

Survey of the consequences of the coronavirus crisis on international TVET (Technical Vocational Education and Training) cooperation in selected countries in Europe and worldwide

1 Introduction

The COVID-19 pandemic continues to have a major effect on the economy, employment and training. To overcome the crisis, fairly long-term responses and adjustments will also be necessary at all levels in TVET practice and its political control. BIBB has performed analyses and envisaged possible scenarios to investigate the potential future challenges for TVET in Germany and establish appropriate solutions to meet these challenges.

It is evident that the national challenges are closely connected with international contexts. Over the last decade, Germany has increasingly reached cooperation arrangements with partner countries in TVET and development cooperation. In fact, TVET forms an important field of action in our external relations in many countries. During the crisis, Germany remains true to its commitment to sharing ideas and experience and taking joint action with its international partners. TVET cooperation has the very specific aim of maintaining achieved cooperation results, promoted by economic and human development in the partner countries, under substantially more difficult conditions. However, the crisis is also a good time to search for promising new solutions and ideas for future development. The global collaboration in the development of a vaccine serves as an example of how we can work together across borders, learn from one another and share our best ideas. This can, and should, also apply to education/training, work and employment both during and after the crisis. The fact that forecasts for economic consolidation in Germany are essentially linked to the economic recovery of economies abroad adds a further important component to our commitment to international cooperation. Our export-oriented economy requires a strong economic environment abroad and, last but not least, well-trained experts at its international locations.

The pandemic makes it necessary for every individual country to develop solutions in accordance with its own specific situation and the means available to it. At the same time, a global crisis gives rise to mutual dependencies, making it necessary to compare and share strategies to overcome the crisis, and make a joint effort to implement these strategies. Even now, the crisis can be seen to be having **repercussions from abroad on TVET in Germany** and on the **areas of action of the Federal Institute for Vocational Education and Training (BIBB)** – with a direct effect on: German companies providing vocational training abroad, on the formats for dialogue and advisory services in international cooperation, on funding projects to strengthen dual vocational training approaches abroad and on mobility programmes. The **departments and actors** in international TVET cooperation will not only have to deal with the consequences of the coronavirus for their international work in the short term. GOVET is fulfilling its service remit as a central government office to provide information and contribute towards joint approaches to overcome the crisis in international contexts. In addition to the government departments, GOVET is also supporting the economic and social partners that play a significant role in the German TVET system and are active on an international scale, as well as further stakeholders in international TVET cooperation.

GOVET has begun to document the effects of the coronavirus crisis on TVET and on the development of the labour and vocational training markets in the partner countries of the Federal Ministry of Education and Research (BMBWF). The country experts and integrated employees of the Federal Foreign Office (AA) and the Federal Ministry for Economic Cooperation and Development (BMZ) in the GOVET team have conducted another survey on this. Important sources of information included partner ministries and subordinate organisations, German diplomatic missions and German Chambers of

Commerce Abroad (AHK), and also institutes and foundations in the partner countries of BMBF. Further BIBB divisions such as iMOVE – Training Made in Germany and International Consultancy also contributed their findings from the various countries to the survey.

Below we will present a summary of several results and reach initial conclusions for the work of GOVET.

2 Effects of the coronavirus on TVET in the international context

In all documented countries, the information indicates direct, far-reaching **effects on practical training**, similar to those seen in Germany. At present, deficits in the areas of infrastructure, didactics and methods are impeding a direct transition to online learning and teaching. Challenges are posed by the postponement of practical training phases and the need to hold examinations online. There are clear signals that the cooperation arrangements are to be strengthened in the medium to long term, that other countries continue to seek to maintain relationships with Germany and that lively exchange between experts is desired. The survey identifies the requirements and topics involved in this dialogue. The results are to be used to develop formats, instruments and offers for international TVET cooperation.

2.1 Situation in EU countries

In **Greece**, part of the theory lessons at schools took place online. Schools are to be reopened progressively in the autumn. Trainees at the Greek Manpower Employment Organization (OAED) are currently not receiving any remuneration as the companies have sent them home. Although the country opened for foreign tourists at the beginning of July, it remains to be seen whether the tourism industry can absorb a similar quantity of trainees. According to a survey conducted by the local German Chambers of Commerce Abroad (AHK), German companies in Greece fear that they are set to record substantial business losses.

In **Italy**, the National Agency for Active Labour Policies (ANPAL) estimates that the economy will shrink by more than five per cent. Whereas on the one hand the involvement of small and medium-sized companies in TVET will decline, the crisis may on the other hand provide new momentum for TVET. In particular, young IT experts at the higher technical colleges could reposition companies with digital offers and production/administration processes. The partners hope that projects with Germany in TVET will be continued. Schools in Italy are scheduled to open at the beginning of September for the purpose of catching up on subject matter that has been missed, while normal teaching is to resume as of 14 September 2020. In addition, other buildings such as those that are currently empty or theatres, museums and parks are to be used for teaching units. In this way, increased laboratory/practical teaching, hybrid online/classroom forms and greater flexibility are to lead to innovative schooling.

Up to now, **Portugal** has come through the COVID-19 pandemic relatively unscathed, especially compared to neighbouring Spain, thanks to early intervention by the government – although the number of those infected is increasing again, in particular in the Lisbon area. Nevertheless, the economic situation is rather difficult, predominantly as a result of uncertainty for the tourist season. Theoretical and practical training has resumed and students are catching up on subject matter that they have missed. However, it is to be expected that several companies will be forced to file for insolvency, with the result that many students will be unable to continue their vocational training, and that fewer companies will be interested in taking on trainees in the next year. Vocational orientation for young people is taking place via social media, but as a result is not reaching parents to such an extent.

Slovakia, a country with strong production in the areas of mechanical engineering, plant engineering and the automotive sector, anticipates a loss of sales of up to 50 per cent. This was the result of a survey conducted by the AHK, among 150 companies. In the near future, the question will arise as to how to maintain the infrastructure that has been established in TVET at the AHK. To make it possible to hold and catch up on practical training phases, summer schools are being offered in the various forms of practical and dual vocational training. Local experts anticipate an increased level of unemployment and a reduced willingness among companies to take on trainees.

The government in **Spain** has also closed vocational schools. It is left to the schools to decide how to continue and expand their teaching via digital platforms. Although centres have progressively reopened since 1 June 2020, it is up to the regions themselves to decide on the procedure. Without any third-party funding, the AHK is organising dual training courses with the FEDA German Business School, and with SEAT, VW, Daimler and other companies, for example in the tourism industry. The vocational schools are striving to retain contact with the students. The tourism industry continues to be greatly affected. Many companies have sent trainees home, sent them on unpaid leave or released them from work. Companies offering dual training would like to continue to provide this training, but are in an extremely difficult economic situation.

2.2 Situation in countries outside of the EU

TVET in **China** is slowly starting up again in several provinces, but remains in online mode in Beijing because a second wave of infection is feared. The teacher training run by German education providers is currently on hold. The official bodies of the Chinese Ministry of Education are keeping a low profile with regard to closed educational institutions. According to assessments of the AHK, three trends can be observed in the crisis: digitalisation (including new teaching formats, digital content, increased networking), reduced funding options (for example for international projects) and the postponement of measures. Once everything is operating normally again, it is highly likely that national activities will be given priority over international activities to begin with. The AHK anticipates new opportunities, for example with regard to digital formats and networking, growing demand in areas such as health care (hospital management, crisis management), biomedicine, biotechnology, digital collaboration, a general increase in digital skills in various professions and an acceleration of the trend from TVET to higher education and Bachelor's degrees.

In **Costa Rica**, COVID-19 is spreading at a substantially slower rate than in other countries in the region. Nevertheless, a sharp increase in infections has been recorded over the past two weeks, which is having an effect on the government's plans to relax the measures taken. The Costa Rican Ministry of Public Education (MEP) is in a calm regulated crisis mode and is tying up the majority of its (human) resources in maintaining "normal" school operation. Vocational schools are closed since the beginning of March. As result of the sudden increase in infections, however, it is uncertain when classroom teaching will recommence. Short-term changes and postponements in relaxing measures in the (vocational) education sector are to be expected. The beginning of dual training (with the first year of training) has originally been scheduled for February 2021. A postponement to February 2022 is imaginable, but not yet being discussed as a realistic scenario. Top priority is assigned to the digitalisation of the classroom via online teaching and learning platforms and the transmission of lessons on public television ("Aprendo en casa"). A further priority is the provision of food packages for needy families with children (to replace the free school canteen meals).

In **Georgia**, the government imposed strict restrictions at a very early stage and changed over the entire education sector to "Teleskola" educational television and online offers in cooperation with Microsoft. As of mid-October, hybrid models are to be offered at vocational colleges. The theoretical part is to take place online, and the time spent at companies spread out, so fewer people are on site

at the same time. Although the main activities in the GIZ project Private Sector Development and Technical Vocational Education and Training are restricted by the coronavirus crisis, they are basically still running. In several sectors, not only school education but also vocational training have come to a standstill. This is the case, for example, in the tourism sector. In contrast, operational activities are at least continuing in the ICT sector, in systemically important professions and in the construction sector.

