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Economy and Education

Swiss Agency for Development  
and Cooperation SDC

# Financing of infrastructure and equipment in Vocational Education and Training

Guidance paper – including quality control procedure of  
the Expert Group Construction – Swiss Humanitarian Aid



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## Abbreviations

EGC	Expert Group Construction
FMO	Financial Mechanism Office
GIZ	Gesellschaft für Internationale Zusammenarbeit
IDB	Inter-American Development Bank
KfW	KfW Development Bank
LED	Liechtensteinischer Entwicklungsdienst
OSH	Occupational Safety and Health
PSE	Private Sector Engagement
SDC	Swiss Agency for Development and Cooperation
SECO	State Secretariat for Economic Affairs
VET	Vocational Education and Training
WOGA	Whole-of-government Approach

## Introduction

Infrastructure and equipment of Vocational Education and Training (VET) are particularly expensive and VET systems constantly face financial limitations, in particular in countries of the global South. Investments in infrastructure and equipment for VET programmes<sup>1</sup> are therefore a recurrent topic in development cooperation.

However, it is well known among donors that financing infrastructure or equipment for VET projects is an important issue, but also bears some risks. There are many anecdotes of malinvestments or even corruption that they have come across. At the same time, many VET projects do have infrastructure and/or equipment components and consider this as an opportunity. Requesting for such support ranks high on the agendas of partner countries when cooperation agreements are negotiated.

As there is a general interest to get more guidance on this topic, the SDC Economy and Education Team elaborated this guidance paper in close collaboration with other WOGA partners. It aims to shed some light on this issue to help SDC officers and their implementers to make informed and appropriate decisions and to avoid or at least mitigate risks.

The guidance paper does not intend to replace the various resources such as internal guidelines and documents dealing with infrastructure investments and procurement issues, but recommends approaching the Swiss Humanitarian Aid Competence Center in this matter.

**Specifically, the Expert Group Construction (EGC) as part of the competence center of the Humanitarian Aid of the SDC provides expertise (see box below and Annex 1).**

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<sup>1</sup> Investments in infrastructure may comprise construction or refurbishment of premises for classrooms, workshops, laboratories, libraries, sanitation facilities, dormitories, cafeterias, or sports and recreation facilities. Equipment of VET projects usually refers to machinery and tools for training purposes, ICT hard- and software and furniture for both administrative and training purposes, vehicles etc. For the purpose of this paper consumables like e.g., nails, paper, tissue, wood, etc. do not fall under the equipment category.

The **Expert Group Construction (EGC)** is part of the competence center of the Humanitarian Aid (HA) of the SDC. The EGC is composed of construction experts with a broad experience of working in challenging and fragile contexts. The EGC adapts to SDC instruments (direct actions, secondments, contributions, mandates) to provide expertise in different fields:

- i) Emergency response (shelter and Non-Food Items, structural assessment, rapid repair of public infrastructure, training);
- ii) Post disaster reconstruction (mainly public infrastructures);
- iii) Housing reconstruction and repair (mainly through owner-driven methods);
- iv) Protection (site planning for refugees camps).

The EGC also produces a series of technical documents (guidelines, manuals, factsheets, etc.) to achieve safer and sustainable infrastructures by promoting good practices and innovating approaches.

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This paper aims to be as concise as possible to serve as a guidance to SDC officers and project managers - extensive additional information can be found in the annexes.

**Chapter 1** explains why and when financing of infrastructure and/or equipment for VET projects can be meaningful or even necessary, and which opportunities it may offer.

**Chapter 2** looks at the typical risks to be considered when VET projects invest in infrastructure and/or equipment.

**Chapter 3** elaborates guiding questions for SDC's decision-makers at both HQ and field levels as well as for managers of SDC projects.

**Annex 1** provides a quality control procedure for permanent infrastructure projects elaborated by the Expert Group Construction.

**Annex 2** presents approaches, rules and regulations applied by other donors<sup>2</sup> in this field and their lessons learnt.

**Annex 3** Lessons learnt - summarizes experience of SDC VET projects that have financed infrastructure or equipment.

**Annex 4** lists the persons and institutions interviewed.

**Annex 5** provides additional resources (links to documents).

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<sup>2</sup> In this paper, donors comprise bilateral and multilateral agencies incl. development banks.



## Chapter 1: Good reasons for financing infrastructure and/or equipment in VET projects

The SDC document “*Understanding and analysing vocational education and training systems – An introduction*” summarizes five core inputs to each VET system: 1) curricula, training material and media, 2) teachers and trainers, 3) training infrastructure, 4) management, and 5) mode of training delivery, as shown in figure 1.<sup>3</sup>

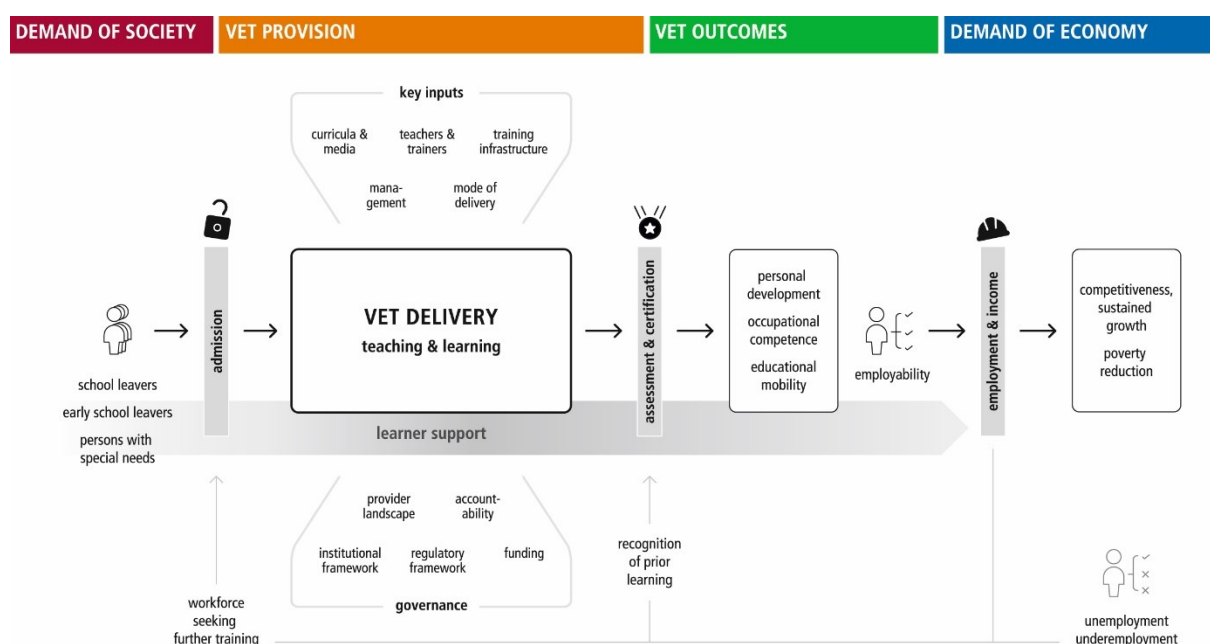


Figure 1: Training infrastructure as a key input in VET provision

The document states that “partners in developing countries mostly find it impossible to build, equip, and maintain training facilities to the appropriate standard and in sufficient quantity to cover the continuously growing social and economic demand for VET. This makes training infrastructure another crucial bottleneck for any ambitious VET reform or donor intervention.”

The following overview shows in how far some documents guiding SDC’s VSD area mention financing of infrastructure and equipment in VET.

<sup>3</sup> SDC, [Understanding and analyzing vocational education and training systems – An introduction](#), updated version as of April 2022

- The **SDC Education strategy** mentions “adapted learning infrastructure and materials” in view of increasing the labour-market relevance and quality of VSD.<sup>4</sup>
- **SDG goal 4** addresses “the need for adequate physical infrastructure”.
- Infrastructure is explicitly one of the priorities of bilateral development cooperation in the two priority regions of sub-Saharan Africa and Asia in the **International Cooperation Strategy 2021–24**.<sup>5</sup>

In the following, this chapter presents a non-exhaustive list of arguments that could make it meaningful for VET projects to invest in 1) infrastructure and/or 2) equipment.

## VET infrastructure investments

**Quality:** SDC is committed to quality in its interventions in the education sector, which requires appropriate premises – classrooms, labs, workshops, etc. – and sufficient space.<sup>6</sup>

**Occupational Safety and Health (OSH):** Both students and staff of SDC-sponsored VET projects should enjoy decent and safe work conditions. Lack of proper electrical installations, leaking roofs and humidity, inappropriate heating or air-conditioning, exposure to dust etc. may cause risks and damages for staff, students, and equipment.

**Security:** SDC projects often operate in fragile contexts, which could make investments in appropriate buildings necessary to protect students, staff and expensive equipment against natural disasters, theft, vandalism, or assaults.

**Attractiveness:** Safe and proper buildings make a VET career more attractive for students and their parents, facilitate the recruitment and retention of qualified staff, and help winning private sector partners for cooperation and increasing the general image of VET in partner countries.

**Gender equality:** Increasing the participation of female students in VET is a common objective of many SDC interventions. This may entail the need to build separate sanitation facilities and/or dormitories in training centers that so far did not offer training for female students, or even the construction of new labs or workshops in order to be able to offer training courses in occupations that are more accessible and attractive for young women.

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<sup>4</sup> The [SDC's Education Strategy Basic Education and Vocational Skills Development](#), p. 42

<sup>5</sup> [Botschaft zur Strategie der internationalen Zusammenarbeit 2021–2024](#) (IZA-Strategie 2021–2024), Ziffer 4.1.2.

<sup>6</sup> See reference on SDC's Education Strategy above.

**Inclusiveness:** Facilitating access to quality training also for disadvantaged groups is another key objective of many SDC interventions in VET. To reach out to young people living in remote rural areas may in some cases require the construction or refurbishment of dormitories or the provision of mobile training infrastructure. In other cases, adaptation of buildings might be necessary to enable access and/or participation for special needs groups.<sup>7</sup>

**Practical training and work experience:** Construction and maintenance works could, if possible, also be used for training purposes in related occupations and for students' exposure to real work. This is not only a very effective training methodology; it also mitigates the risk of vandalism by the students and facilitates future maintenance.

**Employment opportunities:** Construction and maintenance works could also offer employment opportunities if local companies are contracted and students involved as part of their training. Working on a construction site with employees of a local company could pave the way for them to employment after graduation.

