

# Improving Vocational Training Outcomes

Sustainable Industry Engagement  
Practices

An International Specialised Skills Institute Fellowship

**SAMEER MATHUR**

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# 1. Acknowledgements

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## Awarding Body – International Specialised Skills Institute (ISS Institute)

The ISS Institute plays a pivotal role in creating value and opportunity, encouraging new thinking and early adoption of ideas and practice by investing in individuals.

The overarching aim of the ISS Institute is to support the development of a 'Better Skilled Australia'. The Institute does this via the provision of Fellowships that provide the opportunity for Australians to undertake international skills development and applied research that will have a positive impact on Australian industry and the broader community.

The International Specialised Skills Institute was founded 29 years ago, by a small group of innovators including Sir James Gobbo AC, CVO, QC, and former Governor of Victoria, who had a vision of building a community of industry specialists who would lead the up-skilling of the Australian workforce. The Fellowship program builds shared learning, leadership and innovation across the broad range of industry sectors worked with. Fellows are supported to disseminate learning's and ideas, facilitate change and advocate for best practice through the sharing of their Fellowship learnings with peers, colleagues, government, industry and community. Since its establishment, ISS Institute has supported over 450 Fellows to undertake skill and knowledge enhancement across a wide range of sectors which has led to positive change, the adoption of best practice approaches and new ways of working in Australia.

The Fellowship programs are led by our partners and designed in a manner which ensures that the needs and goals desired by the partners are achieved. ISS Institute works closely to develop a Fellowship program that meets key industry priorities, thus ensuring that the investment made will have lasting impact.

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The Victorian Government, through Higher Education and Skills (HES) of the Department of Education and Training, is responsible for the administration and coordination of programs for the provision of training and further education, adult education and employment services in Victoria and is a valued sponsor of the ISS Institute. The Fellow would like to thank them for providing funding for this Fellowship.

## 1.2 Professional acknowledgements

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- » Dr. Atul Kumar Mathur
- » Anand Mathur

## 2. Executive Summary

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The Australian economy has experienced almost three decades of uninterrupted growth and during this time technological advancements, shifting demographics and increased pressure from overseas competitors have made the Australian labour market more service-based. Hence, the ability to train Victorians quickly and effectively, and then re-train them when technology and circumstances change, is crucial to ensure that every Victorian can participate in a strong and growing Australian economy throughout their working lives.

The vocational education sector in Australia is best known as the sector which trains people for jobs; however, recent reviews of Vocational Education and Training sector have revealed continuing variations in training quality between providers resulting in a much lower number of students aspiring for VET careers in the recent past. Employers have also reported low confidence in VET qualifications.

Lack of meaningful industry engagement to inform Vocational Training practices have been identified as one of the major reasons for diminishing confidence of VET stakeholders. Vocational training and assessment practices without meaningful industry engagement and work integrated learning are often far from reality and may result in issuing AQF qualifications to individuals who do not possess skills and knowledge to meet industry requirements. Risks associated with such practices have far reaching impact on work health safety due to lack of industry skills, business productivity and economic growth. This is one of the major reasons why skill shortages are long-standing for many occupations in business & community services sectors for most of the last decade.

The focus of this Fellowship was to identify and research meaningful and sustainable Industry Engagement Models (IEM) Globally in the Vocational Education and Training sector. The applied research work also focused on identifying best practice vocational training models that are most effective in improving the quality of training and learning outcomes especially in business, management and community services qualifications.

The Fellowship was conducted across the months of September and October 2019. Research methodology included a range of activities to identify & investigate sustainable Industry Engagement Models. The Fellow visited four countries: (UAE, Switzerland, Germany and Sweden) over a period of 6 weeks and met several influential VET professionals, subject matter experts, research scholars and VET graduates during the visit to understand the best practices and strategies to improve vocational training outcomes through meaningful industry engagement practices.

The Fellow engaged in face-to-face and online interviews with influential VET stakeholders backed by site visits and online research. Additionally, the Fellow drew on his extensive compliance auditing, quality assurance and training experience in the VET sector over the past decade which included time spent conducting Compliance Audits on training providers and conducting reviews of assessment instruments in consultation with the employers. Vast industry experience allowed the Fellow to leverage his professional network and establish new connections all along the research work and beyond.

To maintain a clear focus during the Fellowship visits, discussions held with key stakeholders were targeted around the following parameters:

- » Focus of current Vocational Education and Training practices and expected learning outcomes
  - to understand articulation between vocational training and industry skill shortages;
- » Key strengths and opportunities
  - to identify strategies that work best to attain desired learning objectives;
- » Industry engagement strategies
  - to research and investigate industry engagement models;
- » Role of industry in Vocational Education and Training
  - to understand collaborative learning arrangements between employers and vocational learners;
- » Training and assessment methodologies as informed by industry
  - to learn about innovative training methodologies targeted to educate learners on specific industry requirements;
- » Quality initiatives to ensure regulatory compliance
  - to benchmark best practice regulatory compliance strategies;
- » Curriculum development and design strategies
  - to understand and research pedagogy around most effective vocational training strategies;
- » Expected VET outcomes and continuous improvement strategies
  - to benchmark best practice quality assurance models in vocational training design and development.

Some key learnings became evident throughout the Fellowship including obvious differences in the VET industry engagement models based on labor market needs and socioeconomic infrastructure of a country. There were also striking similarities noticed that clearly pointed towards commitment to create an effective and sustainable vocational training infrastructure that builds a stronger future ready workforce and contributes significantly to the economic growth.

The best practice Vocational Training models in Europe focus on:

- » a dual-training system which is a combination of theory and practical training embedded in a real-life work environment;
- » harmonisation between companies and vocational schools with strong involvement of companies / employers as training organisations;
- » vocational education and training led by the Industry rather than the training organisations. This arrangement is facilitated by a tripartite agreement between industry, government and training provider to address skill shortages and to build a skilled future-ready workforce;
- » develop capability assessment framework with continual professional training for VET trainers and assessors.

Essentially, this Fellowship report challenges the current focus of Australian vocational training practices that only attract about 20 percent of learners to formal apprenticeships and traineeships. The remaining learners undertake institutional VET qualifications where training may not include any significant real-life work experience.

The Fellowship has had a significant personal and professional impact on the Fellow. Travelling internationally, meeting influential VET stakeholders, visiting state of the art VET campuses, conducting interviews and participation in strategic meetings have significantly enhanced Fellow's professional insight into vocational training design and development.

The Fellowship experience has instilled compassion, enthusiasm and determination in the Fellow to engage in meaningful industry partnerships and focus on creating 'Work Integrated Learning' opportunities for VET learners, raising the profile of real-life work experiences the most crucial element of vocational training that is too often overlooked and downplayed.

The Fellow is extremely positive and excited about the potential sectoral impact of the Fellowship in the VET space (for educators, employers, practitioners and students) in the area of training design, training delivery and skills assessment.

The recommendations listed below aim to trigger a wave of positive change in current vocational training practices especially in the way business, management and community services VET qualifications are structured and delivered. The Fellowship also calls for a microscopic review of the 'role of Industry' in vocational training and the extent to which the training providers engage with industry to design, develop, deliver and assess vocational qualifications.

In summary, key recommendations and considerations of the Fellowship include:

- » **Facilitating an active engagement** between training providers (RTO's) and employers to create opportunities for Work Integrated Learning (WIL)
- » Every VET qualification, without exception, should have a **compulsory (WBT) component** with minimal reliance on simulated assessments
- » **Training providers should engage with employers** in their local area to develop customised training programs
- » Develop **'National Employability Skills Tests'** for skills in demand to allow VET graduates to prepare for jobs, self-assess their competencies and to identify further training needs
- » Develop **'National Competency Assessment Framework'** for VET trainers and assessors to train and assess their understanding of pedagogical learning and competency-based training on an ongoing basis
- » Setting up a compliance framework for **'licensing of VET trainers and assessors'** across Australia to address concerns around varying quality of training and assessment practices.

All the above listed recommendations and the Fellowship learnings have the potential to be directly applied and implemented through targeted initiatives of the Fellow's current client base. The Fellow has initiated a pilot WILP (Work Integrated Learning Program) for VET learners studying Business, Management & Leadership qualifications in partnership with local employers.

# 3. Fellowship Background

## 3.1 Fellowship context

This Fellowship was awarded through the International Specialised Skills Institute and funded by Higher Education Skills, Department of Education and Training (Victoria).

The focus of this Fellowship was to identify and research meaningful and sustainable Industry Engagement Models (IEM) globally in the Vocational Education and Training sector and to propose strategies moving forward to improve VET outcomes especially in business, management and community services qualifications.

As a part of Fellowship, the Fellow met key VET stakeholders in Germany. The ‘Dual Training System’ in European countries especially in Germany is highly regarded worldwide due to its combination of theory and practical training embedded in a real-life work environment. The basic idea being ‘duality’ with focus on integrating traditional classroom-based study with work-based practice through a well-structured and collaborative approach.

Apprenticeships in Germany are a culturally accepted component of the training framework. The practical component of study is so embedded in German education that many young people even opt for semi-vocational university courses.

Trainees in the dual system typically spend part of each week at a vocational school and the other part at a company, or they may spend longer periods at each place before alternating. Dual training usually lasts two to three-and-a-half years.

Currently in Victoria, VET enrolment numbers are decreasing, and employers are

reporting a decrease in satisfaction with training outcomes. Governments have collectively reduced funding down by up to 7 percent for vocational education after the turmoil of VET FEE-HELP and traineeships.

Out of 4.2 million Australians participating in vocational training each year, half of the learners are enrolled in short courses often for regulatory reasons. Around 43 percent are trained in vocational AQF qualifications out of which 80 percent are in institutional VET qualifications and only 20 percent in formal traineeships and apprenticeships.

The latest data from the National Apprentice and Trainee Collection, providing estimates of activity for apprentices and trainees in Victoria. The trend of commencement, cancellation and completion data for traineeships and apprenticeships over the past 12 months shows that:

1. Commencement is down 5.6% from June 2018
2. Completion rate is down by 3.1% from June 2018



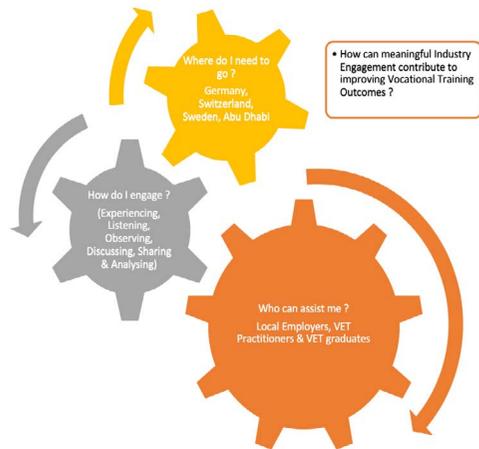
Figure 1: Apprentices and trainees 2019: June quarter – Victoria

### 3.2 Fellowship methodology

The challenge of this Fellowship was to connect with stakeholders in Europe who have a thorough understanding of the VET framework, training and assessment practices and relevant Industry experience specially in business and community services.

