

MEMORANDUM OF UNDERSTANDING

THIS Memorandum of Understanding ("MoU") has been entered into on this 22nd day of June 2022 ("the Effective Date") at Mumbai, Maharashtra.

BETWEEN

Department of Employment & Training, Andhra Pradesh State (hereinafter referred to as the "Directorate") which expressions shall, unless repugnant to the context or meaning hereof, include its successors-in-interest and permitted assigns) of the ONE PART;

AND

Siemens Limited, a Company incorporated under the provisions of Companies Act, 1956 having its Registered Office at Birla Aurora, Level 21, Plot No. 1080, Dr. Annie Besant Road, Worli, Mumbai-400030, represented through its authorized signatories Anees Mohammed by way of a Resolution dated 3rd April 2022, hereinafter referred to as "Siemens" (which expression shall unless it be repugnant to the context or meaning thereof be deemed to mean and include its successor/s and assignees in title and assigns)

AND

Tata Community Initiatives Trust (TCIT), represented by its trustees Mr Suprakash Mukhopadhyay, s/o Mr. Moni Prasad Mukhopadhyay and Ms. Roopa Purushothaman D/o Mr. Ariketh Purushothaman, acting through their authorized representative, Ms. Anita Rajan W/o Mr. Vijay Rajan, is a public charitable trust set up by Tata Sons Limited under the provisions of the Indian Trusts Act, 1882 and having its office at Jeevan Bharti, 10th Floor, Tower-1, 124 Connaught Circus, New Delhi- 110 001 (hereinafter referred to as "TCIT" which expression shall, unless repugnant to the context or meaning thereof, shall include its successors and permitted assigns) of the Other Part.

Siemens and TCIT are collectively referred to in this MoU as "S&TS".

The Directorate, Siemens and TCIT are also collectively referred to in this MoU as the "Parties" and individually as "Party".

WHEREAS

- A. The Directorate is entrusted with the responsibility of providing trained technical manpower for the technological up-gradation of industrial production, services, productivity and innovation; thereby contributing to the planned growth of India's economy. Therefore, the Directorate runs various Government Industrial Training Institutes (hereinafter referred to as "ITIs"). The ITIs imparts vocational training to the aforementioned manpower by keeping pace with the technological demands of the industry and expanding its knowledge base.
- B. S&TS, have both contributed to society, by educating, sharing, creating awareness and training among people, technicians, technical and vocational students on the technological demands of the industry;



- C. S&TS have come together to carry out a CSR program that will address the pressing need of training and enabling India's youth for employment, entrepreneurship and community enterprise by deploying the world-class German Dual VET (Vocational Education & Training) methodology in the existing ITIs in the manner prescribed in this MoU.
- D. S&TS understands the vision of the Directorate and has agreed to support the cause by providing pedagogy training to the instructors of ITIs based on the German Dual VET training model through integrated Train the Trainers (TTT) program, which exposes the trainers to the principles of inquiry based learning and project based learning with safety as the cross cutting theme, thus enabling them to extend the classroom learning into practical experiences enhanced by observation, feedback and remediation, as defined in the MoU, in the ITI premises and the Directorate has agreed to accept and support the aforementioned cause on the terms and conditions more specifically defined hereinbelow.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. Purpose of MoU

The ITIs imparts vocational training to the technical manpower for the technological up-gradation of industrial production, services, productivity and innovation. To meet this requirement, it is necessary for the ITIs to have trained instructors, infrastructure, training equipment and conduct training as per the Craftsmen Training Scheme.

According to the National Skills Development Policy, India has a target of skilling 500 million people by 2022. Currently, a huge gap exists between the need of the industry for an employable work force and the capacity of the skill development programs. In line with the focus area of "promotion of science and technical education" and to support the National Skills Development policy of the Government of India, S&TS intends to support the up skilling of trainees of ITIs.

S&TS has agreed to introduce world-class German Dual VET through integrated Train the Trainers (TTT) program which exposes the trainers to the principles of inquiry based learning and project based learning, with Safety as a cross cutting subject to drive it as part of a cultural change in the ITIs and the Directorate has agreed to support and accept the same (hereinafter referred to as the "Project").

2. Scope of the Project

- 2.1 The Project will be based on the German Dual VET model, which will be implemented in the existing framework of the Craftsmen Training Scheme (CTS). The format and the methodology of the implementation of the German Dual VET model are enumerated in **Annexure I** of this MoU.
- 2.2 The German Dual VET pedagogy covers the two years of the CTS with extensive training of the instructors enumerated in **Annexure II** and intensive in-plant training of the Trainees.
- 2.3 A thorough gap assessment of the ITIs basic infrastructure will be done as per **Annexure III**.
- 2.4 The German Dual VET model will be implemented in ITIs as per the list given in **Annexure IV** from August 2021.



- 2.5 The 10 trades covered under this project are Electrician, Electronic Mechanic, Fitter, Turner, Machinist, Machinist Grinder, Tool & Die maker, Motor Mechanic Vehicle, Refrigeration & Air Conditioning & Welder. The Project will be implemented for the Trainees in the manner described in this MoU.

3. Applicability of the Project

- 3.1 This Project is applicable to all ITIs as per Annexure IV being operated directly by the Directorate. The Project will be implemented in accordance with a time-schedule to be mutually agreed amongst the Parties.
- 3.2 The Project will start with the fresh batch of Trainees in ITIs who will be inducted by the respective ITIs in the academic year starting 01/09/2022.
- 3.3 With every new batch of trainees including the trainees inducted in September 2024 will be covered under the project until the Trainees completes the CTS course.
- 3.4 S&TS may, at its discretion, decide to extend the German Dual VET model to other engineering CTS trades and will communicate their intention to do so in writing to the Directorate and the Directorate shall communicate its acceptance in writing within a period of 4 weeks; failing which S&TS will not extend the German Dual VET model to the other trades.

4. Roles and Responsibilities of the Directorate

- 4.1 Cooperate with and support S&TS activities that are being carried out in furtherance of implementation of the Project as laid out in the MoU.
- 4.2 Permit Siemens enough time and opportunity to carry out 'Gap Assessment' of the targeted trades in the ITIs to evaluate and assess the availability of requisite Tools and Equipments, the layout of the classrooms and practical labs and other aspects to run a world-class German Dual VET pedagogy in the existing setup.
- 4.3 Based on the "Gap Assessment Report", the Directorate will try to procure the required tools and equipments, renovate and make necessary changes in the layout of the workshop and classrooms for the duly identified trades in the targeted ITIs as required by the respective trade CTS syllabus at its own cost.
- 4.4 Facilitate existing instructors of the duly identified trades hereinabove in the targeted ITIs to undergo the pedagogy & safety training as mutually planned by the Directorate and S&TS.
- 4.5 Ensure that the instructors of the duly identified trades and ITIs hereinabove adopt the German Dual VET methodology for the CTS programs and implement the methodology in their respective trades.
- 4.6 Permit the representatives / trainers of S&TS to provide necessary support as per the requirements under this MoU for training the instructors of the duly identified trades hereinabove of the duly identified ITIs.
- 4.7 Place the Trainees of the said duly targeted trades of the ITIs for in-plant training at Industries identified by the Directorate as well as representatives/project coordinators of the S&TS during the duration of CTS program being implemented on the German Dual VET methodology.
- 4.8 The Personal Protective Equipments (PPE) and Accidental insurance to be provided by Directorate to the trainees for the fulfillment of the in-plant training at Industries.
- 4.9 Pursuant to clause 4.7 & 4.8, the Directorate will ensure that all necessary steps are taken so that the Trainees can undergo the respective "In-plant Training" with Industries / Enterprises.



