


External evaluation

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Support to the Quality Infrastructure in Serbia



Country | Region: Serbia, South East Europe

Project number: 2017.2113.3
Implementation period: 03/2018 until 02/2021, extended to 08/2021

Executing agency: Physikalisch-Technische Bundesanstalt (PTB)
Political partner: Ministry of Economy (MoE)
Implementing partner institutions: Directorate of Measures and Precious Metals (DMDM)
Institute for Standardization of Serbia (ISS)
Vinča Institute of Nuclear Sciences

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This evaluation is an independent assessment. Its contents reflect the assessor's opinion which is not necessarily equivalent to PTB's view.

List of abbreviations

ACAA	Agreement on Conformity Assessment and Acceptance of industrial products
ATEX	Equipment and protective systems intended for use in explosive atmospheres
ATS	Accreditation Body of Serbia
AWI	Automatic Weighing Instruments
BAM	Bundesamt für Materialforschung und -prüfung
BEV	Bundesamt für Eich- und Vermessungswesen
BMZ	German Federal Ministry of Economic Cooperation and Development
CA	Conformity assessment
CAB	Conformity assessment body
CMC	Calibration and Measurement Capabilities
DAC	Development Assistance Committee (OECD)
DeGEval	German Evaluation Society
DI	Designated Institute
DMDM	Directorate of Measures and Precious Metals
EMPIR	European Metrology Programme for Innovation and Research
EA	European Cooperation for Accreditation
EU	European Union
EURAMET	European Association of National Metrology Institutes
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IPA	Instrument for Pre-Accession
ISS	Institute for Standardisation of Serbia
MoE	Serbian Ministry of Economy
MI	Measuring instrument
MID	Measurement Instruments Directive
NAWID	Non-Automatic Weighing Instruments Directive
OECD	Organisation for Economic Cooperation and Development
PPE	Personal protective equipment
PTB	Physikalisch-Technische Bundesanstalt
QI	Quality Infrastructure
SME	Small and medium-sized enterprise
VINS	Vinča Institute of Nuclear Sciences

1. Short Description of the Project

Subject of the evaluation is the project ‘Support to the Quality Infrastructure in Serbia’. The *Physikalisch-Technische Bundesanstalt* (PTB) implements the project on behalf of the German Federal Ministry for Economic Development and Cooperation (*Bundesministerium für Wirtschaftliche Entwicklung und Zusammenarbeit*, BMZ). The project is to a large extent designed to support Serbia in the negotiation procedure for Chapter 1, with designed activities to strengthen capabilities of QI institutions to implement the EU-aligned policies, directives and regulations, accordingly, based on the stakeholders’ identified needs and priorities. Objectives of the Serbian QI Strategy (2015-2020) guided project design and implementation. The political project partner is the Serbian MoE as a state administration body responsible for the policy development in the field of metrology, standardization, accreditation, and conformity assessment (which together constitute a system of QI).

Main implementation partners are the following Serbian QI institutions:

- Directorate of Measures and Precious Metals (DMDM, *Direkcija za mere i dragocene metale*) and selected departments, respectively laboratories.
- The *Vinča Institute of Nuclear Sciences* (VINS). VINS is part of the University of Belgrade with plenty of research activities in the areas of physics, chemistry, biology, power engineering and technology, radiation and environmental protection, production of radiopharmaceuticals, accelerator science, and nanoscience. Key partners were two selected laboratories: i) Laboratory on ionizing radiation (IR Lab) which is part of the Department of Radiation and Environmental Protection and ii) Laboratory for thermophysical properties (MLTV Lab) which is one of the laboratories of the Department of Thermal Engineering and Energy.
- The Institute for Standardization of Serbia (ISS).

The project addresses main capacity development needs of its partners, and its objective is defined as follows: The Serbian QI supports integration into the European Single Market with its services in selected areas. This means that capacities of QI institutions have to meet European legal and market requirements in order to support Serbia’s EU approximation in the area of the free movement of goods and services (Chapter 1 of the EU negotiation process).

The project follows a multi-level approach and has five interrelated intervention (output) areas:

Output 1	Output 2	Output 3	Output 4	Output 5
MoE enabled to verify and notify competence of CABs according to EU best practice.	Capacity of CABs to offer value-adding services to their domestic customers has been strengthened.	DMDM offers improved services in the areas of calibrations and market surveillance.	Both ‘Designated Institutes’ of VINS offer improved and internationally recognized calibration services.	Capacity building for tasks resulting from membership of the European standards organizations CEN/CENELEC.