**Collaboration with private companies:** Supporting the adaptation of partner companies' infrastructure for training purposes under a co-financing agreement could be a meaningful approach to facilitate work-based learning and enhance private sector involvement in VET.<sup>8</sup>

**Potential for private sector engagement (PSE):** This modality means that SDC and one or several private sector partners co-initiate, co-steer and co-fund development interventions.<sup>9</sup> Investment into infrastructure can be one form of co-funding.

## VET equipment investments

**Quality:** For SDC, practical training is indispensable for quality in VET to assure labour-market orientation and thus the employability of graduates. And practical training requires appropriate equipment that often is scarce, outdated or not available in training centers of partner countries.

**Occupational Safety and Health (OSH):** Appropriate equipment is not only a prerequisite for quality training, it is also a must in terms of OSH. Worn-out machines, without safety gear or other protection features, constitute a permanent danger for students and their instructors.

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<sup>7</sup> Also in line with SDG 4 (see above).

<sup>8</sup> On the role of the private sector as co-financer, see SDC's add-on of the VSD typology [Roles and interests of the private sector](#).

<sup>9</sup> [SDC Handbook on Private Sector Engagement](#); SDC Slide Deck VSD and PSE: forming partnerships with the private sector; SDC experiences in the Ukraine (see chapter 4 and annexes). Yet, experiences like the PSE with Geberit in the Ukraine are rare examples as of now.



**Inclusion:** Provision of small equipment and tools and of consumable material for training facilitates access of students who do not have sufficient own resources.

**In-company training:** Promotion of internships, work-based learning or (dual) apprenticeships is a key feature of many SDC interventions in VET. However, many companies are reluctant to attend students for in-company training who have no prior experience and basic skills in handling modern equipment because they are afraid of damages of machines and/or accidents at the workplace. It is therefore advisable for training centers to prepare their students adequately before sending them to collaborating companies, which requires a certain standard in terms of equipment.

**Innovation:** Many SDC projects aim at introduction of new courses and curricula in particular for future-oriented pilot projects e.g., in green technologies, and/or at the establishment of centers of excellence, which both often requires equipment that partner countries are usually not able to provide.

**Attractiveness for students:** Modern equipment makes VET careers more attractive for students and their parents and increases the image of VET in general.

**Attractiveness for companies:** Modern equipment makes collaboration with a training center and recruitment of graduates more interesting for the private sector.

**Potential for PSE:** Investment into equipment could be a form of co-funding by the private sector.

**Income generation:** Modern equipment facilitates income generation of training centers through offering commercial training courses and/or producing goods or services for the local market. Provided that the training centers are allowed to use such income for their own purposes this contributes to financial sustainability and facilitates maintenance and repair of expensive equipment

## Chapter 2: Risks of financing infrastructure and/or equipment in VET projects

This chapter presents a non-exhaustive list of typical risks to be considered when VET projects invest in infrastructure and/or equipment.

### VET infrastructure investments

**Location:** In case the location of the new infrastructure has to be selected there are risks like difficult accessibility for the envisaged target groups, exposure to natural disasters like floods, inappropriate soil etc.

**Design:** During the design phase there is a certain risk that premises are planned oversized, i.e., for numbers of students that are unlikely to be reached or unlikely to be absorbed by the labour market. It could also happen that workshops and labs are planned for occupations which are not or no longer relevant for the economy and/or which are already sufficiently offered by other training centers in the region. Finally, there is a certain risk that partner institutions put more emphasis on the appearance of premises than on their functionality, safety, and sustainability for training purposes.

**Procurement:** Tendering of construction works is difficult and risky, in particular for complex buildings like workshops and labs. Partner institutions often do not have sufficient capacity and experience for elaboration of detailed tender specifications and evaluation of bids, which could lead to contracting of incompetent companies, delayed procedures and termination, poor quality of works, not useable buildings, and expensive and protracted lawsuits. Furthermore, procurement of construction works often implies the risk of corruption. Bureaucratic public procurement processes may slow down the implementation of a VET project.

**Building:** Even if the tender specifications were appropriate and a competent company was contracted, lack of supervision and monitoring of expenditure by the partner institution and/or the donor may still lead to poorly conducted construction works with similar consequences as described above.

**Operation:** Appropriate and functional premises are useless if no adequate equipment for workshops and labs is available. And if the premises are adequately equipped there is still the risk of inefficient use, i.e., too few students inscribe for the courses or no shift operation is realized.

**Sustainability:** Maintenance of premises, which is particularly important in the climate zones of many partner countries, is often neglected, i.e., there are no clear and regularly monitored maintenance plans and/or no or too small funds for repair. Furthermore, there is a risk that premises are used for other than training purposes or even sold. Furthermore, poor management capacities may endanger the sustainability of the new infrastructure.

## **VET equipment investments**

**Planning:** During the planning phase there is a certain risk that purchasing lists for equipment are compiled without taking into consideration the specific requirements of the curricula to be applied (nice to have instead of must have), which could lead to unnecessary expenses on the one hand and lack of some necessary machines and tools on the other. Or, even worse, workshops and labs are equipped with new machines and tools, but no efforts are made to develop or update the curricula for the respective occupations. Furthermore, and most importantly, there is the risk that equipment is planned for purchase for which adequate premises are not or not yet available.

**Procurement:** Elaborating tender specifications for equipment of workshops and laboratories is difficult and requires expertise that partner institutions often do not have, in particular in cases of newly introduced modern occupations. The same applies to the evaluation of bids of potential suppliers. This may lead to purchase of incomplete and/or low quality and/ or overpriced equipment or to the purchase of imported equipment for which client services and/or spare parts are expensive, and/or difficult or even impossible to get. Furthermore, there is always a certain risk of corruption. Bureaucratic public procurement processes may slow down the implementation of the VET project. Finally, there is always a certain risk of theft along the delivery chain, in particular with smaller equipment that is ordered in high numbers.

**Operation:** The major risk related to the operation of the new equipment is staff not competent for its proper use. This could lead to damages or dysfunctionality of new equipment or even to safety risks for staff and students. More likely is, however, that the new equipment remains unused in these cases. Another risk is the inefficient use of the equipment, i.e., too few students inscribe for the courses or no shift operation is realized. Additionally, spare parts may not be available.

**Sustainability:** Sustainability of modern equipment depends to a high degree on regular maintenance, which is often neglected, i.e., there are no clear and regularly monitored maintenance plans and/or no or too small funds for repair or spare parts. Moreover,

sustainability of the investments requires that the training institution is able to cover running costs for consumables (electricity, water) and training material needed to assure the operation of the equipment for the envisaged number of students. Finally, there is a risk that equipment is used for other than training purposes, e.g., for private income generation of staff, or even sold.



## Chapter 3: Guiding questions

Despite the risks and its bad reputation, financing of infrastructure and/or equipment is still a widespread practice in VET projects of many donors. And, it does not seem to be likely that this will change in the near future. On the contrary: the growing trend of donor countries and agencies to focus on the least developed countries and to intervene in fragile contexts will in many cases strengthen the arguments in favour of infrastructure and equipment investments as listed above in chapter 1.

It is also obvious that for SDC-sponsored projects the financing of equipment is much more frequent than financing of infrastructure. The provision of adequate premises is in most cases a prerequisite that the recipient countries have to accomplish with. This is often done with loans from international development banks or with support from multilateral donor organizations (EU).<sup>10</sup>

There is no one-size-fits-all approach. The way projects handle investments in infrastructure and equipment does not only depend on the policy of the respective donor but also on specific features of the project, e.g., the target groups it addresses, the objectives it aims at, the national context, the implementation modality, and others.

Overall, there seems to be a need for orientation on the topic at both field staff and headquarter levels. This is the purpose of the following two tables - for both infrastructure investments and equipment investments - with guiding questions. The two tables are organized along the six steps of the project management cycle.

- 1) appraisal and decision-making,
- 2) design/planning,
- 3) procurement,
- 4) building/installation,
- 5) operation, and
- 6) handover

**Specifically for infrastructure investments please also consult the Expert Group Construction of the Swiss Humanitarian Aid which experts can advise the SDC Team Leaders in the planning and implementation of infrastructure related projects (see Annex 1).**

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<sup>10</sup> See Annex 3 for a more comprehensive overview of infrastructure and equipment financing of SDC VET projects.



## VET infrastructure investments

### Step 1: Appraisal and decision making

To take informed and meaningful decisions regarding the financing of infrastructure or equipment, thorough analysis is necessary. As a first step, a feasibility study including a mapping of all relevant actors and stakeholders and their respective roles and interests related to the infrastructure investments should be conducted. The following criteria have to be considered:

#### Relevance

- Is there a labour-market demand for the training offers to be implemented with the envisaged new infrastructure, and is this demand likely to be persistent for at least the next 10 years?
- Is there a social demand for the training offers, i.e., is the training offer attractive and meaningful for enough potential participants from the envisaged target groups so as to ensure efficient use of the new infrastructure or equipment?
- Is there a need for these additional training capacities in the region, i.e., are there no or not sufficient other providers on the market and can duplication with efforts of other donors or partner country institutions be excluded?
- Is it absolutely necessary that the envisaged investments have to be covered by SDC or is there an opportunity to use public or private sector resources of the partner country for (co-)financing?
- Is the envisaged additional training offer aligned with the partner country's VET policy and strategies and harmonized with other donors in the sector?
- Is the envisaged additional training offer in line with SDC's country strategy or other overarching agreements with the beneficiary country and its institutions?
- Are all relevant stakeholders – multi-level government, private sector, civil society – adequately involved in decision-taking and planning?



## VET infrastructure investments

- Is the infrastructure investment a prerequisite for the achievement of the project or program objectives and contributes to other components or is it just an add-on or stand-alone measure?
- Does the program or project to be supported with the infrastructure investment adequately consider the cross-cutting issues of gender equality and environmental protection?
- Are the expenses for the infrastructure investment adequate and justifiable in relation to the expected long-term benefits like e.g., number of beneficiaries trained, innovation triggered, VET system development stimulated, economic and social impacts generated?

### Quality

- Is the availability or timely provision of the necessary equipment and training material for the training offers assured?
- Is a sufficient number of sufficiently trained staff available – or will be made available in due time – to assure the smooth implementation of quality training?
- Is there a competent management, a quality management system, and a business plan in place?
- Will training offers be based on up-to-date occupational curricula developed with appropriate private sector consultation?
- Will the graduates receive a nationally recognized certificate in line with the NQF, which confirms employability and provides access to further educational pathways?
- Will the graduates get placement support to assure their labour-market integration?

