



CII- National Award for Environmental Best Practices 2023

Presented By:

- a) Mr. Manoj Kumar Teluguntla**
(VP –Packaging Development)
- b) Mr. Mayank Tomer**
(Head – ESG)
- c) Mr. Amit Anam**
(DGM/Head India business –
Packaging Development)

ZYDUS OVERVIEW

Zydus Lifesciences Limited (Formerly known as Cadila Healthcare Limited), a leading Indian Pharmaceutical company is a fully integrated, global healthcare provider.

With in-depth domain expertise in the field of healthcare, it has strong capabilities across the spectrum of the pharmaceutical value chain

From formulations to active pharmaceutical ingredients Zydus has earned a reputation amongst Indian pharmaceutical companies for providing comprehensive and complete healthcare solutions.

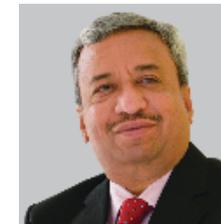
The origin of the company dates all the way back to the 1950s. The company was founded in the year 1952 by Mr. Ramanbhai B. Patel (late), a first-generation entrepreneur and a doyen in the field of Indian Pharmaceuticals

In 1995, the group was restructured and thus was formed Cadila Healthcare under the aegis of the Zydus group.

State of art manufacturing capabilities across the value chain including formulations, APIs, vaccines, biosimilars, complex products (transdermals, topical etc.),



Founder : Sh. Ramanbhai B. Patel(Late)



**Sh. Pankaj Patel
Chairman**



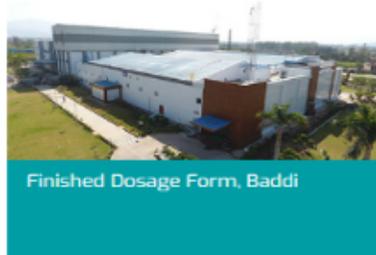
**Dr. Sharvil Patel
Managing
Director**



STATE OF ART MANUFACTURING FACILITIES



Finished Dosage Form, Moraiya, Ahmedabad



Finished Dosage Form, Baddi



Finished Dosage Form, Goa



Formulations Plant at Sikkim



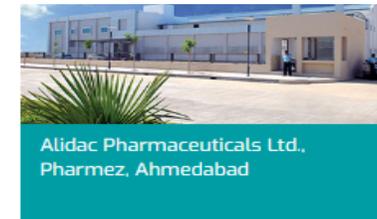
API, Dabhasa



API, Ahmedabad



Biologics Active Substances, Zydus Biologics, Ahmedabad



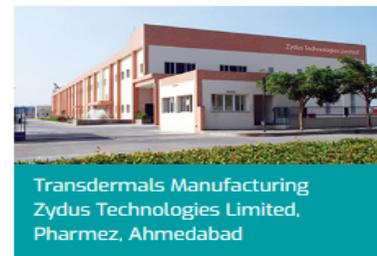
Alidac Pharmaceuticals Ltd., Pharmez, Ahmedabad



Cytotoxic Injectable JV with Pfizer



Vaccine Technology Centre, Ahmedabad



Transdermals Manufacturing Zydus Technologies Limited, Pharmez, Ahmedabad



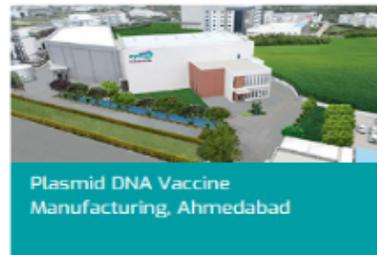
Topical Formulation Manufacturing, Pharmez, Ahmedabad



Finished Dosage Form, Brazil



Liquid & Solid Oral Dosage Products, Neshor Pharma, USA



Plasmid DNA Vaccine Manufacturing, Ahmedabad



Matoda SEZ Plant, Matoda



SUSTAINABLE PACKAGING INNOVATION



- **Project:**
Reduction of substrate weight in paper, plastic and coolant chemical from Injectable products marketed in India
- **Category :**
Material Conservation
- **Name of Organization :**
Zydus Lifesciences Limited

 TRIGGER POINT: Brainstorming sessions among cross functional teams (G-E-A-R process)



G – Generation
(34 no's)

Idea Generation sessions by cross functional teams

E – Evaluation
(17 no's)

Evaluation of generated ideas on feasibility potential at various management levels for implementation

A – Accrual
(07 no's)

Accrual of benefits from implemented ideas

R – Realization
(03 no's)

Realization of Benefits



Image: Idea Generation Workshops





- It's new application-wise
- Design to value Approach (DTV) - Value Engineering Technique was used for this project where new design was conceptualized and evaluated further for commercial viability.