2. Assessment of the Project

2.1 Status of the transformation process (OECD/DAC)

Relevance: Mark: 2,0

The intervention’s design is fully in line with the Serbian ambitions to achieve EU membership and its ‘National Programme for the Adoption of the Acquis’. It strengthens Serbian partners in their ability to assume the obligations of EU membership. With its demand driven approach the project made great efforts to align as close as possible to the priorities of its various implementation partners (DMDM,

Vinca Institute, ISS, etc.). The project design was quite broad with a lot of components and wide range of demanding and complex activities to implement simultaneously in a limited timeframe (for example, the submission of CMCs, etc.). Relevant stakeholders of the national QI were identified but the intended cooperation with ATS did not evolve as intended. Relevant political and institutional framework conditions of the national QI ecosystem were taken into account and the intervention design modified accordingly with a stronger focus on the implementation of the latest version of the ISO 17025 standard. The intervention's design is appropriately and plausibly geared towards achieving the intervention's objective in terms of technical aspects. Organisational and financial aspects are less well considered given the high ambitions of the policy advice output. Relevance is rated with 'good'.

Coherence: Mark: 2,5

The PTB project corresponds to the BMZ's development cooperation strategies and is consistent with international and national norms and standards to which German DC is committed. The PTB project has been designed to create synergies in particular with the GIZ project 'PSD in Disadvantaged Regions'. Potential synergies with the GIZ project have not been leveraged due to the strong focus delivering on specialized technical expertise for a broad range of different QI partners and unforeseen factors such as the Covid-19 pandemic which made setting up cooperation even more challenging. Furthermore, potential synergies for supporting the MoE could have been realised with the GIZ project 'Support to Public Administration Reform in the EU Accession Process'. The project contributes to enhancing the national QI as it is fully in line with the objectives of the Serbian QI-Strategy. The project has complemented and supported partner's effort to make progress in their work and functioning as regulators, metrology and/or standards institutes as well as designated bodies such as VINS. The principle of subsidiarity has been followed in a good manner. Coherence is rated with 'good'.

Effectiveness: Mark: 2, 3

Overall, the intervention has achieved its objective (at outcome level) to a large extent according to the indicators agreed upon. Remarkable progress has been made on the tailor-made technical CD measures for all involved institutes and laboratories. Project's activities have considerably contributed to achieving the intervention's objective in the field of CMCs and capacitating the ISS. Knowledge transfer and sharing of experience with international experts and peers from Slovenia and Austria have been highly appreciated. Technical staff and partners indicated in the interviews the utility of this expertise for their daily work. Review during the course of implementation has partly been made but in the area of policy advice on CA more reflection would have increased effectiveness respectively would have made modifications of the concept possible (e. g. ISO 17065 accreditation of DMDM). External factors that had a decisive influence on the achievement respectively non-achievement of the interventions were agreed in an objective manner (e. g. staff fluctuation within QI institutions). The quality of the intervention's implementation has considerably contributed to achieving the intervention's objective in the field of CMCs and adoption of CEN/CENELEC standards. Evidence regarding contributions on legal metrology (OI.2) and policy level advancements (OI.1) are moderate. It reacted to risks (e. g. staff fluctuation, weaknesses of institutional cooperation and coordination in the area of free movement of goods, frequent changes in government policy or institutional framework, etc.). During the evaluation mission there has been no indication that (unintended) negative results occurred in the project.

Efficiency: Mark: 2,5

Results of the cost allocation by output was planned as following: for each Output 1 and 2: planned 9 % of the budget; for output 4 and 5: each 19 % and the biggest share was planned for output 3: 29 % of the budget. The overarching costs were planned with 15 %; staff costs for the PC were equally calculated for all 5 outputs. Out of the total budget EUR 75,000 (or 15 %) were planned for supplying material and technical infrastructure based on identified needs. Thus, the five outputs have not been

equally allocated with funds. At the time of the evaluation (02/2021) about 65 % of the total budget has been spent or earmarked for already contracted tasks. According to information shared by the PC without the effect of Covid-19 the budget would have been spent up to 80-85 %. Main reasons for underspending are that no intermittent STE has been employed and that expert visits to Belgrade and study tours had to be postponed. The project successfully controlled its resources according to its annual scheduled cost plan. Synergies were used with equipment provided for the ATEX CAB by the EU project. As one could expect most of the budget was spent on personnel (project management at PTB and STE (including travel costs): 70 %) followed by 8 % for training related activities and 22 % was spent on equipment (FIMO data). The evaluators conclude that the outcome within its mandate could have been increased by deploying an intermittent STE for supporting the PC and/or to have national staff in place to set-up appropriate formats for more policy dialogue with the MoE and other QI stakeholders. Efficiency gains have been made by compiling resources with the PTB regional QI project.

