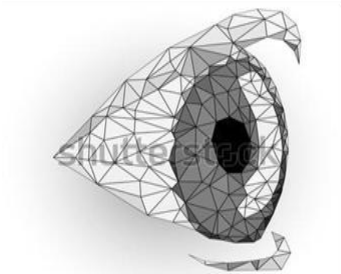


V 1.02.2025

Investments

Quadrants of importance

Safer commuting in 2025-2026

SMART Ward Field Book


SMART CITIES
the acceleration of smart city projects

SMART Ward Field Book

A. Vision for SMART Wards

1. To design SMART concepts like Safer Commuting in a ward, we must consider the underlying issues in the ward's systems or foundation and thereon consider gaps, possibilities and conditions that are known to cause problems or risks to people.

2. To design SMART wards with integrated functions, we must identify the systems & elements that are part of a ward like the road infrastructure, systems & traffic engineering, the electricity transmission, distribution and management and/or utilization systems, the water supply and management and/or utilization systems, the sewage & drainage networks, the waste demarcation, collection systems and disposal and/or landfill sites, the homes, facilities, industries and factories, the community development and service networks, the disaster management and emergency response systems, the presence of agricultural sites, forests, parks & gardens, the presence of river systems, lakes, ponds, wells, borewells, the location of super markets, markets, shopping and retail outlets etc.

