INDUSTRIAL UPGRAADING & MODERNIZATION PROGRAMME
TAKING YOU AND YOUR INDUSTRY TO THE NEXT LEVEL

Inclusive Sustainable Industrial Development
INDUSTRIAL UPGRADE & MODERNIZATION PROGRAMME
TAKING YOU AND YOUR INDUSTRY TO THE NEXT LEVEL

CONTENTS

INTRODUCTION
- Objective, integrated solution and approach

ENABLE
- Policy and regulatory frameworks and business environment for industrial development

SUCCESS STORY
- Cameroon

BUILD
- Capacities of business support institutions and consultancy sector

SUCCESS STORY
- Tunisia

EMPOWER
- Manufacturing firms to upgrade their managerial, technological and innovative capabilities

SUCCESS STORY
- Syria/Tanzania/Senegal

RESULTS

IUMP WORLDWIDE
INTRODUCTION

In developing countries and economies in transition, industrial small and medium enterprises (SMEs) often lack managerial capacities and have insufficient knowledge of business processes as well as of operational and production cycles.

Furthermore, their performance is often hindered by poor technologies utilized and limited access to finance needed to expand production capacities.

Individual SMEs also find it very difficult to deal with policy and regulatory challenges that impact on their sector or on the business sector in general.

This results in creating obstacles and barriers to SMEs to compete on domestic and international markets.

Tackling these challenges in a holistic way will allow SMEs to produce innovative, cost-effective, safe, reliable, and quality products in sufficient volumes.

THE OBJECTIVE

To improve the industrial performance of manufacturing SMEs by strengthening their competitiveness and environment
The Industrial Upgrading and Modernization Programme (IUMP) aims to contribute to economic growth and facilitate regional integration of developing countries and economies in transition by increasing the capacities of local industries for value-added generation, economic diversification, exports and employment creation. UNIDO advocates that competitiveness and innovation are the key dynamics to take advantage of liberalization and to drive economic development and growth.
AN INTEGRATED SOLUTION FOR INDUSTRY COMPETITIVENESS

A number of internal and external factors play a critical role in the performance and competitiveness of SMEs. Factors related to business environment, industrial and economic policies and support institutions are as important as internal factors influencing production and growth of SMEs. Addressing one or a set of factors in a fragmented and uncoordinated manner, is unlikely to enhance SME competitiveness and trade performance.

Therefore, the integrated technical assistance offered by IUMP consists of remedial actions at three levels to maximize industrial competitiveness.

A holistic IUMP focuses on promoting competitiveness and diversification of manufacturing sectors along with improving regulatory frameworks and the business environment, and reinforcing institutional capacities of technical and business support infrastructure.

The three levels with special focus on priority products, sub-sectors and value-chains with high employment and export potential constitute the core of IUMP’s integrated response to countries’ needs in boosting their industrial competitiveness.
**ENABLE**

**A FAVORABLE BUSINESS ENVIRONMENT**

Without addressing the issues related to the overall business environment, interventions at the enterprise level alone do not produce optimal results to increase industrial competitiveness.

Fostering competitive industries and SMEs requires that an ‘enabling environment’ is in place.

IUMP supports the creation of more favorable economic, financial, and regulatory frameworks for SMEs to upgrade, grow and compete on local and foreign markets.

**IUMP:**
Creating an attractive business climate for local and foreign industries.

---

**Access to finance**

IUMP assists stakeholders to come up with funding scenarios for continued implementation of industrial upgrading interventions at national, sectoral or regional levels.

The Programme facilitates the creation of new financial products and services and provides advice and technical support in the establishment of a dedicated upgrading fund to finance SME upgrading needs.

In this context, the role of the financial sector and its involvement in the IUMP and its Steering Committee is very important for the viability of the industrial upgrading process.

---

**AREAS OF INTERVENTION**

<table>
<thead>
<tr>
<th>POLICY</th>
<th>REGULATORY FRAMEWORK</th>
<th>COMPETITIVENESS ANALYSIS</th>
<th>MANAGEMENT &amp; MONITORING MECHANISMS</th>
<th>NATIONAL INSTITUTIONAL CAPACITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation of industrial upgrading and modernization policies and their integration into national development plans and strategies.</td>
<td>Developing and supporting the enhancement of the existing regulatory, and financial frameworks related to the private sector and industrial development.</td>
<td>Carrying out competitive positioning (and market opportunity) studies for priority industrial sectors and selected value chains and supporting the implementation of identified actions.</td>
<td>Supporting the establishment of programme management, coordination and monitoring mechanisms and setting up a sustainable platform for public-private dialogue on industrial development.</td>
<td>Building capacities of ministries and other counterparts involved in IUMP implementation to ensure sustainability of the Programme.</td>
</tr>
</tbody>
</table>
CAMEROON PILOT PROGRAMME FOR INDUSTRIAL UPGRADEING

The Programme supported national stakeholders in adopting new regulations and policies suitable for industrial development and established/strengthened relevant institutions for management and monitoring of the Programme. The Programme was implemented on a pilot basis for three industrial sectors: textile, agro-industry and wood.