Impact: Mark: 2,3

The project contributes to improving the framework conditions for competitiveness of Serbian companies and employment promotion. A functioning and internationally recognised QI system also has indirect effects on the environment (e.g. resource efficiency due to reliable measurements). In its cooperation with DMDM the project focussed on legal metrology, supporting DMDM to offer better conformity assessment services for MI. It also supported DMDM to extend the range of their CMCs. This is highly relevant for all Serbian citizens regarding product safety as it increases reliability of results of measurements (safer products; better consumer protection and relations). The project supported DMDM in the realisation of automatization of electrical measurements, so measurement without the influence of humans during the calibration can be conducted. The availability of internationally recognised quality infrastructure services are necessary preconditions to meet the requirements of EU markets and legal requirements adapted to the EU Acquis. The project logic followed the principle of supporting transparent QI services adopted to the country context. It is plausible to assume that improved QI services reduce time and cost of the Serbian industry (e. g. better responsiveness). This increases competitiveness of Serbian products on the EU and international markets. The results achieved by the intervention (at outcome level) contributes to the higher-level changes in the foreseen future. The project has delivered a series of critical, technically solid, and well-regarded QI elements: legal and industrial metrology, strengthening CMCs, improved adoption process of CEN/CENELEC standards.

Sustainability: Mark: 2,7

The project raised awareness and increased knowledge of key QI institutions staff by consultancy missions, study visits, trainings, workshops etc., which led to an improved international recognition of Serbian QI institutions. Interviewed partners expressed their willingness to sustain and adapt acquired knowledge within their respective institution. The trainings focused primarily on technical requirements and thus, increased technical competencies of staff. The project followed an incremental approach to strengthen capacities (technical, institutional) geared to the level of development of each pillar organisation. The intervention has contributed to the capacity of QI partners at organisational level as well as advancing staff competencies (technical skills). Under the prevailing conditions of the Serbian government for the EU accession process the positive results achieved deemed durable. In Serbia in general there is the potential risk for the achievements of the project due to fluctuation of personnel of QI institutions. The project has addressed potential risk factors appropriately. Aside from this risk to sustainability, the still pending approval of the new laws on metrology and accreditation pauses a challenge to further progress on the QI framework conditions. Without the incentive provided by concrete legislation, the level of awareness, demand and pressure amongst companies and consumers

for quality goods and services may not grow as anticipated, which would affect demand for the services of QI institutions. The partners at DMDM, VINS and ISS have the capacities required to ensure that positive results are continued.

2.2 Assessment according to Capacity WORKS

<p>STRATEGY: Level of achievement: 80 %</p>
<p>The strategy of the project is the result of a joint process with all relevant partners. It is embedded into the overall EU accession strategy. Recommendations and lessons learned are well incorporated into the concept (e. g. policy advice, setting up a steering committee meeting) and have been openly discussed with partners during the planning workshop. Regarding the recommendation of the last evaluation report to provide expertise not only on technical but also on financial issues there has not been a strong strategic shift in this direction. Setting up a steering committee meeting contributed to developing a mutual understanding of what the project intends to achieve (change process). Key project partners like DMDM, VINS and ISS have developed a clear understanding of how the project should contribute to professionalisation of the work of their respective departments (laboratories). The strategy was adjusted when the circumstances changed. Some efforts were made to develop a CD strategy with each partner. The project mainly provided specific technical support for practical tasks in industrial metrology and standardisation. Key success factor of the strategy has been to provide tailor-made and state-of-the art expertise while also taking into account the different level of partner capacities.</p>
<p>COOPERATION: Level of achievement: 80 %</p>
<p>The stakeholder landscape has been well analysed. Relationships are based on trust, built up over many years of cooperation between PTB and Serbian QI institutions. A thorough update of the stakeholder mapping has taken place during the planning phase. The project worked with key QI partners DMDM, ISS and VINS to achieve its objective. ATS as another key partner has been identified during the planning phase and showed its interest to cooperate. However, ATS has reconsidered its interest in a collaboration and thus, this key QI institution has not been part of the cooperation landscape of the project. Overall, project partners have been clearly defined according to their roles and functions depicted in the QI Strategy. Possible lines of conflict in the context of the intervention have been taken into account. Secondary stakeholders such as representative of the private sector (e. g. chambers of commerce or CABs) played only a subordinated role. The PTB project has realised synergies with the regional PTB projects in the region (e. g. networking, joint training).</p>
<p>STEERING: Level of achievement: 75 %</p>
<p>The project is directed and managed by the PTB in Braunschweig, mainly by the PC. Originally an intermittent STE was planned for project implementation, in particular for the cooperation in the policy component with MoE. Such an interim STE would have been conducive to intensify communication and understanding of the overall partner landscape as he/she would have been on a regular basis in direct contact with partners in addition to the partner visits of the PC. For setting up a policy advice component with the MoE an intermittent STE would have been a factor for success as his/her role has been proven in many PTB projects as very supportive as a facilitator, moderator and matchmaker in the interest of both partner side and project management side. A formal implementation agreement has been drafted and agreed upon in September 2018 and depicts in appropriate detail roles and responsibilities of both partners (MoE and PTB). The project used existing steering structures of each partner institution for collaboration. Additional needs were communicated in the follow up of an activity via PTB expert reports or via a training request forms submitted e. g. by DMDM or VINS. The evaluation mission has found well documented expert reports with straight-forward recommendations for the respective partners. Interview partners described the management and steering process as</p>