SMART Ward Field Book

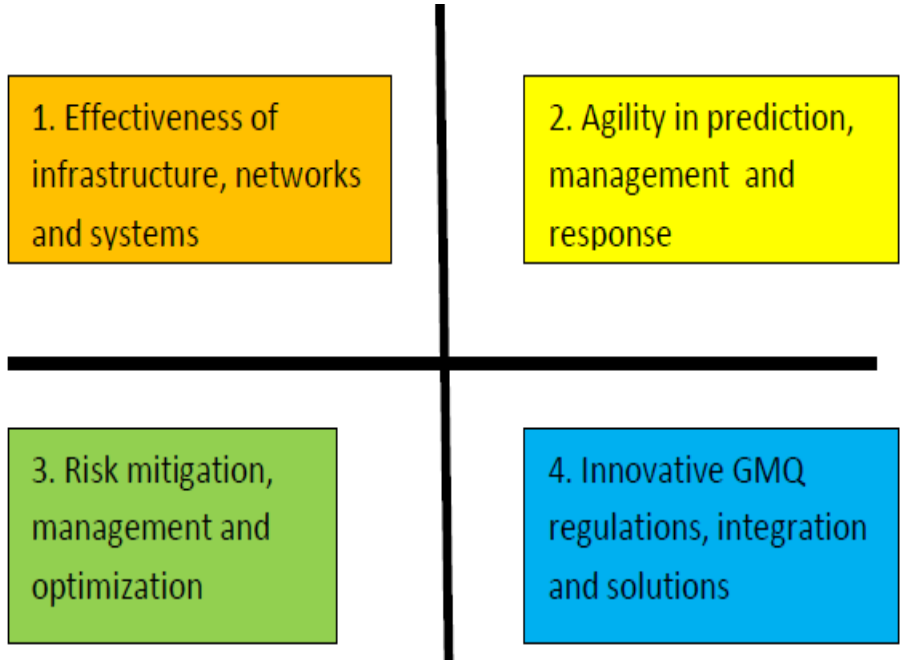
A. Vision for SMART Wards

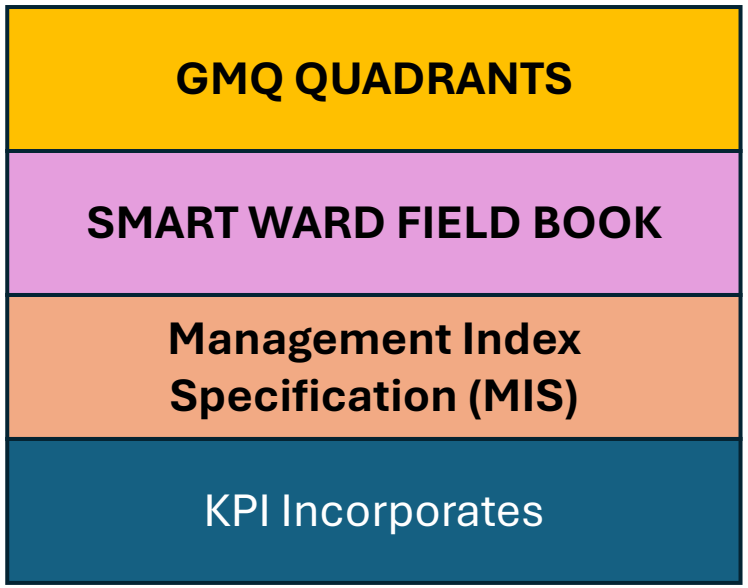
3. This document includes all these systems & elements in a SMART Ward Portfolio and then divides them into small manageable components that need innovative engineering solutions and cyber-physical systems, and a concept called Drawing to Life systems.

4. The SMART Ward and its framework permits the condition monitoring, predictive monitoring, data integration and optimization of its systems and elements to make them compliant, predictive, responsive and reliable, where the main focus is to reduce downtime, problems and risks. .

SMART Ward Field Book

The following quadrants illustrate what is needed in a SMART Ward in terms of Governance, Management and Quality of experience (termed as GMQ with integrated functions).





5. The 4 quadrant approach will make it easier to define and develop TMS systems (Time Motion Scale study systems) to permit the architects of the SMART Ward to incorporate zoning and indices like:

SMART Ward Field Book

a. KPI(s) for **SMART Compliance in Governance, Management and Quality of experience**

b. KPI(s) for **Risk Mitigation & Incidence Prevention and/or Correction**

c. KPI(s) for **Failure Mode Cause and Effects Analysis for events & incidences**

d. KPI(s) for **Root Cause Analysis for events & incidences**

For performance to scale (c*).

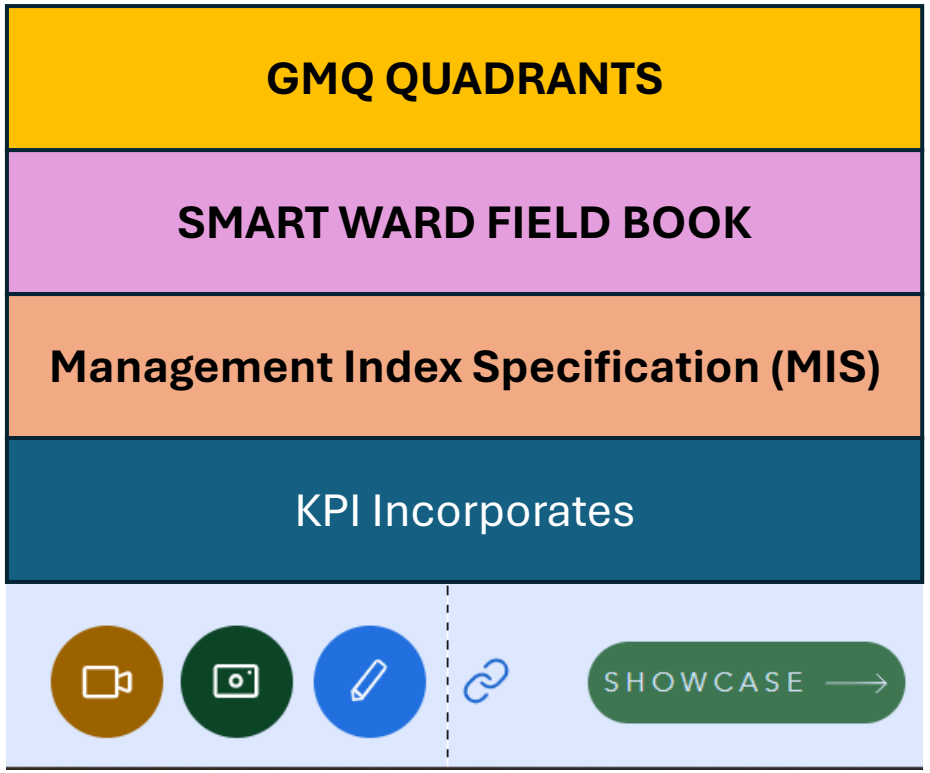
KPI(s) for the **Optimization in systems and elements for Quality of experience**