Cameroon implemented reforms needed to boost industrial modernization

The Pilot Programme for Industrial Upgrading, Standardization and Quality, funded by the European Union and implemented by UNIDO, offered Cameroon an important opportunity to revisit its industrial regulations and institutional frameworks.

Based on a participative approach involving the main stakeholders from public, private and financial sectors, the Programme successfully supported Cameroon in strengthening its institutional framework, formulating new regulations related to SME development and quality promotion, adopting the required texts and procedures to create new institutions and agencies.

Several laws and regulations were recommended to national authorities allowing the establishment of the National Upgrading Office and the Programme Steering Committee. Moreover, a feasibility study was carried out to set up an incentive mechanism for SMEs participating in the Programme.

Due to the success of the Programme in ensuring high-level national ownership and creating an enabling environment for SMEs, the European Union allocated an additional €10 million to expand Programme activities.

Cameroon Success Story

Due to the success of the Programme in ensuring high-level national ownership and creating an enabling environment for SMEs, the European Union allocated an additional €10 million to expand Programme activities.

<table>
<thead>
<tr>
<th>POLICY</th>
<th>REGULATORY FRAMEWORK</th>
<th>POSITIONING STUDIES</th>
<th>MANAGEMENT &amp; MONITORING BODIES</th>
<th>NATIONAL INSTITUTIONAL CAPACITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A National Upgrading Programme was formulated and presented to national stakeholders. In addition, public-private dialogue was facilitated allowing the validation of the Programme design and implementation. Furthermore, the project supported the formulation of the national quality plan to strengthen the quality infrastructure.</td>
<td>Several laws and regulations were recommended to national authorities allowing the establishment of the National Upgrading Office and the Programme Steering Committee. Moreover, a feasibility study was carried out to set up an incentive mechanism for SMEs participating in the Programme.</td>
<td>Two positioning studies were carried out for the agro-food sector and business development services in Cameroon. The studies resulted in the formulation of an action plan for developing these sectors.</td>
<td>Important technical assistance and coaching activities were delivered to ensure the set up of the Upgrading Office (technical unit), Steering Committee, Subcontracting and Partnership Exchange (SPX) and the Cameroon standardization body (ANOR).</td>
<td>Capacities of Ministries and national institutions involved in Programme management and implementation were strengthened: Ministries in charge of Economy (MINPET), Industry (MINIMIDT) and SMEs (MINPMEESA).</td>
</tr>
</tbody>
</table>
A transparent cross cutting partnership

The implementation of an upgrading programme is always conducted through a partnership between the private and public sectors. The Steering Committee of an IUMP, which is the highest decision making body of the Programme, includes members from relevant Ministries (industry, finance, etc), support institutions, private sector associations, consultancy associations, and the banking sector. The aim is to ensure national ownership and accountability for the upgrading programme as well as to guarantee a transparent transaction and cooperation environment among different stakeholders.

This partnership aims at setting a unified vision for industrial upgrading between the private and public sectors through the establishment of a platform for discussion and exchange of information.

The effectiveness of an IUMP intervention at this level is considered highly important due to spill-over effects that will benefit a wider range of SMEs from all sectors.

** PRIORITIES**

**DEVELOPING SKILLS**
- Building skills and capacities of national consultancy sector institutions and individuals through training, coaching and their direct involvement in the implementation of upgrading activities

**IMPROVING QUALITY**
- Mapping and assessing the quality of industry support services against the needs of SMEs to be consequently enhanced and strengthened to match the requirements of local and export markets

**EXPANDING SERVICES**
- Expanding the range of services required by SMEs to keep abreast of the increasingly changing industry needs and ensuring improved responsiveness to market trends

**PROMOTING LINKAGES AND PARTNERSHIPS**
- Strengthening linkages between businesses, institutions and academia to better meet the needs of industry in terms of R&D, product and process innovation and technology transfer

**EQUIPPING WITH TOOLS & METHODOLOGIES**
- Developing a number of tailored tools and methodologies for national counterparts to operate, monitor and track the IUMP implementation, thus ensuring sustainability and national ownership
TUNISIA
INDUSTRIAL UPGRADING PROGRAMME

The programme increased productivity and economic diversification, reduced production costs and improved quality in the country’s manufacturing sector.

