

SMART INSPECTION

Hi-tech solutions for visiting
buildings and construction sites
through virtual reality

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RINA Prime Value Services
offers hi-tech solutions for visiting
buildings and construction sites
through virtual reality

Remote site visits and technical surveys
in a **guided, protected,**
and **georeferenced** environment

- ✓ An easy solution to minimise risks and protect personal safety
- ✓ Guaranteed operational continuity
- ✓ Highly competitive processing times
- ✓ Automated data storage
- ✓ Simple and safe operating systems

RINA Prime Value Services is launching a set of technologies and operating procedures to keep our site inspections and surveys going on both completed developments and construction sites now in progress:



- ✓ **Remote & Smart Inspection:** remote, real-time site inspections accessible from a range of devices:
 - **Smartphone/tablet**
 - Smart Appraisal Prime
 - Kiber web application
 - **Helmet**
 - Kiber Helmet web application
- ✓ **Drone-assisted site visits**

SMART APPRAISAL PRIME

SMART APPRAISAL PRIME is a **web application** accessible via all mobile authentication channels that allows users to carry out **remote photographic surveys** and **send in their working drawings and specs** by e-mail and/or SMS.



- ✓ An **agile** operating structure for conducting site visits
- ✓ On-site **georeferencing**
- ✓ **User operating guide** for shooting and managing the site's photographic dossier
- ✓ **Guaranteed app-to-app interfacing**
- ✓ **Safe and certified technology**
- ✓ **Total data security and protection**
- ✓ **Safe data storage** in full compliance with privacy policies

The system can be accessed by activating a secure **mobile link from the user's cell phone** and/or a simple browser-based **web interface**.

The system provides the user a clear, comprehensive guide to creating site images.

Office support staff receive the user's photographs in real time, already organised according to project-specific standards.

KIBER WEB APPLICATION

Kiber web application (powered by VRMedia) allows the user to **carry out remote site visits** with the **real-time support of an in-house Inspector or Technician who guides the on-site operator ensuring accurate and duly detailed inspections.**

The on-site operator can create **photo and video** files in real time through a series of devices:

- ✓ Smartphone / tablet
- ✓ Kiber Helmet



REMOTE & SMART INSPECTION
REAL TIME, HUMAN GUIDED SURVEYS



After the operator assigned with the on-site engagement downloads **Kiber 3 field** (powered by VRMedia) on their mobile device, the app can be accessed with a *session code* generated specifically for the site inspection under assignment.

A member of **RINA Prime technical office staff** connects to the same on-site visit session via **livestreaming** and **controls the survey**:

- ✓ giving the **operator instructions**
- ✓ requesting **specific, detailed framing**
- ✓ guaranteeing the Client **third-party control** of their inspections

The app allows users to record video and save data in a secure, protected environment.

**WATCH
THE VIDEO**



Kiber

REMOTE & SMART INSPECTION
REAL TIME, HUMAN GUIDED SURVEYS

KIBER HELMET

Kiber Helmet is a wearable device intended for on-site operators connected with our in-house technical experts through the Kiber Communication software (powered by VRMedia).



WATCH
THE VIDEO

REMOTE & SMART INSPECTION | **Kiber Helmet**
REAL TIME, HUMAN GUIDED SURVEYS



- ✓ reduced travelling times and costs
- ✓ a single device to shoot and store photos, video, and documentation
- ✓ limiting potential misunderstandings
- ✓ option to involve technical experts and clients from remote locations
- ✓ smart remote analyses
- ✓ greater physical expansion
- ✓ hands-free
- ✓ shooting control

The Helmet mounts a video camera, microphone, headphones, torch, and thermographic camera.

