Life Sciences Sector Skill Development Council

(LSSSDC)

Enabling Vocational and Employability Skills

Introduction

- LSSSDC is an industry-led **not-for-profit organization** that **awards skill certification for Life Sciences Sector.**
- It is an **approved vocational education awarding body by NCVET** under the Ministry of Skill Development & Entrepreneurship
- It is an **authorised awarding and monitoring body for Optional Trades in Life Sciences Sector** for Apprenticeship Courses/ Trades under Apprenticeship Act
- **CEO, LSSSDC is Joint Apprenticeship Advisor appointed by MSDE.**

Life Sciences Sector

Pharmaceuticals

- Formulations
- API / Bulk Drugs
- AYUSH Drugs
- Nutraceuticals
- Cosmetics

+

Biotechnology

- Bio Pharma
- Medical Devices
- Other Allied Biotech Industry

+

Contract Research

- Drug Discovery & Pre Clinical
- Product Development
- Clinical Research
- R&D Services

What do we do?

Make available foundation and resources for a demand (industry) led, quality-focused, scalable and sustainable Skilling Ecosystem

1. Carry out a Functional and Occupational Mapping and develop a Catalogue of Industry Occupations / Job Roles
2. Develop and set National Occupational Standards for Job Roles in the sector
3. Develop Qualifications, Model Curricula and related course content for efficient Training Delivery
4. Develop parameters for Accreditation of Training Institutes, Trainers, Assessors and Assessment Criteria for Trainees
5. Monitor Usage of qualification and required changes as per futuristic requirements

Adding value to the ecosystem

Standards and Resources

- Skill Gap Reports
- National Occupational Standards
- NOS driven Vocational Qualifications (NSQF Aligned)
- Model Curriculum
- Participants Handbooks
- Training Manuals
- E-books
- Self-paced Interactive Content
- Virtual Reality Manufacturing Labs

Quality Assurance Framework

- Affiliation Protocols
- Training & Assessment Rules
- Training & Certification of Trainers
- Cutting Edge Assessment Methodologies
- Assessment Protocols

Skilling Ecosystem

- Centre of Excellence
- Pradhan Mantri Kaushal Kendra
- Higher Education Institutions & Universities
- Pharmacy Colleges under PCI
- Industry led Technical Training Centres
- Skill Development Centres

Policy Advocacy and Consultation

- Policy related inputs to Government
- Advocacy with Industry to promote Certified Skilled Workforce
- Industry Participation for Skill Ecosystem
- Demand Aggregation
- Placement linkage and Facilitation

Company association

Abbott
AUROBINDO Committed to healthier life!
Emcure SUCCESS THROUGH INNOVATION
NEULAND WHERE OPPORTUNITY BECOMES REALITY
PATANJALI
SUN PHARMA
ACG CAPSULES
Biocon
GRANULES
LUPIN
Pfizer
Tirupati
Akums
BAYER
Glenmark A new way for a new world
MACLEODS Macleods Pharmaceuticals Limited
SANDOZ a Novartis company
torrent PHARMA
Alembic Touching Lives over 100 years
CADILA PHARMACEUTICALS LIMITED The Care Continues...
HETERO
Mankind Serving Life
SENTISS
UNICHEM LABORATORIES LTD.
ALKEM
Cipla
ipca A dose of life
MICRO LABS
Strides
WOCKHARDT
Dr.Reddy's
JUBILANT GENERICS
Syngene A Biocon company
Zydus dedicated to life

