

# Kool-ex Cold Chain Limited Pharma Distribution



...towards solutions



# PHARMA DISTRIBUTION IN INDIA

The current pharmaceutical supply chain scenario in India is extremely complex. One of the main reasons for this complex supply chain environment is the presence multiple channels of distributions starting from Hub's, CFA's, Stockists/ Distributors to retail pharmacies which are spread across India. Medicines are required to be transported to the distant areas through poorly connected routes, using Passive cooling systems. Due to the poor transport facilities in India the cost of drugs is much higher than the USA or Europe. About 1/3<sup>rd</sup> of the revenues generated by the drugs companies have been spent on the transportation only.

The problem of poor supply chain management becomes even more severe when the temperature sensitive drugs such as vaccines, life saving drugs, etc. are required to be transported to the far flung areas. Hence the presence of proper supply chain management which also includes the temperature controlled vehicles and store houses have become important for the pharmaceutical industry of India. Now companies as well as the government have started taking initiatives to transport the medicines in such a manner that the drug or vaccines reaches the target area without losing its efficiency. Use of passive cooling also means Multiple handlings of the Finished product at the above points of change.

# Provides specialized cold chain services to pharma sector

## Supply Chain in Pharmaceutical Sector and Kool-ex's services



Offers transportation and transit warehouse services to customers across the supply chain from factory to stockists\*



### Transportation

- ✓ Temperature controlled (cold) transportation capabilities
  - 2-8°C (viable alternative to hitherto adopted passive cooling gel packs and expensive air freight) – suitable for vaccines, insulins, injectables, biologicals, etc.
  - 15-25°C (replacing conventional ambient movement) – suitable for capsules, tablets, etc.
- ✓ Range of FTL, PTL and express parcel services, milk runs
- ✓ Choice of dedicated / shared vehicles (+back-up vans)
- ✓ Door-to-door, fixed schedules, etc.
- ✓ Also provides dry trucking (ambient)\* services
- ✓ Cold chain logistic to pharmaceutical companies contributes to 70% of the companies revenues.



### Transit Warehousing

**Transit Warehouses** across the country

- ✓ Load consolidation
- ✓ In-transit storage
- ✓ Network optimization
- ✓ Cold rooms for express parcels
- ✓ Cross dock
- ✓ In – built freight, etc.
- ✓ Some cold rooms operated on solar power

Recipient of several awards & certifications for exemplary service  
(Annexure 2)

\* While primary focus of Kool-ex is on the pharmaceutical segment, it also offers transport services to few clients specialized in Medical Devices such as Ventilators & Covid 19 test kits and EVM Machines for the Government of India.

# Well positioned to service a changing demand in pharma logistics

FY19

## Pharma spends on logistics

(INR mn / yr.)

60,000

Transportation,  
22,500

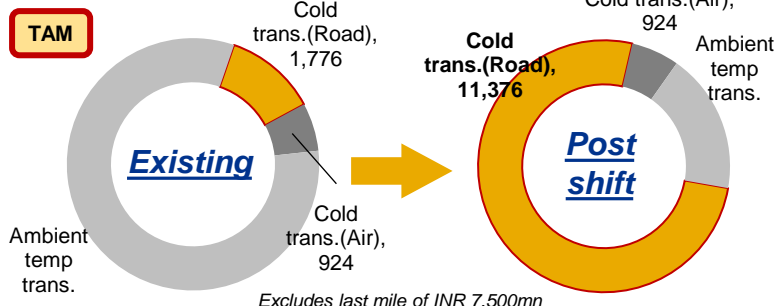
Warehousing,  
37,500

Pharma Logistics Spend

\* - Based on management's estimate

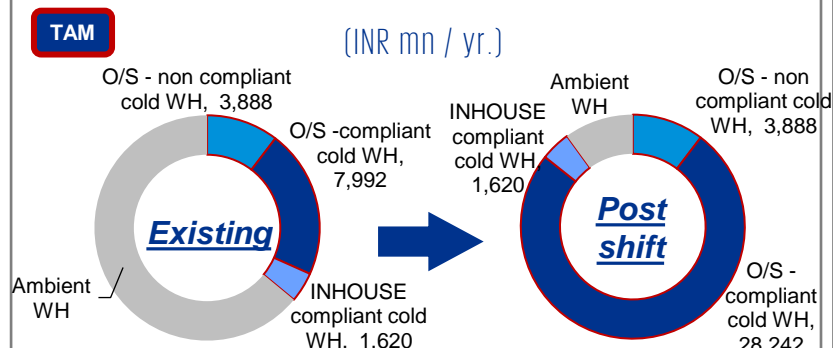
## Pharma spends on Transportation

(INR mn / yr.)



## Pharma spends on Warehousing

(INR mn / yr.)



