



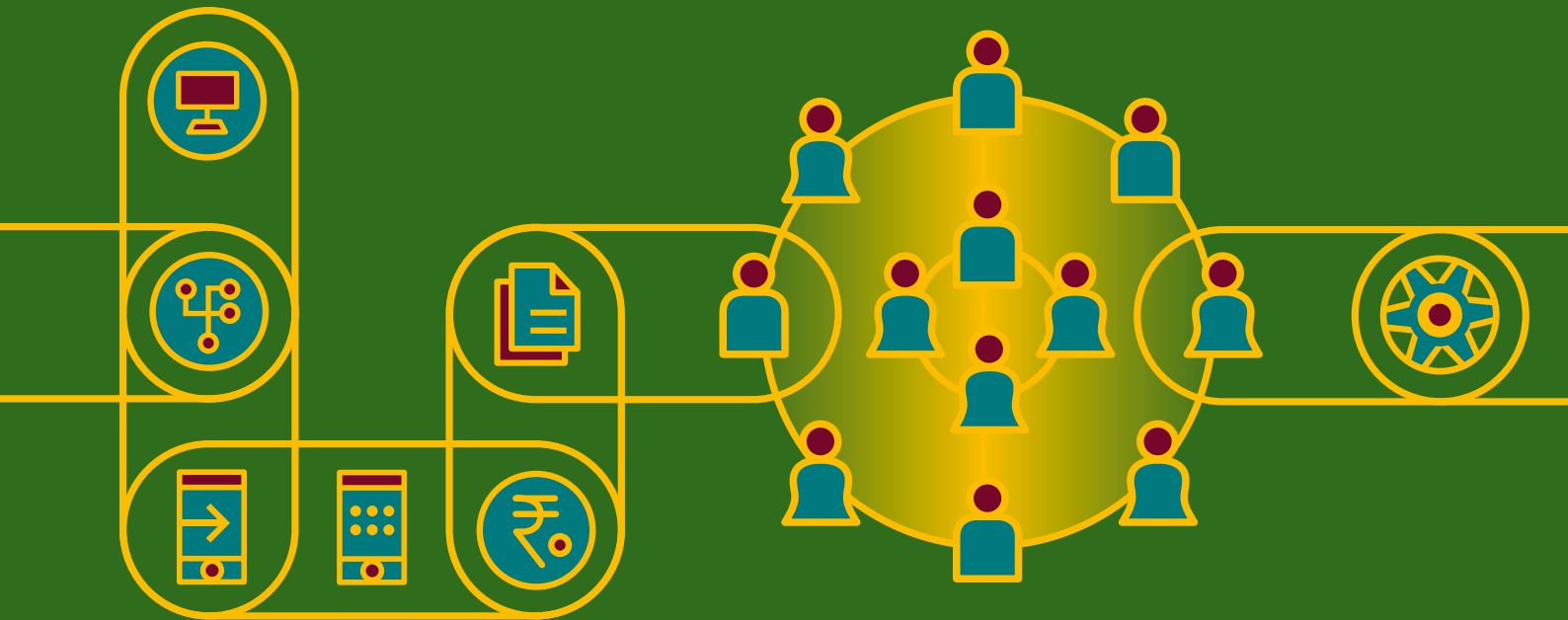
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Indo-German Programme
for Vocational Education and Training