- 4.10 Encourage Trainees of the duly identified trades to take up apprenticeship on completion of the CTS course implemented using the German Dual VET methodology.
- 4.11 To be responsible for any claims, proceedings or disputes that may be raised by the instructors or Trainees in connection with the training programs undertaken pursuant to this MOU. S&TS shall have no liability in this regard.

5. Roles & Responsibility of S&TS

- 5.1 S&TS will conduct detail assessment of the duly identified ITIs for the said trades and provide "Gap Assessment Report" as per Clause 4.2
- 5.2 The "Gap Assessment report" to contain recommendations on tools and equipments, layout of the labs and classrooms and other aspects for the said trades to match up to the trade syllabus.
- 5.3 Conduct training of all the instructors of the duly identified trades hereinabove of the targeted ITIs on the Integrated Training modules based on German Dual VET methodology.
- 5.4 Provide the German Dual VET methodology trainer certification and issue relevant certifications to eligible instructors of the duly identified trades hereinabove under the Project
- 5.5 Conduct re-certification of the instructors of the duly identified trades hereinabove during the validity of the MoU Term.
- 5.6 S&TS will provide German Dual VET pedagogy and the Project content to the said ITIs for the duly identified trades, instructors of the duly identified trades hereinabove. The Intellectual Property Rights (IPR) of these content / information / documentation rests with Siemens and TCIT for content created respectively by them.
- 5.7 S&TS will conduct reassessment of the ITIs every 6 months to ensure the availability of the suggested equipments and infrastructure identified during the initial Gap assessment done as per above Clause 5.1; If these recommendations as per Gap assessment and upgradation of the infrastructure are not implemented by the ITI, S&TS may withdraw from the respective ITI after providing the ITI an opportunity upto two assessments to ensure compliance with the Gap Assessment Report. Except as aforesaid and subject to other terms of this MoU, S&TS shall not withdraw from the Project except with the consent of the Directorate with such consent not being unreasonably withheld.
- 5.8 Support the ITI in identifying places for "In-plant Training" and "Apprenticeship Training" for the trainees / craftsmen of the said trades with Industries / Enterprises.
- 5.9 S&TS confirm to support the Directorate hereinabove only for the batch of trainees that is enrolled till the month of June 2023. It is clarified that the Directorate will implement the German Dual VET model for the aforementioned trainees that are enrolled in the month of June 2023 even after the expiry of the term of this MoU. Any lapse in implementing the German Dual VET model by the Directorate after the expiry of the Term of this MoU, S&TS will not be responsible in whatsoever way it may be.

6. Roles and Responsibilities of the Joint Working Committee

- 6.1 The Directorate shall upon the execution of this MoU, immediately appoint Joint Working Committee including representatives from all the Parties to this MoU.



One representative each from Siemens and TCIT will attend the quarterly review meetings of the Joint Working Committee in an advisory capacity and only up to the Term of the MOU.

6.2 The roles and responsibilities of the Joint Working Committee will be as under:

- 6.2.1 The Joint Working Committee will be the governance body of the Project and will hold quarterly meetings for the review of the Project.
- 6.2.2 The Joint Working Committee shall facilitate the effective implementation of the project as envisaged under the MoU
- 6.2.3 Review and monitor the implementation of the German Dual VET model in furtherance of this Project.
- 6.2.4 Facilitate and address concerns of the various stakeholders and parties such as the Trainees, the industry that provide in-plant training, the instructors, the representatives of the Joint Working Committee, etc.
- 6.2.5 Advise and set Key Performance Indicators for effective implementation of the German Dual VET model.
- 6.2.6 The Joint Working Committee will monitor the implementation of the Gap Assessment Report and the subsequent reassessment that will be conducted after every 6 months by S&TS for the duly selected ITIs.
- 6.2.7 The Joint Working Committee shall resolve any open issues inter alia between the Directorate/various Ministries of state government and/or S&TS.
- 6.2.8 The Director of the Directorate shall chair the Committee.

7. Term and Termination:

- 7.1 This term of this MoU is for a period of 3 (three) years commencing on 01/09/2022 and expiring on 31/08/2025 (both days inclusive) (hereinafter referred to as "Term").
- 7.2 Any Party, upon not less than 30 (thirty) days prior written notice, may terminate the MoU in whole, or in part, at any time before the date of expiration without cause and without any liability on the terminating Party and any liability to the other Parties.
- 7.3 This MoU does not restrict any of the Parties from participating in similar CSR activities with other public and/or private agencies, organizations or individuals for same ITI or other. The terms and conditions will be confidential and will be governed by clause 10 herein below.
- 7.4 After the completion of the Term, the Parties can execute a new MoU on the terms and conditions mutually agreed upon.

8. Force Majeure:

Neither party shall be held responsible for non-fulfilment of their respective obligations under this MOU due to the exigency of one or more of the force majeure events such as but not limited to eventualities like floods, earthquakes, strike, lockouts, epidemics, riots and commotions, etc. provided on the occurrence and cessation or cessation of such events, the party affected thereby shall give notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond four months, the parties shall then mutually decide about the future course of action.



9. Branding:

- 9.1 For all the areas of collaboration envisaged in this MOU, the branding will be based on mutual agreement communicated in writing from time to time. Some of the areas identified for branding are as follows:
- Classrooms
 - Workshops
 - In the ITI area where branding is prominently visible
 - Any other area chosen by S&TS and mutually agreed to by the Directorate
- 9.2 Both Siemens and TCIT logos can be used on the marketing materials like – Brochures, Pamphlets used for promoting the programme. However, prior written permission for use of logos, design and for the marketing materials shall be necessary.
- 9.3 Both parties confirm and agree that the agreed to terms granted herein for use branding is non-assignable, non-transferrable, non-sub-licensable, restricted to the territory of India and strictly for the purpose as enumerated in this clause and/or as agreed from time to time in furtherance of this Project.

10. Fees and Expenses:

- 10.1 Unless otherwise expressly agreed by the Parties in writing, each party shall bear its own costs and expenses with regards to the performance and any other activities to its respective roles and responsibilities in the Project
- 10.2 The German Dual VET methodology support to the Directorate provided by S&TS as mentioned in this MoU will be only restricted to the roles and responsibilities defined in the MoU and without any monetary consideration of any kind. This Project is exclusively a CSR activity for the S&TS.
- 10.3 Any amount / funds generated by ITI / Directorate while implementing the Project shall vest with the ITI / Directorate.

11. Advertisement:

- 11.1 Unless agreed by the Parties in writing, no party shall use the name of the other parties for the purpose of advertisement, promotions and/campaign of any form, including and not restricted to print and/or social media, in furtherance of this Project.
- 11.2 The Parties confirm and agree to indemnify the other parties in case of any loss that is caused to any of the other parties on account of any advertisement, promotions and/campaign that is not in accordance with clause 9.1 hereinabove

12. Confidentiality and Communications:

- 12.1 Each party shall (i) protect any information provided by the other party that is identified as confidential or that should reasonably be considered confidential ("Confidential Information");(ii) use Confidential Information for the sole purpose of fulfilling its obligations under this MoU; and (iii) Upon expiry of the MoU, continue to use the information provided solely for the purpose and objective of this MoU and for the purpose and objectives for the formation of the ITI. Confidential Information may include, without limitation, training and course materials, computer programs, software or hardware products, product development plans, code, documentation, algorithms, know-how, trade secrets, formulas, processes, procedures, ideas, research, inventions, (whether patentable or not), copyrights, schematics and other technical, business, financial and marketing information, forecasts, strategies, names



and expertise of employees and consultants, customer or partner information, customer data.

