



SHARING EXPERTISE

INTERNATIONAL COOPERATION IN DUAL EDUCATION BY THE AUSTRIAN FEDERAL ECONOMIC CHAMBER (WKÖ), 2013 – 2023

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ibw

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EXECUTIVE SUMMARY

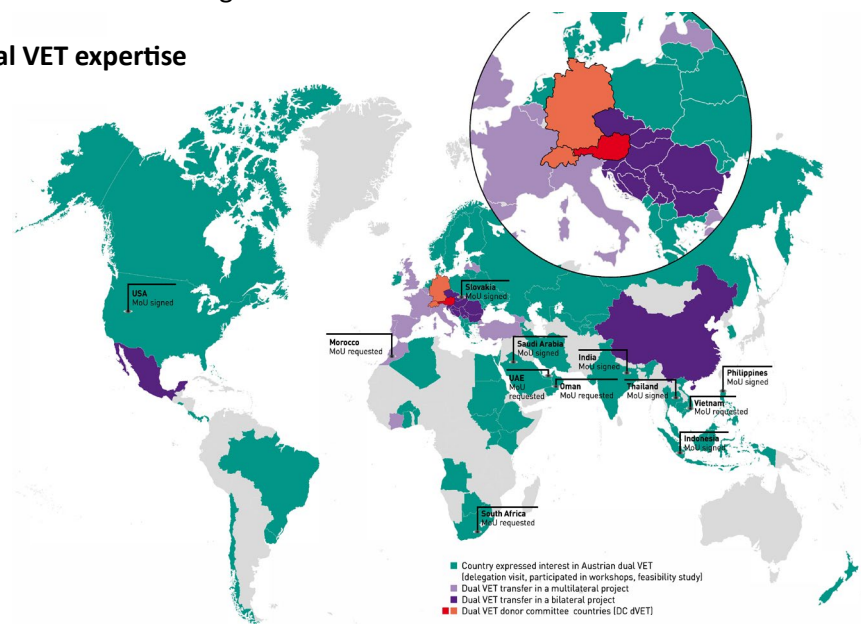
Dual vocational education and training (dual VET) is a form of vocational training in which apprentices receive a substantial part of their training in companies, typically alongside the production process. It has a long tradition in Austria, Germany, and Switzerland.

In the past ten years, WKÖ and partners¹ have become Austria's center for international cooperation in dual VET, facilitating the transfer of Austrian know-how to countries within and outside the EU.

The study maps international dual VET collaborations from 2013 to 2023, identifying strengths and weaknesses, and providing recommendations.

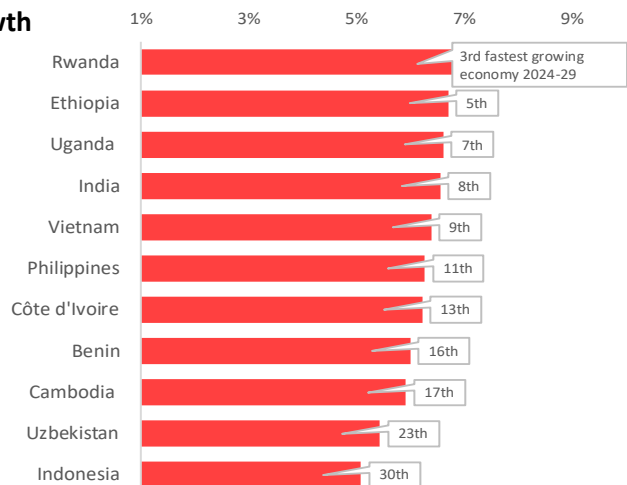
More than 400 activities and collaborations in 88 countries have been supported from 2013 to 2023. The interest in Austrian know-how is expected to grow over the next ten years. It is fueled by increasing global interest in dual education and the need for skilled workers by Austrian companies operating abroad. In the last two years alone, 12 international agreements have been negotiated that include a commitment to share Austrian dual VET knowledge in the future.

Global interest in Austrian dual VET expertise between 2013 and 2023.



Future partnerships increasingly include emerging economies in Asia and Africa. These are among the fastest growing economies in the next five years. The study outlines the conditions and caveats for this shift towards Asia and Africa.

New partner countries will experience rapid growth between 5% and 7% until from 2024 to 2029.



¹ WKÖ and its partners are WKÖ's Abteilung für Bildungspolitik, Außenwirtschaft Austria with 100 offices in 70 countries, Austrian companies, WIFI International, ibw: Institut für Bildungsforschung der Wirtschaft, BMAW, Department Vocational Training, Professional Skills (VI/7).

OUTLOOK

The international interest in Austria's dual VET expertise will rise over the next decade.

- Austrian companies operating in Austria and abroad increasingly need skilled workers.
- Austria's dual VET system is attractive for many reasons, among them are skills mismatches in local labor markets, youth unemployment, and the wish to boost FDI and competitiveness.
- New partnerships with Asia and Africa will be based on intergovernmental agreements and regulated migration of skilled workers. Austrian dual VET expertise can play a key role.

Organizational bottlenecks limit Austria's ability to fully exploit the global interest in dual VET expertise.

- There is only a small number of Austrian experts able to support dual VET cooperation. Austrian expertise is at risk when key experts retire or change career paths.

The current organizational structure and mostly project-based funding make it difficult to build and maintain a pool of experts.

- There is no single Austrian focal point or an Austrian agency coordinating dual VET cooperation. Information flow is currently based on personal contacts only.
- The two main sources of project-based funding leave a funding gap at the stage when a successful pilot phase is to become a longer-term partnership.

RECOMMENDATIONS

A new Austrian focal point for international dual VET cooperation should coordinate Austrian actors and help build and maintain an adequate number of national experts.

- Currently, the full potential of international cooperation, the benefits for Austrian FDI, and the supply of skilled workers to Austrian companies is not being realized.
- Austria has long experience with dual training, shared only with Germany and Switzerland. Germany and Switzerland already have agencies that coordinate actors, resources, and the needs of the private sector. As a next step, a concept study proposing organizational structures and responsibilities of a future Austrian focal point is recommended.
- WKÖ based experts currently have a high level of operational responsibility in ongoing project. This should be maintained because WKÖ has the closest contact to Austrian companies abroad.
- More consistent record keeping, better monitoring and evaluation of projects is recommended.

A new project-based funding should be established to specifically support Austrian dual VET projects after a successful pilot phase.

- *go-international* with its low administrative burden, can serve as a first point of reference for the design of the new project-based funding.
- A total annual amount available for projects of about 100,000 EUR seems advisable.

Building and maintaining a permanent pool of experts will require an additional direct budget support and a trainee program.

- Because Austrian experts need to build long-term careers, budget support for experts should not be project based.
- Full or partial budget support for two Austrian experts recommended.
- A new trainee program should train Austrian dual VET experts who wish to work internationally. On-the-job learning is recommended. Trainees could accompany experienced Austrian experts.

OBJECTIVES OF THE STUDY

Infobox: Why study international cooperation in dual education?

Dual education is a form of vocational education and training (VET) with a long tradition in Austria, Germany and Switzerland, where a substantial part of the training takes place in companies, typically alongside the production process.

There is a growing international and national interest in the Austrian dual VET system. In response, the number of international collaborations that share Austrian dual VET expertise has increased sharply over the past decade.

The study has four objectives:

1. to sketch the landscape of Austrian dual education sharing - the main actors, sources of funding and main activities needed for successful collaborations.
2. to map all the projects, partner countries and funding of dual VET cooperation by WKÖ and its partners between 2013 and 2023.
3. to assess the processes and resources employed in past projects.
4. to analyze the strengths and weaknesses of current international cooperation to share Austrian expertise in dual VET and to make recommendations

In recent years, there has been growing international and national interest in the Austrian vocational education and training (VET) system and elements of it.

There are good reasons for the international interest. In countries without a tradition of dual education, dual education is increasingly seen as an effective means of responding to the need for skilled workers, reducing youth unemployment and brain drain, and making the country more attractive to foreign direct investment.

There is also a growing national, Austrian interest by Austrian companies operating abroad who are challenged by a lack of skilled workers in the countries where they operate. In response, WKÖ and its partnersⁱⁱ support Austrian and local companies with building dual VET expertise. Activities range from sharing elements of the Austrian dual education, for example developing curricula for occupational profiles or qualifying company instructors, to supporting a broad reform of a country's VET system.

Moreover, companies operating in Austria can benefit in the context of *regular*ⁱⁱⁱ international migration with respect to the global competition for skilled workers. Skills Mobility Partnerships (SMPs) are cooperation platforms through which sending and receiving countries jointly invest in the education and training of workers in both countries. In this context, the Austrian government recently signed Memoranda of Understanding (MoU) and international agreements that also include cooperation in dual VET with a series of countries including Indonesia and India.¹ These agreements include a commitment to share Austrian dual education and training know-how to the respective partner countries.

Outside purely economic interests, sharing know-how is also as an effective tool in international and bilateral cooperation, capable of delivering sustainable results for the UN Agenda 2030 for Sustainable Development, in particular the SDG 8 which “promotes sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.”²

ⁱⁱ In the study WKÖ, ibw and BMAW are referred to as ‘WKÖ and its partners’. There are many more actors (organizations, NGOs, companies, ministries) involved in international dual VET collaborations. We describe key Austrian actors – including WKÖ and its partners – in more detail in chapter 1.4.

ⁱⁱⁱ *Regular* (sometimes *rule-based*) means that migration conforms to the national and international legal stipulations of the country of origin, transit countries and destination country. In contrast, *irregular* migration takes place outside such legislative frameworks.

Austria, together with Germany and Switzerland, has a unique tradition of dual education and is therefore well positioned to share its expertise in international cooperation, partnerships and short-term projects.

However, the current status quo of international dual VET transfers supported by WKÖ and its partners, the extent (the number and size of projects) and the quality (the processes and organizational setup in place) of past and ongoing collaborations are not known outside a small group of experts.

The study has four objectives and four chapters. Each of the objectives corresponds to a chapter in the structure of the study.

1. The first objective of this study is to describe the current status quo of international dual VET cooperation in Austria - the main actors in Austria and their sources of funding as well as tools and activities involved in collaborations.
2. The second objective is to map the full extent of the partner countries, the projects and the activities in support of the projects by WKÖ and its partners related to dual education sharing between 2013 and 2023. What has been accomplished in the last ten years? Which countries have expressed interest, which have entered in collaborations?
3. The third objective of the study is to assess the processes and resources involved in past projects in which Austrian expertise and dual education know-how were shared globally. We do this by means of exemplary case studies. The total number of 88 projects between 2013 and 2023 is too large to cover them all. We highlight promoting and restraining factors and the relevance of the projects for Austrian subsidiaries abroad.
4. The fourth objective is to analyze the strengths and weaknesses, opportunities and threats, and derive recommendations.

The study addresses an audience of practitioners currently involved in dual education know-how transfers, and of policy makers shaping the legal and material conditions under which collaborations take place. It also contributes to an academic field investigating a better understanding of international dual education cooperation.

1. SHARING AUSTRIAN DUAL EDUCATION EXPERTISE

Infobox: What is international dual education cooperation?

The focus of the study is the Austrian dual system of vocational education and training (VET), in which a substantial part of the training takes place in companies, typically alongside the production process. Dual VET or simply 'dual education' has a long tradition in only a few European countries, including Austria.

International cooperation in dual education is in fact the sharing of Austrian expertise in dual education. Partners are companies that want to cover their qualification needs for skilled workers. At the government level, policy makers are interested in the positive effects for good industrial location policy - such as reducing youth unemployment and attracting foreign direct investment.

1.1 On terminology: What are dual education, dual VET and dual IVET?

Dual Vocational Education and Training (VET) is an educational approach that combines both theoretical classroom instruction and practical, hands-on training in a workplace setting. It is commonly referred to by practitioners as 'dual VET' or 'dual education' and these terms are used in this study.

Traditionally, dual education and training is aimed at adolescents or young adults who leave the education system at the end of lower secondary education and enter the world of work. Offered as a choice to young adults aged 15 and over, dual VET is often referred to as *initial vocational education and training (IVET)*. IVET is a choice of future employment for young adults and thus influences the level of youth (in)employment in a country.

Full-time school-based VET systems or higher vocational education and training exist in many countries and typically include only short-term periods of work-based learning, such as internships. Unlike purely school-based IVET, *dual IVET* systems typically involve a close partnership between educational institutions (such as schools or training centers) and companies willing to employ and train apprentices (the private sector)³. Austria is almost unique in having a mixed system in which school-based VET and dual education are equally large and exist side-by-side.

Dual VET systems are never uniform across dual education countries. In Germany, Switzerland, Austria, Liechtenstein and also Denmark, dual education systems have evolved from centuries-old tradition built around the concept of apprenticeship training which equip individuals with the skills, knowledge, and competencies required for a specific trade, profession, or occupation^{4,5}. The characteristics of dual education systems are contextual to a country's current and past economic, political and social conditions. Austria for example, has a notably large share of apprentices in full-time dual IVET system. About 35% of pupils in school grade 10 opt for dual education and enter one of 227 different apprenticeships⁶. Also, Austrian apprentices receive more on-the-job training relative to other traditional dual VET countries. The company-based part of the Austrian dual vocational education and training makes up to 80% of the apprenticeship period⁶.

1.2 How can dual VET expertise be shared?

Sharing dual VET expertise is in fact, *supporting the transfer of expertise* on how dual VET systems or elements of dual VET systems operate.

Experts and academics agree that simply copying and pasting the Austrian system, or even elements into other countries will fail. This may create the illusion of reform without the intended functions.^{5,7,8} Consequently, countries reforming their VET systems need to create their own version of dual VET, taking into account their economic situation, the structure of their country's skills demand and the political-institutional framework. In order to achieve sustainability, it is crucial that there is a high degree of joint ownership by companies and political actors in the partner country.

In many cases, the necessary contextualization takes place in a series of workshops with the partner country. Austrian experts can bring knowledge, support, and advice with respect to system design and ideas generated by the countries themselves. They can also provide support in building institutional capacity, role models/types of work-based learning formats, governance elements, and some financial backing.

These activities are often preceded by what can be called an *'expression of interest'* – study visits by representatives of the partner countries to Austria to learn about dual training in practice, followed by a feasibility check from the Austrian side. In cases where the first contact takes place at the governmental level, the wish for future cooperation can be expressed in an international Memorandum of Understanding (MoU).

Once there is an agreement on reform goals a *'bilateral project'* can begin. Goals can include sharing expertise of specific elements of the Austrian dual VET system, for example the development of training curricula for specifically needed occupational fields. If the goal is the full establishment of a complete dual education system in the partner country, this requires the adoption and amendment of laws that are fundamental to the country's education system. Complete system reform is a lengthy process that can last a decade or more. For example, Austria has supported the full establishment of a dual VET system in Serbia and in Slovakia (see chapter 3 for the respective case studies). Typically, countries continue to cooperate and learn from each other even after a new dual system is in place.

1.3 Why is there international interest in the Austrian dual VET system?

Although the exact effects are difficult to specify empirically, dual VET systems are associated with lower youth unemployment^{5,9}, higher foreign direct investment and higher overall productivity of the economy⁴ relative to non-dual VET systems.

Most economists agree that the level of knowledge and skills of a country's workforce affects its economic productivity.¹⁰ A high level of skills thus increases a country's attractiveness to foreign direct investment (FDI).^{11,12} FDI, in turn, can stimulate further skill development, if an initial level of skills exists.¹³ Empirical evidence is mixed, but a recent study suggests that resource-poor countries in particular can attract more FDI by building quality education systems. The focus should not be on increasing the number of years of schooling, but rather on providing improved secondary vocational education that responds to the specific needs of the skills sought by foreign firms.¹⁴ German and Austrian subsidiaries - in fact foreign direct investment abroad - can promote such skills development. Their demand for apprentices can trigger the introduction of (elements of) work-based (dual) education - a much desired side effect.

Recent research indicates that the positive effect on youth employment comes from the retention of trained apprentices directly in the companies that trained them. In France, two years after leaving school with the same diploma, the employment rate of apprentices is about 15% higher than that of vocational students. However, once unemployed, French apprentices have no better chances of re-employment than vocational students.¹⁵ It is difficult to pinpoint the impact of dual VET on youth unemployment because what constitutes work-based learning or what defines an apprenticeship varies from country to country. Most studies report a negative relationship between youth unemployment and dual VET across countries.⁵ In Figure 3 for example, the Swiss apprenticeship system is larger and more comprehensive than that of France or the USA.

Countries with a strong apprenticeship tradition have lower youth unemployment

The recent surge of interest in apprenticeships emerged from this context

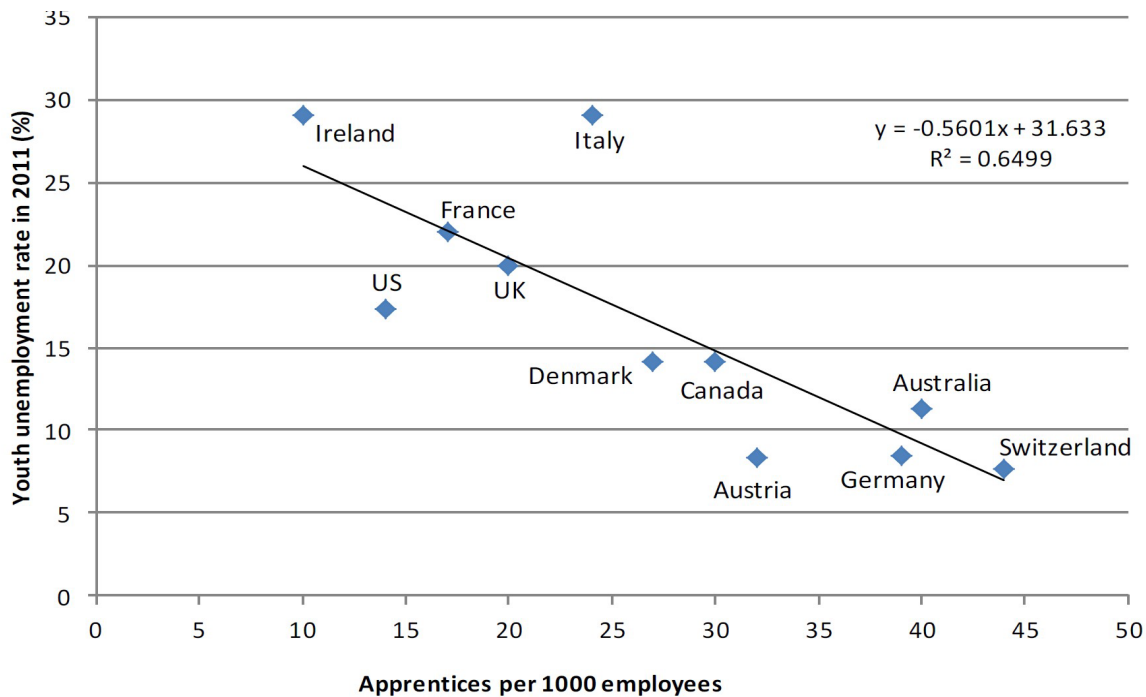


Figure 1: Prevalence of apprenticeships and youth unemployment in selected countries.

Source: ILO 2019. Note that the International Labour Office (ILO) uses a wide definition of apprenticeships which includes the upskilling of adults (USA and Canada). Youth covers persons aged 15-24. Youth unemployment rate is measured as youth unemployment as a percentage of the youth labor force (employed and unemployed youth). UK stands for England only.

Based on the empirical findings, policy makers might be tempted to believe that the introduction of dual VET is a simple and quick solution to achieve these macroeconomic goals. As one of the few countries with a long tradition and expertise in dual VET, Austria is therefore one of the first places to turn.

1.4 Who are Austrian actors in international vocational education cooperation?

WKÖ has a central role in the administration of dual VET in Austria, based on the obligatory membership of Austrian companies and its legal mandate for fulfilling tasks related to dual education.^{iv} The wide range of tasks and duties at the national and federal level results in a pool of expertise that makes WKÖ a natural point of contact for anyone interested in Austria. In particular, the staff of WKÖ's Department for Educational Policy (*Abteilung für Bildungspolitik*) is involved in the strategic governance of dual education in Austria and also has the support of international transfers of Austrian dual VET expertise – in particular in support of Austrian subsidiaries in need on skilled workers - on its agenda.

^{iv} More precisely, WKÖ's regional chambers act under delegated authority from the government. Under this authority they fulfil tasks related to dual education as specified in the Austrian Vocational Training Act 'Berufsausbildungsgesetz' (BAG).

Austrian actors in international dual VET cooperation rely on legal, contractual and personal relations WKÖ is at the heart of it

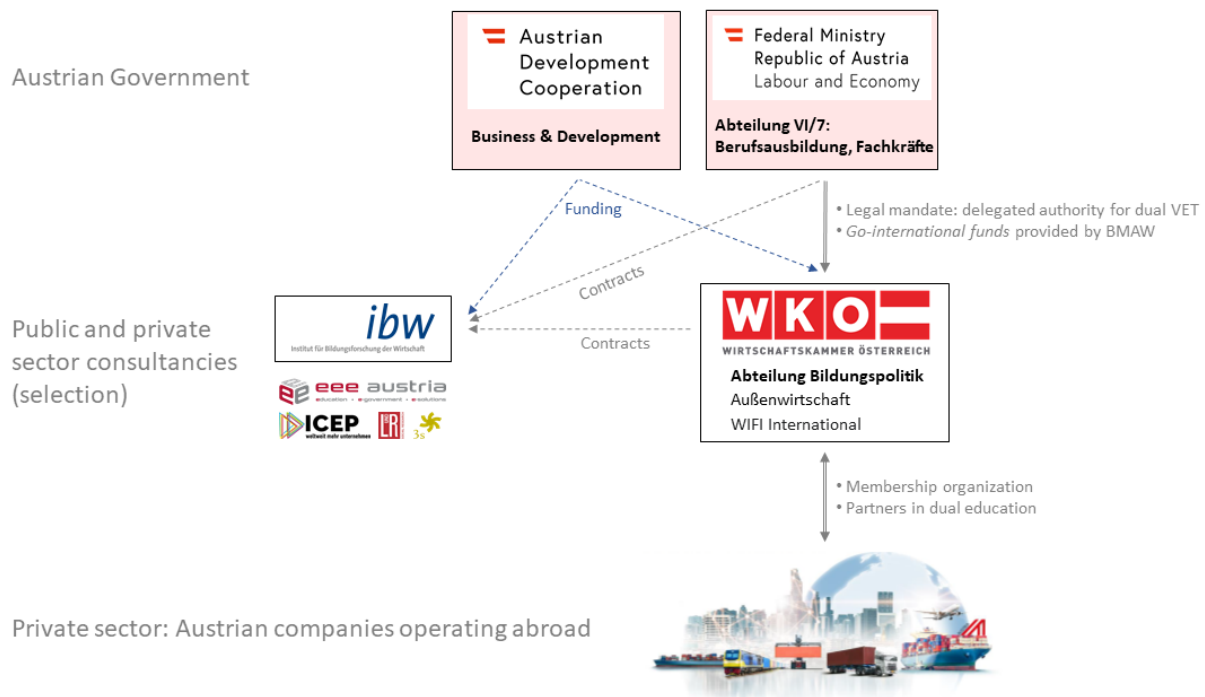


Figure 2: Austrian actors involved in international dual VET cooperation

Source: Own. Double lines indicate legal relationships, single dashed lines indicate contractual relationships.

1.4.1 WKÖ and its partners

WKÖ is a membership organization representing the interests of the private sector. Its various bodies and units serve the needs of private sector companies. Within WKÖ, the Department for Educational Policy (*Abteilung für Bildungspolitik*) is responsible - among other agenda - for identifying and responding to the training needs of private companies operating in Austria and abroad.¹⁶ As such, the staff of the Department for Educational Policy has many years of experience with the implementation, reform and innovation of dual education in Austria. Where necessary, they rely on external support from *ibw* as contractors. Due to the high level of expertise on dual education in Austria, these staff are also experts in sharing elements of the (Austrian) dual system. Between 2013 and 2023 Department for Educational Policy counted 4-5 experts in sharing (elements) Austrian dual VET in a given year. One of them has supported a complete reform of dual VET.

Also within WKÖ, Advantage Austria (*Aussenwirtschaft Austria*) supports Austrian companies operating abroad through 100 country offices (ACs – *AußenwirtschaftsCenter*).^v Another unit, WIFI International (*Wirtschaftsförderungsinstitut der Wirtschaftskammer Österreich, WIFI*) assists with offering certificates for work-based training courses in partner countries.

The private sector is the natural partner for work-based learning, which is at the heart of dual vocational training systems. In many cases that we studied, Austrian companies abroad either initiated the demand for dual education in the partner country or otherwise participated in a dual VET collaboration, for example by offering work-based training for apprentices.

^v AC – AußenwirtschaftsCenter: The ACs are offices operated by WKÖ (Advantage Austria) in about 70 partner countries. ACs assist Austrian companies in the search for business partners, provide support in doing business and setting up companies, and provide breakdown assistance in problem cases. In large countries or promising markets AC offices are supported by about 30 smaller and regionally active 'AußenwirtschaftsBüros'.

A small group of experts

Among public and private consultancies, Ibw Austria (ibw)^{vi} is a partner of WKÖ in the international dual VET collaborations. The expertise and experience of a small group of ibw staff is based on many years of doing research as well as development and implementation work. Between 2013 and 2023 ibw counted 2-3 experts in sharing (elements) Austrian dual VET in a given year. One of them has supported a complete reform of dual VET.

Only two Austrians have ever accompanied a complete educational reform from the beginning to the signing of a dual VET law in the partner country. One of them is employed at ibw, the other one works in WKÖ's Department for Educational Policy.

