



# Return on investment or an investment without return?

A cost-benefit ratio analysis of  
in-company training in Mongolia

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Chief Finance Officer  
asks CEO

»What happens if  
we invest in developing  
our people and they  
leave us? «

CEO  
»What happens if we don't,  
and they stay? «

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## WHY IT IS WORTH TO INVEST IN VOCATIONAL TRAINING ?

**A country's most valuable resources are its human resources!**

An investment in people and their skills is not only imperative for a nation's economy but a social responsibility not limited to the government only. Upon completing their mainly school-based training, many graduates are thus not prepared for the requirements of potential work areas that match their training profile.

**Therefore, companies often find they have to provide additional training to compensate for this, which involves making investments, undermines trust in the capabilities of institutions for vocational education and training, and makes entrepreneurs reluctant to hire young qualified trainees without work experience.** Formal state certificates lose their value if the holders have only a tenuous grasp, or none at all, of the skills required to do the job. The private sector is often not consulted in designing the framework conditions for vocational education and training. Companies need to be systematically involved and institutionalized in the provision and examination of training.

TVET is much more than just the mere acquisition of skills, but a **tool to empowerment**. This mutual belief has been the foundation of Germany's and Mongolia's cooperation in TVET and unites them in a joint vision. Only if TVET considers industry needs and is responsive to national, regional and global dynamics, it will generate a competitive workforce.



**But let's talk business:  
Will investing in people's skills benefit my company?  
– Yes, it will and here is why:**

If private companies get involved in **TVET**, they can build up the **workforce they need!** This will lead to more productive outcome for the company but also to a motivated staff equipped to perform a job well! There is a wide range of possibilities for the private sector to get involved in workplace-based training. Any profit-seeking company will carefully assess their engagement in TVET in the light of **cost-benefit considerations**.

A promising model for private sector engagement is the implementation of a **cooperative TVET system** in which trainees receive work-based training at a company complemented by theoretical input and fundamental practical training at school. In Germany, for example, the practical part can reach up to 80%. Evidence shows that such **dual TVET systems are more effective for all stakeholders involved**. Countries like Germany and Switzerland proof that the provision of work-based training builds the backbone of sustainable economic growth. Additionally, in 2018 youth unemployment rate in Germany was at 6.2% – the lowest rate in Europe with an ever declining tendency. Another figure illustrates this even more drastically: From all TVET trainees of the year 2013-2014 only 5.7% got unemployed after graduation.



## SO, HOW DO COMPANIES EXACTLY BENEFIT?

Companies can pursue different strategies creating either direct or downstream benefits from their TVET involvement. A company seeking to maximize direct benefits follows a **production-oriented strategy**. This is the case for example in Switzerland, where companies seek to maximize their cost-benefit ratio by raising the trainee's productivity in skilled tasks as fast as possible and at minimal costs. In a production-oriented TVET system trainees **perform tasks of skilled workers at lower salaries**.

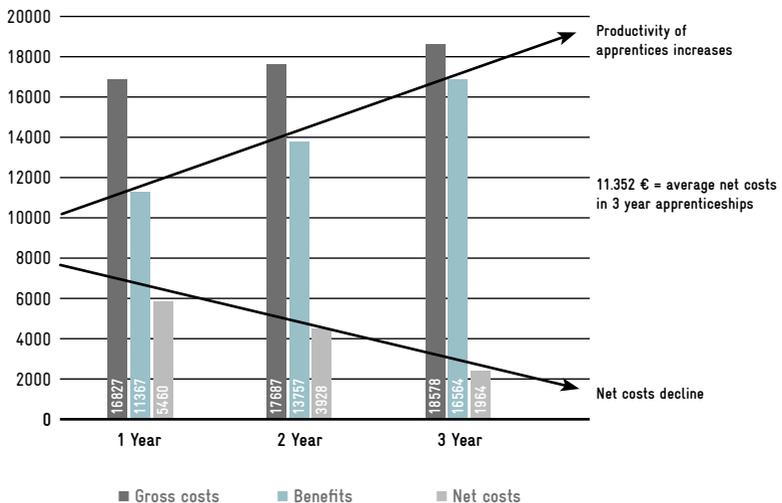
An **investment-oriented strategy** on the other hand implies a focus on downstream costs and benefits. Benefits arise from significantly reduced recruitment and induction costs. German firms save up to 75% of the total expenses for a three-year TVET track because a great percentage of **trainees stay with the company that trained them after graduation**. Naturally, employers are free to pursue both strategies at a time as long as they are not contradicting. A company might substitute apprentices for unskilled or skilled workers (production-oriented) as well as provide work-based training to secure future skill supply (investment-oriented). In a nutshell: **The production-oriented strategy implies lower salaries** for the trainees to increase immediate net benefits, whereas higher salaries are paid under an **investment-oriented model to increase the loyalty** of the trainees. Additionally, companies involved in TVET will always benefit from the indirect effect of an increased reputation and recognition within society.