- 12.2 Neither party shall use any trademark, service mark, logo or other proprietary right of any of the other party without an express written consent from that party. The Directorate shall not publish or otherwise disseminate, in any form or format, any information, including but not restricted to the training and course materials, arising out of or related to this MoU without an express written consent from both Siemens and TCIT. S&TS shall not be entitled to publish or otherwise disseminate information, in any form or format through any media platform, about the purpose using the name of the institute without prior written permission of the Directorate.
- 12.3 The Parties confirm and agree to indemnify the other parties in case of any loss that is caused to any of the other parties on account of any breach of the aforementioned clauses

13. Intellectual Property:

- 13.1 It is expressly understood by the Parties that Siemens and TCIT have all the rights in respect of the intellectual property of the German Dual VET Methodology and the integrated Training modules. Except for the permitted use under this MoU, each party acknowledges and confirms that they have not transferred or acquired any of the intellectual properties (including but not limited to copyright, trademark, business or trade secrets, methodologies, professional techniques, works of authorship, training material, courseware or content) or other property, from any of the other Parties to this MoU.
- 13.2 Any such transfer and acquisition of any of the intellectual Property rights shall be in accordance with clause 11 hereinabove.

14. Anti-Corruption Laws:

The Directorate confirms that it shall not take any action that would cause it to be in violation of any of the anti-corruption laws of the country including the corporate policies of Siemens and TCIT.

15. Independent Actors:

Nothing in this MoU shall create or imply any agency, venture, partnership, representative, or employment relationship between the parties. This MoU shall not be constructed as authority for either party to act for the other party in any capacity, or to make commitments of any kind for the account of or on behalf of the other party.

16. Liabilities:

No party is liable for the intentional or negligent acts or omissions of another Party. Each party shall be responsible for its officers, employees, agents, contractors or Trainees (if applicable). Neither Siemens nor TCIT shall be liable for any damages, injuries, accidents, losses, liabilities, costs or expenses caused/ incurred by instructors/ ITI / Trainees.

Subject to the provisions of this MoU, S&TS shall jointly indemnify and hold harmless the Directorate against any actual loss, costs, damage caused to the physical assets of the ITIs being covered under the Program so far and to the extent such loss, costs, damage are attributable to any proven negligent or willful misconduct of S&TS and provided further



that the same have not been caused on account of any negligence or willful misconduct on part of the Directorate, the personnel of the concerned ITI/(s) or any other third party/(ies).

17. Modification:

No amendment or modification of this MoU shall be valid unless the same is recorded in writing and signed by authorized representatives of all the Parties hereto.

18. Dispute Resolution Mechanism:

18.1 If a dispute arises in connection with this MoU, the responsible representatives of the Parties to the MoU shall attempt, in fair dealings and good faith, to settle such disputes. Upon request of a Party, a senior management representative of each party shall participate in the negotiations. Each Party shall be entitled to terminate these negotiations by a written notification to the other party at any time within a period of 30 days from the date of such dispute is first notified by either Party to the other.

18.2 Despite of what is stated hereinabove, all disputes arising out of or in connection with this MoU, including any question regarding its existence, validity or termination, shall, unless amicably settled between the Parties, be settled amicably by Joint Working Committee and the Principal Contacts of S&TS within a period of 30 days from the date on which the dispute is referred to it or such extended period as may be mutually agreed between the parties.

18.3 Subject to clause 17.1 and 17.2 above, the courts at Vijaywada, Andhra Pradesh shall have the exclusive jurisdiction to adjudicate the disputes arising out of this MoU.

18.4 Parties are free to terminate the MoU without any liability to the terminating Party or the other Party if either party is convinced that any of the other party is not complying with the spirit of the MoU.

19. Principal Contacts:

The principal contacts for this MoU are:

Directorate:

Smt. B.Lavanyaveni, IAS,
Director of Employment & Training
Department of Employment & Training,
Govt. ITI Campus, Vijayawada-520008.

Siemens Ltd:

Mr. Manmohansingh Koranga,
Siemens Ltd
Birla Aurora, Level 21, Plot No. 1080,
Dr. Annie Besant Road, Worli,
Mumbai – 400030,

Tata Community Initiatives Trust:

Ms Anita Rajan,
Tata Community Initiatives Trust (TCIT)
C/o Tata Services Ltd., Jeevan Bharti Tower 1,
10th Floor, 124 Connaught Circus,
New Delhi – 110001

20. Miscellaneous

This MoU constitutes the entire understanding amongst the Parties on the subject matter hereof. Nothing in this MoU obligates any Party to expend any specific sum of money or to enter into any contract or other legally binding commitment with another person. Each Party reserves the right to enter into similar arrangements with third parties and nothing herein constitutes any exclusive relationship amongst the Parties.



IN THE WITNESS WHEREOF the parties hereunto have set and subscribe their respective hands and seal the say in the year first hereinabove written.

SIGNED, SEALED AND DELIVERED

For and on behalf of
The Government of Andhra Pradesh
Represented by

Smt. B.Lavanyaveni, IAS,
Director of Employment & Training
Department of Employment & Training,
Govt. ITI Campus, Vijayawada-520008.


DIRECTOR
Employment and Training
A.P., VIJAYAWADA

In the presence of

Siemens Ltd
Birla Aurora, Level 21, Plot No. 1080,
Dr. Annie Besant Road, Worli,
Mumbai - 400030,

Tata Community Initiatives Trust (TCIT)
C/o Tata Services Ltd Jeevan Bharti Tower I,
10th Floor, 124 Connaught Circus,
New Delhi - 110001

Represented by





Mr. Anees Mohammed
Chief Manager-Sustainability




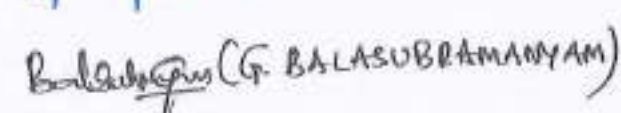
Represented by




Ms. Anita Rajan
Chief Executive Officer

In the Presence of

1.  1. 
2. 
RAMA K.R. GUPTA.

1.  1. 
2. 
 (G. BALASUBRAMANYAM)

Annexure I: German Dual VET model

About German Dual VET: Specific features of the German vocational training system

1. The German system of vocational training is noted for its combination of three goals. These three goals are determined by consensus among policy makers in the field of education at the state and federal level. The purposes of education relate to the individual's capacity for self-regulation, equality of opportunity and participation in society, as well as human resources.
2. Three-fold purpose of vocational training:
 - 2.1 **Individual dimension:** The individual dimension refers to the role of vocational training in developing the skills individuals need to meet challenges on the job as well as in other aspects of their life. Vocational training should provide an opportunity for individuals to shape their own life, develop to their full potential, and increase their self-efficacy and motivation to learn.
 - 2.2 **Social dimension:** The social dimension refers to vocational training as a means of promoting the social integration of the younger generation, both in the workplace and in society at large. A vocational training system should be designed to prevent social marginalization and integrate young people smoothly into training and employment.
 - 2.3 **Economic dimension:** The economic dimension refers to the role of vocational training in ensuring a high level of economic, business and individual productivity. The economic focus is on developing human resources by ensuring that there are enough workers with adequate skills, and increasing their number and level of qualification. The business goal is to make sure that companies have an adequate supply of qualified workers. At the individual level, the goal is to ensure that individuals are employable and able to earn a living. Also important from an economic perspective is the efficiency of the vocational training system itself.
3. **"Incremental innovations" through vocational training:** Another purpose of training skilled workers is to promote innovations in the business world. It is generally agreed that basic innovations are generated by researchers and scientists at universities. In addition, there are so-called "incremental innovations" – the small, everyday process improvements that are not produced by great inventors, but are rather the result of thoughtful problem-solving by the people who implement and test new processes and products on a daily basis. Such incremental innovations are achieved when well-trained, skilled workers not only perform their assigned tasks, but also identify, describe and solve problems in innovative ways, in a process that leads to steady improvement.