6. The quadrant approach will permit architects to plan for horizontal and vertical scale integration with the help of a SMART Ward Integration Centre (SWIC). Here horizontal scales represent zoning and vertical scales represent the range of systems and elements in the Portfolio.

SMART Ward Field Book

KPI(s) are qualifiable or specific measurements of performance results, they can be used to measure and track Ward management initiatives/ processes/ field level products / service improvements. KPI(s) need to be

- ❑ **Valuable for the GOI/GOK mission/decision-making and goals**
- ❑ **Realistic**
- ❑ **Relevant**
- ❑ **Measurable**
- ❑ **Monitorable**
- ❑ **Practically Achievable**
- ❑ **Bound by a Time Frame**
- ❑ **Sustainable when achieved**



Management Index Specification

As part of the Road Infrastructure Transformation Programme, we propose fast track management of any...

- ❑Payload liability while using the route
- ❑QMS liability while using the route
- ❑RITP-CS liability while using the route
- ❑EMS liability while using the route

Here

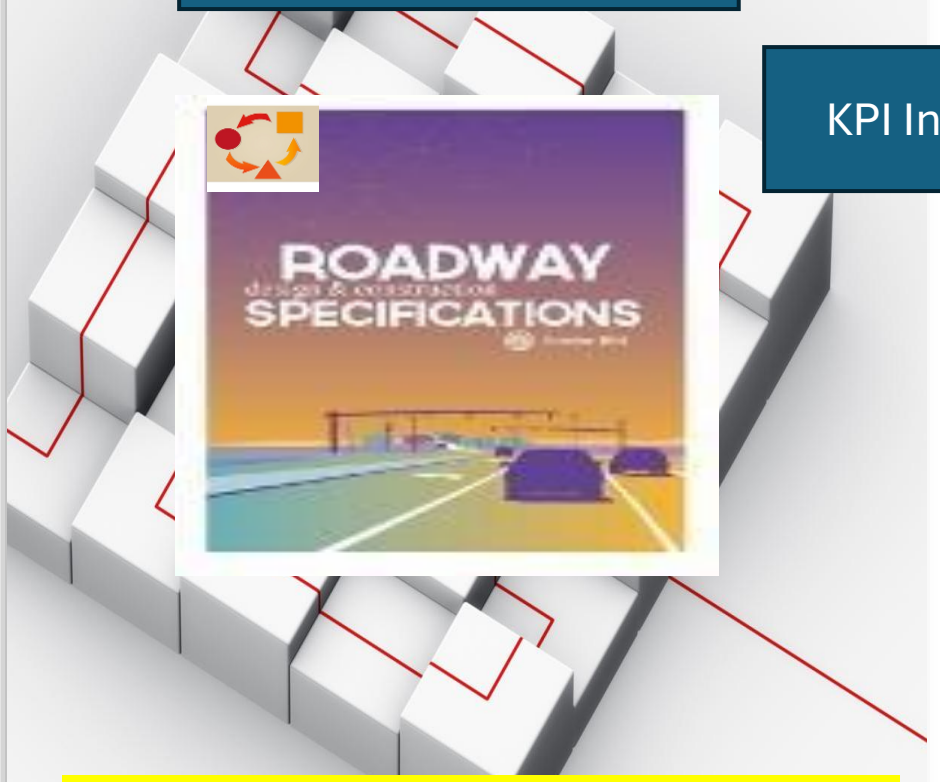
- ❑Payload refers to value stream mapped goods
- ❑QMS refers to Quality Management System
- ❑RITP-CS refers to RITP Catalog Synergy
- ❑EMS refers to Environmental Management System