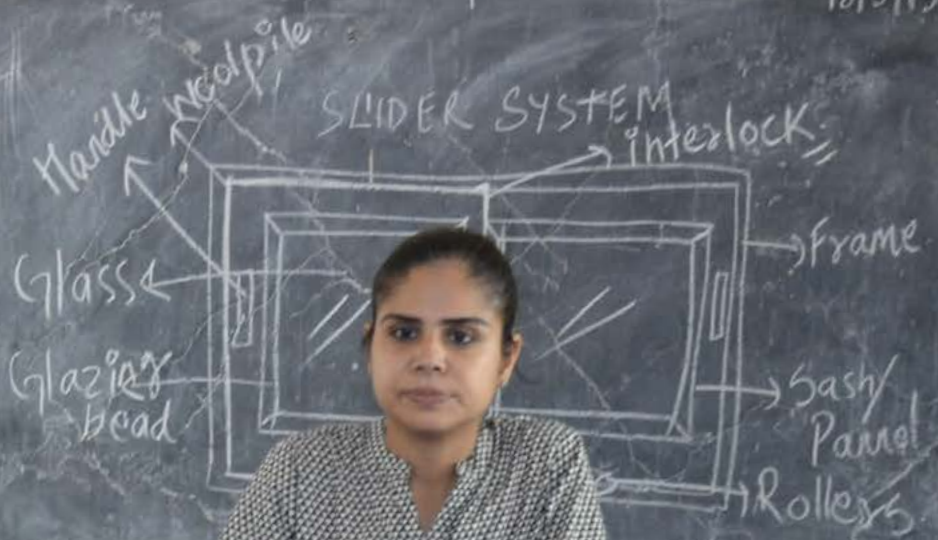
Creating a Curriculum for a New Apprenticeship Course

A Pilot Measure for Replication | Bhiwadi Cluster, Rajasthan



ROUTING

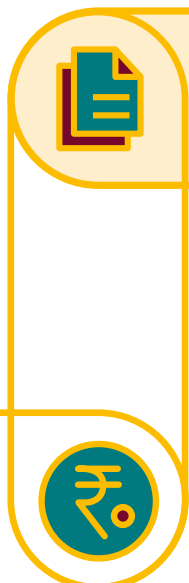
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Who We Are

The Indo-German Programme for Vocational Education and Training (IGVET) is a joint initiative of the Indian Ministry of Skill Development and Entrepreneurship (MSDE) and the German Ministry for Economic Cooperation and Development (BMZ). Implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, it aims at improving the skills of India's labour force, a priority for the Government of India.

The work of IGVET is inspired by the German Dual System of Training, which effectively combines school-based learning with high quality, on-the-job training. Based on the German experience, we provide advisory services and guidance to public and private sector actors in different sectors and regions and focus on finding tailor-made solutions for local challenges. Transferable solutions – like the one presented here – are documented for replication and upscaling across other regions and trades.



The Starting Point

Unplasticised Polyvinyl Chloride (uPVC) is a durable and energy-efficient building material that is widely used for the production of window frames and sills as well as doors. In India, more than 2,000 small and medium-sized enterprises (SMEs) currently specialise on the production of uPVC windows and doors and the market is growing rapidly.

In theory, this growth provides ample opportunities for job creation and youth employment. However, the Indian vocational education and training (VET) system has so far not been able to catch up with the skill requirements of the uPVC industry. As a result, many uPVC companies are struggling to fill their job vacancies and lack the human resources to fully capitalise on their production potential.

The Case of UWDMA

With the support of the *Indo-German Programme for Vocational Education and Training (IGVET)*, the “uPVC Window and Door Manufacturers’ Association” (UWDMA) decided to take matters into their own hands: They signed a Memorandum of Understanding with the state government of Rajasthan and established a basic training centre at an

Industrial Training Institute (ITI) in Bhiwadi. Together with their member companies, UWDMA then addressed the shortage of skilled workers in the uPVC industry by launching a tailor-made, two-year apprenticeship course for the region’s youth. A key milestone in this initiative was the creation of a curriculum.