The key role of Tunisian support institutions in IUMP

The National Upgrading Programme in Tunisia contributed to the country’s efforts to increase productivity and economic diversification, reduce production costs and improve quality in the country’s manufacturing sector, enhancing its competitiveness and increasing the share of Tunisian goods in the global market.

One of the significant achievements of the Upgrading Programme was its contribution to the emergence of a competitive and diversified manufacturing sector, historically dominated by the textile industry. Currently, production and export of highly sophisticated foodstuffs and chemicals, mechanical and electromechanical equipment, automotives and aeronautics parts and components, and technical textiles are among largest and fast growing sectors in Tunisia.

Most of these structural changes were implemented by Tunisian authorities through the establishment of an efficient and market-responsive system of support agencies, providing assistance to the industrial sector, and in particular to enterprises seeking to become more competitive internationally. Currently, Tunisia’s industrial support infrastructure includes 11 sectoral technical centers, quality infrastructure bodies, the export promotion center, the energy efficiency agency, the environment technology center, investment and innovation promotion agencies, a dynamic private consultancy sector, and a comprehensive vocational system. A number of these institutions were supported by UNIDO in order to build their capacities and improve the quality of their services to enterprises.

This large spectrum of support institutions played a leading role to promote the National Upgrading Programme and to assist enterprises to improve their competitiveness through a diversified range of services, including production, marketing, quality control, organization, management and training.

TUNISIA SUCCESS STORY

Thanks to the support provided by the Technical Centre for Chemical Industry, CAP-Valentine enterprise successfully implemented its upgrading programme and increased turn-over by 32% and exports by 136% between 2001 and 2009.

Mr. Tarek CHERIF, DG, CAP-Valentine
EMPOWER

ENTERPRISE PERFORMANCE

IUMP contributes to strengthening supply side capacities at the enterprise level through technical assistance for improving the quality and quantity of industrial output, and for facilitating market access at national, regional, and international levels.

IUMP undertakes a thorough diagnosis of enterprise functions and performance, thus identifying bottlenecks and areas of intervention, based on which an upgrading plan with priority actions is developed.

Subsequently, the implementation of the upgrading plan is carried out by teams of highly qualified international experts in close cooperation with national experts trained by IUMP.

Value chain based approach

Upgrading programmes target vital value chains in priority sectors. Weaknesses impacting the value chain and its actors are identified first at the macro level and later verified through strategic enterprise diagnosis.

A value chain approach to upgrading seeks to identify and address major weaknesses along the supply chain. Instead of concentrating on just one group of enterprises or a location, IUMP, using a value chain approach, is more effective and has higher impact.

Value chain based approach

Upgrading programmes target vital value chains in priority sectors. Weaknesses impacting the value chain and its actors are identified first at the macro level and later verified through strategic enterprise diagnosis.

A value chain approach to upgrading seeks to identify and address major weaknesses along the supply chain. Instead of concentrating on just one group of enterprises or a location, IUMP, using a value chain approach, is more effective and has higher impact.

IUMP: Enabling manufacturing firms to upgrade their managerial, technological and innovative capabilities on a pilot basis for demonstrations effects.

OVERALL STRATEGIC DIAGNOSIS

The overall diagnosis of an SME consists of five steps:
- Analysis of external sources of competitiveness
- Analysis of product markets and strategic positioning
- Diagnosis of managerial skills and social aspects
- Diagnosis of technical capacities and quality, including energy efficiency and environmental issues
- Financial diagnosis

UPGRADING STRATEGIES

At the completion of the diagnosis phase, the upgrading plan is agreed with the SME management to define priority remedial actions. Strategies are selected in accordance with comparative advantages, and the development vision and goal of a beneficiary enterprise.

FORMULATION & FINANCING

Upgrading plans describe the required intervention in terms of adoption of new technologies, renewal of production equipment, introduction of IT systems, management capacity building and quality improvements. The upgrading plans are formulated in a bankable format (business plan/feasibility study) that enables SMEs to approach financing institutions in an expeditious manner.