...and many more

N·S·D·C National Skill Development Corporation

Roadmap to 2025

14,84,500

Total Projected Employment in Sector

1,49,000

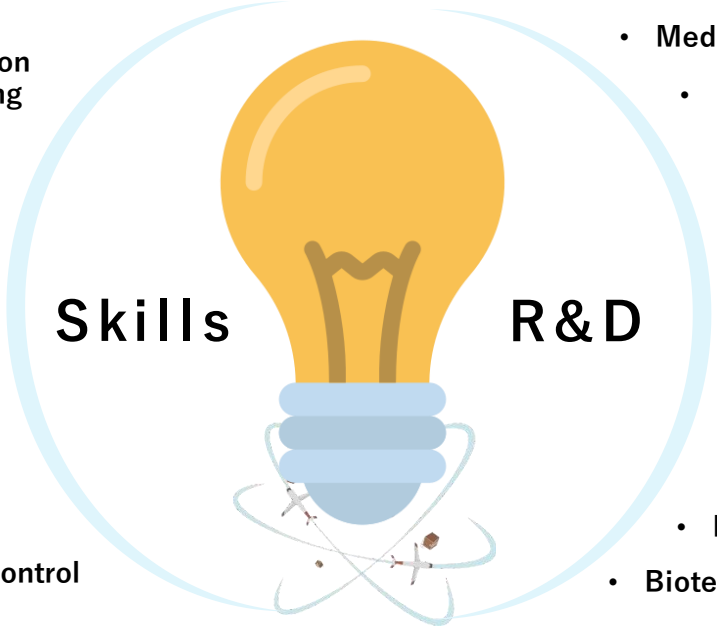
Total Projected New Employment in Sector

Biotech, MedTech, Contract Research & AYUSH

Target Sector for next 5 years

Skills

- Plant Automation Engineering
- Engineering & Maintenance of High-End Machines
- Supply Chain Management/ - Cold Chain Warehouse
- Automated Warehouse Operations
- Quality Control



R&D

- Medical Writing
- Product Development & Technology Transfer
- Bio Process Engineering
- New Innovative Product Development
- Regulatory Affairs Management (Pharma, BioPharma, Medical Devices)
- Clinical Research Management
- Intellectual Property Rights Management
- Drug Development in AYUSH
- Biotechnology R&D and Lab Management

Key Stakeholders

Direct interface

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

NCVET
कौशल गुणवत्ता प्रगति

Skill India
कौशल भारत - कुशल भारत
Ministry of Skill Development
& Entrepreneurship

N·S·D·C
RE IMAGINE FUTURE

Line Ministry

औषध विभाग
Department of
Pharmaceuticals
सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
विज्ञान और प्रौद्योगिकी मंत्रालय
MINISTRY OF SCIENCE AND TECHNOLOGY
जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY
सत्यमेव जयते

Other related ministry

सत्यमेव जयते
Ministry of Ayush
Government of India

स्वास्थ्य एवं
परिवार कल्याण मंत्रालय
MINISTRY OF
HEALTH AND
FAMILY WELFARE
सत्यमेव जयते

N·S·D·C
National
Skill Development
Corporation

Ecosystem Developed

28
Qualifications
53
Programs

2
Qualifications under Approval

2
Qualifications under validation

12
Skilling Content published

46
Apprenticeship Courses

4
Hobby Courses For CBSE Published

2
Foundation Course For CBSE Under development

2
Foundation Course For CBSE To be approved By NCVET

Published Sub Sector & Occupations

Pharmaceuticals	Biopharmaceuticals	Contract Research
Pharma Manufacturing	Biopharma Manufacturing	Bioinformatics
Pharma Quality	Biopharma Quality	Contract Research Quality
Manufacturing		New Drug Discovery
Quality		Pre Clinical Research
Sales & Marketing		Clinical Trials
		Bio Availability & Bio Equivalence
		Contract Research Sales & Marketing
Research & Development		
Supply Chain		
Engineering & Maintenance		
Pharmacovigilance		

Qualifications Implementation Mode

- Upskilling and Certification of Faculties as Certified Trainers & Assessors (Vocational Educators)
- Short Term Training Program
- Add on Program
- Embedded Program
- Apprenticeship Training
- Existing Workforce Certification using Recognition of Prior Learning
- Upskilling/ Re skilliing

"What are the major challenges faced by companies in India when implementing global Good Manufacturing Practices (GMP) standards, such as the revised Schedule M, and how can training programs help overcome these challenges?"