### Accessibility and Inclusion

- If the project or program is supposed to address specific target groups: are the training offers accessible to them in terms of entrance criteria, affordability of student fees, transport facilities (or dormitories)?

## VET infrastructure investments

- Will the program or project provide equal and safe access for female students?
- Will the program or project provide equal and safe access for specific target groups like e.g., refugees, ethnic minorities, students with special needs, etc.?
- Will the program or project provide appropriate learner support to assure that no student is left behind?

### Sustainability

Some major criteria for sustainability are mentioned above under the relevance criteria, in particular a persistent labour-market demand and attractiveness for the target groups to be addressed. There are a other sustainability criteria which have to be taken into account:

- Does the institution to be supported have stable and persistent sources of income at its disposal, i.e., specific tax revenue or/ and secured public budget or/ and self-generated income it is allowed to administer?
- Is the institution well established and managed, anchored in the national VET system and market, supported by relevant authorities, recognized by the private sector, and likely to survive the next 10 years?

## Step 2: Design/planning

If an affirmative decision for financing of infrastructure is taken, a thorough feasibility study should be conducted. The following criteria have to be checked for the design of the premises:

### Location

If a completely new construction is envisaged the appropriateness of the location has to be assured:

- Is it accessible for the envisaged target groups?
- Is the environment safe in terms of both, crime protection and risks of natural disasters?

## VET infrastructure investments

- Are environmental aspects adequately considered?
- Is the soil appropriate for the envisaged buildings?
- Are the necessary legal documents and permits for construction secured or likely to get?
- Is the site adequate in terms of environmental and social safeguards (risks, access, valuable elements such as tree planting to preserve the environment, etc.)?

### Functionality

Are the premises appropriate to accommodate the envisaged numbers of trainees and the necessary equipment (space, power supply, sanitation, sewage, protection against dust and humidity, etc.)?

Are the premises appropriate to accommodate students of both sexes as well as students with special needs?

Are the premises adaptable (modular construction, removable walls) for multipurpose use, in case the need arises?

- Do the premises allow multifunctional use, i.e., for different VET courses/occupations, for production purposes or for external clients, if appropriate?

### Security

- Will the envisaged premises provide sufficient protection against natural disasters and risks? Is a risk analysis available?
- Will the premises provide sufficient protection against assaults, thefts and other crimes? Is a risk analysis available? Has a CPTED approach be considered?

## VET infrastructure investments

### Occupational Safety and Health

- Are emergency exits and escape routes be adequately considered?
- Are fire security norms in terms of evacuation of the premises respected?
- Are the outside areas sufficient in quantity and space to safely gather the users in case of emergency?
- Will the premises provide sufficient space and protection against heat/cold, humidity, noise, and dust? Is a risk analysis available?

### Environmental issues

- Is the use of environmental and climate friendly materials and of renewable energies adequately considered?
- Are energy saving, water saving, and recycling technologies adequately considered?

### Scheduling

- Will the construction works be finalized in due time to assure the smooth implementation of the envisaged courses?

## Step 3: Procurement

- Procurement in the construction sector is complex and prone to failure and corruption. The experts of the Expert Group Construction (EGC) can provide support and advice to the SDC Team Leader to prepare and review the procurement document. In the context of infrastructure investments for VET projects the following issues should be considered:

### Legal basis

- Does the partner country have a national public procurement law that accomplishes with international standards?

## VET infrastructure investments

- Are there reasons to apply Swiss / EDA rules for procurement?

- Can the adherence to the procurement rules be supervised and assured?

### Partner capacities

- Are the partner institutions and their staff aware of the procurement rules to apply or is there a need for capacity building?

- Do(es) the partner institution(s) have the necessary capacities to elaborate tender specifications and launch and supervise the procurement process or do they need assistance?

- Do(es) the partner institution(s) have the necessary capacities to evaluate bids, take proper award decisions, and elaborate clear and concise contracts with the successful bidder or do they need assistance?

### Synergies

- Would it be possible to use the training provider's own capacities and resources to take on and conduct at least parts of the construction works in order to reduce costs and provide training opportunities to its students?

- Would it be possible to include in the procurement terms a contractual obligation for the successful tenderer to provide training and/or work experience opportunities to the students (where applicable)?

- Would it be possible in the procurement process to give preference to local companies in order to stimulate the local economy and facilitate future maintenance of the premises?

## VET infrastructure investments

### Step 4: Building/installation

#### Supervision

- Does the partner institution have the capacity to supervise and control construction progress and quality or is assistance needed?
- Is supervision of works by specialized external experts secured?
- Does the partner institution have the capacity to supervise and control security and working conditions of construction workers (and students, if involved) or is assistance needed?

#### Management

- Does the partner institution have the capacity to control expenses and budgets or is assistance needed?
- Does the partner institution have the capacity to manage their own contributions to the construction works (if applicable) or is assistance needed?
- Does the partner institution have the capacity to manage the training and work experience opportunities for students (if applicable) or is assistance needed?

### Step 5: Operation

#### Maintenance

- Are appropriate maintenance plans available and are they regularly controlled and executed?
- Is a maintenance fund available and adequately resourced?
-



## VET infrastructure investments

### Efficiency

- Are the premises equipped, fit for purpose and is their capacity satisfactorily used (sufficient number of students, shift operation)?
- Are possibilities for income generation – if any – sufficiently used?

### Step 6: Handover

Handover to the beneficiary can take place at very different stages. In the case of a budget support approach the whole building process and the ownership is in the hands of the benefitting institution (or the national authority it is affiliated to). If the investment takes place in the framework of a project implemented by an SDC-mandated implementing agency the complete handover may happen only towards the end of the project. In any case, there are a few issues to be considered:

### Legal aspects

- Does the contractual arrangement between SDC and the benefitting institution assure the long-term appropriation of the premises for training purposes?
- Does the contractual arrangement between SDC and the benefitting institution stipulate what happens if the premises are used for other than training purposes, rent out or sold by the institution?
- Does the contractual arrangement between SDC and the benefitting institution assure the long-term visibility of the Swiss contribution?

### Sustainability

- Does the partner institution have taken the necessary provisions for maintenance of the premises (maintenance plan and fund)?
- Does the partner institution have the necessary management capacity, a viable business plan and the financial resources to successfully run the training center or is (further) assistance needed?

## VET equipment investments

### Step 1: Appraisal and decision making

To take informed and meaningful decisions regarding the financing of infrastructure or equipment, thorough analysis is necessary. As a first step, a feasibility study should be conducted. The following criteria have to be considered:

#### Relevance

- Is there a labour-market demand for the training offers to be implemented with the envisaged new equipment, and is this demand likely to be persistent for at least the next 10 years?
- Is there a social demand for the training offers, i.e., is the training offer attractive and meaningful for enough potential participants from the envisaged target groups so as to ensure efficient use of the new infrastructure or equipment?
- Is there a need for these additional training capacities in the region, i.e., are there no or not sufficient other providers on the market and can duplication with efforts of other donors or partner country institutions be excluded?
- Is it absolutely necessary that the envisaged investments have to be covered by SDC or is there an opportunity to use public or private sector resources of the partner country for (co-)financing?
- Is the envisaged additional training offer aligned with the partner country's VET policy and strategies and harmonized with other donors in the sector?
- Is the envisaged additional training offer in line with SDC's country strategy or other overarching agreements with the beneficiary country and its institutions?
- Are relevant stakeholders – multi-level government, private sector, civil society –involved in decision-taking and planning?

## VET equipment investments

- Is the equipment investment a prerequisite for the achievement of the project or program objectives and contributes to other components or is it just an add-on or stand-alone measure?
- Does the program or project to be supported with the equipment investment adequately consider the cross-cutting issues of gender equality and environmental protection?
- Are the expenses for the equipment investment adequate and justifiable in relation to the expected long-term benefits like e.g., number of beneficiaries trained, innovation triggered, VET system development stimulated, economic and social impacts generated?

### Quality

- Is the availability or timely provision of the necessary equipment and training material for the training offers assured?
- Is a sufficient number of sufficiently trained staff available – or will be made available in due time – to assure the smooth implementation of quality training?
- Is there a competent management, a quality management system, and a business plan in place?
- Will the training offers be based on up-to-date occupational profiles and curricula developed with appropriate private sector involvement and consultation?
- Will the graduates receive a nationally recognized certificate in line with the NQF, which confirms employability and provides access to further educational pathways?
- Will the graduates get placement support to assure their labour-market integration?

## VET equipment investments

### Accessibility and Inclusion

- If the project or program is supposed to address specific target groups: are the training offers accessible to them in terms of entrance criteria, affordability of student fees, transport facilities (or dormitories)?
- Will the program or project provide equal and safe access for female students?
- Will the program or project provide equal and safe access for specific target groups like e.g., refugees, ethnic minorities, students with special needs, etc.?
- Will the program or project provide appropriate learner support to assure that no student is left behind?

### Sustainability

Some major criteria for sustainability are already mentioned above under the relevance criteria, in particular a persistent labour-market demand and attractiveness for the target groups to be addressed. Nonetheless, there are a few other sustainability criteria which have to be taken into account:

- Does the institution to be supported have stable and persistent sources of income at its disposal, i.e., specific tax revenue or/ and secured public budget or/ and self-generated income it is allowed to administer?
- Is the institution well established and managed, anchored in the national VET system and market, supported by relevant authorities, recognized by the private sector, and likely to survive the next 10 years?

## VET equipment investments

### Step 2: Design/planning

If an affirmative decision for financing of equipment is taken, the following criteria are to be considered for the purchase:

#### Functionality

- Is the envisaged equipment necessary for the implementation of the curricula? Does it offer significant advantages as compared to already available equipment?
- Will sufficient equipment be available for the envisaged numbers of trainees?

#### Occupational Safety and Health

- Are OSH aspects adequately considered in the selection of the equipment and the configuration of the workshops and labs?

#### Environmental issues

- Are energy saving, water saving, and recycling technologies adequately considered in the planning of the equipment?

#### Scheduling

- Will the equipment be delivered, installed and staff trained in due time to assure the implementation of the envisaged courses?

## VET equipment investments

### Step 3: Procurement

Procurement of equipment for training purposes can be complex and is prone to failure, fraud and corruption. In the context of investments in equipment for VET projects the following issues should be considered:

#### Legal basis

- Does the partner country have a national public procurement law that accomplishes with international standards?
- Are there reasons to apply Swiss / EDA rules for procurement?
- Can the adherence to the procurement rules be supervised and assured?