| TYPE       | DEFINITION  | EXAMPLES   | STRATEGY                                       |
|------------|---|--|--|
| DIRECT     | Arise during the provision of the training and are direct consequence of it.                          | Benefits: Productive output<br>Costs: Salaries, Training material      | Strategy Production-oriented training strategy |
| DOWNSTREAM | Arise after the provision of the training and are direct consequence of it.                           | Benefits: Reduced recruitment costs (hiring and induction)<br>Costs: - | Investment-oriented training strategy          |
| INDIRECT   | Arise during or after the provision of training but are not a direct and automatic consequence of it. | Benefits: Increased reputation<br>Costs: -                             |  |

Switzerland and Germany are considered as pioneers concerning private sector involvement in TVET. In Switzerland, an impressive total of 52'000 companies (25% of all companies) provide work-based training at upper-secondary level. **In Germany, 20% of all companies** actively participate in TVET.

Both German and Swiss firms benefit from the provision of work-based training, but since German firms are confronted with tighter wage regulations, they realize a positive cost-benefit ratio mostly thanks to reduced hiring and induction costs, while Swiss firms already achieve net benefits during the training itself.

## DEVELOPMENT OF COST OVER A THREE YEAR TRAINING PERIOD IN GERMANY



Source: Wenzelmann, Felix | Jansen, Anika | Schönfeld, Gudrun | Pfeifer, Harald  
 Kosten und Nutzen der dualen Ausbildung aus Sicht der Betriebe.  
 Ergebnisse der fünften BIBB-Kosten-Nutzen-Erhebung, 2016.



In a globalised economy, **a skilled workforce is considered an important competitive advantage**; for companies, workers and national economies alike. Collaboration between the private sector and public institutions ensures that the workforce meets industry requirements. **It is proven that the provision of work-based training benefits a company in a variety of financial and non-financial ways.**

**It is a common misconception that the provision of work-based training only leads to costs but no benefits.**

This perception does not stand up to reality. The productivity gap between the trainee and a trained worker is minimized during training: The longer the training, the smaller the remaining gap. This mechanism and the lower salaries of the trainees make it possible to **compensate the expenses over the entire duration of the work-based training.** In Switzerland, for example, **net benefits reach MNT 2,520,237 p.a.** on average, depending on the profession and duration of the training.

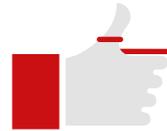


The provision of work-based training is an **excellent opportunity to assess the performance of potential future employees** before offering them a regular position. Therefore, recruitment costs for external staff (e.g. job ads or interviews) can be reduced noticeably. Furthermore, the induction phases can be shortened. **The filling of a vacancy without any training is a myth.** 50% of German apprentices still work for the training firm one year after graduation. German **companies save 75% of the total expenses for a three-year TVET track.**



Companies that employ both unskilled and skilled workers can **increase the loyalty of staff if there is a chance to climb up the career ladder** thanks to the participation in work-based training. This helps to reduce hiring and induction costs and may also **foster productivity** of the lower skilled workers when staying longer at a company due to the **provided perspective**.

Unemployment and especially **youth unemployment** are **considered a major challenge** in many economies around the world. Companies which are contributing to the labour market integration of young people might benefit from an increased reputation.



## TVET MADE IN MONGOLIA

Mongolia's diverse industrial sector is thriving. To deliver their services at a high qualitative standard, companies need well trained staff. This opens up a wide range of opportunities for Mongolian youth to undergo TVET and embark on a promising career. However, in 2019, an estimated **16.5% of young people in Mongolia were unemployed**. Meanwhile, most young people prefer an academic career over vocational training. In 2015, just 22% of those with secondary school qualifications were enrolled in TVET<sup>1</sup>.