The small size of the group of experts naturally improves the flow of information between them. However, there is a risk when an expert retires or changes career paths.

1.4.2 BMAW negotiates MoUs on government level

Within the Federal Ministry of Labor and Economics (BMAW), the Department for Vocational Training, Professional Skills (VI/7) is the responsible unit for vocational training, skilled workers and innovation in the Austrian dual VET system.

In recent years, a number of countries have expressed their interest in Austrian dual VET expertise in formal international agreement or a Memoranda of Understanding (MoU). Agreements that – at least in part – relate to sharing Austrian dual VET expertise - are typically negotiated with BMAW, less frequently with the Federal Ministry of Education, Science and Research (BMBWF), and the corresponding ministries of the partner countries. In some cases, WKÖ has signed an MoU directly with representative bodies of a partner country with which it wishes to enter into a dual VET partnership.^{vii} However, it is not strictly necessary for WKÖ to sign its own separate MoUs in order to enter into a partnership.

Formal international agreements and MoUs are a second way of initiating dual VET partnerships within WKÖ and ibw, in addition to the demand for dual VET expressed by Austrian companies abroad.

BMAW is also an important source of funds: The '*Internationalisierungsoffensive* go-international' or simply go-international, is a fund established by BMAW and by Advantage Austria WKÖ with the aim of supporting Austrian exporters and investors abroad. go-international often supports dual VET sharing activities during the early stages of the project.

1.4.3 ADA provides project-based funding

Within the Austrian Development Agency (ADA) there are several financing instruments that can support sharing elements of Austrian dual VET. Among these funds, *Business Partnerships* and *Strategic Partnerships* are the most appropriate funding instruments to support dual VET-related projects of Austrian companies, WKÖ and its partners.

ADA also supports projects of NGOs, consultancies and international organizations related to international dual VET cooperation, as illustrated in the figure above. More information on ADA funding can be found in chapter 1.8. The ADA-funded projects in which WKÖ and its partners played an important role are part of the analysis in chapter 2.

1.4.4 Private consultancies

Private consultancies are active in capacity building and in transferring elements of Austrian dual VET expertise to third countries, sometimes as contract partners of WKÖ or as part of an international

^{vi} Full name: Ibw - Research & Development in Vocational Education and Training

^{vii} The case study of Serbia in chapter 3.1 is an example

development project financed the Austrian Development Agency (ADA) without WKÖ. BMAW regularly maintains its separate contracts with ibw and other consultants.

Compared to WKÖ and its partners, private consultancies play a minor role, as they ultimately depend on the expertise and networks of WKÖ or ibw to implement a larger systematic reform of a partner country's dual VET system. The list of private consultants given in Figure 4 is indicative and not exhaustive.

WKÖ, ibw and consultancies among them employ an unknown - but most likely limited - number of people with experience and expertise in sharing elements of Austrian dual VET. Many Austrian experts on dual VET system experts are also regularly involved in national dual VET projects and reforms.

1.4.5 The current Austrian model vs Germany's central platform

In contrast to Germany, which created GOVET as a central platform for the international dual education cooperation in 2014, the sharing Austrian dual VET expertise is decentralized and involves a number of national actors loosely grouped around small group of experts employed with WKÖ, ibw and private consultancies. Without a central organizing body, information exchange and coordination between WKÖ and its partners relies on what all interviewees described as "very good interpersonal relations".

The lack of a formal, centralized hierarchy can help to act quickly, for example when launching a pilot project. The fact that experts within WKÖ and ibw regularly work on national dual VET projects is also a strength, as it keeps expertise up to date and in touch with the changing needs of the private sector. Finally, the lack of a formal coordinating body allows WKÖ and ibw staff to stop an ongoing program, if conditions change or to reject a dual VET project from the outset, e.g. if there is too little cooperation from the private sector in the partner country.

Planning & Coordination

The advantages of the "Austrian model" are offset by limited long-term resource planning and coordination. This can become a bottleneck when several international dual VET collaborations are running in parallel. Good personal contacts between Austrian actors cannot always be taken for granted. As a consequence, information may not be evenly distributed among Austrian actors.

Maintaining a pool of experts

Austria's capacity to share dual VET may be overstretched if the demand for Austrian expertise increases or if key personnel retire or move to other positions within their own organizations.

A mix of procedures and funding

The actors have different operating procedures, e.g. requirements for starting a new project or staff salary structures and accounting rules (profit or non-profit organizations). A project that is worthwhile for ibw or for a federal ministry that has commissioned ibw may not be considered worthy of the resources of WKÖ's Department for Educational Policy and AW (Advantage Austria) - for example, because there is no interest on the part of Austrian companies in the partner country. This can lead to lengthy negotiations between the actors.

The lack of permanent funding source specific for international dual VET collaborations adds another layer of conditions (on what can be financed) as well as more administrative costs for applying for and reporting on project-based third-party funding.

In the near future, Austria would clearly benefit from a central point or coordinating body. The standard operating procedures of such a body need to be carefully defined in order to combine the benefits of existing flexibility with the better management of resources and information that improved coordination would bring. We discuss this further in the chapter 4.2 on strengths & weaknesses.

1.5 How do international dual VET collaborations begin?

International or bilateral cooperation is usually initiated either by foreign governments or by Austrian companies operating abroad.

Partner countries that expect clear economic benefits from education reforms contact their Austrian counterparts at the ministerial level, often within BMAW. The agreement to support the know-how sharing of Austrian dual VET can then be expressed in a Memorandum of Understanding (MoU) between Austria and the partner country. In some cases, initial interest is generated through multilateral workshops funded by EU initiatives and instruments such as ERASMUS+, which can then lead to the drafting of a MoU.

In many other cases, dual VET collaborations are generated by the private sector. Typically, Austrian companies operating in partner countries express a specific demand for qualified apprentices/occupations that they are used to work with in Austria. As a member organization, WKÖ responds to this demand and initiates activities in support of a transfer of (elements of) dual VET. As our case studies show, WKÖ's service to Austrian companies abroad can be extended to local companies operating within the same cluster or industrial sector, often in close geographical proximity, if this is also in the interest of Austrian companies. In these cases, the initial introduction of dual VET elements to Austrian companies abroad acts as a lighthouse project. Local companies that have no experience with apprentices and work-based learning can see processes and benefits and create political demand for dual VET with their respective chambers and government bodies.

Sharing dual VET systems has recently been mentioned as a potential long-term instrument in international Skills Mobility Partnerships, particularly in response to the shortage of skilled workers in Austria^{17,18} with the potential to mitigate brain drain and create harmonized educational standards between Austria and partner countries¹. In the near future, the interest in supporting dual VET may also be generated within the framework of Skills Mobility Partnerships (SMPs) or similar bilateral programs.

1.6 Typical activities and tools in support of dual VET sharing

Our case studies in chapter 3 illustrate that there is no typical dual VET collaboration or partnership. Sharing Austrian dual VET expertise is highly contextual. In consequence, the choice of activities and tools in support of dual VET sharing projects depends on the needs of the partner country.

The range of activities varies considerably. Very roughly, most activities contribute to one or both of the two categories: capacity building and systemic reform.^{5,19} Some projects are a workshop in support of developing a training curriculum for a specific profession financed by WKÖ core budget. Others are complex multilateral and multiyear programs.

Our information box provides a brief and necessarily incomplete overview on activities and tools that WKÖ and ibw often create to support dual VET sharing. Two typical areas of support, designing the systemic base for a dual VET track and implementing and piloting dual VET, are described in more detail.

Showcase: Typical tools and activities supporting international dual VET collaborations

Activities range from providing specific support to the government or a single company in the partner country to supporting a full systematic reform. Generally, most activities include element of two dimensions: system reforms and capacity building.

Typical activities and tools

- Fostering work-based learning formats (apprenticeship, alternance internships) for full-time school-based VET-systems as well as for qualification systems with high emphasis on higher education.
- Fostering private sector engagement, companies engaging in dual VET and/or internships, and Public-Private Partnership as models of governance.

- Defining roles and responsibilities of institutional stakeholders involved as well as system elements and governance processes.
- Capacity building (trainings) for various stakeholders (e.g. for employer representative bodies) to foster their expertise for dual VET.
- Redesigning the process and methodology of curricula and occupational profiles development to better align them to the qualification demand of the labor market.
- Developing processes to secure and foster quality in dual VET like accreditation of training companies, qualifying of in-company trainers, upgrading the expertise for external examiners
- Designing tools for VET guidance and counselling.
- Participating in multilateral knowledge sharing events – often as part of EU-led initiatives.
- Organizing study trips by partner country delegations to Austrian companies working with apprentices.
- Providing expertise on the design and establishment of national qualifications frameworks with reference to European-wide developments.
- Developing tools that support work-based learning in companies and foster training quality. See typical tools below.
- Designing the systemic base for a dual VET track. See typical activities below.
- Implementing and piloting dual VET. See typical activities below.

Designing the systemic base for a dual VET track:

- The starting point is an analysis of the existing national VET system, the stakeholder setting, its governance and financing as well as a SWOT analysis.
- Discuss options for reform: dual VET and work-based-learning as a new approach/model.
- Assess the perspective and interests of the private sector: company interest, motives, needs as well as necessities and framework conditions ('company's role in dual VET').
- Assess the perspective of VET-schools: school's interest and necessities ('school's role in dual VET').
- Clarify key factors that shape a future dual VET system: alternating modes of learning between school and training company; remuneration for apprentices, training company accreditation, in-company trainer / mentor / instructor qualification, supporting instruments to foster participation and quality of dual VET among others.
- Establish a legal setting aiming at the passing of a 'dual VET law' by legislators in the partner country.
- Create and consulting of stakeholder institution(s) such as chambers, sector councils, apprenticeship offices among others.
- Discuss options to continuously foster participation and quality. These are typically training alliances, financial subsidies, supra-company training providers as a third learning site and more.

Implementing and piloting dual VET:

- Develop occupational profiles and dual VET curricula (focus on company training part).
- Develop of (final) exam regulations and procedures for dual VET programs.
- Initialize cooperation between the learning sites at schools and in companies.
- Train VET school's teachers (the part-time school's role in dual VET and resulting methodology and didactics).
- Qualify master trainers (by train-the-trainer courses) to become multipliers.
- Qualify in-company trainers, mentors, instructors (methodology and didactics).
- Qualify final examiners (focus on didactics for assessment).

Tools and instruments for the roll-out of dual VET:

- Tools for selecting apprentices (e.g. customized assessment procedures for the selection of apprentices)
- Talent and aptitude checks for vocational guidance and consulting
- General and sector-specific best practices for company training
- Training guidelines for in-company trainers, mentors, instructors
- Learning materials for apprentices / dual VET students including digital tools
- Development of practical, written, and oral exam tasks and questions

1.7 Criteria of success and sustainability

In 2015, Kurt Schmid published an important study that ever since guides WKÖ experts in dual VET collaborations.^{viii} To date, there is no handbook or manual on criteria determining the success of international dual VET collaborations and the long-term sustainability of the newly established dual VET elements in the partner country. The interviews and analysis of the cases in this study allows to compile a list of criteria that experts have identified as fundamental to the success and sustainability of dual VET reforms supported by WKÖ and its partners.

We loosely organize the collected success criteria along the following categories “initial knockout criteria”, “criteria for success of the process” and “criteria for sustainable results”. There 3 *initial knock-out criteria* to observed, 3 *success criteria*, and 2 *sustainability criteria*.

1.7.1 Initial knockout criteria

According to interviews we conducted, the following criteria are essentially in place before a project begins. In many cases, the experts in charge of the project assess whether these knock-out criteria have been sufficiently met and then decide whether the project should go ahead.

1. Austrian companies are active in the country and wish to cooperate.

Rationale: Work-based learning needs companies with experience in training apprentices and with a need for skilled labor. The private sector has a central role in designing curricula, training students, and determining occupational fields.

Knock-out criterion 1 is reinforced by WKÖ's mandate to use its resources only for the benefit of its members. It should be noted, however, that private consulting firms are not bound by this mandate, but would still be advised to reject a project if there is no private company in the partner country that has experience with apprentices (Austrian, German or Swiss) and is willing to cooperate.

Relatedly, the need of Austrian companies in the partner country should be sufficiently large to justify WKÖ involvement.^{ix} Often, a number of Austrian companies with the same occupational needs that are geographically close to each other can build a consortium. The cases of China (chapter 3.2) and Egypt (chapter 3.3) are examples of the importance of knock-out criterion 1.

2. The government of the partner country supports the planned reforms

Rationale: Without political support from the beginning, any reform or project will fail. Since political support from the partner country can fluctuate, for example after elections, the responsible experts must be able to cancel or pause a program.

3. The final decision to start a project lies with the local partners, the private company in the partner country and the government.

^{viii} A seminal publication by Austrian experts on “Success Factors for the Dual VET System” describes factors fundamental to the *functioning* of a dual VET system not necessarily to *sharing* of elements of a dual VET system (see: Bliem W, Petanovitsch A, Schmid K. Success factors for the Dual VET System. ibw-Forschungsbericht 2015).

^{ix} Most experts felt that about 20 students would be a minimum number to begin a project. Other experts mentioned that pilot projects have been conducted in the past with even smaller initial numbers of students.

1.7.2 Success of the process: joint ownership, contextualization, possibility to discontinue

Our analysis of past projects in chapter 3 highlight three criteria as essential for successfully sharing expertise in the Austrian dual VET system or elements of it. These criteria are in line with publications by Austrian and international experts:^{20,21}

1. Joint ownership: The private sector and government agencies in the partner country jointly take ownership and lead the process.^x
2. Contextualization: Transferred elements of Austrian dual VET are adapted to the legal, educational context of the partner country
3. Possibility to discontinue: Austrian experts can discontinue their activities, if political ownership wanes.

1.1.1.1 Joint ownership

In view of the different educational and legal systems and the different requirements of the private sector in the partner country, WKÖ and its main partner in international dual VET cooperation, ibw, advocate a project design and an *implementation logic that contextualizes Austrian dual VET elements to the local conditions* in the partner country. Countries that are reforming their VET systems have to find their own versions of (dual) VET and their own solutions for its establishment, based on their economic and social situation and qualification needs, their political-institutional framework and their educational possibilities.

Lighthouse projects with Austrian companies operating in close proximity of local companies are a good example for this logic. Other typical activities and processes following the same logic are training-of-trainers and organizational support for the establishment of new roles and responsibilities of employers' representative bodies needed for the governance and administration of dual VET in the partner countries (see case study on Serbia, chapter 3.1).

Infobox: Lighthouse projects in the pilot phase

The ideal role of donor countries like Austria is to support the creation of initial conditions for dual VET - such as training curricula for the occupations most in demand in the partner country - and to share knowledge about the functioning of the dual VET system as a whole^{5,21}.

Lighthouse projects generally make use of existing experience with training apprentices in Austrian (sometimes German) companies operating in the recipient countries. In a pilot phase, only Austrian companies train apprentices, which allows for "shadowing", i.e. imitation and adaptation of processes in local companies located in the geographical area and/or in the same industrial sector (see case study on the Slovakia, chapter 3.5).

In addition to providing access to skilled labor, lighthouse projects develop positive public relations for Austrian companies that contribute to the vocational training of the host country's workforce.

1.1.1.2 Contextualization

Contextualization puts stakeholders (government agencies and companies) in the driver's seat in the recipient country. Experts from Austria provide support where requested. A reform introducing (elements of) dual vocational training will inevitably entail conflicts. For example, short-term needs for skilled workers in the private sector may conflict with long-term (and slow-moving) education policies on the part of the government. Sharing the costs of dual education is another example. According to our analysis of past projects and in line with publications of international experts in international dual VET cooperation²⁰, it appears essential that the government agencies *and* the private sector together develop and maintain a joint responsibility (ownership) of "their" reform throughout the process.

^x For example, the case study from China shows that Austrian companies in need of skilled workers operating in the Shanghai area found it difficult to establish cooperation with Chinese vocational schools until AC Shanghai established good political support (chapter 3.2).

1.1.1.3 Flexible timelines, decision to 'stop and go'

On the part of the Austrian experts, this logic requires flexible time planning, for example when political ownership wanes after elections. In past projects, it has been beneficial for WKÖ and its partners to step back and pause their support when political ownership in the partner country appeared to be waning. "Stop-and-go" means that the project can be resumed when the partner country is back on track with reforms, for example after an election period.

This principle guarantees long-term sustainable results which require long-term ownership in the partner country. It also keeps personnel costs low inside WKÖ and its partners.

This makes it difficult to predict the definitive end of a dual VET collaboration aimed at full or even complete system transfer. It also runs counter to the strict timetables and milestones that are often an integral part of project-based funding. However, the analysis of the case studies shows that the possibility of stop-and-go is essential to ensure the long-term sustainability of the newly created dual VET system in the partner country.

1.7.3 Sustainability criteria: private sector engagement, dual VET law and chambers

Many educational reforms appear successful on paper after all the planned activities have been completed. However, sustainable success in a dual vocational training project requires two criteria:

- 1) a long-term demand for dual vocational training and the skilled workers it produces from the private sector and
- 2) the existence of a dual VET law and of private sector associations and other mechanism in support continuous innovation and development of the dual vocational training system.

The first criterion states that sustainability depends on the willingness of private enterprises in the partner country to become partners in a future dual system. Typically, initial interest is expressed by Austrian or German companies operating in the partner country. To achieve sustainability, local companies need to participate either from the beginning or after an initial pilot phase led by foreign companies. Note that it is not essential that the willingness of the private sector covers the entire country or all companies. A geographic area and/or an industrial sector and a cluster of companies is sufficient.^{xi}

The second criterion requires that, in the case of complete dual vocational training reforms, a dual vocational training law be passed that formalizes contractual relationships between schools, companies, and trainees, and that the qualifications obtained be firmly anchored in the partner country's National Qualifications Framework (NQF). At this stage, there must be a clear specification of the dual VET model. For example, aspects such as the duration, the occupational concept, the modes of joint learning between part-time VET schools and the training company, the earnings of the apprentices, the accreditation criteria and the procedures for the training companies need to be specified.⁵

The second criterion also requires that a chamber of commerce or other representative body of the private sector has built up the necessary capacity to manage work-based learning in the future. In Serbia and the Slovakia, Austrian experts helped to build the capacity of these chambers.^{xii}

^{xi} The case study on China shows that Austrian companies need to be located in close geographic vicinity to participate in a large country (chapter 3.2)

^{xii} See the case studies on Serbia (chapter 3.1) and on Slovakia (chapter 3.5) where WKÖ and its partners built the capacities of the national chambers of commerce and industry.

1.8 How are Austrian international dual VET collaborations financed?

Due to the current decentralized organizational structure of Austrian actors involved in international dual VET cooperation, there is no central budget for financing Austrian international dual VET collaborations.

We found a variety of funding sources in this area. In this study, we focus on the four largest sources^{xiii}: WKÖ core budget, go-international of BMAW, Business Partnerships and Strategic Partnerships of ADA, other *project-based* or *activity-based* funding of the EU.^{xiv}

1.8.1 WKÖ core budget – a structural source of funding

The core budget of WKÖ has been used in almost all of the projects under study. These are mainly the salaries of WKÖ staff in the Department for Educational Policy and, to some extent, of WIFI, who carry out dual VET sharing-related activities that cannot be charged to go-international or ADA.

These are small sums relative to the other two sources (go-international and ADA – see below). Examples are receiving delegations from countries interested in possible future cooperation in dual VET and the working time needed to apply for third-party funding (or report on it). WKÖ core budget has also been used to support dual VET sharing activities by ibw and other consultancies.

As a membership organization, WKÖ is subject to the condition that Austrian companies must benefit. The staff of the Department for Educational Policy is primarily responsible for the innovation and continuous development of the Austrian dual VET system in Austria. The transfer of Austrian know-hows is only one, albeit important, task of this unit. In addition, in some cases the benefits of dual VET sharing-related activities are not directly observable or will only materialize as future opportunities. During the year of writing this study, we could observe that the staff of WKÖ's Department for Educational Policy carefully weighs these arguments.

However, WKÖ's core budget is the only permanent source of structural financial support for Austria's capacity to internationally share Austrian dual VET expertise. WKÖ and its staff deserve credit for creating and maintaining a permanent pool of dual VET experts.

In brief: WKÖ core budget

- Provided by WKÖ in form of salaries to staff in the Department for Educational Policy.
- Funding is limited to the direct or future support of Austrian companies.
- Permanent source of funding permits retaining a pool of expertise in Austria inside WKÖ and its partners.
- Almost all projects and activities that we studied have used WKÖ core budget support to some extents.

1.8.2 go-international

Initial short-term activities and projects in the 'pilot phase' are often financially supported by go-international (in German: *Internationalisierungsoffensive* go-international), a fund set up by BMAW and by WKÖ with the aim of supporting Austrian exporters and investors abroad.

WKÖ's Department for Educational Policy joins an application for funds initiated by AW (Advantage Austria) to support single activities such as trips and workshops for its own experts related to sharing

^{xiii} We do not examine in detail the funding provided by ERASMUS+ for multilateral cooperation. These funds were distributed to a larger group of international partners, and the total amount disbursed to WKÖ and its partners is considerably smaller than the other three funding sources studied here.

^{xiv} Project-based funding is external financial support for a bilateral dual VET project. Usually, the planned activities must be presented in advance when applying for financial support from the donor agency (e.g. ADA). Activity-based funding is external support for a single activity (e.g. participation in a conference abroad) that is not part of a bilateral project.

dual VET know-how. go-international can also be used to hire external experts (e.g. from ibw or other consultancies).^{xv} Finally, but less frequently, go-international can support small international projects.

In brief: go-international

- Provided by BMAW to support Austrian companies operating abroad. A condition is that Austrian companies operating abroad benefit from the activities supported by go-international funds.
- Project-based or activity-based funding
- Covers 100% of the projected / granted costs
- The workload (in terms of staff time) for applying for go-international support and for reporting the use of funding is adequate.
- Amounts paid per activity or project vary widely, from 500 to about 70,000 EUR in one exceptional case. The average project support however, between 2013 and 2023 was 17,500 EUR with a median of about 9.500 EUR.
- In a full year, dual VET-related activities organized by WKÖ's Department for Educational Policy typically receive financial support from go-international, ranging from 30,000 to 90,000 EUR.
- The average annual support between 2013 and 2023 was 67,000 EUR with a median of about 75.500 EUR. Figure 9 in chapter 2.4 illustrates the average annual budget support from go-international funds.^{xvi}
- go-international is a frequently used funding source. A large number of the projects and activities we studied used Go-International funding to some extent.

1.8.3 ADA funding

Longer-term cooperation in the field of international dual VET cooperation can be supported by the Austrian Development Agency's (ADA), if the planned projects meet ADA conditions, which are ultimately based on the Austrian Federal Act on Development Cooperation (*EZA Gesetz*). Among ADA's funding instruments, the *Business Partnerships* and *Strategic Partnerships* are most suitable for international dual VET collaborations.^{xvii}

WKÖ or Austrian private enterprises can apply for these *Business Partnership* funding, if they are engaged in development cooperation as defined in §2 of the Austrian Federal Act on Development Cooperation. *Business Partnerships* again offer three options – from financing feasibility studies to large-scale regional projects. Generally Business Partnerships finance only 50% of the proposed project costs, with a maximum of 200,000 (*Business Partnerships*) of up to 500,000 EUR (*Strategic Alliances*) for projects with a maximum duration of three years.^{xviii} Sharing elements of the Austrian dual vocational training system, e.g. a series of workshops, is clearly within the scope and objective of these funding instruments.

As a long-term alternative, the *Strategic Partnership* instrument finances multi-annual programs of at least five years and a minimum of 2.5 million EUR in estimated costs. Up to 80% of the costs are financed by ADA. The ADA-funded projects in which WKÖ and its partners played an integral role are part of the analysis in chapter 2.^{xix}

^{xv} Among the donors not mentioned, the German Development Cooperation (GIZ), the Swiss Agency for Development and Cooperation (SDC), and several EU initiatives related to dual VET have supported dual VET sharing activities of Austrian actors in the past.

^{xvi} The figures presented here are based on internal calculations of WKÖ and are available from WKÖ upon request.

^{xvii} ADA also supports feasibility studies as a preparatory step before an application for ADA funding is submitted. These are not included in the analysis of ADA funding in this study.

^{xviii} Large-scale regional projects funded under ADA's Strategic Partnership allow for longer-term cooperation of up to EUR 500,000.

^{xix} What is an 'integral role'? Between 2013 and 2023, WKÖ and WIFI have also been involved in activities related to dual VET in which other actors, such as Austrian companies or Austrian consultancies, have received support from ADA. Their involvement is a natural consequence of their responsibilities in the Austrian dual system. For example, WIFI International issued certificates for the final exams of Mexican

In brief: ADA funding

- A prerequisite is that Austrian companies or WKÖ are engaged in development cooperation as defined in §2 of the Austrian Federal Act on Development Cooperation. Further restriction, for example the choice of partner countries, can apply.
- Project-based funding source
- Covers up to 50% (Business Partnership) or up to 80% (Strategic Partnership) of the projected costs
- The workload for applying and reporting is significantly higher than for go-international. The workload may increase further if more complex, e.g. trilateral partnerships are entered into. See also the Serbia case study in chapter 3.1.
- Funding supports 50% of expenses up to 200.000 EUR and 500.000 EUR (*Business Partnerships*) or 80% under the *Strategic Partnership* instrument.
- WKÖ directly received ADA funding for three bilateral projects with Serbia, 2016-2017 (*Business Partnership: Feasibility Study*), 2017-21 (*Strategic Partnership*) and 2023-2027 (*Business Partnership* in a trilateral project with Serbia and Switzerland). The total amount disbursed to WKÖ's Department for Educational Policy in support of these three projects was 1.6 million EUR. Figure 9 in chapter 2.4 illustrates the average annual budget support from ADA funds.^{xx}

1.8.4 EU and other project-based third-party funding

EU regional instruments also provide project-based funding and have been used in the past to support a project in Slovakia.^{xxi} The workload for administering these funds can be very high. We found at least one project from 2011 to 2014 where the salaries paid for staff time on administering the funding may well have exceeded the amount of funding received.