For the science it needs to be said that the RITP works using the LAW or CYCLE of resilience

RITP - Highlights

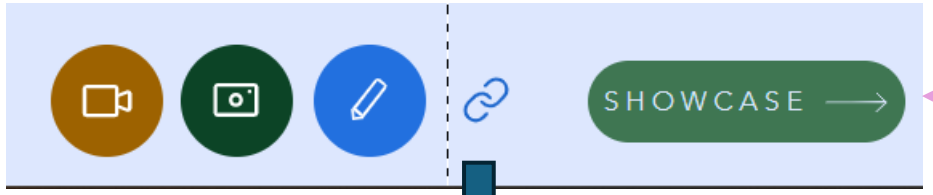
SMART WARD FIELD BOOK

KPI Incorporates



The resilience of a road network indicates the continued functionality of a road system for any evaluated **magnitude and consequences of a disruption**

Determining how KPI Incorporates map to GMQ quadrants



Ward location

KPI incorporate

GMQ Quadrants

Related to Field element

Fitness report/DIL report

Related Ward system

Risk/Hazard/ Vulnerability/Issue

Risk Reduction or Risk Transfer

NEXT STEPS system

Service assistance or Condition mitigation

In-time/ schedule

Strategic Execution/SMART Ward management.

Roeplay/Interactions/Advisories

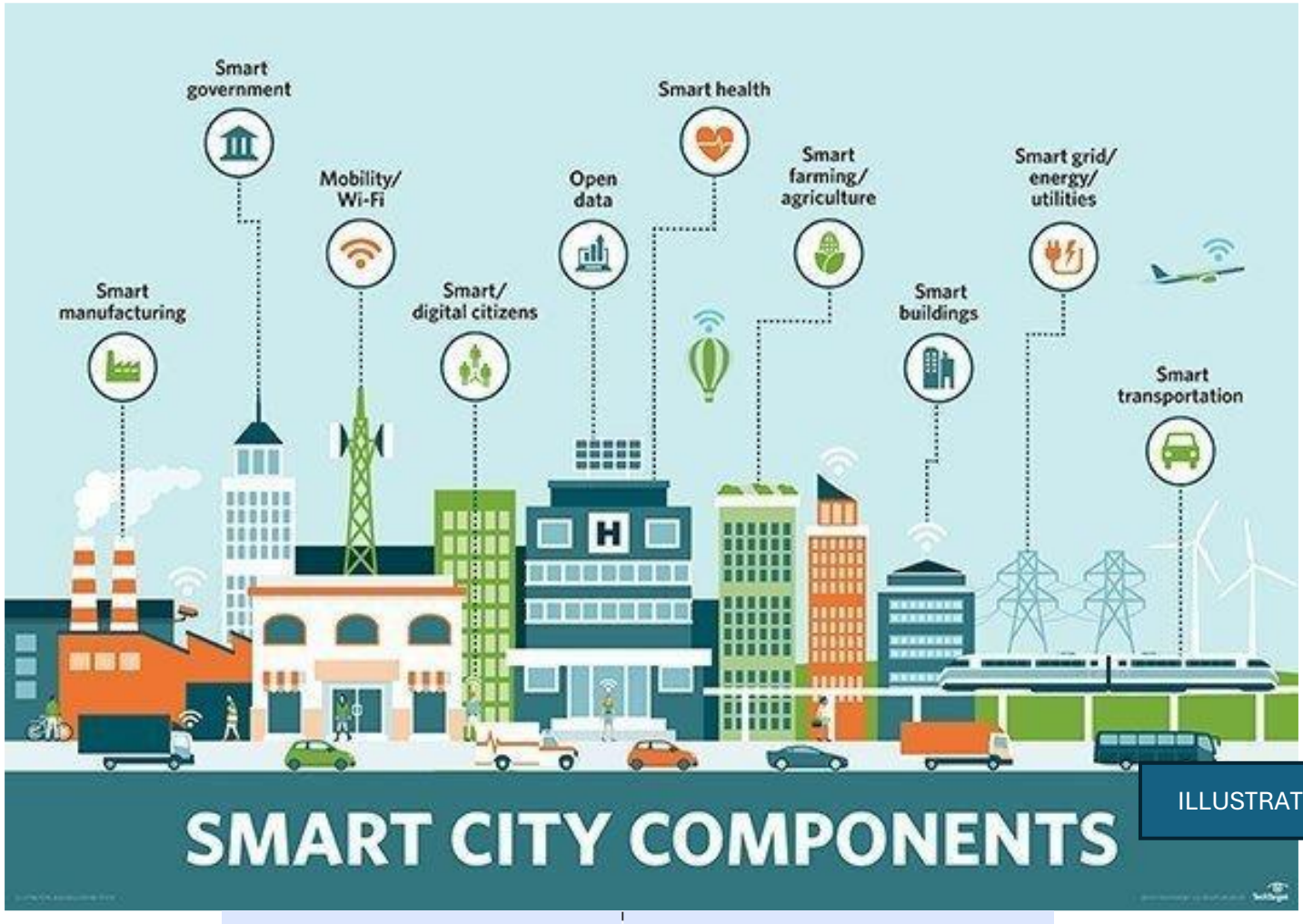
PM Analytics

Building more sensitivity, awareness, preparedness and GMQ theme smartness

Safe, Socially accountable and sustainable experience

SMART Ward Field Book

Safe, Socially accountable and sustainable experience

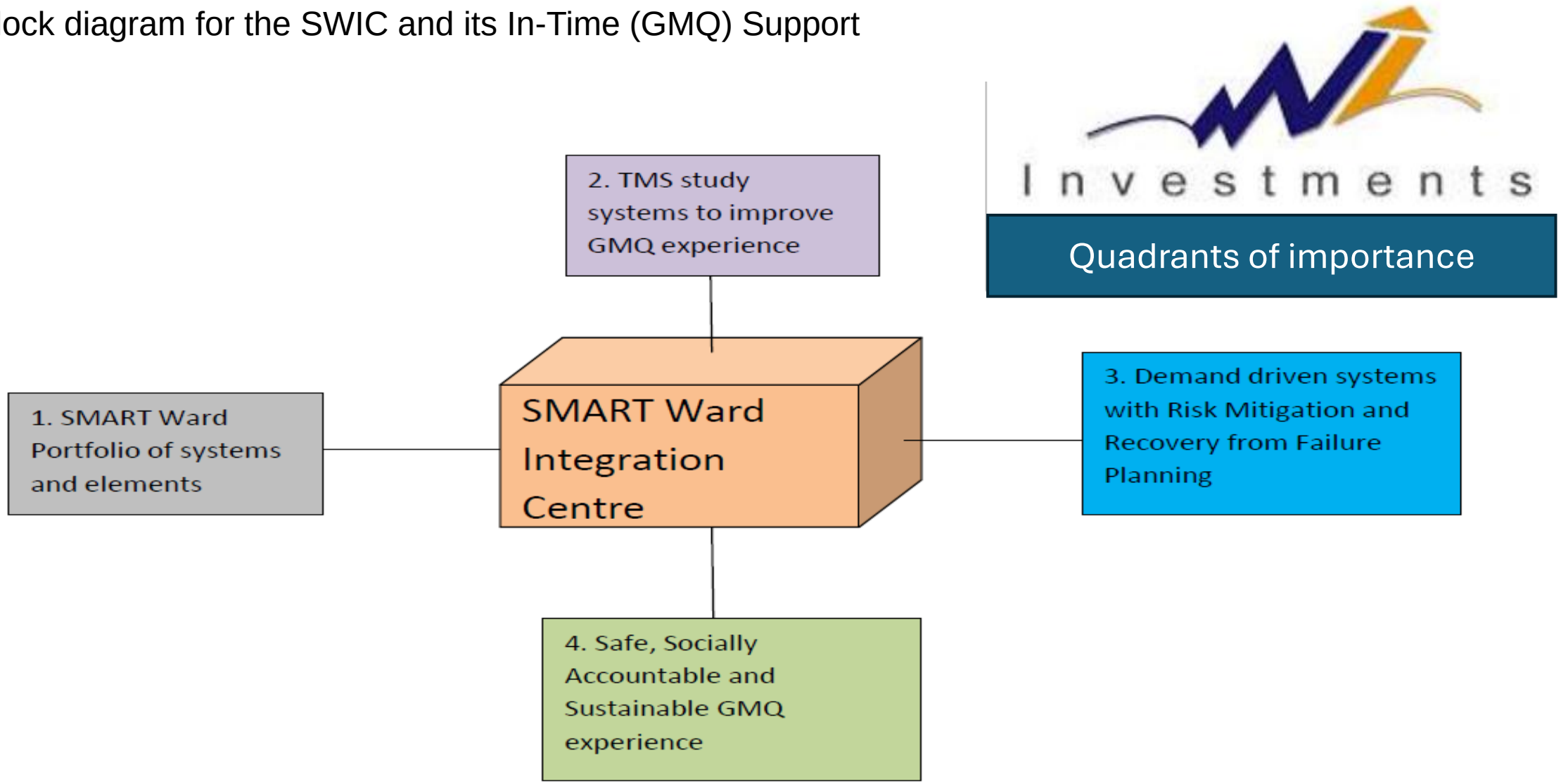


ILLUSTRATION

SHOWCASE

SMART Ward Field Book

7. Block diagram for the SWIC and its In-Time (GMQ) Support



Investments

Quadrants of importance

SMART Ward Field Book

SMART Ward Field Book

B. Added details

B.1 Time, Motion and Scale studies

AOEC has developed some understanding of this via what is called as conscious thinking for universal criteria management to help sustainable development and growth.