During initial research, the Fellow identified that the best outcomes would be achieved by visiting vocational colleges, meeting subject matter experts and employers. This led to the conclusion that the Fellow would visit leading VET institutes, interview VET practitioners, students and employers. The objective would be to develop a meaningful and sustainable professional network that the Fellow could consult with to bring about transformational change in current VET practices in Australia.

It was important not to become closely associated or aligned with one group of stakeholders as this may narrow the Fellowship outcomes and may impose a risk of the research becoming skewed or led by a stakeholder attribute.



The Fellow visited Europe and met several influential VET professionals, subject matter experts, research scholars and VET graduates. Fellowship methodology included:

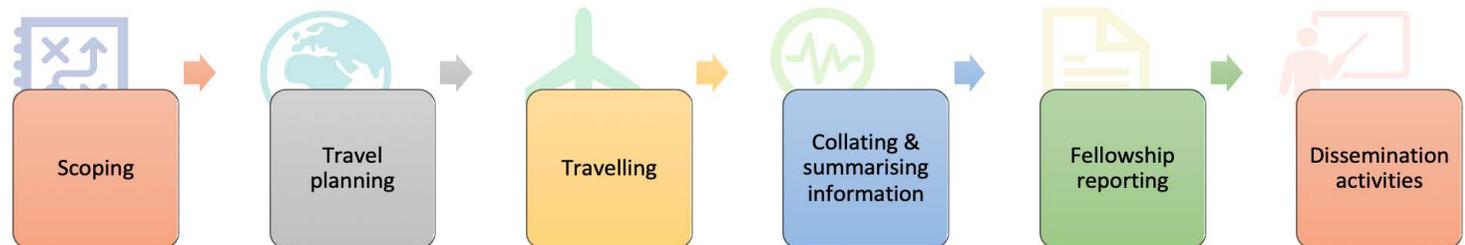


Figure 2: Fellowship methodology

Figure 3: Fellowship period based on activities performed during each stage

- » online research
- » face to face meetings
- » interviews
- » telephonic conversations
- » visiting vocational training institutes
- » engaging in impromptu discussions with a wide range of professionals in one-on-one and group settings
- » distributing questionnaire to students, employers and VET professionals

In addition to the above Fellowship methodology, the Fellow drew on his extensive compliance auditing, quality assurance and training experience in the VET sector over the past decade which included time spent conducting compliance audits on training providers and conducting reviews of assessment instruments in consultation with the employers. Vast industry experience allowed the Fellow to leverage his professional network and establish new connections all along the Fellowship journey.

### 3.3 Fellowship period

The Fellowship was awarded in July 2019 following which the Fellow immediately engaged in research work and engagement activities. The focus was to define the scope of research work considering Fellowship agenda, identify key stakeholders who can provide critical information on the subject, identify methods to engage with stakeholders and lastly, to devise an efficient travel itinerary.

The Fellowship journey can be broadly divided into 6 stages considering activities undertaken during each stage.

**Stage 1:** scoping involved identifying key stakeholders whom the Fellow would like to meet, establishing where to go and defining the research approach and objectives.

**Stage 2:** travel planning revolved around preparing the most effective itineraries, booking rail and air tickets, hotel stays and organising forex.

**Stage 3:** travelling was one of the major highlights. The Fellow travelled across Europe via UAE all the way up to Sweden and Copenhagen to meet key stakeholders, visit training campuses and conduct interviews.

**Stage 4:** collating & summarising information was the most challenging phase of the Fellowship as it involved an in-depth analysis of all qualitative and quantitative data to determine validity, sufficiency and reliability.

**Stage 5:** Fellowship reporting involved writing an initial draft report and working with the ISSI team to finalise the Fellowship report.

**Stage 6:** dissemination activities form an integral part of this Fellowship and have been planned by the Fellow to ensure the outcomes are effectively communicated to the VET stakeholders in Australia.

## 3.4 Fellow biography

### Summary

With special interest in risk management, compliance, governance and training, the Fellow, Sameer Mathur, has over 20 years of work experience in the corporate sector both nationally and internationally.

With a Bachelor of Pharmacy and Post Grad Qualification in Business Management, Sameer has worked in the pharmaceutical, clinical research and telecom sectors prior to migrating permanently to Australia. This wealth of experience gave Sameer an opportunity to develop and practice skills to manage teams, design strategic business models, set up quality management systems and create strategies to

manage transformational change.

For the past 12 years, the Fellow, has been in the VET sector with a very successful track record of setting up registered training organisations, compliance auditing, training the trainers and developing strategic business solutions in consultation with the local employers.

The Fellow currently works as a VQF Compliance Auditor in the VET Sector for private RTOs in Victoria. The Fellow is engaged with local employers, regulatory bodies and students on a regular basis to discuss and develop solutions to effectively manage challenges in the VET space. With a strong business insight and thorough understanding of VQF, the Fellow aims to develop skills testing centres and piloting Employability Skills Training, (EST) in consultation with local employers in the near future.

In 2016, the Fellow started his own business offering GRMC products and services to RTOs in Australia. The business has gained significant ground and is well known for top quality business management solutions. professional development training, industry guided competency assessments, compliance auditing and risk assessment are some of the products and services offered by the Fellow's business.

The Fellow has developed several meaningful local connections in Melbourne and regional Victoria that will help to share and apply knowledge gathered from the Fellowship.

The Fellow is an associate member of the Institute of Internal Auditors, Australia (IIA-Australia) which has a network of nearly 7,000 professionals inclusive of 3,000 members Australia-wide.

### Education and professional qualifications

- » Bachelor of Pharmacy, HKES College of Pharmacy, Gulbarga, India
- » Grad Diploma of Business Administration, AIMA, New Delhi, India
- » Advanced Diploma of Leadership and Management, FM Edge, Geelong
- » Diploma of Quality Auditing, Management Institute of Australia, Melbourne
- » Certificate IV in Training and Assessment, HBA Learning Centre, Melbourne

### 3.5 Abbreviations / Acronyms / Definitions

<b>VET</b>	Vocational Education and Training
<b>RTO</b>	Registered Training Organisation
<b>AQF</b>	Australian Qualifications Framework
<b>ASQA</b>	Australian Skills Quality Authority
<b>COAG</b>	Council of Australian Governments
<b>ISC</b>	Industry Skills Council
<b>WIL</b>	Work Integrated Learning
<b>SIEM</b>	Sustainable Industry Engagement Model
<b>ACTVET</b>	Abu Dhabi Centre for Technical and Vocational Education and Training
<b>SFIVET</b>	Swiss Federal Institute for Vocational Education and Training
<b>BIBB</b>	Federal Institute for Vocational Education and Training
<b>BSB</b>	Business Services Training Package
<b>CHC</b>	Community Services Training Package
<b>TAFE</b>	Technical and Further Education
<b>EST</b>	Employability Skills Test
<b>PET</b>	Professional Education and Training
<b>SERI</b>	Secretariat for Education, Research and Innovation
<b>VPET</b>	Vocational and Professional Education and Training

**VETAC** Vocational Education and Training Awards Council

**NQA** National Qualifications Authority

**IAT** Institute of Applied Technology

**ADVETI** Abu Dhabi Vocational Education and Training Institute

**GRMC** Governance, Risk Management and Compliance

**WBT** Work Based Training

**ASBA** Australian School-based Apprenticeship

**Kangan Committee report** This landmark report of the Australian Committee on Technical and Further Education (ACOTAFE) chaired by Myer Kangan, published in 1974, examined needs and priorities in technical and further education and made a series of recommendations particularly in relation to funding. The report recognised the importance of technical and further education as an integral part of the nation's education system and saw its primary role as the development of the individual rather than the development of skilled manpower.

The full title of this report is [TAFE in Australia: report on needs in technical and further education](#).

# 4. Fellowship learnings

## 4.1 Introduction and overview

The Fellowship focused on the Department of Education and Training (Victoria) priority area 1, developing quality training with deep and meaningful connections to emerging or ongoing industry needs, with an objective to ensure that Vocational Education and Training leads to real jobs that benefit the economy.

The Fellow started with a thorough review of Australian VET Quality Framework. This involved:

- » review of NCVET research reports and publications
- » ASQA strategic review reports, presentations, general directions and regulatory strategy
- » discussions with key stakeholders (i.e. RTO CEO's, training managers, compliance managers, curriculum developers, trainers and assessors, students & employers).

The findings from initial research were collated and carefully analysed. Lack of meaningful industry engagement to inform Vocational Training practices emerged as one of the major concerns contributing to diminishing confidence of VET stakeholders. Vocational training and assessment practices without meaningful industry engagement and work integrated learning are often far from reality and may result in issuing AQF qualifications to individuals who do not possess skills and knowledge to meet industry requirements.

Above all, the disconnect between the employer and training provider was evident following the interviews conducted in the initial phase of the Fellowship.

Vast industry experience allowed the Fellow to leverage his professional network and establish new connections with key stakeholders in Europe, UAE and Schengen countries.

Key learnings from this Fellowship that stood out included obvious differences

in the VET industry engagement models based on the labor market needs and socioeconomic infrastructure of a country. There were also striking similarities clearly pointing towards a growing need to create sustainable vocational training infrastructure with the focus being on building a stronger future ready workforce.

Fellowship findings with several significant learnings are presented in this report under the following headings:

- » Australian labour market – growing needs
- » VET in Australia – a short history
- » key parts of the VET architecture
- » current state of Australian VET System – Key concerns
- » Fellowship focus – “Real Experience for Real Jobs”
- » Dual-Training System - Harmonisation between companies and vocational schools
  - » (Hamburg, Germany)
  - » key learning
- » The Swiss VPET System – one mission three partners, (Renens, Switzerland)
  - » key learnings
  - » industry led training at IHM, Sweden – learning by doing
    - » (Malmo, Sweden)
    - » key learnings
- » ACTVET, Abu Dhabi – creating attractive employment opportunities for skilled workers
  - » Syscoms College, Abu Dhabi, job focused curriculum design and development
    - » key learnings:
    - » summary of findings
    - » proposed ‘Sustainable Industry Engagement Model’ (SIEM) SIEM model

The Fellow is grateful to the ISS Institute for offering this unique learning opportunity and considers the Fellowship as an impetus to stretch above and beyond self imposed expectations both personally and professionally.

## 4.2 Australian labour market – growing needs

The labour market challenge - with over three decades of uninterrupted growth, the Australian economy has seen some significant changes. Shifting demographics, technological advancements and increased pressure from overseas-based competitors have shaped the labour market composition, including an ongoing structural shift away from employment in primary production and manufacturing towards a more service-based labour market creating both challenges and opportunities simultaneously.