ERASMUS+ funds also support multilateral projects as Key Actions KA2 and KA3, which invite Member States and third countries to exchange knowledge. Here WKÖ and its partners are invited to participate in multinational workshops and to share Austrian know-how. Reporting duties can vary in these projects.

1.8.5 Concluding thoughts: The need for structural funding

The lack of a structural - i.e. not project-based - budget for international dual VET cooperation represents a weakness in the current inter-organizational setup of actors in Austria. Only core budget of WKÖ is indeed structural. The dual VET experts in the Department for Educational Policy receive their salaries with or without ongoing bilateral dual VET collaborations. It is limited to serving Austrian enterprises. Since supporting the transfer of Austrian dual VET system (or elements thereof) requires the private sector to train apprentices, this condition is not always an obstacle. Problems arise when the benefit for Austrian companies is not direct or immediate. Here, WKÖ staff must think twice before entering into cooperation. Purely financing dual VET collaborations with project-based funds is problematic for at least three reasons:

1. A funding gap exists for projects and for individual activities and projects that are not covered by either go-international or ADA funding instruments (see also chapter 2.4.3).

apprentices for the Mexican subsidiary of the Austrian company ALPLA, for which ALPLA received support from ADA. Two similar cases exist in China. The calculations of the annually disbursed ADA funds in chapter 1.8.3 and chapter 2.4 Figure 10 do not include these cases, but only takes into account ADA projects in which WKÖ, or in this case the WIFI, is named as a partner and whose services go beyond the mere support within WKÖ's authority for dual VET in Austria. This is understood by 'integral role' in this context of the study.

^{xx} The figures presented here are based on internal calculations of WKÖ and are available from WKÖ upon request.

^{xxi} Chapter 3.5 covers the project in Slovakia.

Larger projects beyond the limited scope of go-international - very often beyond pilot phase - may not be eligible for ADA funding due to restrictions imposed by the Austrian Federal Act on Development Cooperation (EZA Gesetz).

Where ADA funding can be used, WKÖ core budget or revolving rounds of go-international funds are required to cover the staff time for application and reporting requirements.

2. The administration of project-based funding through ADA and EU instruments is more time-consuming compared to go-international. This leads to loss of time and administrative burden on human resources, which limits the capacity of WKÖ - and thus of Austria - to transfer Austrian dual VET know-how.
3. Dual VET experts need many years of experience. Project-based funding is generally not well suited to creating and retaining a permanent pool of dual VET experts.

Infobox: Two shopping carts full of reporting files

SmartNet was an EU-funded consortium of several Austrian and Slovak stakeholders that ran for 30 months from November 2011 to May 2014. The Slovak case study in chapter 3.5 describes how the SmartNet project initiated a long cooperation with Austrian companies in Slovakia and the Slovak government.

Almost equally long was post-project reporting by WIFI, the implementing unit within WKÖ in Slovakia at that time. It took 23 months (until April 2016) due to the extensive financial reporting requirements. In total, WIFI produced 15 folders of receipts, communications, and documentation, which we found stored in two shopping carts during our review of the project. The total amount paid to WKÖ was 97,000 EUR. The costs of time and salaries for applying for project-based funding and for reporting after the project is completed are often unknown to the organization a priori and may exceed the amount received.



Figure 3: One out of two shopping carts holding 9 of total 15 folders of reporting for project SmartNet. Source: WKÖ. Photo taken in September 2023.

1.9 International cooperation and mobility of skills

Infobox: Dual VET sharing, international cooperation and international migration

Dual VET sharing is a promising contribution to international cooperation. Recipient countries value the positive impact on youth unemployment and on foreign investment and industrial development in general. Even if WKÖ and ibw do not see themselves as organizations in international cooperation, sharing Austrian dual VET expertise meets recognized standards of international cooperation, if it goes beyond the mere support of individual Austrian companies operating in low- and middle-income countries.

A second area to which dual VET sharing can contribute is the growing shortage of skilled workers in Austria and abroad. In the context of a regular migration of skilled workers, dual VET collaborations can help mitigate the threat of out-migration (brain drain). Certificates issued abroad can in some cases facilitate the recognition of qualifications in Austria.

In Germany, dual VET sharing, international cooperation and international migration of skills are increasingly linked. Dual VET is seen as an integral part of German international cooperation and increasingly contributes to skills development in the context of circular migration.

1.9.1 Dual VET sharing contributes to international development goals by working with the private sector

The Austrian Development Agency's (ADA) support for dual VET sharing projects in recent years warrants a brief discussion of the use of dual VET sharing activities in international cooperation.

ADA deserves credit for inviting the private sector to participate in international cooperation. Involving the private sector is in line with major international initiatives, such as the 2015 Sustainable Development Goals (SDGs) or the 2011 Busan Partnership for Effective Development Cooperation. Dual VET transfers supported out by WKÖ in cooperation with Austrian companies abroad can be a valuable contribution to international development if the level of support goes beyond the mere support of individual Austrian companies operating abroad, which is part of WKÖ's mandate. The analysis of past and ongoing projects in chapter 3 shows that this condition is typically met after the pilot phase when foreign companies join the program.^{xxii}

It should be noted that ADA's role as a provider of financial support is bound by the provisions of the Federal Development Cooperation Act, which are stricter than the above condition. For example, these provisions limit the range of countries in which ADA can disburse funds.^{xxiii}

From an international development perspective, the following features of international dual VET collaborations are particularly noteworthy.

- Dual VET reforms have the potential to attract foreign investment and reduce youth unemployment - development goals that are otherwise difficult to achieve.
- Dual VET sharing is a peer-to-peer transfer of know-how.
- Dual VET reforms typically do not create physical infrastructure and are therefore relatively inexpensive compared to many other development efforts and programs.²²
- WKÖ and ibw do not primarily view themselves as organizations focused on international cooperation. However, the analysis of past and ongoing projects (chapter 3) shows that their efforts to share dual VET with low- and middle-income countries meet internationally recognized standards for effective aid and cooperation, and contribute to the SDGs.

^{xxii} See also the Infobox: Systemic support and lighthouse projects in the pilot phase.

^{xxiii} See also chapter 1.8 on ADA funding instruments.

- Only a few countries can share know-how on dual vocational training. This puts Austria in a unique position, together with Germany and Switzerland.

1.9.2 Increasing international mobility of skilled workers

The growing shortage of skilled workers in Austria has initiated a range of initiatives in support of attracting skilled workers from Austria and abroad.^{xxiv} Among those there is interest in the regular migration of skilled workers from third countries to work in Austria. WKÖs The International Skilled Workers Initiative (IFO) is a good example for such an Austrian initiative.^{xxv}

Another important example are International Skills Mobility Partnerships (SMPs) that have recently been propagated by the IOM, the UN Migration Agency with the support of the EU.^{xxvi} SMPs are cooperation agreements between states that promote skills development in partner countries combined with international mobility of skilled workers.^{1,23}

Dual VET sharing can support skilled worker mobility, such as within an International Skills Mobility Partnership (SMP). Sharing Austrian dual VET expertise can help create a pool of skilled workers abroad with qualifications and training similar to those in Austria. In some cases, these can be considered equivalent or nearly equivalent to Austrian training regulations standards.⁶ The certificates issued to apprentices in partner countries can be made legally equivalent to the Austrian Final Apprenticeship Leave Examination (German '*Lehrabschlussprüfung*') through the act of *recognition* or evaluation (German '*Gleichhaltung*' or '*Bewertung*') by BMAW.^{xxvii} This has legal implications because evaluation is a legal prerequisite for migration to Austria via the Red-White-Red Card, Austria's main instrument for qualified migration.¹ In addition, dual VET reforms generally contribute to higher levels of vocational education and training and can be seen as a countermeasure against brain drain in the partner country when skilled workers decide to move to Austria.

1.9.3 Remittances

Migration and the mobility of skilled workers are deeply linked to international development. Among other things, migration generates remittances - money that migrant workers send home to their families - which are considered one of the most powerful tools in the fight against poverty.²⁴⁻²⁶

1.9.4 Connecting international development and SMPs in Germany and Switzerland

In light of the exceptional features of dual VET sharing activities, Germany, Denmark, the Netherlands and Switzerland have already developed specific strategic frameworks for international cooperation in VET²⁷. Germany in particular, can be considered a global leader in the systematic integration of dual VET sharing activities as an instrument of international cooperation. Switzerland has emphasized from the beginning the benefits of dual VET collaborations to the domestic, i.e., Swiss labor market and education system. Swiss dual VET collaborations aimed to create skills and qualifications in partner countries that are broadly compatible with those in Switzerland. The reciprocal benefits of dual VET sharing sparked a public debate in Switzerland and led to a clarification of what can be considered development assistance.²¹

In Austria, thinking about the reciprocal benefits of international dual VET cooperation has only recently begun in the context of Skills Mobility Partnerships.¹

^{xxiv} The following online information is available at BMAW (accessed August 5, 2024): <https://www.bmaw.gv.at/European-Year-of-Skills/Newsletter/3-Newsletter-Fachkraefte/2-Fachkraefte-gesucht.html>

^{xxv} See also information on the International Skilled Workers Initiative (IFO) of WKÖ (accessed August 5, 2024): <https://www.wko.at/fachkraefte/internationale-fachkraefte-offensive>

^{xxvi} See also information on the IOM website (accessed August 5, 2024): <https://eea.iom.int/iom-contribution-eu-talent-pool-call-evidence>

^{xxvii} See the corresponding legal provision in the Austrian Vocational Training Act (Berufsausbildungsgesetz) § 27a and Austrian Valuation Act (Anerkennungs- und Bewertungsgesetz) § 6

2. TAKING STOCK: GLOBAL DUAL VET COLLABORATIONS 2013 – 2023

In this chapter we briefly present facts and figures to international dual VET collaborations by WKÖ and its partners between 2013 and 2023. We present two results of an analysis at the country level and two at the level of individual activities and their financing.

2.1 Country-level analysis: Increasing global outreach of Austrian dual VET cooperation

The number of countries either in cooperation or expressing their interest in (elements of) Austrian dual VET expertise increased from 19 in 2013 to 88 countries in 2023. This is an impressive global share of about 195 countries worldwide.

About half of these are EU member states in the early years of the study, followed by an increasing number of countries in the EU's immediate neighborhood, Africa, and the Middle East. Asian countries join from the 2018s.

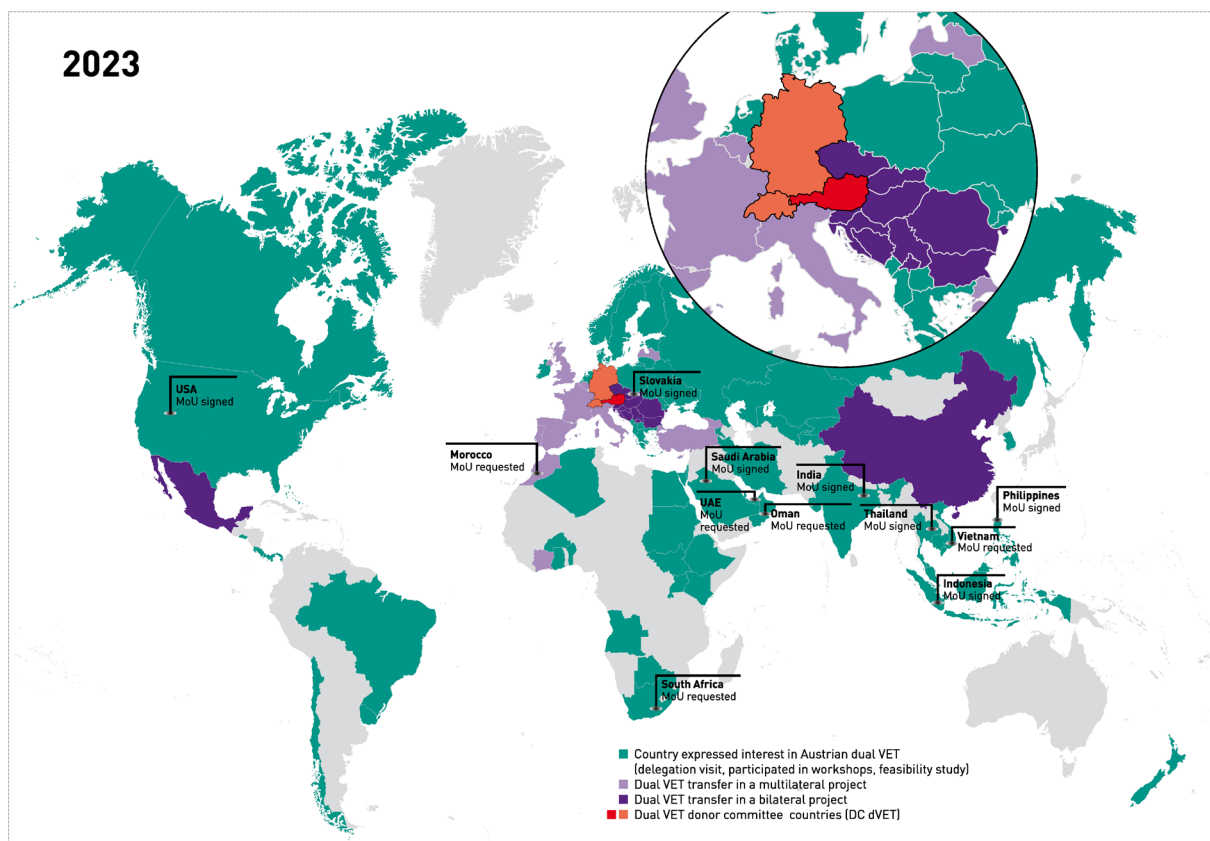


Figure 4: All international collaborations in dual VET between 2013 and 2023

The colors indicate the type of cooperation. Countries in orange are other dual VET donor countries. MoU stands for a Memorandum of Understanding or – in the case of India – for an international agreement that in part relates to sharing Austrian dual VET expertise negotiated with BMAW. All data until 31.12.2023. Sources: WKÖ, BMAW (VI/7), ibw. Graphic: Alice Gutleiderer, Valentin Seidler

Typically, countries develop long-term partnerships and stay in contact after a specific collaboration has ended. The full series of global maps – one for each year of the study is given in Appendix I. Figure 6 shows the latest map from 2023.

We have grouped all dual VET related collaborations into four broad categories of cooperation which were briefly sketched out in chapter 1.2.

Expressions of interest (colored dark cyan in Figure 6) are responses to requests from Austrian companies operating abroad or from government agencies of other countries. Expressions of interest typically consist of an exchange of information followed by either study visits by government representatives to Austria or by Austrian experts to the partner country. Partners in this category aim to learn about dual VET in Austria and explore possibilities for future cooperation.

216 such study visits to Austria took place in the ten years under study. Slightly less frequently, Austrian experts travel to the partner country to hold a workshop or give advice. WKÖ's Department for Educational Policy organizes most of the study visits and often hires ibw experts for trips to the partner countries.

WKÖ's core budget usually covers the organization of study visits to Austria, and go-international funds support study visits abroad by WKÖ or ibw staff.

Multilateral projects (colored light purple in Figure 6) are projects in which a group of partner countries share the same objective and invite Austria, sometimes together with Germany or Switzerland, to participate. They usually consist of a series of workshops^{xxviii} with the aim of exchanging information and knowledge on specific topics related to dual VET. Turkey, for example, has been participating in a particularly large number of multilateral projects since 2013 as part of its ambitious plans to further develop its apprenticeship system.²⁸

Multilateral projects are often initiated by the EU or supported by EU funds, such as ERASMUS+. WKÖ and its partners typically participate as Austrian representatives. The core budget of WKÖ and go-international are often used to support the participation in multilateral projects.

Memoranda of Understanding (MoUs) signed with BMAW are international agreements that include a commitment to share Austrian dual VET knowledge. As Figure 9 will show later in the study, MoUs have only recently gained in importance. The first MoUs were signed in 2022. By the end of 2023, 12 MoUs had been signed or were under negotiation - a strong indication of an increase in bilateral projects in the near future. In the Figure 6, the flags indicate the status of the MoUs per country. It is worth noting that MoUs are being negotiated with countries that in most cases have not yet participated in bilateral or multilateral projects. In this sense, MoUs serve as new potential pathways to future bilateral projects.

The core budget of BMAW, i.e. the salaries of BMAW staff involved, covers the preparation of the MoUs.

Bilateral projects (colored dark purple in Figure 6) are bilateral collaborations with a specific project objective. They typically consist of a joint set of activities towards a predefined and agreed goal between Austrian actors and actors in the partner country. Bilateral projects vary in size - the number of activities and duration - and quality - the depth and complexity of the activities. Smaller projects may consist of supporting the design of curricula for specific occupations, developing a manual, or building the capacity of a regional chamber of commerce in the area of dual vocational training. Larger projects (e.g. with the Slovakia or Serbia) aim at a system-wide reform of the vocational education and training system in the partner country. Larger projects are in fact long-term collaborations over up to ten years of continuous bilateral projects.

We counted 76 completed or ongoing bilateral projects between 2013 and 2023. go-international funds were frequently used to finance short-term projects or the pilot phase of larger projects. More recently, ADA funds have been used to support multi-year projects.^{xxix} Bilateral projects form the basis of this study. They provide the basis for the information presented in chapter 1. Selected bilateral projects are described in more detail in chapter 3.

^{xxviii} There are numerous international and regional conferences on dual VET in which WKÖ and its partners participate and exchange knowledge. Unless the conference is organized within the framework of a bilateral or multilateral partnership, the participation of WKÖ, BMAW or ibw staff in conferences is not counted as an activity in this framework in this study.

^{xxix} Of the 4924 projects financed by ADA since 1999, six projects specifically supported international dual VET sharing, three of which involve WKÖ and its partner ibw. The first ADA-supported dual VET project started in 2017. The volume and number of ADA-supported VET projects have increased in the last three years. See also chapter 1.8 on financial support for international dual VET collaborations.

2.2 Country-level analysis: Recent interest in Austrian dual VET comes from fast-growing emerging markets

Figure 7 shows the number of partner countries for each year between 2013 and 2023. More recent partnerships, after 2018, are countries outside the EU and outside the closer European neighborhood. This finding merits a discussion of their potential for Austrian exports and as partners in international cooperation and Skills Mobility Partnerships (SMPs).

Global interest in Austria's expertise in dual VET has grown since 2013

It is now spreading beyond the EU and Europe

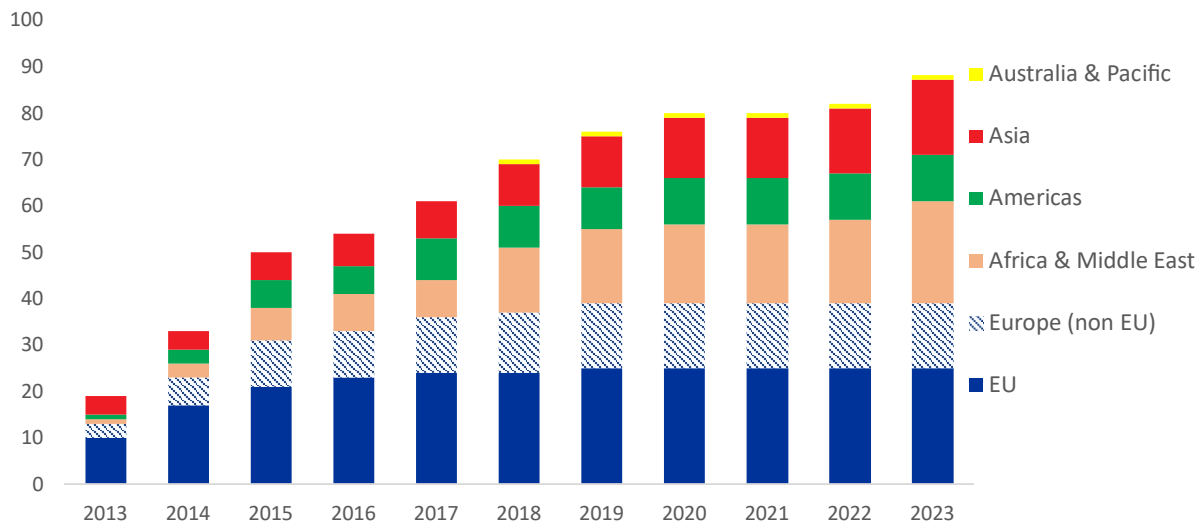


Figure 5: Number of countries newly entering in dual VET collaborations with WKÖ and its partners between 2013 and 2023. The colors indicate global regions. Africa & Middle East includes Turkey. Asia includes Russia. Sources: WKÖ, BMAW (VI/7), ibw. Graphic: Valentin Seidler

2.2.1 A gradual shift with a few caveats

In total, 25 new countries have entered into collaborations since 2018.^{xxx} These countries do not (yet) represent the bulk of every-day activities – these are still focused on Europe. Instead, most of the more recent countries have just initiated contact – for example, signed an MoU or participated in a workshop. Particularly African countries have not yet generated much activities.

However, these countries indicate a possible gradual trend of where future Austrian dual VET collaborations may be placed. There are caveats to this projection.

- The shift to Asia and Africa will be gradual. At the end of 2023, most of the activities of WKÖ and its partners were still focused on countries within Europe, such as Serbia.
- The success of sharing Austrian dual VET expertise critically depends on the availability and interest of Austrian companies operating in the partner country (see chapter 1.7.3).
- Collaborations with geographically distant countries have a different dynamic and are likely to require more resources in terms of working time and funding – adding to the challenges discussed in chapter 1.8.

^{xxx} “Entered into cooperations” means that these countries have either signed or negotiated a Memorandum of Understanding, participated in multilateral or bilateral projects or otherwise expressed specific interest in the Austrian dual VET system.

2.2.2 Fast growth and demographic potential for dual VET reforms – with conditions

Many of the 25 new partner countries since 2018 are emerging markets – rapidly growing economies with increasing industrialization, a young workforce, rising middle classes, and high investment potential, but also with higher risk and volatility.²⁹

11 of them are among the fastest-growing countries between 2024 and 2029, according to projects by the International Monetary Fund (IMF).^{xxxii} For example, India's economy is projected to grow by about 6.6% per year making it the 8th fastest growing economy until 2029. MoUs and international agreements have been signed with four countries in this group, India among them.

11 of the 30 fastest growing economies show interest in Austrian dual education

GDP growth projections from 2024 to 2029 and ranking in the top 30

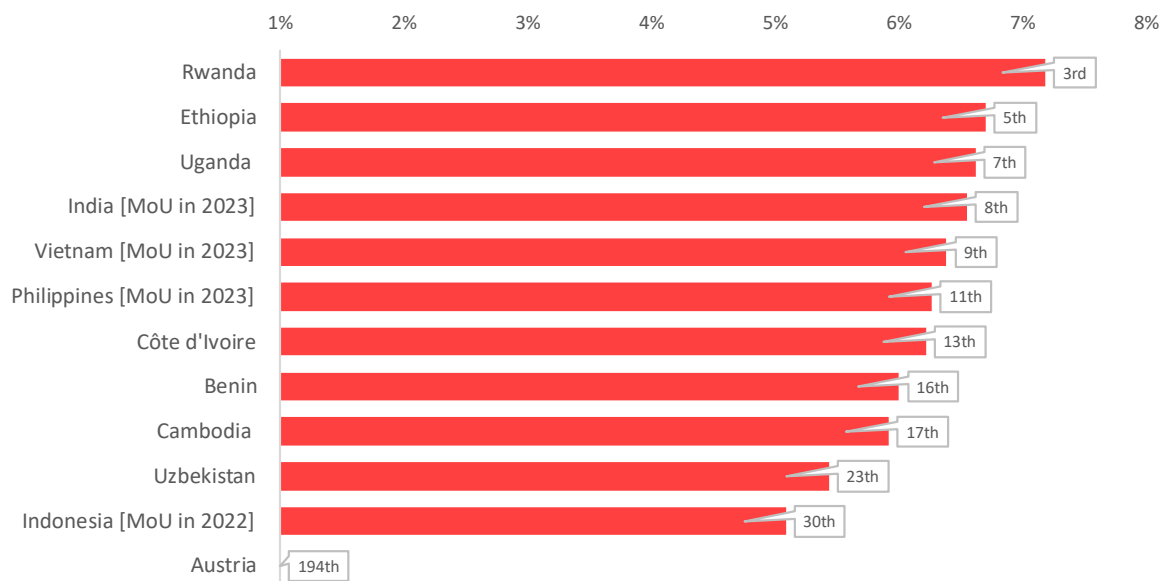


Figure 6: Growth rates of the 11 fastest-growing countries among the partners that began dual VET related activities with WKÖ and its partners between 2018 and 2023, and of Austria for the year 2024-2029.