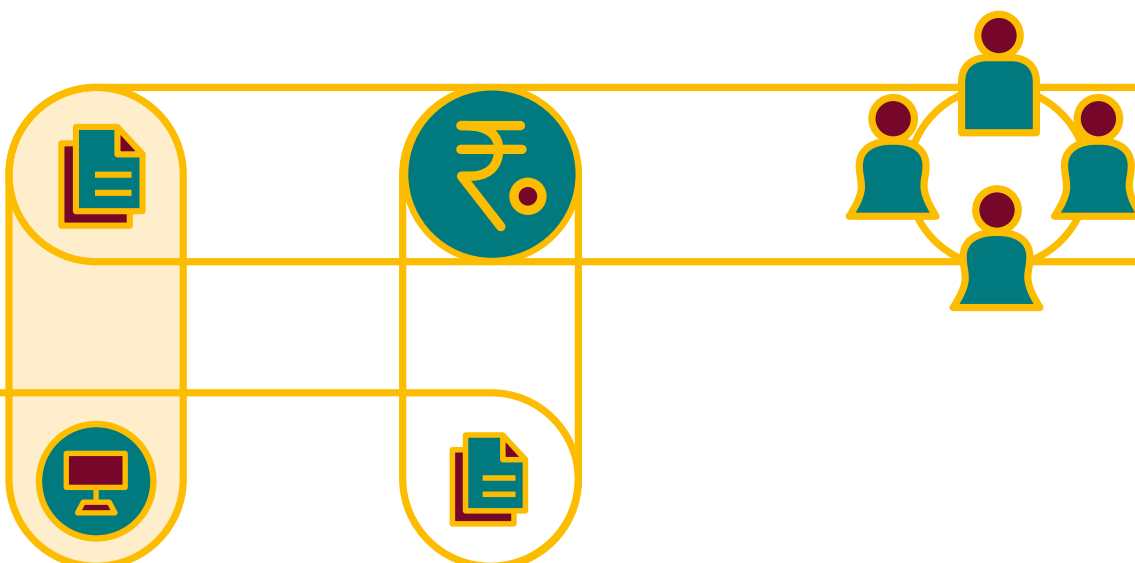


Why Create a Curriculum?

A curriculum is an effective tool for planning and formalising a new training course. It compiles and organises the content and the expected learning outcomes of the course and specifies how the expected learning outcomes should be assessed. At the same time, it outlines the ways in which the expected learning outcomes should be achieved and guides the providers of the course in its implementation. In India, a curriculum is also a key prerequisite for launching a new apprenticeship course.

The Apprentices Act 1961 allows industries to define trade-specific learning outcomes and to design and implement their own apprenticeship courses accordingly. To do so, they need to create a curriculum and submit it to the National Skill Development Corporation (NSDC) for approval. Once approved, the curriculum is officially recognised as an industry-led apprenticeship course and is made available via the apprenticeship portal. This allows employers to:

- register their apprentices for the new course via the apprenticeship portal,
- claim reimbursement for the stipends of registered apprentices under the National Apprenticeship Promotion Scheme (NAPS),
- train the registered apprentices according to the newly created curriculum, and
- issue Government-approved certificates to apprentices who successfully complete the new apprenticeship course.



What We Did

To create a curriculum for a tailor-made apprenticeship course for the uPVC industry in Bhiwadi, we supported UWDMA in:

- assessing the training needs in the uPVC industry,
- understanding the formal requirements for industry-led apprenticeship courses,
- identifying a German curriculum as a suitable point of departure,
- translating the German curriculum into English,
- aligning the curriculum with the needs of the uPVC industry,
- aligning the curriculum with the formal requirements for industry-led apprenticeship courses,
- conducting a series of stakeholder workshops to validate the curriculum, and
- submitting the validated curriculum to NSDC for approval.



Devender Kumar

Trainee

“After completing my 10th standard I was not doing anything for two years. Then I applied for training with UWDMA and after completing the training I got a job with ‘Fenesta’, a number one company in India. I have good opportunities here, the company grows and my career will also grow here. And my parents are happy as well that I found a job.”

The Training Needs Assessment

To assess the training needs in the uPVC industry, we designed and conducted a standardised survey among 5 of UWDMA's member companies. In the first half of the survey, companies were asked to outline the skills that are needed in each step of the production and installation processes of uPVC windows and doors. In the second half of the survey, they were asked to rate the extent to which the skills of jobseekers in the uPVC industry usually match their requirements.