## Recent trends leading to major shift in industry...

- 1 Greater thrust from MNC and Indian pharma companies for voluntary adoption of global standards for temperature controlled logistics
- 2 Upcoming regulations in India (currently in draft stage) relating to GDP, laying down guidelines across the supply chain, including transportation and storage
- 3 Recent approval by DTA to the CDSCO to proceed with GDP as a follow on action to the statement by the honorable Prime Minister of India on 14 Aug 2019

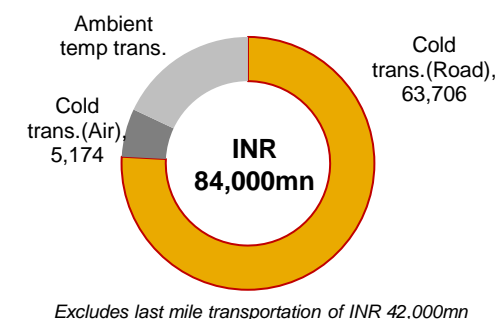
## Impact

- Shift of ~75% of pharma transportation from ambient to cold (15-25°C category)
- Shift of storage business from ambient non-compliant warehouses to compliant temperature controlled warehouses
- Rise of large regional pharma fulfillment centers in the post-GST regime

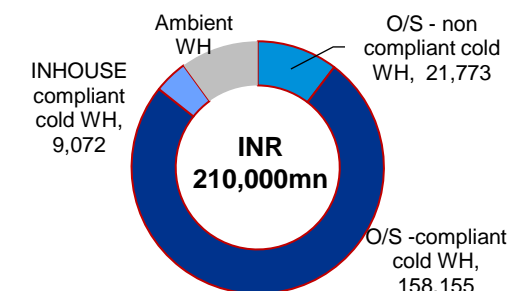
FY30

Logistics spend of the fast growing Indian pharma industry is expected to grow to INR 336,000 mn

## Transportation



## Warehousing



Kool-ex's Total Addressable Market (TAM) : INR 15,280 mn / INR 45,130mn (post-shift)

Expanding to >>>

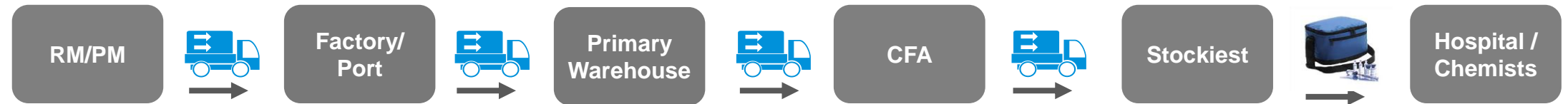
INR 252,710 mn

Given the anticipated structural shift in pharma cold logistics and the current fragmented nature of supply, there is a significant opportunity for an organized player to rapidly grow and capture the high growth opportunity

# Transition to an end-to-end pharma distribution solutions provider

## Current Business Positioning

"Pharma focused temperature-controlled transportation service provider"



### A. Temperature Controlled Transportation Services

- **Various temperature ranges:** Cold (2-8 degC), Cool (15-25 degC) and Ambient
- **Various mode:** FTL, PTL, express parcel services



**B. Transit Warehouses** across the country for load consolidation, in-transit storage and network optimization



**C. Real-time Monitoring** of temperature and storage conditions, tracking and alarm systems across the transportation leg

## Aspired Business Positioning

"Pharma focused solutions provider that encompasses the entire spectrum of temperature controlled logistics chain"



### D. World-class pharma dedicated GDP/ GWP compliant warehouses pan-India (asset light) ~ 5 Mn sq. ft.

- **Streamline customer's supply chain by offering compelling alternative** to current fragmented / dispersed central & multiple regional warehouses that are managed either in-house / by non-specialists
- **Critical value-added services** – real time temperature monitoring, end to end batch wise traceability by using technology such as blockchain & value add services such as returns logistics, sample/ promo logistics, stickering, barcoding, repacking.



**E. Expand cold transportation services** into last mile delivery and fulfillment up to stockiest with customized solutions, by optimizing conventional distribution methods



**F. End to end batch wise traceability** of pharma products with complete logs on temperature variations, handling, etc. using advanced technology like block-chain

**Tie up with India's largest real estate player to build GDP/ GWP compliant warehouses.**  
**Tie up with India's largest IT player to develop 'Blockchain' for Pharma.**  
**Tie up with a leading Passive solutions player to develop world class passive solutions.**

# Kool-ex - A niche pharma logistics player

## Background

- **Kool-ex Cold Chain Ltd (“Kool-ex”)** was established in 2012 and headquartered in Mumbai, India
- Vertically specialist logistics player, it is currently engaged in pharma cold transportation in India. **Aspires to be an end-to-end Pharma logistics (transportation + warehousing + value added services) player** in the complex pharma supply chain

## Pharma focused operations

- **Market leader in a highly specialized and a high entry-barrier** business of temperature-controlled pharma transportation services (custodian of high-value, sensitive cargo).
- The **owner & operator of largest pharma dedicated reefer** fleet in India; **all vehicles undergo industry approved validation processes** and are **compliant with stringent quality standards** of customers
- Only player with a pan-India network (**reaches to 800+ cities**) connecting key pharma manufacturing clusters with consumption points

