Senior Specialist

Post Level: ISA-Senior Specialist

Vacancy Announcement

VACANCY ANNOUNCEMENT TEMPORARY APPOINTMENT OF PROJECT PERSONNEL

EXTERNAL

Female candidates from all Member States are particularly encouraged to apply.

Vacancy Announcement No:
VA2020_ISA_EXT_060

Duty Station:
Organizational Context

The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. The mission of UNIDO, as described in the Lima Declaration adopted at the fifteenth session of the UNIDO General Conference in 2013, is to promote and accelerate inclusive and sustainable industrial development (ISID) in Member States. The relevance of ISID as an integrated approach to all three pillars of sustainable development is recognized by the 2030 Agenda for Sustainable Development and the related Sustainable Development Goals (SDGs), which will frame United Nations and country efforts towards sustainable development in the next fifteen years. UNIDO's mandate is fully recognized in SDG-9, which calls to “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”. The relevance of ISID, however, applies in greater or lesser extent to all SDGs. Accordingly, the Organization's programmatic focus is structured in four strategic priorities: Creating shared prosperity; Advancing economic competitiveness; Safeguarding the environment; and Strengthening knowledge and institutions.

Each of these programmatic fields of activity contains a number of individual programmes, which are implemented in a holistic manner to
achieve effective outcomes and impacts through UNIDO's four enabling functions: (i) technical cooperation; (ii) analytical and research functions and policy advisory services; (iii) normative functions and standards and quality-related activities; and (iv) convening and partnerships for knowledge transfer, networking and industrial cooperation. Such core functions are carried out in Departments/Offices in its Headquarters, Regional Offices and Hubs and Country Offices.

The Directorate of Programme Development and Technical Cooperation (PTC) of UNIDO is responsible for providing technical cooperation services on technological and economic issues and is organized in the following departments: Department of Partnerships and Results Monitoring, Department of Agri-Business Development, Department of Trade, Investment and Innovation, Department of Energy and Department of Environment. Furthermore, PTC has a close cooperation with other field based Centers and Offices, such as the Investment and Technology Promotion Offices, forming the extended field network of UNIDO.

The Department of Environment (PTC/ENV) contributes to inclusive and sustainable industrial development (ISID) by improving the environmental performance, resource productivity and safety of existing, as well as by supporting the creation of new industries providing environmental goods and services. It does so by promoting industrial resource efficiency to strengthen green industry and improve the effective use of natural resources including in particular materials and water.

The Department thereby encourages industrial development for economic growth that is resource efficient as well as protective of the natural environment and human health, and keeps workers, communities and consumers safe.

The position is located under the Industrial Resource Efficiency Division (IRE), it is one of the four divisions within the Department of Environment (ENV). The focus of IRE Division is to increase the capacity of industry, government and business environmental services providers as well as intergovernmental and non-governmental entities to scale up and mainstream the adoption of more resource-efficient and cleaner patterns of production. It does this through promotion of recycling, resource recovery and/or environmentally sound treatment and disposal of wastes, waste waters and toxic and/or hazardous chemicals, and also in particular for the sustainable use and management of water and other natural resources used in industrial processes.
PROJECT CONTEXT

Through the Resource Efficiency and Cleaner Production (RECP) Programme IRE has made outstanding contributions towards the identification, development and testing of tools and methods for RECP to the diverse conditions in developing and emerging economies.

National RECP Programme in Indonesia

The National RECP Programme in Indonesia is aimed to improve the resource productivity and environmental performance of industry, in particular small and medium enterprises (SMEs) in Indonesia, through the mainstreaming and scaling up of RECP methods, practices, on the ground implementation of RECP measures, RECP techniques and policies.

The activities under the national RECP programme are structured in five work streams:

a. RECP Capacity and Network: A cadre of at least 75 national RECP experts will be created (which has been completed) and provided with advanced training opportunities. Adopting international best practices, the Indonesian RECP network will be set up (already completed), along with strengthening of its nodal agency, Indonesian Cleaner Production Centre (ICPC), and Centre for Assessment and Development of Green Industry and Environment (CADGIE). A knowledge management system is created and will be expanded for a learning-by-sharing programme established that will benefit at least 200 companies directly;

b. RECP Implementation and Replication: customized implementation and replication activities will be developed and delivered to two small scale industry sectors (food [completed] and textile processing on going), two industrial zones (Makassar and Batam), two tourism locations (respectively Sleman/Magelang and Lake Toba substituted by Greater Borobudur) and micro-enterprise sectors (rice milling unit demo completed). Impacts in terms of improved resource productivity and environmental performance and competitiveness gains will be documented at enterprise level (using common framework of RECP indicators. Detailed assessments will be completed for at least 84 industries, with scaling up activities reaching at least another 150 industries revised to maximum of 100 units (16 RECP club establishment in addition to 4
c. RECP Policy and Regulatory Framework: the programme will support three line ministries (Ministry of Environment and Forestry (MoEF), Ministry of Industry (MoI), Ministry of Tourism (MoT)) with implementation of relevant policies and strategies for respectively sustainable consumption and production, green industry, sustainable tourism and industrial energy and resource efficiency, to achieve national development aims and objectives agreed by the Government of Indonesia.