#### Partner capacities

- Are the partner institutions and their staff aware of the procurement rules to apply or is there a need for capacity building?
- Do(es) the partner institution(s) have the necessary capacities to elaborate tender specifications and launch and supervise the procurement process or do they need assistance?
- Do(es) the partner institution(s) have the necessary capacities to evaluate bids, take proper award decisions, and elaborate clear and concise contracts with the successful bidder or do they need assistance?

#### Selection criteria

- Are issues like import restrictions, customs clearance, availability of client service and spare parts, warranty, transport insurance, terms of delivery etc. adequately considered in the tender specifications and the evaluation of bids?
- Does the successful bidder assure appropriate instruction of the staff regarding operation and maintenance of the equipment?



## VET equipment investments

### Step 4: Building/installation

#### Supervision

- Does the partner institution have the necessary capacity to control the delivery of the equipment in terms of completeness and lack of damages or is assistance needed?
- Does the partner institution have the necessary capacity to supervise and control the installation of the equipment or is assistance needed?

### Step 5: Operation

#### Maintenance

- Are appropriate maintenance plans available and are they regularly controlled and executed?
- Is a maintenance fund available and adequately resourced?
- Is adequately trained maintenance personnel available (in-house or contracted)?
- Does the partner institution have the capacity to control expenses and budgets or is assistance needed?

#### Efficiency

- Is the equipment satisfactorily used (sufficient number of students, shift operation)?
- Are possibilities for income generation – if any – sufficiently used?

## VET equipment investments

### Step 6: Handover

Handover to the beneficiary can take place at very different stages. In the case of a budget support approach the whole building process and the ownership is in the hands of the benefitting institution (or the national authority it is affiliated to). If the investment takes place in the framework of a project implemented by an SDC-mandated implementing agency the complete handover may happen only towards the end of the project. In any case, there are a few issues to be considered:

#### Legal aspects

- Does the contractual arrangement between SDC and the benefitting institution assure the long-term appropriation of the premises for training purposes?
- Does the contractual arrangement between SDC and the benefitting institution stipulate what happens if the premises are used for other than training purposes, rent out or sold by the institution?
- Does the contractual arrangement between SDC and the institution assure the long-term visibility of the Swiss contribution?

#### Sustainability

- Does the partner institution have taken the necessary provisions for maintenance of the equipment (maintenance plan and fund)?
- Does the partner institution have the necessary management capacity, a viable business plan and the financial resources to successfully run the training center or is (further) assistance needed?

## **Annex 1: Quality control procedure for permanent infrastructure projects**

Document elaborated by Expert Group Construction of the Swiss Humanitarian Aid

## QUALITY CONTROL PROCEDURE FOR PERMANENT INFRASTRUCTURE PROJECTS

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### About the Expert Group Construction (EGC)

The Expert Group Construction (EGC) is part of the new competence center of the Humanitarian Aid (HA) of the Swiss development and cooperation agency (SDC). The EGC is composed of construction experts with a broad experience of working in challenging and fragile contexts. The EGC adapts to SDC instruments (direct actions, secondments, contributions, mandates) to provide expertise in different fields: i) Emergency response (shelter and NFI, structural assessment, rapid repair of public infrastructure, training); ii) post-disaster reconstruction (mainly public infrastructures); iii) Housing reconstruction and repair (mainly through owner driven methods); iv) Protection (site planning for refugee's camp). The EGC also produces a series of technical documents (guidelines, manuals, factsheets, etc.) to achieve safer and sustainable infrastructures by promoting good practices and innovating approaches.

### Roles and responsibilities (Direct action and contributions)

In case of direct actions, the SDC/HA as the project owner bears the full legal and institutional responsibility and liability. The project manager (PM) is liable towards the SDC/HA within the frame of the employment or consultancy contract signed with the institution. Construction projects are generally implemented through local contractors and consultants who then bear the responsibility to abide by the local legal frameworks and ensure proper quality assurance and control.

For contributions, the SDC acts as a donor delegating the responsibility of the project to its partner. However, this should not release the SDC from its own responsibility in supervising the quality of the projects funded and monitoring the capacity of the partner to implement relevant quality management processes. In the frame of its new mandate, the EGC offers its expertise to support the planning and supervision of SDC financed infrastructure projects implemented by third parties.

### About this document

The present document describes the step-by-step procedure to plan and execute permanent infrastructure projects implemented by a third party. It is intended to serve as a quality control checklist for project managers supervising infrastructure activities. This procedure is based on good practices and specific experiences in providing technical support to donor organizations financing infrastructure projects. The type and the extend of the support can vary according to the project complexity and implementation context. For each recommended outputs described in the table, the suggested supports are tagged as follows:

- Recommended support:** Normal technical control procedure for each construction project. These supports can be done remotely and concerning mainly document production and/or review.
- Optional support:** Upon context and project's complexity. These supports can be on-site activities, and tasks can also be implemented directly the EGC expert if required.

### EGC contact

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### Author/contributors

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### Useful link

<https://www.shacc.ch/>

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<i>Phases</i>	<i>Recommended outputs</i>	<i>Brief description and point of attention</i>	<i>EGC support</i>
<b>0 TEAM &amp; CAPACITY</b>			
<i>Before starting the planification of a construction project, it is important to assess the technical capacities at both donor and executing partner levels.</i>	0.1 Donor (here the SDC)	As a general remark, it is recommended that the donor aiming to finance a construction activity be accompanied by a construction specialist from the beginning of the project. The specialist will be able to advice the project manager to evaluate the needs and choose adequate implementing approach, to better inform the project proposal (result frame, risk matrix, chronogram, budget, etc.).	<input checked="" type="checkbox"/> <i>EGC support to be discussed upon project needs</i>
	0.2 Executing partner	The executing partner (NGO, Government, etc.) that will manage the funds for the construction activities, must put in place, before the implementation phase, a local technical team to manage construction projects. The composition of the technical team depends on the project's complexity, but it is generally composed by: 1 team leader, architect/engineer, with good management capacities and good knowledge of procurement procedures; and 1 architect and/or 1 engineer to supervise the content and the activities on site. The executing partner must also have a good knowledge of SDC procurement policies and good experience of general contract management. During the execution phase (see chapter supervision of works), the executing partner should also ensure a regular (if not full time) presence on site with at least 1 site supervisor.	<input type="checkbox"/> <i>Training/briefing local technical staff</i>
	0.3 Additional expertise	For projects requiring specific expertise (WASH, DRR, etc.), the SHA can provide support through the other expert groups.	<input type="checkbox"/> <i>SHA Expert groups upon needs</i>
<b>1 PROJECT/CREDIT PROPOSAL</b>			
<i>The SDC has specific project approval procedures where different bodies have to analyze the project and approve it. This includes the Swiss Representation (SR), the country office (SCO), and HQ/HA through the</i>	1.1 Identification of needs	The Client/Owner must provide a list of needs in terms of spaces and functional organization, to inform the architectural room program. A list of furniture and equipment needed, with specification and energy supply requirement (in case a hospital, VET, etc.), must also be provided.	<input checked="" type="checkbox"/> <i>Review product</i> <input type="checkbox"/> <i>On site visit if needed</i>
	1.2 Land deed	The Client/Owner will also provide the legal documents of the chosen land where the project is intended to be constructed.	<input checked="" type="checkbox"/> <i>Review product</i>

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Phases	Recommended outputs	Brief description and point of attention	EGC support
<p><i>geographical Divisions and the Operational Committee (OpKom).</i></p> <p><i>For infrastructure related projects, it is important that the feasibility and conditionality of the intended project be verified at this stage. A support from the EGC experts is highly recommended here.</i></p>	1.3 User and community consultation	See ESA, point 1.4	
	1.4 Social and environmental analysis (ESA)	The project should carry out an ESA to identify and assess potential impacts and risks of the construction project on existing environmental and social conditions and vice versa. The results of the ESA inform an Environmental and Social Mitigation Plan (ESMP) to be implemented during the project's execution, such as temporary relocation measures, protection of natural areas, etc. The ESA includes a consultation of the user of the future building as well as the community where the site is located.	<input type="checkbox"/> <i>Review or prepare ToR</i> <input type="checkbox"/> <i>Review product</i> <input type="checkbox"/> <i>Assist or execute the task (through DRR)</i>
	1.5 Feasibility study <i>To be done by an architect. Approx. 15-20 days depending on project complexity. A topographical survey of the land will also be done at this stage if not already available.</i>	Before the implementation phase, it is highly recommended to carry out a feasibility study that includes the following tasks: <ul style="list-style-type: none"> <li>– Review and optimize the room program.</li> <li>– Review the applicable norms, sectorial policies, etc.</li> <li>– Define the standards to be achieved.</li> <li>– Carry out the topographical survey of the land.</li> <li>– Assess the land adequacy in terms of dimension, safety, density criteria, immediate environment, risks, etc.</li> <li>– Produce a preliminary masterplan (or zoning plan) proposing a possible scenario for the site organization.</li> <li>– Identify additional studies required before the design phase.</li> <li>– Rapid market analysis to suggest the most appropriate implementing strategy D+C+S, DS+C, DC+S (see Annex).</li> <li>– Establish a cost-estimate based on reference-costs (<math>\pm 25\%</math>).</li> </ul>	<input checked="" type="checkbox"/> <i>Review or prepare ToR</i> <input checked="" type="checkbox"/> <i>Review product</i> <input type="checkbox"/> <i>Assist or execute the task</i>
	1.6 Implementation strategy	The project delivery method (D+C+S, DS+C, DC+S) depends primarily on the project objectives (see annex). But the decision must be balanced by the rapid market analysis carried out in the feasibility study.	<input checked="" type="checkbox"/> <i>Advice</i>