Alongside the shift towards services, there has been a steady shift towards higher skilled occupations.

Organisation for Economic Co-operation and Development (OECD) estimates that in coming decades approximately 14 percent of current jobs are at high risk of automation, while another 32 per cent are likely to be affected by significant modifications, changing how jobs are carried out.

Non-routine, cognitive jobs, involving an emphasis on non-technical skills, are likely to be the most resilient in the face of automation. The World Economic Forum has highlighted the importance of non-technical skills such as creative thinking, originality, initiative, analytical thinking, innovation and complex problem solving in Australia's future skills needs.

While the changes to work and 'new skills' attract many of the headlines, there are industry-specific jobs that are currently in high demand and will remain so in the future. The government agenda of new infrastructure projects will require increased numbers of skilled construction workers, the increased digitisation of the economy will require more people with Information and Communication Technology (ICT) skills, and our ageing population will need personal carers with

appropriate skills. Technology changes will affect how we work in most industries, but the purpose of many occupations will remain fundamentally unchanged.

It is critical that the vocational education sector is able to deliver quality training in a flexible and innovative manner to help prevent skills gaps from emerging and to keep pace with the rate of technological change.

## 4.3 VET in Australia – a short history

The Australian VET system has evolved gradually since the 1970's and after the Kangan Committee report (1974), TAFE in Australia drove a significant expansion of the VET sector.

During this period, the apprenticeship model was extended to a much wider range of occupations, mainly non-trade, and the Australian Traineeship System was introduced (1985) for jobs in the service industries.

In 1990, the Commonwealth and the State and Territory governments agreed on a national approach to VET with shared responsibility, and in 1992 the national Vocational Education and Training System Agreement was signed. The agreement made provisions for nationally recognised competency-based training, recognition of an individual's prior learning, a role for industry in driving the system and the development of a more open national training market. The Australian National Training Authority (ANTA) and the National Training Framework were both established in 1994 and the AQF in 1995.

The VET system has undergone a few changes in the last decade as the Commonwealth, State and Territory Governments have introduced reforms in federal financial relationships and public funding programs, revised national structures in qualification development and quality assurance, and made changes to the governance of government-owned training providers.

## 4.4 Key parts of the VET architecture

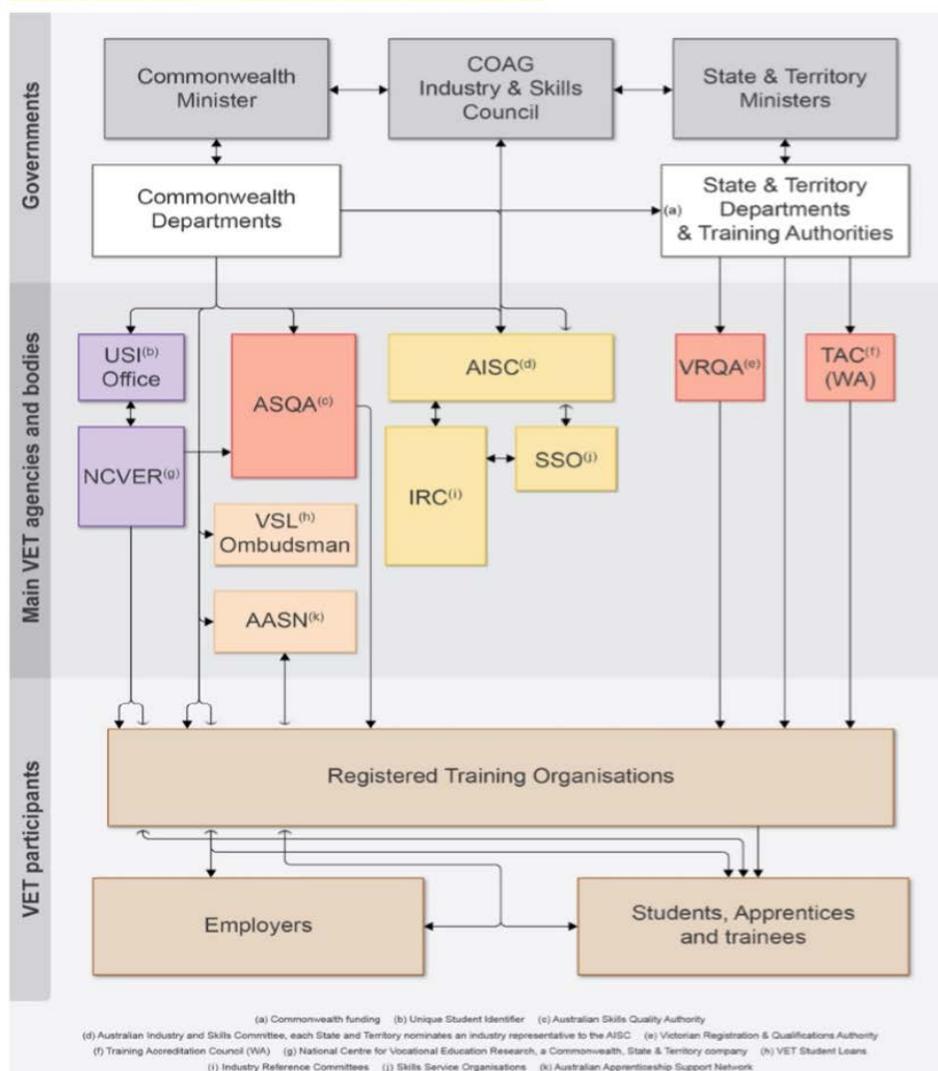


Figure 4: Australian VET architecture

### Objectives and outcomes set by the Commonwealth and State and Territory Governments

The Commonwealth and State and Territory Governments have joint responsibility for the VET sector. These arrangements, including objectives and outcomes, are set out in the National Agreement for Skills and Workforce Development (NASWD).

The States and Territories are largely responsible for the delivery and operation of VET in their own jurisdictions, including funding of RTOs and the matching of funded training delivery to local economic priorities.

Over time, the Commonwealth has become increasingly involved in VET policy particularly in the areas of qualifications and quality assurance.

The Commonwealth and the States and Territories share responsibility for the architecture that provides national qualifications that are recognised across all of Australia.

### Leadership and direction for VET

The Council of Australian Governments (COAG) Industry and Skills Council (CISC), comprising of Commonwealth, State and Territory government industry and skills ministers, is mandated to provide leadership and direction for the sector.

The Australian Industry and Skills Committee (AISC) comprises government-appointed industry representatives from the Commonwealth and each State and Territory who advise CISC on policy directions and decision making in the national training system as well as coordinating the development of training packages.

### Inclusion of Industry Skill Requirements to National Training System

A training package is a set of nationally endorsed standards and qualifications for recognising and assessing people's skills in a specific industry, industry sector or enterprise. Training packages are developed by Industry Reference Committees (IRCs) working with Skill Service Organisations (SSO), to ensure that industry skill

requirements are reflected in the national training system.

Industry Reference Committees report to the AISC, which refers training packages to CISC for final approval.

**Registration of training providers, monitoring and compliance**

The relatively new national regulator of VET, the Australian Skills Quality Authority, registers training providers, monitors compliance with national standards and investigates quality concerns, for all States and Territories that have referred their powers. In the two states that haven't referred, Victoria and Western Australia, ASQA regulates providers who enrol international students and multi-jurisdictional providers while remaining RTOs are registered with the Victorian Registration and Qualifications Authority and the Training Accreditation Council Western Australia .

**4.5 Current state of Australian VET System – Key concerns**

The vocational education sector in Australia is best known as the sector which trains people for jobs. While it encompasses a wide range of responsibilities, including foundation and second chance learning, and a wide range of qualifications and courses, it is the concept of work-based vocational learning.

Vocational education is hugely important to Australia's economic and social success. The ability to train people quickly and effectively, and then re-train them when technology and circumstances change, is crucial to ensuring that every Australian participates in a strong and growing economy throughout their working lives.

Over the 10 years to November 2018, almost two million additional jobs were created in Australia, half of which were in just three industries - health care and social assistance (up by 565,900 jobs), professional, scientific and technical services (up by 308,000 jobs) and education and training (up by 234,800 jobs).

In 2017, an estimated 4.2 million students participated in the national vocational education and training sector across Australia. Around half of VET students undertook training in a short course – these included skillsets or subject-only enrolments, such as first aid courses and Responsible Service of Alcohol.

The remainder were training in an Australian Qualifications Framework (AQF) qualification. Of all VET students, just over one-third (35 percent) were studying an institutional VET qualification and 8 per cent were undertaking an apprenticeship or traineeship . Around 6 percent of VET students were school students undertaking VET as part of their senior secondary certificate of education, including around 20,000 undertaking an Australian School-based Apprenticeship (ASBA).

In 2017 there were nearly 3.4 million VET program enrolments. Nearly three-quarters (74 percent) of program enrolments were in a training package qualification. Around 18 percent were in a nationally or locally accredited course and 8 per cent were in a nationally or locally accredited skillset.



Figure 5: VET students, by training type, 2017

Community Services and Business Qualifications remain to be the most popular AQF qualifications. This is primarily as the spectrum of application of skills and knowledge gained in both community services and business qualifications is very broad.



Figure 6: Top 20 training packages by enrolments, 2017

Source: NCVET 2018, National VET Provider Collection (accessed via VOCSTATS)

**Employers**

In 2017, 54 per cent of employers used the VET system to meet their training needs, while 51 per cent arranged or provided unaccredited training to their staff. Large employers were more likely to use the VET system (85 per cent), compared with small employers (48 per cent).

**Registered Training Organisation**

Over 60 per cent of all VET students trained at a private Registered Training Organisation (RTO) in 2017, with the next largest group being at TAFEs (16 per cent).

As of 1 February 2019, there were a total of 4,302 Registered Training Organisations (RTOs) registered to deliver nationally recognised training. Of these, 75 per cent were private training providers.

**Key concerns**

- » Over the recent past, poor provider behaviour, unduly short courses and variability in the quality of training have severely tarnished the VET sector’s reputation.
- » There are broader competitive issues between VET and Higher Education that have been brewing for decades. Vocational education and training has been steadily losing the battle for hearts and minds with the university sector.
- » Fewer young people aspire to undertake vocational education courses. Many consider VET as less prestigious and only for students who are of low academic ability.
- » Qualification enrolment numbers are decreasing, and employers are reporting less satisfaction with the VET sector.
- » Employers, trainees, their families, training providers and funders are reducing their reliance on the vocational education system.
- » Funding for the sector is currently lower in real terms (down 7 per cent) than what it was nearly a decade ago.

**4.6 Fellowship focus – Real Experience for Real Jobs**

Based on initial statistical information reviewed from various sources and considering empirical research findings, the Fellow focussed on investigating key concerns listed above and to study the impact that meaningful Industry engagement would have in resolving the issues.