d. RECP Technology and Innovation: ICPC will be supported to create national sustainable innovation capacity for techno-economically viable technology identification and transfer in addition to the areas of industrial symbiosis, (ICPC) and cradle to cradle (C2C) innovation (at Ministry of Industry & UNIDO). Due to non registration of CRECPI and the Center for Textiles Bandung's (CTB) inability to work as sub contractor, the Industrial Symbiosis (IS) technology transfer and implementation related activities under this output have been proposed to be included into the ICPC contract and C2C related activities will be directly implemented by UNIDO with in collaboration with the Ministry of Industry (MoI). Capacities developed under this component will be utilized to support the development and implementation of innovative RECP technologies in the target demonstration sectors and industrial regions;

e. RECP Investment and Finance: An inventory of financing instruments available and RECP financing needs among target enterprise groups and working with financial institution like OJG to assist demo units to prepare bankable proposals. To assist this component, training and capacity building for partner institution, financial institutions and RECP service providers will be conducted by UNIDO.

The programme is being implemented under the guidance of a Programme Management Committee (PMC) with participation of the two leading government counterparts and donor representative.
The Global Eco Industrial Park Programme (GEIPP) is geared to scale up RECP to the level of eco-industrial parks seeking to integrate support at the enterprise and park scales and address critical policy issues. Key benefits for Eco-Industrial Parks include: reducing an industrial park’s environmental footprint; promoting efficiency gains; enabling community cohesion; providing better access to finance and technical support; and enhancing business competitiveness. Good international industry practice demonstrates a wide range of economic, environmental, and social benefits from EIPs.

The development objective of GEIPP, which is funded by Switzerland through the Swiss State Secretariat for Economic Affairs (SECO), is to demonstrate the viability and benefits of Eco-Industrial Park approaches in scaling up resource productivity and improving economic, environmental and social performances of businesses and thereby contribute to inclusive and sustainable industrial development in the participating developing and transition economies.

GEIPP is structured into 2 main components:
The country level interventions in component 1 will address country-specific EIP by implementing tailor-made initiatives in the listed 4 countries for potential project activities; Colombia, Egypt, Peru, Ukraine and Vietnam.

- EIP will be incentivized and mainstreamed in relevant policy and regulations leading to an increased role of EIP in environmental, industry and other relevant policies at the national levels in the participating Programme countries.

- EIP opportunities will be identified and implementation started, with environmental (e.g. resource productivity) economic and social benefits achieved by enterprises confirmed.

Component 2 serves as a transversal component in the GEIPP for global knowledge development. The objective of this component is to generate and disseminate knowledge from present and past endeavors, which can be used to tackle the required preconditions for EIP.
It aims to generate and disseminate/transfer knowledge to the various country projects and special country measures within the country level interventions (component 1), to the stakeholders and UNIDO, and to the interested public in general through global dissemination.

- Specific EIP tools will be developed
- EIP services delivery will be strengthened
- Lessons learnt from EIP interventions will be captured and effectively exchanged
- Awareness raising activities on EIP developed

One of the future challenges of industrial production and industrial parks in the developing countries is the 4th Industrial Revolution and adoption of Industry 4.0 as well as concepts related to the Smart Industrial Parks. The challenges are manifold related to reliable energy and IT infrastructure, Business models of industrial parks and tenant companies as well as the labor skills.

The Eco-Industrial Parks concept provides several dimensions for supporting the uptake of 4 IR and Industry 4.0 and can lead to more sustainable industrial value creation.

When the Fourth Industrial Revolution is designed in a socially and environmentally responsible manner, the environmental dimension of sustainability, the allocation of materials, energy, water, and waste can be realized in a more efficient way using IOT and Big Data. The planning, running and control of industrial activities may be improved with interconnected sensors. Resource flows may be optimized and circular business models can be implemented and the multiple use of resources is supported.

New markets for waste can be created. For solid waste a precise surveillance of the waste flow can be installed. For waste water an exact monitoring of the parameters can be realized in a 24/7 approach. The results may be immediately communicated via the internet and automated regulations may be applied in case of incidents.