Numbers in brackets indicate year of first cooperation. Legends give the ranks among projected growth rates 2024-2029 for 194 countries. MoU stands for a Memorandum of Understanding or – in the case of India – for an international agreement that in part relates to sharing Austrian dual VET expertise negotiated with BMAW. Growth rates are International Monetary Fund (IMF) projections of average annual real GDP growth from 2024 to 2029. Sources: WKÖ, IMF data mapper, <https://www.imf.org/external/datamapper>, accessed August 2024

These are fast-growing economies that are potentially attractive for Austrian FDI and for Austrian companies either already present or wishing to enter the market. They offer of a skilled workforce - with a skill level close to or equivalent to that in Austria - is a very attractive incentive for Austrian companies. Supporting dual vocational training transfers is one of the services offered by WKÖ. In this context, the attractiveness of Austrian dual education for emerging countries could be a door-opener for Austrian FDI that only Germany and Switzerland can match worldwide.

Policy makers are advised to look beyond growth figures as not all fast-growing economies are automatically suitable for sharing Austrian dual VET expertise. Fast economic growth (Figure 7) and favorable demographics (Table 1) are not sufficient for the success and sustainability of future dual VET cooperation.

All key criteria discussed in chapter 1.7 also apply for new partnership countries in Asia and Africa. Among these criteria, WKÖ will need to collaborate of Austrian companies operating in these countries wishing to benefit from a successful and sustainable dual VET based reform (see chapter 1.7). It is also

^{xxxii} Projections of average annual changes in real GDP made by International Monetary Fund (IMF) in 2024.

important that the government in the partner country shows strong political will and support for a reform towards dual VET.

The newly interested countries may be subject to additional challenges. One reason for this is that many of the newly interested countries are less familiar to Austrian companies and WKÖ/ibw experts than their geographically closer neighbors. The learning process requires more time and resources, e.g. for travel and for building up networks in the partner country. As a result, bilateral projects may take longer and be more expensive than projects closer to Austria. This is illustrated by the case of Thailand, where projects are often put on hold for reasons that are not entirely clear to WKÖ and ibw experts (see chapter 3.4). The argument is also supported by influential economists who have found that institutional copying tends to work better with countries that are geographically closer, while more learning and contextualization ('policy experimentation') occurs with distant partners. This takes time and resources.³⁰

Closely linked to this are challenges related to conditions that are foreign to the immediate European neighborhood - for example, the existence of a large informal sector, lower secondary school completion rates, greater political volatility, and more. We expect more time and resources to be spent on the initial phase of bilateral cooperation, such as conducting feasibility studies or implementing pilot projects.

The analysis presented here is intended to be an illustration only of *the kind of thinking that is recommended and remains very rudimentary*. It is also limited to 11 out of 25 countries that have expressed interest in dual VET cooperation since 2018. A case-by-case decision will take into account many more factors.

| | (1) Income | (2) Number of Austrian subsidiaries / of which in manufacturing sector | (3a) Population in million | (3b) Population aged [0-14] | (4) Child dependency ratio | (5) Old-age dependency ratio | (6) Not in education, employment, training [15-24] | (7) Lower secondary completion rate |
|--------------------|---------------|--|----------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|---|---|
| Rwanda | 3,361 | 0 / 0 | 13,5 | 38% | 65% ↘ | 7% ↗ | 27.9% | 41% |
| Ethiopia | 2,888 | 1 / 1 | 105,7 | 39% | 69% ↘ | 6% ↗ | 19.3% | 30% |
| Uganda | 3,098 | 1 / 0 | 45,4 | 44% | 82% ↘ | 4% ↗ | 35.0% | 26% |
| India | 9,200 | 150 / 60 | 1428,6 | 25% | 37% ↘ | 10% ↗ | 23.5% | 85% |
| Vietnam | 15,194 | 60 / 20 | 100,3 | 22% | 35% ↔ | 13% ↗ | 11.0% | 100% |
| Philippines | 9,983 | 20 / 7 | 112,9 | 30% | 43% ↘ | 8% ↗ | 12.8% | 98% |
| Côte d'Ivoire | 7,790 | 3 / 2 | 31,1 | 41% | 73% ↘ | 4% ↗ | 18.8% | 56% |
| Benin | 4,248 | 0 / 0 | 13,7 | 42% | 76% ↘ | 6% ↔ | 15.2% | 29% |
| Cambodia | 5,624 | >10 / 0 | 17 | 29% | 47% ↘ | 9% ↗ | 6.1% | 62% |
| Uzbekistan | 9,724 | 15 / 1 | 36 | 30% | 49% ↔ | 9% ↗ | 56.3% | 99% |
| Indonesia | 15,612 | 30 / 10 | 277,4 | 25% | 37% ↘ | 10% ↗ | 22.3% | 100% |
| Austria | 73,751 | -- / -- | 9,1 | 14% | 22% ↘ | 31% ↗ | 12.2% | 96% |

Table 1: Demographic and economic data on the 11 fastest-growing countries among the partners that began dual VET related activities with WKÖ and its partners between 2018 and 2023, and on Austria. (1) GDP per capita, PPP (current international \$) 2023, (3a) Population in millions in 2023, (3b) Population aged 0-14 (% of total population) in 2023, (4) Child dependency ratio [0-14 / 15-64] (%), (5) Old-age dep. ratio [65+ / 15-64] (%), (6) Not in education, employment or training 15-24 (NEET) (%), (7) Lower secondary completion rate, total (% of relevant age group). All data of 2023 or latest year available. Austrian data are included for reasons of comparison. Sources: WKÖ, World Bank data, IMF, UN populations data, International Labor Organization

Additional challenges require additional data. Table 1 provides relevant economic and demographic data that can be used to make an initial assessment of the economic and demographic potential of future partner countries in dual VET collaborations. As a special note we add information related to the regular migration of skilled workers.

Are there Austrian companies interested in cooperation?

Cooperation with Austrian companies remains the most important knock-out criterion among conditions established in chapter 1.7. Austrian companies would need to be present in the new markets and have need for skilled workers or otherwise want take part in a dual VET project. Column 2 in Table 1 gives the number of Austrian subsidiaries / subsidiaries in the manufacturing sector where apprentices are more frequently employed. In large countries, it would also be beneficial, if Austrian companies were geographically not too distant from another.

Only India and Indonesia have a relatively high number of Austrian companies / subsidiaries in the manufacturing sector - with potential interest in future cooperation in dual VET. In the other countries, Austrian dual VET expertise may complement a multilateral project (e.g. with German or Swiss companies) or provide very limited advice on specific dual VET issues.

Youth unemployment and completion of lower secondary education

Education and training levels remain more challenging in many African and Asian countries compared to Europe. We lack data on vocational training and skill levels. Column 6 shows that the proportion of young people aged 15-24 who are not in education, employment or training (NEET) - a broader measure than youth unemployment, but related to it^{xxxii} - is generally high and may explain the interest in dual education. The exceptions are Vietnam and Cambodia, which rank second behind India and Indonesia in our brief assessment.

Especially in African countries, students struggle to complete lower secondary education and stay in school until the age of 14. This is problematic from a dual VET perspective, as this is the age at which initial (dual) vocational education and training (IVET) typically begins.

Special interest: Does the demographic situation permit skilled labor migration?

The knock-out criterion for Skills Mobility Partnerships (SPMs) are out-migration and brain drain.¹ The risk is lower in young countries with falling child dependency ratios and stable or slowly growing old-age dependency ratios^{xxxiii} indicating that a favorable demographic and social transformation is taking place. Table 1 shows that all 11 countries have young populations, growing workforces and beneficial (i.e. low) old-age dependency ratios. Among the 11 countries, India, Indonesia and Vietnam have a relatively lower share of youth (aged 0-14), indicating that they are further along the demographic curve and on track to become mature (regional) economies in the coming decades.

2.3 Activity-level analysis: How are WKÖ and ibw resources invested?

We now look beyond level of countries to describe and categorize the type of activities that WKÖ and its partners have undertaken in support of international dual VET partnerships. We then examine how these activities were financed.

The analysis of individual activities related to sharing Austrian VET expertise begins with a caveat. The data used here have been painstakingly collected from filing cabinets, e-mails, project reports, travel lists and more. As this is very time-consuming, the findings presented here only refer to the relevant work of WKÖ's Department for Educational Policy and the two staff members of ibw who are mainly involved in international dual VET collaborations. The account of BMAW's activities is even more simplified. Each MoU (signed or in preparation) counts as a single activity, even though many hours of work, meetings and legal drafting have gone into it.

^{xxxii} The definition of NEET includes all 15–24-year-olds who are not in employment, education or training. Within this group, the unemployed include those who are out of work and looking for work. In other words, youth unemployment covers all 15–24-year-olds within the active population who are unable to find a job.

^{xxxiii} Economist consider this a period when the share of elderly in the population is still low at the same time as the share of children is falling. As the consequence the total dependency rate, i.e., the number children and elderly each working age person has to support, is low and falling.

Between beginning of 2013 and end of 2023, we collected 419 dual VET sharing related activities.^{xxxiv} In our analysis, we associate each activity with one of the categories we defined:

- Activities that are a response to an expression of interest from either an Austrian company operating abroad or a foreign government body. These includes organizing delegations - visits to study Austrian dual VET in Austria, conducting feasibility studies with partner countries, or holding introductory workshops, etc. WKÖ, ibw and sometimes BMAW are involved in these activities.
- Bilateral projects are collaborations with another country that have a specific objective or set of objectives. Activities towards these goals fall into this category. Typical activities in support of bilateral projects are described in chapter 1.6. WKÖ and ibw experts conducted these activities.
- Activities supporting multilateral projects. These include participation in multilateral workshops, where Austria (often together with Germany and Switzerland) shares its dual VET related expertise with a group of countries in a series of workshops. WKÖ, ibw and sometimes BMAW staff participate in multilateral projects
- Activities leading to the signing of a Memorandum of Understanding (MoU) that includes a planned bilateral cooperation in the area of dual VET know-how sharing. These activities entirely take place inside BMAW's Department Vocational Training, Professional Skills VI/7.

Most activities respond to specific interests or are part of bilateral projects

Negotiating Memoranda of Understanding is a new trend

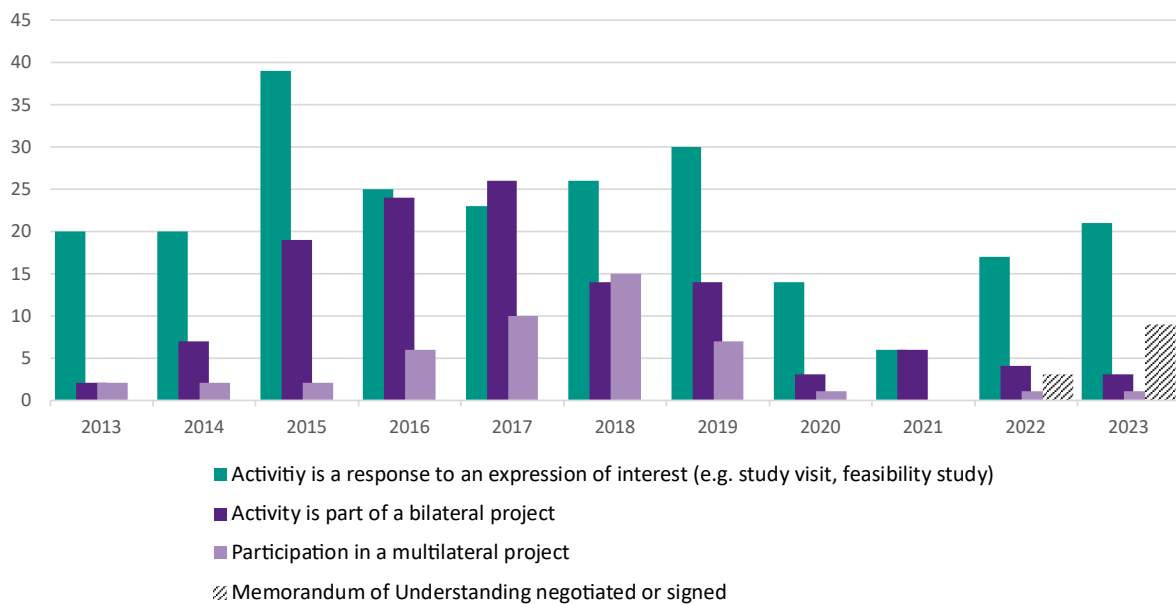


Figure 7: Number of dual VET sharing related activities by type of cooperation between 2013 – 2023.

Activities by WKÖ (Department for Educational Policy), BMAW and ibw grouped by the type of cooperation they support. Negotiating or signing a Memorandum of Understanding counts as a single activity. All data until 31.12.2023. Sources: WKÖ's Department for Educational Policy, BMAW (VI/7), ibw. Graphic: Valentin Seidler

Figure 9 shows the number of activities by WKÖ^{xxxv}, ibw and BMAW in each of four categories. It can be seen that the scope and type of activities have changed over the ten years under study. It is also apparent that the largest share of activities are study visits, delegations, workshops or feasibility studies in response to requests from Austrian companies operating abroad or foreign government representatives. The number of such activities reached 39 in 2015 and then decreased, in parallel with

^{xxxiv} The total number of 419 activities includes 28 activities between 2013 and 2023 that relate to sharing information and learning from each other with other dual VET donor countries (mostly Germany and Switzerland). We have excluded these activities from the analysis.

^{xxxv} In this analysis at the level of activities, WKÖ stands for the Department for Educational Policy of WKÖ.

an increasing number of multilateral and bilateral projects. Activities in support of bilateral projects reached their highest level in 2016 and 2017, suggesting that bilateral projects follow in time, at least to some extent, previous expressions of interest.

2.3.1 A WKÖ internal taskforce to tackle increased dual VET collaborations from 2017 to 2019

In response to the rising workload, the Education Policy Department of WKÖ initiated a task force to better support the "Internationalization of Dual VET", which ran from October 2017 to March 2019 and brought in more staff.^{xxxvi} This enabled an overall higher level of activities during this period of time.

2.3.2 The effect of Covid19

The Covid19 pandemic reduced all activities between 2020 and 2021, with the exception of Memoranda of Understanding (MoUs), which were negotiated and consequently signed in the following years. This was entirely done by BMAW staff (Department Vocational Training, Professional Skills VI/7). BMAW and ibw were kept informed on request.

2.3.3 MoUs prepare for future collaborations

The rise of MoU related activities is noteworthy because the majority of the MoUs are with countries that have not yet participated in Austrian dual VET partnerships.^{xxxvii} This suggests that the MoUs function similarly to expressions of interest and we expect an increasing number of activities in support of bilateral projects in 2024 and the near future.

2.4 Activity-level analysis: go-international and ADA funding

Our analysis of financial support from ADA and go-international to WKÖ and ibw adds a second layer of information in Figure 9 which we brought above. In Figure 10, the dashed lines show the average amounts per year received from these two donors.^{xxxviii} Note that BMAW activities are not affected by external funding.

2.4.1 Flexibility – the power of go-international

Figure 10 shows that go-international funds are used to support of all three categories of activities by WKÖ and ibw - to respond to expressions of interests and to support bilateral or multilateral projects. The annual amounts disbursed from go-international funds do not vary even if the mix of these three categories changes. The annual amount of go-international funds remained largely stable between 2014 and 2017, while activities in support of bilateral projects increased during this period.

However, the annual amounts do vary in relation to the overall level of activity. The go-international funds paid to WKÖ and ibw declined in line with the pause in activities due to Covid19 in 2020 and 2021.

This reflects the flexibility that go-international funds offer: WKÖ can quickly to apply for these funds and reporting duties are light. As a result, the sums requested wax and wane with activities levels. They also support a wide range of activities. This makes them ideal for collaborations where the level of activity depends on the political ownership and initiative of the partners.

^{xxxvi} The full name of the task force was "Task force for the internationalization of dual vocational training and securing skilled workers" (Task Force für Internationalisierung der dualen Berufsbildung und Fachkräftesicherung).

^{xxxvii} Out of a total of MoUs and international agreements signed or in preparation with 12 partner countries by the between 2022 and 2023, only two partner countries had previously participated in a multilateral (Morocco) or bilateral (Slovakia) project.

^{xxxviii} We do not present the exact amount of funds disbursed by ADA or go-international for a specific project or country in a given year. This information is available upon request from WKÖ and ADA. ADA's financial support for feasibility studies is not included in the analysis. These are small assessment exercises that are a preparatory step prior to submitting a project proposal to ADA.

2.4.2 ADA – financial firepower for bilateral projects

The dotted line in in Figure 10 represents the average annual amounts disbursed to WKÖ and ibw from ADA projects in which WKÖ and ibw played a *leading role*.^{xxxix} It shows that ADA funding provides larger sums than go-international. This is particularly true for the Strategic Partnership instrument, which was used to fund a large cooperation with Serbia. ADA funding requires more time to apply for and manage than go-international funding. As a result, we can see in Figure 10 that ADA funding dominates only from 2017 onwards - with a delay of one to two years after bilateral projects start to dominate the mix of activities in 2015 and 2016.

ADA is a flexible donor. It permitted project extensions in response to reduced activities by Covid19 in 2020 and 2021. ADA funds can also be used finance expenses by partner organizations and consultants outside the scope of this study. This explains lower activity levels in bilateral projects precisely when ADA funded is used.

A Tale of Two Donors

Go-international supports a wide range of activities with relatively small amounts. ADA provides larger sums for bilateral projects only

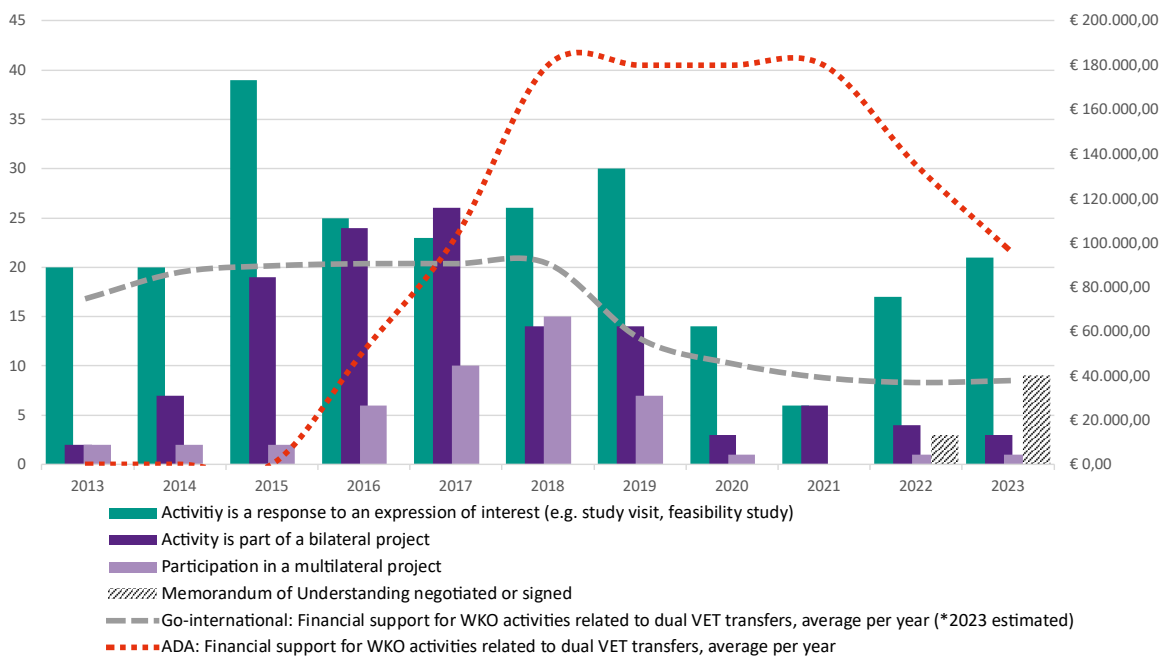


Figure 8: Number of dual VET sharing related activities and yearly funding by go-international and ADA to WKÖ and ibw. Activities by WKÖ (Department for Educational Policy), BMAW and ibw grouped by the type of cooperation they support. Negotiating or signing a Memorandum of Understanding counts as a single activity. All data until 31.12.2023. Sources: WKÖ’s Department for Educational Policy, BMAW (VI/7), ibw. Graphic: Valentin Seidler

2.4.3 The funding gap: the need for specific funding for dual VET

Since ADA funding is limited to bilateral project activities, while go-international supports all types of activities, the two funding sources are complementary and to a lesser extent substitutable.

^{xxxix} Between 2013 and 2023, WKÖ and WIFI have also been involved in activities related to dual VET in which other actors, such as Austrian companies or Austrian consultancies, have received support from ADA. Their involvement is a natural consequence of their responsibilities in the Austrian dual system. The calculation of the annually disbursed ADA funds in Figure 10 does not include these cases. It only takes into account ADA projects in which WKÖ, or in this case the WIFI directly benefit from financial support as partners in the project. Feasibility studies, in which ADA co-finances the assessment for potential future ADA funding, are also not included in the analysis.

A good example is Serbia: the availability of ADA funding for Serbia between 2018-2022^{xi} reduced the substantial go-international support for Serbia by 90% from 2019 onwards. Since go-international funds annually support activities in 20 or more countries, of which Serbia is only one, the reduction in go-international spending on dual VET-sharing related activities from 2019 on is visible in Figure 10.

go-international is the more essential source of funding for dual VET sharing-related activities in the sense that without go-international, many day-to-day dual VET-related activities appear impossible or very difficult to carry out. Figure 10 supports this argument. Continued go-international support enabled a high level of activity without ADA funding from 2013 to 2017. However, we do not see a significant increase in the number of activities after 2018, when substantial ADA funding was used.^{xii}

| | go-international | ADA |
|--|--|---|
| <i>Total amount disbursed on international dual VET collaborations 2013 – 2023</i> | 737,726 EUR | 1,106,108 EUR |
| <i>Average amount disbursed per year of use</i> | 67,066 EUR | 138,264 EUR |
| <i>Donor</i> | BMAW and AW (WKÖ) | ADA (Business Partnership & Strategic Partnership) |
| <i>Activities supported</i> | All activities | Bilateral projects (long-term) |
| <i>Conditionality</i> | The use of funds needs to benefit Austrian companies and support Austrian exports. | The use of funds must comply with the Austrian Federal Act on Development Cooperation. Depending on the funding instrument, additional conditions can apply (e.g. minimum and maximum duration, share of costs covered, target country) |
| <i>Typical workload for applying (per funded project)</i> | A few weeks | 3-12 months |
| <i>Typical workload for reporting (per funded project)</i> | A few weeks | 3-6 months |
| <i>Average duration of all financed projects</i> | 1 day – a few months | 17 – 60 months |

Table 2: The use of go-international and ADA funding in dual VET collaborations and for dual VET sharing related activities by WKÖ and ibw between 2013 and 2023. Source: WKÖ, ADA

A comparison of the two funding sources illustrates the lower workload for managing go-international relative to ADA funding. Table 2 also reveals a funding gap between about 60,000 EUR – the annual amount disbursed by go-international and about 140,00 EUR which where ADA funding becomes available.

The area between the funding levels of the two donors in Figure 11 visualizes the funding gap. It is located above what go-international can typically provide and below the amount that would justify the administrative overhead costs of working with ADA funds.

^{xi} The Strategic Partnership cooperation with Serbia financed by ADA ran from October 2017 to September 2022. Substantial flows of funds began in 2018. In total WKÖ received 900,000 EUR over the project period. See also the Serbia case study in chapter 3.1.

^{xii} The nature of the activities funded by ADA may have changed in the sense that ADA funds made it possible to finance fewer but more expensive, long-term and complex activities. ADA funding and its use is also discussed in the analysis of the cooperation with Serbia in chapter 3.1

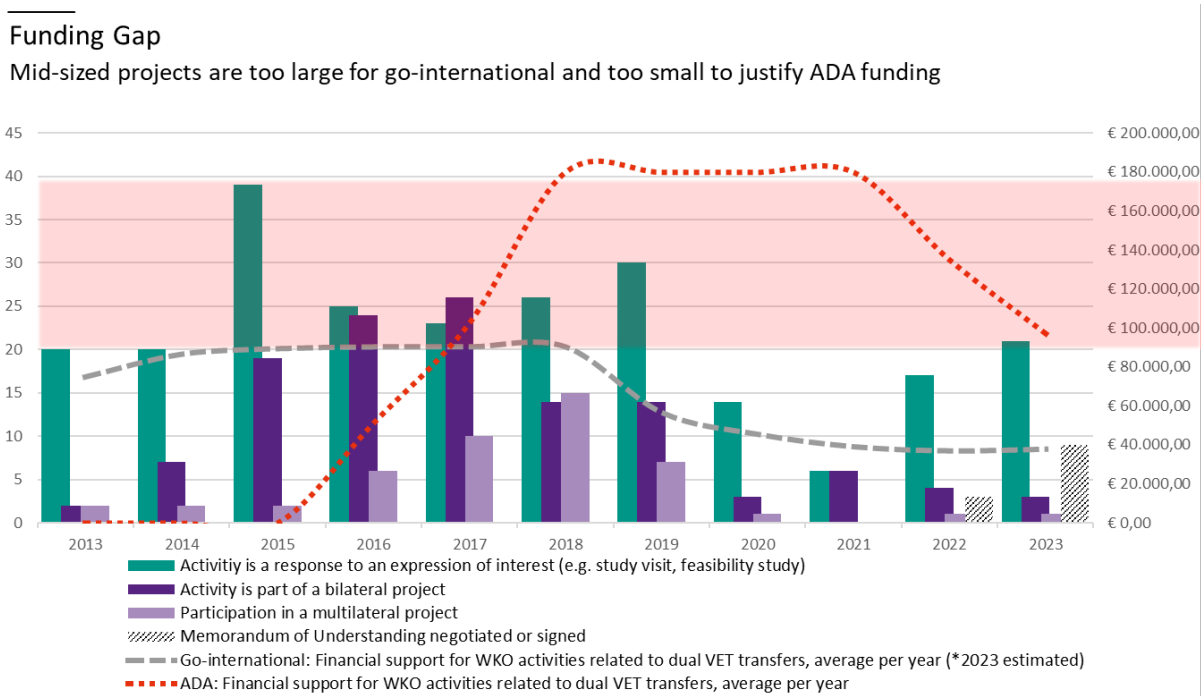


Figure 9: Number of dual VET sharing related activities and yearly funding by go-international and ADA to WKÖ and ibw. Activities by WKÖ (Department for Educational Policy), BMAW and ibw grouped by the type of cooperation they support. Negotiating or signing a Memorandum of Understanding counts as a single activity. All data until 31.12.2023. Sources: WKÖ’s Department for Educational Policy, BMAW (VI/7), ibw. Graphic: Valentin Seidler

It is unlikely that identifying an alternative source of financial support for medium-sized dual VET collaborations would effectively address the issue of the funding gap. Managing two or more independent sources of funding in parallel is time-consuming and ties up resources within WKÖ. The project-based nature of the funding exacerbates this problem, as each grant must be applied for, accounted for, and reported upon. For such small number of staff more project-based external funding is not advisable.