It was clear from initial findings that the VET outcomes need to be better aligned to the objectives set by the Council of Australian Government (COAG). Moreover, the inclusion of Industry Skill Requirements to National Training System must be reviewed more often through a collaborative approach between the Industry and training providers.

Vocational education, as known, is hugely important to Australia's economic and social success. The ability to train people quickly and effectively, and then re-train them when technology and circumstances change, is imperative. An employer-centric work integrated learning approach offering 'Real Experience for Real Jobs' is the essence of Vocational Education.

For better VET outcomes, consistent quality of training and to build the confidence of VET stakeholders, it is extremely important to review the current value proposition offered by Australian VET system. Comparing the results of the findings with globally accepted best practice VET system would result in the best research outcome. Meaningful recommendations could then be made to improve the system and to align VET outcomes with most desired outcomes.

Considering the above hypothesis, the Fellow went ahead to the next stage of the Fellowship. Listed below are research findings explicitly stating what was looked at, why, where and how.

## 4.7 Dual-Training System - Harmonisation between companies and vocational schools (Hamburg, Germany)

The Fellow travelled to Hamburg in Germany and visited Hamburg Institute for Vocational Education and Training (<https://hibb.hamburg.de/englisch/>).

The Hamburg Institute for Vocational Education and Training (HIBB) oversees the 32 state-run vocational schools with more than 50,000 students. With approximately 3,000 employees, it is Hamburg's largest state-owned company.

The HIBB was founded in January 2007 as an independent state-owned management agency ("Landesbetrieb"). The institute belongs to the Hamburg Ministry of Schools and Vocational Education. It comprises all 31 vocational schools in Hamburg and the headquarters.

The Fellow interviewed students at HIBB and got an opportunity to meet with the Head of VET, Ms. Beate Gröblichhoff. Discussions were held about Dual Training methodology, pathways, key stakeholders and learning outcomes as listed below.

Picture 1: Hamburg Institute for Vocational Education and Training, Germany



### 4.7.1 Dual Training "Made in Germany"

In Germany there are three options to enter the labor market. The most common way from school to the labour market is dual training.

#### a. Full time vocational schools

First, there are the full-time vocational schools. They offer training programs which lead to recognised occupations and qualifications. The training may include company placements. It covers a period of two or three years, depending on the respective occupation. Admission to full-time vocational schools in most cases requires an intermediate school leaving certificate. Final qualifications are awarded on passing a school examination which is supervised by the education authority.

#### b. Universities

Universities and universities of applied sciences offer a lot of study programs. Only some of them prepare students directly for a certain occupation. The aim is rather to provide students with a scientific background. In the course of European harmonisation (according to the Bologna process) Bachelor and Master's degrees can be achieved.

**c. Dual training**

A very common way from school to the labour market is the work-based “Dual Training”, which is shown in the figure below. A little less than 50 per cent of the school leavers in Germany embark on Dual Training.

**d. Training methodology**

Entry requirements:

There are no formal schooling requirements for entrance in the Dual Training programs; however, the schooling background of the candidates is an important criterion for most companies when selecting their trainees.

**e. Harmonisation between Training company and Vocational school**

The expression “Dual Training” illustrates the principle: Two partners share the responsibility for vocational education and training: A company concludes a training contract with a young trainee and accepts the responsibility for teaching the required training contents.

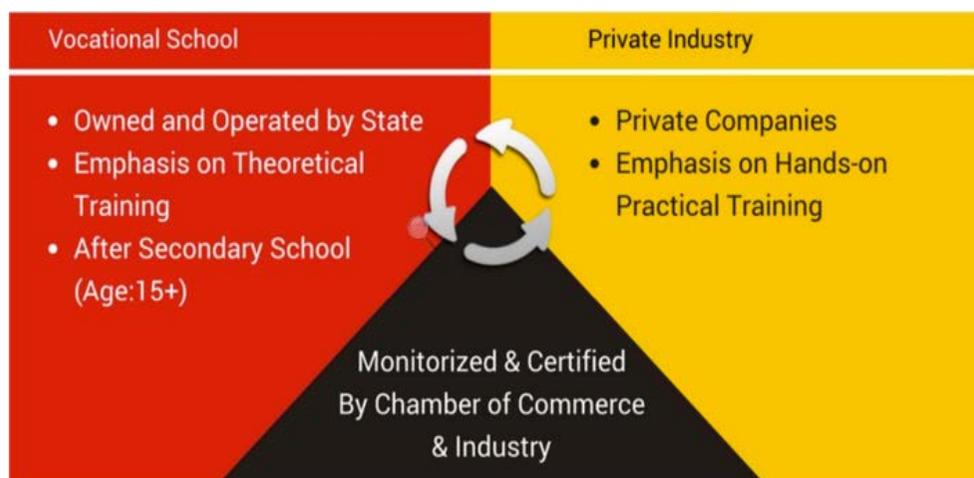


Figure 7: German Dual VET System- Key Stakeholders

**Training companies**

The company organises learning on an average of three days per week based on

a training plan, which forms part of the training contract agreed to with the trainee. Practical training is mainly provided at the workplace. This is the central point in which the German dual system differs from the school-based training model of other countries: In-company training familiarises the trainees with the technological and organisational aspects of the current work processes. In addition, trainees contribute to the company's productivity during their training, which reduces the overall cost of vocational training for both the companies and society at large.

**f. Regulatory framework**

Training in the company is based on training regulations which the Federal government has issued for each occupation. These regulations stipulate for example the minimum vocational skills as well as the examination requirements. This ensures a comparable level of training and examinations in a specific occupation throughout Germany. Transparency on the labour market can thus be increased for both employers and employees.

**g. Formal classroom training**

Trainees attend part-time vocational school on an average of two days per week, where they are mainly taught theoretical and practical knowledge related to their occupation; in addition they attend classes on general subjects such as economics and social studies and sometimes foreign languages – depending on the requirements of their occupation.

**h. Teaching in learning areas**

Systematic teaching at vocational school is a necessary supplement to process-oriented training in the company, which is rather more based on specific in-house requirements. Teaching is structured according to the “learning segment” concept, in which lessons concentrate on relevant situations and how to master them by using the skills immanent to the subjects. This concept is practised in all vocational schools in Germany. It is also named “teaching in learning areas” .

**i. One third and two thirds learning ratio**

There are different forms of organisation. The day release system is very common. This means the trainees spend three and a half days in a company and the rest of the week at vocational schools (for example hairdressers or cooks). Alternatively, there is the block release system which means the trainees spend several weeks

in the company and at school, without interruptions (for example bankers or industrial clerks). However important for both is one third at vocational school and two thirds in companies.

#### **j. The contract**

Training in the company is provided within the framework of a contract which is based on general labour law and includes some special regulations concerning:

- » training periods – as stipulated in the training regulations ranging from 2.5 to 3.5 years
- » training plans – specifies the duration of training which can be shortened or extended based on prior learning and other specific conditions as laid out in the contract
- » termination of employment – trainees are largely protected against dismissal following completion of the probationary period
- » monthly payments – allowance paid to the trainee is determined by the applicable collective agreement

#### **k. Employment pathways**

Dual training aims to enable people to work independently in a specific profession. Completion of a relevant training course is the criterion usually applied when staff is recruited for a job and the salary fixed. Vocational qualifications are considered proof of the skills needed for the respective job. There are state-recognised training occupations in all sectors of the economy and administration. Currently, there are around 412 recognised training occupations in Germany which are continuously updated, as necessary.

#### **l. Vocational competence**

The aim of all training regulations is to ensure vocational competence. It is therefore not enough to teach only specialised skills. Vocational competence also includes the ability to plan, carry out and supervise work independently, which is generally termed methodical skills. Furthermore, graduates of dual training must also be able to interact adequately with colleagues, supervisors and customers. That is, they must have social skills.

#### **m. Advantages to the labor market**

Graduates of dual training are familiar with company processes and have worked together with company staff for several years. They are qualified for their specific job and usually show an above-average loyalty to their company. Furthermore, they contribute considerably to corporate value while training in the company.

#### **n. Advantages for employers**

- » secures skilled labor they need
- » reduced cost of settling in
- » increased motivation and loyalty to company
- » job specific qualification
- » productive performance of trainees is nearly assured.

#### **o. Advantages for young people**

The vocational qualifications issued are recognised throughout Germany and give youth a competitive advantage over graduates of non-company training programs. This is because of the practical orientation of dual training. Graduates have good prospects on the German labour market if they want to transfer to another employer. Many trainees are offered an unlimited work contract by their own training company after having passed their final examinations.

#### **p. Employability skills test**

At the end of the training, the final examination is administered under public law. As companies see dual training as an investment, they are interested in ensuring that their trainees are successful.

The final examination consists of both practical and written parts, covering a couple of days. They may include role simulations as well as theme papers, depending on the area of profession. Specific tools are available for providing guidance and supervision during training. The decisive factor, however, is the final examination administered under public law.

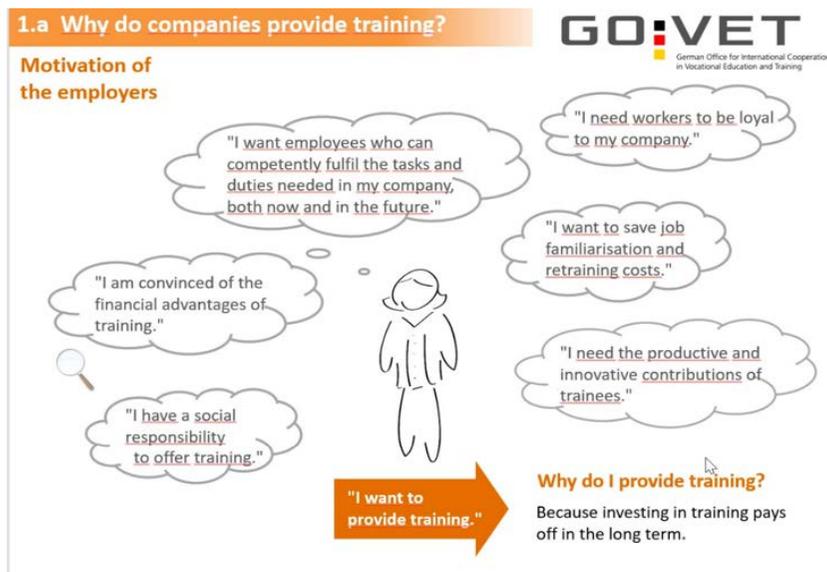
Candidates who have passed the final examination are awarded a certificate, which testifies successful completion of training in a state-recognised training occupation in Germany.

More than one-third of all pupils graduating from secondary school in Germany enter a vocational training program, of which one-third go on to pursue a single-track, school-based VET and two-thirds the dual-track counterpart. Approximately 68 percent of the latter system's graduates enter the workforce in the company where they were trained immediately after training.