highly responsive, cooperative and flexible. To sum up, the complexity of the steering structure was appropriate for the needs of the intervention. Level of achievement: 75 %
PROCESSES: Level of achievement: 80 %
There is a general understanding about the different processes that are of relevance for a successful implementation of the project. A process analysis (process map) has not been done. The on-going processes in the context of the project are known (e. g. DMDM and designated bodies) but there has not been an explicit analysis of what kind of processes concerning the consultation and decision-making processes within the MoE structures are relevant (e. g. regarding the negotiation process and the interagency cooperation with the Ministry of EU Integration; formal approval of the amended law on metrology, etc.). Efficient processes relating to performance and steering have been set between the PC and the key counterparts of DMDM, VINS and ISS. An explicit learning process with involved partners has not been set up. On the whole, the project had a good understanding about challenges specific to the Serbian context as pre-accession country.
LEARNING AND INNOVATION: Level of achievement: 75 %
The project has a very flexible approach and management for incorporating lessons learned and new upcoming needs. After each expert mission, a profound report documents the inputs, recommendations and lessons learned. It deemed appropriate to assume that these recommendations and lessons learned are taken up by project partners given the positive statements of many interview partners. Unfortunately, there are no feedback forms filled in by the participants of trainings and/or study tours. Thus, there has not been a strong mechanism established to ensure that lessons learnt are incorporated into project implementation. Valuable information on learning effects and need for further support might have been missed. Raising awareness for the impacts of the project and of a functioning QI has not been a strategic element of the project.

3. Learning processes and Experiences

- Well balanced technical, managerial and process management to provide tailor-made support packages for industrial metrology.
- Good combination of using national, regional and international STE QI expertise.
- For PTB in the role of providing policy advice more regular contact and exchange with policy makers is needed to underline PTB's competence, interest and commitment.
- Effective communication and coordination with other relevant German DC projects increase management capacities and flexibilities of steering the process with partners and stakeholders.
- Incremental approach to strengthen capacities (technical, institutional) geared to the level of each QI institution has been a core competence of the project.
- For effective policy advice in a highly political and therefore sensitive context close working relationship are crucial. This requires more resources and more attention regarding management needs. Just as equally important is to intensify collaboration with GIZ projects working on related topics (e. g. EU negotiation process) based on joint planning is also conducive to make best use of core competencies of PTB and GIZ.
- Interlinkages with regional PTB projects are used to leverage potential synergies between PTB projects regarding efficiency, peer-learning and outcome.

4. Recommendations

- Revise the planned support for the MoE and make efforts to align to the requests regarding the 'Action Plan for the Harmonized Area' and other relevant inputs for strengthening the MoE capacities to fulfil its obligations of the EU accession process.
- Provide external support to document lessons learnt of the cooperation regarding QI policy framework and to draw conclusions on the way forward. This could be a valuable input for the plans of the MoE to update the QI strategy.

- Draw more attention to market needs and requirements and how respective QI services should be designed in a market-oriented manner.
- Design with all stakeholders a closing event for the project for reflections and inputs on common interest for supporting the EU accession process in the field of QI and how collaboration could be continued with PTB under different frameworks (e. g. regional QI project, etc.).