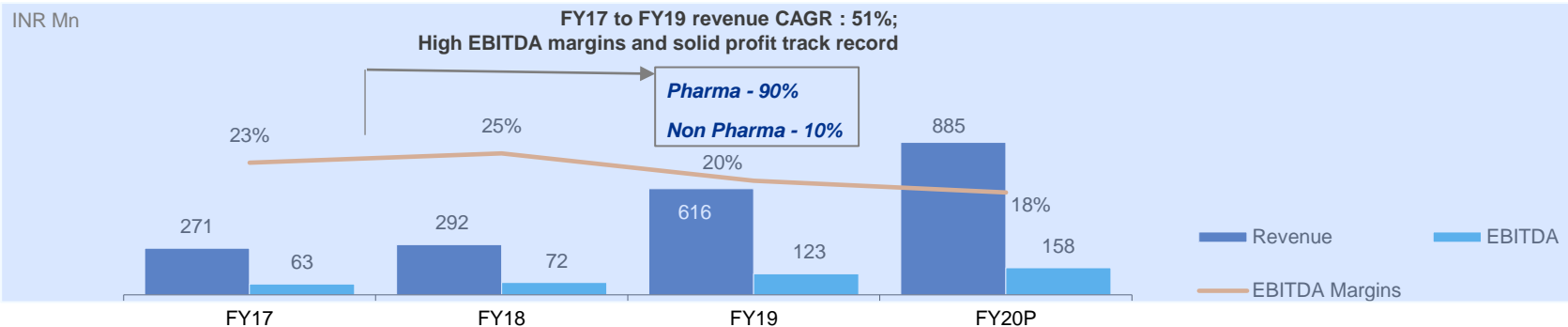
## Founder and Management team

- Founded by the promoters of Boruka Logistics Pvt Ltd, a company with 40+ years of road transportation experience across India
- Promoters have **‘logistics’ + ‘pharma’ DNA**, with 40+ years of experience in logistics business across sectors, and 20+ years expertise in pharma logistics
- Demonstrated proactive business strategy - spot and act on trends early
- Supported by a dedicated and loyal management team

## Shareholding

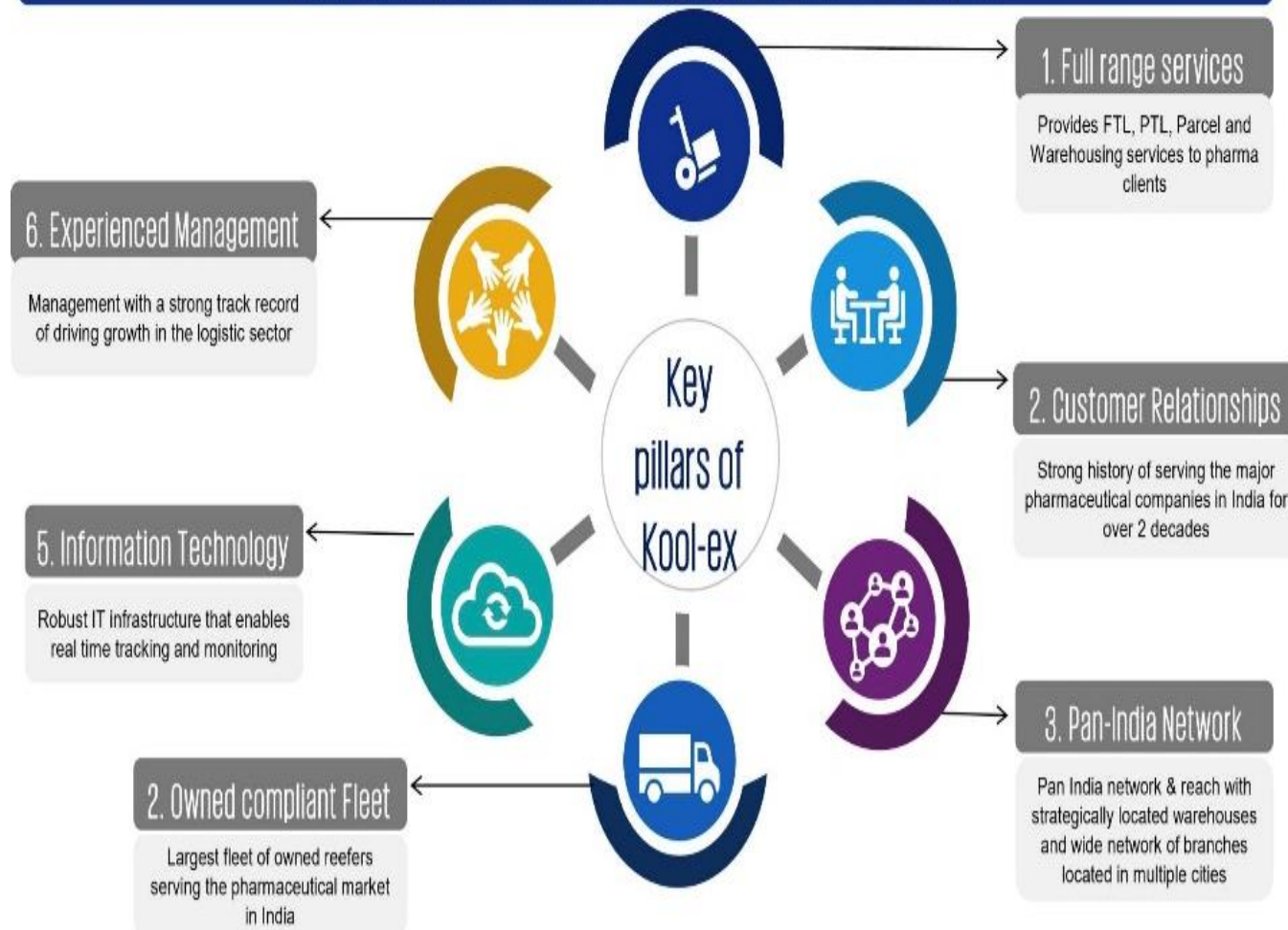
- Kool-ex is 100% held by the promoter family, with **Mr. Rahul Agarwal and Mr. Kunal Agarwal** holding the largest stakes and managing the business.