The dual training system offers plenty of opportunity for on-the-job training and work experience. With a duration of 3 – 3.5 years, the training is ideally designed to learn theoretical as well as practical elements. Learners spend one or two days a week, or several weeks at once, at a vocational school (called Berufsschule) where they acquire the theoretical knowledge needed in their future occupation. The rest of the time is spent at a company where they get an opportunity to apply their newly acquired knowledge in practice.

**Dual VET – A worthwhile model**

Reasons why companies provide training:



Factors motivating employers to participate in Dual Training

**production motive:** companies train mainly because they want to benefit from the apprentices' productive contribution (Lindley, 1975)

**investment motive:** companies train because they want to retain the apprentices after training and ensure the skills of future employees (Merrilees, 1983)

**screening motive:** companies use the training period to observe the apprentices and choose the best for retention (Stevens, 1994)

**social responsibility:** companies train because they want to give young people the possibility to integrate in the labor market (e.g. Beicht et al, 2004)

**reputation motive:** companies expect that clients, potential employees, and suppliers have a better image of the firm when they train (e.g. Niederaht, 2004).

**Who pays and for what?**

The cost of the training in Dual VET Training System is shared between the company and the vocational school.



Dual VET - Shared responsibility

**Employers**



- 427,227 out of a total 2.16m companies provide training (20%), most of them SME
- **Contribute €7.7bn** (= overall net cost of *Dual VET*; gross cost = € 25.6bn)
- Train more than **500,000** new trainees every year
- Hire **74%** of *Dual VET* trainees as employees after training
- Invest on average **€18,000 per apprentice per year** (62% of which is training allowance)
- **70%** of investment is refinanced by the productive contribution of trainees during the training period



**Government**

- Shares expenses for VET system with employers
- **Public expenditure for Dual VET in 2018: €6,84bn**
- €3.07bn for 1,550 public vocational schools providing part-time VET
- €2.34bn for steering, monitoring and further supporting measures

**Apprentices**

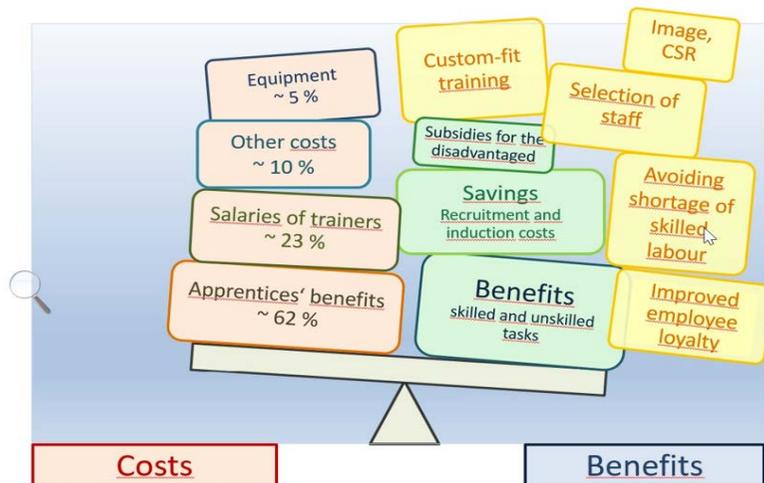


- **Receive** an average training allowance of **908 € gross per month (2018)**
- Visit vocational schools **free of charge**

Source: BIBB Datenreport zum Berufsbildungsbericht (2019), Statistisches Bundesamt

Dual VET - Stakeholder contributions

**Cost vs benefit analysis**



Costs and benefits of Dual VET training system in Germany

**4.7.2 Key Learning**

Dual VET in Germany has remarkable outcomes. The benefits outweigh the cost of training. Some of the most remarkable features of German dual VET training are:

- » harmonisation between companies and vocational schools
- » maximising participation through improving the quality of training and training outcomes
- » teaching in core learning areas – training is designed and delivered to focus on relevant situations and how to master them by using the skills immanent to the subjects.
- » A clearly defined ‘theory and practical learning ratio’ - one third at vocational school and two thirds in companies
- » a final examination administered under public law post industry placement and prior to issuing vocational certificate.



**SFIVET**

SWISS FEDERAL INSTITUTE FOR VOCATIONAL EDUCATION AND TRAINING

**4.8 The Swiss VPET System – one mission three partners, (Renens, Switzerland)**

The Fellow visited Renen’s campus of Swiss Federal Institute for Vocational Education and Training SFIVET in Switzerland (<https://www.sfivet.swiss/>)

The Swiss Federal Institute for Vocational Education and Training SFIVET is Switzerland’s expert organisation for vocational education and training offering:

- » basic and continuing training to VET professionals,
- » conduct VET research,
- » contribute to the development of occupations and support international cooperation in vocational and professional education and training.



*Renens campus of Swiss Federal Institute for Vocational Education*

The Fellow was invited by SFIVET’s Head of International Relations, Mr. Erik Swars who arranged a tour of the facility. Their discussions focused on understanding the structure of VET in Switzerland and key service offerings of SFIVET looking for key strengths of Swiss VET and Professional Education and Training (PET) considered the strongest in Europe.



*Sameer Mathur with Mr. Erik Swars, Head of International Relations at SFIVET*

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**a. Structure of VET in Switzerland**

Switzerland is a small country, roughly eight million inhabitants, divided into 26 cantons (states). It has four distinct language groups: German (by far the biggest, 67 percent); French (23 percent); Italian (eight percent); and Romanish (one percent) and a handful of other languages spoken by the others. It is not only diverse linguistically but ethnically: nearly a quarter of Swiss students are born outside of Switzerland.



*Meeting with Eric Swars at SFIVET Renens, Switzerland*

Over the past 20 years Switzerland has modernized its vocational education and training system in ways that have made it an international leader in educating youth and in maintaining its position as a world economic leader.

Switzerland is one of several European countries with “dual” vocational education and training (VET) system in which students combine learning in school with learning in workplace settings. In Switzerland and in Germany, Austria, Denmark and Norway between 30 and 70 percent of students in upper secondary school participate in such systems. While each of the dual system countries has its own strengths and distinctive characteristics, the Swiss VET system is arguably considered the strongest in Europe.

In Switzerland, small and large companies, state of the art factories, insurance agencies, banks, hospitals, retail stores, and child care centers host 16- to 19-year-old apprentices who serve customers, work on complex machines, carry out basic medical procedures, and advise investors—in short, they do everything an entry level employee would do, albeit under the wings of credentialed trainers within the company.

**b. Specialisations**

The commercial sector includes 21 areas of Specialisations including banking, retail, public administration, and some areas of IT, and is the most popular choice of VET students.

**c. Unique connected learning approach**

A ‘connected learning’ approach of Swiss VET ensures that the learning is in the hands of the learner, not the teacher. Its pedagogic tenets replicate the requirements of the workplace and include learner autonomy, blended learning, problem solving, and teamwork in which learning is co-constructed among peers.

**d. Pace of delivery**

The first important fact to note is that compulsory education in Switzerland ends at grade 9, which marks the end of what Europeans call “lower secondary school”—equivalent to what used to be called junior high school in the United States. While lower secondary schools are tracked in Switzerland, the curriculum is common for all students: it’s the pace of delivery that varies.

Compulsory education in Switzerland gets strong results, as evidenced by performance on the most recent PISA assessments, where Swiss scores in literacy and science are well above the OECD average, and math scores are among the highest in the world, and this when most students are taught in high German, a language most do not speak at home. Swiss compulsory education system is focused on the goal that all Swiss children get a solid foundation of core academic skills for whatever the next path they choose.

**e. One mission three partners**

This phrase, more than any other, sums up the political and structural underpinnings of the Swiss system, central to its strengths and encoded in law. There is a very clear division of responsibilities between the partners, all in the service of a shared

vision of what is best for the future of the Swiss economy, and most importantly, the healthy development of its young people.



(SERI 2019)

Stakeholder cooperation in Switzerland

**f. Confederation (SERI/SFIVET)**

The role of the federal government, generally referred to as the confederation, is to regulate and steer the system. There are a whole series of specific functions under that broad heading, carried out through two governmental units: the State Secretariat for Education, Research, and Innovation (SERI), the closest thing Switzerland has to a Ministry of Education; and the Swiss Federal Institute for Vocational Education and Training (SFIVET), a small, highly focused institute responsible for the basic and continuing training of all teachers in the VET and PET system.

SERI plays an especially important role in ensuring transparency and comparability of programs across the cantons, especially in its role in overseeing the examination systems for both VET and PET, and both SFIVET and SERI play a key role in quality assurance across the system. While the cantons are responsible for providing three-fourths of the public funding for the system, the Confederation is responsible for the other fourth.

**g. Employer organisations and associations**

The second critical partner is the employer organisations and associations. In an important sense, they are the real drivers of the system. Not only are they the ones who decide the training content of VET and PET programs, for it is their industry standards that must be met, but they also take the lead in determining when new occupational programs need to be developed to take account of projected changes in the economy, and existing programs need to be closed down or radically revised.

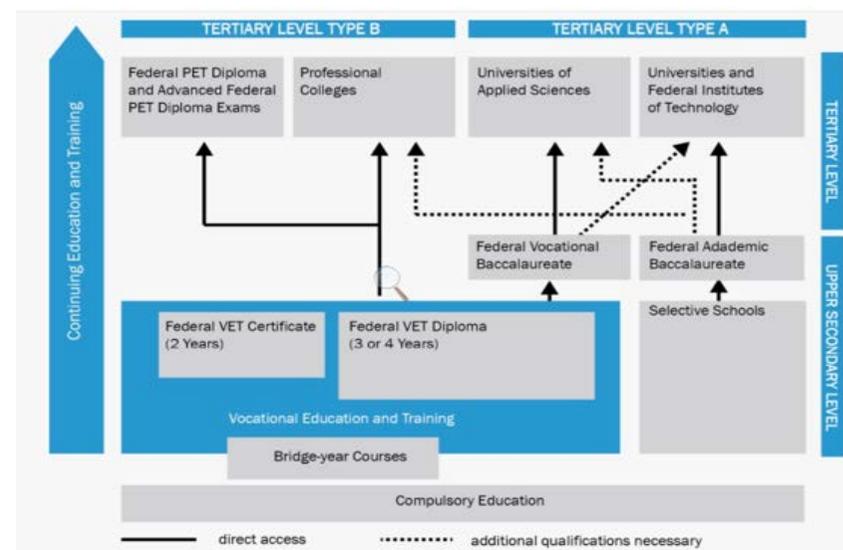
SERI and SFIVET work closely with industry associations in the development of the so called “ordinances” that define the curriculum frameworks or “training plans” for entry into each of the 240 occupations in which there are apprenticeships. Each occupation has a qualification certificate that is attained through a final assessment and is standardised across the country. The training plans are complex. As in other VET systems, key skills are categorised as knowledge, abilities or competencies, and attitudes.