The survey revealed that the production and installation of uPVC windows and doors requires very specific skills, which are not commonly found in other trades. Jobseekers usually have a background in fitting, manufacturing or electronic engineering and lack an understanding for the material properties of uPVC windows and doors. We also found that jobseekers usually have little to no practical work experience and require extensive handholding in the use of tools and machines.



Shobhita Mishra

UWDMA Trainer & Education Specialist

“This training is the first of its kind in India. The trainees get on-the-job factory training as well as theoretical knowledge. So they are having comparative edge in the industry. They are knowing not only how but why they do certain things.”

The Requirements for Industry-Led Apprenticeship Courses

As per the Apprentices Act 1961, industry-led apprenticeship courses need to consist of a minimum of 3 months of basic, classroom-based training and a minimum of 9 months of practical, in-company training. While the practical, in-company training is to be provided by the industry, the basic, classroom-based training may be outsourced to an Industrial Training Institute or a certified training provider.

To support the selection of suitable training providers, a curriculum for an industry-led apprenticeship course must include an indicative list of the tools and learning materials needed for the basic training. Furthermore, it has to provide detailed information on the minimum trainer qualifications and the certifying body of both the basic and the practical training.

Our Point of Departure

Based on the results of the training needs assessment and the identified requirements for industry-led apprenticeship courses, we found inspiration in a German apprenticeship course that focuses on the production and glazing of wooden windows and doors. The curriculum of the German course matched the needs of the uPVC industry in two respects:

- 1 The production process of wooden windows and doors is similar to the one of uPVC windows and doors. This enabled us to take over many of the specified learning outcomes, while adjusting the technical content to the training needs of the uPVC industry.
- 2 The German curriculum effectively combines basic, classroom-based learning with practical, in-company training. This allowed us to build on an existing course structure that aligned not only with the training needs of the uPVC industry, but also with the formal requirements for industry-led apprenticeship courses.

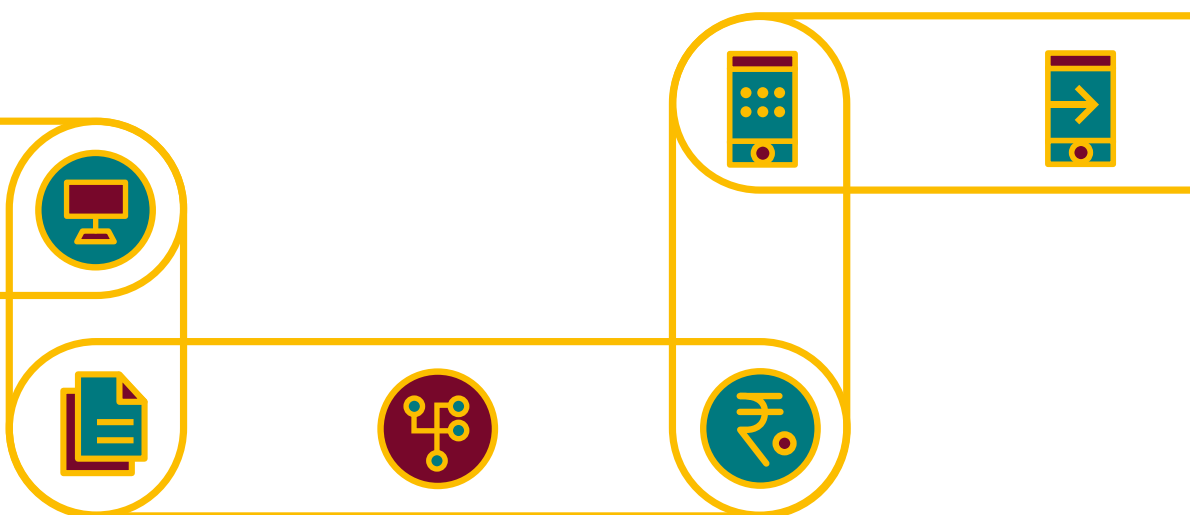


The Curriculum

To align the German curriculum with the identified training needs of the uPVC industry, we translated the curriculum into English and organised a series of stakeholder workshops that included UWDMA representatives as well as leading personnel and shop floor workers from UWDMA's member companies. During these workshops, we revised and validated:

- the learning outcomes, which the course participants are expected to achieve,
- the duration and content of the basic, classroom-based training,
- the duration and content of the practical, in-company training,
- the technical content, which is to be covered in each learning unit,
- the mode of learning (classroom-based or in-company) by means of which the learning outcomes are to be achieved, and
- the assessment criteria based on which the learning outcomes of each learning unit are to be evaluated.

In consideration of the formal requirements for industry-led apprenticeship courses, we also developed a list of required tools and learning materials and specified the minimum trainer qualifications for both basic and practical training. The result was a new curriculum which covers all essential skills for the production and installation of uPVC windows and doors, ready to be shared with NSDC for approval.



What We Achieved

Our new curriculum was approved and officially recognised as an industry-led apprenticeship course in 2018. Since then, it has received a lot of attention in the uPVC industry and is seen as a best practice. As a result of our activities,

5

of UWDMA's member companies participated in the training needs assessment.

3

of UWDMA's member companies contributed to the creation of the curriculum.

4

of UWDMA's Bhiwadi-based members decided to offer in-company training in the context of the new apprenticeship course.

55

youths from the Bhiwadi region received high-quality training in the production and installation of uPVC windows and doors.

Scan the QR code to find out more about apprenticeship:



What We Learned

The creation of a curriculum has proven to be an effective tool for planning and formalising a tailor-made apprenticeship course for the uPVC industry. Furthermore, it served to promote a strong sense of ownership among UWDMA's member companies, who are now in the process of creating their own talent. While implementing this pilot measure, we learned that ...

... industry participation is key.

Through the training needs assessment and our stakeholder workshops, UWDMA's member companies were able to provide invaluable inputs for the design of the curriculum. These inputs were crucial in ensuring that the new apprenticeship course aligns with their needs and that young jobseekers are equipped with the right set of skills.

... half the job is finding a good point of departure.

Interlinking the contents of the basic, classroom-based training with those of the practical, in-company training is not an easy task. We therefore found it helpful to base our new curriculum on the structure of an existing course from a similar industry that effectively combines the two learning venues.

... there is more to work life than technical skills.

While technical expertise is important, work life entails more than the handling of machines, tools and materials. In addition to industry-specific contents, our curriculum was therefore made to include customised learning units on product quality, workplace safety, environmental sustainability, interpersonal communication and English literacy – all of which were found to be important for a successful career in the uPVC industry.

... good things take time.

Our training needs assessment revealed a strong need for both basic and practical training. UWDMA therefore decided to extend the duration of the classroom-based training to 6 months, and the duration of the in-company training to 18 months. This goes beyond the formal requirements for industry-led apprenticeship courses, but it enables apprentices to fully develop their skills and to transform themselves into real experts in their field.

... flexibility beats rigour.

The structure of our curriculum originally foresaw 2 blocks of basic training of 3 months each, to be followed by 2 blocks of in-company training of 9 months each. Given the strong need for skilled workers in the uPVC industry, UWDMA however decided to implement the course in a recurring pattern of 1 month of basic training, followed by 3 months of in-company training. This allowed UWDMA's member companies to integrate their apprentices into their work processes from the very start and to closely interlink the practical training blocks with the contents of the classroom-based lessons.

Contact

If you, too, want to improve the skills of your labour force by making use of India's untapped human potential and if you, at the same time, want to contribute to a brighter future for India's youth and economy, get in touch with us.

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