## Strong financial performance



# Foundation of Kool-ex

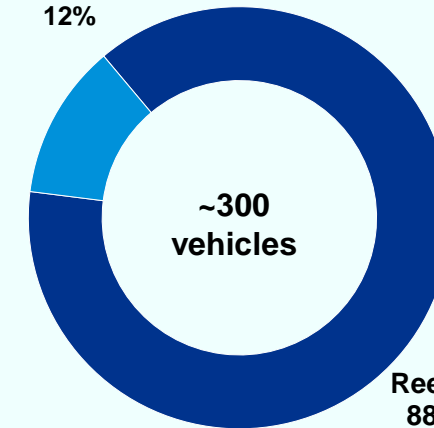
Kool-ex enjoys a strong, competitive and unique positioning in pharmaceutical logistic industry; with a solid foundation built on 6 key pillars, it is well-positioned to tap the huge growth opportunities in this segment



## Fleet

- Owns a fleet of **~300 (+100 in pipeline) GPS enabled vehicles designed & certified / approved for pharmaceutical transportation**

**Non-reefer  
12%**



- Diversified fleet of varied sizes (1 MT – 28 MT / 10 ft. to 32 ft.))
- 70%+ of the reefers are large vehicles in the 24-32ft range
- Non-reefers are used for ambient pharma products and high-margin non pharma products

- Modern, young fleet, with average age of only 2.4 years, leading to higher availability and lower operating costs
- Announcing its foray into GDP compliant Pharma warehousing with the construction of strategically located 'Distribution Centers' across India**

(fleet information as on July 2020)



# Strong relationships with marquee customers

Well diversified customer exposure - top 20 customers (doing business with Promoters for 10-15 years) contributed 58% of the company's revenue in FY 2019

Impressive client roster – Kool-ex is accredited by leading MNC and Indian pharma companies



## Specialty Services



Last Mile Delivery



Warehousing



Pickup from multiple vendors, consolidation and transportation

Company has created a strong association with pharma companies, providing high-margin services



# Robust IT to enhance efficiency and customer experience

## Tracking temperature through 5 sensors

The Company has designed a customized GPS based system which deploys **5 sensors** in the reefers.

- **Temperature in the cold box is monitored by 3 sensors**
- **2 sensors are placed along the doors of the reefer.**

All sensors are connected to the internet and the readings can be monitored on a mobile app; going forward the system can also add CCTV cameras for inside & outside view

## High frequency of tracking

Sensors deployed by Kool-ex take readings every 30 seconds and record the readings round the clock, which can be accessed on real time basis.

## Alerts to track variations

In case of any temperature deviation, an alarm is triggered within 2 minutes of the deviation, giving the Company the opportunity to make necessary corrections. Clients can directly view the alerts on a mobile app

## Customised reports

Customized software enables customers to generate customized reports to check for any deviations during the journey

## ERP Systems

- ERP covers finance, operations, maintenance, fleet operations, fleet management, human resources, etc.
- Capable of integrating with the client's software to enable online & seamless exchange of data without human intervention

32 FT vehicle dashboard



All other vehicles' dashboard



# Key management team

## Top management

*Eminent personality in pharma logistics; invitee to almost all Conferences being held in India & Asia that pertain to Healthcare, Pharmaceutical Logistics as well as Cold Chain, organized by the Government, Industry Bodies as well as Private Sector*



### Co-founder and MD

Mr. Rahul Agarwal 25 22



### Executive director

Mr. Kunal Agarwal 18 18

## Department heads

### Head - Fleet



Mr. Maniram Sharma

35 22

### Head - Quality Assurance & ISO



Mr. A S Patil

27 14

### Head – Operations



Mr. Sanjeev Mahapure

25 4

### Head – Finance



Mr. Pravin Ghuge

20 17

### Head of Branch Operations



Mr. Krishan Gupta

11 8

### Sr. Manager - Operations & Sales



Mr. Surendra Malik

20 18

### Sr. Manager- Warehouse & Quality Assurance



Mr. Milind Chaudhary

25 6

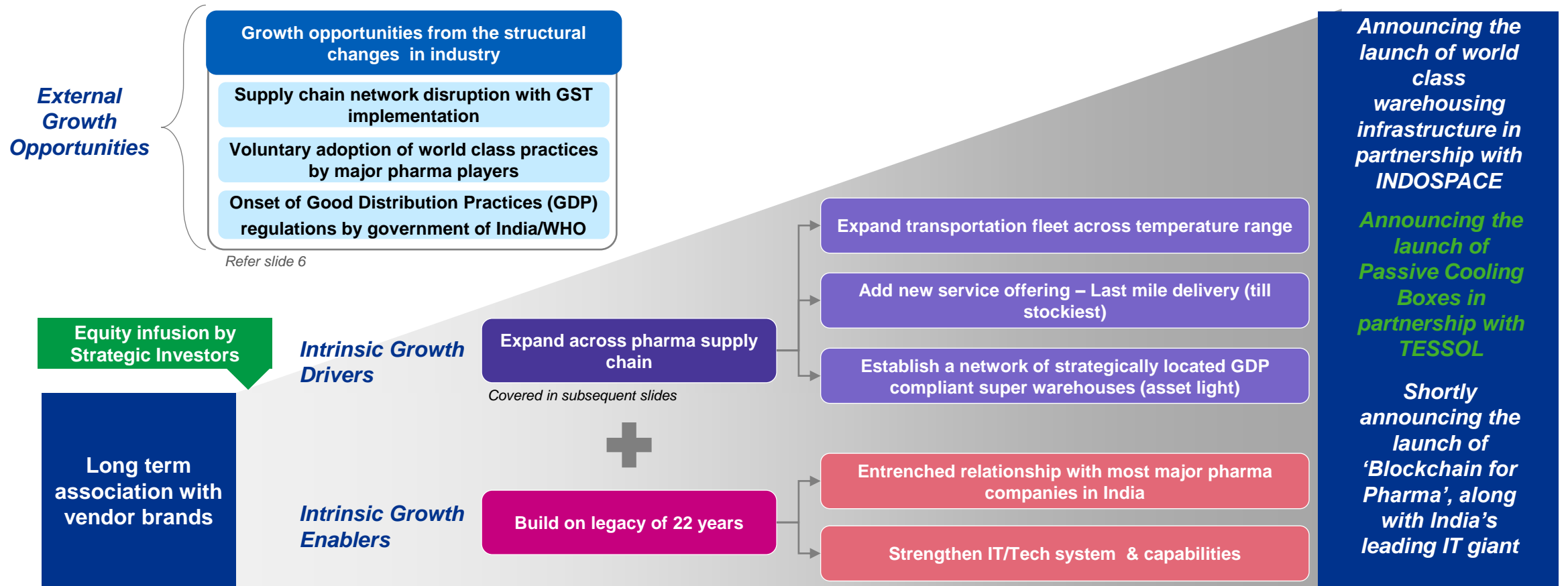
■ Total years of working experience  
■ Tenure at Kool-ex

