Building Complex Adaptive Organizations with Scrum@Scale

Agile Transformation @ Unbox Robotics

by Serpro Consulting

May 2024

Mudassar Pasha Maniyar

Agile Education
powered by scruminc.

Mudassar Pasha Maniyar

CEO Serpro Consulting & Agile Coach

REGISTERED SCRUM@SCALE PRACTITIONER by scruminc.

SCRUM @SCALE TRAINER

The University Of Sheffield.

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Client: UnboxRobotics Labs Private Limited

Associated industries: Warehouse Automation |Swarm Robotics | e-commerce | logistics

Series A = USD 7 Million

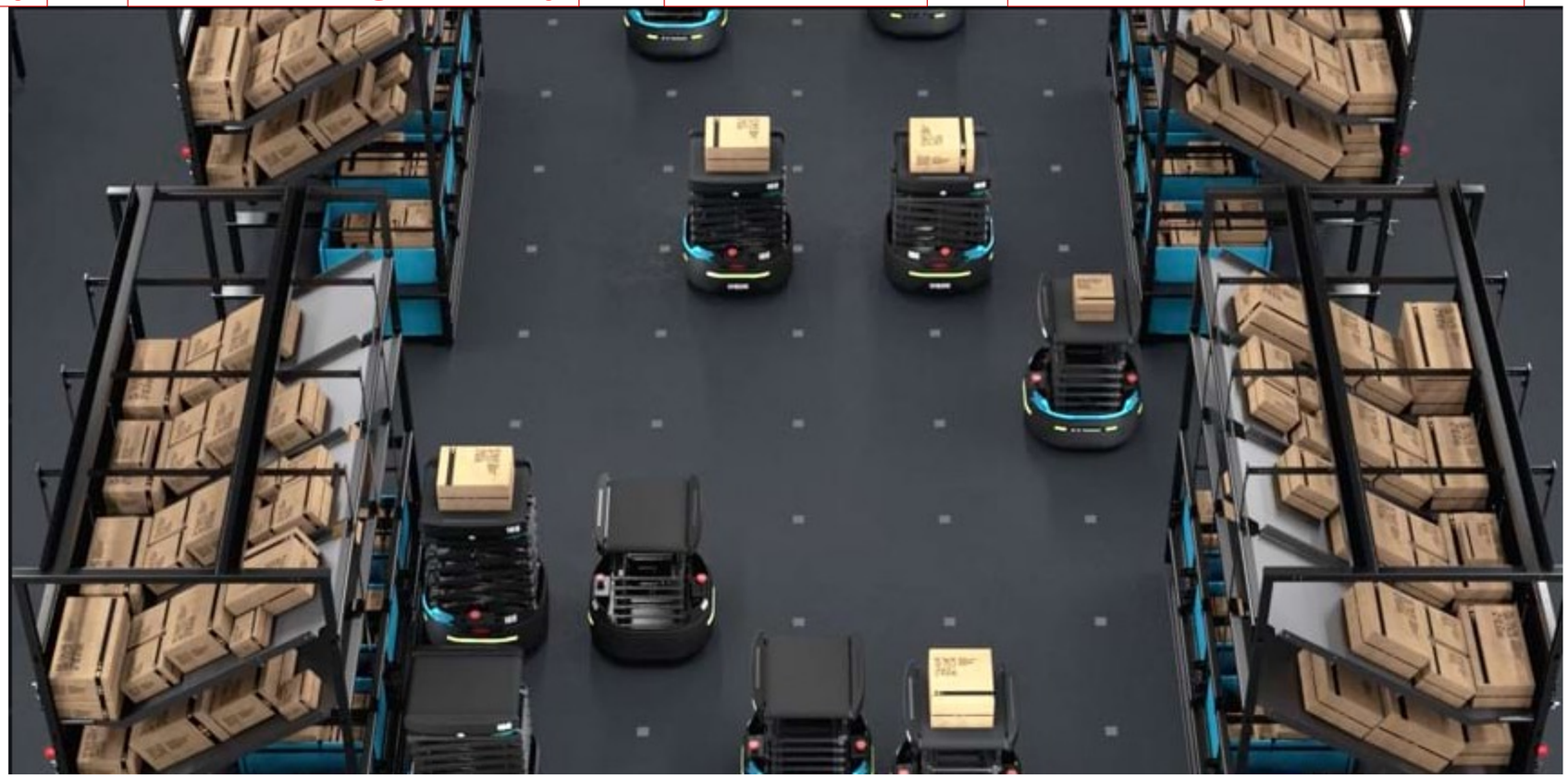
150-200 Employees | 3.5 Years old org

> 3X Productivity

99.9% Sorting Accuracy

2X Utilization

<2 Weeks Installation Time



Images:
https://www.unboxrobotics.com/sorting-robots-in-express-logistics-industry-a-complete-guide/
https://www.unboxrobotics.com/

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Leadership’s Mindset Is Key For Successful Transformations

Pramod Ghadge

Chief Executive Officer

Shahid Memon

Chief Technology Officer

Rohit Pitale

Chief Product Officer

Prashant Adiyodi

Director of Engineering

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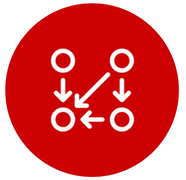
Transformation Goals

SCRUM @SCALE

Vision, Alignment & Prioritization



Cross-Team Coordination

Impediment Removal

Ops and Maintenance

With Limited Time & Budget for Transformation Goals

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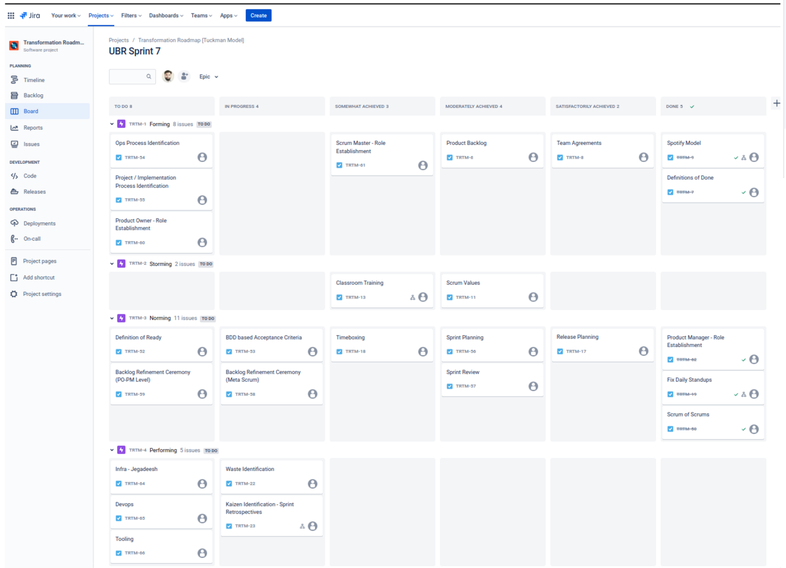
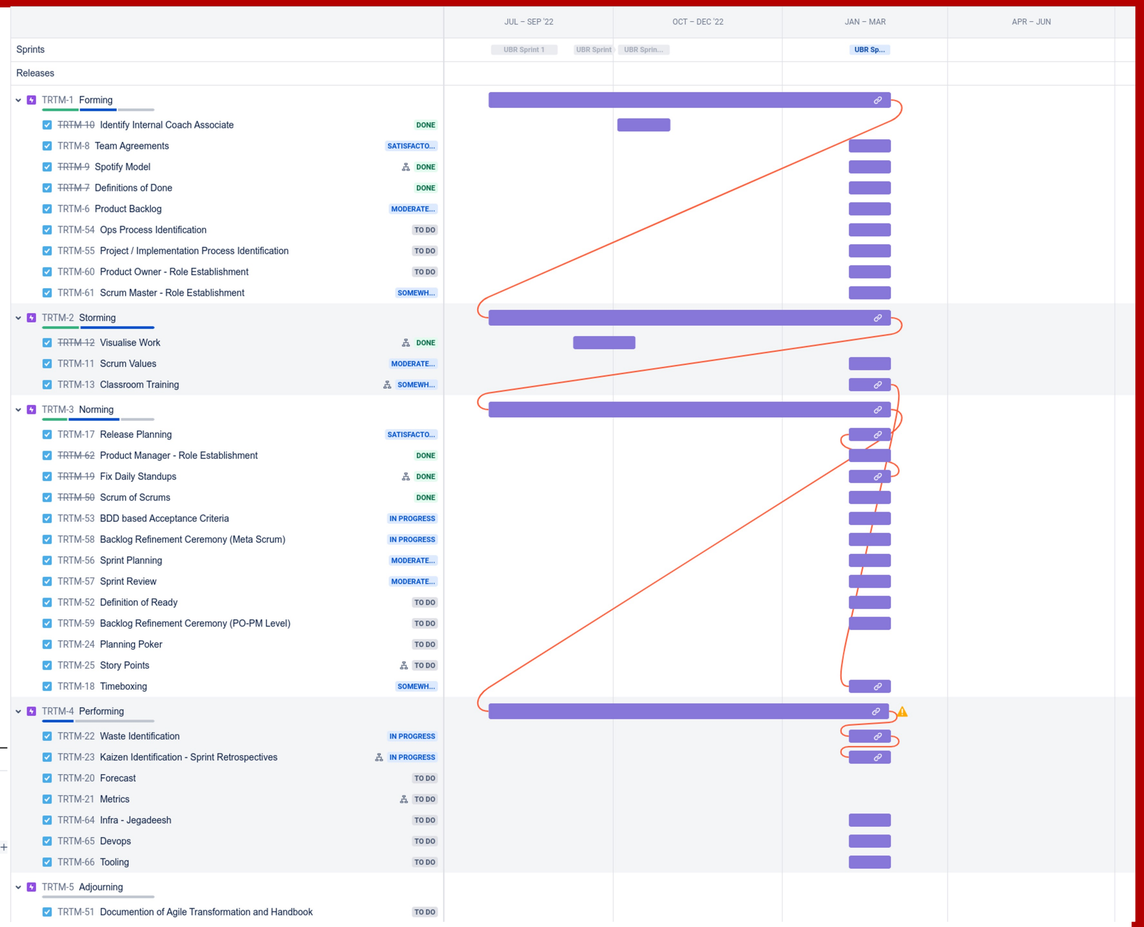
Transformation Backlog - Tuckman Model





More on the Tuck Model:
https://en.wikipedia.org/wiki/Tuckman%27s_stages_of_group_development

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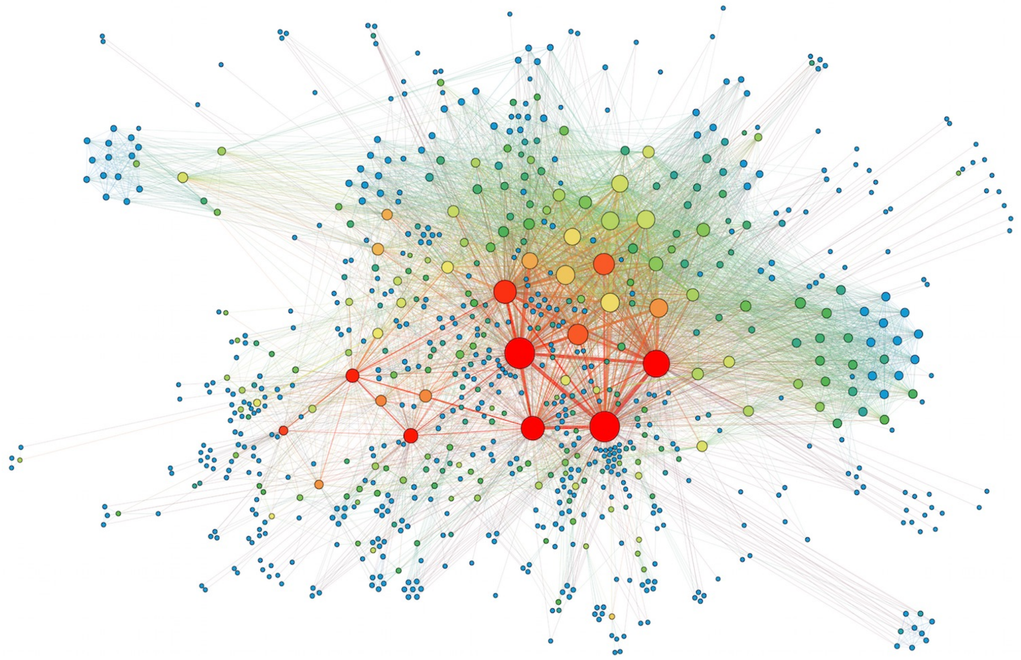
Complex Adaptive Systems View



https://youtu.be/nlK9lCojeCw?si=WeRmKSbn4_gw-jAj

ORGANIZATIONS AS COMPLEX SYSTEMS

”In self-organizing systems order doesn’t come from above or outside; it emerges from the interactions of the agents in the system.”

https://enliveningedge.org/features/organizations-complex-systems/

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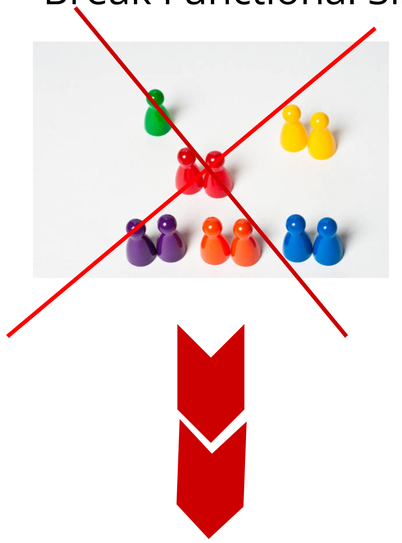
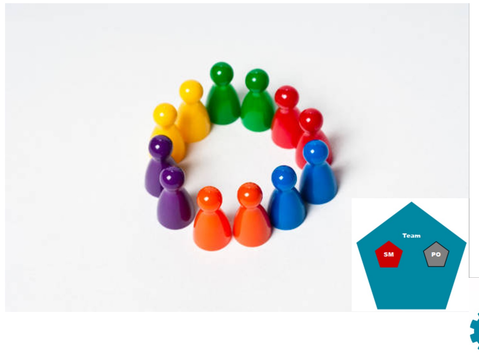
Organizational Refactoring [*Complex Adaptive* Systems View]

Reference Model = 8 Teams [5 Hardware based + 3 Software based

Break Functional Silos

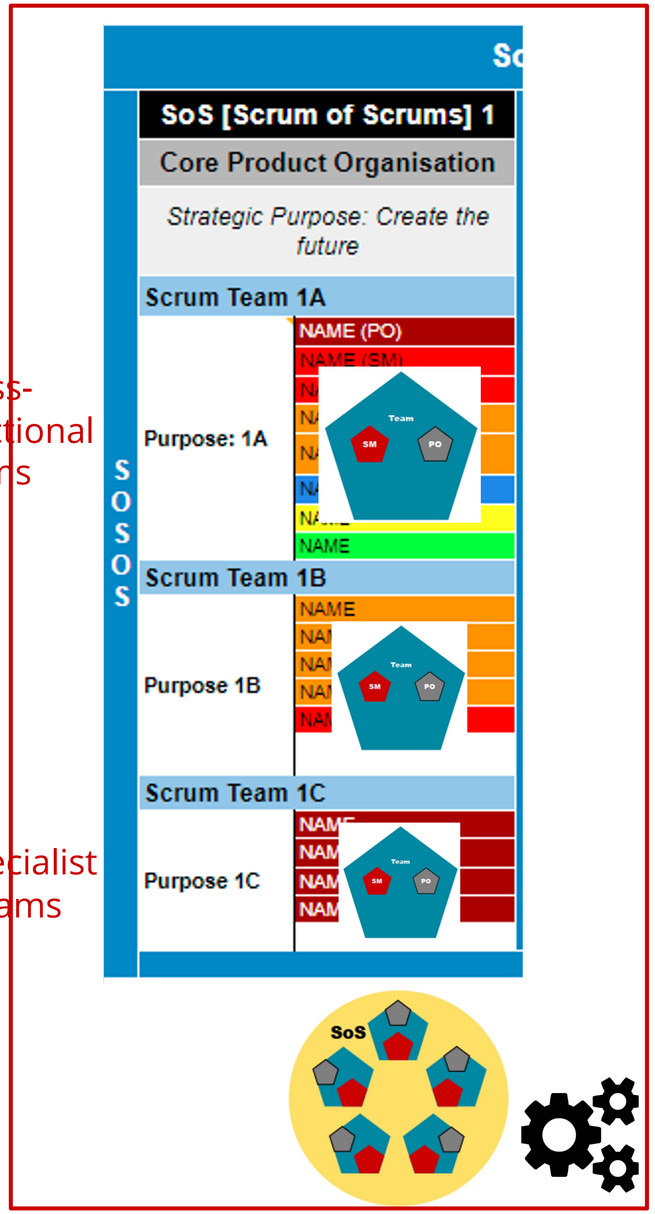


Cross-Functional Teams



Cross-functional teams

Specialist Teams



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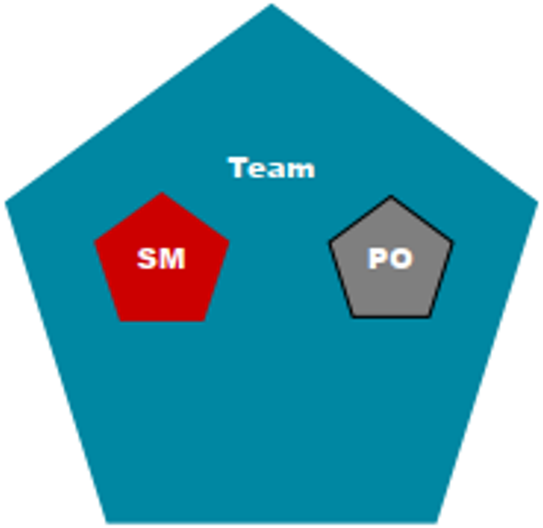
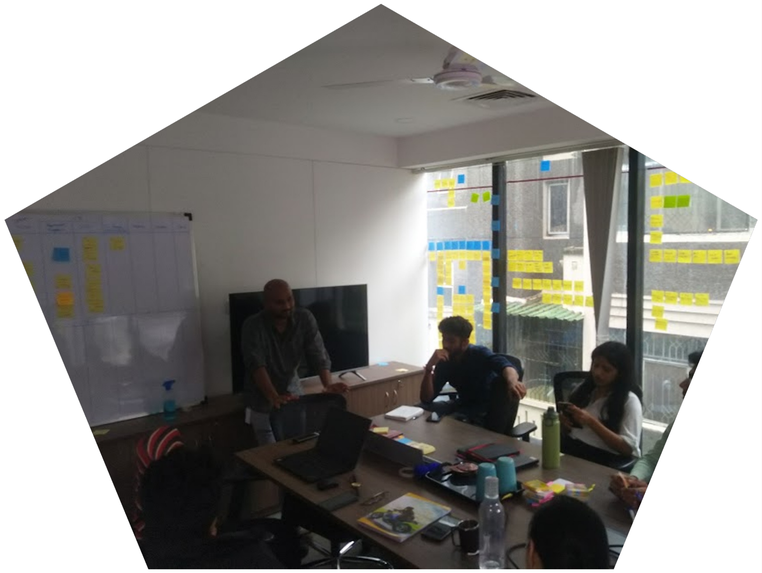
Team Process





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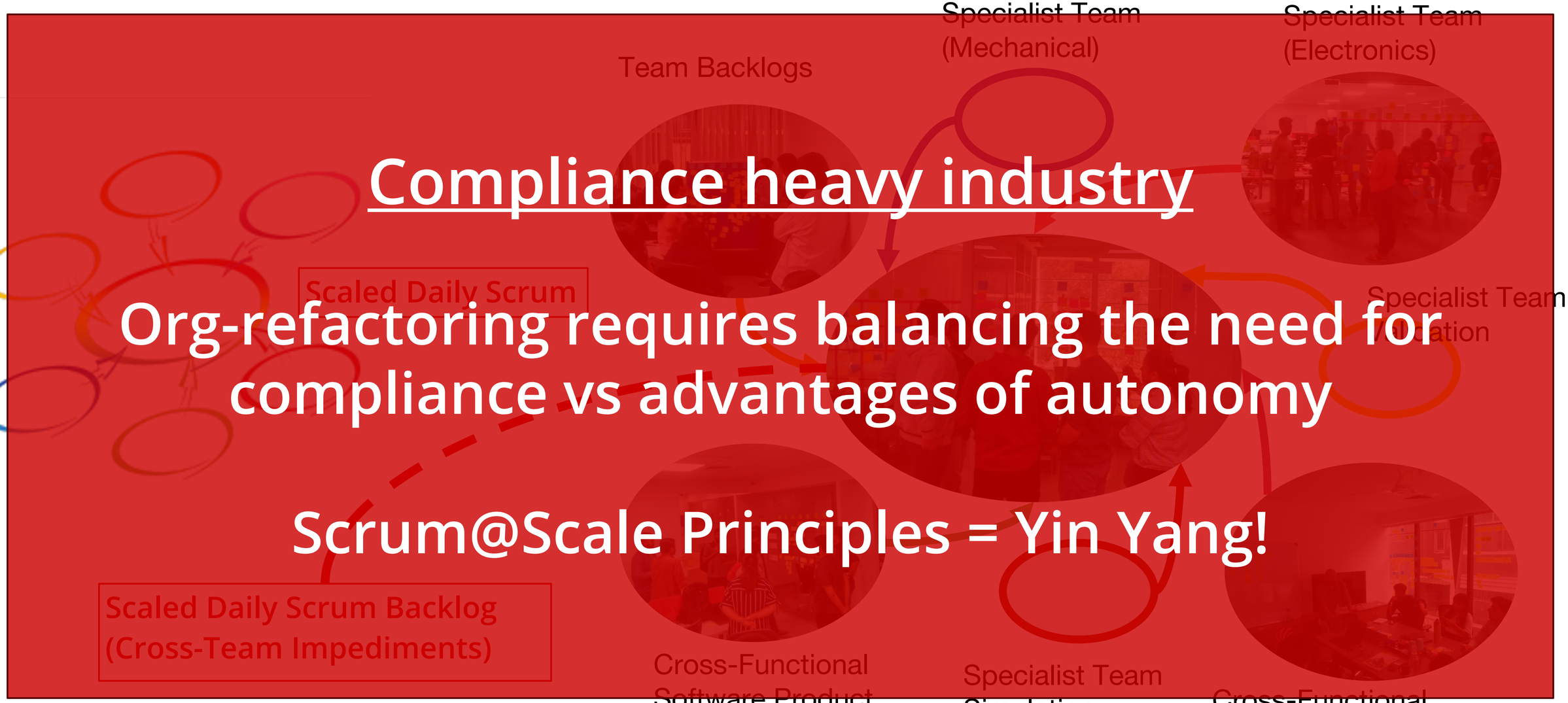
Cross-Team Coordination



Compliance heavy industry

Org-refactoring requires balancing the need for compliance vs advantages of autonomy

Scrum@Scale Principles = Yin Yang!

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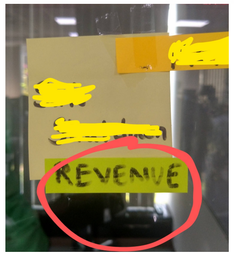
Alignment, Prioritization and Decomposition

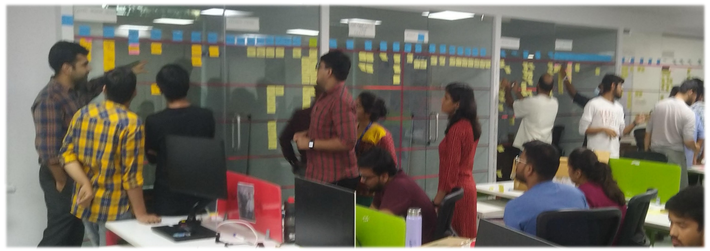
Alignment & Prioritization

- Meta Scrum and Executive Meta Scrum Events
- Internal Customers Defined – Ops, Production, Procurement, Maintenance
- External Customers Defined - Paying Customers
- Alignment across Internal/External Customers & Engg.

Decomposition

- User Story Mapping @ Scale as Shared Enterprise Backlog
- PRD (Product Requirements Document) per product
- Re-align and Re-prioritize via Meta Scrum & Executive Meta Scrum Events





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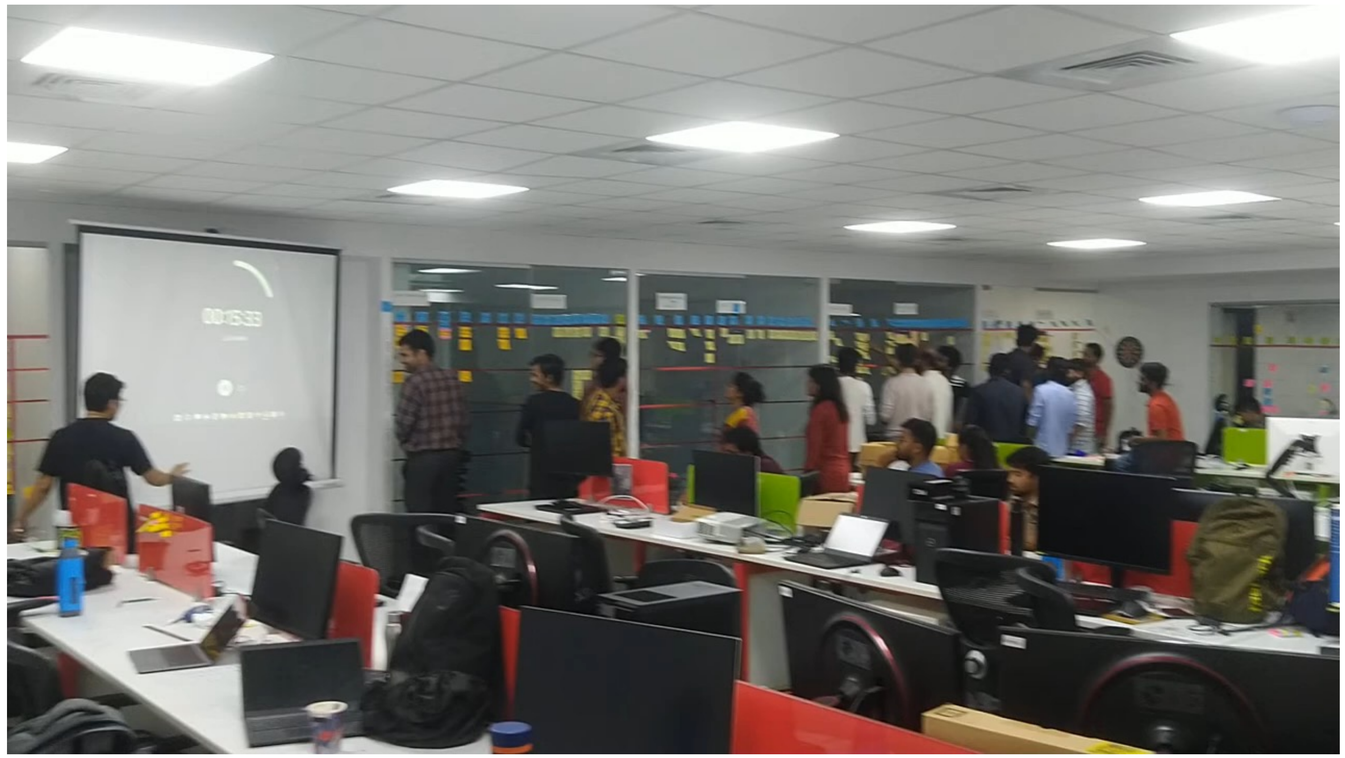
User Story Mapping @ Scale [Shared Enterprise Backlog]

“The new Product Backlog is a Map”

- Jeff Patton



https://www.youtube.com/watch?v=jdv7ZCOFErU

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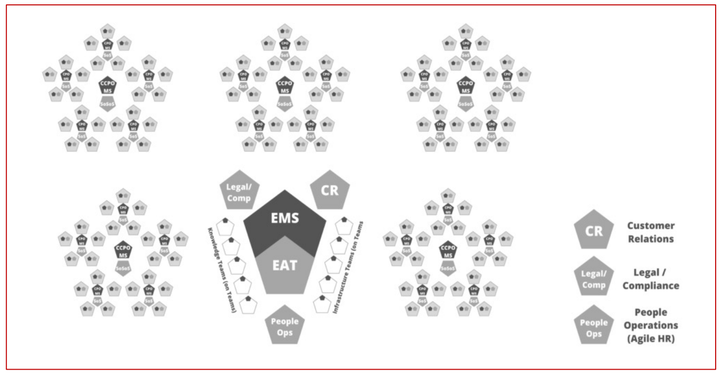
SOSOS, LAT [Leadership Action Team] & EAT [Executive Action Team]

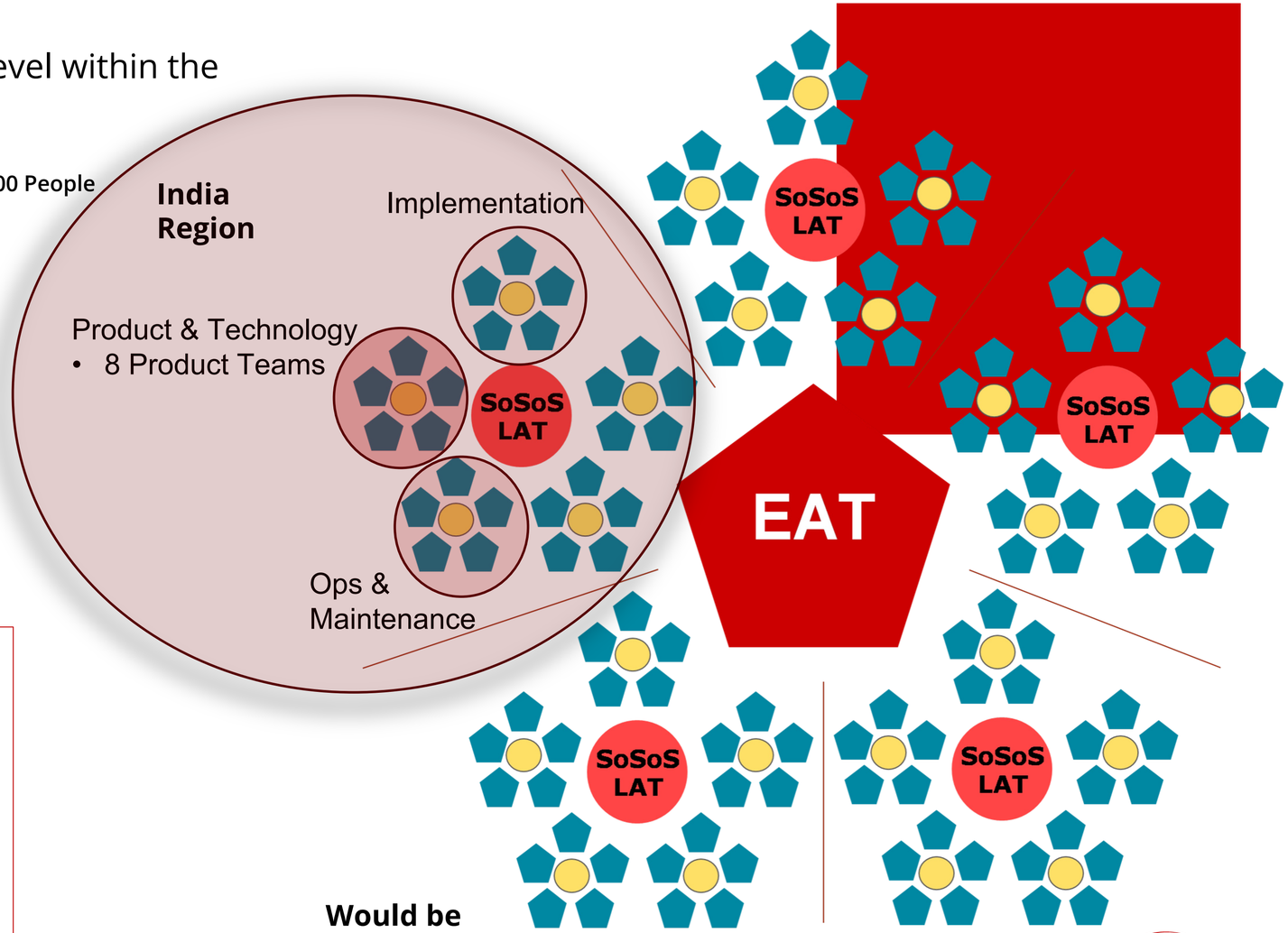
- EAT accountabilities were facilitated at the SoSoS level within the Reference Model.

S@S Reference Model :
Scope of Influence = 75 to 100 People

- Business Agility
  - Agile practice and transformation strategy
  - Other Change Initiates
    - ECN, UUOP, SLAs, QI Plans, I&A
- OKR Facilitation
- Alignment on Governance & Compliances
  - ISO, GDPR, Quality
  - Enterprise IT
  - etc

Path to Future State





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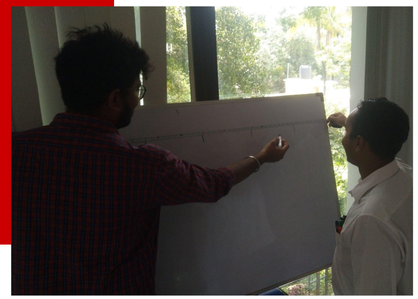
Transformation Challenges



Paralysis by Analysis

Solution : Culture of Experimentation

Tooling Strategy

Solution : Let workers pick their tools

Individual Learning and Development

Solution: L&D Roadmap for HR with ScrumInc

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Impact : Direct and Indirect Impacts Considered

- Engineering investment saved by **25%**
- **Fulltime management to 60%** time saving for leadership to focus on future state
- **Speed-to-market:** Started later than competition but now a leader
- Major **shipment** of the product shipped out to for a tradeshow abroad
- **5x revenue** booked within **12 months** of transformation engagement

Disclaimer: The Agile transformation does not single handled take credit for the impact as there were multiple change initiatives in the organization – Also, direct impact was hard to quantify in this case, especially given the transformation did not include digital tooling for most part and since the company itself was in its nascent stages of entering the market

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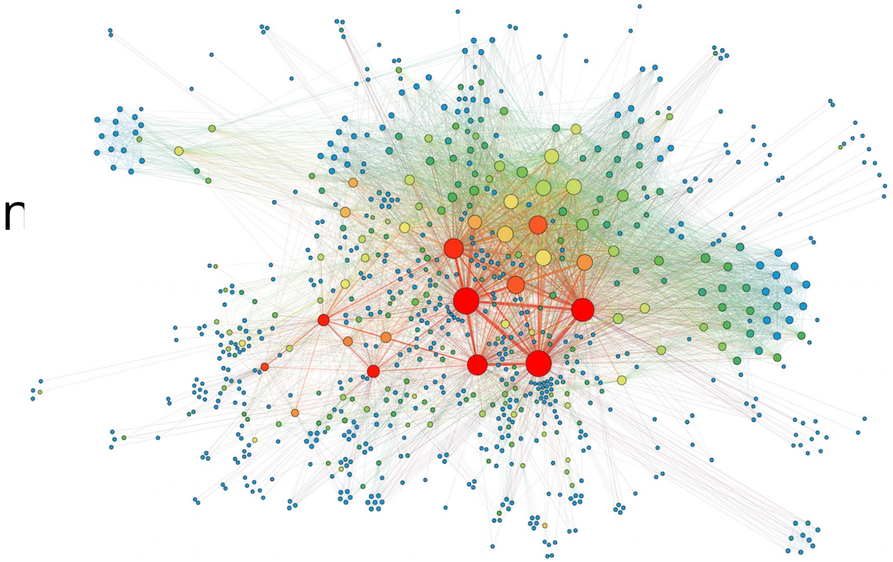
Key Takeaways - Scrum@Scale as CAS [Complex Adaptive System]

Scrum@Scale allows emergent order like a CAS!

Evidence of
- Accelerated Value Delivery
- Unlocks Business Agility
- Early Impediment Resolution

Through addressing
- Structure
- System
- Culture



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Org design in the modern business climate:
- Complex Adaptive System View
- Pivot, Persevere to Prosper – Fast, *Continuously*

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Thank You

Questions ?

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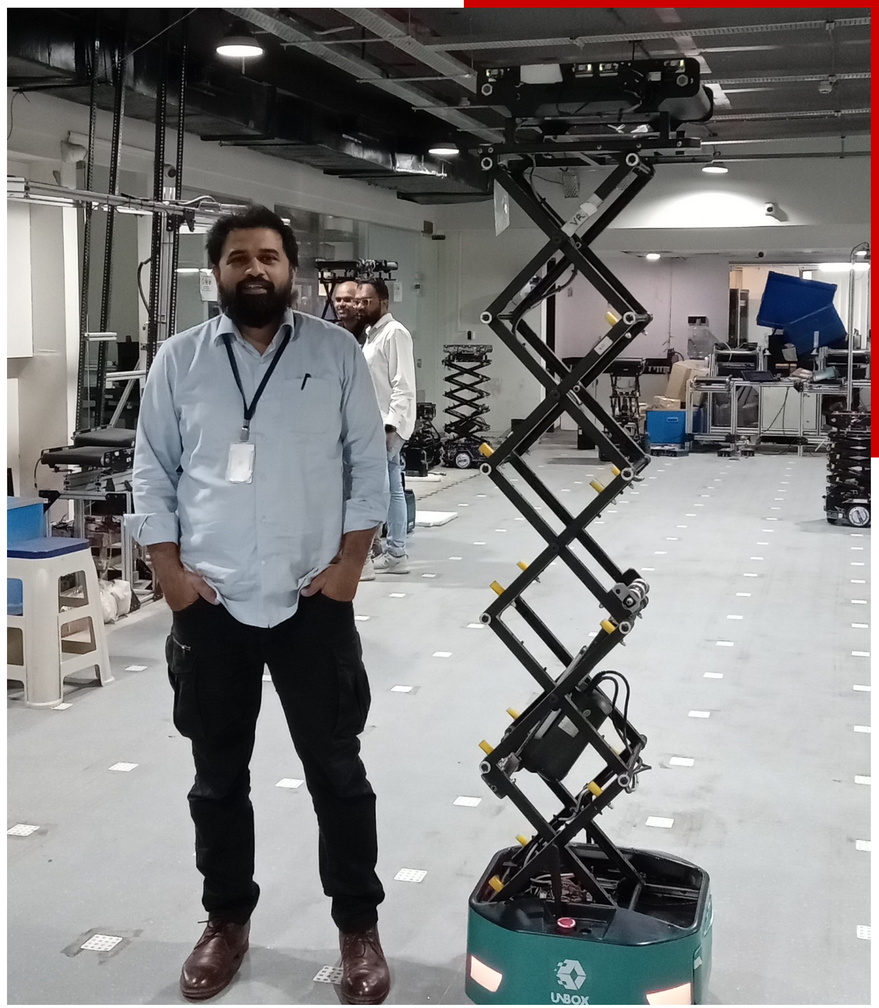

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