IMPLEMENTATION AND MONITORING

Implementation of upgrading plans is carried out by teams of highly specialized international and national experts providing on-site technical assistance. These interventions are undertaken in different time intervals to allow for a learning process and to ensure that the technical assistance is assimilated at the SME level, and that the desired results are achieved.
Industrial Modernization and Upgrading Programme Syria: Case of Ghazal Enterprise

Phase I of the Industrial Modernization and Upgrading Programme (I'MUP-Syria) brought immediate improvements to enterprises such as Ghazal, a medium-sized company operating in the Syrian textile and clothing sector. I'MUP provided technical assistance with a special focus on product development to adapt it to the requirements of the targeted export markets.

Ghazal went on from being a business that lacked the required knowledge and experience into an enterprise that began exporting into new markets.

Similar to the successful case of Ghazal, 35 additional enterprises – supported on a pilot basis – benefited from assistance provided by I'MUP-Syria in the fields of production planning, cost-accounting and human resource management. This intervention was implemented by international and national experts trained by the Programme to enable beneficiary enterprises to redesign entire production lines, reduce costs and improve quality which resulted in attracting new local and international clients.

Beneficiary enterprises are able to redesign entire production lines and attract international clients.
LAUNCHED IN 2012, THE TANZANIA INDUSTRIAL UPGRADING AND MODERNIZATION PROGRAMME (Tanzania IUMP) IS A RESULT OF THE JOINT EFFORTS OF THE MINISTRY OF INDUSTRY AND TRADE OF TANZANIA AND UNIDO TO STRENGTHEN SUPPLY-SIDE CAPACITY OF SOME INDUSTRIAL SECTORS AND TO IMPROVE COMPETITIVENESS OF LOCALLY MANUFACTUR ED GOODS ON DOMESTIC AND INTERNATIONAL MARKETS.

KEY INDICATORS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TURNOVER</td>
<td>$35,805</td>
<td>$72,393</td>
<td>ENHANCED production, maintenance &amp; marketing capacity</td>
</tr>
<tr>
<td>OPERATING</td>
<td>15%</td>
<td>15%</td>
<td>INCREASED productivity</td>
</tr>
<tr>
<td>MARGIN</td>
<td>7.5%</td>
<td>15%</td>
<td>COMPLIANCE with standards</td>
</tr>
<tr>
<td>EMPLOYMENT</td>
<td>150</td>
<td>200</td>
<td>IMPROVED maintenance, mobilization of working capital, marketing actions</td>
</tr>
<tr>
<td>CAPACITY</td>
<td>28%</td>
<td>60-70%</td>
<td>REDUCED losses of seeds, oil in meal (cake) and milk during the process</td>
</tr>
<tr>
<td>UTILIZATION</td>
<td>2%</td>
<td>5%</td>
<td>OPTIMIZED cost structure</td>
</tr>
<tr>
<td>WASTE &amp; LOSSES</td>
<td>2%</td>
<td>0%</td>
<td>INCREASED ratio of qualified finance, marketing and technical staff to the total staff</td>
</tr>
<tr>
<td>IMPROVED</td>
<td>2%</td>
<td>5%</td>
<td>REDUCED LOSSES of seeds, oil in meal (cake) and milk during the process</td>
</tr>
</tbody>
</table>

In addition to the indicators above, the project also supported the local design and production of semi-refining equipment for oil degumming and neutralization that was successfully tested and the improved manufacturing practices were disseminated to the members of the Central Zone Sunflower Oilseeds Processors Association (CEZOSOPA).
SENEGAL

PROGRAMME

The programme improved competitiveness in agro-food, metalwork, wood processing and furniture, printing, and laundry sectors.

The National Upgrading Programme in Senegal

Launched in 2003, the Senegalese IUMP aimed to improve the competitiveness of local private sector producers, ensuring sustainability of their market positioning, and the promotion of a new corporate culture among local businesses. The project was the result of cooperation between the Government, the Private Sector, UNIDO and the French Development Agency (AFD).

SENEGAL SUCCESS STORY

Phase I of the IUMP undertook upgrading activities at enterprise level while developing domestic technical expertise and infrastructure necessary for a nationally owned upgrading process.