Since the early 2000s, the Mongolian Government has taken many efforts to reform the national TVET system on the basis of competency-based training. With support from the "Cooperative Technical and Vocational Education and Training project" (cTVET) implemented by GIZ on behalf of BMZ with co-financing from the Korean and Australian development agencies (KOICA and DFAT)<sup>2</sup>, the Mongolian Ministry of Labour and Social Protection (MLSP) implemented **demand-oriented curricula** in selected technical fields. Occupational standards were developed in collaboration with the private sector. **TVET teachers have been trained, and a training programme for in-company instructors has been**



The provision of work-based training not only secures access to a workforce that meets the company's requirements but also **promotes innovation**. TVET systems that follow a regular and institutionalized curriculum development provide access to new knowledge and thus drive innovation. If companies collaborate for the provision of work-based training, they also exchange about production methods. This is an **opportunity to raise both a single company's but also an industry's productivity and foster its competitiveness**.

**rolled out**. Professional boards to facilitate an **institutionalised exchange between actors from governmental, societal and private sector bodies** have been introduced. These developments have been supported through **Public-Private-Partnerships**, including a development partnership with Oyu Tolgoi LLC and Festo Didactics to strengthen Capacity Development Centres (CDCs).

MLSP has also put in place a range of regulations<sup>3</sup>, for example concerning the **mandatory provision of in-company instructors** (Resolution A/265) or **financial incentives for companies** providing work-based training. One remaining major challenge is to align TVET to the private sector's needs and to tackle the **persisting mismatch between supply of and demand for skilled workers**.

Leading Mongolian companies like **Khurd, Moninjbar, Erdenet Orchlon and SHTB** already provide work-based training. Their involvement demonstrates that the **benefits from the provision of work-based training are real** and applicable to the Mongolian context.

<sup>1</sup> <http://uis.unesco.org/en/country/mn>

<sup>2</sup> Korea International Cooperation Agency (KOICA) and the Australian Department of Foreign Affairs and Trade (DFAT); in the previous phase, with co-financing from the Swiss Development Cooperation (SDC)

<sup>3</sup> For detailed information on the TVET law (sections 11 and 20), employment legislation (sections 13 and 15) and the Employment Preparation and Employment Skills programme (section 5), see [www.legalinfo.mn](http://www.legalinfo.mn)



## RESULTS FROM MONGOLIA

**24%**

### increase of productivity

The productivity of trainees compared to the productivity of a skilled surpasses the values of Switzerland and Germany, when taking the duration of the training into account.

»Use TVET as a pre-induction phase for your future employees!«\*

**22%**

### retention rate

If the trainees skills meet the companies requirements, they are more prone to offer their trainees regular jobs after graduation.

**MNT 3'579'733**

### saved on average

Hiring and induction costs are saved when hiring trainees instead of recruiting external workers.

### SOCIAL BENEFITS

Besides the financial motives, the provision of work-based training is also linked to the company's corporate social responsibility.

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\*The message of the participating firms is: "Consider TVET as a company's social responsibility and use work-based training as a pre-induction phase for your future employees." In addition, several interviewees report that due to the provision of work-based training they gained valuable insights about their company's work processes.

