

SmartVision Computer Vision AI

G Cloud 15 Service Definition

SmartVision converts geolocated highway imagery into road condition, defect and asset intelligence for public sector highway teams and their delivery partners.

Framework	G-Cloud 15
Supplier	Metricell Limited
Document reference	SV-GC15-SD-001
Version	1.1
Date	16 September 2026

Document classification Public

Service summary

SmartVision is a cloud hosted computer vision service from Metricell Limited. It combines imagery ingestion, AI analysis and a map led platform so buyers can inspect road condition, defects, roadside assets and supporting imagery in one place.

The service is designed for local authorities, central government, highway contractors, insurers and other organisations that need repeatable visual evidence about the road network. SmartVision supports professional decisions. It does not replace a buyer's statutory inspection duties, adopted inspection policy or the judgement of a competent highway professional.

Core service outcomes

- Create a current, searchable visual record of the surveyed road network.
- Produce PAS 2161 carriageway condition information through an approved survey technology.
- Identify configured road defects and highway assets with location, time and source imagery.
- Review network condition at map, road, section and image level, including 10 metre segments where configured.
- Compare repeat surveys and use evidence to support maintenance planning, claims review and asset management.
- Export or exchange agreed outputs with GIS, asset and works management systems.

Who the service is for

Buyer group	Typical use
Highway authorities	Network condition, safety review, asset inventory, maintenance planning and evidence
Government bodies	Consistent condition reporting, programme oversight and auditable network information
Highway contractors	Contract evidence, repair verification, asset checks and managed inspection services
Insurers and claims teams	Time and location linked road evidence, subject to agreed data rights and purpose

How SmartVision works

The contracted data and quality plan defines the network, imagery source, processing cycle, acceptance criteria and outputs. Each observation remains linked to its location and supporting imagery so users can review the evidence behind the result.

Step	Stage	What happens
1	Define	Agree the network, survey route, image interval, included classes, operating conditions and outputs.
2	Supply	Capture or supply geolocated and time linked road imagery using the SmartVision app, an approved camera set up or an agreed imagery source.
3	Check	Review route coverage, image quality, positioning, direction, gaps and unusable records.
4	Process	Run the configured computer vision models and create road condition, defect and asset observations.
5	Validate	Apply agreed quality checks and human review to low confidence, unusual or safety relevant results.
6	Review	Display routes, source imagery, condition, defects and assets through the web platform.
7	Act	Prioritise, report, export or integrate approved information into the buyer's workflows.

Imagery supply options

- Buyer self collection using the SmartVision mobile application and an agreed safe mounting method.
- Collection by a buyer appointed or separately procured survey partner.
- Collection from vehicles already travelling the network, subject to image quality, permissions and operational safety.
- Import of compatible buyer or third party imagery, subject to technical validation and data rights.

The core G-Cloud service covers the cloud platform, imagery ingestion, processing, analysis, reporting and support. Physical surveys, hardware, vehicle fit out and traffic management are not included in the core G-Cloud price and must be arranged through an appropriate procurement route where required.

The Order Form identifies who supplies the imagery and records the equipment, training, quality controls, data chain and responsibilities that apply to the agreed source.

Road condition and PAS 2161

Metricell holds two current PAS 2161 certificates for SmartVision technologies. The certificates confirm that the submitted technologies met the minimum conditions in the 2025 trial and are approved for use on local authority highway networks to provide carriageway condition data as specified in PAS 2161.

Technology	PAS 2161 route	Validity
Inference Model X AI Agent	Dedicated mobile technology First submission approved for use	26 September 2025 to 31 March 2027
Inference Model X Human Agent	Application based mobile technology Second submission approved for use	26 September 2025 to 31 March 2027

Condition outputs

- Carriageway condition results aligned to the contracted PAS 2161 methodology.
- Network, road, section and 10 metre segment views where required by the buyer's network model.
- Processed RCM categories and supporting detailed condition parameters where included in scope.
- Route coverage, capture date, source imagery and relevant processing or review status.
- Reports and exportable datasets for review, validation and onward use.

Method controls

The applicable technology, model version, equipment, survey method and quality rules are confirmed before collection or processing. Material changes are assessed against the approved configuration and the current PAS 2161 requirements. The buyer receives traceable outputs and can verify results against the source imagery.