# Growth strategy

## Vision

To build a pan-India integrated pharma distribution platform, providing end-to-end supply chain solutions, from multiple plants of pharma companies to stockiest, with high emphasis on compliance & regulations

*Well positioned to leverage the intrinsic capabilities to capture the opportunities stemming from structural changes in the industry*





# Warehousing

## Establish GDP/GWP compliant cold warehouses at strategic locations across India with extended services

### Strategy



1. Create pan-India network of 10-12 strategically located GDP/ GWP compliant warehouses (~5 Mn sq. ft.)
2. High focus on value added services and seamless integration of existing IT systems with Blockchain
3. Asset-light model

Offer customers compelling alternative to current network of central & multiple regional warehouses. This will enable cost & inventory optimization.

End-to-end batch wise traceability/ serialization, with temperature monitoring, barcoding (**Blockchain**), Seamless tie ups for air movement (Domestic & Exim), stickering, and returns & promo/samples logistics.

Partnership with a leading RE player INDOSPACE, with expertise in warehousing space; WH will be custom-built with best in class amenities & the ability to handle integrated temperature controlled warehousing

- Operating smaller size captive cold warehouses over the last 7 years has given company strong understanding / expertise around handling of pharma goods and management of cold warehouses
- Strategically positioned warehouse locations – **ensure maximum coverage with efficient fleet utilization** based on client's multiple manufacturing and consumption locations
- Capture the market **need for mega warehouses** as re-alignment in supply chain network is undertaken by pharma companies **post-GST implementation**
- Discussions already undertaken with potential clients with **a strong pipeline / leads already generated** – network efficiencies & cost savings being a major attraction for customers

*Locations selected close to manufacturing presence as well as access to multiple consumption points (cities / regions) from a centralized location*

### Implementation Plan



#### Leased Warehouses – 10-12 units of 600,000 sq. ft. ground area (3,00,000 sq.ft. built up are and 42-44,000 pallets capacity each

##### Phase 1

- Set up 4 mega warehouses in **Mumbai, NCR. Rajpura & Bengaluru**
- Construction completion expected by October FY21

##### Phase 2

- Set up 3 mega warehouses in **Kolkata, Ahmedabad & Hyderabad**
- Construction completion expected at the end of FY22

##### Phase 3

- Set up 4 mega warehouses in **Lucknow, Guwahati, Nagpur & Indore**
- Construction completion expected at the end of FY23