This background covers - Governance - Management - Quality Assurance, where each layer has separate criteria

The SWIC will tabulate the following details for each of the systems and elements that are part of the SMART Ward Portfolio, that is an indication of whether the following have been implemented:

1. Risk Mitigation and Management
2. Condition Monitoring and Traceability
3. Human Machine Interfaces permitting Focus Analytics, Failure Mode Cause and Effects Analysis, Root Cause Analysis, Preventive management and Corrective Management systems
4. Focus Analytics with the use of UAV enabled PIDS / D2L Auto docking that permits exchange of visual, auditory, experiential, knowledge and learning specific criteria

SMART Ward Field Book

B.2 The NEXT Step

The NEXT step is planning the exchange of visual, auditory, experiential, knowledge and learning specific criteria, so heuristic systems can predict inadequacy.

A Heuristic system is one that designs & monitors compliance criteria, effectiveness of operations, incidences and trends of problems, failures, events of various networks, systems & elements, where a new AERO-CLOUD solution helps use the cloud computing infrastructure to enable remote manageability & traceability, push/pull data and prioritize, control, engineer or re-engineer management systems for the SMART Ward Portfolio.

SMART Ward Field Book

The intent being wards that build surveillance and truth maintenance systems (as components of SMART or Green Asset Exchange) can help in generating a domino effect that can help us in the future.

In the case of Safer Commuting, the insight is to design PIDS Exchange.

The SWIC and the Heuristic system will permit IT architects to plan for manageability and traceability via fibres, sensors, devices, docking systems and extended data interoperability.

SMART Ward Field Book

Docking systems can either be Perception Imagery Drone Solutions or Drawing to Life Auto docking systems, where the PIDS concept is related to connected vehicles/ systems and the D2L Auto docking systems are related to An INCEPTION STAGE concept that incorporates agile synergy in SMART Phones.

For a SMART Ward, data interoperability will involve 4 streams such as…

1. Physical environment specific streams
2. Operational environment specific streams
3. Human assets specific streams
4. PDIS TGMB Integration Centre streams
5. SWIC specific streams .

SMART Ward Field Book

B.3 Scaling further
Each SWIC will help a SMART City committee weigh the pros and cons of incorporating SMART concepts and methodologies in wards that may be autonomous or interconnected, where each SMART Ward or Regular Ward is considered as a Zone with indices for GMQ experiences.