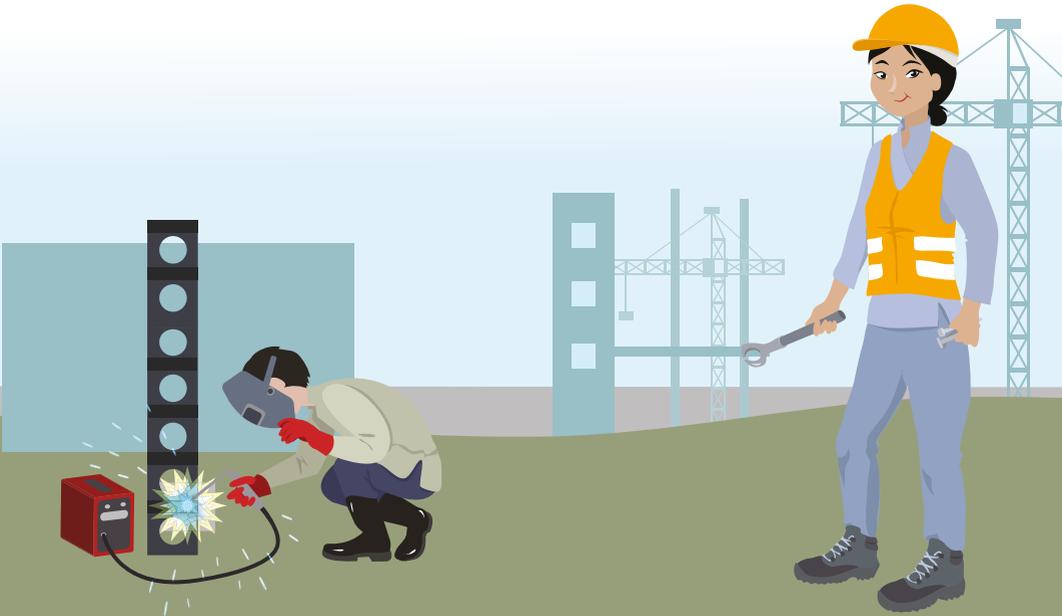
# BUILD4SKILLS: TVET AND INFRA-STRUCTURE – AN INNOVATIVE VISION



TVET systems, globally, often lack alignment with industry requirements. Even though they are formally certified, graduates from vocational training institutes often have little or no exposure to the workplace they have been trained for. Industry representatives highlight the poor level of competencies and skills being taught at vocational training institutes.

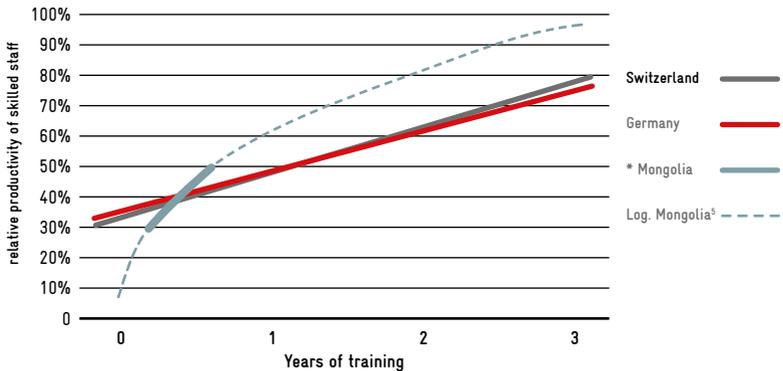
The German Federal Ministry for Economic Cooperation and Development (BMZ) and the Asian Development Bank (ADB) have formed a **strategic partnership** united in the belief that infrastructure measures hold an **untapped potential for work-based training**. By combining TVET measures inspired by the German dual training system with ADB's strong involvement in infrastructure, "Build4Skills" demonstrates how inter-agency cooperation addresses the prevalent lack of industry-driven, practical training across sectoral boundaries.

Work-based and nationally accredited TVET will enhance the employability of the local workforce. Training that is oriented towards the needs of the labour market will **increase the opportunities of TVET graduates to find decent work and to gain higher income**.



## TRAINEE'S PRODUCTIVITY

Data from Muehleemann (2016) and interviews conducted by GIZ Mongolia



### How to interpret

The net benefit a company can draw from the provision of work-based training mainly depends on the productivity of the trainee. Not only therefore, the increase achieved is a key indicator to assess the **overall performance of TVET systems**. The graphic plots the overall mean values for different occupations in Germany, Switzerland and for the interviewed Mongolian companies. It is important to keep in mind that the TVET tracks do not have the same duration. The data for Mongolia only covers the first of maximum two practical modules of the TVET tracks. The dashed line represents the estimated productivity development during the rest of the training. Against this background, it is remarkable that **productivity increases in Mongolia are realized in a significant shorter time span compared to German or Swiss trainees**.

However, Mongolian companies reported a lower productivity level at the beginning (29%) compared to their counterparts in Germany and Switzerland. Significant differences between the interviewed companies underline the relevance of companies **to actively involve into TVET for achieving positive net benefits** from providing work-based training.

<sup>5</sup> Estimation is based on the log-function of the measured productivity development. As it can be expected, that the productivity increase starts rapidly and slows down over time this is the most reasonable estimation function.

\* The figures for Mongolia were reported by Double pyramid, DUBB, Erdenet Orchlon LLC, Khangal construction, Khurd LLC, Moninjbar LLC, Render, SHTB LLC, Undur Bar.

## Build4Skills Mongolia in brief

In Mongolia, “Build4Skills” partners with the Ministry for Labour and Social Protection (**MLSP**) and the ADB-funded “Ulaanbaatar Urban Services and Ger Areas Development Investment Program” (**GADIP**).

