESENTER NAME | EMAIL ADDRESS | WEBSITE