#### Current status

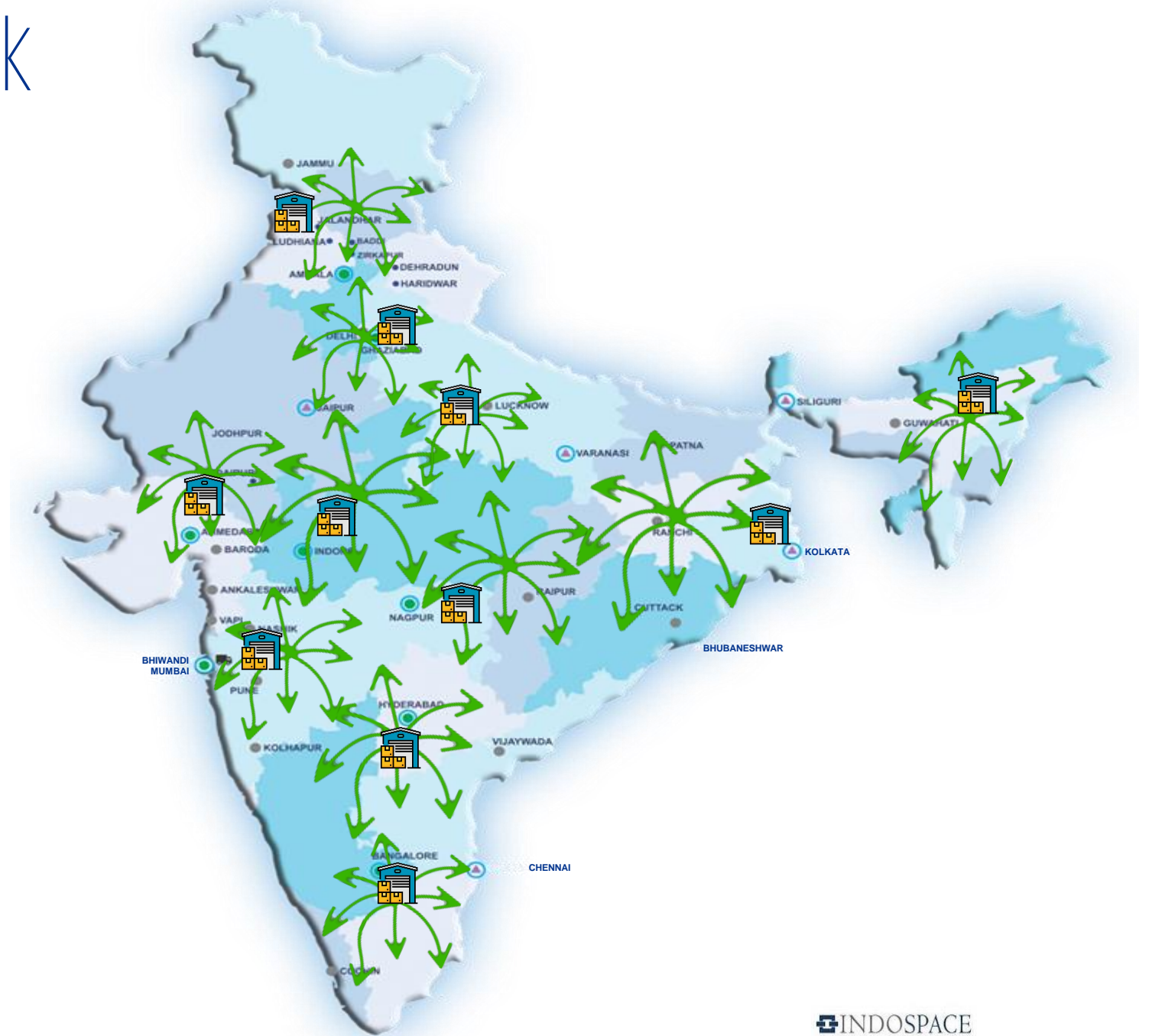
- Engineering / designing completed (plan submitted to authority for approval)
- Kool Ex has finalized commercial discussions and the locations for Phase-1 with the warehousing player.



# Warehousing - Network

-  KOOL ROOMS
-  UPCOMING KOOL ROOMS
-  MAIN HUBS
-  UPCOMING WAREHOUSE

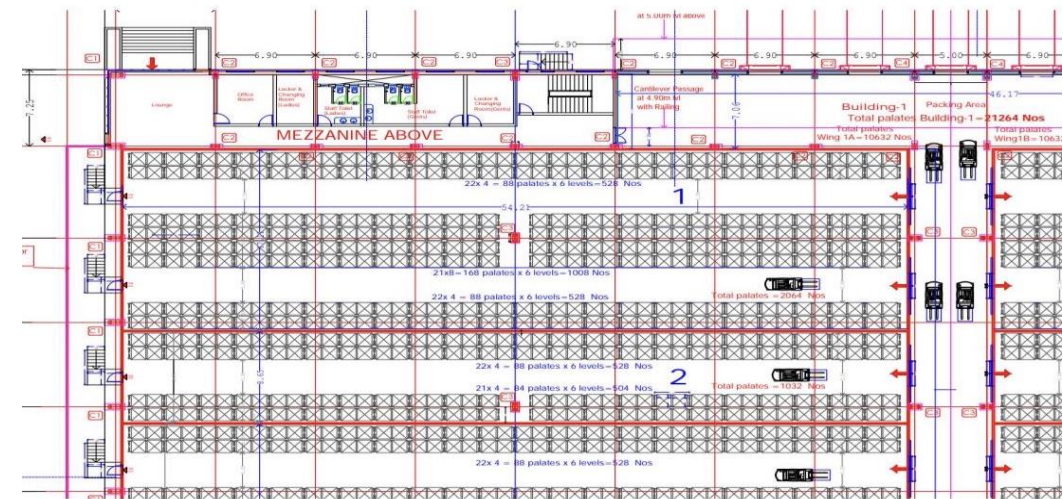
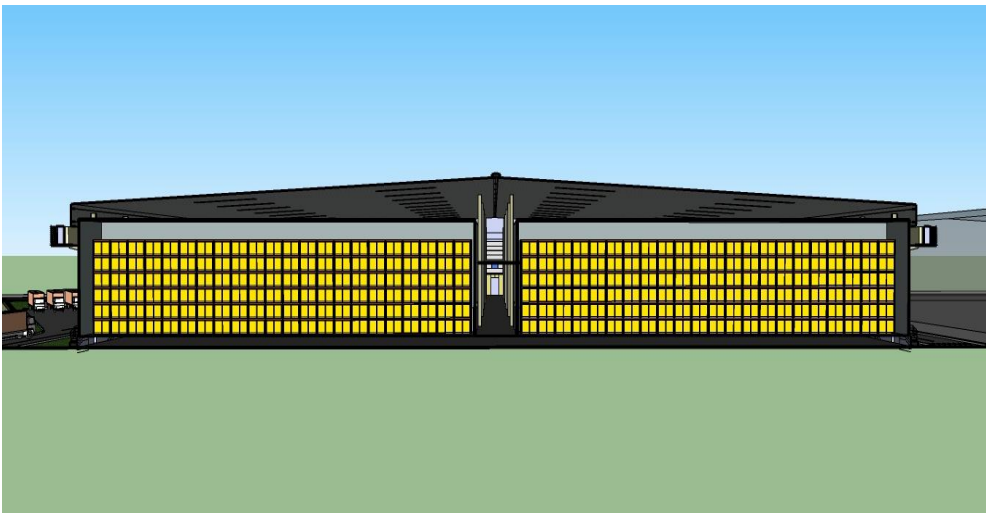
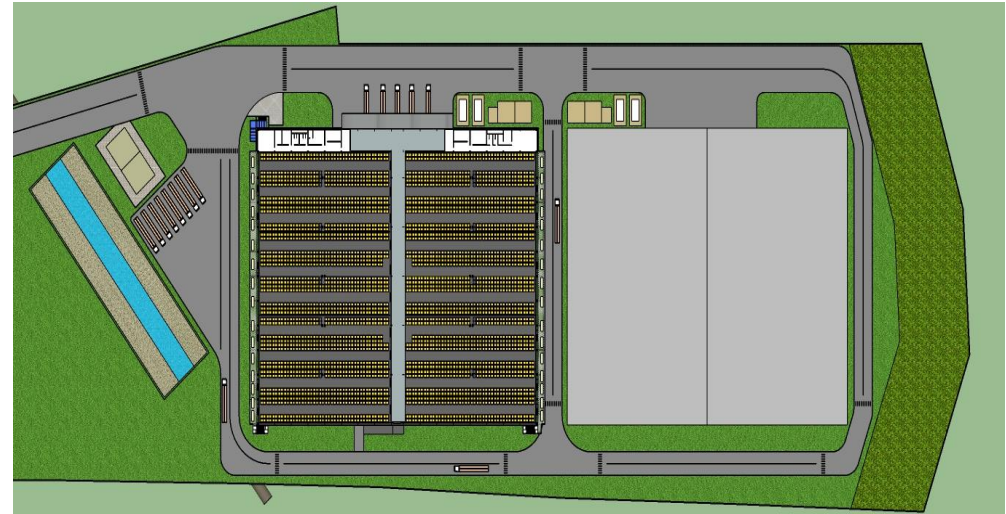
 **SECONDARY NETWORK**