Each SWIC will make it easier to integrate wards into a GMQ grid and SMART City vision**.**

The functional components of a SMART City could include SMART City -> PIDS TGMB Integration Centre -> SMART City Integration Centre (SCIC) -> SMART Ward Integration Centres (SWIC(s)) -> SMART Wards -> IT Architecture -> Engineering solutions -> Deep Interactions, Systems and elements

SMART Ward Field Book

B.3 Scaling further (continued…)
The functional components of SMART Wards -> IT Architecture -> Engineering solutions -> Deep Interactions, Systems and elements -> SMART Grid Field Book or SMART Ward Field Book -> Focus Analytics Support Centres -> NavSite Zones -> NavSite pincodes -> NavSite :Profiles

NavSite Profiles can help KPI effective ward management of location specific

- ❑ Infrastructure / Networks
- ❑ Systems
- ❑ Elements
- ❑ Alignment Points

  Integration Points

SMART Ward Field Book

B.3 Scaling further (continued…)

The insight of KPI effective ward management of locations can be improved via concepts and functional interests such as

- ❑ Defining a RADIUS of coverage for a location
- ❑ On-boarding of information/analytics for a location
- ❑ Recognition of influencers for Service anywhere anytime concepts or for interconnected experiences for a location
- ❑ Trending of performance to upkeep or improve KPI effėċtiveness
- ❑ Transfer of Learning for improved Governance, Management and Quality of the ward management systems
- ❑ Transfer of Learning results or Fitness reports to understate issues

SMART Ward Field Book

B.3 Scaling further (continued…)
The Focus Analytics Support Centres can help define and implement projects for

A. **(Road System) Nature of Planning Analytics**
B. **(Road System) Influencer Analytics**
C. **(Road System) Infrastructure Analytics**
D. **(Road System) Commuter Safety (or Ticket) Analytics**
E. **(Road System) Traffic Control (or Ticket) Analytics**
F. **(Road System) Accident and Emergency Care Analytics**
G. **(Road System) Decision-making and associated Knowledge Analytics**

SMART Ward Field Book

B.3 Scaling further (continued…)

The Focus Analytics Support Centres can help map and improve logistics for **traffic control and commuter safety using portfolio specific field elements such as**

- **Traffic Control Police Stations**
- **Traffic Control Police Chowkis**
- **Traffic Control associated sites for parking towed away vehicles or accident damaged vehicles**
- **Traffic Control Signals**
- **Dealer network specific Service Centres**
- **Independent Service Centres or Workshops**
- **Spares Parts Businesses**
- **Accident and Emergency Care services**
- **Alpha Assistance deployments (under evaluation)**
- **NDRF/SDRF enabled Disaster Management deployments (under review)**

SMART Ward Field Book

The SMART City Integration Centre (SCIC) will enable integration at both the wards and cities level, where each SMART City will integrate a SMART City Portfolio of systems and elements, where the commonness and uniqueness of each SMART ward in the city will be reflected in the portfolio.

…

SMART Ward Field Book

Factors controlling ward development are obligatory for alignment points, high investment structures considerations, geometric designs possible, economy for land purchase/ownership/rent, traffic estimations, and other considerations such as political, religious, hydrological, physical, and drainage considerations

SMART Ward :Portfolio and extended data interoperability
The insight is to incorporate the following

- ❑ NavSite location element/system (in due connection to factors controlling development etc)
- ❑ NavSite in-time analytics in addition to the Traffic Engineering surveys for highways, road systems (like a map survey, a reconnaissance survey, a preliminary survey, a RADIUS of factors survey, and a final survey)
- ❑ NavSite profile related in-time condition monitoring & traceability,
- ❑ PIDS enabled summoning of imagery / perspectives to a NavSite location element/system
- ❑ D2L system enabled summoning of Auto docking services for payload delivery, in-time analytics, condition monitoring and traceability

- ❑ We can be contacted via email venkataoec@gmail.com or phone +91 9342867666 for taking this further or for investing in proof of concepts for data interoperability required. We are focusing on Safer Commuting with the readiness assistance of automobile dealer networks and service centres.