Because Swiss employers view the VET system as one that is designed to meet their long-term workforce needs, they neither expect nor receive any direct governmental subsidy for taking on an apprentice. They are aware that in addition to the benefit of having three or four years to support the development of a young person in their own work setting before having to make a longer-term hiring decision, the likelihood of hiring a worker who will be productive from day one is much greater than if they were hiring someone off the street. They also know, based on careful cost-benefit economic analysis, that for most employers the costs in apprentice wages and associated training expenses over three or four years are more than offset by the bottom-line increases in productivity provided by the apprentice.

**h. Cantons**

The municipalities within the cantons are the decision-makers: taxes are set locally, not by the Federal government, and cantons have the primary responsibility for most services including education. Consequently, the school component of the VET system is organised and run by the cantons. Each canton has a VET office that has broad responsibility for overseeing the implementation of VET programs. The cantons are also responsible for funding and operating the PET colleges, and for

funding and operating the network of careers centres that play such an important role in providing advice and assistance to young people and their families as they navigate the transition from the end of compulsory schooling to the VET system, including the choice of an appropriate apprenticeship placement. The cantons also play an important role in marketing apprenticeship to the employer community and ensuring that firms that offer apprenticeships meet a national set of quality standards. But because the employer associations are country-wide and the Federal government is responsible for standardisation of processes for developing, revising, and supporting VET, there is enough counterbalance even with such a strong tradition of local control.



Swiss Education System

**i. Continuing education model for VET trainers and assessors – setting up an effective capability assessment framework**

One of the striking features of SFIVET was their continuing training division that primarily focuses on providing training, guidance and support to teachers, trainers and examiners within the Swiss VPET system.

SFIVET plays a vital role in supporting and representing Swiss VPET system at a national and international level. Apart from identifying the trends in VET, SFIVET offers support to trainers and assessors through pedagogical and didactic learning approaches with a focus on digitalisation. The organisation also offers expert advisory services to regulate VET in a practical context to make learning more effective.

The Continuing Education Division of SFIVET offers

- » **teaching and learning within the context of Swiss VPET system:**  
teaching techniques and methods, courses for part-time teachers, information and communication technologies
- » **pedagogical support and fostering of talent:**  
coaching, case management, integrative measures, courses for apprenticeship trainers
- » **courses in leadership and management within the VPET system:**  
training of deans of schools
- » **examinations and evaluations:**  
examination and evaluation methodologies, validation of non-formal and informal learning (VNIL), diagnostics, assessment/evaluation, training of examiners
- » **advice and orientation in relation to the Swiss VPET system:**  
development of collective and individual competences, pedagogical and methodological training, guidance on institutional projects.

### 4.8.1 Key learnings

Switzerland's highly developed VET/PET system is unique in many ways. In particular:

- » the system is strongly employer and market driven
- » the partnership between confederation, cantons and professional organisations works well
- » school and work-based learning are well integrated
- » Swiss apprenticeship-based VET programs pay for themselves, in the sense that benefits to most employers outweigh the costs
- » tertiary VET is strong with a broad spectrum of tertiary VET offerings
- » flexible pathways allow for mobility and avoid the risk of dead-ends

- » vocational teachers and examiners are trained and assessed on an ongoing basis to ensure excellent pedagogical understanding
- » quality control is embedded at every level of vocational education and national assessment procedures are in place that add significant value and recognition to the vocational education
- » career guidance and counselling are systematic and professional.

## 4.9 Industry led training at IHM, Sweden – learning by doing (Malmö, Sweden)

The Fellow was invited by the Head of VET, Ms. Catherine Johsson, at IHM Business School in Malmö to undertake a site visit.

IHM Business School was founded in 1966 as a complement to more traditional learning. At this time, Sweden faced global competition, which put pressure on marketers to have a more business-oriented approach. The founder, Ulf af Trolle, brought practitioners and case studies into the classrooms.

Today, 50 years later, IHM Business School is still dedicated to increasing the competitiveness of the Swedish industry using blended learning practice, theory and digital elements to make the education as effective as possible. IHM Business school meets the quality standard SeQF, which is the European standard of a bachelor's degree.

Sweden has introduced a national qualifications framework in accordance with the European parliament recommendation on a European Qualifications Framework for Lifelong Learning (EQF). The Swedish Qualifications Framework (SeQF) is based on the EQF, which 38 European countries are connected to.



IHM Business School takes pride in staying up-to-date with the current business climate.

*IHM Business School, Malmö, Sweden*

### a. Unique service offering

The Fellow got an opportunity to interact with the Academic Team of IHM Business School and was also given the chance to interview students. It was evident from the discussions with the staff members that the key factors influencing the quality of training and training outcomes are active Industry engagement and work integrated learning opportunities available to students.

Working managers were invited to conduct training sessions with an objective to share their experiences. This gave students an opportunity to discuss and understand real life challenges as posed at workplaces. Above all, every qualification offered by the institute had a compulsory Work Integrated Learning component and a skills assessment test before completion of the work-based training.



*Meeting with Ms. Catherine Johsson, Head of VET (In the middle) at IHM Business School, Malmo, Sweden*

IHM's philosophy is driven by the belief that the combination of theory and practice is a prerequisite when developing professional business acumen. Ulf af Trolle, a professor of business administration at the Gothenburg School of Economics an influential visionary and motivator, stood strongly by his conviction that 'we should place the same professional demands on businessmen and women that we place on doctors, pilots or accountants'. He believed that practitioners in business continuously needed to develop and build their experience using theoretical knowledge in marketing, management, leadership and business economics.

## 4.9.1 Key learnings

- » vocational training practices in Sweden were greatly focused on:
- » active industry participation especially in training delivery and skills assessment
- » compulsory Work Integrated Learning for marketing, management, leadership and business economics courses
- » ongoing consultation with Employers on skills in demand to meet skills shortages.

## 4.10 ACTVET, Abu Dhabi – creating attractive employment opportunities for skilled workers

The Fellow visited Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET) in UAE where he met with Strategic Research and Implementation Team (Mais Al Masri, Research Analyst; Naeema Almenhali, Strategic Planning and Performance Management & Ziad Mohammad Abu Sal, Licensing and Accreditation Department).



*Meeting strategic team at ACTVET, Abu Dhabi (from far left, Sameer Mathur, Ziad Mohammad Abu Sal, Naeema Almenhali and Mais Al Masri*

The Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET) was established in 2010 by the directive of His Highness Sheikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi, Deputy Supreme Commander of the UAE Armed Forces and Chairman of the Executive Council.

**a. Meeting agenda**

The Fellow connected with the strategic team at ACTVET in the first stage of the Fellowship and visited the ACTVET office in Abu Dhabi subsequently. The agenda of the meeting was to discuss:

- » strategic role of ACTVET to ensure high quality vocational training,
- » ACTVET’s core activities,
- » ACTVET’s current and future priorities,
- » entities managed by ACTVET that provide accredited education and vocational training programs,
- » skills development initiatives of ACTVET to reinforce youth employability in the private sector to create opportunities for life-long learning.

ACTVET is committed to establishing policies and standards that effectively regulate technical and vocational educational institutions in the emirate of Abu Dhabi. ACTVET is also responsible for the licensing of trainers and tutors that meet the demands of the UAE’s local market.

**ACTVET SYSTEM**



ACTVET framework

In 2014, the National Qualifications Authority (NQA) and the Vocational Education and Training Awards Council (VETAC) of the UAE authorised the Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET) as the first Awarding Body in the United Arab Emirates.

The ACTVET Awarding Body oversees the quality assurance of qualification development and delivery processes for Abu Dhabi and the Northern Emirates. The Centre aims to boost training and educational opportunities for young nationals within the qualification framework of the Emirate.

ACTVET’s goal is to increase the number of skilled Emirati youths in rewarding career paths and to foster life-long learning and personal development.

**b. ACTVET core responsibilities**

- » Devise strategies and policies related to technical and vocational education and training
- » Provide consultation, educational and training courses to public and private institutions in the Emirate
- » License vocational and technical institutions in line with applicable laws, regulations and accreditation
- » Develop strategies and mutually beneficial partnerships with public and private education companies and bodies, as well as with training institutes
- » Guide and assist Abu Dhabi Government and private institutions on technical and vocational education and training
- » Undertake original educational research in coordination with other Government bodies.

**c. ACTVET entities**

ACTVET oversees several entities that provide accredited educational and vocational training programs, in line with the best international standards, to prepare students for the labor market.

Institute of Applied Technology (IAT) - provides educational programs within engineering and technology to meet the industrial development needs of the country.

Abu Dhabi Vocational Education and Training Institute (ADVETI) - offers a diverse range of applied diploma and higher diploma programs to fit the needs of the national job market, including business, information technology, logistics, engineering and industrial technologies.

**d. Abu Dhabi's Economic Vision 2030**

Seeking to ensure the continued success of the Emirate's development, the Government of Abu Dhabi has set guidelines and priorities for the Emirate's socio-economic progress in its policy agenda. Taking these guidelines as its parameters, the Abu Dhabi Economic Vision 2030 has been developed by the government, in consultation with the private sector, as a 22-year strategy to achieve these aims, and to ensure that all stakeholders in the economy are moving in concert, with a clear view of the long-term goals.

Developing a highly skilled, highly productive workforce

One of the most important resources in any economy is the people that drive it. Through education, training and skills development, Abu Dhabi will develop and continue to attract a highly skilled and productive workforce to increase its economic might.

