

The Summary Scope of the Assignment

1. Background

The manufacturing industry is an important pillar of the Mauritian economy, contributing around **12.7 %** to Gross Value Added, **17%** of total labour force and accounting for **82%** of domestic exports. It is driven by three categories of industry operators namely:

- Export-Oriented Enterprises (EOEs), comprising around 230 manufacturing units that are geared towards exports;
- Large Domestic Oriented Enterprises (DOEs), including about 300 manufacturing units that cater principally for the local market; and
- Small & Medium Enterprises (SMEs), consisting of some 18,100 manufacturing units which supply directly the local market and also provide ancillary services to large enterprises.

The main sub-sectors within the manufacturing industry are: textile and clothing, fish and fish preparations, food and beverages, jewellery, medical devices, light engineering, watches & clocks, furniture-making, chemicals, flexible packaging and printing.

The industry is currently at a crossroad evolving in a challenging trading environment, characterised by intense competition from low-cost producers, ongoing war between Ukraine and Russia and rising geopolitical tensions in the Middle East. Moreover, rising production costs associated with higher wage bills, escalating electricity costs, fluctuating sea freight charges and volatile commodity prices are putting significant pressure on overall competitiveness of manufacturing enterprises.

The Ministry of Industry, SME and Cooperatives (Industry Division), is actively playing its role as a facilitator to enable manufacturing enterprises navigate smoothly the turbulences. In this perspective, all efforts are being pursued to refine the supply-side capabilities of manufacturing enterprises to improve their competitive edge, through the adoption of cutting-edge technologies and sustainability practices.

Digitalisation coupled with the integration of Manufacturing 4.0 technologies in production processes are viewed to be key enablers that can bring about a major turnaround at enterprise level to achieve higher productivity and efficiency gains. The concept of Manufacturing 4.0 technologies has already been adopted on a larger scale in many developed countries and has proved to be a game-changer for enterprises to ensure their long-term viability.

In an endeavour to promote the uptake of advanced technologies in the manufacturing sector, the Government of the Republic of Mauritius has made financial provision in its Budget 2024/2025 for the implementation of the Manufacturing 4.0 project. The objective is to support a total of **100** Small, Medium and Mid-Market Enterprises involved in manufacturing activities to incorporate Manufacturing 4.0 technologies in their production processes for greater competitiveness. The project is expected to span over a period of three years.

For the financial year 2024/2025, a first group of **20** manufacturing enterprises have been selected by the Ministry as beneficiaries of the Manufacturing 4.0 project. They are mostly Small and Medium Enterprises (SMEs) with an annual turnover not exceeding Rs 250 million (~USD 5.5 million). These enterprises are engaged in activities such as manufacture of ready-made garments, detergents & perfumes, leather products & footwear, paints & allied products, gates, garage doors, roller shutters & burglar bars, wooden & metal furniture, food processing and printing of books, brochures, catalogues, flyers & cards.

2. The Services:

- The Ministry of Industry, SME and Cooperatives (Industry Division) seeks to enlist the services of two (2) consultants from a Consultancy Firm to perform the following activities:
 - a. Undertake a diagnosis of the twenty (20) beneficiary enterprises to gain a thorough understanding of their production methods, equipment/existing machinery, software solutions, digitalisation processes in place, product mix, targeted markets, existing level of skills, machine monitoring processes, constraints and challenges and their expectations for digital transformation. For this purpose, a questionnaire should be devised and the beneficiary enterprises be provided necessary guidance, through an online session, on how to fill it;
 - b. Mount and deliver a Capacity Building Programme over one day, at a venue to be provided by the Ministry, to build the knowledge of beneficiary enterprises on the applications of Manufacturing 4.0 technologies such as *Artificial Intelligence, Automation and Robotics, Cloud Computing, Big Data Analytics, Industrial Internet of Things, Digital Factory Twins* in production processes for improved efficiency;
 - c. Carry out in-house interventions at the factory premises of each beneficiary enterprise to gauge their digital readiness and advise on the appropriate Manufacturing 4.0 technologies to be adopted in the short, medium and long term for increased market gains;
 - d. Formulate a customised Roadmap for **each** beneficiary enterprise focusing on the Manufacturing 4.0 technologies to be acquired along with costs estimates, appropriate suppliers and skills upgrading requirements. The adoption approach to be followed for successful implementation of recommended Manufacturing 4.0 technologies should be clearly spelt out; and
 - e. Engage with beneficiary enterprises through an online interactive session to guide them on the recommendations which have been proposed in their customised Roadmaps so that they can properly understand the implementation process.
- The two (2) consultants have to work as a team and coordinate among themselves so as to complete the assignment in a timely manner as per the approved time schedule.
- A breakdown of the activities to be carried out along within the proposed **tentative** timeframe and the related man-days requirements per consultant is detailed hereunder:

Proposed Planning for implementation of Manufacturing 4.0 Project

S/N	Proposed Activities	Proposed Date of Activity	Number of Working days for the Specific Activities to be carried out by each consultant*
1	Online sessions with beneficiary enterprises (explanation on questionnaire for enterprise diagnosis) (<i>outside Mauritius</i>)	1st week of May 2025	2
2	Preparatory work (<i>outside Mauritius</i>)	2nd week of May 2025	2
3	Meeting with officials of the Ministry and courtesy call on the Honourable Minister (<i>in Mauritius</i>)	3rd week of May 2025	1
4	Holding of Capacity Building Programme (<i>in Mauritius</i>)	3rd week of May 2025	1
5	In-house interventions at enterprise level (<i>each consultant will visit 1 enterprise per day in Mauritius</i>)	3rd week of May 2025 up to 2nd week of June 2025	10
6	Drafting of a customised Roadmap for each beneficiary enterprise (<i>outside Mauritius</i>)	3rd and 4th week of June 2025	6
7	Online briefing sessions with beneficiary enterprises on their customised Roadmaps (<i>outside Mauritius</i>)	1st week of July 2025	3
	Total		25

* The bidder should propose quotations in relation to 2 consultants which tantamount to consultancy fees for 50 man-days.

- The consultants shall be holders of a Masters' Degree in fields such as Manufacturing/Production/Industrial/Mechatronics Engineering; Smart Industries & Digital Transformation; Artificial Intelligence; Automation & Control; Robotics and Information Technology/Computer Science. **(documentary evidence to be provided)**
- The consultants shall have previously conducted at least **three** assignments on the integration of Manufacturing 4.0 technologies in manufacturing processes during the last 3 years. **(documentary evidence to be provided)**
- The consultants shall demonstrate specialised knowledge in application of Manufacturing 4.0 technologies in production set-ups on the basis of work experience.
- The consultants shall be fully conversant in English, both oral and written.
- The Consultancy Firm shall submit a Plan of Work with a defined time frame clearly outlining on how it intends to proceed with the assignment.

3. Facilities to be provided by the Ministry

The following facilities will be provided by the Ministry of Industry, SME and Cooperatives (Industry Division):

- Return Economy Class tickets from the country of departure to Mauritius.
- Reimbursement of expenses borne by the consultants with respect to any local travel incurred in their country of departure (domestic flights, train, or coach fares) upon submission of official receipts. An estimate of this reimbursement should be reflected in the respective financial forms
- A three-star hotel accommodation facility on half-board basis (Bed, Breakfast and Dinner) throughout stay of the consultants. Based on date and time of arrival/departure, necessary arrangements will be made for booking on full board basis (bed, breakfast, lunch and dinner), where relevant.
- Local transport facilities for travelling of consultants from the airport to the hotel and from the hotel to the airport.
- Local transport facilities for travelling of consultants from the hotel to the Ministry of Industry, SME and Cooperatives (Industry Division) / venue of Capacity Building programme / factory premises of enterprises and back to hotel.
- Venue for conducting the Capacity Building programme.
- Lunch will be provided during the Capacity Building programme and on days of visit to enterprises.
- Office accommodation, Printing and Photocopy facilities.

4. Contract duration and fees

(a) Duration of initial contract

The duration of the contract is from the date of signature of the contract until dissemination of findings of the Roadmaps to each beneficiary enterprise.

(b) State whether contract is on a lump-sum or time-based

The contract will be lump-sum based. The payment for consultancy fee shall be effected in three phases:

- 1) 50% upon completion of diagnosis of the **20** beneficiary enterprises and assignments (*Capacity building and in-house interventions*) in Mauritius;
- 2) 30 % upon elaboration of 20 Roadmaps for beneficiary enterprises; and
- 3) 20% upon disseminating the findings of the customised Roadmaps to each beneficiary enterprise.

(c) Payment

The total payment due to the selected Service Provider from the Ministry of Industry, SME and Cooperatives (Industry Division) shall not exceed the contract price which is an all-inclusive fixed price covering all the costs required to carry out the assignment.

5. Deliverables

The expected deliverables for the project are as follows:

- (i) A diagnosis of the **20** beneficiary enterprises to have an insight of their production set-ups and gauge their potential for adopting Manufacturing 4.0 technologies. This should be carried out through a comprehensive questionnaire.
- (ii) One-day capacity-building programme to build knowledge of beneficiary enterprises on applications of Manufacturing 4.0 technologies in the field of manufacturing.
- (iii) In-house interventions at the factory premises of the **20** beneficiary enterprises.
- (iv) Customised Roadmaps in report format for the **20** beneficiary enterprises.
- (v) Online sessions with the **20** beneficiary enterprises to brief them on the recommendations outlined in their respective Roadmaps.

18 June 2025

**Ministry of Industry, SME and Cooperatives
(Industry Division)**