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Phases	Recommended outputs	Brief description and point of attention	EGC support
<b>2 PRELIMINARY STUDIES</b>			
<p><i>At this stage, the executing partner will prepare the Terms of Reference for the design. Depending on the project/context, the outputs can be done either before the recruitment of a design firm or integrated in the mandate of the design firm.</i></p>	2.1 Preliminary masterplan validation	Before starting the preliminary studies, it is recommended to have an acknowledgement or validation of the conclusion of the preliminary study, and in particular the preliminary masterplan by the Client/Owner.	<input type="checkbox"/> Advice
	2.2 User and community information	It is important to have regular meetings with the community to follow-up on measures proposed by the ESMP and to inform of the next steps.	<input type="checkbox"/> Advice
	2.3 Structural evaluation	In case of a rehabilitation or reuse of an existing building, a structural assessment of the existing building must be done, to assess the possible reinforcement measures required.	<input checked="" type="checkbox"/> Review or prepare ToR <input checked="" type="checkbox"/> Review product <input type="checkbox"/> Assist or execute the task
	2.4 Topographical survey	If not done previously at the feasibility study stage. This is a quite standard work done by a geometer that doesn't need specific technical input.	<input type="checkbox"/> Review product
	2.5 Geotechnical survey	This will assess the soil condition and its load-bearing capacity, that will inform the structural design. Normally, local regulations request that this study be done by authorized firms and laboratories. This is also a quite standard work that doesn't need specific technical input.	<input type="checkbox"/> Review product
<b>3 PROJECT DESIGN</b>			
<p><i>At this stage, the executing partner will hire a design firm to elaborate the final project design. Here, we need to verify if the design is in adequation with the feasibility study and preliminary masterplan. And, if technical documents are complete for the tender process.</i></p>	3.1 User and community information	It is important to have regular meetings with the community to follow-up on measures proposed by the ESMP and to inform of the next steps.	<input type="checkbox"/> Advice
	3.2 Procurement	Usually, the donor doesn't interfere in tender processes. However, it is recommended that the donor review the tender documents and selection criteria to ensure that the process targets adequate design firms, in line with the qualitative objectives of the project. A short-listing of firm through an Expression of Interest procedure (EoI) is recommended. Firms' application must also contain a portfolio of executed project design.	<input checked="" type="checkbox"/> Review or prepare ToR

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<i>Phases</i>	<i>Recommended outputs</i>	<i>Brief description and point of attention</i>	<i>EGC support</i>
	3.3 Preliminary project design	It is important that a preliminary review occurs at an early stage of the mandate to correct and adjust the design. Here, the donor can verify the compliance of the design with the feasibility study and the norms. Special attention must be given to i) the site organization (density, build area vs green areas); the structural concept; ii) fire-safety norms concept (escape routes, outside areas, etc.); the materials intended to be used.	<input checked="" type="checkbox"/> <i>Review product</i>
	3.3 Final project design	The final project design is a complete set of plans and details (at appropriate scales) allowing a contractor to precisely quote and execute the works. The review will focus on ensuring that the set of documents is complete and that no other design issues remain.	<input checked="" type="checkbox"/> <i>Review product</i>
	3.4 Chronograms and Bill of Quantities (BoQ).	The chronogram and BoQ are required documents for the request of bids. Here also, it's important to verify that the BoQ includes all the planned works, and related chronogram, since these will serve as guiding document during the execution of works.	<input checked="" type="checkbox"/> <i>Review product</i>
	3.5 Confidential quotation	Based on the BoQ, it's recommended that the design firm elaborates a confidential quotation that will serve as a basis to evaluate the bidder's financial offer.	<input type="checkbox"/> <i>Advice</i>
<b>4 EXECUTION OF WORKS</b>			
<i>At this stage, the executing partner will hire the construction firm that will execute the works. Usually, the construction firm will be a general contractor executing all infrastructure related works.</i>	4.1 Contract size and allotting	In case of multiple projects, the allotting, size, and volume of contract are key and needs to be based on the rapid market analysis, experience and lessons learnt. Large size contracts targeting international firms might be a risky approach in fragile context.	<input checked="" type="checkbox"/> <i>Advice</i>
	4.2 Procurement	Usually, the donor doesn't interfere in tender processes. However, it is recommended that the donor reviews the tender documents and selection criteria to ensure that the tender process targets adequate construction firms, in line with the qualitative objectives of the project.	<input checked="" type="checkbox"/> <i>Review ToR and tender documents</i>
	4.3 Bids analysis	Usually, the donor doesn't interfere in the evaluation of the bids, which is done by a committee designated by the executing partner. However, it is	<input type="checkbox"/> <i>Review the evaluation report</i>



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<i>Phases</i>	<i>Recommended outputs</i>	<i>Brief description and point of attention</i>	<i>EGC support</i>
		recommended that the donor review the evaluation report done by the committee. A special attention must be given on the coherence of the chronogram and the proposed methodology to execute the works. And also, on how the contractors understands the social and environmental context, and the level of inclusion of the user/community in the construction phase.	
	4.4 Contracting	Before contracting the firm, it is recommended to ask the supervision firm that will be hired to supervise the works (see chapter 6) to revise the technical documents, plans, etc. with a special attention to the chronograms and the sequence of payments.	<input checked="" type="checkbox"/> <i>Advice</i>
	4.5 User and community information	It is important to have regular meetings with the community to follow-up on measures proposed by the ESMP and to inform of the next steps. The contactors must be represented in these meetings.	<input type="checkbox"/> <i>Advice</i>
<b>5 SUPERVISION OF WORKS</b>			
<i>The supervision of works by an external entity, other than the construction firm, is a highly recommended practice for any construction project. According to project's size and complexity, this supervision can be done by the design firm, through a "design and supervision" mandate, or by a specialized supervision firm, through a "supervision of works" mandate.</i>	5.1 Procurement	Usually, the donor doesn't interfere in the tender processes. As for the project design, it is however recommended that the donor review the tender documents and selection criteria to ensure that the process targets adequate supervision firms, in line with the qualitative objectives of the project. A short-listing of firm through an Expression of Interest procedure (Eol) is recommended.	<input checked="" type="checkbox"/> <i>Review or prepare ToR</i>
	5.2 Supervision protocol	The supervision firm must provide a supervision protocol before the beginning of its supervision mission. Special attention must be given on the organization of the weekly meetings and progress reporting tools. The executing partner must participate to the weekly meeting. The protocol must also consider the level and condition of possible involvement of the user/community in the supervision process. A participation in the weekly meeting can also be considered.	<input checked="" type="checkbox"/> <i>Review product</i>
	5.3 Supervision reports	It is important that the supervision reports are stored by the execution partner and shared with the donor for information.	<input checked="" type="checkbox"/> <i>Review reports upon request</i>

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<i>Phases</i>	<i>Recommended outputs</i>	<i>Brief description and point of attention</i>	<i>EGC support</i>
	5.4 Preliminary reception of works	The preliminary reception of works is normally the last quality control of contractor's work. It leads to a series of reservations to be addressed by the contractors before the building will be ready to be used. The participation of the user/community in this preliminary reception is recommended.	<input type="checkbox"/> <i>Advice</i> <input type="checkbox"/> <i>On site mission</i>
<b>6 CLOSURE &amp; MAINTENANCE</b>			
<i>Once the works on site are completed, the project is not officially closed. There are several outputs that still need to be produced and follow-up by the project until the end of the liability period.</i>	6.1 Liability period	Execution defects can still be notified to the contractor and repaired during the liability period which is usually set between 6 and 12 months. This means that the executing unit and the user/community still need to ensure a monitoring of the building during this period.	<input type="checkbox"/> <i>Advice</i>
	6.2 Maintenance plan	Before the closure of the project, the contractor must elaborate a maintenance plan for the building and its equipment.	<input type="checkbox"/> <i>Review product</i>
	6.3 As-build drawings	As-build drawings is a full set of plans updated with all modification/changes that occurred during the construction. The contractors must produce as-build drawings before the closure of the project.	
	6.4 Final reception of works	The final reception of works, and the symbolic hand-over of the "keys", occurs at the end of the liability period and after all defect notifications have been repaired by the contractors. This means that the responsibility of the building and equipment are also handed over to the Client/owner and that the contractor is released from any damage or "visible defects". However, the contractor remains responsible for "hidden defects" for a period which stated in the contract, usually 10 years. The participation of the user/community in the final reception is also recommended.	<input type="checkbox"/> <i>Advice</i>
	6.5 Final report and factsheet	At the end of the project, a final report and/or a factsheet summarizing the project with the project's technical data (duration, m2, costs, etc.), are important documents for the SDC. The EGC produces factsheet that are accessible online for knowledge management purpose.	<input checked="" type="checkbox"/> <i>Review product</i> <input type="checkbox"/> <i>Assist or execute the task</i> <input checked="" type="checkbox"/> <i>Publish product in EGC webpage.</i>

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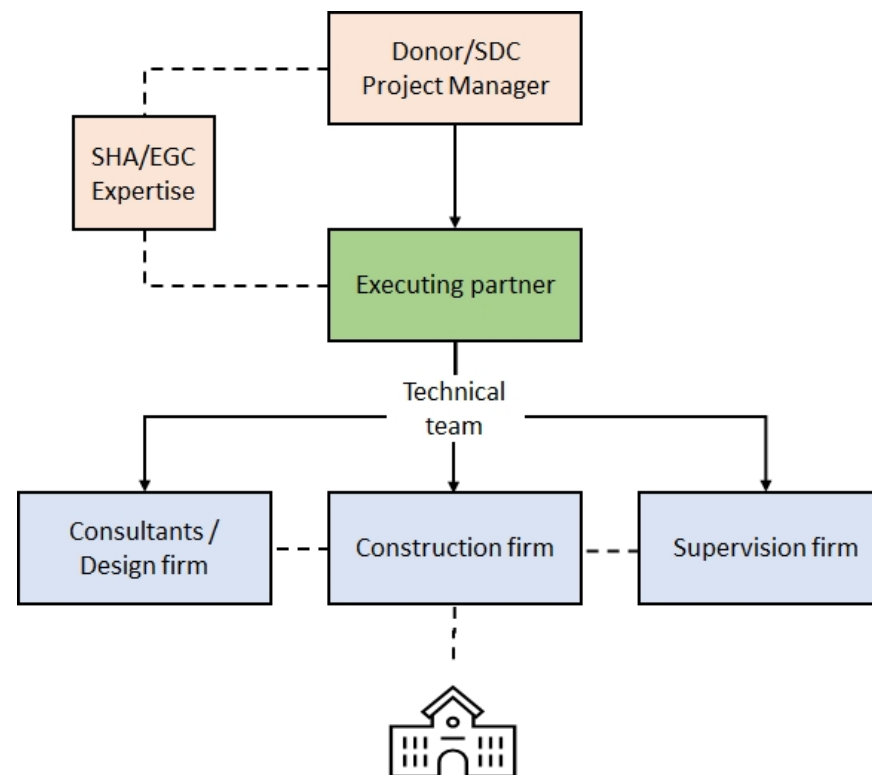
<i>Phases</i>	<i>Recommended outputs</i>	<i>Brief description and point of attention</i>	<i>EGC support</i>
<b>7 FURNITURE AND EQUIPEMENT</b>			
<i>The furniture and equipment are part of an infrastructure project and need to be included in the initial planning. Supply of furniture and equipment must be carefully coordinated with the completion of works on site.</i>	7.1 Description of needs	Specification of furniture and equipment must be done by a specialist (pedagogue in the case of a school, trainers in the case of a VET, medical expert in the case of a hospital, etc.). However, the selection and installation of furniture and equipment need to be coordinated with the infrastructure design and works.	<input type="checkbox"/> <i>Advice</i> <input type="checkbox"/> <i>Support upon needs</i>
	7.2 Supply strategy	The purchase and supply of furniture and equipment must be carefully coordinated with the completion of works on site. Furniture and equipment that are produced or purchased before the completion of works, might face a storage problem in case of construction delays. This risk must be taken into account by a clause ensuring that the supplier bears the responsibility of the storage until the finalization of the works. For specific equipment, such as machines, etc. it's recommended to include in the contract the testing of the equipment and the training of trainees.	<input type="checkbox"/> <i>Advice</i>
	7.3 Procurement	Same as above	<input type="checkbox"/> <i>Advice</i>
	7.4 Reception of equipment	The reception of furniture and equipment on site must be done only when the premises can be secured by the Client/owner. It is also important that the equipment and premises are used as soon as possible after the installation to avoid risks related to unused premises (deterioration, lootings, etc.).	<input type="checkbox"/> <i>Advice</i>