Ideally, dual VET sharing-related activities of WKÖ and its partners would be supported by a fund specifically established for supporting Austrian dual VET collaborations with other countries. Most costs are salary support, travel and workshop costs, for which structural financial support, for example salary support for Austrian experts wherever they are employed, is the more appropriate option. In general, the more specifically a budget can be earmarked, the less financial monitoring and reporting requirements will be necessary. Table 2 shows that the annual amounts needed are small compared to the impact that dual VET sharing can have on youth unemployment and the creation of a skilled workforce. These are economic goals that are otherwise very difficult to achieve, and countries without a tradition of dual VET spend far more on the problem, sometimes with little to show for it.

3. QUALITATIVE PART OF THE STUDY – CASE STUDIES

The qualitative part of the study examines the processes and resources used in past and ongoing bilateral projects. In the classification given in chapter 2.1 the case studies presented are all "bilateral projects", which we have defined as a joint set of activities towards a predefined and agreed goal between Austrian actors and actors in the partner country. We describe typical processes, criteria for success, failure and sustainability, the role of external funding of selected bilateral projects with two objectives

1. to illustrate how dual VET collaborations are carried out by Austrian and local stakeholders. The case studies provide meaning to the rather abstract concepts of *contextuality* or *cooperation with the private sector* in chapter 1.2, with the aim of informing policy makers and practitioners outside the field of international dual VET cooperation.
2. to analyze the strengths and weaknesses of Austrian dual VET sharing practices over the past ten years in order to provide recommendations for future projects.

The selection of exemplary cases (i.e. bilateral projects) is not random, but was done with the aim to cover the diversity of past and ongoing projects.

3.1 Serbia 2015 - ongoing

Factsheet: Serbia

| | |
|--|--|
| <i>Project type</i> | Expression of interest 2015, projects 2016-22 and 2023 – ongoing |
| <i>Status</i> | Ongoing |
| <i>Duration</i> | Long term (>5 years) |
| <i>MoU</i> | MoU between WKÖ, Serbian government and the Chamber of Commerce and Industry and the Austrian Ministry of Foreign Affairs (BMEIA) in 2016, MoU between WKÖ and the German International Cooperation (GIZ) in 2016 |
| <i>WKÖ and its partners</i> | WKÖ-Department for Educational Policy, ibw, AC Serbia |
| <i>ibw</i> | Partner in ongoing trilateral project |
| <i>Initiated by</i> | Chamber of Commerce and Industry of Serbia (CCIS) (top-down) |
| <i>Financial support</i> | Austrian side only: go-international: 66,500 EUR), ADA ~1.6 million EUR. |
| <i>ADA</i> | ADA funded one feasibility study and two Strategic Partnerships with a total of about 1.6 million EUR disbursed to WKÖ and ibw between 2016 and 2027. By the end of 2022, ADA paid out about 1 million EUR supporting approximately 48% of the total project costs to that date. |
| <i>Success / Outcome</i> | <ul style="list-style-type: none"> • Systemic reform to introduce dual VET launched - well on track • Dual VET legislation passed in Parliament • Increasing number of apprentices to reach 16,500 by 2027 • Capacity of Serbian Chamber of Commerce and Industry built |
| <i>Sustainability</i> | Sustainable. There is strong financial support and political support. |
| <i>Outlook</i> | Stable. With continued interest from the Serbian side and the private sector, continued cooperation after 2027 seems likely. |
| <i>Relevance for sharing Austrian dual VET expertise</i> | This is WKÖ's largest dual VET cooperation in terms of budget and complexity. The lead in the most recent, ongoing project lies in the partner country, Serbia. Such cooperation may become a model for the future. |
| <i>Relevance for Austrian companies</i> | High. 800 Austrian companies are active in Serbia with 25,000 employees and a combined FDI of 3.5 billion EUR. Austrian companies in Serbia need skilled workers as much as Serbian companies do. |
| <i>Relevance for skills mobility</i> | Low. Serbia is already suffering from out-migration of skilled workers. Its demographics are similar Austria. WKÖ rightly builds skills inside Serbia. |
| <i>Relevance for international development</i> | Relevant. This is a peer-to-peer cooperation aimed at systemic reform, which is being implemented at a very high level of professionalism. It is the gold standard of international cooperation. ADA is rightly funding this through its Strategic Partnership instrument, even though Serbia is not a low-income country. Challenge: Negotiations and reporting requirements place a burden on the project team and reduce the value of the funds received, given the cost of staff time involved. ADA could consider streamlining the pre-contractual and contractual efforts of partners that are professional associations or chambers, such as WKÖ. |
| <i>Sources</i> | Interviews with experts involved (WKÖ, ibw) February to June, 2024. ADA contracts. |

3.1.1 Who initiated the project?

In 2015, high-level members of the Serbian government together with the *Chamber of Commerce and Industry of Serbia* (CCIS) requested support from WKÖ to introduce dual VET in Serbia. The initiative had strong political support by the Serbian President Aleksandar Vučić and the CCIS. It was supported by donor organizations in German speaking countries such as the GIZ.

The explicit goal was a Serbian version of the Austrian and German dual VET systems. President Vučić and members of the CCIS had experience with dual VET from visits in Switzerland and in Germany and were concerned about very high levels of youth unemployment.³¹

On February 9th, 2016 Serbia signed a MoU with the Austrian ministry of foreign affairs and WKÖ. In the years before, Serbia had substantially reformed the CCIS along the Austrian model, WKÖ. On November 15th, 2016 WKÖ signed a MoU with GIZ to improve coordination.

Tackling youth unemployment through dual education

5.3% of Serbian students were in the dual system in 2022. Serbia targets 10.9% by 2026.

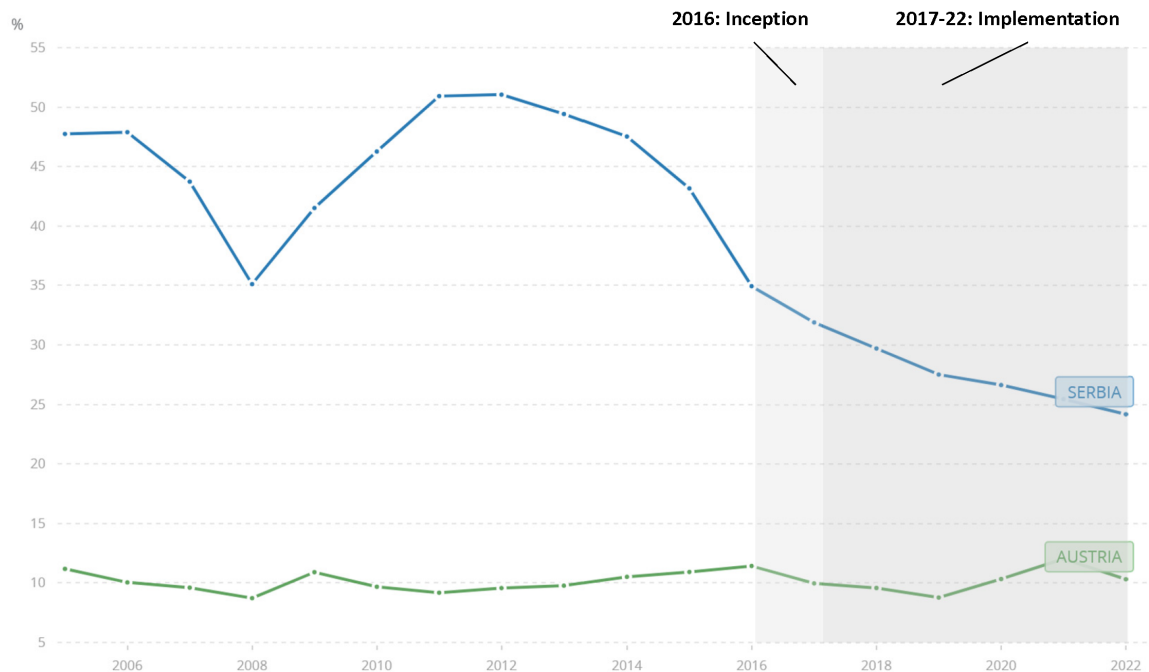


Figure 10: Youth unemployment rate in Serbia and in Austria.

The youth unemployment rate is shown as the number of youth unemployment as a percentage of the youth labor force [aged 15-24]. Sources ILO, World Bank, ADA, GOVET.

Estimated share of students in the dual system in 2022 by GOVET (<https://www.govet.international/de/10656.php>) of students in 2026 by ADA (<https://www.entwicklung.at/projekte/detail/sp-ser-arge-ccis-dual-vet-project-serbia>) accessed August 2024.

3.1.2 Project description, processes and goals

The case study identifies three phases of cooperation with Serbia.

1. Inception phase: May 2016 – September 2017. The Serbian dual VET law passed in Parliament. Two professions and a training program for master educators in a future dual VET system in Serbia were established.
2. Implementation phase: Oct 2017 – Sept 2022. By the end of 2022, 10,500 students were registered as apprentices in dual VET, representing 4.5% of Serbian students in this age group. 850 companies and 180 schools offering dual VET in Serbia.
3. Trilateral cooperation: May 2023 – April 2027 (ongoing)

During the inception phase, a pilot project was set up along two professions: Forwarding Agent (in Austria: *Speditionskaufmann*) as a first in the Balkan countries and Retail Salesperson following the German model of the *Einzelhandelskaufmann*, for which the curriculum had already been developed. AC Serbia provided substantial support during this first phase. They hired a consultant to manage the project locally for WKÖ and helped find an Austrian freight forwarder operating in Serbia who was interested in cooperating.

At the same time, legislative reforms aimed at drafting a Serbian law on dual vocational training. Here, the first experiences with these two professions shaped the final version of the dual VET system in Serbia and thus the Serbian dual VET law.

To give an example: the accreditation of companies as trainers, the licensing of trainers, the payment of apprentices, the determination of the share of school-based and workplace training were all influenced by the Serbian pilot professions and shaped the dual VET law in the Serbian context.

Contextualization away from the Austrian model to the Serbian context was part of the process. The ratio of company to school-based training in Austria is 80:20, while the Serbian ratio is closer to 40:60. Also the payment of students (including insurance) was completely new and the final solution in Serbia was influenced by what had worked best in the initial phase. The law on dual vocational training was adopted by the Parliament in September 2017 and entered into force in November 2019, after a two-year transition period. The law has been amended in 2023 showing the continued interest and use of dual VET for the Serbian government.

ADA provided the financial support during the implementation phase.^{xlii} The aim of this phase was to create the necessary by-laws for dual VET, to establish 12 additional occupations and to create a public register of trainers and training companies. Another goal was the development of the CCIS as an intermediary or bridging body, as foreseen in the Serbian law on dual VET (and analogous to Austria). These roles were new for the CCIS: training and licensing of trainers, development of job profiles for new occupations, representation of the private sector vis-à-vis the Ministry of Education (responsible for school-based training), local administration through the provincial chamber, accreditation of training companies. Covid-19 promoted the transfer of some of these functions online. In this framework, CCIS built a new web information portal including a public register of dual VET accredited training companies and certified trainers in Serbia.

WKÖ staff of the Department for Educational Policy gained their first experience with ADA funding as one of the first large ADA-funded projects.^{xliii}

Barbara Wilfinger, who had the project lead felt: *“One of the main challenges of the bilateral project funding was that we had to decide already in the application phase on the indicators that were to be fulfilled by the project. We were creating a new education system for an entire country. Not only was this complex, but unpredictable elements were inevitable. There were times during the project, when I felt that more flexibility would have made sense. For example, we would have changed some of the indicators after the first two years.”*

Thomas Reichenbach, who was in charge of administrative support and of reporting: *“During the implementation phase, the real costs of some activities became apparent that we could not have anticipated during the application phase. For example, the IT costs for setting up the web platform were higher than expected. Travel costs decreased during Covid-19. ADA was a very flexible partner and we asked for budget reallocations three times during the project. However, this process was quite time-consuming and distracting from the project work.”*

A new trilateral project was being negotiated at the time of writing this study. It was finally signed in 2023. Financed as a Strategic Partnership by ADA, the project aims to further develop the nationally established dual vocational training model in Serbia. The project is being implemented by partners

^{xliixlii} See <https://www.entwicklung.at/en/projects/detail-en/sp-dual-vet-serbia-strategische-partnerschaft-fuer-duale-berufsbildung-in-serbien> accessed August 2024.

^{xliii} The direct quotes were taken between January 26 and February 6, 2024.

from three countries: on the Serbian side, the Chamber of Commerce and Industry of Serbia (CCIS) and the Serbian State Institute for the Improvement of Education (IIE); on the Austrian side, WKÖ and ibw; and on the Swiss side, the Swiss Agency for Development and Cooperation (SDC) and Swiss Federal University for Vocational Education and Training (SFUVET). This is an ambitious, large and complex project that aims to increase the number of students in dual education from about 5.3% to 10.9% (from about 8,000 to 16,500 students in real numbers). Among other things, it builds the capacity of the CCIS, develops a new methodology for curriculum development, and carries out public awareness activities. WKÖ and ibw are not the lead agencies in this project and together they receive financial support of about half of the total planned ADA funding of 1,085,000 EUR.

The complexity of the project (three countries, even more partner agencies) shows how far WKÖ and ibw have come in professionalizing the supporting international dual VET collaborations. With the current organizational structure of international dual VET cooperation in Austria (see chapter 1.4) and the current conditions of how dual VET sharing is funded (see chapter 1.8), it would be difficult for WKÖ and ibw to carry out another project of this size in parallel.

3.1.3 Financing: WKÖ core budget and ADA funding on equal footing

As this is one of the more comprehensive dual VET projects, we calculated in more detail all costs and expenses incurred by WKÖ's Department for Educational Policy in order to be able to carry out the ADA-funded implementation phase from October 2017 to September 2022. We were curious about the extent to which this project is generating costs for the core budget of WKÖ, and made the effort to analyze all expenses up to the end of the implementation phase (including reporting obligations), which was the most recently completed project at the time of this study. This means that our analyses had to include the ADA-funded Feasibility Study, which was the basis for the request for support for the Implementation Phase.

The total costs incurred from mid-2015, when the project idea was discussed, until December 2022, when the final report was submitted to ADA, amounted to 2.1 million EUR. This amount includes all preparatory activities up to the final reporting to ADA - in particular the costs for consultants and staff of WKÖ and ibw involved, the support of AC Belgrade and travel costs.

From the point of view of an international development project, this amount is rather small compared to the immense and sustainable impact of creating thousands of apprenticeships and supporting the reform of a country's education system (including the support of the necessary legislation).

Of this amount, about 1 million EUR (48%) came from ADA (feasibility study during the inception phase + implementation phase) and 66,500 EUR (3%) came from go-international. The go-international funds supported the involvement of AC Serbia, which had hired a consultant as a local counterpart, and activities involving Austrian companies operating in Serbia. This leaves about 1,050,000 EUR (49%) of the dual VET support for Serbia for the core budget of WKÖ. Most of this sum was used to support the salaries of WKÖ staff involved in the Serbia projects between 2015 and 2022.

3.1.4 Outputs

At the end of implementation phase (end of 2022), WKÖ reduced its initially high level of involvement. In the currently running project (since 2023), which aims to deepen and consolidate dual VET in Serbia, WKÖ is a supporting partner in a project led by the Serbian CCIS and co-financed by SDC and ADA. It is beyond the scope of this analysis to present all the milestones achieved. The results are documented by ADA.^{xliv}

Together with ibw, WKÖ remains a reference point for Serbian stakeholders as a know-how donor, especially in the areas of capacity building of the Serbian CCIS, for example in the establishment of

^{xliv} See ADA website (accessed August 6, 2024) <https://www.entwicklung.at/en/projects/detail-en/sp-ser-arge-ccis-dual-vet-project-serbiac>

training alliances. In addition, WKÖ provides support and services for Austrian companies in Serbia that work with apprentices.

Barbara Wilfinger (Project Manager): *"From WKÖ's point of view, the Serbian program followed an ideal curve of involvement. First, we took the lead in shaping the first dual vocational training law, using pilot apprenticeship classes for the necessary contextualization. This is usually the most resource-intensive period of WKÖ's involvement. Flexible financing is very important here, as we cannot foresee activities and expenses at this time. Once dual vocational training was legally established, the Serbian government took the lead and we assisted in accessing financial support from ADA and SDC. Now we remain an important partner of the Serbian government and in particular for Austrian companies operating in Serbia."*

The flexible ADA funding for a trilateral project with a non-Austrian entity in the lead is a new quality and can be seen as a result for possible similar funding in the future.

3.1.5 Promoting factors

More than 400 Austrian companies are active in Serbia. They employ 20,000 people and have a combined FDI of 2.9 billion EUR. They know the Austrian dual education system and were interested in working with Serbian apprentices.

ACs are very important, especially in the beginning. They have a close relationship with the Serbian government and serve as an entry point to the government and Austrian companies. The Trade Commissioner can monitor and react more quickly than WKÖ in Vienna.

Flexible financial support from go-international was considered 100% necessary in the initial and start-up phases. Small amounts can be accessed quickly with little resource-intensive bureaucracy.

The ADA funding enabled the continued and more complex cooperation in Phase 3.

There was very strong support from the Serbian government

The President of the CCIS, Marko Čadež, was already familiar with dual vocational training, which he had experienced in his youth in Germany. As a key decision-maker, he gave the project additional political support.

CCIS was modeled on the Austrian WKÖ, making it a highly effective stakeholder.

3.1.6 Restraining factors

The preparation of the proposal for the ongoing ADA project (lead with Serbian stakeholders) took about 18 months. Three consultants were hired (Austria: ibw, Serbia and Switzerland). One of the delaying factors was that funding from both SDC and ADA was new and untested at the time.

Human resources within WKÖ's Department for Educational Policy were at times overstretched, and the lack of additional staff was a clear bottleneck. Key staff involved in the Serbian project were working on the project "on the side" alongside their domestic work. This works less well for such large and complex projects than for smaller and more short-term projects. However, WKÖ staff felt it was very important that they, as peers, were responsible for the design of the project, as they best understood how the system worked in Austria and what might work in Serbia.

In addition to WKÖ, OeAD, BMBWF and BMAW were involved in the dual VET collaboration with Serbian partners, even if their contribution has not been highlighted in the analysis. The project benefited from personal networks between the Austrian actors. A more structured cooperation would make better use of Austrian capacities for direct project implementation. Coordination with Austrian actors in Serbia was very important, especially at the beginning of the project.

3.2 China 2011 - ongoing

Factsheet: China

| | |
|--|--|
| <i>Project type</i> | Bilateral |
| <i>Status</i> | Ongoing since 2011 |
| <i>Duration</i> | Long term (> 5 years), ongoing |
| <i>MoU</i> | - |
| <i>WKÖ and its partners</i> | WKÖ-Department for Educational Policy, WIFI International, AußenwirtschaftsCenter (AC) Shanghai |
| <i>Ibw</i> | Supporting role |
| <i>Initiated by</i> | Austrian companies operating in China (bottom-up) |
| <i>Financial support</i> | WKÖ core budget, go-international: 98.000 EUR, ADA. 345.00 EUR. |
| <i>ADA</i> | ADA funded two dual VET related projects in Shanghai area of which one was in partnership with WIFI International. |
| <i>Success / Outcome</i> | <ul style="list-style-type: none"> • Three apprenticeship profiles established until end of 2013 • Between 30-50 apprentices are trained by Austrian companies in China annually • Annual final exams taken in China |
| <i>Sustainability</i> | Sustainable. There is strong ownership and financial support by Austrian companies in China. |
| <i>Outlook</i> | Stable, potential for expansion |
| <i>Relevance for sharing Austrian dual VET expertise</i> | This is a typical project in which WIFI International supports the establishment of apprenticeship profiles, including the issuance of WIFI certificates. The use of go-international funding in the early stages and ADA funding in the later stages is typical of other cases. |
| <i>Relevance for Austrian companies</i> | High. Large Austrian companies in Shanghai needed skilled workers and WKÖ / WIFI responded. APLA and Engel employ about 3,000 workers in their Chinese subsidiaries. Similar projects have taken place in Rudong (China) and in Mexico. |
| <i>Relevance for skills mobility</i> | Relevant. WIFI certificate can support the accreditation process in Austria in addition to Chinese vocational certificates. Risk. The demographic window is closing fast in China, albeit with regional differences. It may make more sense to support the training of workers in China for Austrian companies. |
| <i>Relevance for international development</i> | Initially relevant. ADA funding came into play when the impact went beyond mere support for Austrian subsidiaries. The project was bottom-up, with local partners in the driver's seat. This is a model for how ADA can use business and strategic partnerships in future dual vocational training projects. China is no longer a target country for international development and yet the project was – rightly – eligible for funding. |
| <i>Sources</i> | Interviews with experts involved (WKÖ, WIFI) January, 2024 |

3.2.1 Who initiated the project?

WIFI International^{xlv} and AC Shanghai responded to requests from Austrian companies operating in the Shanghai municipality. The subsidiaries of ALPLA, Engel and initially Miba^{xlvi} were looking to train apprentices to Austrian standards for their operations in China, which are clustered around Shanghai. Initial attempts to establish contact with the Chinese education authorities proved difficult. AC Shanghai (as part of the Austrian Consulate in Shanghai) created the opportunity to visit Chinese schools and to start discussions.

The first apprenticeship profiles requested were in metal technology and plastic molding. Mechatronics was added later. The activities have been ongoing since July 2014.

This is a good example of a bottom-up project initiated by two large Austrian companies, ALPLA and Engel, operating in China and in need of specific skilled workers. The long-term involvement of WIFI is to organize the WIFI exams and thus guarantee high Austrian standards.

This is a typical case of how WKÖ (through the ACs) and WIFI respond to companies' needs for skilled apprentices. Similar dual VET projects in Mexico or Rudong (China), for example, followed a similar bottom-up pattern. These projects were initiated by private companies, and the role of WIFI was limited to carrying out the WIFI exams, which were paid for by the benefitting companies.

3.2.2 Project description, processes and goals

Initially in 2011, the companies required assistance in locating vocational schools in Shanghai and developing training curricula that met Austrian standards. The use of Austrian standards was considered critical, because they were appealing to Chinese workers and ensured a consistent level of skills across the global workforce of Austrian operations abroad. WKÖ, including WIFI and AC Shanghai, supported these and more activities. They facilitated an agreement on uniform framework conditions such as wages, working hours and insurance across the three Austrian companies. They helped establish contracts between Chinese schools and Austrian companies, developed training curricula, and secured long-term funding through an ADA *Business Partnership*.^{xlvii} Although the established system is open to non-Austrian companies, such as ODU from Germany^{xlviii}, about 60% of the apprentices who take final exams continue to work for Austrian companies in China.

In 2013, WKÖ's active involvement reduced when the first apprenticeship profiles were established. Since then, WIFI has organized WIFI exams for Chinese apprentices in China through WIFI International. From 2014 to 2018, WKÖ and WIFI partnered with an ADA-financed program to expand cooperation with Chinese schools and establish new curricula.

3.2.3 Financing

The initial phase in 2011 was financed by go-international at a relatively low cost of about 98,000 EUR over two years. The Austrian companies that benefited from the project contributed the largest part of the costs from the beginning with their own funds. The expenses associated with organizing the annual final exams for Chinese apprentices were fully covered by Austrian companies. In 2014, ALPLA and Engel secured ADA financing of 345.000 EUR that ran until 2018.^{xlix} The sequence of external funds

^{xlv} WIFI International (WIFI) is a partner organization of WKÖ. See also chapter 1.4.1 on WKÖ and its partners.

^{xlvi} Miba, an export-oriented industrial and technology company based in Upper Austria, later withdrew its interest.

^{xlvii} See chapter 1.8.3 on ADA Business Partnerships.

^{xlviii} ODU Group is an international supplier of connector systems with headquarters in Bavaria, Germany. The group develops and manufactures connectors for the transmission of power, signals, data and media. The company employs around 2,600 people worldwide. In 2022, it generated sales of 280 mio EUR.

^{xlix} The ADA project is not included in the calculations behind ADA support to WKÖ and its partners in chapter 2.4 because WKÖ was not a direct partner in the ADA project and did not benefit directly as a recipient. The role of WKÖ remained within the typical range of services of WKÖ (here WIFI International) within the delegated authority for Austrian dual education.

is typical for other cases. In a related, but geographically more distant project in China, the Austrian company Palfinger secured ADA financing for training 240 Chinese apprentices from 2016 to 2018.