With its considerable number of ongoing and planned infrastructure measures, the GADIP project is the operational framework for the practical on-site training of TVET students. “Build4Skills” facilitates the necessary **cooperation between companies contracted under GADIP and TVET institutes for the placement of TVET students** for their practical phase.

“Build4Skills” also supports the TVET Assessment, Information and Methodology Center in assessing and certifying informally acquired skills with **Recognition of Prior Learning (RPL)** measures. The assessment allows to ascertain the level of and informally acquired skills of potential trainees and to identify their qualification needs. **Assessment material oriented towards officially accredited standards was developed for occupations in demand of the construction sector<sup>6</sup>.**

In cooperation with GIZ’s bilateral eTVET project, “Build4Skills” offers **pedagogical and methodological training for experienced engineers** from GADIP’s contracting companies who want **to become in-company instructors**. Further, “Build4Skills” and its partners are developing a **digital platform combining labour market data** from different sources which will allow **for evidence-based policy making by analysing skills mismatches in the construction sector**.

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<sup>6</sup> welding, concrete, sanitary, interior, brick laying, carpentry or electrician

## The Ulaanbaatar Urban Services and Ger Areas Development Investment Program (GADIP)

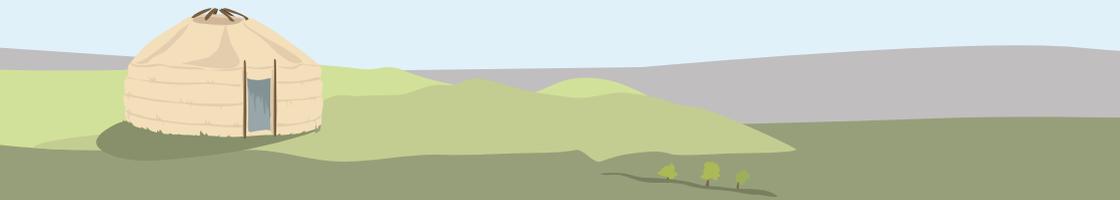
Ulaanbaatar City is home to over 1.4 million people, of whom **60% live in the peri-urban area – the “ger<sup>4</sup> areas”**, as they are known. These areas are characterised by very poor infrastructure and a lack of basic public services. The “Ulaanbaatar Urban Services and Ger Areas Development Investment Program” (GADIP) supports the Ulaanbaatar city master plan in upgrading priority services and developing economic hubs (sub-centres) in ger areas. The project aims **to improve the living conditions by creating a network of liveable, competitive and inclusive sub-centres.**

The construction work carried out by GADIP includes heating, water supply, electricity and telecommunications networks, a road system, and social facilities. **Demand for well trained workers in construction occupations is high**, giving many of the participants excellent opportunities for future employment at one of GADIP’s contracting companies.

**Overall cost of GADIP (2014 – 2023, three tranches)  
is \$320 million funded by:**



<sup>4</sup> Ger is Mongolian for “yurt” (a traditional tent)



## WHY SHOULD YOUR COMPANY PROVIDE WORK-BASED TRAINING?

The German TVET system is a promising model to demonstrate how the government and the private sector share mutual responsibility in governing Germany's TVET system and how significant work-based learning is to acquire the knowledge and skills needed to perform a job well.

We do not promote to transfer the German TVET system 1:1 to our partner countries as it is often demanded, but we do encourage considering to adapt constituting elements of our system. The consultation of the private sector, the investment in research to generate relevant labour market data, the relevance of work-based learning and the training of teachers and instructors are such elements.

A company willing to invest in work-based training with the prospect of medium- and long-term net benefits, should consider the following:

- **Collaborate closely** with all stakeholders involved to shape an efficient TVET system.
- **Connect** with other companies. What are trends in the sector and how do other companies train? That will improve the performance of your company and the TVET system as a whole.
- **Explore** with TVET schools on how to better match theoretical and practical contents. This will help your trainees to perform better.

We strongly advocate for getting involved in TVET as a training company!

**The monetary and social benefits gained do not only compensate but exceed the investments made in training one's workforce! Let's face the challenge and create benefits!**





On behalf of:



Federal Ministry  
for Economic Cooperation  
and Development



MINISTRY OF LABOR AND SOCIAL  
PROTECTION MONGOLIA

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