(reference pg no. 20:

Germany's dual vocational training system: a model for other countries?

By Prof. Dr. Dieter Euler

A study commissioned by the Bertelsmann Stiftung)



Project Overview

Tata STRIVE and Siemens have come together to carry out a program that addresses the pressing need of training and enabling India's youth for employment, entrepreneurship and community enterprise by deploying the world-class German Dual VET (Vocational Education & Training) methodology in the existing Government ITIs.

Introduction of Dual VET at Govt. ITIs program

Dual VET is based on learning interlocked with theory and workshop augmented with soft skills like communication skills, presentation techniques, public speaking skills, cost planning, project management, teamwork, decision-making ability, handling responsibility, conflict resolving and business games and creative technique to develop future oriented capable workforce and personal thinking and learning geared to business and personal professional development to make industry ready Technicians.

Tata STRIVE and Siemens have worked together to introduce the German Dual VET model of skilling in Government ITIs in India.

Key program features:

1. Integrated program that is applicable to all Govt. ITIs covered under the model.
2. Standardized, structured program with interspersed industry training across 2 years of the program in a phased manner.
3. Pedagogical change in the instructional methods at ITIs through intensive train the trainer program.
4. Bringing on board local industry as partners in the skilling ecosystem.
5. Promotion of Dual VET approach.

The Tata STRIVE-Siemens Dual VET is being implemented in select states for specific trades, based on the MOUs signed with the state directorate of vocational education.

Some of the key constructs of the program are as follows,

1. The program is based on the German DUAL VET model and is implemented in the existing framework of the Craftsmen Training Scheme (CTS), without causing any major disruption in the ITI training process.
2. The program includes integrated training module jointly developed by Tata STRIVE and Siemens, that is in turn imparted by the existing ITI Instructors for select trades.
3. Training of Trainer (TOT) is conducted for identified ITI instructors. Instructors adopt the learnings from the TOT and do the delivery based on it in the classroom and Workshop.
4. Industry on boarding and in plant training is the another very important aspect of the program, primarily managed by Tata STRIVE-Siemens.
5. Appointment of on ground implementing agency in each state to ensure effective delivery of the program.



The major tasks to be carried out under this program with responsible key stake holders are as below

Sr. No	Intervention	Activities	Responsibility
1	ITI Infrastructure	Provide recommendations to the respective ITI on Infrastructure gaps (training equipment, lab setup) after carrying out initial gap assessment.	Tata STRIVE - Siemens
		Address this gap and upgrade to standards specified by NCVT in the syllabus.	ITI and State Directorate
2	Faculty Development	Professional Development of existing ITI instructors through Training of Trainers (ToT) on pedagogy and safety.	Tata STRIVE - Siemens
		Help ITI instructors design projects to be given to the trainees, thus encouraging project-based learning.	
		Continuous development of ITI instructors through hand holding throughout the project.	
3	Contents	<ul style="list-style-type: none"> • Provide instructors standardized content for Employability skills. • Provide instructors project ideas and pedagogy for conducting projects. • Provide regular Dual VET pedagogy support. 	Tata STRIVE - Siemens
4	Certification	Issue certificates to ITI Instructors on successful assessment post TOT.	Tata STRIVE - Siemens
5	Industry Linkage	Support State Directorates in identifying MSMEs / Industries for providing "In plant" and "Apprenticeship" training to the trainees of the ITIs.	Tata STRIVE – Siemens along with State Directorate and ITI Principal
		Provide the identified MSMEs / Industries with consultancy to be able to support and guide trainees who will undergo "In plant or Apprenticeship" training with them.	

Expected Outcomes

1. Ensure infrastructure upgrade at the ITIs to meet the requirements.
2. Number of capacity building sessions conducted for ITI Instructors.
3. Adoption of new approach towards imparting Vocational Education.
4. Increase in the number of quality projects done by the trainees.
5. Promote safety as a culture amongst the trainees.
6. Number of local industries agreeing to provide in-plant training to trainees.
7. Number of ITI trainees getting in-plant training options.



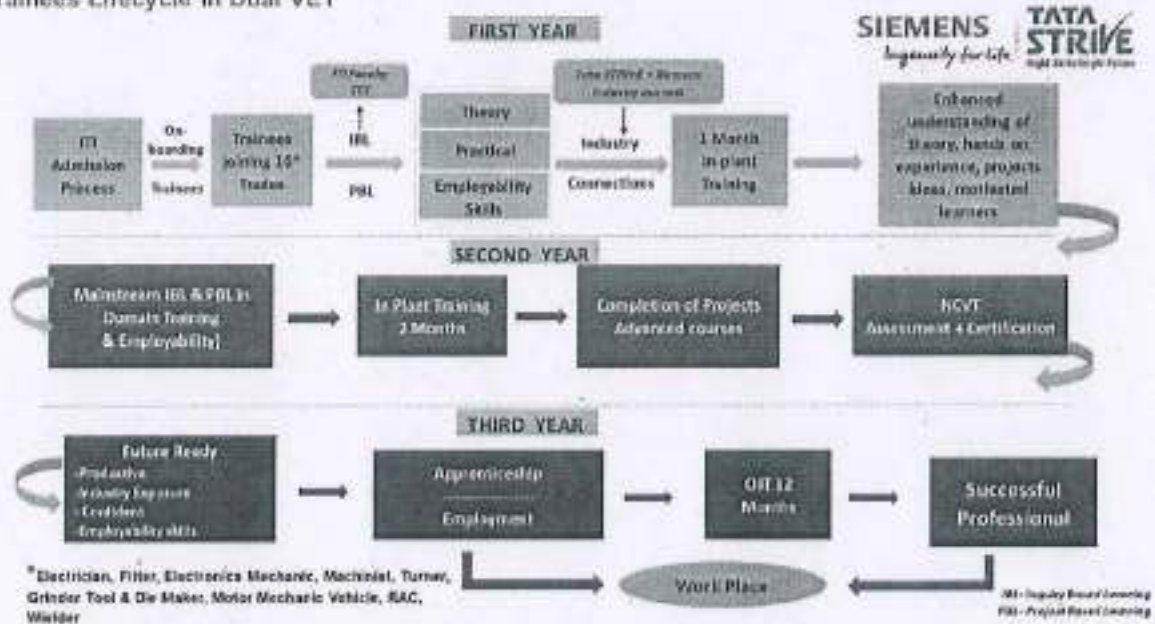
Governance

The governance mechanism to ensure smooth execution of the program to meet the end outcomes. The Joint Working Committee will be the governance body of the Project and will hold quarterly meetings for the review of the Project. The Directorate shall upon the execution of the MoU, immediately appoint Joint Working Committee including consisting of members from Directorate, ITI principals, Siemens, Tata STRIVE and Industry representatives.

1. The Joint Working Committee shall review and monitor the implementation of the German Dual VET model in furtherance of this Project.
2. Facilitate and address concerns of the various stakeholders and parties such as the Trainees, the industry that provide in-plant training, the Instructors, the representatives of the Joint Working Committee, etc.
3. Advice and set Key Performance Indicators for effective implementation of the German Dual VET model.
4. The Joint Working Committee shall resolve any open issues inter alia between the Directorate/various Ministries of state government and/or S&TS.