# Warehousing

**Establish GDP/ GWP compliant Pharma warehouses at strategic locations across India, with end to end services.**  
**First site at Ransai, Khopoli – Pen Road, Maharashtra. 60 KM from JNPT & 50 KM from upcoming International Airport, Navi Mumbai**





# Warehousing - Salient Features

- **Green Field Project**
- **Built to suit design**
- **Multiple chambers (Customizable)**
- **Temperature range + 2-8°C & +15-25°C**
- **Anti Room & Pack room (+15-25°C)**
- **Office Space**
- **Adequate truck parking**
- **7 truck docks for simultaneous operations**
- **Euro Pallet size racks (1000 x 1200 mm)**
- **Ground + 5 level**
- **2 adjoining warehouses of 20800 Pallets each**
- **Multi client facility**
- **100% DG & Solar back up**
- **PIR insulation panels – 100 mm (Fire Resistant)**
- **External PEB structure for added safety**
- **State of the art fire-fighting equipment**
- **Best in class Material Handling Equipment**
- **Auto sliding dock doors with dock shelters**
- **Shrink wrap facility available at docks**
- **RFID enabled racks linked to pallet via barcode**
- **Online monitoring of temperature**
- **Online CCTV monitoring**
- **Fire exits for each chamber**
- **FM2, zero error flooring**
- **DC can act as CWH & CFA**
- **Secondary distribution in active temperature**
- **End to end logistics services**
- **Air, sample / promo & reverse logistics**
- **All plant & equipment under long term AMC**
- **Premise manned 24 x 7 x 365**

# Blockchain for the Pharma Supply Chain



Though effective supply chain management is the biggest challenge in every industry, in healthcare, there is additional risk and complexity, as a compromised supply chain in healthcare can affect the patient's safety.

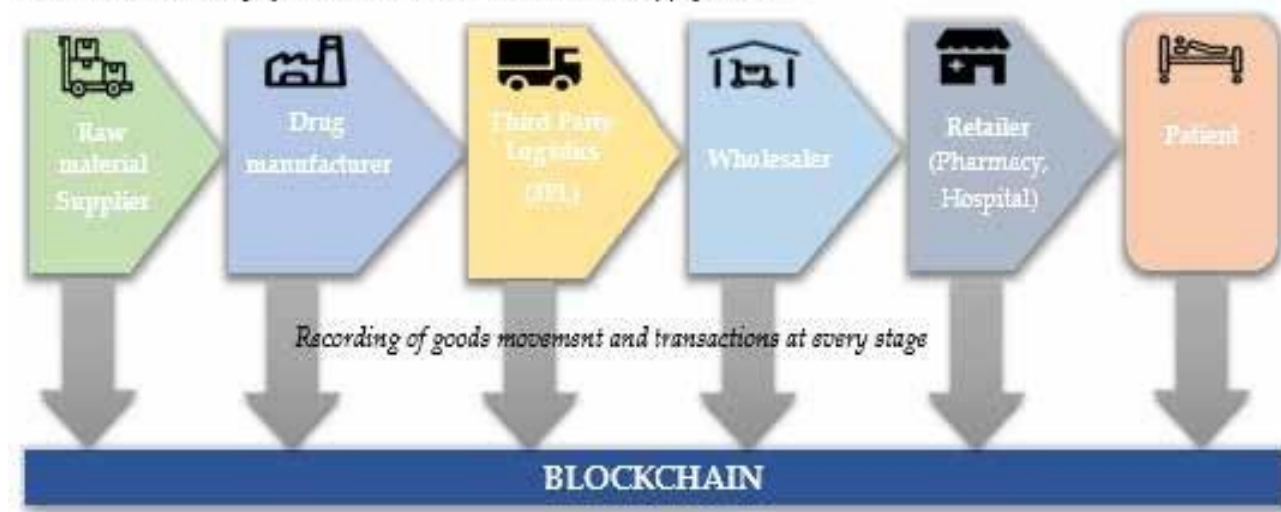
Experts have estimated the sale of counterfeit drugs to be twice of the rate of legal pharmaceutical trade, which is a serious issue.