PAS 2161 certificates are available on request and can be verified through TRL Limited. Any call off extending beyond the certificate expiry date will include an agreed approach for renewal or replacement evidence.

Defect and asset intelligence

SmartVision analyses visible road and roadside features included in the agreed model configuration. The exact class list, measurement method, confidence thresholds and acceptance criteria are confirmed for each call off.

Information group	Illustrative observations
Carriageway condition	Potholes, cracking, crazing, gravelling, joint failure, edge failure, patching and surface condition
Signs and markings	Directional, regulatory and warning signs, painted lines, pedestrian crossings, road studs and surface markings
Lighting and traffic control	Streetlights, traffic lights, illuminated signs, temporary signs, cones, barriers, cameras and variable message signs
Drainage and utilities	Gullies, culverts, manhole covers, chambers and utility poles
Safety and restraint	Guardrails, safety barriers, bollards and other vehicle restraint assets
Public realm	Footways, verges, benches, waste bins, bus stops, shelters, parking areas, junctions and roundabouts

Available observation fields

- Class, location, capture date and link to supporting imagery.
- Condition, severity or priority where the configured workflow supports it.
- Dimensions or categorisation where the model and survey geometry support reliable measurement.
- Confidence, review status, user decision and audit information where included.
- Existing asset identifier, candidate new asset or possible location difference where asset matching is in scope.

Quality and professional review

No automated inspection method detects every issue in every operating condition. Performance depends on class, image quality, road environment, lighting, weather, view and model version. SmartVision therefore combines model thresholds, coverage checks, sampling and human review according to the contracted quality plan. The buyer retains final responsibility for intervention decisions unless the call off contract expressly assigns that responsibility elsewhere.

Platform reporting and integration

The web platform provides a map led view of the surveyed network. Users can move from a network summary to a road, section, observation or source image, subject to their role and permissions.

Platform capabilities

- Network coverage and condition views with configurable map layers.
- Route and image review with location and capture time.
- Filtering by road, area, survey, defect, asset, condition, date and review status.
- Historical comparison and before and after evidence where repeat imagery is available.
- Dashboards, summary reports and agreed risk or maintenance views.
- Role based administration, organisation access and audit information.

Data outputs

Output	Typical content
CSV and XLSX	Road and section references, condition scores, defects, assets, coordinates, dates and review status
GIS formats	Geolocated defects, asset points, condition sections, survey coverage, shapefiles or GeoJSON where agreed
PDF reports	Network summaries, maps, defect examples, asset summaries, PAS outputs and survey metadata
API	Documented REST interfaces for agreed resources and integration use cases
UKPMS outputs	HMDIF or other agreed compatible outputs where included in the call off

Existing systems

SmartVision is designed to complement the buyer's system of record. Agreed data can be exchanged with GIS, asset and works management systems through an API or scheduled file exchange. Relevant environments may include Confirm, Alloy and ArcGIS, subject to discovery, available interfaces, licences and buyer approval. The integration design defines identifiers, fields, geometry, direction, frequency, authentication and error handling before build.

Onboarding training and governance

Metricell assigns an implementation lead and works with the buyer to convert the Order Form into a documented deployment, imagery and acceptance plan.

Step	Stage	What happens
1	Discovery	Confirm outcomes, network, users, data, systems, security, service levels and acceptance measures.
2	Design	Define imagery ingestion, model configuration, dashboards, exports, privacy controls and responsibilities.
3	Configure	Create the buyer environment, roles, network model, routes, integrations and report templates.
4	Validate	Run a representative pilot or acceptance sample and resolve agreed issues before wider use.
5	Train	Provide role based training, user guidance and train the trainer sessions.
6	Go live	Move into production with agreed governance, support, reporting and change control.

Training and documentation

- Remote role based onboarding and train the trainer sessions.
- User guides, release notes and appropriate operating instructions.
- Knowledge resources and service desk support for authorised users.
- Additional onsite or bespoke training available as a chargeable option.

Buyer responsibilities

- Provide the authoritative network file, road references, survey priorities and relevant policy rules.
- Nominate operational, technical, data protection and commercial contacts.
- Provide authorised users, source data, system information and test access needed for delivery.
- Approve the imagery source, collection method, safe working arrangements, acceptance criteria and permitted data use.