Typical Trainee life cycle in Dual VET program

Trainees Lifecycle in Dual VET



Annexure II – Integrated Training Modules

We see youth development as central to national development, in which our youth are valued as contributors to economic growth and social advancement, rather than as problems to be solved. It represents a paradigm shift from traditional approaches of exclusion of young people to an inclusive one, where the confidence, creativity and independence of young people contributes to the change agenda for personal, community and national development." It recognises the urgent requirement to engage with youth as individuals with unique identities and a desire to learn, explore and understand their own potential as active citizens.

True to this ethos 'learning experiences' are jointly designed at Tata STRIVE & Siemens- which then are manifested through the content that is developed, as well as through the facilitation methodologies.

This content for the youth deployed at the ITI's comprises of:

1. Trade / Domain specific content
2. Employability Skills (ES - as per specified NCVT curriculum)

The Learning Experiences designed for both domain as well as ES content adhere to Learning strategies that are aligned to the design principles of simplicity and innovativeness. The methodologies used are heavily dependent on action learning along with discovery learning.

- Action learning/action reflection learning involves reflecting on real problems using the following formula: $L(\text{learning}) = P(\text{existing or programmed knowledge}) + Q(\text{questioning insight})$, it provides a well-tested method of accelerating learning. When used as a systematic process, learners are able to effectively deal with change and so that they can learn better and handle difficult situations. Action learning is used to examine a task, to move learners to act to change it, and to return the results for review and learning. As a result, the individuals involved in action learning build the skills to meet self, team and eventually organizational needs.
- Discovery learning - This is the principle of curiosity and continuous learning. It's about creating and maintaining a positive attitude to learning both for personal and professional development. The idea is to motivate learners to learn and develop because they want to: it is a deliberate and voluntary act, it should be a way of life. The outcome is to help learners enhance their understanding of the world, provide them with more and better opportunities to improve their quality of life on their own. Learners are expected to ask questions, think for themselves and learn through experience and action and must own their learning.



A handwritten signature in blue ink, consisting of stylized initials and a long horizontal stroke extending to the right.

The content developed for the curriculum will be based on these methodologies which have been bucketed into the following five clusters:

• **Social Interaction:**

Emphasizes the relationship of the individual to society or to other persons. Gives priority to the individual's ability to relate to others.

- Partner and Group Collaboration
- Role Playing
- Inquiry – questioning techniques

• **Information Processing:**

Emphasizes the information processing capability of youth. Gives priority to the ways youth handle stimuli from their environment, organize data, generate concepts and solve problems.

- Inductive Investigation & Inquiry
- Deductive Investigation & Inquiry
- Memorization - GRIT
- Techniques for Creativity
- Design and Problem Solving
- Projects & Reports

• **Personal:**

Emphasizes the development of individuals, their emotional life and selfhood. Gives priority to self-awareness.

- Indirect Teaching
- Awareness Training & Values Clarification
- Role Modelling
- Self-Reflection

• **Behavioural Modification:**

Emphasizes the development of efficient systems for sequencing learning tasks and shaping behaviour. Gives priority to the observable behaviour of youth.

- Direct Instruction (Demonstrations & Presentations)
- Anxiety Reduction (Mindfulness practices)
- Programmed Instruction
- Simulations

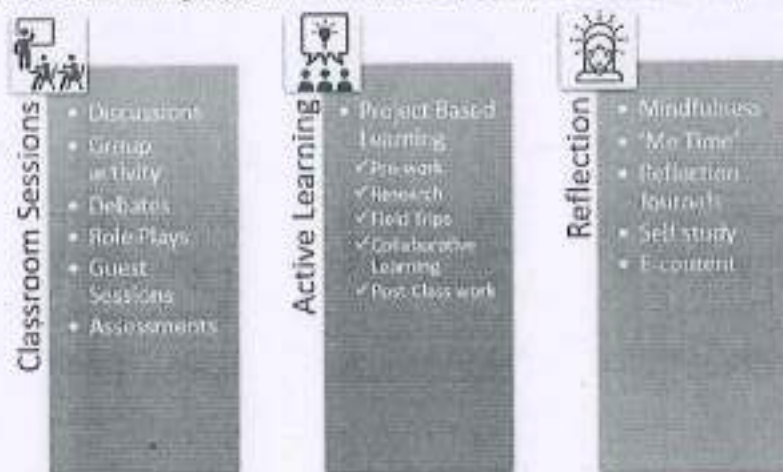
• **Building Safety as a culture:**

Introduce Zero Harm Culture to the ITI instructors who can inculcate safety as a habit in the future technicians

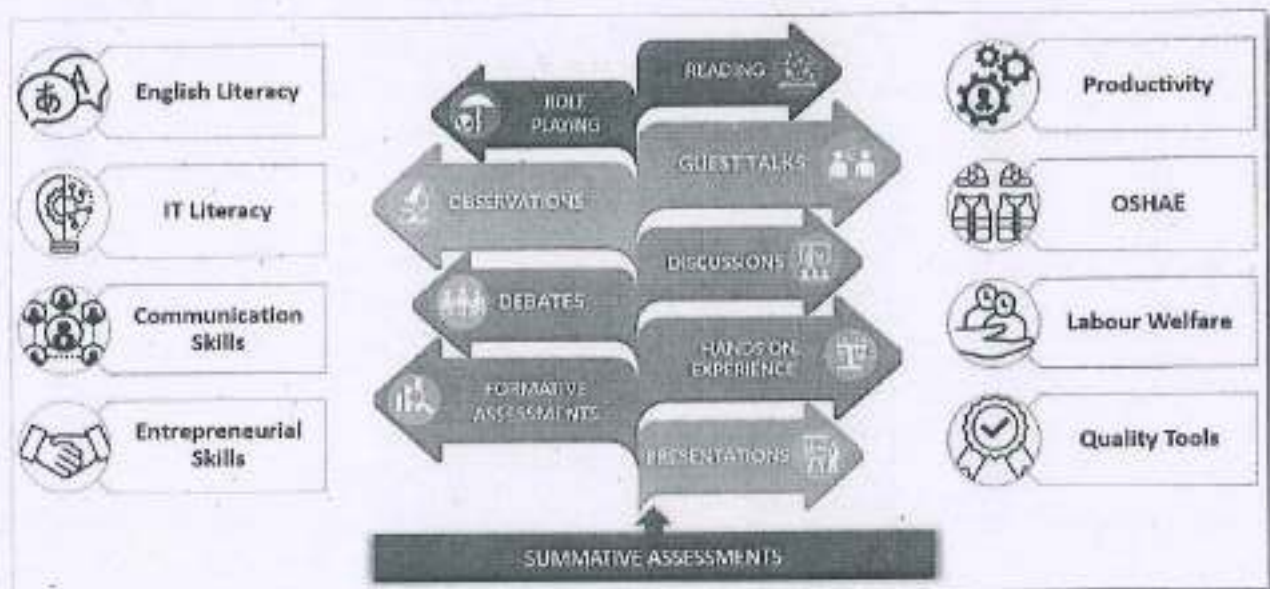


Integrated training Curriculum Learning Design:

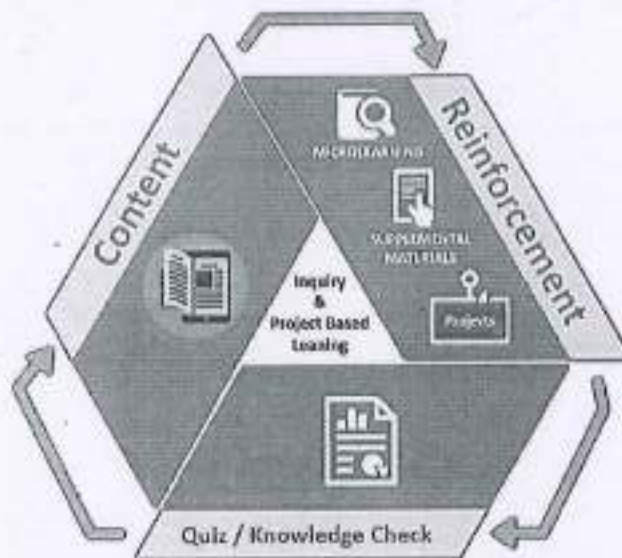
Basis the principles & methodologies discussed above, content has been jointly designed and developed by Tata STRIVE & Siemens using its unique Seek-Learn-Pursue framework. While concepts pertaining to each module are handled in the classroom – we suggest an integrated approach to learning of these concepts. The inquiry based methodology coupled with a Project based learning approach instilled ensures that learning does not happen as a set of discrete and disparate activities but is rather ties in as a holistic experience. Principles related to sustainability, Safety, Design Thinking, Problem solving are at the heart of all projects and learning developed. The overall learning experience developed by STRIVE and Siemens comprises of a three-pronged approach.