Objective

Adoption of sustainable packaging solutions by reducing substrate weight and improving recyclability.



- **Old Pack Configuration:**
PFS → HIPS Tray → PVC Lid → Leaflet → Carton
- **New Pack Configuration:**
PFS → PVC Tray → Leaflet → Carton

PFS = Prefilled Syringes

HIPS = High Impact Polystyrene

PVC= Poly Vinyl Chloride



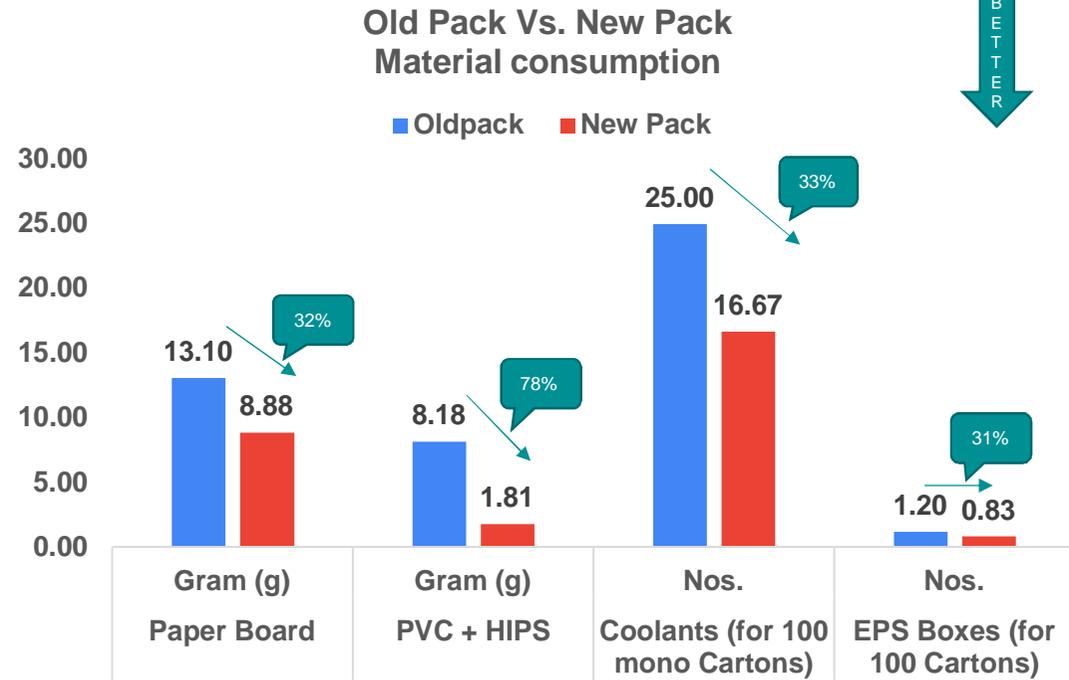
TANGIBLE BENEFITS

➤ 195 tons of reduction in material consumed in packaging of Renocrit Inj. in two FYs (FY21-23).