CHALLENGES IN GMP IMPLEMENTATION

- LACK OF BUY-IN FROM OWNERS AND TOP MANAGEMENT
- INADEQUATE LEVELS OF TRAINING AND AWARENESS ACROSS THE ORGANIZATION
- DATA INTEGRITY CHALLENGES
- INABILITY TO EMBED RISK BASED QUALITY AND PATIENT SAFETY MIND SET IN ORGANIZATIONAL CULTURE
- COST AND LACK OF GUIDANCE FOR IMPLEMENTATION

LSSSDC AS PARTNER IN EFFECTIVE GMP IMPLEMENTATION

FACILITATE THE “HOW-TO” PART OF IMPLEMENTATION THROUGH INTERNAL TRAINING

RIGHT KIND OF TRAINING FOR ACROSS THE ORGANIZATION

ASSISTANCE IN EMBEDDING RISK BASED QUALITY AND PATIENT SAFETY MIND SET IN ORGANIZATIONAL CULTURE

LOWEST COST MODEL FOR GUIDANCE FOR IMPLEMENTATION

SUSTAINABLE GMP SYSTEM THROUGH INTERNAL CAPABILITY DEVELOPMENT

LSSSDC : GMP SERIES

A TOOLKIT FOR GMP IMPLEMENTATION

- Data Integrity and ALCOA+ : A responsible Behaviour for cGMP
- GDocP: Good Documentation Practices and Regulatory Expectations
- Computer System Validation (CSV) Best Practices
- cGMP Warehouse Practices
- Pre-Audit Preparation
- Develop an Audit Ready Team
- Good Laboratory Practices (GLP)
- Self-Inspection and Quality audit
- Change Control Management: Best Practices
- Deviation Investigations: Best Practices
- CAPA and its implementation: Risk Based Approach
- Water Systems: Key utility for Product Quality
- Heating, Ventilation, and Air Conditioning (HVAC) Systems: Contamination Control
- Quality Risk Management: Embeddd in Quality by Design
- Good Distribution Practices: Traceability is a Responsibility

Products & offerings

Existing Employee Certification

Training of Trainers

GMP 360° E-Training

Apprenticeship

- Fresh Skilling Program
- Existing Workforce Skill Certification Program (RPL)
- Existing Workforce Up-Skilling Program
- Train the Trainer & Assessor Program
- E Skilling Program
- Academy of Excellence / CoE
- CSR / Self Funded Skill Development Program
- National Apprenticeship Promotional Scheme (NAPS)

An Industry Led Body

S. No	Name of Industry	Instrument of Association
1	IPA- Indian Pharmaceutical Alliance (Top 27 Indian Pharmaceutical Manufacturing Conglomerates are member of this Elite Association)	Part of Governing Board
2	ABLE – Association Of Biotechnology Led Enterprises	Part of Governing Board and MoU with all 280 industry members
3	BDMAI – Bulk Drug Manufacturing Association of India (There are 500 member companies. List is attached with MoU)	Part of Governing Board and MoU with all 500 industry members
4	IDMA (Gujarat State Board) – Indian Drugs Manufacturers Association	Part of Governing Board and MoU with all 350 industry members
5	CIPI – Confederation of Indian Pharmaceutical Industry- Small Scale (Aggregating Industry Association for PAN India State level MSME Association covering appx. 90% of MSME in India)	MoU with PAN India State Manufacturer Associations

An Industry Led Body

S. No	Name of Industry	Instrument of Association
6	IPA – Indian Pharmaceutical Association	Part of Governing Board
7	OPPI – Organisation of Pharmaceutical Producers of India	Part of Governing Board
8	FOPE – Foundation of Pharma Entrepreneurs	Part of Governing Board
9	KDPMA – Karnataka Drugs and Pharmaceuticals Manufacturers Association of India (There are 79 member companies. List is attached with MoU)	Memorandum Of Understanding
10	Zydus Life Sciences Limited	Part of Governing Board and Centre of Excellence
11	Cipla Limited	Part of Governing Board

An Industry Led Body

S. No	Name of Industry	Instrument of Association
12	Dr. Reddy's Laboratories Limited	Part of Governing Board
13	Lupin Limited	Part of Governing Board
14	Sun Pharma Limited	Part of Governing Board
15	Micro Labs Limited	Centre of Excellence
16	Macleod's Pharmaceuticals Limited	Centre of Excellence
17	Granules India Limited	Centre of Excellence managed by Swarn Bharat Trust funded by CSR from Granules India
18	Patanjali Ayurveda Limited	Centre of Excellence under development for Ayurveda R&D based Skilling

Thanks

Goutam Bhattacharya
CEO
+919818195454 || GOUTAM.B@LSSSDC.IN
WWW.LSSSDC.IN