Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
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INTERNATIONAL COOPERATION

EXTERNAL EVALUATION – SHORT REPORT

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Developing expertise in quality assurance for the export sector II

Country | Region:	Tunisia
Project No.:	2019.2110.5
Period:	08/2020 – 01/2024
Executing Agency:	Ministry of Industry, Mines and Energy (MIME)
Implementing Partner:	Directorate General of Industrial and Technological Infrastructure / MIME; Ministry of Commerce and Export Development; Ministry of Higher Education and Scientific Research; Ministry of Employment and Vocational Training; National Institute of Research and Physical-Chemical Analysis; Central Laboratory for Analysis and Testing; Tunisian Accreditation Council; National Institute for Standardisation and Industrial Property Sectoral Technical Centers; National Agency for Metrology; Tunisian Union of Industry, Commerce and Handicrafts; Confederation of Citizen Enterprises of Tunisia International.
PTB | Section:	Middle East and North Africa
PTB | Project Coordinator:	Anna Schätzlein
Date:	June 2023

List of abbreviations

BMZ	*Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung* German Federal Ministry for Economic Cooperation and Development
EU	European Union
MIME	*Ministère de l'Industrie, des Mines et de l'Energie* Ministry of Industry, Mines and Energy
SME	Small and Medium-sized Enterprise

1. Project Description

The project “Developing expertise in quality assurance for the export sector in Tunisia II” has been implemented with funding from the German Federal Ministry for Economic Cooperation and Development (*Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung*, BMZ) since August 2020. It has a budget of 2.000.000 EUR.

The political partner of the project is the Ministry of Industry, Mines and Energy (*Ministère de l‘Industrie, des Mines et de l’Energie,* MIME). The project has various implementing partners. In addition to MIME, they include other ministries, quality infrastructure organisations in the areas of metrology, standardization, accreditation and testing, educational institutions and private sector associations.

Target group is the Tunisian industry, especially small and medium-sized enterprises (SMEs) that already export or plan to do so.

The project pursues the following objective: “Tunisian businesses have access to qualified technical staff and to quality infrastructure services that are adapted to their needs in order to enhance their products’ competitiveness for export to the European Union.” It operates under four outputs:

Output 1: MIME and the Ministry of Commerce and Export Development (*Ministère du Commerce et du Développement des Exportations, MCDE*) are strengthened in their capacity and competencies to develop technical regulations and manage the quality infrastructure according to EU requirements.

Output 2: Selected quality infrastructure organisations have developed competencies for new services which are needed for exports with regard to product quality.

Output 3: University and vocational training institutions are able to integrate metrology content into their disciplines in a practical way and in line with the needs of SMEs.

Output 4: Export-oriented SMEs are familiar with the quality infrastructure services that exist in Tunisia and their potential effects on increasing competitiveness.

2. Assessment of the project

This evaluation covers the period between the start of the project (August 2020) until the time of the evaluation (May 2023), with a projection of likely results until the end of the implementation period (January 2024). Its objective is to contribute to the project’s accountability towards BMZ as funding party and to facilitate learning from the experiences gained during project implementation. Its results will inform the implementation of the ongoing project and the design of the successor project.

The methods used for conducting this evaluation were a systematic review of project-related documents followed by 12 remote and 15 face-to-face interviews. An online survey was carried out, too. Its target were teachers at universities and vocational training institutes supported under Output 3. Responses were received from 50 out of the 80 recipients of the survey questionnaire.
Overall, the quality of data was very good.

Six criteria defined by the Development Assistance Committee of the Organisation for Economic Co-operation and Development have served as basis for this evaluation:

- Relevance: Is the project doing the right things?
- Coherence: How well does the project fit?
- Effectiveness: Is the project achieving its objectives?
- Impact: What difference does the project make?
- Efficiency: How well are resources being used?
- Sustainability: Will the benefits last?

The following grading scheme has been applied:

1	2	3	4	5	6
very successful	successful	successful to a limited extent	rather unsuccessful	mainly unsuccessful	entirely unsuccessful

Overall, the project was rated as “successful” (1.6).

Relevance

The project has been well aligned to Tunisian policies, for example to its Strategic Development Plan (*Plan Stratégique de Développement*) 2016-2020, and to the goals of German development cooperation.

With its diverse intervention areas and multiple partners, the project is very broad. This project design responds to the interdependencies which exist between the different elements of a quality infrastructure system. Strong partner ownership helped to implement the various activities as did the local and international experts which the project contracted to support implementation.

An impact study, run as randomised control trial, was integrated into Output 4. To comply with scientific standards, the interventions carried out under this output had to fulfil certain requirements, e.g. concerning the number or supported businesses, the timing of interventions and the size of the control group. This reduced the flexibility with which the project could adapt its activities. On the other hand, over the course of the project, the impact study brough important insight which helped to the adapt the interventions to better respond to the needs of companies.

Overall, the relevance of the project is assessed as successful (1.8).

Coherence

There are several projects funded or co-funded by Germany that support aspects related to quality infrastructure in Tunisia (e.g. GIZ EU-co funded project “*Croissance Qualitative pour l’Emploi*”; project on food safety co-implemented by the German Federal Institute for Risk Assessment and the German Federal Office of Consumer Protection and Food Safety; project “Global Alliance for Product Quality” co-implemented by GIZ and PTB). In addition to bilateral exchanges, their representatives have regularly met in the framework of German “round tables” on quality infrastructure. These have been organised approximately every three months with participation of representatives of the German embassy and the EU-Delegation.

MIME has played a very active role in the coordination of its development partners. Out of these, the EU has had the most direct interlinkages with the PTB project through its « *Programme d'appui à la compétitivité et aux exportations* ». PTB has been consulted in the design of this EU project. In turn, EU processes were taken on board in the conception of the PTB project.

The project has fully complemented partners' efforts. This was facilitated by a high degree of partner ownership. In the interviewees, several partners referred to the project as "our project" and seem to regard themselves as the object of this evaluation.

Coherence is assessed as very successful (1.0)
Effectiveness

Outcome indicator	*Assessment and justification*
1. Selected institutions provide 6 additional quality infrastructure services according to international standards for export-related sectors.	New services already introduced: - 1 accreditation service according to ISO/IEC 17065 by the Tunisian Accreditation Council - 1 reference material for chemical metrology (patulin) Additional services to be introduced by 01/2024: - 2 reference materials for chemical metrology (aflotoxin; copper) - several new testing procedures The target is likely to be overachieved (>100%).
2. 400 students/vocational students from at least 6 institutions attend a degree programme or another education programme that includes revised metrology modules with practice elements.	According to a survey carried out in 2022, 590 university students have attended study programmes with improved content on metrology. In addition, the revised metrology module for vocational training on textile has already been taught to 107 students. The target value has already been reached (100%).
3. 35 companies, that participated in support measures of the project, use at least one additional of the already existing quality infrastructure services.	33 companies received co-financing from PTB to implement recommendations from a report prepared as part of individual counselling sessions. If these investments (esp. purchase of software, trainings for certification, equipment) are counted as use of quality infrastructure services, the indicator is achieved by 94% (33 out of 35).

An impressive number of activities has been carried out, most of them successfully. Some external factors had an influence on activities (Covid-19; economic crisis; diverging views among partners on the national metrology system) but did not have a significant negative impact on the achievement of the project's objective.

Excellent quality of project management was essential for the good results. This is also evident from an analysis of **Capacity WORKS** factors:

Strategy: The project's strategy has been fully owned by partners. Its objectives were repeatedly discussed with partners at steering committee meetings. The project team prepared yearly, very detailed monitoring reports for discussion with partners and set up a cloud to make key

documents accessible to all steering committee members. Exchanges were stimulated through the creation of WhatsApp and Facebook groups.

Cooperation: Partners have played an important role in achieving the project's objective. A wide range of partners has been involved, partly from metrology institutions whose role and responsibilities within the national metrology system has not yet been clarified. Through the steering committee, interaction among these institutions was facilitated. While there is still no common vision for the national metrology system, the project succeeded in keeping the channels for dialogue open.

Steering: The steering committee met twice a year. In July 2022, the meeting was held in Germany and combined with a study visit. The exact structure of the steering committee, including the roles of its members, was laid out in a "project charter". Working committees were set up for each output (and partly sub-output) as part of the steering structure. These working committees are tasked with planning and implementing activities. Overall, the steering structure appears fully functional.

Processes: The project team has had an in-depth knowledge of ongoing processes due to the long engagement of PTB in the country. Appropriate processes were established within the project. The two local coordinators (national long-term consultants) were decisive for the excellent partner relations.

Learning and Innovation: Through the development of a capacity development strategy, the project team analysed in detail the learning needs of partners involved in Output 2. The use of this tool for this specific output seems appropriate since Output 2 is the most complex one. Furthermore, it is the output in which the project started to cooperate with new partners whose capacities were yet not fully known. The project has promoted some technical innovations within the partner system (e.g. reference materials for chemical metrology; digitalisation of procedures at the Tunisian Accreditation Council). Yearly monitoring reports prepared for partners have included a section on lessons learned.

All in all, "effectiveness" is assessed as very successful (1.3).

Efficiency

Given its limited budget compared with its many intervention areas and partners, the project had to be very selective when financing equipment or calibrations. Apart from some higher spending on chemical metrology, only a few other pieces of equipment and calibrations were financed, none of them above 8000 EUR at the time of evaluation.

The PTB project team has been small, with one full-time project coordinator and one part-time project assistant. To be able to implement the wide range of activities, several longer-term consultants (2 national and 4 international) were contracted and created the "extended" project team. They played an essential role in ensuring the success of the project.

Some delays were encountered. Partly, they were caused by factors outside the project's sphere of influence (Covid-19, customs procedures for releasing equipment). Partly these delays are internal. The reimbursement of co-financing (Output 4) resulted in considerable work for the administrative staff in Germany. The national long-term consultants could take over such financial or similar administrative tasks only to a very limited extent.

All in all, efficiency receives the assessment “successful” (2.0)

Impact

At the level of direct beneficiaries, some clearly positive impact attributable to the project can be identified. Enterprises now have an increased range of quality infrastructure services at their disposal (new testing methods, reference materials for chemical metrology). In addition, laboratories will soon have improved access to interlaboratory comparisons. More qualified personnel with metrology skills is available, with metrology modules having been introduced in 144 university courses. A private sector representative confirmed in an interview that he had received positive feedback from companies on the improved education programmes.

Through Output 4, capabilities of companies to introduce greener production methods were strengthened. Some of the new testing and calibration services introduced in the laboratories will have a direct positive impact on the environment (e.g. biodegradable plastic bags) or health and food safety (e.g. aflatoxin).

By contrast, the situation of the national metrology system for physical quantities has not improved significantly. There are still no designated laboratories in these areas due to continued institutional competition. While the project did not attempt to have a direct impact in this politically loaded field, this challenge still looms over the Tunisian quality infrastructure system.

The criterion “impact” is assessed as successful (1.75).

Sustainability

To a large extent, beneficiaries seem to have the required resources and willingness to sustain the positive results. The new testing procedures introduced in Output 2 are likely to be in demand. PTB provided only very limited funding for the related equipment. The bulk of investments was made by testing laboratories themselves. These are good signs for the sustainability of these services.

The by far most expensive equipment was purchased for the preparation of reference materials for chemical metrology. The only other African country where these services are currently available is South Africa. For Tunisia it has been a priority to offer these services to its companies locally. If this priority is not matched with financial resources from the responsible ministry, there is a risk that reference materials will not be produced regularly enough. To mitigate this risk, PTB has encouraged its partner to actively search for clients abroad. First discussions have taken place.

Modules on metrology introduced into university and vocational education are likely to remain in place since they became part of official curricula. Moreover, interviewees confirmed that there is demand for students who completed the revised education.

In Output 4, 85 companies received individual counselling, including a written report with recommendations. While for many companies the implementation of these recommendations might currently not be a priority due to the difficult economic situation, this might change once the Tunisian economy recovers. 33 of these companies applied eligibly and received some co-financing for investments. Since the PTB contribution was limited to up to 50%, they had to

contribute a significant amount of their own resources. Moreover, the fact that only investments that were based on the outcomes of the individual counselling sessions were financed increases the probability that these investment decisions were solid.

"Sustainability" is assessed as "successful" (2.0).

3. Learning processes and learning experience

Learning processes have been stimulated effectively through extensive exchanges among partners within the steering committee structures.

The project gathered experiences which are novel for PTB. In Output 4, an impact study has been conducted together with Technical University Berlin and Mediterranean School of Business Tunis. This study constitutes one of the first rigorous impact evaluations using a randomised controlled trial in a German development project in the area of private sector development.

Lessons learned can also be drawn from the digitalisation of procedures of the Tunisian Accreditation Council. Here, the need to re-engineer processes in addition to "only" introducing digital software proved to be important. It also became clear that testing and improving the digital tool takes time.

4. Recommendations

Recommendations to partners:

Continue the dialogue on finding a solution for the development of a sustainable national metrology system in which the responsibilities for physical quantities are clearly assigned. If a solution cannot be found in technical discussions, seek to clarify the open issues on a higher political level.

To assure the **sustainability of services related to reference materials for chemical metrology** in spite of the limited availability of public resources, continue the discussions with potential clients from other African countries.

While each of the **Sectoral Technical Centres** *(Centres Techniques Sectoriels)* supported under Output 2 focuses on a particular economic sector, its services are partly overlapping. It is recommended that they coordinate their services to an even higher degree than has been done so far. This could contribute to further optimising their division of labour.

Once the **technical regulations** supported under this project are finalized, continue the preparation of other technical regulations The focus should lie on both regulations that are important for exporting companies and on those which are a priority for the domestic market.

Now that significant numbers of **university and vocational teachers** have undergone trainings on metrology, it will be essential to **keep these competencies within the Tunisian education system**. While structures for passing on the knowledge to other teachers are already in place, it should be ensured that these structures are being used.

Recommendations to the project team:

Spread the results of the impact study and the lessons learned through events and various forms of communication. This process was novel and intense, and attention would be well deserved.

For the follow-up project, consider reducing the intervention areas, for example by focusing on the specific comparative advantages of PTB compared to other actors. Keep in mind that not all parts of a system have to be covered by PTB alone in order to create systemic effects.

Continue the current strategy of not supporting interventions related to physical quantities until the related challenges (especially concerning the designation of a national reference laboratory for physical quantities) have been resolved. This would not rule out the possibility to carry on the work on chemical metrology. Consider supporting private sector organisations in identifying the economic costs resulting from the current situation and in voicing them towards policy makers.

To ensure continued relevance of the follow-up project, it would be important to adjust its topics. **Topics related to the green transition** have gained in relevance and were actively requested by the political partner in the evaluation interviews. Such a re-focusing would also be in line with the current focus of BMZ.

Recommendations to the International Cooperation Department (Group 9.3):

Some of the **processes related to supporting companies**, especially the reimbursement of co-financing, led to a significant workload for administrative staff in Germany. It also resulted in a situation where companies had to pre-finance the total amount of the investment for a relatively long period of time. In case such support targeted at relatively large numbers of companies becomes more common in PTB, it would be **recommended to identify new ways for processing them**. Besides simplifying processes in headquarters, alternative options could include the use of consulting companies or the delegation of more administrative responsibilities to local coordinators, possibly by employing them through local work agencies or similar arrangements.

Recommendations to the evaluation unit of Working Group 9.01:

The **combination of virtual interviews (first week) and a relatively short on-the-spot mission (second week)** worked well and proved to be efficient. It is recommended to use such an approach for those evaluations in which a purely virtual setting does not seem recommendable.

Collect and disseminate the lessons learned on integrating a randomised control trial into a project setting. Keep them in mind when designing future impact studies.

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