3.2.4 Outputs

According to WKÖ staff, the Austrian companies involved in the project demonstrated strong ownership by investing time and resources and driving a fast agenda, which resulted in long-term success in just two years. The staff considered this to be the fastest dual VET project they had encountered.

The Shanghai setup allowed for the efficient establishment of cooperation contracts between Austrian companies and VET schools. WKÖ staff reported experiencing a high degree of autonomy and minimal obstacles from authorities, allowing for direct negotiations with VET schools.

In June 2023, a high-level delegation visited Vienna, indicating continued interest from the Chinese side. This may have contributed to the smooth coordination with authorities in Shanghai.

Go-International provided an excellent source of initial funding that was both fast and allowed for a high-risk pilot phase with smaller amounts.

A Chinese consultant for WIFI residing in Vienna was instrumental during the pilot phase and was funded by go-International. In contrast to consultants in Eastern Europe and the Balkans (such as the Romania project), the Chinese consultant translated and coordinated with WIFI in Vienna.

3.2.5 Promoting & restraining factors

ALPLA, Engel and STIWA¹ - which joined later - are highly export-oriented companies with a strong commitment to dual education. Their interest and support were a key factor in the success of the project.

The Chinese government was supportive – another important factor.

Dual VET schools will want to fill at least one class (20-25 apprentices) per year. WKÖ staff felt that when one Austrian company (Miba) left the project, the remaining two Austrian companies invited German ODU and another Austrian company, STIWA, into the project to sustain the sufficient demand which could have had a negative impact on the project's sustainability. It is not unusual that Austrian (and German) companies operating in the same geographic area cooperate in dual education abroad. The case of Romania is another example. In 2023, between 30 and 50 apprentices are trained annually, which ensures the long-term sustainability of the dual VET project.

ADA initially argued that financing a project in a relatively wealthy region of China would lie outside their mandate. Negotiations between ADA, WKÖ, and Austrian companies took several months. By the time ADA secured financing in 2014, the first cohort of apprentices was already in training.

¹ STIWA is an international specialist in the field of product and high-performance automation. STIWA employs 2,400 employees at twelve sites on three continents.

3.3 Egypt 2019 – on hold

Factsheet: Egypt

| | |
|--|---|
| <i>Project type</i> | Expression of interest |
| <i>Status</i> | on hold |
| <i>Duration</i> | 2019 - 2022 |
| <i>MoU</i> | - |
| <i>WKÖ and partners</i> | ibw supported by WKÖ-Department for Educational Policy |
| <i>ibw</i> | ibw lead in feasibility study visit to Egypt |
| <i>Initiated by</i> | Egyptian and Austrian government, an Egyptian think-tank (top-down) |
| <i>Financial support</i> | WKÖ core budget, go-international: 6,225 EUR. |
| <i>ADA</i> | No direct ADA support for WKÖ and its partners, but ADA funded an inception phase project (2019-22) led by an Egyptian consultant in cooperation with an Austrian company |
| <i>Success / Outcome</i> | <ul style="list-style-type: none"> • Delegation in Vienna • Feasibility study trip to Egypt • A feasibility study (study visit) to Egypt in March 2019 concluded that the conditions in Egypt did not fulfill WKÖ knock-out criteria |
| <i>Sustainability</i> | Not apparently sustainable. There is political support, but not sufficiently large interest from Austrian companies in Egypt. |
| <i>Outlook</i> | From WKÖ and ibw perspective the project should not proceed without the support by a sufficiently large group of Austrian companies. If activities will take place, results may not be sustainable. |
| <i>Relevance for sharing Austrian dual VET expertise</i> | The case is typical for many African countries with a low number of Austrian companies and shows the limits of Austrian support of dual VET sharing. See also chapter 1.7 on the key role of the private sector. See chapter 2.2 on the potential of selected African countries for dual VET reforms. |
| <i>Relevance for Austrian companies</i> | Low. The number of companies interested in dual education is low - essentially one company. |
| <i>Relevance for skills mobility</i> | Relevant. Egypt is mentioned as potential partner for future Austrian Skills Mobility Partnerships (SMP) in a recent study by IOM. ¹ Egypt has favorable demographic conditions somewhat similar to Cambodia in Table 1. |
| <i>Relevance for international development</i> | Relevant. Egypt is set to benefit from a peer-to-peer vocational education (VET) collaboration. <i>Dual</i> VET systems however depend on the interest and cooperation of companies in the training of future apprentices in order to be sustainable. |
| <i>Sources</i> | Interviews with experts involved (WKÖ, ibw) February to April, 2024 |

3.3.1 Who initiated the project?

In March 2019, ibw conducted a feasibility study to explore the potential of promoting dual VET in Egypt. The study was commissioned by ADA and had been initiated by high-level political contacts between Austria and Egypt, established at the EU-Africa Summit held in Vienna in December 2018. Ibw study in Egypt was preceded by an Egyptian delegation to Vienna in February 2019.

3.3.2 Project description, processes and goals

The feasibility study concluded that the opportunities for promoting dual VET in Egypt were limited. There are too few Austrian companies operating in Egypt, most of which had little interest in participating at the time. Of these, the Felder Groupⁱⁱ, which is active in wood processing machinery, expressed the strongest interest in potentially providing training machinery in a future wood processing cluster. However, it was not clear whether a sufficiently large group of applicants for apprenticeship training could be found to sustain the activities.

Other challenges identified were the lack of a potential vocational school and a potentially obstructive bureaucratic apparatus. As important knock-out criteria (see chapter 1.7) were not met, WKÖ and ibw discontinued their active support of the project. By December 2023, there were no ongoing activities by WKÖ and its partners.

However, the Felder Group and the SEKEM Initiative, a private development consultant based in Egypt, implemented an ADA-funded inception phase project from October 2019 to September 2022. The Austrian Federal Chancellery together with Austrian consultants, Felder Group, ADA and the Egyptian partners (including SEKEM), continued to explore the next steps.

This is a good example for a country with only few Austrian companies in place, a lack of a potential VET school and a potentially obstructive bureaucratic apparatus. Given the size of the country, the chances of successfully sharing elements of the Austrian dual VET system on a national scale seem very limited.

3.3.3 Financing

go-international supported various activities to assess the feasibility of a potential cooperation with 6,225 EUR. The feasibility study assessed the local context and also explored the interest of Austrian companies operating in Egypt to participate in a dual VET collaboration, which is a precondition for support through Business Partnerships.

Egypt is not an ADA priority country, so Business Partnerships or Strategic Partnerships, funding lines that allow ADA a bit more flexibility in the selection of target countries, would be the only option to financially support dual VET activities through ADA.

3.3.4 Outputs

A concluded feasibility report by ibw in 2019.

3.3.5 Promoting & restraining factors

SEKEM in Egypt is a strong local partner with organizational capacity and experience from previous ADA projects. A potential project would enjoy a high degree of flexibility in design and implementation by the Egyptian government as long as external funding is secured.

There are few Austrian companies operating in Egypt that would actually employ apprentices. Egyptian vocational schools are poorly equipped and there are potentially major bureaucratic challenges in the Egyptian bureaucratic system. Decisions take a long time and the decision-making process is unclear.

ⁱⁱ The Felder Group is an Austrian mechanical engineering company headquartered in Hall in Tirol. Since its foundation in 1956, the company has been developing and producing machines for wood processing. In 2023, Felder group exported to 84 countries via 270 sales outlets.

3.4 Thailand 2016 – ongoing / pending

Factsheet: Thailand

| | |
|--|---|
| <i>Project type</i> | Expression of interest |
| <i>Status</i> | ongoing / pending |
| <i>Duration</i> | Since 2016 |
| <i>MoU</i> | MoU signed in 2022 |
| <i>WKÖ and partners</i> | BMAW, WKÖ-Department for Educational Policy, AC Bangkok, ibw |
| <i>ibw</i> | Supporting role / hired consultant |
| <i>Initiated by</i> | VOEST Alpine Railway Systems Ltd (bottom up) |
| <i>Financial support</i> | WKÖ core budget |
| <i>ADA</i> | ADA feasibility study in 2017 |
| <i>Success / Outcome</i> | <ul style="list-style-type: none"> • Delegation sin Vienna in 2016,2 017, 2018, 2019, and 2023 • Feasibility study in 2017 • MoU signed with BMAW in 2022 |
| <i>Sustainability</i> | Cooperation can produce lasting results. Nothing suggests otherwise. |
| <i>Outlook</i> | Cooperation is ongoing, albeit at a very slow pace. This is typical for a remote country and potentially a good sign for a future bilateral project. There is strong potential for funding from ADA and/or the Eastern Economic Corridor (EEC). |
| <i>Relevance for sharing Austrian dual VET expertise</i> | The case is typical for many partner countries outside the EU neighborhood. There is a relatively long initial phase in which the Thai expressed their interests and drafted preliminary project objectives. |
| <i>Relevance for Austrian companies</i> | Medium. The number of companies interested in dual education is low - essentially one company. Yet, this one would be large enough to support a project in support of dual training transfer/skilled workers. |
| <i>Relevance for skills mobility</i> | Low. Demographics do not strongly support the case for circular, regular migration of skilled workers. |
| <i>Relevance for international development</i> | Highly relevant. A feasibility study supports ADA funding. WKÖ, ibw and BMAW have not strict time-line and Thai partners are in the driving seat. There is a potential second donor from the region (EEC). |
| <i>Sources</i> | Interviews with experts involved (WKÖ, ibw) March to April, 2024 |

3.4.1 Who initiated the project?

Staff inside WKÖ and ibw are not entirely sure and there is no systematic central collection of Austrian activities. Most likely, the VOEST Alpine Railway Systems Ltd.ⁱⁱⁱ operating in the Chon Buri province requested apprentices and involved the AC in Thailand and the TATC that is also located in Chon Buri province. The cooperation rested on an existing one with the Thai Austrian Technical College (TATC), a Thai vocational college that had been initiated by an earlier cooperation between Austria and Thailand.

3.4.2 Project description, processes and goals

Activities up to December 2023 included Austrian delegations to Thailand (2016), round tables and delegations in Austria (2017, 2018, 2019, 2023), a feasibility study for funding by ADA (2017) and the signing of a MoU with Thailand (2022). By December 2023, these activities have revealed an interest from private sector in Thailand, the potential for a cooperation with an existing college and the

ⁱⁱⁱ VOEST Alpine Railway Systems Ltd is a subsidiary of Austrian VOEST Alpine in Thailand.

potential inclusion of more Austrian and German companies operating in Thailand. Next steps are a Train-the-Trainer Program and a business community meeting surveying the interest from companies in the target province.

By December 2023, there was not (yet) a concrete plan for further activities. Stakeholders continued to explore next steps in 2024. More concretely, WKÖ and its partners waited for a concrete initiative from Thai stakeholders. With a strong Austrian partner (VOEST) and an existing cooperation with a Thai school (TATC) chances of a future bilateral cooperation are realistic.

Communication between stakeholders in both countries is well established and resulted in the signing of a MoU. There is a concrete wish for standardized dual training schemes from the Thai side.^{liiii} WKÖ and Austrian partners are waiting to support dual VET sharing-related activities once Thai stakeholders are ready to take the next step.

Concrete activities of a pilot project might begin 2024, depending on the initiative of Thai partners.

3.4.3 Outputs

A feasibility study for ADA funding conducted end of 2017 by ibw resulted in a potential format of future cooperation. There is no ADA funded project as of December 2023.

A MoU signed in September 2022 foresees a step-by-step establishment of dual education in Thailand.

A series of delegations, round tables and exchanges took place between 2016 and 2023. Some of these included higher-ranking officials and functionaries from both countries.

3.4.4 Promoting factors

There is a concrete demand from a company with experience with apprentices (VOEST) operating in geographical vicinity with a vocational training college (TATC) that would be suited to participate in dual VET system. VOEST and TATC have taken first steps of a cooperation in dual VET (a curriculum has been drafted). By early 2024, a company survey was being conducted to assess the interest and potential for transversal skills development needs in Austrian companies.

Funding could potentially be acquired by ADA or from the Eastern Economic Corridor (EEC), a substantial regional infrastructure fund set up by the Thai government.

The feasibility study has shown that there is a potential interest of other Austrian and German companies in participating in dual education in Thailand.

3.4.5 Restraining factors

Due to the geographic distance, Thailand is a less familiar terrain for BMAW, ibw and WKÖ experts relative to countries closer to Austria. As a result, processes take relative longer and Austrian experts are not always up-to-date with the status of the cooperation. It is for example, unclear to which extent the Thai vocational training college (TATC) has the autonomy to act in a dual VET reform.

The demand for apprentices is currently based mainly on VOEST Alpine Railway Systems Ltd. Generally, the results of international dual VET collaborations are more sustainable with a larger group of private sector actors requesting apprentices in a single province.

3.4.6 Project potential for international cooperation

Up to the December 2023, the project fulfils standards of international development. It is particularly noteworthy that Austrian actors (WKÖ, ibw, VOEST) have no specific timeline by which to show results. This leaves ownership entirely with Thai stakeholders, which promotes the long-term sustainability of results.

^{liiii} Source: Minutes Wrap-up between TATC, ibw, Austrian Ministry of Economy, Austrian Ministry of Education from 22nd September 2023

Often, large infrastructure funds like the EEC prefer to fund physical construction work to less capital-intensive trainings which make the bulk of dual VET sharing activities. In addition, personal political interests or even corrupt structures in partner countries may hold back further steps and cause delays. It is therefore wise not to engage from the donor side until a largely transparent process can be guaranteed.

3.4.7 Project potential for international mobility of skilled workers

A quick look at Thailand's demographics, analogous to Table 1, shows that Thailand's population of 71.7 million people has a child dependency ratio of about 21.5%, which is as low as Austria's and its young workforce is graying. The old-age dependency ratio is already 21%, a very high figure compared to other fast-growing economies in the region. Youth unemployment is low, but education up to secondary level is not as strong as in other Southeast Asian countries such as Vietnam or the Philippines.^{liv} While there is a clear case for more (dual) vocational training in Thailand, the case for circular, regular migration of skilled workers is weaker.

^{liv} See Table 1 for the sources of figures cited here.

3.5 Slovakia 2011 – 2017

Factsheet: Slovakia

| | |
|--|---|
| <i>Project type</i> | Bilateral project |
| <i>Status</i> | Finished, but ongoing cooperation after end of bilateral projects |
| <i>Duration</i> | 2011 – 2017 |
| <i>MoU</i> | MoUs signed with WKÖ in 2014, with BMAW in 2023 |
| <i>WKÖ and partners</i> | WIFI International, WKÖ-Department for Educational Policy, AC Bratislava, ibw, BMAW |
| <i>ibw</i> | Supporting role / hired consultant |
| <i>Initiated by</i> | Slovak Automotive cluster (German, Austrian and Slovak companies) and government initiatives |
| <i>Financial support</i> | WKÖ core budget, European <i>Regional</i> Development Fund (ERDF), go-international (go-international: 87,972 EUR between 2013 - 2023) |
| <i>ADA</i> | - |
| <i>Success / Outcome</i> | <ul style="list-style-type: none"> • Roadmap / manual for the introduction of a dual VET system • Pilot phase establishes a lighthouse project in the Nitra region supported the passing of the Slovak dual VET law • 190 apprentices in three occupational fields established as result of the bilateral project • MoU signed with BMAW in 2023 |
| <i>Sustainability</i> | The Slovak dual VET system continues to grow in size and quality. |
| <i>Outlook</i> | Stable. There are regular meetings and considerations on potential future cooperation. AC Bratislava is in contact with counterparts in the Slovakian government. |
| <i>Relevance for sharing Austrian dual VET expertise</i> | Extremely relevant. The development of a roadmap for sharing dual VET expertise and the use of lighthouse projects in the pilot phase, among others, have innovated international dual VET sharing and become best practice examples of the European Alliance for Apprenticeships (EAfA). The project highlighted the importance of working with locally embedded consultants, which became a model for other collaborations in Central Europe. |
| <i>Relevance for Austrian companies</i> | Extremely relevant. The project provided skilled workers for Austrian, German and Slovak companies in the Nitra region and supported the nationwide introduction of dual education in Slovakia. More than 2,000 Austrian companies are active in Slovakia. Austrian FDI in Slovakia amounted to 9.6 billion EUR in 2021, about 16% of total FDI. |
| <i>Relevance for skills mobility</i> | There is already a high mobility of workers between Austria and Slovakia. The shortage of skills in Slovakia and demographics do not support Skills Mobility Partnerships. |
| <i>Relevance for international development</i> | Not relevant. Slovakia is a high-income country with ample opportunities to access EU funds for structural reforms of its dual VET system. |
| <i>Sources</i> | Interviews with experts involved (WKÖ, ibw, Slovak Ministry of Education) October 2023 to January, 2024. |

3.5.1 Who initiated the project?

From 2011 onwards, the Austrian and other EU subsidiaries as well as Slovak companies operating in the automotive sector the region around Nitra were faced with a growing shortage of skilled workers. The preparatory cooperation with Slovak stakeholders started with the project ‘SmartNet’ (2012 - 2014), which was financed by the European Regional Development Fund (ERDF). This first bilateral project was led by WIFI International and resulted in a study⁵ written by ibw staff to serve as a roadmap or manual for the necessary legal reform steps towards the full implementation of a Slovak dual VET framework.^{lv}

For its part, the Slovak government-initiated program RSOV, a major VET reform program^{lvi}, in response to the demands of the private sector, especially the automotive sector and Volkswagen, and the high youth unemployment rate of over 30%.^{lvii} From 2012 on, RSOV increasingly focused on the introduction of dual education.

In 2014, a Memorandum of Understanding (MoU) was signed between WKÖ and the Slovak Ministry of Education with the aim of implementing a pilot project to establish dual vocational training in the Nitra region.

3.5.2 Project description, processes and goals

Project ‘Young Stars’ followed after the successful end of ‘SmartNet’. Young Stars was a regional pilot project designed for the Nitra region meant to be a testing ground or ‘lighthouse project’ before drafting a Slovak dual VET law. Young Stars ran in Nitra region from April 2013 to May 2017.

WKÖ also supported project INTVET which was a relatively smaller ERASMUS+ funded project by the Slovak government and German and other European partners that ran from October 2014 to October 2016. WKÖ's contribution to INTVET consisted of train-the-trainer workshops and assistance in the design of curricula for four vocational fields.

RSOV, the Slovak government-led program, ran in parallel as an EU-funded project with the aim of drafting a dual VET law for Slovakia.

In April 2013, the first conference with Slovak stakeholders for the preparation of Young Stars was held. In December 2013, the Slovak government announced the start of the Young Stars project with WKÖ. A Memorandum of Understanding (MoU) between WKÖ and the Slovak Ministry of Education was signed in February 2014. The first 33 apprentices started their dual training in September 2014.

WKÖ ended its support in May 2017. In the meantime, the Slovak government and stakeholders continued the expansion of the national dual VET system and the number of apprentices through an EU-funded program RSOV II.⁹ As partners, WKÖ and ibw continued to support, for example, the establishment of a vocational orientation center in Nitra.

Stakeholders

On the Slovak side, the Ministry of Education, Science, Research and Sport of the Slovakia (Ministry of Education)^{lviii} had the political lead and was supported by State Institute of Vocational Education (SIOV)^{lix} which managed day-to-day activities including donor relations with the EU.

From the Slovakian private sector, Austrian companies operating in the Nitra region had joined forces with other EU and several Slovak companies – many of them from in the mechanical engineering/automotive sector. Among this loose consortium of companies Miba AG, a large Austrian

^{lv} Among others, reporting against the use of ERDF funding in this two-year project took WIFI another two years (23 months) and produced two shopping carts of 15 folders with supporting document. See the Infobox in chapter 1.8.

^{lvi} RSOV stands for ‘Rozvoj stredného odborného vzdelávania’ which is in English ‘Development of secondary vocational education’.

^{lvii} The share of unemployed men and women aged 15-24 reached 34.1% in Slovakia according to iloostat.ilo.org/data.

^{lviii} Secretary of the State Štefan Chudoba from Ministry of Education, Science, Research and Sport of the Slovak Republic

^{lix} The State Institute of Vocational Education (ŠIOV) is a directly managed organization of the Ministry of Education responsible for the coordination of vocational education and training and adult education in Slovakia. See <https://siov.sk/en/o-nas/o-siov-e/> accessed August 2024.

producer for the international engine and automotive industries in the Nitra region, had taken a leading role.

On the Austrian side, WKÖ (Department for Educational Policy) had the lead supported by ibw, WKÖ (Advantage Austria via the its AC office in Bratislava) in Vienna. WKÖ mainly worked through its foreign trade office in Bratislava where a full-time staff coordinated day-to-day activities of the project.

The core operating Slovak-Austrian team consisted of one operating manager from WKÖ (Department for Educational Policy) in Vienna, one Slovak staff employed by WKÖ office in Bratislava, one representative of the Slovak Ministry of Education, one staff from SIOV and two experts from ibw.

Financial support

Total financial support WKÖ and ibw activities were covered by WKÖ core budget and by about 88,000 EUR from go-international until 2017 when the project ended.

3.5.3 Outputs

The Slovakian dual VET law ('Act on VET') was accepted by the Slovak National Council on 12 March 2015 and entered into effect on 1 April 2015.

33 apprentices per year started their training in September 2013 (project start). The number reached and 190 apprentices working in 105 Austrian subsidiaries by mid-2017 (project end). Three professions were introduced: Programmer for processing and welding machines, Mechatronic engineer, Adjuster (tool technician).

Nationwide, 9.347 apprentices (about 7% of pupils in school level 10) in training by December 2022 as a result of the expansion of dual education by the Slovak government.

3.5.4 Promoting factors

Lighthouse project: Initiating with a regionally limited pilot project was the right approach. It permitted experimenting and finding best practices.

Small is beautiful: The small size of the Slovak-Austrian team permitted quick decisions. Finally, Slovakia project was the first support of a full systemic reform towards dual education that WKÖ assisted in. Small size permitted making errors and quickly correcting them.

Demand from private sector: Strong private sector demand for skilled labor was essential. Among the documents included in this analysis, a cost-benefit sheet prepared by MIBA, a large Austrian company in Nitra, shows the detailed cost-benefit calculations typically behind private sector involvement.

Political support: Dual VET reforms seemed to gain traction after key actors were placed in influential positions in the Slovak Ministry of Education, partly due to political pressure from the private sector (automotive cluster).

Building expertise and capacity in and with Slovak ministerial partners: Continuity in the involvement of Slovak ministerial experts, as well as their high level of interest and commitment, was considered a success factor for the project and highly relevant in terms of promoting sustainability in the relevant Slovak public institutions. In addition, they acted as promoters and advocates of the dual VET reform within their organizations.

Being close: The short distance Vienna – Bratislava brought short travel time and cultural closeness.

Flexible decision taking in the Slovak-Austrian team: The pilot phase initially requires workarounds within existing norms and practices. According to interviewees, this phase depends crucially on flexible, determined, and competent local partners at all levels.

Two examples: From the beginning, WKÖ insisted on a high proportion of on-the-job training compared to classroom training within the existing legal framework of Slovak education. Initially, only 40% was possible in company training. The results influenced the law on dual vocational training (which came

into force in April 2015). Similarly, the payment of apprentices was unknown in Slovakia. Complicated legal agreements were necessary to overcome this initial problem. The Dual VET Act was the result of these experiences and solved these problems.

3.5.5 Restraining factors

Local unions (teacher, workers) initially opposed to dual education in the beginning. Teachers feared losing jobs once training would be shifted to companies

Apprenticeship had initially low reputation in the region. Parents and youth showed little interest in the modern system of company-based training.

3.6 Outlook for the coming ten years

Outlook 1: We expect a steadily growing global interest in Austrian dual VET expertise and a steady increase in international dual VET collaborations.

The growing global interest was registered at several points in the study. This is illustrated by the sequence of maps in Appendix I, or by the rising number of countries in partnership with WKÖ in Figure 7. Another indicator is the number of recently signed MoUs and international agreements (and those under negotiation) related to dual VET sharing. The vast majority of include new partner countries with no previous partnership in dual VET. The increasing demand for dual VET expertise also affects Germany.³²

Outlook 2: We expect a gradual shift away from European partners to African and Asian partners

Demand from African and Asian countries will come from Austrian FDI and companies in these fast-growing economies. It also come from governments wishing to provide better vocational training and to reduce youth unemployment.

Collaboration with geographically more distant partners will require the establishment of new structures and networks. More resources (time, staff, budget) will need to be calculated compared to projects with European partners. However, the potential for Austrian companies is also considerable. See chapter 2.2.

Outlook 3: We cautiously expect that the need for skilled workers in Austria^{ix} may promote Skills Mobility Partnerships (SMPs)^{ix} to which Austrian dual VET expertise can make a useful contribution

According to very recent deliberations in Austria, regular migration of skilled workers can benefit from dual VET sharing activities that are supporting the upskilling of workers in the partner countries of SMPs.^{1,23}

Outlook 4: As a consequence of Outlooks 1-3, we expect that more resources in terms of staff and financial support will be needed, if Austria is to meet the growing demand for its dual VET expertise in the future.

Germany and Switzerland, the other two countries with experience in sharing dual VET expertise are increasingly integrating dual VET sharing with skills mobility.

3.7 Strengths & Weaknesses, Opportunities & Threats

Strength 1: High level of technical expertise and long experience of key staff within WKÖ and partners in supporting dual VET cooperation are a clear, identified strength.

The experts involved have experience in full systemic reforms (e.g. in Slovakia and Serbia) and in building meso-level institutions (chambers) in partner countries (e.g. in Serbia and Kosovo). This is a unique combination.

Analyzing the projects from 2013 to 2023, there is a clear learning curve towards more professionalism, more support from BMAW and ADA, and more capacity to participate in complex multinational partnership. See chapter 3.

Strength 2: WKÖ is well positioned to act as a bridge between the private sector and governments in international dual vocational training cooperation. Its proximity to the Austrian private sector is a strength.

In contrast to the way international cooperation in dual vocational training is organized in Germany or Switzerland, WKÖ has a national mandate in dual VET in Austria. As a result, WKÖ

^{ix} <https://www.WKÖ.at/fachkraefte/internationale-fachkraefte-offensive>, accessed August 2024.

^{ix} <https://austria.iom.int/skills-mobility-partnerships>, accessed August 2024.

experts are first and foremost national experts and are in very close contact with Austrian companies operating abroad.

As a chamber, WKÖ experts can also offer capacity building for meso-level institutions (chambers) in partner countries. These are key to long-term continuous development of dual education systems.

WKÖ staff can reject, pause or terminate a collaboration if they determine that the partners lack ownership, such as the necessary demand from the private sector or interest from Austrian companies. Different from private consultancies that depend on the ‘finishing’ a project along certain criteria, WKÖ does not have to ‘push along’ activities to meet milestones. This is a strength, because it puts the partner country in the driving seat of the partnership.

Access to go-international as a flexible source of funding with administrative workload is a strength.

The network of WKÖ country office (ACs) with well-established networks in most partner countries is a strength.

Strength 3: Dual VET sharing qualifies as important contribution to international cooperation under the condition that the impact of WKÖ activities goes beyond the benefit of individual Austrian companies. Access to funding provided by the Austrian Development Agency is an identified strength.

International dual VET cooperation works toward the SDGs of reducing youth unemployment and supporting foreign direct investment (FDI) at a relatively low cost, as no new physical infrastructure is built. It is a peer-to-peer approach of knowledge sharing, with the partner country (private sector and government) in the driving seat. See chapter 1.9.

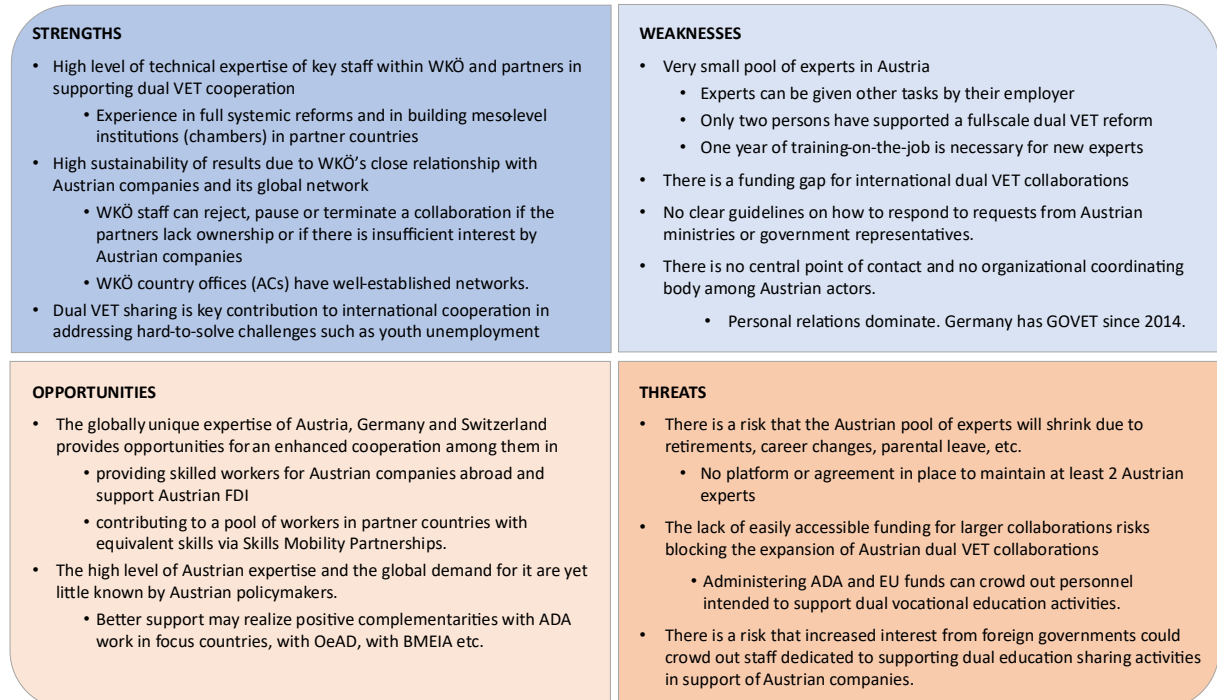


Figure 11: SWOT Analysis

Weakness 1: The pool of Austrian experts capable of supporting a full reform is small.

Only two persons have led a full-scale dual VET reform. The lack of experienced experts is a bottleneck in supporting a rising number of collaborations. See chapter 1.4.1

These are also experts also for the national development of Austrian dual VET. They can be given other tasks by their employer

Becoming an expert is training-on-the-job. At least one year of training-on-the-job is necessary for new experts.

In addition to experts, there is limited support staff available, for example to organize visits by incoming delegations.

Weakness 2: There is a funding gap for international dual VET collaborations for medium-sized projects.

ADA does not fund small projects, or ADA funding does not seem economical given the administrative overhead. Projects that are larger than what go-international typically provides (approximately 50,000 EUR) are difficult to fund.

There is no funding source specifically for international dual VET cooperation.

Project-based funding from ADA has significant overhead costs in terms of applying for the funds and reporting on their use in the project.

Project-based funding covers only about 50% of a large bilateral project (see the calculations in the cooperation in Serbia in chapter 3.1.3).

Project-based funding does not encourage the creation of permanent pool of experts, as staff need to follow new projects. This may one reason for the small number of Austrian experts.

Weakness 3: There are no clear standing operating procedures or other guidelines on how to respond to requests from Austrian ministries or government representatives.

The international attractiveness of Austrian dual VET expertise regularly leads to political demands on experts that do not appear to be worth pursuing. See chapter 1.7.1 on initial knock-out criteria. Austrian actors have different organizational forms (see chapter 1.4). Consultancies that are dependent on contracts tend to react differently than WKÖ with its mandate to serve Austrian companies.

Weakness 4: There is no Austrian focal points or a central coordinating body among Austrian actors.

Information sharing currently depends on personal relationships, which can vary from expert to expert. Coordination within a single partner country does not follow fixed rules. Germany and Switzerland have central contact points and a more formal coordination. See chapter 1.4

Tasks that support international cooperation in dual VET beyond the specific needs of individual actors are neglected. For example, commissioning the translation of training curricula for the most relevant occupational profiles would facilitate the work of ibw, WKÖ and BMAW, but because this task goes beyond the current needs of individual Austrian actors, no such collection of translated curricula exists.

There is no record keeping of all ongoing bilateral projects and activities of individual Austrian actors. A central register of all activities was first introduced in the wake of conducting this study. Record keeping is essential for monitoring and evaluation of international dual VET cooperation.

Opportunity 1: The combination of Austria's need for skilled workers and the unique position of Austria, Germany and Switzerland in dual VET cooperation provides an opportunity.

International cooperation in dual VET provides skilled workers for Austrian companies abroad and thus alleviates the shortage of skilled workers in the partner countries and for Austrian companies.

Providing dual education "on demand" worldwide is a significant support for Austrian companies expanding globally and for Austrian FDI.

In combination with Skills Mobility Partnerships (SMP), a long-term strategy to contribute to a pool of workers in partner countries with equivalent skills needed in Austria seems advisable.

Austria, Germany and Switzerland share a similar interest in realizing the potential of their dual VET expertise. The Donor Committee for Dual Vocational Training (DC dVET) currently acts as a knowledge hub (together with Liechtenstein). An enhanced cooperation model could include closer coordination of ongoing projects in partner countries that cooperate with more than one dual VET donor country. Skills Mobility Partnerships and regular migration of skilled workers is another area where enhanced cooperation between Austria, Germany and Switzerland could be mutually beneficial.

Opportunity 2: The high level of Austrian expertise and the global demand for it are yet little known by Austrian policy makers.

Better financial and personnel support can achieve positive complementarities with other Austrian actors abroad. First and foremost, ADA support for ADA priority countries, OeAD, BMEIA and BMBWF (see the glossary in chapter 5 for the acronyms).

Threat 1: There is a risk that the Austrian pool of experts will shrink due to retirements, career changes, parental leave, etc.

A seasoned expert and co-author of this study will retire in the next few years.

There is no trainee program in place or other standing operating procedure to build a new expert.

Threat 2: The lack of easy-access funding for larger collaborations risks blocking the expansion of Austrian dual VET collaborations in the coming years.

Administering ADA and EU funds can crowd out personnel intended to support dual vocational education activities. Funding future international collaborations with ADA or EU funds will require more human resources to manage them. In other organizations, this has led to the creation of departments or teams specifically to manage funds from these donors. This should be avoided as it diverts scarce budgets to unproductive activities. The budget should be used to hire more dual VET professionals who want to work more internationally.

Threat 3: There is a risk that increased interest from foreign governments could crowd out staff dedicated to supporting dual education sharing activities.

International cooperation in dual VET has the best chance of success and sustainability when it is based on strong private sector interest. Political support from the government side without private sector support can lead to "white elephant" projects that are likely to fail or create the illusion of reform without the intended benefits (see chapter). A related risk is that scarce human resources (e.g. Austrian experts) will be diverted from other collaborations.

3.8 Recommendations

Recommendation 1: Establish a fund to specifically support international dual VET collaborations

Reason: There is a funding gap (Weakness 2) and a rising number of international dual VET collaborations can be expected (Outlook 1).

We recommend the establishment of a small fund along the lines of and in parallel to go-international. This fund should specifically support international cooperation in dual vocational training. An annual budget of around 100,000 - 150,000 EUR seems advisable

BMAW and ADA appear to be the best positioned potential donors in view of the use of international dual vocational training for Austrian exports and FDI and for Austrian bilateral and international cooperation.

It is important that the application for the new funds and the reporting on their use must be low in terms of overhead. go-international would be a good example.

The new fund could be structural - providing budget support for Austrian experts - and project-based - supporting projects beyond the size typically supported by go-International.

The use of small scholarships was suggested by an expert working in Indonesia, where families cannot afford three years of education for their children who are already working in low-paid jobs. Scholarships could be supported by existing or future ADA funding instruments.

Recommendation 2: Establish an Austrian focal point after assessing possible forms and tasks.

Reason: The current organizational structure of the actors is in danger of being overwhelmed in terms of information flow and coordination of activities in view of the expected growing global interest in Austrian dual VET expertise.

Germany and Switzerland have already taken steps to better coordinate actors, resources and the needs of the private sector. Germany established GOVET and the 'Round table' in 2014.^{lxii}

The Austrian focal point could serve as the main point of contact for stakeholders in Austria (see Figure 4) *and* abroad. An improved flow of information between stakeholders - especially with the private sector - can help to maintain a pool of experts, improve funding, and eventually make it possible to expand the potential of Austrian dual VET expertise in the area of regular migration and skills mobility.

At a later stage, the Austrian focal point could make policy recommendations, for example, on the legal possibilities for Austrian companies to train apprentices from partner countries in Austria.

Next recommend step: We recommend commissioning a concept study proposing organizational structures and responsibilities of a future Austrian focal point.

Recommendation 3: Establish and maintain a permanent pool of experts for international dual VET cooperation

Reason: The current small pool of experts is in danger of shrinking (Threat 1).

We recommend direct budget support for one or two Austrian national experts located at a central actor as shown in Figure 4.

We recommend a trainee program for national dual VET experts who want to work internationally. Trainees could accompany key Austrian experts. The trainee program can be an extension or modification of existing programs outside of dual VET sharing partnerships.

At a later stage, dual VET trainees could receive additional training and expertise in carrying out SMPs.

Next recommend step: Assess options of establishing a trainee program

^{lxii} The "Round Table" is Germany's information and coordination platform for all activities around sharing German dual education to other countries. It serves the purpose of interdepartmental and inter-organizational cooperation. The members of the Round Table are the federal ministries, the organizations active in their field, the organizations supporting the German vocational training system (in particular the Confederation of German Employers' Associations, the Confederation of German Trade Unions, the Association of German Chambers of Industry and Commerce, the German Confederation of Skilled Crafts and the Federal Institute for Vocational Education and Training), the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder and the Conference of Economics Ministers and the education industry. The working methods of the Round Table are governed by rules of procedure. The Round Table is managed by the German Office for Inter-national Cooperation in Vocational Education and Training (GOVET) at the Federal Institute for Vocational Education and Training (BIBB).

Recommendation 4: Maintain the current criteria on which successful dual VET sharing has taken place in the past ten years.

Currently Austrian experts follow time-tested criteria that have developed with the number of collaborations (see chapter 1.7). All these should remain in force.

In sight of an expected organizational reform of how Austrian actors in dual VET coordinate, we recommend maintaining the high degree of operational responsibility/leadership with the national dual VET experts at the WKÖ. The WKÖ has the closest contact to Austrian companies abroad. Its staff are naturally up to date on the latest developments.

Operational lead includes the decision to discontinue and resume collaborations. Continue to work with locally embedded consultants hired by ACs in the partner country. These consultants had pivotal roles in all successful projects and partnerships.

Recommendation 5: Adapt resources and standard operating procedures to increase the number and the quality of dual VET sharing activities.

Reason: An increasing volume of activities can be expected (Outlook 1 and 2). Positive spillovers for SMPs from dual VET projects.

Plan more resources (staff hours, financial support) for new collaborations with geographical remote partner countries.

We recommend strengthening the supporting role and the resources of 70 *AußenwirtschaftsCenter* (ACs). In particular, the use of hired consultants as local experts for the duration of a project has proven beneficial and should become standard operating procedure or can be expanded as needed.

We recommend linking dual VET cooperation more closely with Skills Mobility Partnerships. Specifically, the potential for emigration of locally trained workers to Austria could be routinely assessed in each dual VET project (*away track* in SMPs).¹

We recommend the use of the format for the central recording of activities in support of Austrian dual VET cooperation, which was developed in the course of the preparation of this study. This consists of a chronological table of all activities per year, Austrian stakeholder and partner country. Short updates on bilateral projects can follow the format of the case studies in this study in chapter 3. This would improve organizational learning and ultimately allow for a better use of invested resources (staff, time and budget). We also recommend that the records be used to monitor and evaluate the use of Austrian expertise in the areas of support for Austrian enterprises, support for Skills Mobility Partnerships, and support for Austrian international development cooperation.

4. GLOSSARY

ADA – Austrian Development Agency: ADA is the Austrian agency funding Austrian international cooperation. On behalf of the federal government, it plans, finances and supports development programs and projects in countries in Africa, Asia, Southeast and Eastern Europe. ‘Wirtschaftspartnerschaften’ (Business Partnerships) is a program aimed at Austrian and European companies that want to implement business ideas with added developmental value in Africa, Asia, Latin America, Southeast and Eastern Europe. From 2004 to 2014, 140 business partnerships with a total volume of around 61 mio EUR were implemented.

ALPLA - ALPLA Group: ALPLA is an Austrian, international acting plastics manufacturer and plastics recycler headquartered in Vorarlberg Hard, specializing in blow-molded bottles and caps, injection-molded parts, preforms and tubes. It is one of the largest producers of rigid plastic packaging solutions worldwide, with a total of 196 production plants in 47 countries worldwide, approx. 23,300 employees and annual sales of 4.7 bn EUR in 2022.

Bewertung: *Bewertung* is the German word for Evaluation. It is a legal opinion that a professional training qualification obtained abroad is comparable with the Austrian apprenticeship training. By the end of 2023, such equivalence was a precondition for attaining a long-term working and residence permit in Austria for non-EU citizens under the Austrian immigration laws.

BJA – Bundeskanzleramt: The Federal Chancellery (German: Bundeskanzleramt, BKA) is the Austrian ministry led by the chancellor, the head of the Austrian government.

BMBWF - Bundesministerium für Bildung, Wissenschaft und Forschung: BMBWF is the Austrian Ministry in charge of public schools and academic institutions.

BMAW - Bundesministerium für Arbeit und Wirtschaft: BMAW is the Austrian Ministry of Labor and Economy. Most relevant for the scope of this study, inside BMAW’s, the Department Vocational Training Professional Skills (Abteilung VI/7) is responsible for dual education in Austria including evaluation of equivalence and recognition of vocational training qualifications obtained abroad (‘Gleichhaltung’). Abteilung VI/7 drafts MoU between Austria and partner countries interesting in the Austrian dual education. Abteilung VI/7 is in regular, personal contact with WKÖ's Department for Educational Policy (*Abteilung für Bildungspolitik*) and staff of ibw but no institutional form of exchange has been established concerning bilateral co-operations in VET.

BMAW: go-international: go-international is a funding program to support exporters and investors in their trading activities abroad. Funds are supplied by the Federal Ministry of Labour and Economy (BMAW) and managed by WKÖ since 2003. The current funding period, called IO8, runs until 31 March 2027 and the subsidies amount to 51.2 million EUR.^{lxiii} Mainly established as initiative to boost exports, go-international funds have also been used by WKÖ to support dual VET projects in partner country, for example to pay consultants or to finance feasibility studies. Compared to ADA funds, go-international funds can be accessed very quickly and with little red tape by WKÖ. Average sums paid out to dual VET projects targeted a specific goal or a task and were relatively low - between 1,000 EUR to 60,000 EUR. Between April 2011 (start of IO3) and March 2023 (end of IO7) the 18,500 EUR were disbursed on average in 42 dual VET related activities.

BMEIA - Bundesministerium für europäische und internationale Angelegenheiten: BMEIA is the Austrian Ministry of Foreign Affairs responsible for diplomatic missions and immigration, the administration of foreign policy, and the maintenance of the country's relations with international organizations, including the European Union.

CCIS - Chamber of Commerce and Industry of Serbia. By end of 2023, Marko Čadež was the president of the CCIS.

^{lxiii} Source BMAW online „Internationalisierungsoffensive / go-international“ (accessed January 24th 2024), <https://www.bmaw.gv.at/Themen/International/internationalisierungsoffensive.html>.

ENGEL – ENGEL AUSTRIA: ENGEL is a global manufacturer of injection molding machines and associated automation systems with headquarters in Upper Austria. Engel employs around 6,500 people worldwide. Annual sales were 1.7 billion EUR in 2022. The machines produced in the Austrian plants are almost exclusively exported; the export ratio in the 2020/21 financial year was around 95%. The main customers are major automotive manufacturers and suppliers.

ibw Austria: ibw was founded in 1975 by the Austrian Federal Economic Chamber (WKÖ) and the Federation of Austrian Industry (IV). Apart from these two provider institutions and their sub-organizations, ibw's major project partners and clients include federal ministries, the Public Employment Service Austria (AMS), regional governments and individual companies. ibw is active at the international level within the framework of European projects and represents Austria in the ReferNet network, which was established by the EU's Centre for the Development of Vocational Training (Cedefop).

GIZ - Deutsche Gesellschaft für Internationale Zusammenarbeit: GIZ is the main German agency for international and bilateral cooperation. It provides services in the field of international cooperation and international education work (including sharing German dual VET expertise). GIZ was formed from the merger of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Capacity Building International, Germany (InWEnt) and the German Development Service (DED) in 2011.

Gleichhaltung: *Gleichhaltung* is the German word for the legal recognition of equivalence of professional training qualifications obtained abroad with an Austrian apprenticeship leave examination.

GOVET: The *German Office for International Cooperation in Vocational Education and Training* (GOVET) was established in 2014 to meet the increased international demand for German dual education know-how. GOVET functions as the secretariat for the so-called *Round Table* which coordinates German actors in international vocational education and training cooperation with German partner countries.

Miba - Miba AG: Miba is a family-run industrial and technology company based in Upper Austria. The company produces engine bearings, friction linings, sintered components and coatings. Miba also manufactures passive electronic components such as resistors and heat dissipation systems as well as machines for the precise mechanical processing of large components. The Group has 7.500 employees in 29 sites in 11 countries. Annual sales were 1.1 billion EUR in 2022.

WKÖ: AC – AußenwirtschaftsCenter: The ACs are offices operated by WKÖ (Advantage Austria) in about 70 partner countries. ACs assist Austrian companies in the search for business partners, provide support in doing business and setting up companies, and provide breakdown assistance in problem cases. In large countries or promising markets AC offices are supported by about 30 smaller and regionally active 'AußenwirtschaftsBüros'.

WKÖ: WIFI – Wirtschaftsförderungsinstitut (WKÖ suborganization): WIFI International offers education for adults worldwide according to Austrian standards. With its partner network, WIFI International supports Austrian companies in Central and Eastern Europe (including the Czech Republic, Hungary, Slovakia and Bulgaria) and in the CIS region, China, North Africa and the Arab world.

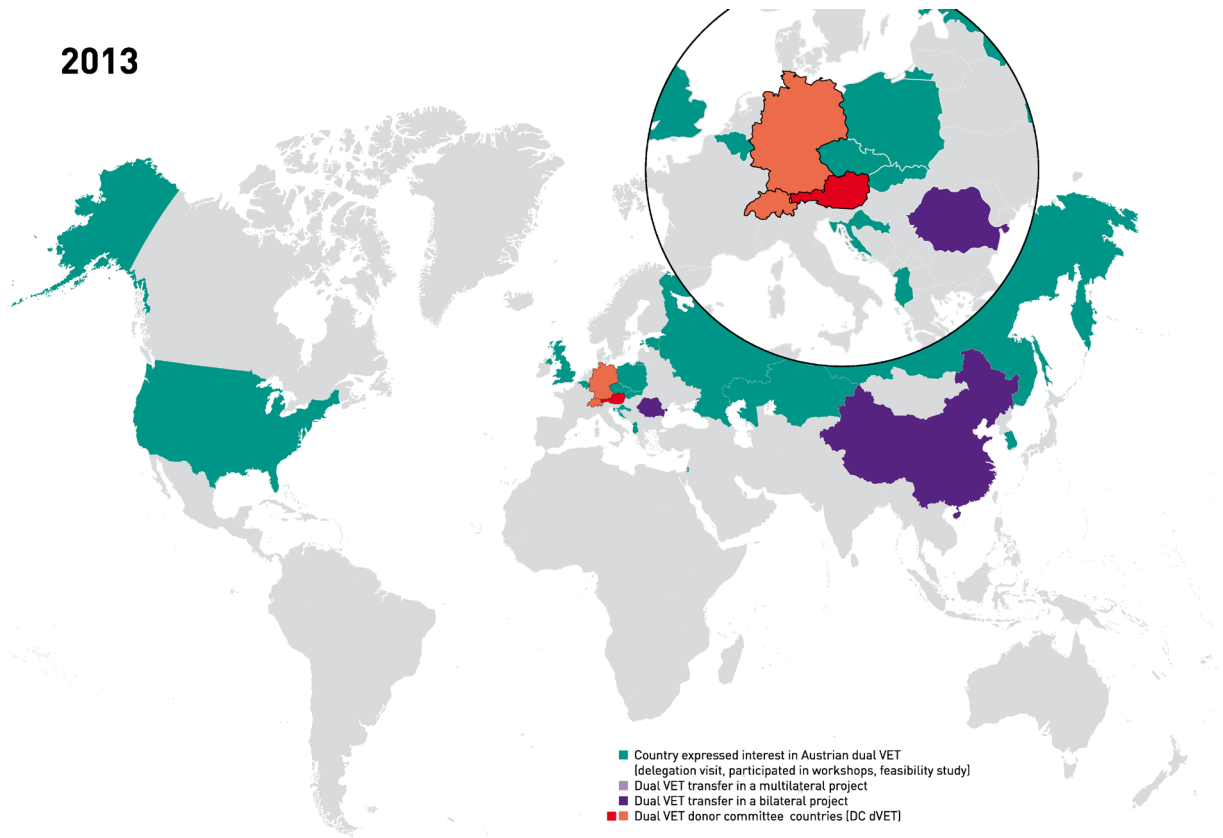
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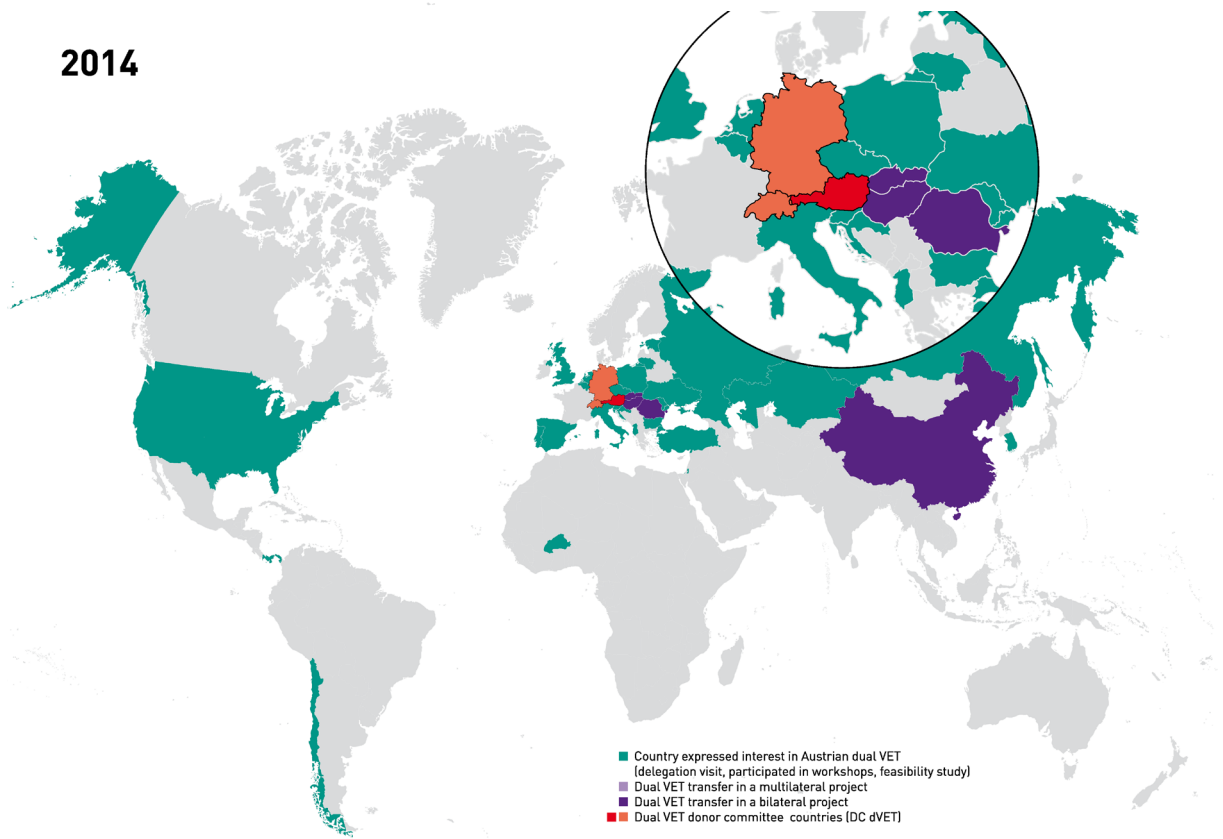
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APPENDIX I: INTERNATIONAL DUAL VET COLLABORATIONS 2013 - 2022