CLASSROOM LEARNING: The content divided across 8 modules are developed using all facets of learning (shown below) to cater to the multiple styles of the learners.



The learning experience, as discussed, extends beyond the limited classroom hours and is supported / reinforced by the reading material developed for the learners as well as individual and collaborative projects defined for them. This content and project-based activities supports learners to revise and revisit the concepts discussed in the classroom and use the learning to enrich their reflection and 'Me' time.



ACTIVE LEARNING: An Indicative example of how integrated learning of life skills and trade skills is advocated through Project Based learning (PBL) and Inquiry based learning methodology is provided here via a sample template for the PBL activity.

PBL : Sample Template

PROJECT OVERVIEW [*]					
Name of Project:		Faculty:		Outreach:	
Trade / Subject:		Institute:			
Other subjects to be included, if any:					
Project Idea Summary of the issue, challenge, inspiration, source, or problem.					
Driving Question					
Content and Skills Standards to be addressed					
21 st Century Skills To a specific extent and assessed (Y/N) or not to be incorporated (Self-provided, school faculty or external)	Collaboration	Y/N	S	Other	Y/N
	Presentation				
	Critical Thinking				

Opportunity for defining Holistic parameters (Trade and Employability (Life) Skills; Collaborative effort- Trade & ES facets)

Defining project/s using principles of inquiry

Address, observe and rate cognitive skills during project work.

Address, observe and rate non cognitive skills during project work.

*Note: This is an indicative sample. The format for Projects will / can change based requirements of different trades and outreach partners.

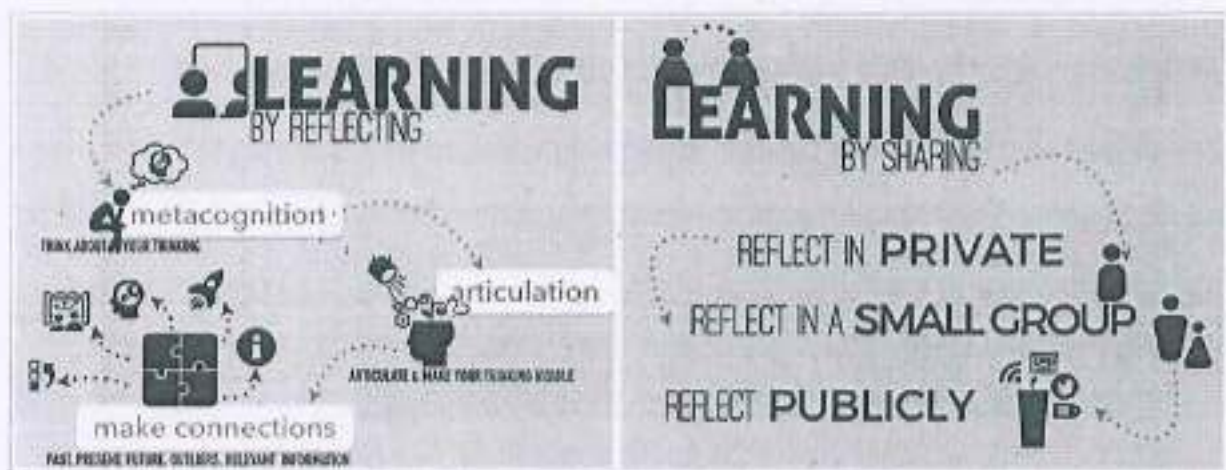


IBL – PBL in Action

PROJECT OVERVIEW					
Name of Project:	Creating a load carrying power/hand operated type for lifting loads to higher/lower places		Duration:	2 weeks	
Trade / Subject:	fitting	Faculty:	Institute:	1	
Other subject areas to be included, if any:	Painting, welding				
Project Idea <small>Summary of the issue, challenge, investigation, scenario, or problem:</small>	Lifting recurring loads like small motors, bags, heavy objects, etc. to upper levels of the store, through stairs, because elevators/lifts are not available.				
Driving Question	How to transport heavy objects to upper floors in a building with no available lifting facilities?				
Content and Skills Standards to be addressed	Plan, design and assemble a vehicle with modified wheel structure such that it can lift loads while carrying loads on stairs. Assessing basic turning, welding, fitting and assembling concepts and skills				
		T+A	E		T+A E
21 st Century Skills <small>To be explicitly taught and assessed (T+A) or that will be encouraged (E) by project work but not taught or assessed.</small>	Collaboration		E	Researching	T+A
	Presentation	T+A		Creativity	E
	Critical Thinking:		E	Problem Solving	E

REFLECTION LEARNING: Reflective learning is a way of allowing youth to step back from their learning experience to help them develop critical thinking skills and improve on future performance by analysing their experience. The ability to reflect is a skill to be learned, a habit to develop. Reflection requires metacognition (thinking about your thinking), articulation of that thinking, and the ability to make connections to past, present, future, outliers, and relevant information.

The content provides ample opportunities for learning through reflection. Concepts learnt in the classroom are extended into experiences through project-based learning which call for critical thinking and problem solving. Working through these collaborative (or individual activities) need an amalgamation of the technical as well as life skills which are sharpened through reflective thinking.



Deployment of the Integrated Training MODULES:

The modules integrated into the existing schedules of the ITIs and delivered without any disruption to the basic working of the ITIs. However, to strengthen and reinforce the behavioural concepts the trainers would be advised to observe and comment on the youth's attitude and soft skill competencies during all activities that are carried out – irrespective of the domain or class.

This would support reinforcement of concepts by extending the learning in the classroom to the practical labs and through project work. The faculty observe, assess and record behavioural changes in the youth brought about by the modules. The observations are recorded and shared with the youth who are mentored by the faculty to reach their aspirational persona's. This seamless integration of – learning + practice + observation + feedback + remediation – ensures that the values and skills are entrenched in the youth throughout their tenure at the ITI.

The trainers would undergo an Integrated Train the Trainer program to build these capabilities in them and equip them with the skill set and tool set to bring about and capture the changes in persona of the youth.

Train the trainer programme for domain and employability skills faculty

Facilitators as Catalysts:

One of the key challenges prevalent in the skilling landscape is that of adequate and benchmark 'standards' and 'standardization' across both the content delivered as well as facilitators who are instrumental in delivery of the content.

