

## Ministry of Economy and Finance Rome Italy



### The Ministry of Economy and Finance in Rome, hi-tech poles equipped with IP and Wi-Fi cameras.

A German-Italian project signed by three brands: Ghisamestieri, MOBOTIX, and 3WLAN

To the lay person they appear to be simple LED light spots going back to the original style of illumination of the old 1800's palace (1876) that currently houses the Italian Ministry of Economy and Finance, and that historically represents the first great building of the newly reborn Roman capital, as commissioned by the former Minister Quintino Sella.

The carefully hidden technology however transforms each of the 20 light points (appropriately designated "Roma lights") decorating the external perimeter into a state-of-the-art tool to guarantee the security of the public in the area around the Ministry. The transformation is executed thanks to the internal installation of IP cameras produced and distributed world-wide by the German company

MOBOTIX, equipped with software for recording and processing the images.

#### The objectives of the Ministry: Cost control, energy efficiency and security

Notwithstanding the innovation of the performance, the new lighting systems are perfectly integrated, from an aesthetic point of view, with the historic palace where they are installed: A very advanced system, therefore, in terms of technology, but completely hidden inside a design in perfect harmony with the place where the light spot is installed, as envisioned and implemented by Dr. Massimo Belli, Appointed Administrator of the Ministry of Economy and Finance, Dr. Umberto Dall'Aglio, Director of the VI Office of the IV Department of the Ministry and by Architect Gianluca Canofeni, Director of the Works and Technical Administrator of the IV Department.

"The motivation for the project was multifaceted: On the one hand to realize a control system based upon state-of-the-art video surveillance tools, and on the other hand implementing a new lighting project to substantially reduce electricity consumption – within the scope of energy efficiency –, guaranteeing at the same time a much longer useful life, and as a result a substantial reduction of maintenance costs", in the words of Lieutenant Colonel Saverio La Monaca, chief of the Central Security Organization of the Ministry.

As per the costs, the analyses carried out by the Ghisamestieri teams, obviously as a function of the actual system utilization give a clear picture: It is foreseen that the initial investment will be recouped within only 4 or 5 years and economic savings of even 50% between the fifth and fifteenth year of useful life of the system.

# Case Study

## Ministry of Economy and Finance, Rome, Italy



With respect to energy savings, MOBOTIX' video cameras provide a further guarantee, since their energy consumption is extremely low in comparison with other technologies present on the market: about 4 to 6 watts per hour.

### Appearances are deceiving: 20 light spots on antique walls hide IP cameras and Wi-Fi antennas

The project, started in 2010 and concluded in only 5 months, comprises today 20 wall light spots installed in strategic positions throughout the Ministry. Each shelf hides inside 2 MOBOTIX DualDome cameras with 180 degrees field of view, for an overall total of 40 high-resolution IP security cameras. The images can be recorded inside the cameras 24/7 (color, and black and white) to be viewed at the control center located inside the Ministry



building. The security personnel belonging to the military branch of the Financial Guard manage the complete video surveillance apparatus and constantly monitor the images of the cameras in real time.

10 wireless routers manufactured by the young Italian company 3Wlan, are installed inside a similar number of wall brackets and are capable of guaranteeing the bi-directional Wi-Fi link between the control center and the patrols active outside the palace. This is possible thanks to an authentication on a RADIUS server that identifies the access permissions of the router on a list of authorized equipment.

### A control center linked with the external mobile patrols to exchange data and images in real time

"Especially in case of demonstrations, which is actually very common, our security operators are involved in the so-called pacification operations outside the palace for the purpose of first of all

protecting the ministerial magistrates. These are carried out both on foot and inside our patrols – which implies the need to rapidly cross-check the owner of a particular vehicle or verifying the personal data on passports and identification documents. Before installing the new intelligent light spots we relied on a GSM system that was, however, very expensive. The new wireless system guarantees much more reduced operating expenses against a much more intensive use profile", added Giancarlo Varvo, who is responsible for security.

The video surveillance technology available on the patrol vehicles, which are also equipped with tools to read license plates, or palmtop operating systems (also known as explorers) supplied to foot patrols, once within the radius of coverage of the poles equipped with Wi-Fi antennas, have the option of exchanging data and images with the operations center inside the Ministry by means of a recognition system. Furthermore, by connecting to a specific IP address, external patrols have the possibility to view the images recorded by a specific video camera in real time.

