

Annex 1:

Terms of Reference

Framework-Based Consultancy Services as Digital Transformation Consultant for Applied SME Capability Centre (a.k.a. Model Factory) Project

1. BACKGROUND

UNDP Turkey aims to find practical solutions to Turkey's development challenges and manages projects together with the Turkish Government and other partners to address them. Since 1986 it has implemented over 80 programs across the country. In addition, the UNDP has played a major role in response to crises and disasters in Turkey and the surrounding region. UNDP Turkey has positioned to contribute through three core areas: 1) Inclusive and Democratic Governance (IDG); 2) Inclusive and Sustainable Growth (ISG); and 3) Climate Change and Environment (CCE); and in addition to these core areas, UNDP Turkey is emphasizing the role of Strategic Partnerships that cut across the entire country program as well as regionally and globally.

The ISG Portfolio is geared towards addressing structural economic problems, such as productivity, innovation, the middle-income trap, multi-dimensional poverty, energy security and regional disparities, as well as challenges with social, environmental and economic repercussions, such as urbanization.

“Competitive Production and Productivity”, one of the main objectives stated in the 11th National Development Plan is an important topic on the agenda of Turkish Government. Besides, improving productivity levels, particularly in SMEs, is also one of the strategic objectives of Turkey’s SME Strategy and Action Plan (2015-2018). In the same vein, Turkey’s Productivity Strategy and Action Plan (2015-2018) pays a special attention to productivity levels of the SMEs in the manufacturing industry. Additionally, 2023 Industry and Technology Strategy approaches digital transformation as one of the main drivers of productivity policy. Therefore, the enterprises should strengthen their infrastructure and core capabilities on lean manufacturing, digitalization (within the context of Industry 4.0), quality management, innovative product development, energy efficiency etc. through some well-developed transformation programs and practice-based trainings in order to improve capabilities of technical staff, engineers and mid-level managers.

One of the effective solutions applied in many developed countries in the last two decades is to build well-designed training centres including a real didactic manufacturing environment (a real product, a real assembly line, real machines, real processes and real operators) and specialized training programs based on a series of hands-on and step-by-step exercises to improve the manufacturing processes within a "transformation" context. A feasibility study was completed for the appropriate model for Turkey in collaboration with Ministry of Industry and Technology in 2016 within the scope of Applied SME Capability Centre (a.k.a Model

Factory) Project. Following the completion of the feasibility study the Model Factories have been adopted as a policy tool and incorporated into Government Investment Plan in 2017.

In 2017 Ankara Chamber of Industry and Ankara I. Organized Industry Zone joined the Applied SME Capability Centre (a.k.a Model Factory) Project both as funding agencies and implementing partners so that first implementation has been carried out in Ankara. In the meantime, Government adopted these centres as a policy tool and planned several replication actions and funded replication in Bursa. UNDP supported Government endeavours for reaching out additional funding streams along with the national budget to serve this target. UNDP CO mobilized additional funding for the Ministry to replicate this model in Konya and Kayseri through German Development Bank (KfW) funding in 2018. Second component of this Financing Agreement between KfW and UNDP covers activities to support/enlarge activities in Ankara Model Factory, replicate model factories in Kayseri and Konya and support job creation in Ankara, Konya and Kayseri. Finally, with the additional funding allocated from the Public Investment Program to the project budget for the digitalization component of Ankara, Bursa, Kayseri and Konya Model Factories, third extension submitted and was approved by Ministry of Foreign Affairs on 29 April 2020 and the project has been extended until 31 December 2021.

Establishment and improvement of production lines (for training purpose) of Bursa, Kayseri and Konya Model Factories and the project activities focusing on lean production is ongoing. As mentioned above, with the additional funding from the Government, digitalization of production lines in Ankara, Bursa, Kayseri and Konya Model Factories has also been kicked off as additional service lines. Therefore, a digital transformation expert will be recruited for drawing frameworks for digital transformation activities in mentioned centres and supporting smooth implementation.

2. OBJECTIVE AND SCOPE

The main aim of the project is to increase the productivity level of SME's by conducting diagnostic analysis, experiential trainings and awareness raising seminars focusing on lean production and digital transformation. In this sense, Digital Transformation Consultant (hereinafter referred to as IC) will have a crucial importance in reaching the strategic goals of the project by providing technical advisory services focusing on the technical requirements of the digital transformation phase of the project. In this respect, the objective of the assignment is:

- to provide assistance to the project team to determine the technical requirements of the digital capabilities to be deployed,
- to provide technical support to technology integrator and model factories to facilitate the deployment of software, hardware, IoT and etc. (*that will be procured*),
- to provide technical support to the evaluation, acceptance and quality monitoring procedures of the goods and services to be procured,
- to provide general technical advisory on digital transformation when necessary.