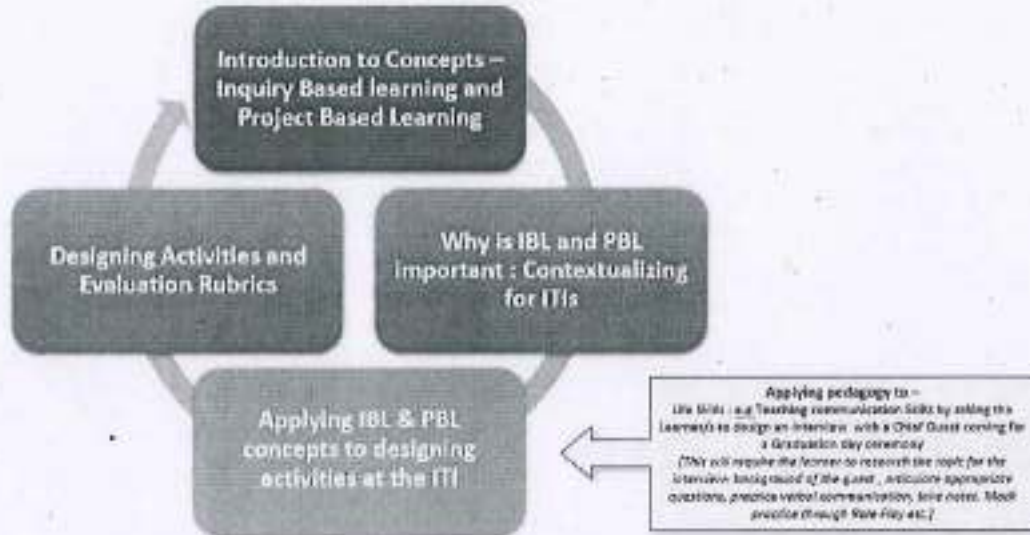
Siemens & Tata STRIVE believe that facilitators are the catalysts and a critical success factor in empowering our youth and supporting the journey towards creating sustainable livelihoods. While the urgent need to re-skill / up skill our facilitators is recognised by us, we realise that change often requires us to give up our old, comfortable habits and ways of doing things. To deploy the methodology for developing empowered youth, we need facilitators who view youth as someone fully functional, resourceful and capable of handling their own needs instead of viewing them as people who need to be fixed or changed.

Train the Trainer journey:

To equip facilitators to perform this role, we have developed an integrated Train the Trainer programme. The objective of this program is to train facilitators on the pedagogies – Inquiry based learning and project based learning, which will enable effective facilitation in the classroom and provide a seamless integration of the same while deploying and evaluating projects. The programme ranges from providing insights about youth development – to an exposure to contemporary pedagogies, methods of facilitation, levels of learning and tools that can be used to augment the skills that a facilitator brings to the table.



Training Faculty : Domain / Trade and Employability Skills

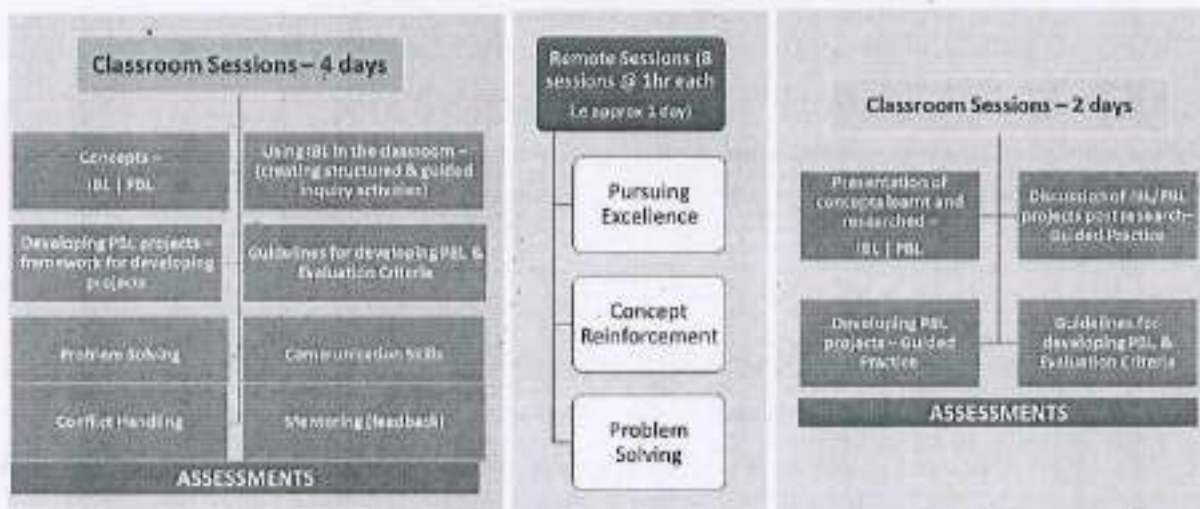


An immersive experience that brings to the forefront the coaching and facilitation skills- augmented by new insights is mandatory to every facilitator embarking on the journey of skilling youth through this partnership. Since the objective of the program is shift from a transactional mind-set – to a transformational mind-set, it is imperative that we invest sufficient time to provide the learners a platform to, not only assimilate, but also practice and demonstrate the newly acquired skills.

Highlights of the Integrated TTT programme:

- Seven-day immersive training programme in three parts

7 Days - Training Programme for ITI Faculty



- Five-day safety training program promoting safety as culture through taking below topics

Sr. No	Topics
1	HIRA Structure (Risk assessment process)
2	Electrical safety: Electric shock fundamentals and Earthing, Lock Out Tag Out and Golden Rules of electrical safety
3	Personal Protective Equipment (PPE)
4	Safe method of Fire Fighting (Fire extinguishers, Fire hydrants etc.)
5	Power Tools Safety
6	Safety of Domestic Appliances
7	Hand Tool Safety
9	Environmental Regulations and House Keeping
10	Elementary First Aid
11	Welding safety (All types of welding operations and respective safety precautions)
12	Confined space
13	Work at height
14	Machine safety: Metal cutting operations (CNC Machines, Drill machine, Lathe, milling machines, Grinding machine etc.) Hydraulic safety and pneumatic safety
15	Material handling safety (Material handling equipment safety and Safe rigging practices)
16	Occupational Safety & Health: Health, Safety and Environment guidelines, legislations & regulations as applicable.

- Content designed in-house by learning experts – includes (but is not limited to) pedagogy, process, facilitation methodology, mindfulness practices and content orientation
- Continuous opportunities to practice newly acquired skills in a safe environment, constructive feedback, analysis of skill gaps - solutioning, and content enhancement
- Content designed to be completely hands-on and activity based, indicative list includes –

Teach Back sessions	Project Work	Individual assignments	Research Based learning
Role Plays	Group activities	Coaching Conversations	Group assignments
Portfolio Development	Discussions / Debates	Real Plays	Experiential learning

- Robust Certification Process: TTT Certification comprises of-
 - Teach Back Sessions (Guided Practice)
 - Final Assessment
 - Written Assessment
 - Project work



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**Gap Assessment
Of
Select Govt. Industrial Training Institutes
Of
XXXXX state
(Sample)**

Dual Vocational Education and Training (Dual VET)



Contents

1. Executive Summary	3
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3. Approach and Methodology	4
a. Dimensions to assess gaps	4
b. Steps followed to carryout Gap Assessment	4
4. Summary of Gap Assessments	5



Executive Summary

The ITIs impart vocational training to the technical manpower for the technological up-gradation of industrial production, services, productivity and innovation. To meet this requirement, it is necessary for the ITIs to have trained instructors, infrastructure, training equipments and conduct training as per the Craftsmen Training Scheme.