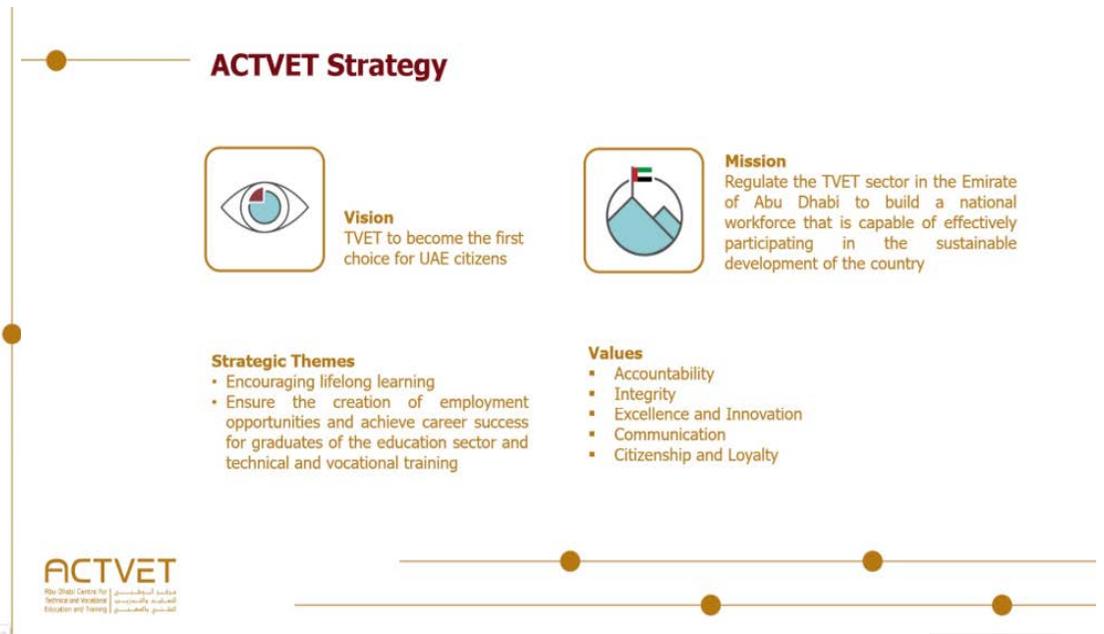
**Aim of the education sector**

The aim of the education sector reform is to ensure that graduates have the skills and qualifications to drive economic growth. To this end, specialised education will be guided to meet the forecast demand of the future growth sectors mainly in the fields of engineering, aerospace, IT, medicine, applied sciences, tourism and business.

Looking at the Abu Dhabi's national workforce data and skills in surplus and deficit, it is evident that the labor market is seeking more skilled labor in medicine, ICT, education, engineering & business.



ACTVET locations across the UAE



ACTVET strategy

#### Attract and retain skilled workers

With a mission to ensure that the Emirate becomes a prime destination for skilled labour from across the globe, highly attractive employment opportunities that rival those that workers would find elsewhere are being created. Moreover, lifestyle and best-in-class education, healthcare, cultural and leisure services shall be provided and actively promoted. Additionally, the convenient entry and settlement of skilled expatriate workers and their families is being facilitated.

#### e. ACTVET priorities

The centre has following priorities of which stems strategic projects:

1. contribute to attracting investment through TVET sector
2. regulate and quality assure TVET
3. increase Emirati student's participation in TVET
4. align TVET qualifications and system capacity with Labor Market demand to ensure employability
5. foster a culture of innovation in the workplace and provide the enablers and resources efficiently and effectively.

#### f. Skills4Life camp

Each year ACTVET promotes Skills4life Technology Camp to provide students with short courses in more than 20 technical and vocational skills during the school break with an aim to enhance their skills or develop new ones.

There are several other initiatives taken by the body to educate youth about job skills, vocational learning opportunities and skills in demand. The objective is to facilitate learning, foster a culture of growth and healthy competition across the nation all of which add up to meeting a larger economic goal for Abu Dhabi.

## 4.11 Syscoms College, Abu Dhabi, job focused curriculum design and development

SYSCOMS, started as Syscoms Information Technology Institute in 1990 in Abu Dhabi, has developed and grown into a renowned training institute with branches in Al Ain and Dubai in the United Arab Emirates as well as having its presence in Doha, Qatar. It was created to meet the increasing demand for continuing education institutions in the region that would provide quality services and recognised courses which would be accepted locally and internationally. It is an educational establishment of a renowned organisation in the Gulf region, LULU Group International which is famous for its popular chain of hypermarkets, supermarkets, departmental stores and shopping malls.

#### a. industry engagement

LuLu group is a prominent name in UAEs especially in retail. Best known in the Gulf through a chain of popular shopping malls and hypermarkets, LuLu Group serves the widest segments of multi-ethnic residents. As part of its Global CSR policy, the Lulu Group joined hands with Dubai cares and adopted schools in Gaza and Nepal.



Syscoms College, Abu Dhabi

The Fellow also visited 'Syscoms College' in Abu Dhabi and met with Registrar and Admissions Manager, Mr. Sahabudeen. P.A.S. The agenda of the meeting was to understand the Work Integrated Learning framework of the College.



*Meeting with Mr. Sahabudeen, P.A.S., register (in the middle), Syscoms College, Abu Dhabi*

The College promotes student success by providing high-quality, flexible, accessible educational programs and services; advancing pluralism, inclusion and global awareness; and acting as a catalyst and collaborator for higher education in the UAE. In the span of more than 25 years, since the inception of the Institute in Abu Dhabi in 1990, we have gone a long way by establishing branches of the Institute in Al Ain and Dubai in the UAE and in Doha, Qatar. The College was established in 2005 in Abu Dhabi.

#### **b. Job orientated training**

SYSCOMS offers a few short diploma courses in continuing education field that will give the students a strong background and up-to-date knowledge of their selected course. Moreover, on completion of the program they can immediately find employment at entry-level and other positions. We constantly assist our students by organising free seminars on different topics to groom their overall personalities.

Syscoms College takes pride in their:

- » broad based vocational training developed in consultation with industry
- » job focused curriculum design and development
- » hands on training methodology where students get opportunities to work on live projects
- » quality and compliance management systems that focused on ongoing Institutional effectiveness review integral to Syscoms Quality Assurance Strategy.

#### **4.11.1 Key learnings**

- » a well-established and accountable regulatory body to facilitate licensing of trainers and tutors across the Emirate of Abu Dhabi
- » focus on fostering life-long learning and personal development
- » creating strategies and mutually beneficial partnerships with public and private education companies and bodies, as well as with training institutes with an objective to create a well-defined quality framework.
- » creating highly attractive employment opportunities for skilled workers that rival those that they would find elsewhere in the world
- » providing and actively promoting lifestyle and best-in-class education, healthcare, cultural and leisure services to attract and retain skilled workforce
- » creating a flexible and convenient entry and settlement policy framework for skilled expatriate workers and their families
- » educating youth about job skills, vocational learning opportunities and skills in demand to help them take informed decision.

## 5. Summary of findings

The Fellowship offered a unique opportunity to research and investigate best practice industry engagement models with a focus on improving the quality of training.

During the Fellowship, the Fellow travelled to Abu Dhabi in the UAE, Renens in Switzerland, Hamburg in Germany and Malmo in Sweden where he met several influential VET professionals, subject matter experts, research scholars and VET graduates. The Fellow also interviewed current students, VET graduates and Employers.

Fellow's vast industry experience allowed him to leverage his professional network and establish new connections with key stakeholders.

Differences in industry engagement models were evident based on areas of skill shortages, specific labor market needs and socioeconomic infrastructure of a country. However, the Fellow found several striking similarities in the approach towards strategies used for industry engagement.

A strong commitment towards building an effective and sustainable vocational training infrastructure was evident. The one that creates job opportunities for students supporting economic growth.

Highlights of international applied research conducted by the Fellow:

### **Germany's Dual VET Training with employability skills test at workplace**

- » dual VET had remarkable outcomes. Harmonisation between companies and vocational schools is the primary reason for its global success.
- » maximising VET participation through improving the quality of training and training outcomes.
- » reaching in core learning areas – training is designed and delivered to focus on

relevant situations and how to master them by using the skills immanent to the subjects,

- » a clearly defined 'theory and practical learning ratio' - one third at vocational school and two thirds in companies.
- » a final examination administered under public law post industry placement and prior to issuing vocational certificate.

### **Switzerland's VET/PET system with continuing training for trainers and examiners**

- » the system is strongly employer and market driven
- » the partnership between confederation, cantons and professional organisations works well
- » vocational education and training is led by the Industry rather than the training organisations. This arrangement is facilitated by a tripartite agreement between industry, government and training provider to address skill shortages and to build a skilled future-ready workforce
- » school and work-based learning are well integrated
- » Swiss apprenticeship-based VET programs pay for themselves, in the sense that benefits to most employers outweigh the costs
- » tertiary VET is strong with a broad spectrum of tertiary VET offerings
- » flexible pathways allow for mobility and avoid the risk of dead-ends
- » fully developed and functional VET trainer and assessor 'Capability Assessment Framework'
- » vocational teachers and examiners are trained and assessed on an ongoing basis to ensure excellent pedagogical understanding
- » quality control is embedded at every level of vocational education and national assessment procedures are in place that add significant value and recognition to the vocational education
- » career guidance and counselling are systematic and professional.

**Sweden's industry led training and delivery**

- » active industry participation especially in training delivery and skills assessment
- » compulsory Work Integrated Learning for marketing, management, leadership and business economics courses
- » ongoing consultation with Employers on skills in demand to meet skills shortages.

**Abu Dhabi's quality assurance and trainer licensing**

- » a well-established and accountable regulatory body to facilitate licensing of trainers and tutors across the Emirate of Abu Dhabi
- » focus on fostering life-long learning and personal development
- » creating strategies and mutually beneficial partnerships with public and private education companies and bodies, as well as with training institutes with an objective to create a well-defined quality framework
- » creating highly attractive employment opportunities for skilled workers that rival those that they would find elsewhere in the world
- » providing and actively promoting lifestyle and best-in-class education, healthcare, cultural and leisure services to attract and retain skilled workforce
- » creating a flexible and convenient entry and settlement policy framework for skilled expatriate workers and their families
- » educating youth about job skills, vocational learning opportunities and skills in demand to help them take informed decision.

Lack of meaningful industry engagement has been one of the major reasons for diminishing confidence of VET stakeholders in Australia. Vocational training and assessment practices without meaningful industry engagement and work integrated learning are often far from reality and may result in issuing AQF qualifications to individuals who do not possess the skills and knowledge to meet industry requirements.

Risks associated with such practices have a far-reaching impact on work health safety due to lack of industry skills, business productivity and economic growth. This is one of the major reasons why skill shortages are long-standing for many occupations in business & community services sectors for most of the last decade.

The lack of industry interaction and engagement results in vocational training not informed by the Industry and the one that prepare learners with skills that are obsolete. This Fellowship report challenges current Australian vocational training practices that attracts only about 20 percent of learners to formal work-based learning through apprenticeships and traineeships, leaving most learners to follow institutional VET qualifications pathways where training either does not include any compulsory work placement component or includes simulated assessment methods without any significant 'real-life work experience'.

This approach to vocational training defeats the purpose of VET, which is to train people for jobs.

## 6. Proposed ‘Sustainable Industry Engagement Model’ (SIEM)

### Focus:

Active engagement of employers to design, develop and deliver VET qualifications.

### Expected outcomes:

- » VET graduates possess current industry skills and knowledge upon completion of a VET qualification
- » employers and training providers engage in meaningful discussions with each other to make vocational training reliable, valid, current and enough
- » vocational training is delivered by professionals working in the Industry
- » every VET learner undergoes a compulsory Work Integrated Learning and an Employability Skill Test prior to receiving an AQF certification document from the training provider.