Support service levels and continuity

Authorised users can contact the Metricell Service Desk by email, portal and telephone. Incidents are triaged by priority and passed through the appropriate support level. The contracted SLA and Order Form take precedence over the summary below.

Support level	Hours	Uptime target	P1 initial response
Standard	Monday to Friday 0800 to 1800 UK time	97 percent	24 operational hours
Enhanced	Monday to Friday 0800 to 1800 UK time	98 percent	16 operational hours
Priority	Buyer working week up to 50 hours	99 percent	8 operational hours
Critical	24 hours 7 days a week	99.5 percent	4 operational hours

Incident and change management

- Priority based incident triage with a named incident manager for critical events.
- Buyer updates through agreed channels and an incident report for critical incidents.
- Controlled software releases, testing, release notes and planned maintenance communication.
- Monthly or agreed service reporting covering availability, incidents, usage and improvement actions.

Continuity

Metricell's business continuity management system is certified to ISO 22301:2019. Hosting, backup, resilience, recovery objectives and maintenance windows are configured for the contracted deployment. Buyer specific recovery objectives or a dedicated environment may affect price and will be stated in the Order Form.

Security privacy and accessibility

The security and privacy design is agreed during onboarding and applied to the contracted hosting model, user roles, imagery, integrations and retention period.

Area	Approach
Information security	Metricell's management system is certified to ISO IEC 27001 2022 through 17 May 2027, subject to annual assessment
Business continuity	Metricell's management system is certified to ISO 22301 2019 through 17 May 2027, subject to annual assessment
Environmental management	Metricell's management system is certified to ISO 14001 2015 through 17 May 2027, subject to annual assessment
Access	Named accounts, role based permissions, administrative controls and multi factor authentication where configured
Data transfer	Encrypted connections using TLS 1.2 or above for supported browser, API and upload paths
Hosting	Public or private cloud deployment with UK or agreed regional data residency defined in the Order Form
Privacy	Access restrictions, retention controls and redaction or anonymisation workflows where proportionate and technically appropriate
Audit	User, processing and support records retained according to the contracted policy and available through agreed reporting

Accessibility

SmartVision follows the relevant principles of ISO 9241 171 for accessible software interaction. The browser interface uses consistent navigation, readable labels, visual hierarchy, browser zoom and keyboard accessible workflows where supported. Buyer specific accessibility requirements are reviewed during discovery and reflected in configuration, documentation, training or the delivery plan where feasible.

Data protection

The parties agree controller and processor responsibilities, lawful purpose, access, retention, deletion, privacy notices and any incidentally captured personal data before production use. Raw imagery and exports can be limited to authorised roles. SmartVision supports the buyer's compliance but does not replace the buyer's legal assessment or operational controls.

Offboarding service boundaries and ordering

SmartVision includes a planned exit process so the buyer can retrieve agreed data, close access and confirm the treatment of retained copies.

Offboarding

- Agree an exit plan, timetable and buyer contacts. A typical managed exit may take 60 to 90 days.
- Export agreed condition, defect, asset, survey and audit data in contracted non proprietary formats.
- Return or delete buyer data according to the call off contract, legal requirements and backup lifecycle.
- Close user access, integrations and service credentials in a controlled sequence.
- Provide written deletion confirmation where this forms part of the contracted service.

Service boundaries

- Only the defect, condition and asset classes in the Order Form are included.
- The service supports, but does not replace, statutory highway inspections or competent professional judgement.
- Processing performance depends on route coverage, image quality, weather, lighting, positioning and the agreed equipment used by the imagery supplier.
- Physical surveys, hardware, vehicle fit out, traffic management and third party survey costs are outside the core G-Cloud SaaS price.
- Bespoke model development, dedicated hosting, white labelling, exclusivity, third party licences and complex integrations are outside the core price unless expressly included.
- PAS 2161 use is limited to the approved technology and valid certificate position applying at the time of delivery.

Ordering

The buyer selects the platform licence, usage route, processing cycles, analysis modules and support level from the accompanying SmartVision G-Cloud 15 Pricing Document. Metricell will confirm the network definition, imagery source, included outputs, deployment assumptions and acceptance plan in the Order Form before work begins.

Contact

Metricell Limited
 The Big Blue 26 Foundry Lane Horsham West Sussex RH13 5PX
 sales@metricell.com +44 1403 251 494 www.metricell.com