According to the National Skills Development Policy, India has a target of skilling 500 million people by 2022. Currently, a huge gap exists between the need of the industry for an employable work force and the capacity of the skill development programs. There is an immediate need to address the challenges in the ITI and Apprenticeship models. This would include, up-skilling of the ITI trainees on modern courseware and providing them with adequate soft skills to make them workplace ready. Upgrading the curriculum of technical trades to match requirements of the industry, having adequate lab infrastructure for practical training, incorporating important soft-skills modules into the employability skills curriculum, moving to an "inquiry based learning" and "project based learning" approach and providing adequate industry exposure to trainees are some of the measures to transform vocational education in ITIs.

In line with the focus area of "promotion of science and technical education" and to support the National Skills Development policy of the Government of India, Siemens and Tata STRIVE intends to support the up skilling of trainees of government Industrial Training Institutes (ITI) introducing the concept of German Apprenticeship Program known as Dual Vocational and Education (Dual VET) in India.

Dual VET (Vocational Education and Training) is a futuristic model of training which is project based learning interlocked with theory and workshop, augmented with soft skills to develop future oriented workforce.

Gap Assessment Objective

Directorate General of Training (DGT) is an apex body for the development and coordination of the vocational training including Women's Vocational Training in our country. The Ministry conducts the vocational training programs of Craftsmen Training Scheme (CTS) to cater to the needs of different segments of the Labour market. The National Council for Vocational Training (NCVT) acts as a central agency to advise Government of India in framing the training policy and coordinating vocational training throughout India. The NCVT syllabus defines course structure with human resource and tools & Equipments requirement for a batch of 16 students.

One of the key elements of Dual VET is institute infrastructure in terms of human resources and physical infrastructure. The availability of required human resources, classrooms and tools & Equipment is a must thing for the implementation of vocational training in the institute. The students learn and practice at the institute and go to industries for on the job experience.

The overall objective of the Gap Assessment is as below;

1. Determine the availability of instructors for theory subject and Employability skills.
2. Determine the availability of classrooms with its infrastructure such as, benches, chairs, blackboard etc.
3. Determine the availability of tools and equipments as per the NCVT syllabus requirements
4. Determine the availability of IT infrastructure in the institute such as computers, internet, projector etc.
5. Identify industries that are connected to the institute as part of the Institute Management Committee (IMC). Map the industrial visits and job placement trends at the institute



6. Identify developmental opportunities in the institute
7. Suggest suitable interventions/recommendations to address the gap.
8. Create an action plan with indicative timelines.

Approach and Methodology

Siemens and Tata STRIVE has adopted a structured methodology to understand the skill ecosystem in Government ITIs of Punjab, assess manpower and tools & equipment needs, and collate insights, to arrive at recommendations to address the gaps per ITIs which were consolidated to provide the gap scenario in all ITIs where Dual VET shall be implemented,

Dimensions to assess gaps

The gaps are assessed under four dimensions with respect to the NCVT syllabus requirements.

1. Human Resources - No. of Instructors available for theory, practical and Employability skills.
2. Tools & Equipments - No. of Work benches, Tools and Equipments in working condition available against total no of students
3. IT infrastructure - No of operational Computers available with internet connection
4. Civil Infrastructure – Availability of well illuminated classrooms and labs with comfortable seating arrangement for students and availability of projector with screen

Steps followed to carryout Gap Assessment

1. Orientation program was conducted for the Principals of Government ITI's introducing the Dual VET concept and its implementation strategy. The Principals are made aware of the Gap Assessment study and how the same shall be carried out.
2. To carry out the gap assessment at the Government ITIs, Siemens and Tata STRIVE deployed its trained experts-Project Coordinator with Gap Assessment sheet covering up the above mentioned dimensions to each ITI.
3. The Project coordinator visited each of the identified Government ITIs and carried out the Gap Assessment in coordination with the respective ITI Principals and respective Trade Instructors.
4. Physical inspections and interactions with the team at ITIs were carried out basis the identified parameters for Gap assessment.
5. The Gap assessment sheets were filled basis the information provided by the Principal and the Trade Instructors. These were the compiled and mapped with that of the recommendations by NCVT.
6. The assessment responses were analyzed and compiled into the an Assessment report and shall be submitted to the state Directorate for further actions and arriving at timelines.

KEY Stake holders:









































1. Siemens and Tata STRIVE project coordinators / Employees
2. State Directorate representative
3. Govt. ITIs Principals and Instructors
4. Govt: ITI Trainees



Summary of Gap Assessments

The Gap Assessment was carried in the Govt. ITIs that were mutually agreed upon by Siemens, Tata STRIVE and the state Directorate.

The summary of the Gap Assessment is as below.

Sr. No	Govt. ITI Name	Instructors availability	Civil Infrastructure	Tools & Equipment	IT Infrastructure
1	XXXXXX				
2	XXXXXX				
3	XXXXXX				
4	XXXXXX				
5	XXXXXX				
6	XXXXXX				
7	XXXXXX				
8	XXXXXX				
9	XXXXXX				
10	XXXXXX				

 Availability > 80%
  Availability > 50%
  Availability < 50 %



ANNEXURE

SN	District Wise Industrial Training Institutes identified for Collaboration	Electrician	Filter	Electronics Mechanic	Turner	Mechanist (Composite)	Machinist (Grinder)	Tool & Die maker	Mechanic Motor Vehicle	Mechanic Refrigeration and Air-Conditioning	Welder
I											
	GOVT. I.T.I. (OLD), VISAKHAPATN AM	Y	Y	Y	Y	N	Y	N	Y	Y	Y
1	GOVT. I.T.I. (NEW), VISAKHAPATN AM	Y	Y	N	Y	N	N	N	Y	N	Y
2	GOVT. I.T.I. FOR GIRLS, VISAKHAPATN AM	N	N	Y	N	N	N	N	N	N	N
3	GOVT. I.T.I. NARSIPATNAM	Y	Y	Y	N	N	N	N	Y	N	Y
4	GOVT. R. I.T.I. ARAKU	Y	Y	Y	N	N	N	N	Y	N	Y
5											
II											
	GOVT. ITI FOR BOYS, ANANTAPUR	Y	Y	Y	Y	N	Y	N	Y	N	Y
6											



	Govt. ITI, Srisailem	Y	Y	N	Y	N	N	N	N	N	Y	N	N	Y
V														
Nellore .														
18	Govt. ITI Boys, Nellore	Y	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y
19	Govt. ITI Girls, Nellore	Y	Y	Y	N	N	N	N	N	N	N	N	Y	N
20	Govt. ITI, Venkatagiri	Y	Y	N	Y	N	N	N	N	N	N	N	Y	Y
21	Govt. ITI, Chittedu	Y	Y	Y	N	N	N	N	N	N	N	N	Y	Y
22	Govt. DLTC / ITI Gudur	Y	Y	N	N	N	N	N	N	N	Y	Y	N	N
23	Govt. ITI, Vakadu	Y	Y	Y	N	N	N	N	N	N	Y	Y	N	Y
24	Govt. ITI, Tada	Y	Y	Y	N	N	N	N	N	N	N	N	N	Y
VI														
Chittoor														
25	Govt. ITI, Chittoor	Y	Y	Y	Y	N	N	N	N	N	Y	Y	N	Y
26	Govt. ITI, Tirupathi	Y	Y	N	Y	N	N	N	N	N	Y	Y	N	Y
27	Govt. ITI, Karvetinagar am	Y	Y	Y	N	N	N	N	N	N	N	N	N	N
28	Govt. ITI, Punganuru	Y	Y	N	N	N	N	N	N	N	Y	Y	N	Y





29	Govt. IT, Tamballa palli	Y	Y	N	N	N	N	N	N	N	N	N	N
30	Govt. IT, Shanti puram	Y	Y	N	Y	N	N	N	N	N	N	Y	Y

sd/-BLAVANYA VENI
DIRECTOR


for DIRECTOR