In the metropolitan regions of **Ghana**, public life and business activities have returned to normal to a certain extent. While schools and universities have only been opened for final-year classes so far, many companies are now reporting an increase in demand and in their activities. The government has approved various aid packages to support SSMEs. Likewise, great attention is being paid to the expansion of the health sector. TVET institutes, schools and universities are closed for normal operation since 15 March 2020 and will only be fully reopening at the beginning of the new school year. Since June, the final-year classes have been progressively readmitted to classroom teaching. The national borders remain closed. Likewise, church services and gatherings are also prohibited (until 31 July 2020 for the time being). At the beginning of April, a three-week curfew was imposed in metropolitan regions. The numbers of infections continue to increase, but are at a moderate level overall (with a total of 18,134 confirmed cases on 29 June 2020). Having said that, it is questionable whether all cases are recorded. The health care system has not been overstrained up to now.

In **India**, the number of cases is rising rapidly. The early lockdown imposed by the government under Modi may have delayed the wave of infection, but has not prevented it. Should the current outbreak expand beyond the local hotspots, it will become practically impossible to control and will soon stretch the health care system to its limits. A further lockdown would cause lasting damage to the country's beleaguered economy. The unemployment figure is currently estimated at 14 million. The Ministry of Skill Development and Entrepreneurship (MSDE) is taking measures with a view to ensuring that trainees do not continue to receive financial support and that the termination rates do not increase. In the area of TVET, there will be a decline in the numbers of trainees, by which the large numbers of private vocational training centres will be particularly hard hit. One sector with good prospects for stronger further development is the entire area of medical technology. Innovations are to be expected in the area of online training in the area of TVET.

In **Iran**, there are up to now hardly any effective online teaching or learning programmes. Vocational schools are managing by using TV programmes, establishing chat groups and designing short training programmes that at least cover the theory. It can be assumed that the reform of technical training will progress more quickly and productively in the medium term. Even now, the country is discussing ideas for strengthening systemically important professions and introducing improved education and training offers to counteract rural exodus to the cities. German training providers could play a role in online training in Iran.

Although people's entire lives are affected by the coronavirus in **Israel**, the government has decided to relax the measures in many ways for everyday life. Online teaching is offered for certain subjects at vocational schools and general education schools, but vocational courses of studies and practical training phases at companies cannot be continued until further notice. With regard to the coming year, this is likely to affect the enrolment of new students and school pupils because vocational orientation is currently not possible. A large share of the Israeli workforce has been laid off, and there is a particularly high unemployment rate of around 47 percent among young adults. According to statements by the Ministry of Labour, there will possibly be a substantial increase in demand for TVET courses.

In **Kazakhstan**, the crisis is making it apparent how vulnerable the economy and society are in their present form. The crisis situation is to be bridged by offering broad support for companies with tax reductions and credit guarantees. The main lines of action involve restoring macroeconomic stability,

increasing the self-sufficiency of the Kazakh economy and changing sociopolitical priorities, for instance by investing in the qualification of skilled employees.

In **Mexico**, the infection situation remains extremely critical. The further development of the health situation is hard to predict. The number of those infected and the number of deaths caused by COVID-19 continue to rise steadily. The Mexican Secretariat of Public Education (SEP) too is in crisis mode and is tying up the majority of its (human) resources in maintaining “normal” school operation. Vocational schools are closed since the end of March. One top priority comprises the digitalisation of classrooms via online teaching and learning platforms and the transmission of lessons on public television (“Aprende en Casa por TV y en Línea”). The greatest challenge for the education system is the lack of (technical) infrastructure in rural areas, which is an essential prerequisite for the effective implementation of distance learning, and the unpredictability of economic effects on training institutions. Up to now there have only been individual temporary closures of training institutions. The new school year will probably be commencing at the beginning of August. Over a six-week transitional period, vocational school students will have the chance to catch up on teaching units they had missed. The official beginning of the school year is scheduled for 21 September.

Russia has been hard-hit by the COVID-19 pandemic, particularly in the metropolitan cities of Moscow and St. Petersburg. Current estimates predict a negative GDP of around five per cent. According to the latest economic data, a slight positive tendency can be seen. President Putin has published a plan to revive the economy. However, according to statements of the Moscow Higher School of Economics, many small companies have little chance of surviving the crisis. The entire education sector has been changed over to online teaching. Schools and universities are permitted to adapt their curricula to the circumstances and postpone practical training phases. Teaching staff are receiving didactic and methodical training to prepare them for distance learning. Institutes such as the Federal Institute of Educational Development (FIRO) are providing them with support in the form of webinars. The Ministry of Education has set up several portals with quality-assured content for self-study. As the necessary infrastructure with laptops and Internet access is not always guaranteed, young people from socially disadvantaged families are receiving individual support and advice. However, the new training year is scheduled to begin as usual in September. The AHK in Moscow is cautiously optimistic that large enterprises will stick to their personnel planning. Major Russian corporations view the crisis as an opportunity to speed up the digital transformation and achieve a further market shake-out.