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### Chart

Suggested structure to manage permanent infrastructure projects implemented by a third party

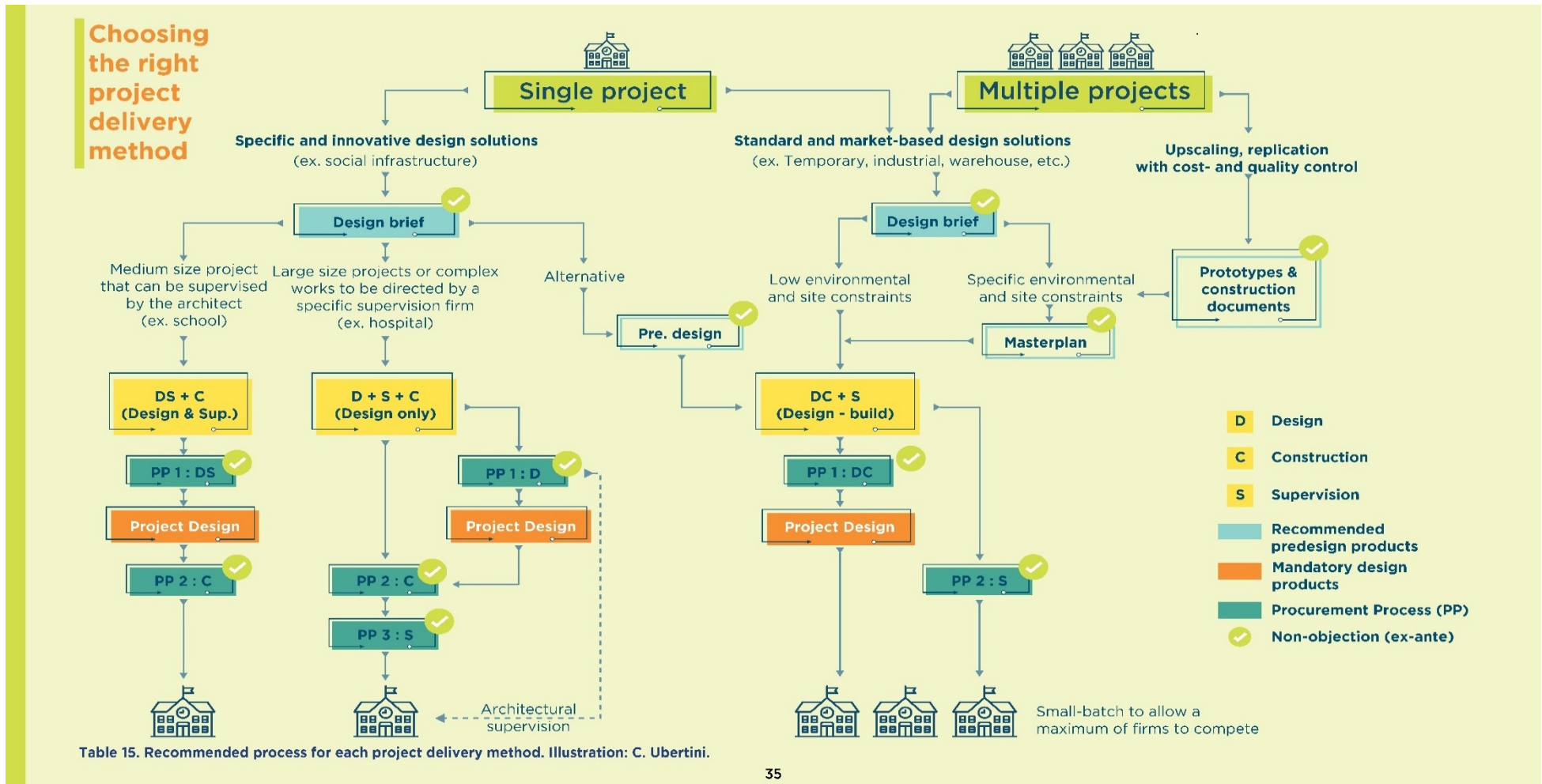


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## ANNEX – Project delivery methods

Source: IADB 2021. 10 years school construction in Haiti. Technical learnings from a multiple construction program. Christian Ubertini (IDB)



## Annex 2: What other donors do

Information on other donors' approaches, rules and regulations is hardly publicly available. The donors do not have clear and strict guidelines that regulate such cases. They rather seem to decide on a case-by-case basis, usually based on feasibility studies. Only procurement procedures seem to be strictly prescribed and controlled.

Amongst the institutions contacted in the framework of this assignment, KfW Development Bank (KfW) is the only donor that has elaborated explicit criteria for financing of infrastructure and equipment in VET projects, and therefore merits special attention in this chapter.

**KfW** is the German government's institution for financial cooperation with partner countries in development cooperation. KfW provides loans at favourable conditions and sometimes also donations for infrastructure investments in different sectors. VET is an important and growing part of KfW's portfolio. Since financing of infrastructure and equipment is at the core of KfW's mandate and activities, the question for KfW is not whether, but rather under which conditions and how this should be done. KfW does not have specific regulations for infrastructure and equipment financing but [guidelines](#) for the promotion of vocational training and employment.<sup>11</sup> These guidelines also refer to criteria for financial support of training institutions, which usually includes (co-)financing of infrastructure and equipment.<sup>12</sup> The main criteria are:

- Relevance of the training courses, i.e., the training offer of the institution to be supported with infrastructure and equipment should respond to the demand of the labour-market
- Quality of the training courses
- Accessibility for different target groups
- Pro-active management of the institution
- Financial sustainability in terms of sufficient available budget for operation and maintenance of premises and equipment.

Funding decisions are usually based on results of feasibility studies that assess, amongst others, the above criteria, or follow a tender procedure in the partner country. In many cases, however, the institutions selected for funding do not or not completely meet all the above criteria from the beginning. Therefore, KfW programs usually include technical assistance provided by specialized international consultants. This refers in particular to quality (labour-market

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<sup>11</sup> [Ansätze zur Förderung von Berufsbildung und Beschäftigung – Leitfaden für Vorhaben der Finanziellen Zusammenarbeit](#), Frankfurt 2018.

<sup>12</sup> See above, page 40 – 46.

orientation, practical training), management issues, and accessibility for specific target groups. For KfW, the training of trainers and management of the supported institutions is of particular importance and should either be part of the KfW program package or provided in collaboration with a technical cooperation component implemented by GIZ.

Besides KfW, the following institutions/donors were analysed.

**SECO** engages at the level of higher VET and targets middle-income priority countries. SECO does not finance infrastructure and equipment in VET but focuses on technical assistance in VET projects to reduce the skills gaps and create jobs.<sup>13</sup> Co-investment by the government, businesses or other partners are a pre-condition to show their commitment and can include the financing of infrastructures. By way of example, in Indonesia<sup>14</sup>, infrastructure and equipment must be provided by the national partners. Beyond VET, SECO engages in investments in infrastructure and equipment, e.g., in its priority *Urban development and infrastructure services*.<sup>15</sup> In North Macedonia, the Embassy increasingly pairs SECO investments (in areas beyond VET, e.g., wastewater treatment) with contributions from other partners.<sup>16</sup>

**Financial Mechanism Office (FMO):** The FMO was established by the Norwegian, Iceland and Liechtenstein governments to administer their joint programmes to support the cohesion process of the new EU member states. The FMO portfolio covers sectors like environment and climate protection, energy, health, cultural heritage, justice, education, and social inclusion. The focus of the education programmes is mainly on early and primary education; programmes and projects in the field of VET are a rare exception. Financing of infrastructure and/or equipment (so-called hard measures) are a common feature of many FMO programmes in the above-mentioned sectors. Nonetheless, there is no clear definition nor internal regulations guiding such investments: *“Actually, it is a very good question. Some programme areas in the Blue book and MoUs contain limitations (percentages) on the amount of eligible expenditure that can be allocated to hard measures. These limitations are normally incorporated in the programme agreements but we do not have a formal definition of infrastructure or hard measure at the FMO. This question was brought to the Programme Committee a couple of years ago and it was concluded that hard measures should be analysed on a case-by-case basis. In some countries they have definitions of hard measures in the national law that can be applied to our grants but*

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<sup>13</sup> SECO, [Skills Development in Economic Development Cooperation](#), position paper. The terms infrastructure and equipment do not appear in SECO's position paper

<sup>14</sup> Interview with Hugo Sager.

<sup>15</sup> <https://www.seco-cooperation.admin.ch/secocoop/en/home/themes/markets-and-opportunities/urban-development.html>

<sup>16</sup> Interview with Aneta Damjanovska.

*it is not always the case.*<sup>17</sup> The limitations for financing of hard measures, however, could be rather high, i.e., 70% of the programme in the justice sector in Bulgaria.

**GIZ:** Financing of infrastructure and equipment within GIZ projects is performed under several key rules describing principles, methods, steps, evaluation options, risk analysis. SDC Moldova shared a short information about GIZ regulations regarding procurement of goods, which can be forwarded if requested.