With regard to social indicators, Industry 4.0 may improve the working conditions of employees. Jobs may be designed in an inclusive manner
allowing persons with basic skills to perform more demanding tasks as they may receive support via augmented reality devices. Operators in factories may be guided through safe operating procedures avoiding major incidents with potential harm to human health.

The economic dimension of sustainability captures in this context the impact of Industry 4.0 technologies on the financial success of companies and the economic welfare of societies. Industry 4.0 may be a source for new business opportunities, if entrepreneurs realize the benefits that may be derived from the increased availability of data or the connection of value chain activities. New products and services may be created. Ecosystems of complementary actors (such as multinational companies on a specific site, local companies, academia, training institutions etc.) may be creating stimulating business ideas that will be brought to market by ambitious entrepreneurs.

All these benefits can be captured in Smart Industrial Parks through assessing the potential while working towards the Eco-Industrial Park type of operations.

DUTY STATION: Home-based
DURATION: 24 days (over a period of two months)

**Main Functions**

Under the administrative guidance of the Project Manager of the Resource Efficient and Cleaner Production Program for Indonesia, SAP 100224, and the Global Eco-Industrial Parks Programme (GEIPP) SAP ID 170222, The Senior Specialist will;

- provide state-of-the-art advice, training and development of guidance tools for the RECP Indonesia and GEIPP program implementation on the subject of Industry 4.0 and Smart Industrial parks.
- prepare remote/virtual training material on Smart Industrial Parks including key concepts, solutions and experience in implementing Fourth Industrial Revolution and Industry 4.0 in manufacturing industry and industrial parks.

- deliver a 2-Day remote/virtual training on Smart Industrial Parks to park management and key tenant companies considering Industry 4.0 approaches in their operations from 2 Parks in Indonesia (4 half-day training sessions)

- develop a concept for Eco-Industrial Park implementation guidance in form of an Integrated EIP Tool covering Fourth Industrial Revolution, Industry 4.0 and Smart Industrial Parks. The Tool would include sections on partly developed Industrial Parks as well as greenfield industrial parks.

**Core Competencies**

WE LIVE AND ACT WITH INTEGRITY: work honestly, openly and impartially.
WE SHOW PROFESSIONALISM: work hard and competently in a committed and responsible manner.
WE RESPECT DIVERSITY: work together effectively, respectfully and inclusively, regardless of our differences in culture and perspective.
WE FOCUS ON PEOPLE: cooperate to fully reach our potential – and this is true for our colleagues as well as our clients. Emotional intelligence and receptiveness are vital parts of our UNIDO identity.
WE FOCUS ON RESULTS AND RESPONSIBILITIES: focus on planning, organizing and managing our work effectively and efficiently. We are responsible and accountable for achieving our results and meeting our performance standards. This accountability does not end with our colleagues and supervisors, but we also owe it to those we serve and who have trusted us to contribute to a better, safer and healthier world.
WE COMMUNICATE AND EARN TRUST: communicate effectively with one another and build an environment of trust where we can all excel in our work.
WE THINK OUTSIDE THE BOX AND INNOVATE: To stay relevant, we continuously improve, support innovation, share our knowledge and skills, and learn from one another
Minimum Requirements

Education
Advanced university degree in Engineering or Natural Sciences or other relevant discipline with a specialization in industrial, process or manufacturing engineering.

Languages
Fluency in written and spoken English is required. Fluency and/or working knowledge of another official UN language is an asset.

Field of Expertise
A minimum of 10 years practical experience in the field of industrial development, Industry 4.0 and digital solutions for manufacturing, Industrial Symbiosis and Industrial Parks including experience in developing countries. Exposure to the needs, conditions and problems in developing countries is an asset. Publications in academic journals in the field is an asset.

This appointment is limited to the specified project(s) only and does not carry any expectation of renewal.

Employees of UNIDO are expected at all times to uphold the highest standards of integrity, professionalism and respect for diversity, both at work and outside. Only persons who fully and unconditionally commit to these values should consider applying for jobs at UNIDO. All applications must be submitted online through the Online Recruitment System Correspondence will be undertaken only with candidates who are being
considered at an advanced phase of the selection process. Selected candidate(s) may be required to disclose to the Director General the nature and scope of financial and other personal interests and assets in respect of themselves, their spouses and dependants, under the procedures established by the Director General.

NOTE: The Director General retains the discretion to make an appointment to this post at a lower level.

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Should you have any questions concerning persons or companies claiming to be recruiting on behalf of UNIDO and requesting payment of a fee, please contact: recruitment@unido.org (mailto:recruitment@unido.org)