- ✓ Allowing the project manager **to see in real time** what the operator sees on premises
- ✓ High-resolution **imagery acquisition** and real time image mark-up
- ✓ The system facilitates the **sharing of documentation**
- ✓ Option to run **support sessions with multiple participants**, with simultaneous recording and playback
- ✓ Allows operators to work **hands-free**



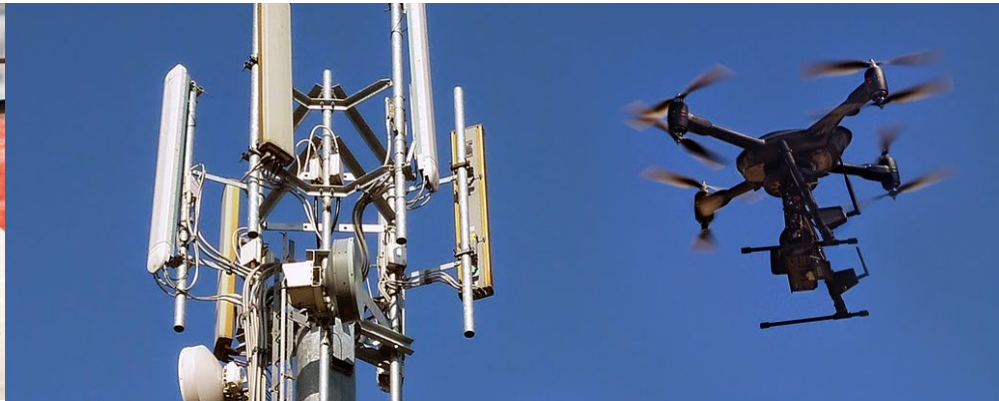
DRONE-ASSISTED SITE VISIT

Drone-assisted site inspection activities are the **new technological frontier** in **retrieving information from remote, hard to reach geographic areas**.

The equipment, sensors, and operating systems that drones can deploy represent **the best of industrial technology currently available on the market**, ensuring reliability and performance standards otherwise hardly matched under similar circumstances.

DRONE-ASSITED SITE VISIT
HUMAN GUIDED SURVEYS

DRONE-ASSISTED SITE VISIT



- ✓ 180X optical sensors
- ✓ Thermographic cameras with cooled/uncooled infrared detectors
- ✓ LIDAR sensors
- ✓ Multi- and hyperspectral optical sensors
- ✓ UV and TH optical sensors
- ✓ Dedicated post-production and examination software
- ✓ Custom reporting and solutions

Drone-assisted site inspections are carried out through a collaboration with the RINA Services DRONE unit.

RINA obtained the Italian Aeronautical Authority (ENAC) recognition as a specialized operator for carrying out critical air work activities, allowing us to request specific authorisations for flight activities in controlled or restricted areas.

- ✓ Non-destructive testing
- ✓ Visual and thermographic testing
- ✓ Multi- and hyperspectral analyses
- ✓ Sampling and characterisation
- ✓ Fugitive emissions tracking
- ✓ Environmental surveys
- ✓ Laser scans
- ✓ Dedicated sensor technologies
- ✓ Operational in classified areas (ATEX)

SCOPES OF APPLICATION



SMARTPHONE/TABLET SMART APPRAISAL PRIME

Remote site inspections via smartphone and tablet.

REMOTE APP INTERFACE

- Bank appraisals
- Valuations/appraisals
- Surveys on portfolios with high property numbers



SMARTPHONE/TABLET KIBER WEB APPLICATION

Remote site inspections in real time via smartphone and tablet.

REAL TIME, HUMAN GUIDED

- Project monitoring
- Technical checks
- High surveillance
- Due Diligence
- Inspections

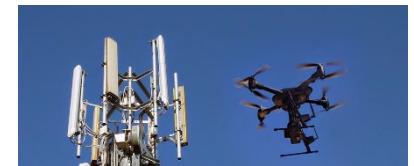


KIBER HELMET KIBER WEB APPLICATION

Remote site inspections in real time via wearable helmet equipped with video camera, microphone, headphones, torch, and thermographic camera.

REAL TIME, HUMAN GUIDED

- Project monitoring
- Technical checks
- High surveillance
- Due Diligence
- Inspections



DRONE-ASSISTED SITE VISITS

Drone-assisted aerial inspections on complex development sites. Surveys & checks on sensitive and/or other risk areas.

HUMAN GUIDED

- Inspections on complex infrastructure



P r i m i n g y o u r f u t u r e

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