**EU:** The EU supports economic and social cohesion of its member states with huge amounts that are mainly channelled through the European Social Fund (ESF) and the European Regional Development Fund (ERDF). VET is a cornerstone of the programs and activities financed under the ESF. ESF resources can only be used for training and related measures<sup>18</sup> whereas the ERDF allows the use of its funds for infrastructure investments to contribute to “*a more social and inclusive Europe implementing the European Pillar of Social Rights by:*

*(i) enhancing the effectiveness and inclusiveness of labour markets and access to quality employment through developing **social infrastructure** and promoting social economy;*

*(ii) improving equal access to inclusive and quality services in education, training and lifelong learning through developing **accessible infrastructure**, including by fostering resilience for distance and on-line education and training;”*

All financial support provided by the funds has to respect the general principles of subsidiarity and proportionality set out in the Treaty of the European Union as well as the Charter of Fundamental Rights of the EU. Furthermore, all funding under ESF and ERDF has to be in line with overarching program objectives (POs). The relevant PO for VET investments is PO 4 “strengthening of the social pillar of the European Union”. In addition, there is a number of other cross-cutting criteria for funding. The most relevant in the field of VET are the following:

- Contribution to the creation of quality jobs, eradication of poverty, and promotion of social inclusion
- Promotion of equality between men and women and integration of a gender perspective
- Combating discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation
- Funds should not support actions that contribute to any form of segregation or exclusion
- Financing of **infrastructure** should ensure accessibility for persons with disabilities.

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<sup>17</sup> Copied from an Email of FMO to INBAS in response to the question whether or not FMO has internal guidelines for investments in infrastructure and/ or equipment.

<sup>18</sup> See Art 14.1 (a) of the new ESF regulation.



- Consideration of the Union's aims in the fields of environmental protection and tackling climate change
- Integrity of the internal market
- Partnership, i.e., the involvement of different levels of governance, civil society, economic and social partners

Funding is usually granted as co-financing.

There are no specific regulations for infrastructure investments or purchase of equipment apart from the above-mentioned general criteria for the fund operations. But it goes without saying that in all cases public procurement rules and regulations have to be strictly adhered to.

**Inter-American Development Bank (IDB):** The IDB is not a donor but a development bank that usually provides loans to beneficiary countries. The IDB has created in 2017, a technical unit called "social infrastructure unit (SIU)", composed by architects and engineers, providing technical support to the planning and implementation of infrastructure projects financed by the IDB.

Donations are a rare exception (Haiti, for example, received some donations). IDB finances training infrastructure and equipment in the framework of three program areas: education, labour market, competitiveness. Investments in infrastructure and equipment are seen as a means to an end, i.e., they have to contribute to a higher objective, usually improvement of services. Key criteria for approval of infrastructure investments are ownership of the partner institutions and their sustainability, i.e., likeliness that the infrastructure will be operated and maintained adequately by the recipients. It is therefore important to get all relevant stakeholders as well as the users, i.e., trainees, students, parents, involved from the beginning, i.e., already at planning stage. Thorough preparation is also important to avoid problems during implementation. IDB sometimes promoted new and innovative approaches, which were later not accepted by the local partners; there is sometimes resistance to change that could entail delays in implementation. This has to be considered at planning stage. Implementation of IDB-projects usually comprises a time span of 6 – 7 years. During such a period, changes of government are not unusual in Latin America, which sometimes has a negative impact on project implementation. Furthermore, high inflation could generate significantly higher costs than originally envisaged and planned for. IDB therefore usually includes a contingency budget of 20% in its calculations. To minimize risks, the early involvement of stakeholders and users is decisive as well as a thorough preparation to check the capacities of the partner institutions, make sure that an adequate plot of land is available and the legal prerequisites for construction are assured. To avoid misuse of the funds, IDB has clear internal regulations, specialized

auditors and provides the partner institutions at the beginning of any project an operational manual that transparently explains how the funds have to be managed and which expenses are eligible for funding and which not. This manual also strictly regulates procurement procedures. Furthermore, the loan agreements foresee the employment of an external supervisor. Maintenance is decisive for the sustainability of infrastructure investments and usually a big problem in Latin America. It needs to be considered from the start both in terms of budget and human resources (capacity building) IDB works almost exclusively with the public sector. But private enterprises play an important role as deliverer of services and goods for the implementation. IDB sometimes mandates consultants, NGOs or SCOs with the implementation of projects. The advantage is that such institutions often have more expertise and work more efficiently. The downside of this approach are the higher costs – these institutions want to generate a margin – and the lower level of ownership by the public sector that will then be in charge of operation.

**Liechtensteinischer Entwicklungsdienst (LED)** does not have a guideline on infrastructure and equipment investment at institutional level but follows a case-by-case policy, i.e., projects have and follow a policy, agreed upon between the implementing agency, the coordination office, and the LED head office.<sup>19</sup> The following three examples of LED projects, all implemented in Moldova, illustrate the LED approach and experiences regarding infrastructure and equipment investment.<sup>20</sup>

#### **Infrastructure and Equipment in three LED-funded VET projects in Moldova**

In the first phase of **CONSEPT**, the project invested funds in 14 VET schools – between 25,000 and 40,000 Euro/school – to procure equipment and consumables for 1-3 occupations in each school in order to ensure the regular implementation of practical training, and it has also channelled resources into infrastructure upgrading if and when this was a prerequisite to well-functioning of the workshops. CONSEPT delegated the purchase to VET schools and oversaw the process with procurement regulations that the schools had to follow. The evaluators identified this empowerment and ownership building by entrusting schools with equipment procurement as a good practice. Some years later, LED stopped supporting VET schools' workshops with equipment because they realized this approach had a number of

<sup>19</sup> Written information by Pius Frick, LED [14.12.2021]

<sup>20</sup> MEEETA and CREATIVO projects discussed in the interview with Cristina Cojocaru-Parsons (SDC). SDC and LED Moldova furthermore shared additional information in form of emails and external evaluation reports of CONSEPT and MEETA. Additionally, there was an interview with Olga Şuleanschi of the implementing partner CEDA.

important cleavages that prevented a consistent long-term positive impact on the VET system: VET schools often lacked the capacity to decide wisely and cost-effectively about investment in equipment. They often chose expensive equipment and realized later it was costly to maintain, and sometimes they lacked knowledge among teachers on using it. The equipment in a few cases was rarely used. In the current phase (phase 4) the project provides support to purchase of digital equipment but at much lower cost and scale, as recommended in the evaluation report. A key lesson learnt of LED was that through the initial approach they were somewhat dis-incentivizing VET schools' engagement and cooperation with the private sector (incl. in dual).

The **Moldovan Employment and Entrepreneurship Education and Training Activity (MEEETA)** project, implemented by CEDA, supported VET graduates who had expressed a potential for self-employment with grants for buying equipment between 2011 and 2019. These grants were on average 1300 EUR, the beneficiaries needed to co-fund them by 10%, and the ownership of the equipment was transferred after 6 months. By March 2020, out of the 320 VET graduates, 70% of the VET graduates were still active with their business and used the equipment they had purchased with the grant. Reasons for this success are: 1) close monitoring by the project (follow-up every three months) that made the VET graduates very aware of the grants they had received; 2) offer by the project to link VET graduates with coaches/experts for any type of question, and 3) annual forums for entrepreneurs that allowed sharing products and knowledge.

The successor project of MEEETA is **CREATIVO**, which started in 2020 and is co-funded by SDC. The experiences of the MEEETA project showed that it was necessary to work on the entrepreneurial side of VET students even more during the VET education. CREATIVO will provide grants to VET schools to initiate site-based entrepreneurial activities with the participation of their students. The selected VET schools will be able to purchase equipment up to 15,000 EUR per VET school. In Moldova, there have been recent changes in VET finance governance, which implies that the institutions are not solely state-financed anymore and need to generate income. In addition to the grant, the project will work with the selected VET schools on their business plan (adjust products, focused marketing), train them on business plan components, support them in adjusting their internal regulations to improve their self-management and build up a team who will be capable to run the VET school from a business perspective.

## Annex 3: What SDC projects do – Lessons Learnt

This chapter summarizes experience gained in SDC projects in the Western Balkans (Albania, Kosovo, North Macedonia), Eurasia (Georgia, Moldova, Ukraine), EU member states (Bulgaria, Croatia, Poland), Africa (Rwanda), Asia (Sri Lanka), and Latin America (Haiti). These projects have been implemented either within the framework credit for transition cooperation (Western Balkans and Eurasia), the enlargement contribution (EU member states), bilateral development cooperation (Rwanda) or humanitarian aid (Haiti, Sri Lanka). Lessons learnt from projects in Jordan and Lebanon were also taken into consideration. All interviewed SDC projects have invested in equipment, though to a very different extent, and few interviewed SDC projects have invested in infrastructure. Regarding the latter, SDC hardly finances infrastructure in the EU and EU accession context<sup>21</sup> while in the South Cooperation, infrastructure financing is more common depending on the context and requests of the partner countries. In the humanitarian aid, the context and needs are again different, and the interviewed projects concerned education in the wider sense beyond VET.

**Observation 1:** SDC follows a context-specific and very flexible approach when it comes to financing infrastructure and equipment. However, the process has to be in line with SDC's guidelines, cf. Annex 1.

**Observation 2:** SDC is committed to quality in its interventions in VET, which requires appropriate premises and equipment. Ensuring quality is one of the prime reasons why SDC decides to invest in infrastructure and/or equipment. Updated curricula and learning/teaching material do not lead to quality VET and ultimately increased employability if the equipment is missing or outdated. In many projects, the equipment investments were necessary to achieve the objectives and indicators of the logical framework. The infrastructure and equipment were a precondition for quality training and for attracting companies, parents, and students, and crucial to make VET more attractive and promote work-based learning (e.g. Rwanda). New/updated occupations but also new environmental standards demand new equipment. Another reason to invest is to ease accessibility for special groups (e.g., persons with disabilities in North Macedonia) or in terms of remoteness, e.g., dormitories in training centres allowing pupils to stay at the training site (Rwanda) or ensuring quality standards also in remote regions (Transnistria in Moldova).

