SCATS User Update

Strategic topline

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ITS Section

1) Current state

2) Current pain points

3) Innovations underway

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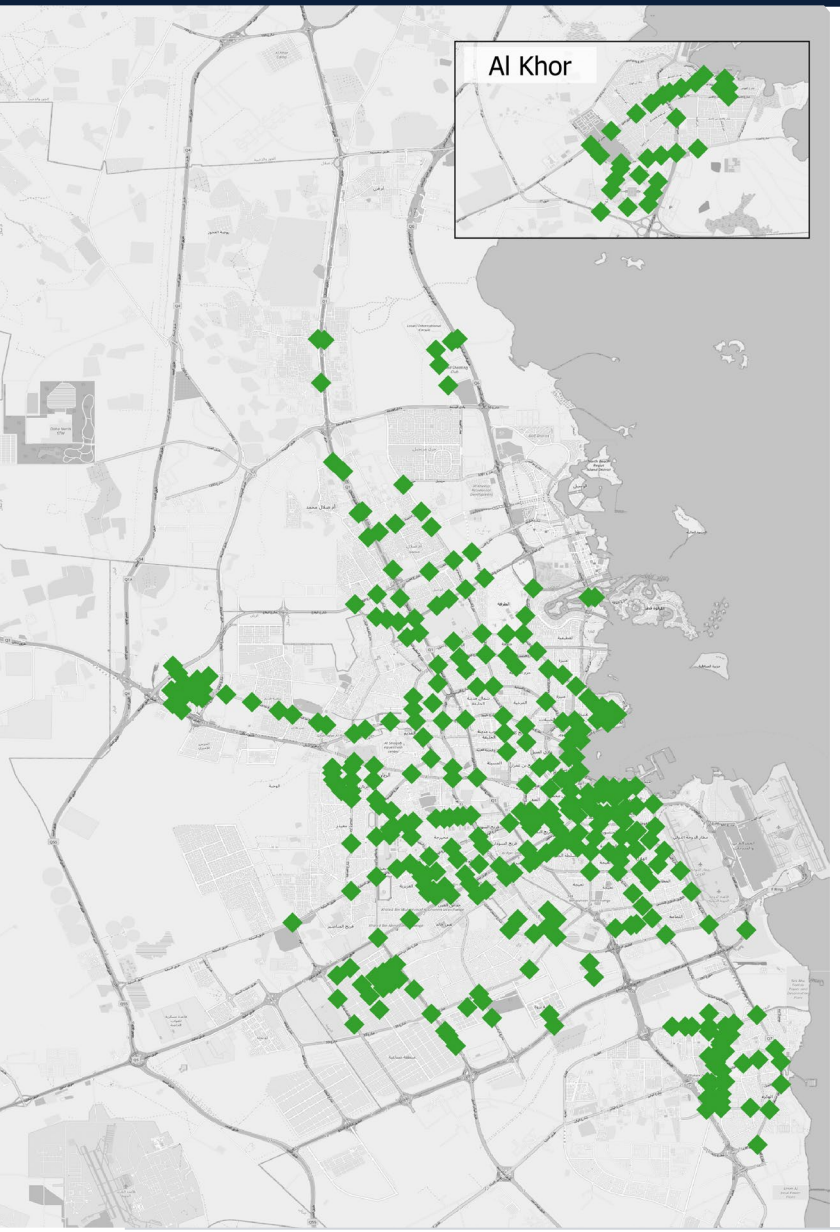
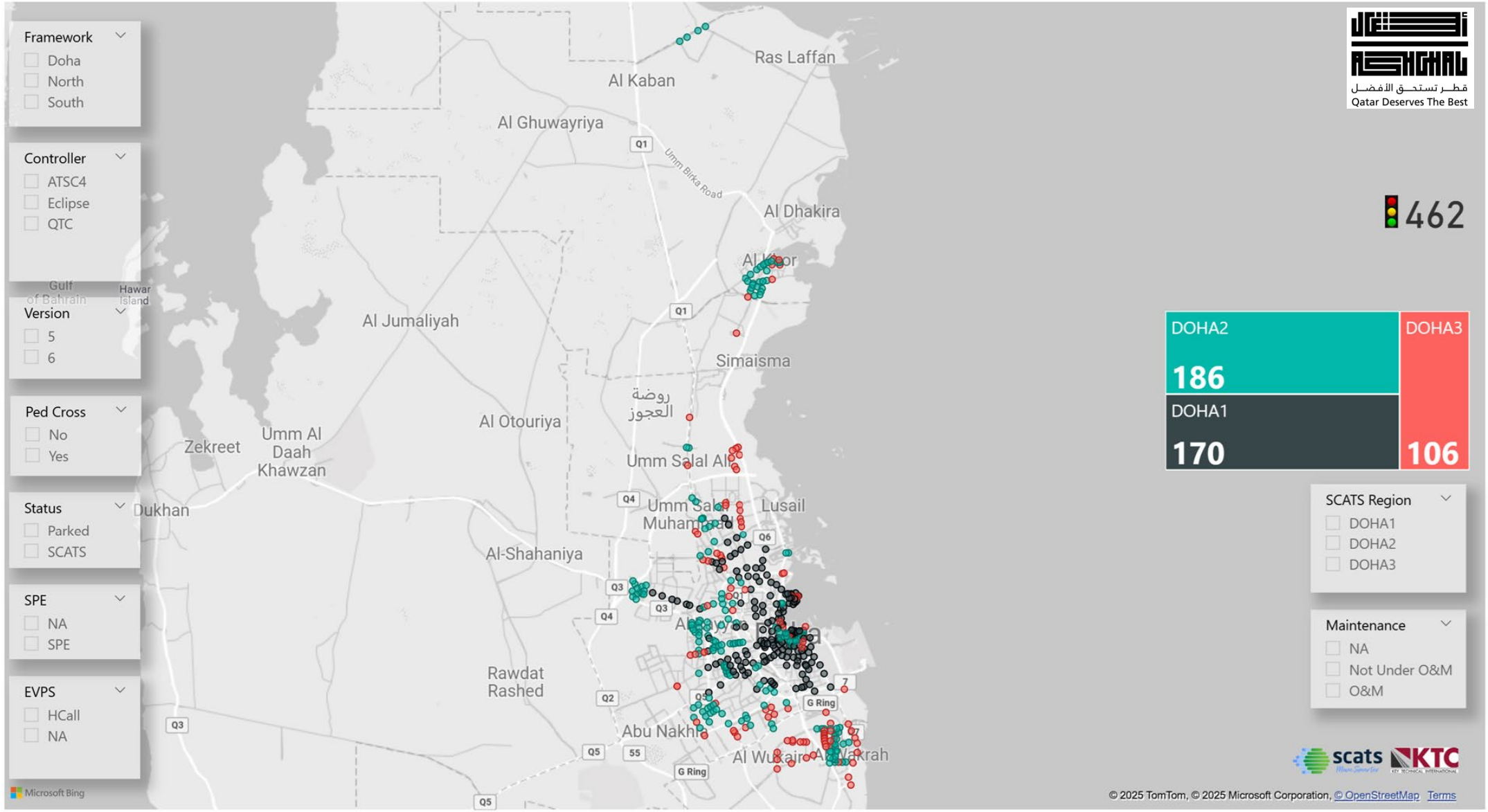
1) Current state



