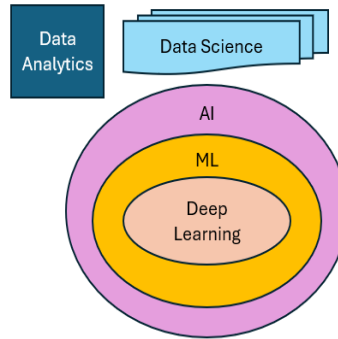


**Name of article:** COPQ Continuums and “sense & respond cycles”  
AOEC 2025



Help Accountability/AI/BI/CQI for

National Safety Social Responsibility  
Top 10 insights for (Road) Safety  
Programmes

National Safety Social Responsibility  
Top 10 insights for Co-achieving  
Support Programmes

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CASE SCENARIOS URL:

<https://venkataoec.wixsite.com/safercommuting>

<https://venkataoec.wixsite.com/safercommuting>

Use Top 10 Analytics in NSSR Programmes for Safety and Support to address the degradation due to climate change or targeted need in 2025-2026 and later

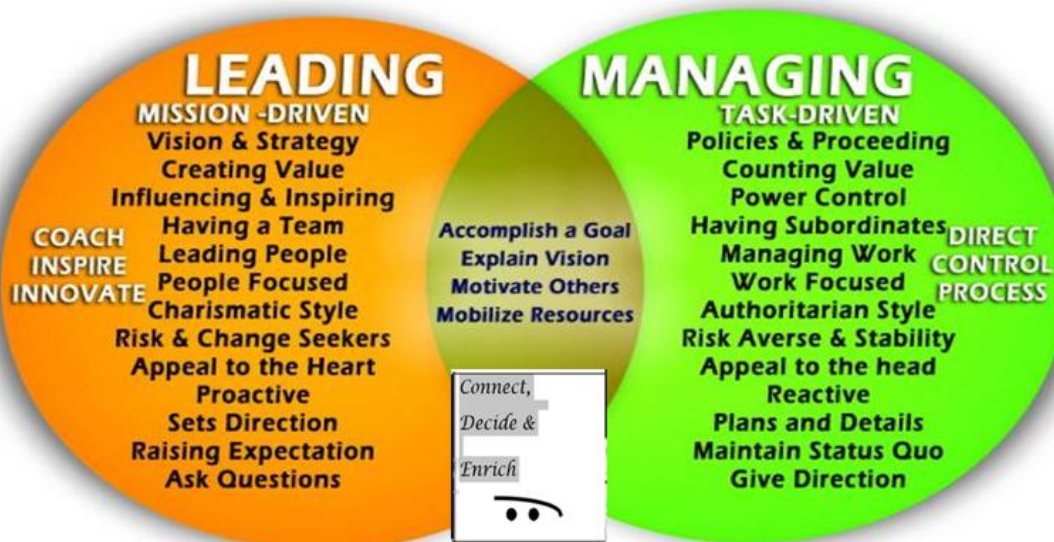
### Vision:

Develop a COPQ SCM MODEL

Deliver targeted need, analytics, reports and case studies via a Project Centre

7

## The Difference Between LEADERSHIP & MANAGEMENT



SMART CONNECT TO TOP 10 ISSUES-2025 TO  
DRONE VISION TO ISSUES-2026

With the valuable **Make in India** and **Skill India** endeavors gaining momentum, the MSME domains must formulate sense and respond cycles to comply with the Cost of poor quality (COPQ) management expected from them. AOEC reviews the need for Cost of Poor Quality and sense & respond cycles.

According to AOEC, they will need to do the develop a **Memorandum of Accountability**, that will design the use of AI/BI/CQI to ensure there is a SMART Connect to the Top 10 issues or the Cost of Poor Quality issues affecting business/services/development in the environments or cities/wards associated with their business value-streams.

The Memorandum of Accountability will define a Top 10 questions-based development or close connect between the **Knowledge Management Index** and **Process Capability Index** expected from the MSME business interested in addressing the Cost of Poor Quality issues affecting them.



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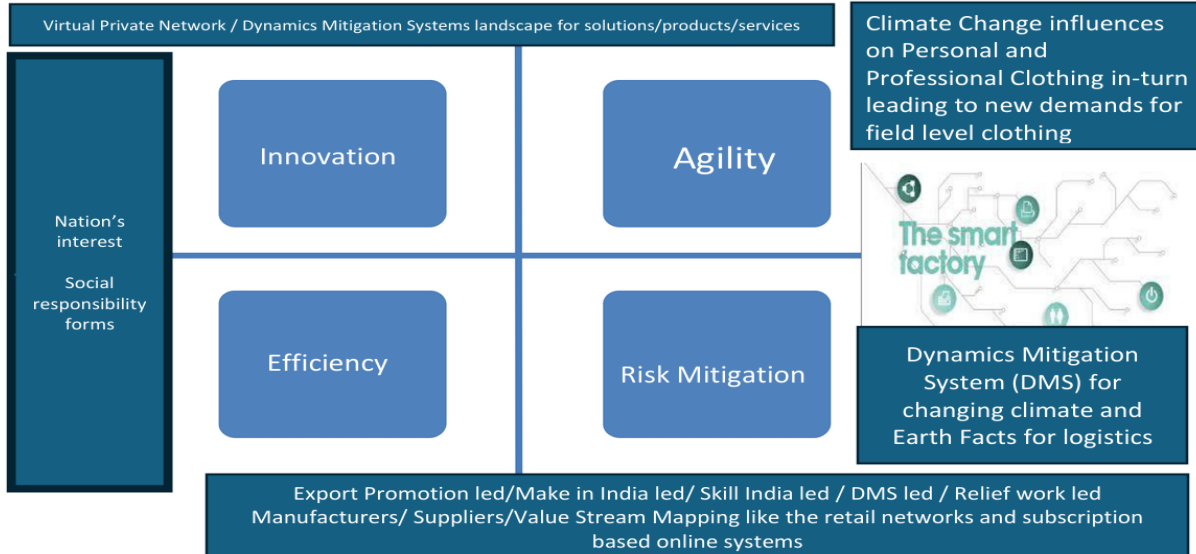
## **Memorandum of Accountability** and the SMART Connect to Top 10 COPQ issues

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**1: Address the need for accountable business in Factorized KYC products like safe & sustainable commuting clothing/wear and clothing/wear assistance for service anyhow anywhere roles & responsibilities, where the MOA can ensure the GOI/GOK/MSME DI work towards enabling targeted clothing/wear products that match the needs like**

- + SMART Connect Heterogeneity (multi-purpose nature of products)
- + SMART Connect Intangibility (uniqueness and benefits)
- + SMART Connect Inseparability of production and consumption (where there is a close connect between manufacturing and consumption)
- + SMART Connect Perishability (fixed time interval for the product to remain aging-defect free or in good quality condition)
- + SMART Connect Business-Trendiness (responsiveness for business interests and consumerism that matches global, country-wide, regional and a rate of innovation interest)
- + **I3 Catalogue synergy** with SMART Connect objectives for Lean thinking and Quality Promotion via Sustainable Project Management and Tiered objectives for demand-supply decisions for technical clothing, retail business and exports promotion

# Need for Integrated Optimization



Climate Change influences on Personal and Professional Clothing in-turn leading to new demands for field level clothing where dress code policies/uniform code policies **may save life**

Simple or standard protection field level clothing

- Protective glasses
- Visible clothing
- Helmets / Hard hats
- Clothing / Wear to commute in climate impacted days
- Driving or wear to commute gloves
- Firm sole shoes/ boots
- specific color coding for health and wellness indications
- specific color coding for school/college/work/religious work supporting clothing/uniforms
- specific color coding for Raincoats/vests/pants

Mission critical field level clothing like the ones needed by

- BESCOM
- BWSSB
- BBMP ROAD REPAIR
- BBMP TREE CONSERVATION
- BBMP ROAD ARBORICULTURE
- BBMP TRAFFIC ENGG
- TRAFFIC DEPARTMENT PERSONNEL
- HEALTH/ACCIDENT/EMERGENCY RESPONSE TEAMS
- ANIMAL / LIVESTOCK HEALTH/ ACCIDENT/EMERGENCY RESPONSE TEAMS
- FIRE AND EMERGENCY RESPONSE TEAMS
- ACTION FORCES AT THE CIVILIAN LEVEL
- LOGISTICS/COURIER SERVICES
- CYBER SECURITY SERVICES
- Navigation and field mapping services
- PAYLOAD/DMS KIT DELIVERY SERVICES
- AUTOMOBILE AND EV SERVICES/REPAIRS
- PUBLIC TRANSPORT SERVICES//REPAIRS
- Warranty / Insurance Claim Services

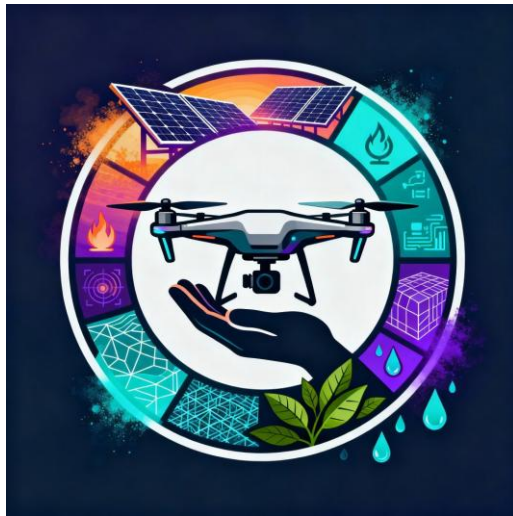
Relief work field level clothing like the ones reflective of

- Social responsibility duty
- Civil assistance/defence duty
- Aged/Disabled/Afflicted duty
- Certified responder duty
- Mission critical
- Segmentation/Target Group duty
- Celebration/Festivity/Tourism duty
- State level duty
- National level duty
- Global level duty
- anti-aircraft defense duty
- Ground station system duty



**2. Address the need for Condition and Traceability tracking of the COPQ issues of the ward/road system/road infrastructure in clusters that align with their business vision, mission and value systems.**

AOEC calls to attention the need to re-think / re-assess and analytically re-engineer the SMART Connect 2025 / Vision Drone 2026 for solution finding or criteria to help problem determination/ resolution/quality promotion and future forward sustainability.



TO

**SMARTER  
CONDITION  
MONITORING  
SOLUTIONS**

# Services Offered Catalogue & Subscription



SMART Connect / Aero Inspect I3 Catalogue synergy relates to the business's approach for Business Intelligence (BI) and Continual Quality Improvement (CQI) to deal with

**Tier 1 or Needs and Necessities** for COST OF POOR QUALITY ISSUE RESOLUTION

**Tier 2 or Growing demands / Value expected demand** for COST OF POOR QUALITY ISSUE RESOLUTION

**Tier 3 or Heuristics system enabled objectives** for COST OF POOR QUALITY ISSUE RESOLUTION

The Heuristics system being defined in this case, is the use of evaluations/analytics for BI and CQI for Lean thinking and Quality Promotion,

where lean thinking is about a terrarium strategy-based set of practices to address terrarium needs for businesses and customers with the focus for COPQ issues and a Mainline Crisis Reduction Model that connects Passive Safety/ Support PRM systems with Active Safety/ Support PRM systems,

where the Tier 1 mainline crisis reduction model resolves issues affecting the production / delivery of products/services/systems for essential reasons and other connected to mission critical functions,

where Tier 2 mainline crisis reduction model resolves issues affecting the production / delivery of products/services/systems for multi-purposefulness, uniqueness and exclusive industry/technology development/service enabling benefits and

where Tier 3 mainline crisis reduction model resolves issues affecting the production/delivery of products/services/systems for-or-in weather-based cycles, disaster or mitigation of risk-based cycles, relief and rehabilitation-based cycles

The terrarium need is one that will need leaner thinking and virtual CRM based Quality Promotion for cost of poor quality issues and important synergy for need, development of ability and future forward sustainability for demand & supply integration, where the demand could be for manufacturing/service enabling/technology development/ exports promotion, brand equity in the retail business network, or universally sustainable project management in the rate of innovation that matches global, country-wide and regional interests or asset protection for new-age reasoning.



[For the reader, clusters are associated businesses and their networks that work together to achieve development, growth and productization specific to their business scope and SMART Connect / Aero Inspect I3 scope projects with strategic BI and CQI)

I3 stands for the **Integrated Interoperability Interface** specification that adds a risk mitigating clock for conditional proactiveness for aspects such as the 4P(s) for products/services/systems, their Heterogeneity, their Intangibility, their Inseparability, their Trendiness, their Perishability and their Assets Protection needed for a National Safety/Support Social Responsibility (NSSR) Programme that **has certified response focus** (where certified response is expected from certified entities or **specific response focus** (where non-certified responses are expected from regular entities)

The response conceptually is about helping NSSR axis or Terrarium need tickets that

- (1) report needs,
- (2) identifying the clustered development of ability and
- (3) the strategic empowerment for future forward sustainability

NSSR axis tickets relate to National Safety/Support Social Responsibility programmes. AOEC with NSC is editioning a Road Safety/Support Programme with connected thinking and solution finding for domains interconnected or interrelated by the importance of road safety.

The POC URL for the same is

<https://venkataoec.wixsite.com/roadsafety-coe>

Terrarium needs tickets relate to National Support Social Responsibility programmes like the PIA/MSME DI/AEPC consulted Exports Centre, the COPQ SMART City Model Project Centre, the Difference to small businesses D2BS Centre, the Retail Brand Equity RBE Project Centre where work is in progress to add the ticketing being ideated on.

For more information, contact the author at [venkataoec@gmail.com](mailto:venkataoec@gmail.com) or on +919342867666.

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**3: Address the need for sustainable COPQ SCM project management** with support from the cluster to ensure Assets are determined/developed/improved/protected with “new-age reasoning for terrarium strategies”.

### What are terrarium strategies?

Terrarium strategies are germinal decisions for the SMART Connect to the Top 10 issues or the Cost of Poor Quality issues intelligence, where sustainable development and growth includes Asset revising/development/protection for the times to come.

This means the MSME industry in a city/ward/cluster must decide upon the Assets that they would like to develop/improve/protect to ensure there is a continuum in any vision for productization with sufficient supply of connected 7P(s) for it. The cost setup for each COPQ SCM project could be as highlighted:

## COST SETUP

- The Costs management will be based on

- ❖ The **PROJECT mode** of the Condition Monitoring System (CMS) is more relevant than the Hourly mode, where the cost setup will use a CMS catalogue for the parameters such as:
- ❖ Definition of the required Quality, Cost and Delivery effectiveness
- ❖ Definition of the Triple bottom line effectiveness for Governmental objectives, Environmental objectives & Community related objectives
- ❖ Definition of a Cost & Impact Matrix for ease of serviceability

The CMS Project Lifecycle for the parameters will include

- ❖ Definition of catalogue based goals (Define phase)
- ❖ Planning of the catalogue based project (Planning phase)
- ❖ Execution of the catalogue based plan (Execute phase)
- ❖ Evaluation of the end objective met (Evaluate phase)
- ❖ Closing of the catalogue based lifecycle (Closing phase)
- ❖ Showcasing the project for catalogue based AMC/ due use for next time ease of serviceability and project delivery

The intelligence that must be shown can be described as follows:

+ **COPQ issue resolution via a SYNERGETIC clock** that decides the timing/frequency/pro-activeness of the businesses to plan or ensure use case workflows like condition assessment with expectations of regular maintenance and resolution by the associated Ward management departments, or expectations of preventive maintenance by the associated Ward management departments, or corrective maintenance by the associated Wrd management departments

## Use Of Virtual Views, Virtual Reality / Augmented Reality

### How virtual views are created and used:

- ❑ **Immersive Platforms:** VR allows users to step into a simulated SEPS environments, while AR can project condition visualizations onto real site installations during workshops and meetings.
- ❑ **Data Integration:** CMS simulation models are integrated with panoramic images or videos, or dimensional reduction techniques are used to improve real-time data processing and visualization effects.
- ❑ **AMC and Decision-Support Tools:** These systems provide a versatile tool for learning about catalogue based condition monitoring, deterioration or impacts, developing mitigation measures, and making informed decisions.

### Key aspects of virtual condition views:

- **Real-time Assessment:** Users can navigate affected sites/site areas, assess the effectiveness of visualization, condition or deterioration mitigation strategies, and see the impacts of their decisions firsthand.
- **Interactive Visualization:** Interactive features allow users to engage with the simulation, projecting site/installation risks and condition monitoring expectations onto feature extracted parts/components/interfaces.
- **Accessibility:** The use of web-based platforms and libraries like Three.js (which supports VR and AR), makes these immersive experiences accessible to more users without requiring specialized hardware.
- **Improved Decision-Making:** By offering a clear, interactive, and user-friendly way to understand SEPS site/site configuration risks, these tools support better planning and catalogue based service lifecycles and AMC strategies.

# COPQ Continuum CRM based Quality Promotion or CATALOGUE LINKED TECHNICAL SPECIFICATION

- ▮ **Site Scaling and Complexity Review**
- ▮ **Enforcing of Safety and Regulation**
- ▮ **Optimal Solar irradiance**
- ▮ **Cost of ownership model**
- ▮ **Cost of poor quality model for  
unverified, aging or damaged  
infrastructure**

## Value stream mapped Regular Maintenance with WIP Integrated Optimization for COPQ SCM issues

### Need for Integrated Optimization

**Optimization Program for NSSR(\*) Programmes, TMS scale - Zero downtime, TMS scale - Zero defects, TMS scale - Reliable “data integration, quality & results” and improved Assets utility**

1. Designing of data integration (horizontal, vertical or end-to-end), cyber-physical systems, VPN/DMS landscapes. layouts and management interfaces for product or part fabrication lines, procedures and identification of a plan & time intervals according to which optimization must be carried out
2. Devising of a framework with manageable components to implement the optimization plan, where focus is included to make the factory and its systems compliant for SMART-Factory-specifications (Industry 4.0 currently) and more integrated, responsive, proactive & predictive
3. Modeling or retrofitting of layouts or facilities to help integration for the optimization plan
4. Devising of schedules to allocate personnel and resources for the optimization plan
5. Designing of TMS parameters, checklists, Logs, Forms and Reports
6. Designing of a system for Optimization tracking
7. Designing of a system for Cost tracking
8. Designing of a system for DMS control
9. Designing of a system for Inventory control
10. Designing of a system to gather and address feedback/complaints
11. Designing of a system to gather and assess data input & traceability issues for Optimization Improvement

## Value stream mapped Preventive Maintenance with WIP Integrated Optimization for COPQ SCM issues

### Preventive Maintenance (PM) Program

1. Designing of procedures and identification of a plan & time intervals according to which PM must be carried out
  2. Devising of schedules to allocate personnel and resources for the PM plan
  3. Designing of Logs, Forms and Reports
  4. Designing of a (decision-tree diagram specific) docking system for SMART Factory/DMS analysis and Pronation Level Analysis
  5. Designing of TMS / Zero Downtime systems and enablers (like KPIs/FMCEA/RCA)
  6. Designing of a system for Condition and Traceability tracking
  7. Designing of a system for Cost tracking
  8. Designing of a system for DMS control
- 
9. Designing of a system for Inventory control
  10. Designing of a system to gather and address feedback/complaints
  11. Designing of a system to gather and assess data input for Continuous Quality Improvement



# Value stream mapped Preventive Maintenance with WIP Integrated Optimization

## Corrective Maintenance (CM) Program

1. Developing of a system and suitable knowledge aids for (first-level and thereon corrective level / NSSR\* level specific) condition, trouble shooting and fault analysis, which can be used alongside documentation provided by the vendor
2. Deciding upon a system to suit nature of factory, facility or building and developing of docking systems for VPN/DMS landscapes, and standard operating procedures **for Integrated Optimization** specific analysis and corrective action
3. Developing of a decision-tree specific system to analyze issues, incidences, hazards & risks specific to horizontal, vertical and end-to-end integration and thereon identify task breakdown with analysis of Facility specific systems, Human Machine Interfaces and nature of Data integration needed for optimization
4. Deciding upon a system to suit nature of factory, facility or building and developing of standard operating procedures **for Level of Repair/TMS model** specific analysis and corrective action
5. Developing of a system to analyze incidences, hazards & risks and thereon identify task breakdown with analysis of skills needed
6. Training and supervision to deliver (as per standard operating procedures) with required supportability (required sequence of operations, level of reliability & maintainability)

NOTE: Of specific importance is preparation of knowledge aids that detail aspects like TMS study, DSN lifecycle, Customer Performance Program/Close connect Value Stream mapping/Start-up sequence for 4P(s) or 8P(s), Docking systems like the VPN/DMS landscapes, SMART Device and sensor settings for the SMART Grid or FIC or DMS, Control settings for normal, docking and continual operations, Shutdown procedure, Emergency Over-Ride procedure and as relevant any Layout modeling, IT/OT integration procedure, Optimization Retrofit procedure and/or Seasonal Changeover procedure referring vendor documentation.

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For more information, contact the author at [venkataoec@gmail.com](mailto:venkataoec@gmail.com) or on +919342867666.

The POC URLs for sustainable proposals are  
<https://venkataoec.wixsite.com/exportscentre> (WIP)  
<https://venkataoec.wixsite.com/rbep-centre> (TBD)  
<https://venkataoec.wixsite.com/d2bs> (WIP)

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