**Observation 3:** SDC aims to align its investments with other donors and tries to find its area of influence. In the EU / EU accession context, SDC hardly invests in infrastructure as there are

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<sup>21</sup> There are also exceptions to this observation. In Poland, the Swiss contribution co-financed the "Vocational Activation Center" and a completely new, multi-professional educational institution

other partners who have a mandate and a clear policy for it.<sup>22</sup> In Albania, by way of example, SDC has an agreement with the EU that infrastructure investments in education are financed in the framework of the EU IPA program whereas SDC focuses on soft support and restricts investments in VET to equipment. In Croatia, the SDC VET project supported the modernization of occupations and invested in respective school workshops, tools, and IT equipment, in occupational fields that were not covered by the EU projects. However, some of the selected occupations only needed a limited number of skilled graduates. Hence, while complementarity to EU efforts is a must, labour market relevance remains key. In North Macedonia, the subcontractor of the project supported the Ministry in preparing tender documents for the reconstruction of the buildings of the Regional VET centres (centres of excellence) currently planned in the scope of the EU IPA program, besides the project's general collaboration in the setting-up of these centres (e.g. link to private sector). In many countries of the South Cooperation, Development banks, by providing credits for infrastructure, play a similar role for SDC to the one of the EU described above.. In Sri Lanka, SDC collaborated with UN Habitat and aligned the work through regular coordination meetings and technical workshops.

**Observation 4:** The question of investments in infrastructure and equipment is directly linked to the VET governance of the country. Several interview partners stressed that it was crucial that e.g. municipality/district levels had the autonomy to include budgets for maintenance of the schools (e.g. Poland, Kosovo) and that VET schools had budget autonomy. To be able to keep income generated through additional revenue streams - such as renting workshops or offering commercial adult education courses - and to use it, for instance, for upgrading equipment, is an important incentive for VET schools (e.g., Ukraine, Moldova).<sup>23</sup>

**Observation 5:** From a systemic perspective, isolated investments in infrastructure and equipment do not make sense. They must be embedded strategically and go hand in hand with additional support / accompanying measures to ensure the sustainability of the investment (understand the framework, complement infrastructure, find solutions to cover the running costs). Therefore, it is crucial to conduct feasibility studies at an early stage. In Sri Lanka, building of the schools and kindergartens went together with technical assistance (e.g., school concepts, capacity building of local government). The interview partners unanimously praise SDC's strength in soft components (technical expertise, capacity building), and willingness to adding value to the system and scaling-up.

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<sup>22</sup> Lately in the form of setting-up VET centres of excellence. There are also exceptions to this observation. In Poland, the Swiss contribution co-financed the "Vocational Activation Center" and a completely new, multi-professional educational institution.

<sup>23</sup> The Discussion Note by the DCdVET "[Companies Engaging in Dual VET: Do Financial Incentives Matter?](#)" sheds light on different financial mechanisms and how incentives for public and private actors matter.

**Observation 6:** Investments allow buy-in of other actors. In Rwanda, the investments allowed entering a discussion at national level and opened a platform to involve all stakeholders (leverage), while serving as an entry point to get the businesses engaged for an apprenticeship scheme. In Kosovo, SDC supported companies in setting up their training centres as a joint investment with effects for the national VSD system in Kosovo.

**Observation 7:** While investments are considered as incentives for actors, incl. the private sector, to get engaged in VET, partners' commitment is key, too. In Bulgaria, the government has shown its willingness to reform in phase 1 of an SDC project, which might now make investments in phase 2 possible. In Kosovo, SDC pushes the private sector to invest first before SDC finances. In Georgia and the Ukraine, VET schools had to prove their maintenance capacities to get selected as partner schools and receive equipment. In the Ukraine, the lack of skilled plumbers has hampered growth of the sector and of Geberit Ukraine, one of the leading companies in the sector. In parallel to the collaboration with the six VET schools in phase 1, for which Geberit Ukraine funded the equipment, the Ukrainian State started copy-pasting the model and requested a second phase of the project. This resulted in a tripartite partnership between Geberit Ukraine, the Ministry of Education and SDC and the pleasant surprise to be able to increase the outreach from 6 to 25 VET schools.

**Observation 8:** In line with chapter 2, there are risks attached to infrastructure investments and equipment investments. In addition to LED's experiences in Moldova (see chapter 3), in Kosovo, a private partner did not accomplish with its promised contribution. In Croatia, differing views of SDC, the Ministry and the schools on what and how much to finance led to long discussions. The project also faced the challenge that public procurement took very long, resulting in delayed purchase of the equipment in the late stage of the project. Risks associated with public procurement processes, e.g., delays and low quality, are also reported in other countries. In Poland, the change in the currency exchange rate was a major challenge for the agreed investments, which forced the Polish partners to access additional funds and the municipality to issue municipal bonds.

**Observation 9:** Quality matters in infrastructure investment and pays off, also in fragile contexts (Haiti, Rwanda, Sri Lanka). The planning and design phase (e.g., feasibility study, developing the design before contracting the construction company, detailed tender documents) is crucial. Investing resources before the construction starts, pays off later in form of quality and sustainable solutions. The feasibility study (Design Brief) is a crucial document to ensure adequate size and standards of infrastructure and therefore should become a compulsory

document to be elaborated prior to invest in any major construction project.<sup>24</sup>

**Observation 10:** The interview partners shared numerous recommendations on how to ensure that the investments contribute to the overall objective and are sustainable, the most important being:

- Support to VET actors (Ministry, schools, etc.) in understanding how to access funds for infrastructure and equipment / different modalities, e.g., private sector helps renovating.
- It is important to be transparent, consistent, and fair when it comes to selecting partners (e.g., schools, centres) and approving or rejecting funding requests of partners (e.g. criteria by the project steering committee in Albania; construction council in Poland).
- Investments in equipment must be combined with capacity building of the recipients (e.g., business plan, maintenance).
- The school or training center management is decisive for well managed and maintained investments. They must include maintenance expenses in their yearly budget plans and make sure that spare parts are available locally. Refurbishment can be done by graduates.
- Flexibility is important, i.e., the management should dispose of a budget for investment that can be used flexibly according to demand.
- A basic principle is to distinguish between one-time costs and recurrent costs and to restrict SDC contributions to one-time investments.
- For co-financing, agreements/contracts are key, which necessitates good negotiation skills from the project staff.
- Be ready to invest in resources (such as good architects, monitoring, supervision) and to pay a higher price for quality inputs.
- Invest, whenever appropriate, in multi-purpose infrastructure in fragile contexts.

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<sup>24</sup> The Inter-American Development Bank published the publication by Christian Ubertini with technical learnings on 10 years school construction in Haiti in December 2021. The publication is a wealth of learnings and helpful illustrations for future constructions. <https://publications.iadb.org/publications/english/document/10-Years-School-Construction-in-Haiti-Technical-Learnings-from-a-Multiple-Construction-Program.pdf>

## Annex 4: List of interviews

Name	Institution	Focus of interview	Date of the interview
Mirosław Bartyzel	Małopolska Tourism Organization	Poland	22.03.2021
Alexandre Boin	Swisscontact	Rwanda	12.11.2021
Martin Bölsterli	Swiss Humanitarian Aid Unit of the SDC	Global	02.12.2021
Stefan Butscher	Swiss Cooperation Office Moldova	Overall experiences	26.03.2021
Lars Büchler	SDC	Sri Lanka	15.12.2021
Cristina Cojocaru-Parsons	Swiss Cooperation Office Moldova	Moldova	17.03.2021
Wilhelm Dalaison	Inter-American Development Bank	Financing of social infrastructure project	09.12.2021
Aneta Damjanovska	Swiss Cooperation Office North Macedonia	North Macedonia	25.03.2021
Piotr Domagała	Town of Zator	Poland	22.03.2021
Fation Dragoshi	Swisscontact	Albania	01.04.2021
Joanna Jakubowska-Łazęcka	Małopolska Regional Development Agency	Poland	22.03.2021
Debora Kern	SDC Bern	Croatia	12.03.2021
Arjeta Lleshi	Swiss Cooperation Office Kosovo	Kosovo	26.03.2021
Daniel Markowicz	Powiat (district) office of Gorlice	Poland	22.03.2021
Antonio Matković	Institute for Labour Market Development	Croatia	25.03.2021
Silvana Mjeda	Swiss Cooperation Office Albania	Albania	01.04.2021
Iwona Mrozowska-Struk	Iwona Mrozowska-Struk	Poland	22.03.2021
André Pantzer	SECO	SECO	12.03.2021, 14.12.2021
Poland Louis Python	Swiss Cooperation Office Romania	Bulgaria	09.03.2021
Viktor Shutkevych	Swiss Cooperation Office Ukraine	Ukraine	09.03.2021



Olga Șuleanschi	CEDA	Moldova	14.05.2021
Martin Roch	SDC South Caucasus Desk	South Caucasus, Moldova	15.03.2021, 17.03.2021, 26.03.2021
Hugo Sager	Consultant	Overall experiences, Indonesia	15.03.2021
Beka Tagauri	Swiss Cooperation Office Georgia	Georgia	15.03.2021
Katarzyna Jadwiga Templin-Ukleja	Embassy of Switzerland in Poland	Poland	22.03.2021
Christian Ubertini	Architect, Member of the Swiss Humanitarian Aid Unit of the SDC, and consultant for the World bank and Interamerican Development Bank.	Haiti	23.11.2021
Kurt Wüthrich	Helvetas	North Macedonia	25.03.2021
Susanne Zumstein	SDC Bern	Croatia	09.03.2021

## Annex 5: Resources

Ubertini, Christian (2021), 10 years school construction in Haiti: technical learnings from a multiple construction program. Inter-American Development Bank.

<https://publications.iadb.org/publications/english/document/10-Years-School-Construction-in-Haiti-Technical-Learnings-from-a-Multiple-Construction-Program.pdf>

SDC (2016), Operational manual, Guidelines and tools for the implementation of a rehabilitation and reconstruction programme in a post-conflict context based on best practices and lessons learnt in Northern Sri Lanka from 2009-2015

Inter-American Development Bank (2015). Learning in Twenty-First Century Schools: Note 9. Comparative Analysis of School Infrastructure Planning and Management Systems in 12 Countries in Latin America and the Caribbean.

<https://publications.iadb.org/publications/english/document/Learning-in-Twenty-First-Century-Schools-Note-9-Comparative-Analysis-of-School-Infrastructure-Planning-and-Management-Systems-in-12-Countries-in-Latin-America-and-the-Caribbean.pdf>

KfW Entwicklungsbank (2018). Ansätze zur Förderung von Berufsbildung und Beschäftigung, Leitfaden für Vorhaben der Finanziellen Zusammenarbeit. [https://www.kfw-entwicklungsbank.de/PDF/Download-Center/PDF-Dokumente-Brosch%C3%BCren/2018\\_FZ-Leitfaden\\_zweite-%C3%BCberarbeitete-Auflage.pdf](https://www.kfw-entwicklungsbank.de/PDF/Download-Center/PDF-Dokumente-Brosch%C3%BCren/2018_FZ-Leitfaden_zweite-%C3%BCberarbeitete-Auflage.pdf)

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