BETTER ↓

Material	UOM	Reduction in Consumption FY22 (A)	Reduction in Consumption FY23 (B)	Consolidated Reduction in Material consumption (A+B)
Paper Board	Kg	9781	13097	22878
Plastic Tray	Kg	14765	19769	34534
Coolants HDPE Body	Kg	7336	9823	17159
Coolant Filler Polyacrylate Copolymer	Kg	46725	62563	109288
Expanded Polystyrene used in EPS Box	Kg	5145	6889	12034
Total (Kg)		83752	112141	195893



TANGIBLE BENEFITS

- **33%** reduction in cold chain vehicle requirement due to lower size of pack.
- **Rs.10.47 Cr** savings towards Packaging Material in two FYs (FY21-23)
- **50%** fuel savings in downstream transportation

Sr. No.	Product Description	Savings/ Unit (INR)	FY22		FY23		Total Savings (INR)
			Sales Qty (Nos)	Savings (INR)	Sales Qty (Nos)	Savings (INR)	
1	RENOCRIT 4000	21.64	1469925	31809177	1990008	43063773	74872950
2	RENOCRIT 10000	16.87	384224	6481859	583853	9849600	16331459
3	RENOCRIT 2000	13.59	294864	4007202	211251	2870901	6878103
4	RENOCRIT 5000	13.59	19504	265059.4	46644	633892	898951
5	RENOCRIT 6000	13.59	22537	306277.8	49998	679473	985751
6	RENOCRIT 2000 (Tender)	13.59	126876	1724245	221806	3014344	4738588
Total			2317930	44593820	3103560	60111983	10,47,05,802



Image: Cold Chain Box (120 packets)

Improvement in space utilization for packaging by 50 % i.e. 120 packets /cold chain box compared to earlier practice of 80 packets/ cold chain box.



INTANGIBLE BENEFITS

ATTITUDE/PERSPECTIVE SHIFT

- This initiative has increased awareness to incorporate sustainability perspective in development of packaging systems where optimization at various levels can have huge impact on material and monetary savings.
- Such initiatives helps organization to become more socially responsible and increases trust among of customers and society at large.
- Trade & Customers gets benefitted for better storage and handling of this cold storage pack.

ENVIRONMENTAL IMPACT

- Contributes to SDG 12, 13, 15
- Mitigation of negative impact plastic consumption



REPLICATION POTENTIAL

- This innovation has the potential to be a guiding light of all future innovations within the Zydus group.
- Additional lever of sustainability has been explored to gain sustainability advantages along with monetary advantages.
- Integration of DTV approach & the 3 R's of sustainability is done in the upcoming product & product packaging innovations.

Within the Company

- The Design to Value Approach & the 3 R's of sustainability has the potential for multiple product innovations in varied industries.
- Another potential lies in greening the supply chain.

Outside the Company

CHALLENGES FACED

- a) Transportation damage and Handling of PFS safely was major concern as we removed HIPS lidding tray.
- b) Above challenge has been successfully addressed by designing a corrugated box which can withstand long distance and poor road conditions.
- c) From last 2 years of its implementation no single market complaint reported



KEY LEARNINGS FROM PROJECT IMPLEMENTATION

- Important learning from this project is, It is a need of time to expand focus area of business from just commercial benefits to Sustainability benefits. From this project it is learnt that along with commercial benefits, environmental benefits can also be achieved if awareness is built.
- Packaging contributes to wastage on earth. Small value engineering changes done in packaging system can help to reduce packaging waste on large scale cumulatively.
- Mono plastics material packaging are recycling friendly. New packaging (PVC) developed is mono material packaging against earlier packaging made up of multiple plastics (PVC + HIPS). We have learnt importance of mono plastic packaging systems towards environment protection.
- All these learnings are institutionalized within the organization to use materials mindful and thoughtful towards sustainability.

NATIONAL/INTERNATIONAL BENCHMARKS

India Star Award (Year 2022) –

- National Award for Excellence in Packaging. A prestigious award given by IIP (Indian Institute of Packaging), which was set up by the packaging and allied industries and the Ministry of Commerce, Government of India

Criteria: Functionality, user-friendliness, sustainability, visual appeal.



National award received on 14/04/2023 in Mumbai.

World Star Award (year 2023) –

Prestigious and highest international packaging excellence award. "WORLDSTAR" issued by the WPO (World Packaging Organization). These international awards are declared after 45 judges of eminent packaging field experts from 44 countries judging.

Criteria:

Sustainability, Protection and preservation of contents, Innovation and originality, User-friendliness, Marketing and branding.



International award received on 06/05/2023 in GERMANY

Thank you