SMART Ward Field Book

Factors controlling ward development are obligatory for alignment points, high investment structures considerations, geometric designs possible, economy for land purchase/ownership/rent, traffic estimations, and other considerations such as political, religious, hydrological, physical, and drainage considerations

SMART Ward Portfolio and reconnaissance surveys that are important for safer and sustainable Commuting are:

1. Project Engineering reconnaissance surveys
2. Traffic engineering reconnaissance surveys
3. Ground reconnaissance surveys
4. (revisited for UAV imagery) Aerial reconnaissance surveys
5. (new for BI/CQI analytics) Deep Interaction Links reconnaissance surveys

With the emergence seen, AOEC states that Automobile dealer networks should soon invest, interact and correlate for analytics that design more Safer and Sustainable Commuting, where there is added understanding in Cognition: Process accountability for safer & sustainable commuting for climate change mitigation and adaptation, for excellent brand, product and service strategies
Quality: Quality of services that are strategic and synergetic for perpetuating accountability in service production and service interaction. Some highlights follow…

Stage 1: Ideation for

Kanban First Views of road systems of importance with the help of recorded stills or video compositions	**Existing and updated call to attention imagery or perspective imagery**
In-time call to attention imagery or perspective imagery	**Drawing to Life Auto docking dealer infrastructure and Auto Pilot Device to customers**

Stage 2: Data recording and consolidation for

SMART Ward Field Book for urban locations	SMART Grid Field Book for semi-urban, rural and not totally mapped locations
In-time Focus Analytics Support Centre for in-time views	NavSite Coverage Schedules that record, store or update mapping of road systems related to the capacity of the dealer network to sense and respond

Stage 3: Enabling Dealer networks/ service networks to sense and respond

Related or Important Road systems mapping	Related or important road system condition mapping
Related or important road system infrastructure and facility mapping	Related or important road system related social interoperability mapping

Stage 4: Design and implementation of

NavSite pincode and NavSite profile for a road system	List of hazards that are relevant and the vulnerabilities that exist
Development of the capacity of the dealer network to sense and respond to incidences	Designing of a Drawing to Life Auto Pilot Device that works via the use of WiFi and mobile signal coverage

Stage 5: Incorporate focus analytics for road systems with the implementation of

A PIDS Content Management System for services/on road assistance	**A PIDS GSS (Ground Station System) at a service centre or workshop**
A PIDS Auto Docking framework by a dealer network/ service network	**Developing PIDS Flagging of areas under the Focus Analytics coverage by a dealer network/ service network/ service centre or workshop**

PIDS stands for: Perspective Imagery Drone Solution

Stage 6: Implementation of a PIDS Auto docking framework that consists of

PIDS Focus Analytics and theme smartness specific Content Management Systems	**A PIDS Bulletin Board System** **A PIDS Whatsapp system** **A PIDS SMS Services System**
PIDS Social network system	**PIDS D2L Docked Phone system**

Stage 7: Implementation of a PIDS Docked Phone system that includes

Delivery of services via the CMS, Bulletin Board System, Whatsapp and SMS	Delivery of services via a dedicated USHD / PIDS Service Assistance team
Delivery of payloads that could mean delivery of a D2L Docked Phone that can be used by the customer	PIDS D2L Docked Phone can help a customer equipped with a branded phone to connect with an existing docked phone or payload delivered docked phone to use the Focus Analytics that are important

Stage 8: Implementation of a PIDS Auto Pilot Device that includes

WiFi to connect with the PIDS GSS / Desk	A Radio serial link to connect with the PIDS GSS to help drone flight to location using GPS Hold
Components like Telemetry, Rx transmitter/receiver, GPS module, a selection of other components that suit the device offering	Timing Gates, Lap links, and Antennae

SMART WARD FIELD BOOK

IDEA UNDER EVALUATION

V 1.00.2025