The candidate will be mobilized with Framework based Individual Contract. Specific expectations from the IC will be articulated in multiple service requests to be made by UNDP during the course of the contract.

3. DUTIES AND RESPONSIBILITIES OF THE INDIVIDUAL CONSULTANT

Within the scope of the assignment, based on his/her expertise, the Digital Transformation Consultant is expected to provide consultancy services for the below listed generic activities:

- Preparing needs analysis report for digital transformation component of model factory based on the industrial structure of the target province,
- Taking into account the priorities listed in Turkey's strategy and policy documents such as 11th Development Plan and 2023 Industry and Technology Strategy and based on the need's analysis report prepare a strategy and roadmap for digital transformation component of the model factory for short (until end of 2021), medium (until end of 2024) and long (until end of 2030) term,
- Based on the strategy and roadmap, support the project team to determine the technical requirements (technical specs of the machinery, equipment, software, hardware and related services) of the digital transformation component of the model factory and/or revise existing the technical requirements documents if any,
- Providing technical support to technology integrator and the center to facilitate to the deployment of software, hardware, IoT and etc. that will be procured,
- Providing technical support to the evaluation, testing, acceptance and quality monitoring procedures of the goods and services to be procured for the digital transformation component of the model factory,
- Following the finalization of deployment of all hardware and software for the digital transformation component of the model factory, provide an overall assessment of lean and digital transformation service capacity of the center; determine problems/deficiencies and provide recommendations for improvement, if any,
- Providing an overall quality assessment of the lean and digital transformation training materials of the model factory in terms of quality and determine problems/deficiencies and provide recommendations for improvement, if any,
- Providing technical consultancy on required needs on digital transformation component of the center when needed,

The above-mentioned duties and responsibilities are indicative and subject to further detailing through specific service requests to be made by UNDP during the contract duration. If required by the UNDP Project Team, the IC could provide additional consultancy services on topics related to her/his expertise area for other activities within the scope of this Terms of Reference.

4. DUTIES AND RESPONSIBILITIES OF UNDP

UNDP will provide background materials, for the IC's review, reference and use. Neither UNDP nor any of the Project partners is required to provide any physical facilities for the work of the IC. However, depending on the availability of physical facilities (e.g. working space, computer, printer, telephone lines, internet connection etc.) and at the discretion of UNDP in consultation with relevant stakeholders such facilities may be provided at the disposal of the IC. UNDP and/or the relevant project partners will facilitate meetings between the IC and other stakeholders, when needed.

All documents and data provided to the consultant are confidential and cannot be used for any other purposes or shared with a third party without any written approval from **UNDP**.

5. EXPECTED OUTPUTS AND DELIVERABLES

The IC's will work as Digital Transformation Consultant and expected to invest **(at maximum) 100 working days** throughout contract duration.

The framework contract will be executed based on deliverables/assignments identified in each specific service requests to be prepared by UNDP Competitiveness and Economic Growth Projects Coordinator. Time schedule for each deliverable/assignment will be determined by UNDP Competitiveness and Economic Growth Projects Coordinator in consultation with the IC. Service request will be effective upon signing and return by the IC.

IC shall submit activity reports with time sheet in line with requirements and schedule identified by each specific service request. The deliverables of the IC shall be subject to approval of UNDP Competitiveness and Economic Growth Projects Coordinator within the deadlines to be set in the specific service requests. Without submission and approval of the outputs/deliverables (by UNDP), IC shall not be entitled to receive any payment from UNDP even if he/she invests time in this assignment.

▪ *Reporting Line*

The IC shall be responsible to the UNDP Competitiveness and Economic Growth Projects Coordinator (absence of Projects Coordinator, ISG Portfolio Manager is responsible) for the completion of the tasks and duties assigned in section 3, 4 & 5 of this ToR. The reports shall be submitted to the Competitiveness and Economic Growth Projects Coordinator for approval.

▪ *Reporting Language and Conditions*

The reporting language shall be in Turkish and/or English. The language requirement shall be cleared in specific service requests by UNDP. All information shall be provided in electronic versions in word and PDF format. The IC shall be solely liable for the accuracy and reliability of the data provided, links to sources of information used.

▪ *Title Rights*

The title rights, copyrights and all other rights whatsoever nature in any material produced under the provisions of this ToR will be vested exclusively in UNDP Turkey CO.

6. TIMING AND DURATION

The assignment is expected to start on **10 November 2020** and be completed on **31 December 2021**. The IC is expected to invest **maximum 100 working days** to fulfil the required tasks as per specific service requests to be made by UNDP **throughout contract validity**.

IC may invest less/more than the estimated number of days for each deliverable to finalize the respective service request; however, the overall number of working days to be invested for all deliverables cannot exceed **100 working days throughout the contract validity**.