South Africa has responded to the pandemic with severe restrictions (almost complete curfew, reduction of business activities to critical infrastructure, closure of all educational institutions), which have been relaxed in the meantime, but are now progressively being made stricter again. Schools and vocational education institutions reopened on 1 June 2020 and 7 June 2020 respectively. However, the possibility of closing them again is now under discussion as result of the increasing numbers of infections. Although it has been possible to resume business activities with certain restrictions since 1 May 2020, far-reaching consequences for the South African economy are expected. In the education sector, the authorities responsible have quickly taken the initiative for digitalisation, using more digital instruments to impart theoretical components of training. For example, an e-learning handout and an open learning platform have been made available to all vocational school teachers. At the same time, deficits are becoming apparent in terms of the didactic skills of teaching staff and the digital infrastructure. There is a lack of adequate technical equipment and online-based teaching materials for structuring lessons. The crisis is expected to result in drastic job losses and a decrease in the willingness to provide training, as this is unlikely to be assigned top priority.

Thailand has been able to avoid a major outbreak so far. The early lockdown has been progressively relaxed, which could lead to a second wave of infection. The lockdown is having a particularly detrimental effect on micro and small-scale entrepreneurs, and on those who have lost their jobs in the course of the crisis. The AHK in Thailand reports a standstill in its TVET project. It has not been

possible to select trainees for the various companies; the companies have cancelled initial training and further training. Online examinations are at least to be offered.

In the **USA**, the rules regarding curfews continue to vary from state to state. However, all states have largely classified the manufacturing industry as “essential business”, meaning that employees in these companies can continue to work – under observation of all other precautionary measures. Accordingly, the AHKs in all states except Atlanta (which has not provided any feedback) do not report any major difficulties up to now. All federal departments are in quarantine. The Department of Education reports that the education system is taking unusual measures in an attempt to guarantee online teaching: the distribution of laptops via a “drive-through”, mobile hotspots in rural areas, free data packages from telephone and Internet providers. Here, an emphasis is often placed on didactics and methods for teaching staff and operational support with regard to flexibility in applications for the financial protection of projects. The Department of Labour refers to numerous measures relating to qualification and further training. When it comes to practical teaching, several colleges are offering programs with which electric, pneumatic or hydraulic circuits can be simulated. The US states are responding by making it possible to introduce flexible time models for all practice-oriented training phases and promise fast, unbureaucratic aid with applications for changes. An internal document of the National Governors Association lists several examples of classroom teaching phases taking account of the safety distance and hygiene guidelines. In some states, recommendations are being made to advise trainees on how to obtain unemployment benefits or state assistance.

2.3 Summary of observations

From these assessments of partners based locally, we can deduce **tendencies** such as the following:

New exchange formats and forms of collaboration: International education fairs are being organised online (for example the Russian industrial fair INNOPROM, the didacta Italia), whereby the participation of BIBB is very welcome. Further specialist offers via GOVET or BIBB are expressly demanded. For example, a digital Round Table session with experts from BIBB and the US Department of Labor on the consequences of the virus for the labour market and TVET took place at the end of June. Moreover, many partners are taking part in international exchange conferences (for example, organised by ILO or UNEVOC), but would also like to have topic-based expert sessions. GOVET is currently developing digital study trips.

Digitalisation of learning and teaching: As the vocational schools are also closed in all cooperation countries, at least the theoretical teaching is taking place online. With regard to this, the local leading institutes are holding webinars for teaching staff to ensure a certain quality in teaching, while learning platforms are being set up. Practical lessons are taking place under the observance of time flexibility and hygiene measures and/or in most cases are being postponed until the autumn.

Effects on company training activities: Providers of dual training (such as the AHKs) are coming under pressure as result of temporary shutdowns in national economies. One consequence of this is that the training of trainees has to be aborted, while examinations have to be cancelled, postponed or carried out online. The looming insolvencies of companies in the crisis will exacerbate this situation and also have an effect on the training activities of companies abroad in the medium term.

Understanding of systemically important professions: The understanding of the significance of systemically important professions and the associated training is set to increase in other countries too. However, it should be noted that the courses of education for the various professions differ greatly from one country to another. There is an opportunity here for mutual learning from different experiences and systems.