### The illumination and video surveillance operations are completely separate from each other.

Each support is also equipped with a remote switch that allows managing the illumination and video surveillance functions completely autonomously and independently from each other. While the light source turns on at dusk and switches off at sunrise, the cameras continue functioning 24/7, according to the specific



settings they may record both in continuous mode or trigger upon an event, such as the movement of a pedestrian, or a sound. The cameras placed close to the entrances of the Ministry are capable of sending alerts in real time to the operations center, or activating a bollards along the perimeter thanks to an automatic vehicle license plate reading system.

### Genius, a name, a guarantee

Nothing to object about the support of the engineers of Ghisamestieri, that proved to beat all times available and collaborative in answering the requirements of the Ministry. Also no complaints about Genius, a unique world-wide illumination solution, capable of offering high level design and advanced technology in a single solution. No objections about the technology made in Germany of MOBOTIX.

“In addition to the project implemented with Ghisamestieri, we employed the technology of MOBOTIX also for other



types of requirements, still obviously related to the security of the Ministry: 36 AllroundMono security cameras have already been installed on the roof of the palace to check potential attacks for instance through the air vent conduits to the so called Tempest room, a completely aseptic environment for the protection of communications inside the Ministry. In fact, the operations room located inside the Ministry remotely controls the recording of more than 1,600 cameras installed in various facilities connected to the department”, underscored Varvo.

The light spots installed in Rome find their place in a wider project, where any illumination support can potentially serve as a technology node. Named “Genius” by their creators, regardless of the design or aesthetic form, any light spot is potentially capable of becoming a true security center, perfectly integrated from the aesthetic and urban points of view into city decor. Equipped with microphones and speakers, MOBOTIX’ cameras can put the citizens in touch with the operations centers of the police or ambulances by means of special buttons placed at the base of the pole or through the implementation of an RFID



or magnetic strip identification system.

“With respect to traditional poles with well-visible cameras installed outdoors, Genius represents a true video security system, not just a simple crime deterrent”, concluded Varvo.

### MOBOTIX System In Use

**Cameras:** 20 DualDome,  
36 AllroundMono





MOBOTIX has developed and manufactured IP video systems, video management and analysis software in Germany since 2000.

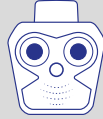
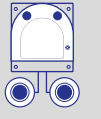


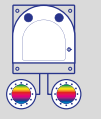
MOBOTIX stands out for its **high level of reliability**. All outdoor cameras are subjected to a stress test for temperatures between -30°C and +60°C (-22°F and +140°F). Without additional components, without heating or cooling and with no moving parts (for example auto iris), they are virtually maintenance free.


MOBOTIX delivers a **perfectly matched package**, starting with the microSD card for storage management and HD audio (microphone and speaker) with VoIP telephony through video analysis, a professional video management system and motion detection software reducing false alarms.





The **decentralized architecture** means that a central computer is not required and the network load is minimal. The intelligent cameras from MOBOTIX process and store image data themselves, trigger events and, in the event of remote access, manage the frame rate and resolution depending on the available bandwidth.



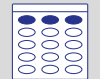

The **6MP Moonlight sensors** and complementary **thermal imaging technology** ensure reliable detection of moving objects, even under the most challenging light conditions and over long distances. As a result, it is possible to cover large areas with just a few cameras. Less power cabling, less IT infrastructure and fewer additional light sources are needed. MOBOTIX cameras are powered using standard PoE and do not require more than 4-6 watts.

An intelligent IP video system from MOBOTIX allows you to **reduce total costs**. The investment pays for itself after a short time and the free-of-charge software and updates ensure it is a future-proof investment.

Outdoor Dual Lens			Thermal	
M15/16 AllroundDual	S15/16Flex-Mount	D15/16 DualDome	M15/16 Thermal	S15/16 DualThermal
				
Robust for extreme conditions	Flexible dual camera	Modular dual camera	Thermal dual	Thermal dual

Outdoor Single Lens			
M25/26 Allround	S15M/16M FlexMount	Q25/26 Hemispheric	D25/26 Dome
			
Robust for extreme conditions	Discreet, video analysis	Discreet, video analysis	Modular Fix dome

Indoor			
i25/26 Panorama	c25/26 Hemispheric	p25/26 Allround	v25/26 MiniDome
			
180° hemispheric	Discreet, video analysis	Modular ceiling camera	Vandalism camera

Door Modules			MxDisplay+
Camera	BellRFID	Keypad	Remote Station
			

Door Sets			
Double Frame		Triple Frame	