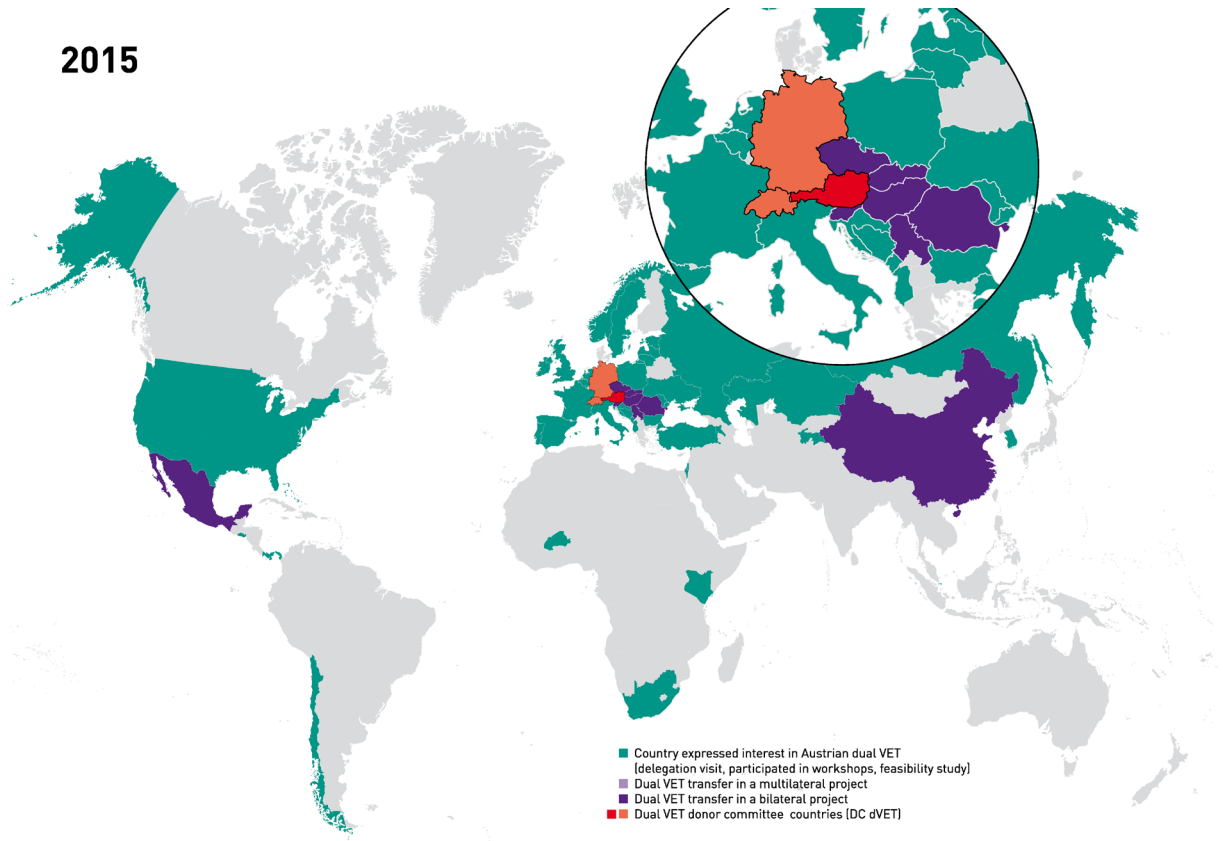
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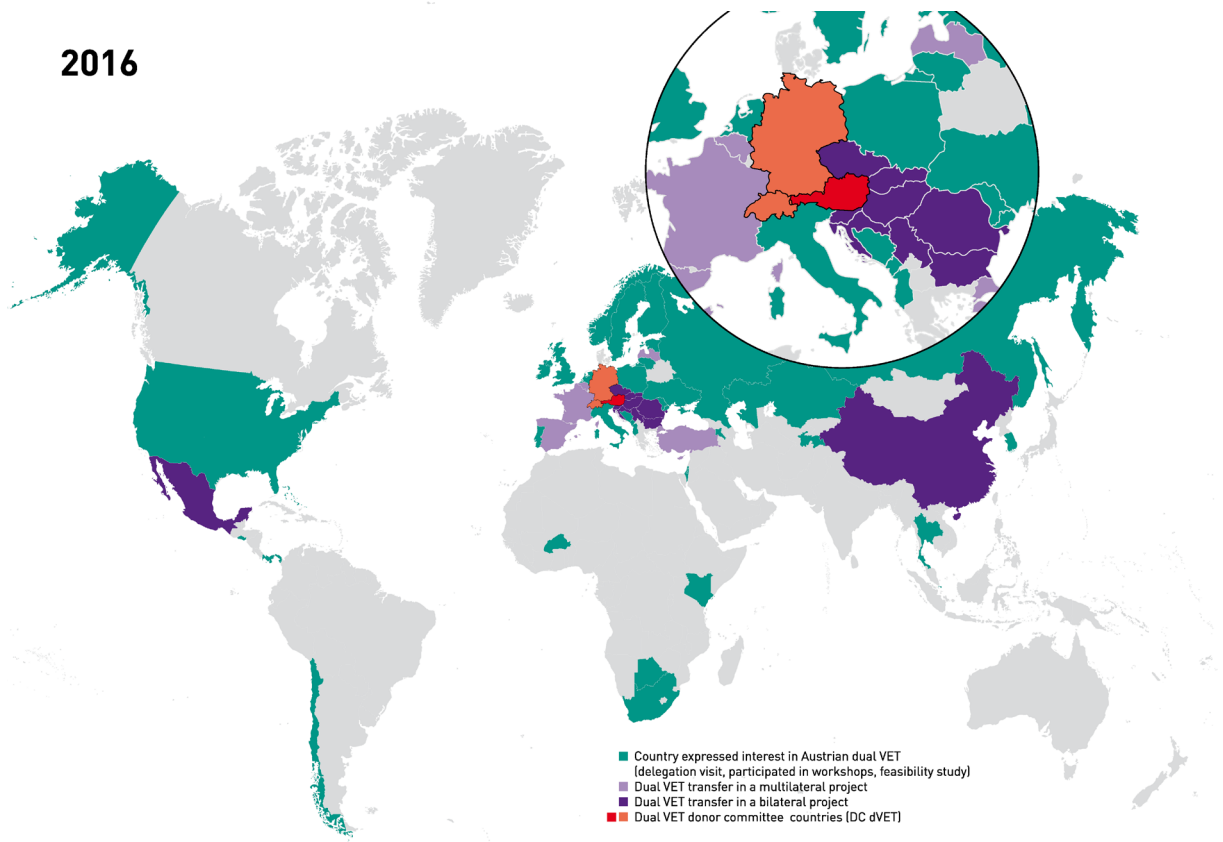
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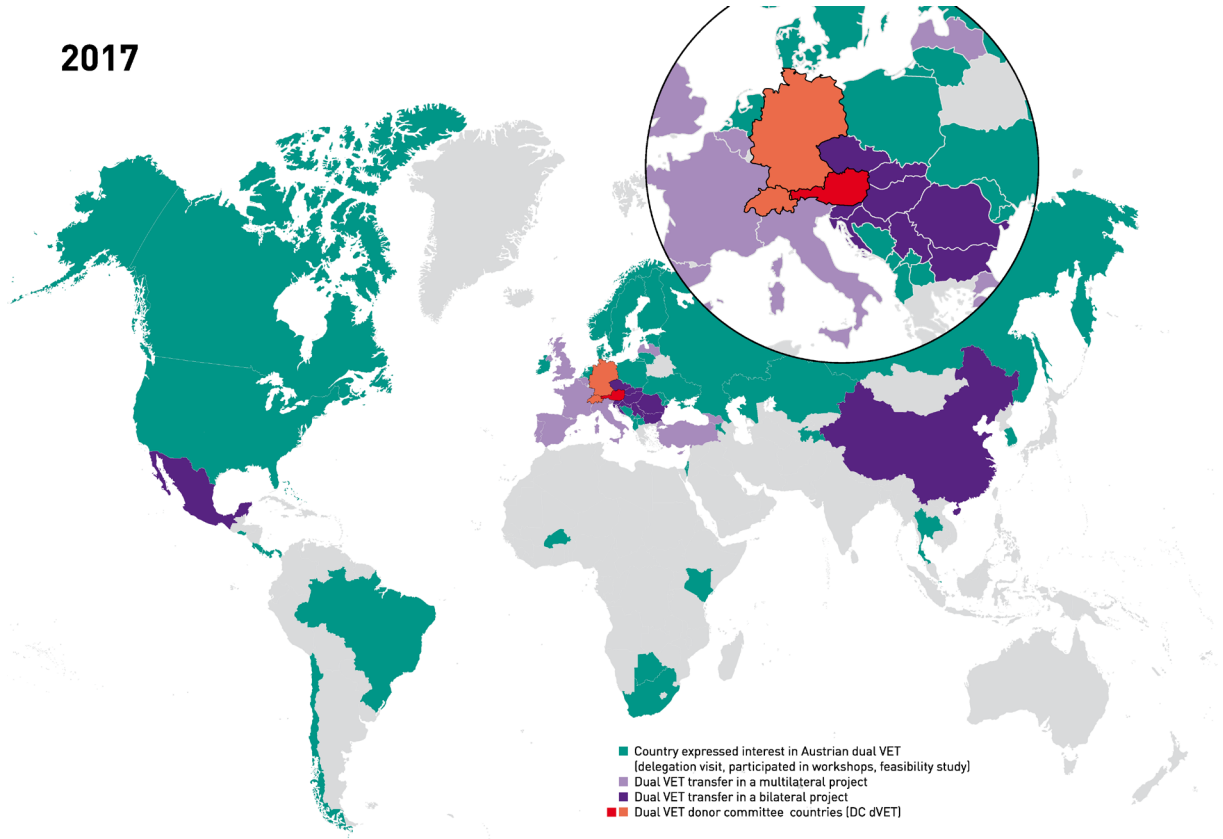
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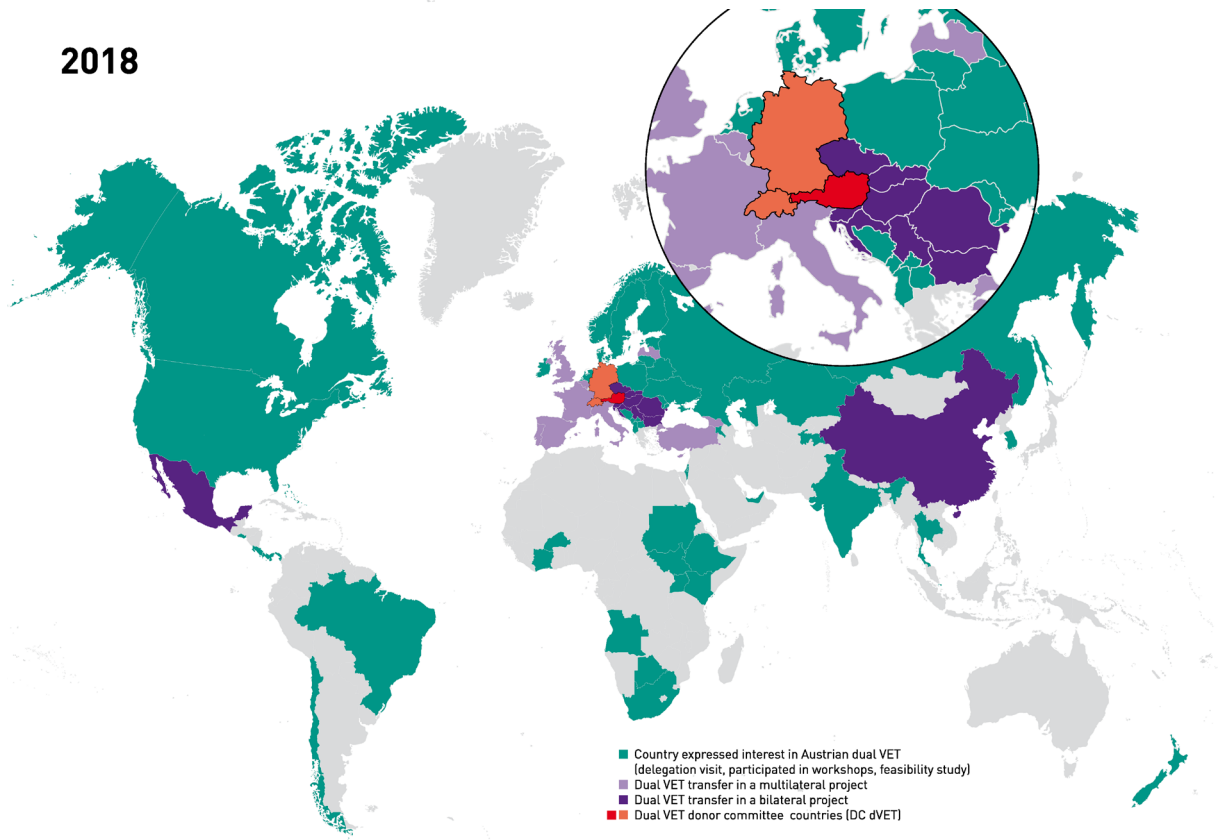
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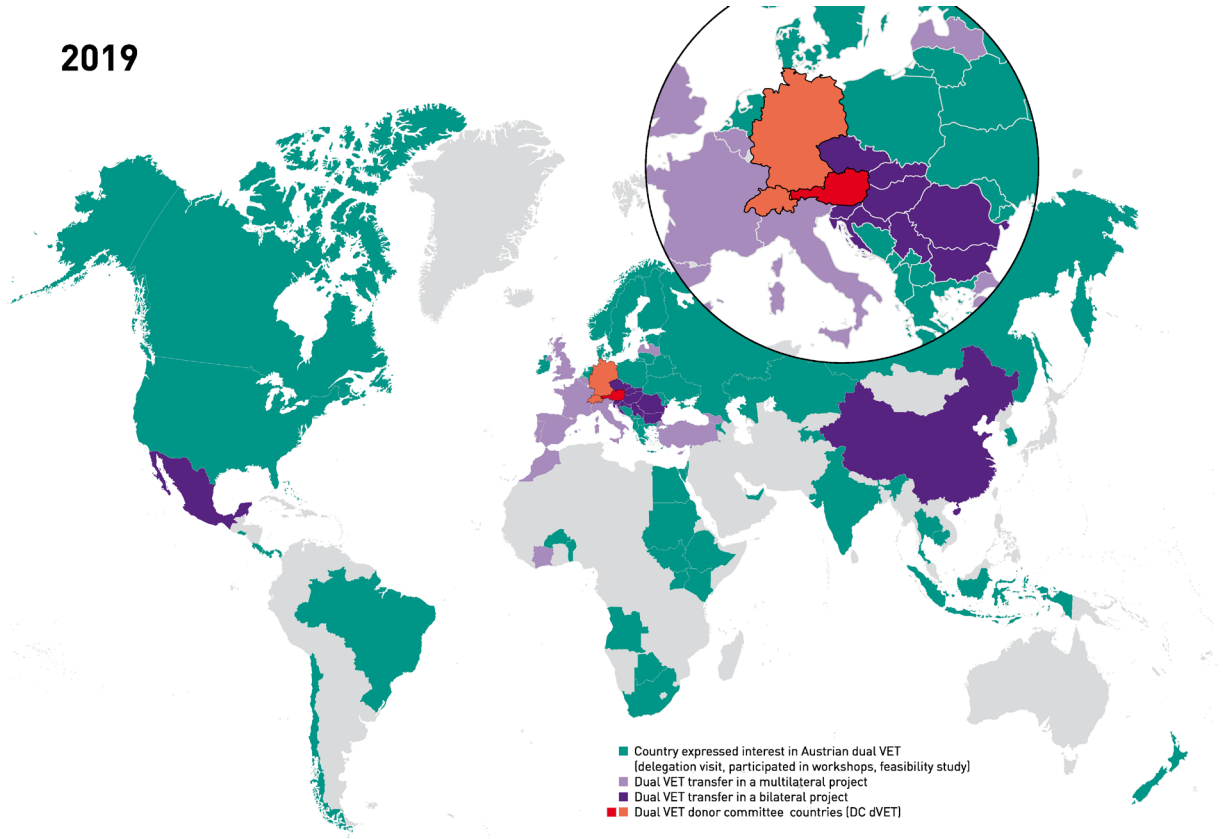
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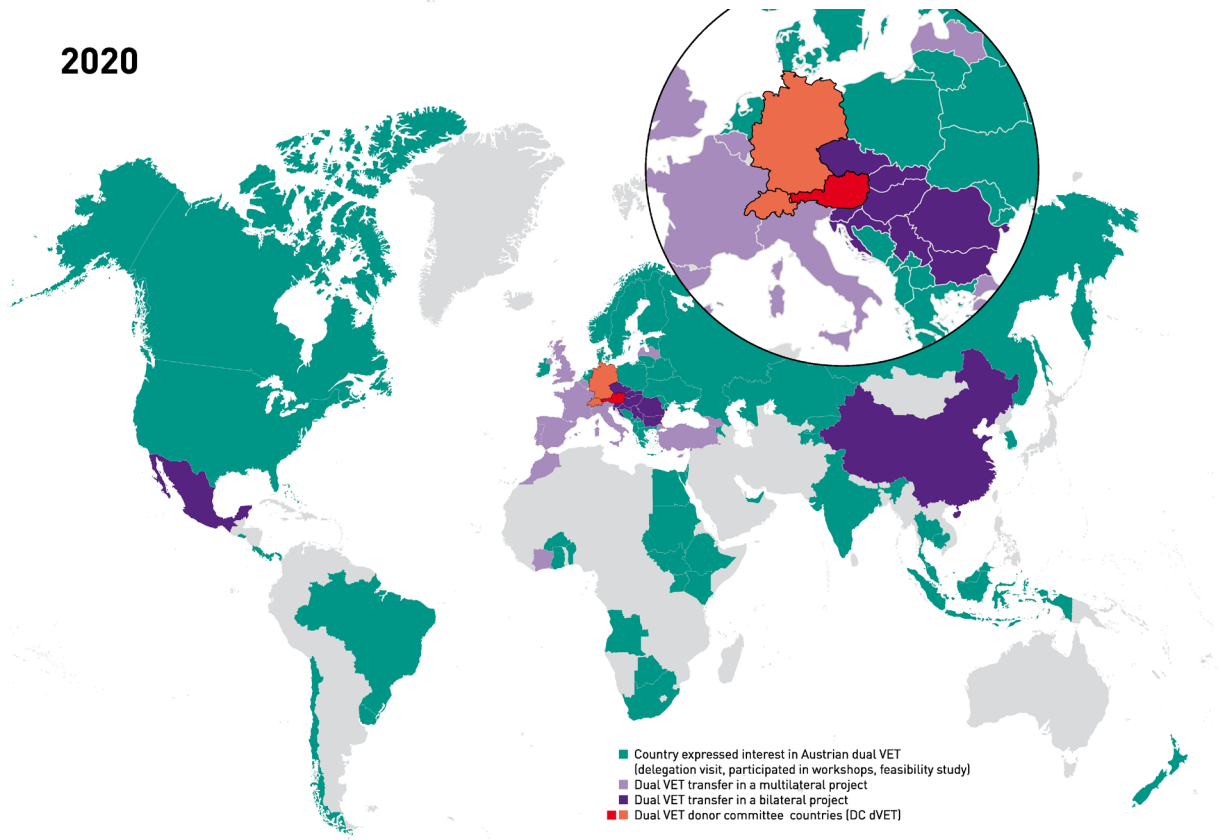
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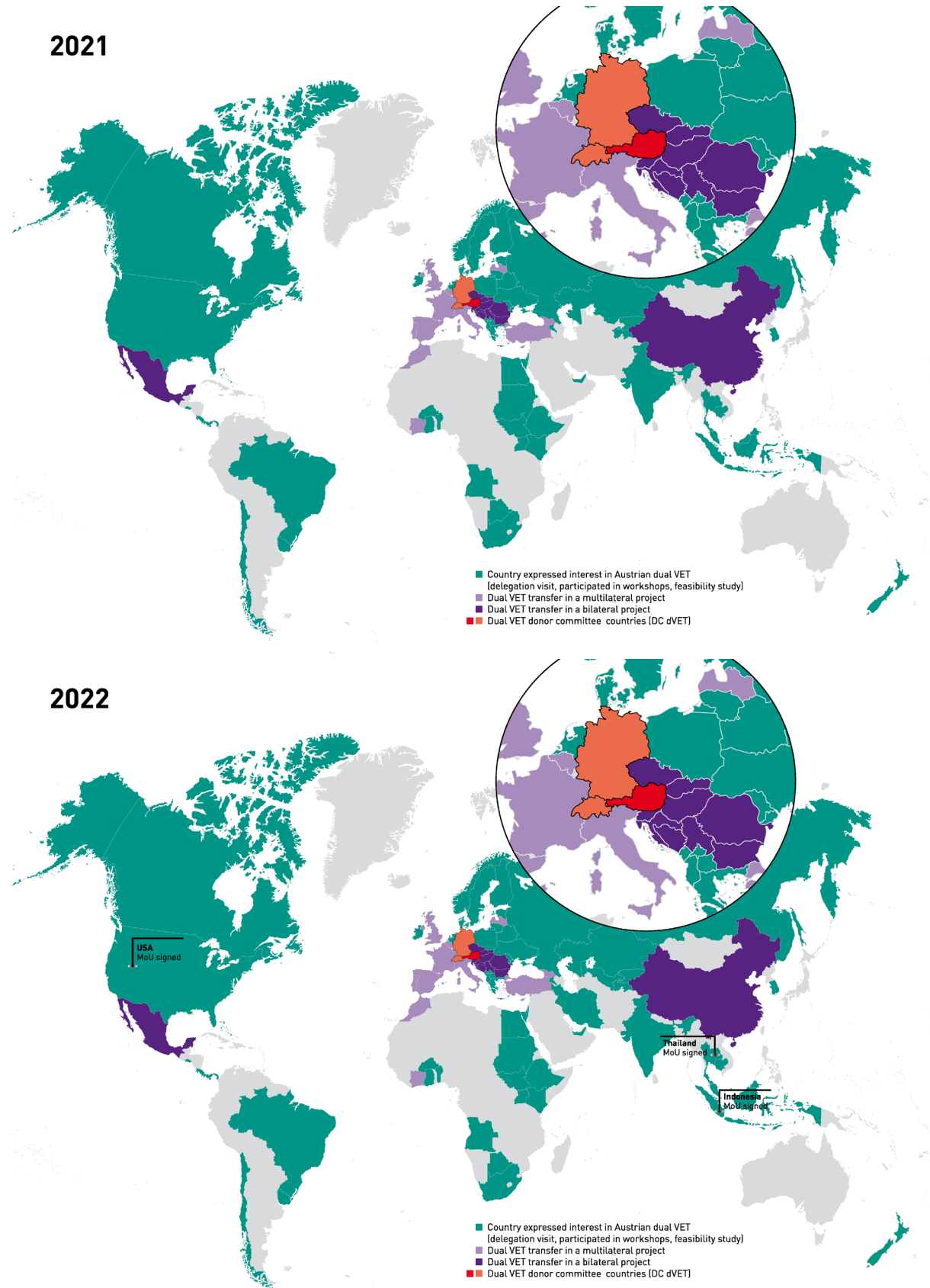


Figure 12: All international collaborations in dual VET between 2013 and 2022

The map for the year 2023 is shown in chapter 2. The colors indicate the type of cooperation. Countries in orange are other dual VET donor countries. MoU stands for a Memorandum of Understanding or – in the case of India – for an international agreement that in part relates to sharing Austrian dual VET expertise negotiated with BMAW. All data until 31.12.2023. Sources: WKÖ, BMAW (VI/7), ibw. Graphic: Alice Gutleiderer, Valentin Seidler