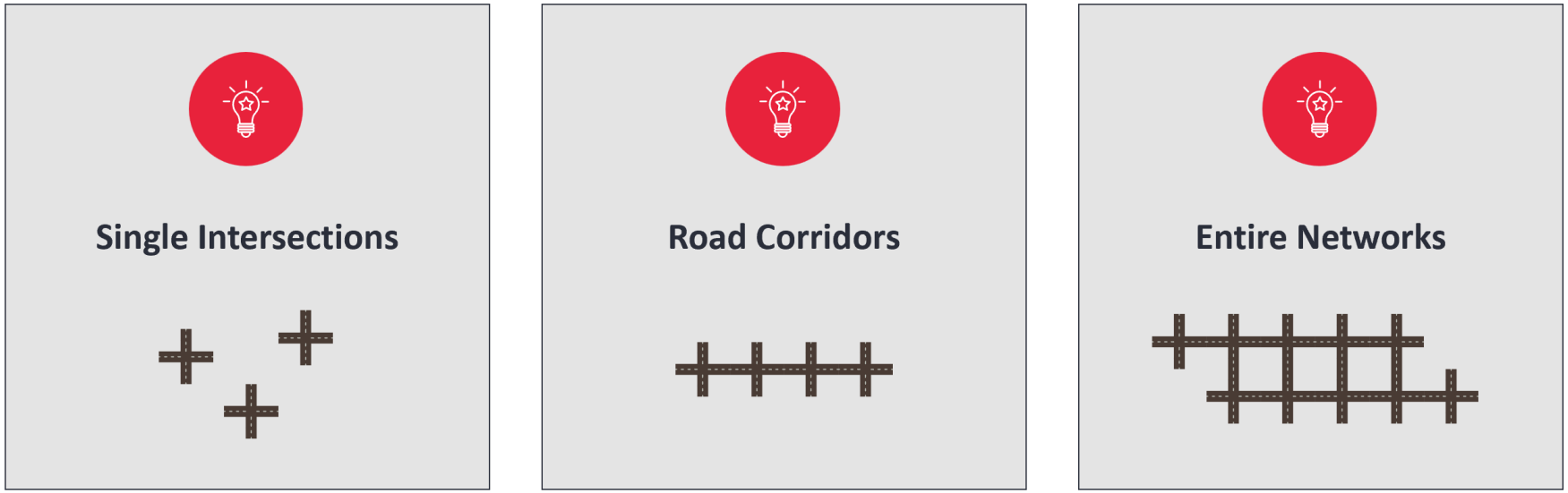
Current state

- Qatar currently has +460 junctions already connected to SCATS through fiber and wireless/4G network.
- All the traffic signals controllers in Qatar are compatible with SCATS system
- Remote control capabilities are used for incident management and various other activities by Roads Management Center (RMC)

SCATS Regions Summary



1) Current state of the SCATS Operation



SCATS is Operating at 3 levels (Single Intersections, Corridors and Network) to Manage the Traffic:

- In Peak Hours, Road Works and Events
- To Have Stable Journey Times (not only low average delay)
- With Growing Expectations for Safety and Multimodal Operation (Pedestrians, Emergency, …)

➡ **So, SCATS remains as a Valuable backbone for Qatar, to maximized the Traffic Operation Efficiency**

RMC model of SCATS Operation : “sense → decide → act → learn”

A scalable network operations model keeps SCATS effective as complexity grows:

SENSE

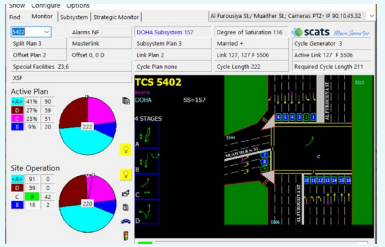
Detection Alert, CCTV, etc.

DECIDE

Operator / Engineer / Supervisor

ACT

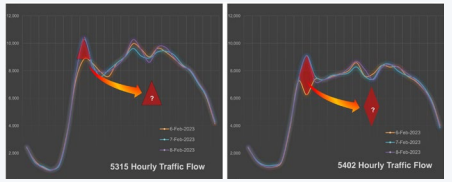
SCATS plans response



LEARN

KPI reviews

Continuous improvement



Outcomes enabled

- **Faster and more consistent responses**
- **Repeatable corridor performance improvements**
- **Measurable benefits through standard KPIs**

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2) Current Pain Points

2) Current Pain Points

What limits outcomes at Network scale (beyond “signal timing”):

- High Traffic + Complex Geometry : in Peak Hours, Events, & Road Works drive:
    - Oversaturated Condition and Increase the Reliability Risk
- Faulty Detectors & field device performance: can weaken adaptive decisions
- Network consistency at scale: local optimisation must not create downstream spillback impacts
- End-to-end integration: outcomes rely on alignment with CCTV ops and incident/work-zone processes

Strategic implication: invest in operating model, integration, and field quality to unlock SCATS performance.

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3) Innovations Underway

3) Innovations underway

How Ashghal is strengthening outcomes and scalability:

- Integration roadmap: tighter coupling between SCATS actions and V2X, C-ITS platforms
- Corridor optimization: focus on reliability and queue containment across routes/areas
- Performance management KPIs: SCATS KPI routines for and operational reviews
- Standard operational playbooks for events, planned works, and recurring congestion patterns

OPERATIONS

Playbooks
Workflows
Human factors

TECH ENABLEMENT

Integration
Visibility
Automation

GOVERNANCE

KPIs
Accountability

What success looks like

Executive KPI stack (examples):

Reliability

Travel time reliability
Corridor consistency

Throughput

Traffic throughput
Queue containment

Response speed

Time to detect → act
Incident/work-zone handling

Safety proxies

T-bone accidents in Lead-Lag phasing
Pedestrian compliance

Customer experience

Predictability
Information quality

Governance cadence: weekly ops review → monthly corridor review → quarterly executive outcomes dashboard.

Where we would value TFNSW's executive perspective:

Operating model & governance

- How TFNSW drives consistency across regions while enabling local agility
- Best practice for playbooks and executive KPI cadence
- Change control and release discipline for network operations tooling

Integration & performance management

- SCATS integration patterns with incident management and traveller messaging
- Corridor reliability measurement and "what good looks like" thresholds
- Approaches to scaling field device quality programs and accountability

Next step proposal:

Agree on common KPIs + a corridor case study to benchmark governance, playbooks, and integration approach.

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Thank You!