The pharma blockchain holds the potential to enhance security, integrity, data provenance, and the functionality of the supply chains with its transparent, immutable and auditable nature. This will enable Batch Traceability in real time and serialization.

Kool-ex in association with one of India's largest IT company, is working to remodel tracking & accountability in the shipping of goods from source to consumption.

Blockchain in Pharma Supply Chain will not only reduce counterfeiting & theft issues but also help manage inventory. A pilot is underway & we will announce the partnership shortly.

*End-to-end visibility of a Blockchain-enabled Pharma supply chain:*



# Blockchain for the Pharma Supply Chain - Salient Features

- **Integrates seamlessly across the distribution chain from sourcing of material to patient**
- **No disruption of existing technology**
- **Pay per use model**
- **Easy integration with existing software/ hardware**
- **Tamper proof, data security**
- **Adapts to all IOT tools. User free to choose vendors for tech products**
- **Will use tools/ products such as barcode, RFID, GPS for real time track and trace**
- **Customized alerts for near expiry products at any stage of distribution**
- **Real time, batch wise traceability**
- **See your products across warehouses, locations and vehicles at the click of a button**
- **Seamless integration with artificial intelligence 'AI'**
- **Ideal for EXIM movements up to end customer**
- **Will comply to regulatory requirements, if any.**



# Passive Solutions



As manufacturers move into new markets and launch new clinical research programs, including work in the development of cell, gene, and tissue therapies, and new products such as biologics, ensuring the integrity of the cold chain in the last mile, has become more important, and more challenging, than ever.

Success involves careful partner selection and logistics planning, choosing the right packaging solution, as well as proactive communication with shippers, freight forwarders, & logistics specialists. It also depends right selection of new temperature-control technologies/ solutions available in the market.

Few advances we are seeing in packaging equipment include more efficient insulation using phase change, nano-technology to improve the thermal resistance, or 'R' factors of vacuum-insulated panels, which allow for greater payloads and longer validation times without compromising weight. Use of sustainable materials is becoming mandatory.

Kool-ex is in the final stage of validating Passive Boxes, using Phase Change material with a Global leader. These boxes are environment friendly, non hazardous & are validated for multiple use, thereby reducing cost substantially. The charging time is much lower than traditional Gels/ Coolants thereby reducing operating cost & faster turnaround.



This is also in line with the Governments Serialization program. This box comes with live temperature monitoring.

\*\* [https://www.ey.com/Publication/vwLUAssets/ey-pharmaceutical-serialization-compliance-and-beyond/\\$File/ey-pharmaceutical-serialization-compliance-and-beyond.pdf](https://www.ey.com/Publication/vwLUAssets/ey-pharmaceutical-serialization-compliance-and-beyond/$File/ey-pharmaceutical-serialization-compliance-and-beyond.pdf)

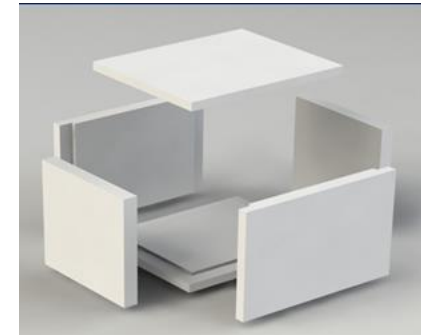
# Passive Solutions..... Salient Features

## Bags for Secondary / Tertiary Movement

- Flexible solution – 5 to 30 Ltr for local Distribution (12-24 hours)
- 2-8°C & 15-25°C temperature range
- Multiple use with PCM solution

## Boxes for Primary Movement

- 5-30 Ltr solution with 72 hours retention
- -20°C, 2-8°C and 15-25°C temperature range
- Multiple use, XPS based using PCM, multi use with Shock resistant packaging



## COMMON FEATURES

- *Use of “PCM technology” enables ease of conditioning across temperature profiles*
- *Reduced PCM charging time of 8-10 hours*
- *Multi use solution reduces cost of distribution significantly*
- *Uses sustainable non-EPS solutions to ensure reuse and less wastage*
- *Live data monitoring and capture through mobile app*

Data monitoring



# Partnering with the Pharma Industry



To be an optimal Distribution Partner for the Pharma Industry in India



To increase compliance & visibility in the Value Chain



To reduce inventory levels in the Demand Chain



To use the highest levels of technology to eliminate counterfeiting



To provide real time traceability of every medicine sold



To help reduce cost in the Supply Chain



To provide world class storage & transportation facilities across the country





# KOOL-EX COLD CHAIN LIMITED



## Thank You

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