7. PLACE OF WORK

It is a **home based** type of assignment. Travel, accommodation and living costs in duty station shall be covered by the IC. It may be required that the IC travels out of the duty stations within the scope of this Terms of Reference. In case, travel out of the duty station is needed, the travel and accommodation costs of these missions will be borne by UNDP. It is required that the terms of such travels are discussed with UNDP Competitiveness and Economic Growth Projects Coordinator prior to each travel. The costs of these missions may either be;

- Arranged and covered by UNDP CO from the respective project budget without making any reimbursements to the IC or,
- Reimbursed to the IC upon the submission of the receipts/invoices of the expenses by the IC and approval of the UNDP. The reimbursement of each cost item is subject to the following constraints/conditions provided in below table.
- Covered by the combination of both options.

The following guidance on travel compensation is provided by UNDP practice.

Cost item	Constraints	Conditions of Reimbursement
Travel (intercity transportation)	full-fare economy class tickets	1- Approval by UNDP of the cost items before the initiation of travel 2- Submission of the invoices/receipts, etc. by the IC with the UNDP's F-10 Form 3- Acceptance and Approval by UNDP of the invoices and F-10 Form.
Accommodation	Up to 50% of the effective DSA rate of UNDP for the respective location	
Breakfast	Up to 6% of the effective DSA rate of UNDP for the respective location	
Lunch	Up to 12% of the effective DSA rate of UNDP for the respective location	
Dinner	Up to 12% of the effective DSA rate of UNDP for the respective location	
Other Expenses (intra city transportations, transfer cost from /to terminals, etc.)	Up to 20% of effective DSA rate of UNDP for the respective location	

As per UNDSS rules, the IC is responsible for completing necessary online security trainings and submitting certificates and travel clearance prior to assignment-related travels.

8. REQUIRED QUALIFICATIONS

	Minimum Requirements	Assets
General Qualifications	<ul style="list-style-type: none"> • Undergraduate and/or graduate degree in the field of engineering is required, • Computer literacy is required regarding Ms Office Programs, • Fluency in English is required. 	<ul style="list-style-type: none"> • Asset: Degree in industrial, computer or electronical engineering.
General Professional Experience	<ul style="list-style-type: none"> • A minimum of 5 years of working experience is required at least two of the Industry 4.0 technologies including IoT Platform Development, Simulation, Big Data and Analytics, Horizontal and Vertical Integration, Autonomous Robots, Cloud Computing, Augmented Reality, Cybersecurity, and Additive Manufacturing (both hardware and software; academicians who provided consultancy and/or evidence about active work experience in these subjects can also apply). 	

<p>Specific Qualifications</p>	<ul style="list-style-type: none"> • Knowledge of computer programming is required. 	<ul style="list-style-type: none"> • Asset: Working knowledge of strategy development, production systems, lean or similar techniques, • Asset: Specific experience in Product Life Cycle Management (PLM) systems, • Asset: Experience in preparing procurement documents in digital transformation sector, • Asset: Experience in project management and decision support systems.
<p>Notes:</p> <ul style="list-style-type: none"> • Internships (paid/unpaid) are not considered professional experience. • Obligatory military service is not considered professional experience. 		

9. PAYMENTS

The Contract to be signed between UNDP and successful candidate will not entail a financial commitment from UNDP. UNDP's financial commitment will be established on an ad-hoc basis every time as services are officially requested by UNDP. Service Requests will be detailed and signed by both parties for a Service Request to be effective. However, if the deliverables are not produced and delivered by the IC to the satisfaction of UNDP as approved by UNDP Competitiveness and Economic Growth Projects Coordinator, no payment will be made even if the IC has invested working/days to produce and deliver such deliverables.

Payment terms and conditions will be specified in the specific service requests. Payment terms and conditions along with the daily fee rate (indicated in the contract) and number of days invested (**not to exceed maximum number of days in the service request**) will be the basis of payment to the IC. Payments will be made against submission of the deliverable(s) in the specific service requests by the IC and approval of such deliverables by UNDP.

The consultant shall be paid in TRY.

The amount paid to the IC shall be gross and inclusive of all associated costs such as social security, pension and income tax etc.

Payments will be made within 30 days upon acceptance and approval of the corresponding deliverable by UNDP on the basis of actual number of days invested in that respective deliverable and the pertaining Certification of Payment document signed by the IC and approved by UNDP Competitiveness and Economic Growth Projects Coordinator. **The total amount of payment to be affected to the IC within the scope of this contract cannot exceed 100 working/days.**

Tax Obligations: The IC is solely responsible for all taxation or other assessments on any income derived from UNDP. UNDP will not make any withholding from payments for the purposes of income tax. UNDP is exempt from any liabilities regarding taxation and will not reimburse any such taxation to the IC.