### 6.1 SIEM model

1. The regulator publishes
  - a. list of area-specific skill shortages in Victoria
  - b. list of employers who will offer Work Integrated Learning to VET learners to meet the skills shortages.
2. Training providers (RTOs) engage with employers in their local area to develop customised training programs clearly specifying a compulsory Work Integrated Learning (WIL) component.
3. The regulator conducts education programs advising employers about the benefits of engaging with training providers and offering WIL.
4. VET learners enrolled with an RTO sign WIL contract.
5. The employer provides supervised learning opportunities to VET learners.
6. Following completion of compulsory WIL, every learner sits for an Employability Skills Test (EST) to assess work skills and knowledge gained through WIL program.
7. Regulator conducts compliance audits to ensure the quality of training & assessment is in line with the RTO standards and that there is enough evidence of WIL prior to issuance of AQF qualification documentation by the training provider.

8. Regulator provides templates of WIL training plans for employers to download and complete in consultation with the training provider.
9. Qualifications offered by the RTO must undergo industry validation. Evidence of validation must be sent to the regulator every year.
10. Regulator to check with the Industry on authenticity of validation conducted by the training provider.
11. Every RTO must advertise their Industry partner (name, logo & required skills) on marketing and advertising material so that prospective learners can take an informed decision about qualification they wish to study.

### 6.2 Challenges and issues that will impact implementation

Some of the challenges that will impact implementation of the proposed Sustainable Industry Engagement Model (SIEM) are:

#### Creating area specific skill shortage lists

This can be challenging especially as it involves businesses in the local area to actively engage with the Industry Skills Council to register skill shortages in their area of operation.

#### Facilitating harmonisation between industry and training providers

There has been a major disconnect between the industry and RTOs which has led to poorly informed vocational training practices. To bring the two together in a way that they understand the importance of work integrated learning as a compulsory component of vocational training can be a challenging task as it will require a change in mindset and operational strategies.

**Convincing the employers about the benefits of training vocational learners**

In the current environment, employers are not keen on training vocational learners as they do not see the long-term benefits of work integrated learning. Educating employers about cost vs benefits and convincing them to actively participate in vocational training can be a huge challenge.

**Developing an Employability Skills Test (EST)**

In a competency-based training, VET graduates do not have to sit for a structured test in order to demonstrate understanding of skills and knowledge. Employability Skills Test will comprise of a formal structured work skills and knowledge test the results of which will decide whether any further training is required.

**Ensuring compliance during industry skills validation**

Industry validation practices currently have lots of loopholes making it extremely difficult for the regulator to determine its authenticity. The regulatory framework and compliance auditing practices will have to undergo changes in order to ensure compliance.

# 7. Personal, professional and sectoral impact

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## 7.1 Personal impact

The Fellowship experience has had a significant impact on the Fellow. It has not only enabled the Fellow to attain considerable skills and knowledge but have also given the Fellow an opportunity to travel across the world meeting diverse groups of people and experience varied cultural practices. The Fellow has benefited enormously from the knowledge acquired during meaningful discussions with industry experts and other researchers.

The Fellowship gave an opportunity to the Fellow to pursue his passion for travelling. The Fellow visited major landmarks, heritage buildings, museums, famous universities across Europe. This rare experience contributed significantly in building immense confidence in the Fellow which greatly benefited the research.

The Fellow has been in the education and training sector for over 2 decades. With his experience in managing vocational training providers, the Fellow always wanted to write and publish a handbook for VET practitioners. The Fellowship experience has motivated the Fellow to pursue this dream project with an aim to educate and inform those already working in the VET sector and the ones who want to get in on a positive note.

The Fellow works as a compliance and management consultant for several RTOs in Melbourne. The Fellowship experience and the exposure gained through the research work has hugely benefited the Fellow in conducting professional development programs for his clients. The Fellow has been able to incorporate his Fellowship learnings into the professional development programs that he designs and delivers which has greatly benefited students and academic teams.

The Fellow is excited about the possibilities of implementing a pilot project around Work Integrated Learning in partnership with local employers, with an intention to bring about a positive change in vocational learning practices for students studying business, leadership and management courses.

## 7.2 Professional and sectoral impact

Ideas behind a Sustainable Industry Engagement Model stemming from the Fellowship learnings can be adopted to form prototypes and be tested on cohorts serviced by the Fellow. The outcomes can then be shared with the public sector for consideration and implementation.

The raised profile of Work Integrated Learning coupled with harmonised and strategic partnership approach between training providers and employers has a far-reaching impact in the provision of vocational training services. The potential impact of the Fellowship on the Fellow’s profession, the VET sector and community is highlighted in the following table:

sector	stakeholder	potential impact
GRMC consulting services	Sameer Mathur (the Fellow)	<ul style="list-style-type: none"> <li>• create strategies for implementing a Sustainable Industry Engagement Model (SIEM)</li> <li>• educate VET practitioners about the benefits of Work Integrated Learning (WIL)</li> <li>• establish partnerships between RTOs and Employers to facilitate WIL utilising SIEM approach</li> <li>• develop and test an Employability Skills Test (EST) prototype to facilitate skills validation (WIL).</li> </ul>
	RTO managers	<ul style="list-style-type: none"> <li>• develop an additional suite of meaningful services for VET students</li> <li>• improve training outcomes by incorporating WIL as a compulsory component in every training plan for VET courses</li> <li>• engage meaningfully with Industry to improve the quality of training resources</li> <li>• develop job-oriented training programs in partnership with the employers</li> <li>• higher confidence of employers in VET programs</li> <li>• increase student participation by offering meaning programs with better employment pathways.</li> </ul>
VET sector	students	<ul style="list-style-type: none"> <li>• engage in meaningful learning through WIL program</li> <li>• Real Experience for Real Jobs</li> <li>• become more employable than ever before</li> <li>• opportunity to interact and learn from practicing managers</li> <li>• greater confidence through relevant and meaningful vocational learning.</li> </ul>
	industry representatives (employers)	<ul style="list-style-type: none"> <li>• enhanced capability to identify and address skill shortages</li> <li>• work with RTOs to develop job focused training programs</li> <li>• offer customised on-the-job training to students to fill in available vacancies</li> <li>• effectively generate employment opportunities</li> <li>• reduced cost of recruitment</li> <li>• contribute to economic development of Victoria</li> </ul>
society at large		<ul style="list-style-type: none"> <li>• better-aligned vocational training system with a focus on ‘training for jobs’</li> <li>• better career pathways for vocational graduates</li> <li>• opportunities for migrants to gain ‘Real Experience for Real Jobs’</li> <li>• increased awareness amongst vocational training providers and job seekers about real skill shortages</li> <li>• increased availability of highly skilled workforce</li> <li>• better aligned educational policy initiatives</li> <li>• greater economic efficiency</li> <li>• greater contribution towards making Victoria an ‘Education State’</li> </ul>

## 8. Recommendations and considerations

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Based on the research conducted during the Fellowship it is evident that lack of meaningful industry engagement that informs vocational training practice is one of the major reasons for the diminishing confidence of VET stakeholders.

The Fellowship findings also point towards an immediate and growing need for a better aligned continuing education system for VET trainers and assessors. A well-integrated system that assesses capabilities of trainers and assessors and provides responsive training is a critical component of a robust VET sector.

A disjointed vocational training framework is bound to result in the issuing of prestigious AQF qualifications to learners who do not possess the job skills and knowledge required to meet industry guidelines. This outcome is extremely concerning as it raises several questions on the integrity of vocational training and VET quality frameworks.

### Recommendations to address the above issues

1. The VET **regulatory body should facilitate active engagement between training providers (RTOs) and employers** to create opportunities for Work Integrated Learning.
2. Every VET qualification, without any exceptions whatsoever, should have a **compulsory Work-Based training component** with minimal reliance on simulated assessments.
3. **Training providers should engage with employers** in their local area to develop customised training programs to address skill shortages.
4. Every VET graduates must sit the **'National Employability Skills Test'** to determine their job readiness and further training needs.
5. Develop **'National Competency Assessment Framework'** for VET trainers and assessors to train and assess their understanding of pedagogical learning and competency-based training on an ongoing basis.
6. Set up a compliance framework for **'licensing of VET trainers and assessors'** across Australia to address concerns around varying quality of training and assessment practices.
7. **Greater focus on building a sustainable vocational training framework** which facilitates hands-on learning as opposed to classroom training. This will help build an indigenous skilled workforce for a sustainable future and stable economic growth.

## 9. Dissemination activities

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All the above listed recommendations and the Fellowship learnings have the potential to be directly applied and implemented through targeted initiatives of the Fellow's current client base. Additionally, the Fellow has initiated a pilot WILP (Work Integrated Learning Program) for VET learners studying business, management & leadership qualifications in partnership with local employers.

The Fellow also has devised plans to work closely with local training providers and businesses. This includes providing relevant information, conducting information sessions and presentations on the benefits of 'outcome-based Vocational training and Work Integrated Learning strategies.' The Fellow has also started developing VET skill sets for trainers and assessors with an objective to offer continuing professional education. These will be made available online in the initial phase followed by face-to-face workshops and webinars in the coming months.

The Fellow will actively explore opportunities to present his applied research findings and recommendations at Australian conferences and at International educational events.

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# 11. Appendix

## Appendix 1: interviews

Listed below are the names of some of the key VET stakeholders in Australia and overseas that the Fellow had an opportunity to meet during the Fellowship.

Views and opinions of the individuals listed below have greatly influenced Fellows understanding of most effective strategies, practices and business models to meet skill shortages.

*Dr. Brett Roberts, Director, TDT Training Australia*

*Mr. Gary Buckeridge, Operations Manager, TDT Training Australia*

*Mr. Mike Hatfield, Business Development Manager, TDT Training Australia*

*Ms. Shumei Zhang, General Manager, Job Training Institute*

*Mrs. Sumita Bagchi, Training Manager, Job Training Institute*

*Mr. Sukhmeet Ahuja, CEO, ANGAD Australian Institute of Technology*

*Mr. Atish Bagchi, CEO, SP Software & Automation Pty Ltd.*

*Dr. Atul Kumar Mathur, Head of Surgery, Ahilya Hospital, Abu Dhabi*

*Mais AlMasri, Research Analyst ACTVET, Abu Dhabi*

*Naeema Almenhali, Head of Strategic Planning and Performance Management, ACTVET, Abu Dhabi*

*Ziad Mohammad Abu Sal, Head of Licensing and Accreditation Department, ACTVET, Abu Dhabi*

*Mr. Sahabudeen. P.A.S, Registrar, Syscoms College*

*Erik Swars, Head of International Relations, SFIVET*

*Catharina Johsson, Head of VET, IHM Business School, Malmo, Sweden*

*Dan Kruger, Manager, Hop N Pop, Malmo, Sweden*

*Mita Kruger Mathur, Global Business Developer, Sustainability, Innovation & Development- Vertical farming, IKEA Group*



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