<table>
<thead>
<tr>
<th>PROCESS-EFFICIENCY ORIENTED RESULTS</th>
<th>BEFORE</th>
<th>AFTER</th>
<th>TARGET</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuts in factor costs - steel re-bars (USD)</td>
<td>26.5%</td>
<td>$68</td>
<td>$50</td>
<td>10%</td>
</tr>
<tr>
<td>Poultry unit - feedstuff per kg of meat produced [KILLOGRAMS]</td>
<td>21.4%</td>
<td>14 L</td>
<td>11 L</td>
<td>6%</td>
</tr>
<tr>
<td>Furniture unit - output from 1 m3 of timber [SET]</td>
<td>100%</td>
<td>1 Set</td>
<td>2 Set</td>
<td>66.7%</td>
</tr>
<tr>
<td>Juice &amp; water bottling - plastic used per 1.5 l pet [GRAMS]</td>
<td>16%</td>
<td>50 D</td>
<td>42 D</td>
<td>5%</td>
</tr>
<tr>
<td>Raw milk used to produce 1 kg of cheese [LITERS]</td>
<td>21.4%</td>
<td>11.8%</td>
<td>11.8%</td>
<td>5%</td>
</tr>
<tr>
<td>Juice &amp; water production - efficiency [PERCENT]</td>
<td>11.8%</td>
<td>26.5%</td>
<td>20.8%</td>
<td>50 %</td>
</tr>
</tbody>
</table>

IMPROVED USE OF INPUTS REDUCED WASTE

<table>
<thead>
<tr>
<th>IMPROVED USE OF INPUTS</th>
<th>BEFORE</th>
<th>AFTER</th>
<th>TARGET</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry unit - feedstuff per kg of meat produced [KILLOGRAMS]</td>
<td>20.8%</td>
<td>2.4 kg</td>
<td>1.9 kg</td>
<td>5%</td>
</tr>
<tr>
<td>Furniture unit - output from 1 m3 of timber [SET]</td>
<td>100%</td>
<td>1 Set</td>
<td>2 Set</td>
<td>66.7%</td>
</tr>
<tr>
<td>Juice &amp; water bottling - plastic used per 1.5 l pet [GRAMS]</td>
<td>11.8%</td>
<td>34 g</td>
<td>30 g</td>
<td>25%</td>
</tr>
</tbody>
</table>

REduced waste

Laundry/Printing [PERCENT]

<table>
<thead>
<tr>
<th>REDUCED WASTE</th>
<th>BEFORE</th>
<th>AFTER</th>
<th>TARGET</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laundry/Printing</td>
<td>50%</td>
<td>10%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

The UNIDO / AFD supported Phase II of the National Upgrading Programme focuses on environmental upgrading and promotion of energy efficiency of Senegalese enterprises.
RESULTS

**ENABLE**
**BUSINESS ENVIRONMENT**
- Industrial upgrading programme integrated into national development strategies and plans
- Sustained and up-scaled upgrading process through the establishment of (a) autonomous management and monitoring mechanisms and (b) financial and non-financial incentive schemes
- Policy and decision making process supported by strategic competitiveness and sectoral analysis tools

**BUILD**
**INDUSTRY SUPPORT SERVICES**
- Increased range and quality of services provided by industry support institutions
- Improved domestic technical expertise on industrial upgrading and expanded pool of qualified national consultants
- Strengthened linkages between businesses, institutions and academia to better meet the needs of industry

**EMPOWER**
**ENTERPRISE PERFORMANCE**
- Increased market share and stronger linkages across priority value chains
- Enhanced export capacities and compliance with international requirements and standards
- Strengthened product quality and reduced factor costs
- Improved productivity and increased manufacturing value added
- Facilitated access to finance

**INDUSTRIAL UPGRADING AND MODERNIZATION PROGRAMME**

**UPGRADE YOUR BUSINESS!**
- **RATIONALIZE PRODUCTION TECHNOLOGY**
- **INTRODUCE BEST MARKETING PRACTICES**
- **PROTECT HUMAN RESOURCES CAPACITIES**
- **OPTIMIZE FINANCIAL MANAGEMENT**

**IMPROVE EFFICIENCY • INNOVATE • FULFILL YOUR POTENTIAL**
IUMP WORLDWIDE

UNIDO successfully implemented a number of upgrading projects at the national and regional levels in a number of countries in North Africa, the Middle East, and West, Central and East African sub-regions. Currently, IUMP is expanding its regional coverage to Asia, Eastern Europe, the Caucasus and Central Asian countries.

UNIDO’s industrial upgrading programmes have had immediate impacts on the acceleration of growth of industrial sectors, thereby contributing to overall economic growth and employment creation. Industrial upgrading is often at the core of national and regional action plans that UNIDO Member States adopt for economic growth and industrialization.

Completed and ongoing IUMPs


Planned IUMPs

INDUSTRIAL UPGRADING & MODERNIZATION PROGRAMME

TAKING YOU AND YOUR INDUSTRY TO THE NEXT LEVEL

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION