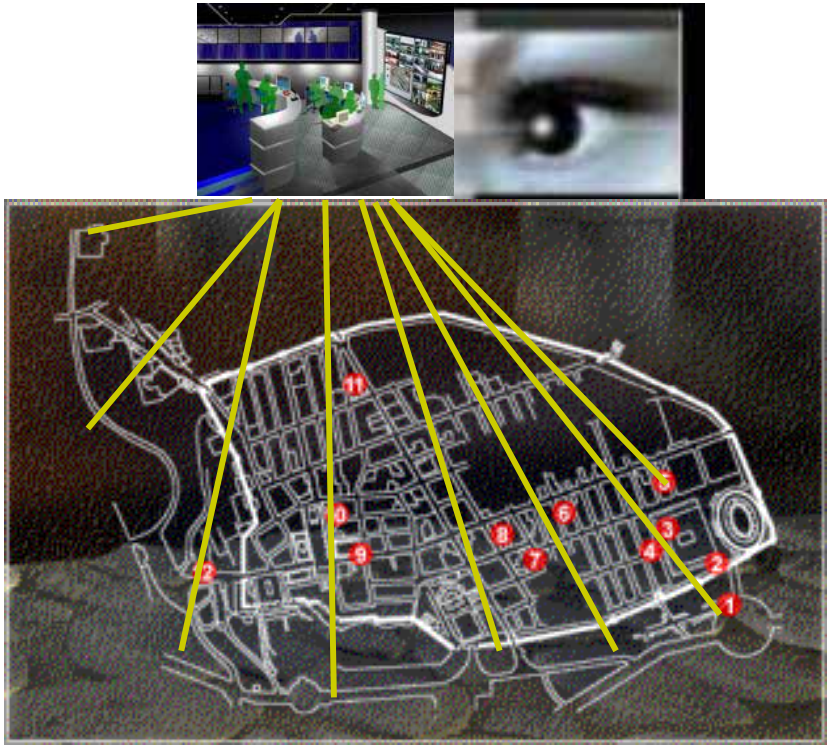
Archeological Authority of Pompei

Historical Excavation Security Plan

Design of the Solution and Implementation Plan
(Pompei and remote historical excavation sites)



May 26 2009

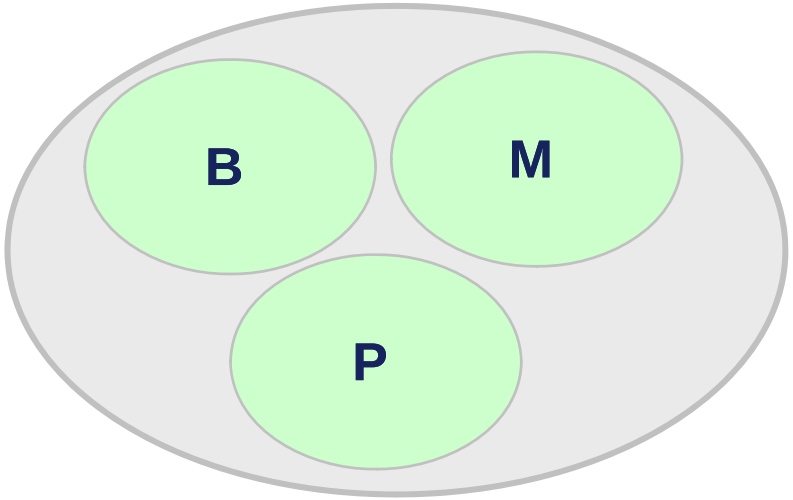
Contents

I progetti sono focalizzati su un disegno del sistema tecnologico di sicurezza per i siti Scavi Archeologici e sul planning delle implementazioni

Project Goals

- *Disegno del sistema security globale per i siti della Soprintendenza Pompei e Napoli*
- *Rispetto unica strategia di security definita*
- *Definire priorità implementative e sequenze*
- *Sviluppare specifiche tecniche dettagliate*

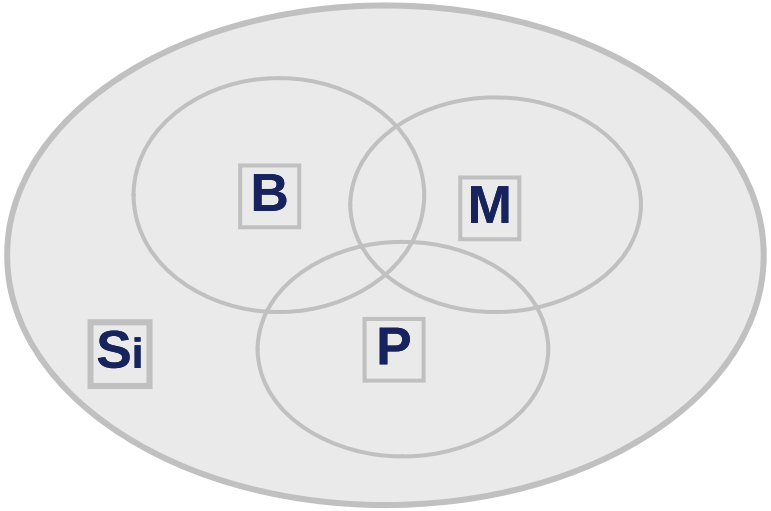
Cosa è la Sicurezza? ….. COSA, CHI, DA CHI, DA COSA,….,CONSEGUENZE



Sistema Teorico

- ESISTENZA DI UN BENE **B**ene
- CHE POSSA SUBIRE UN DANNO **M**inaccia
- NECESSITA' DI PROTEZIONE DEL BENE **P**rotettore

S = f (B, M, P)



Mondo Reale

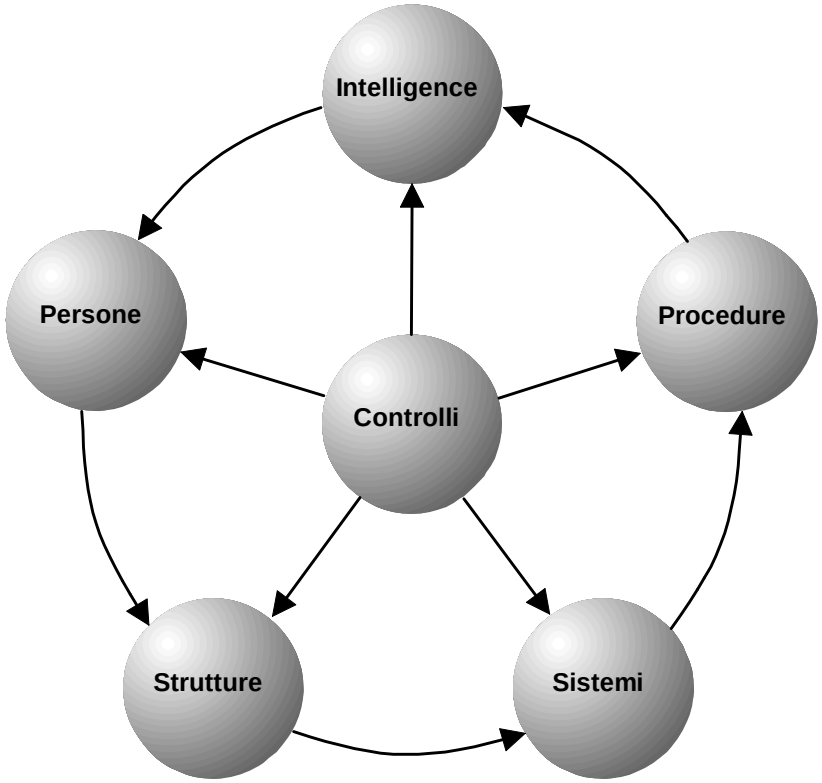
LA SITUAZIONE INFLUENZA IL SISTEMA TEORICO

- LA SITUAZIONE NON CREA DINAMICHE
- SONO **B**, **M, P** A FARLO

S = f (B, M, P) Si

Componenti del Programma di Sicurezza

Schema di riferimento



Come

- **Conoscere**: beni da proteggere, fonti di *minaccia*, *protettori* e relazioni tra questi elementi.
- **Analisi**: Individuazione vulnerabilità (tecniche/tattiche) e penetrabilità, scenari di attacco e per ogni scenario.
- **Prevenire** gli eventi dannosi, **deterrere** e **rispondere** alla minaccia, allertare le Forze dell'Ordine e fornire assistenza alle loro operazioni investigative, preventive e repressive.
- **Disegno** della soluzione rispondente alle esigenze tecnologiche ed operative individuate in analisi.
- Definizione delle **priorità realizzative** e della sequenza di realizzazione
- **Progettazione** del sistema tecnologico integrato di sicurezza SAP (SISS)

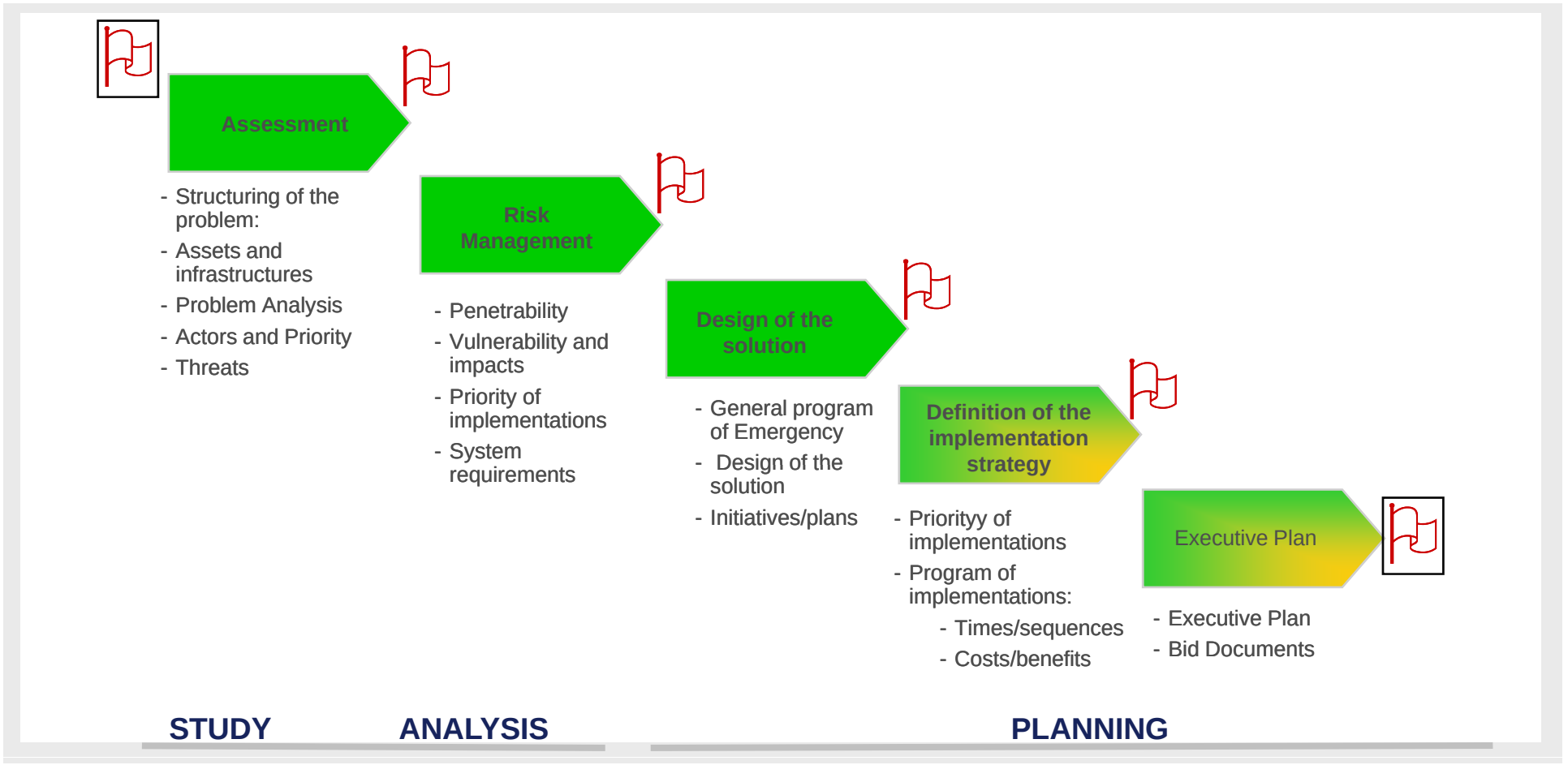
Vincoli

- *Identificazione dei rischi (credibili, potenziali e possibili). Per ciascun rischio, valutazione di impatto, delle conseguenze, priorizzazione, decisione (accettare, trasferire, affrontare).*
- *Esigenze fondamentali, quelle che riguardano vite umane e beni archeologici, continuità di un elevato standard di operatività dei siti archeologici, controllo sul sistema di sicurezza e credibilità di SAP.*
- *Allineamento alla conformazione fisica del sito e ai vincoli esistenti sulle aree verdi e archeologiche, minimizzazione degli impatti negativi derivanti dalle tecnologie introdotte.*
- *Minimizzazione di costi e tempi per l'ottenimento dei risultati*

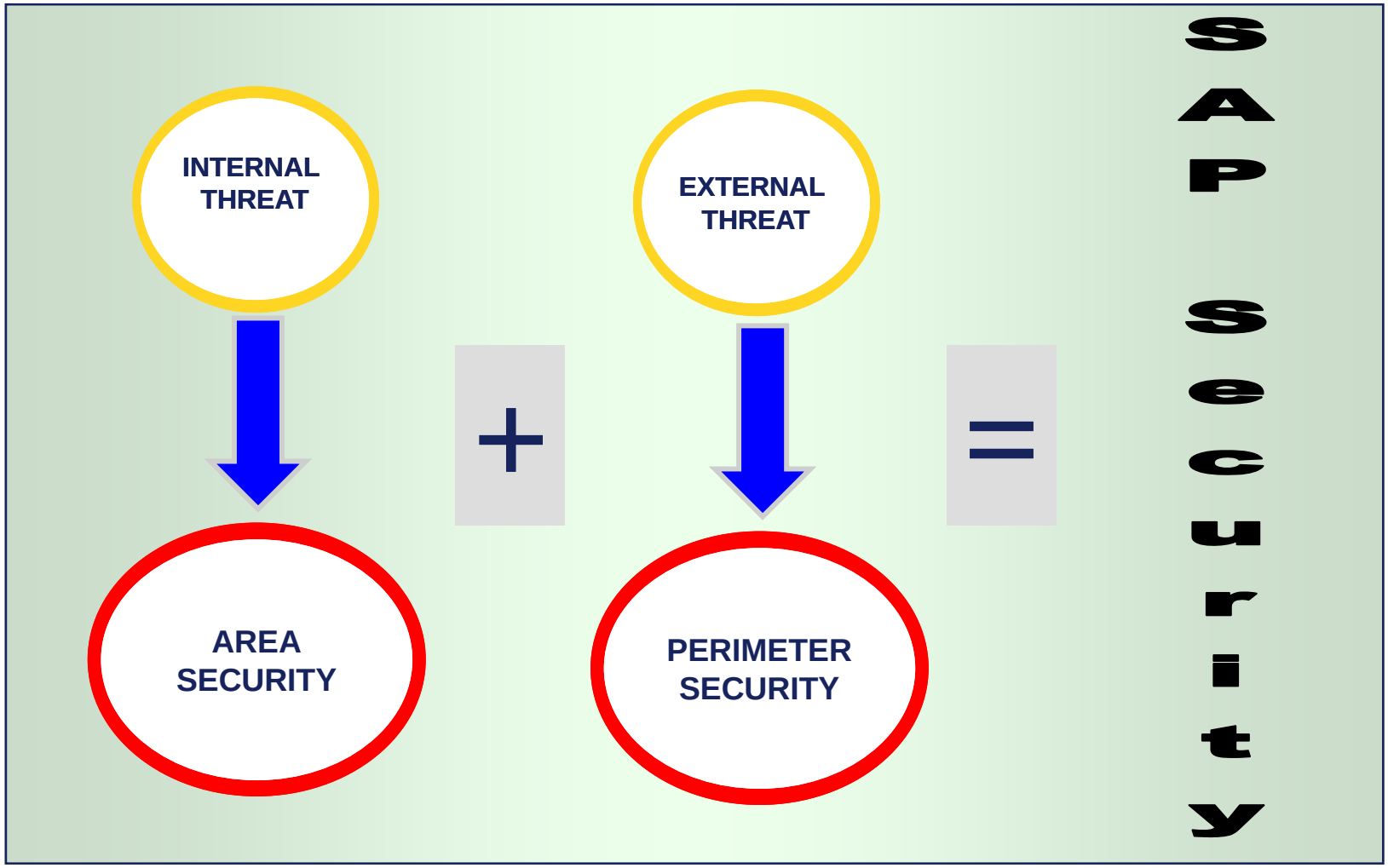
- *Riduzione dei rischi attuali a fronte di un aumento della minaccia:*

$$R = M / S$$

The Project step by step



SAP ANSWER


INTERNAL THREAT
EXTERNAL THREAT
+
=
AREA SECURITY
PERIMETER SECURITY
SAP Security

Contents

The analysis phases let to the security system requirements identification

Summary

The Security System will have to:

- *Adequately support security operations at all* ***security levels***
- *Information and coordination of all enforcement police activities from the* ***Control Room***
- ***Protect itself*** *and sensitive staff from bribery, threats …….*
- ***Allow flows*** *of people, goods, and means of transportation* ***only through set gateways***
- *Provide* ***access control*** *at a level* ***consistent*** *with the* ***current security levels****, and that could be increased or decreased as required*
- *Immediately detect any attempt of* ***intrusion/extrusion****,* ***or sabotage***
- ***Detect*** *access, presence and escape of* ***people*** *or* ***historical goods*** *in all restricted access areas*
- *Facilitate* ***post-event*** *controls and investigations in all areas*
- ***Communicate*** *safely with the* ***Police*** *and all security staff*
- *Ensure* ***redundancy*** *of all critical points, and sure in the operation* ***24/365 days***

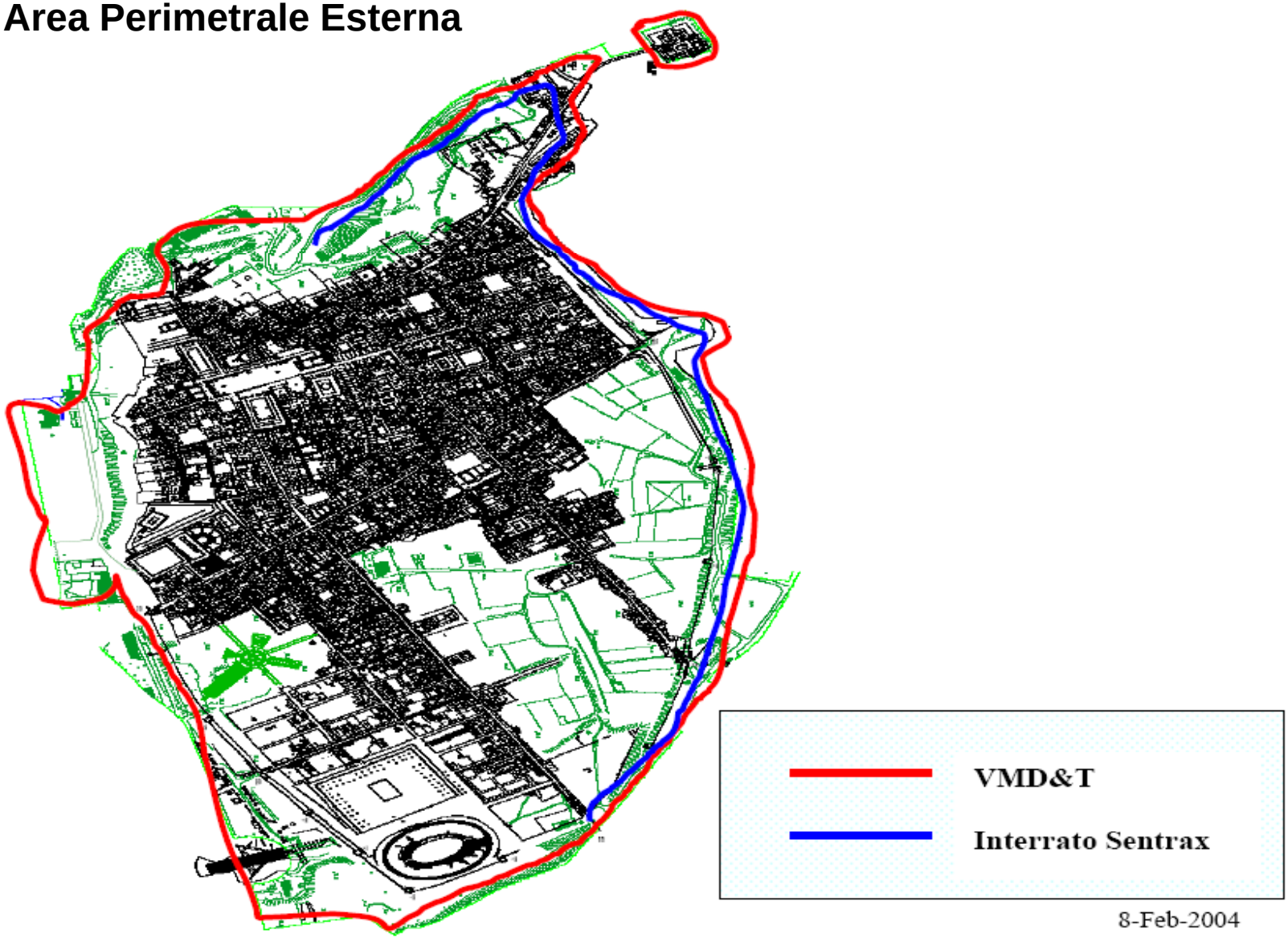
Sample of the key actions required to ensure proper system operation

- *Create a **Security Department**, with manager and staff. Run a **training program.** Prepare a **security plan** and procedures.*
- *Strengthen the **external boundary protection** (landside). Has to be completely safe from intrusion attempts (above, through, below) and …*
- *Equip the **boundary perimeter** (internal and external) with proper detection and alert systems*
- *Subdivide the overall Historical Excavation Area in **self contained sections** with different degrees of security and access restriction: public areas, controlled access areas, restricted access areas, etc.) Each of the above sections should be equipped with adequate boundary protection and access control.*
- *Guarantee a degree of flexibility across sections through the deployment of proper **mobile security equipment** (boundary protections, access control, etc.)*
- *Define the overall Historical Excavation **activities, accesses, and flows** consistently with the above section subdivision*
- *Define proper **access points** for each section and equip them with infrastructure, technology, and resources that are adequate to the characteristics of the section they protect*

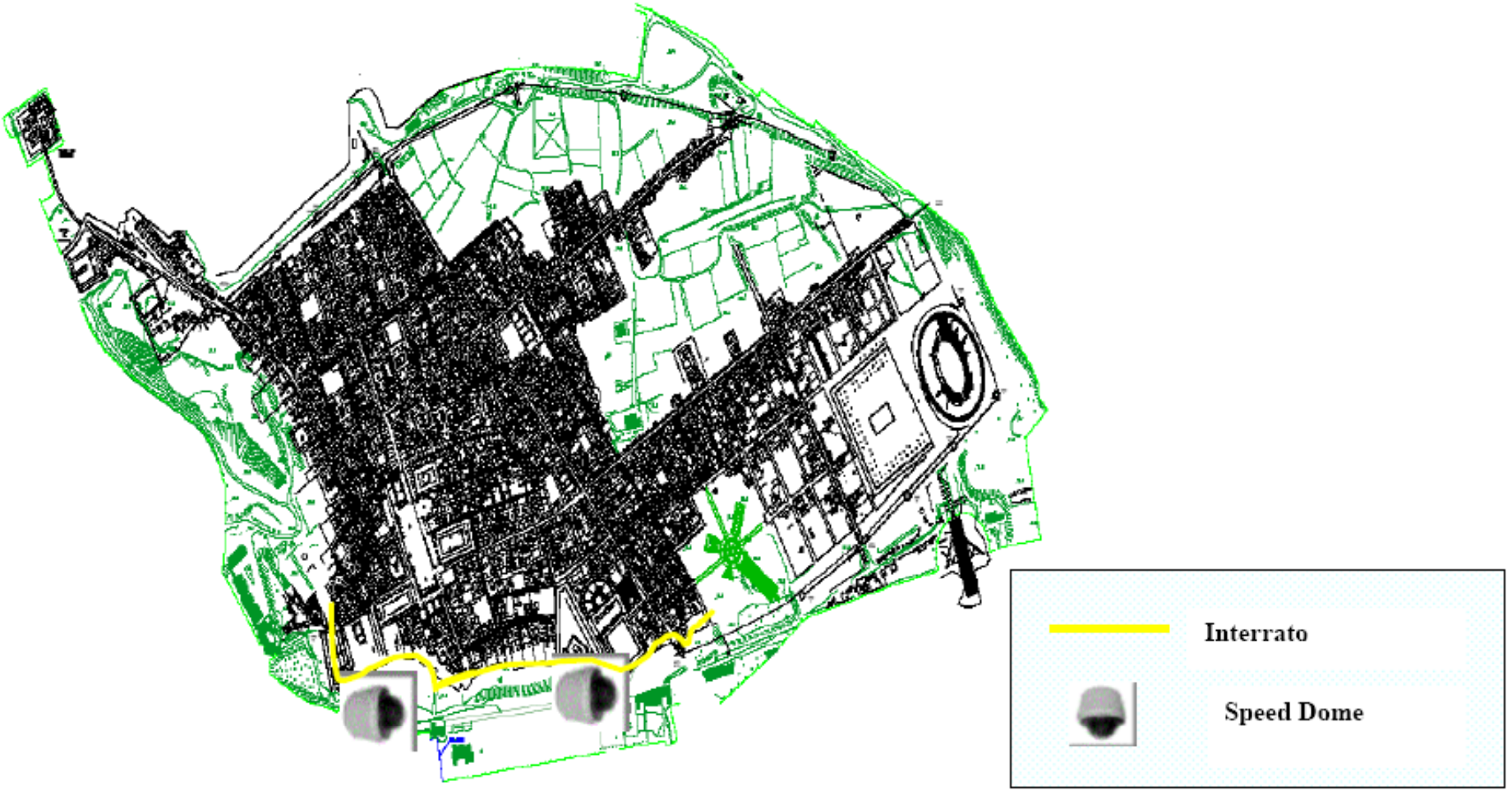
The following steps are thought important

- *To give the Terminal closer area and perimeter safe, Video Motion Detection & Tracking, Video Content Analysis.*
- *To give the internal/external perimeter safe from intrusion (Underground Intrusion Detection Systems.*
- *Gate with Bomb Blaster for Explosive Attack*
- *CCTV in strategic points*
- *Full Motion, High Resolution, RAID, ……. DVR and/or NVR*
- *Burglar Alarm*
- *Police Enforcement and SAP Control Room Interfaces working h24*
- *Historical Excavation Authority Control Room with own people working h24*
- *To guarantee the satisfaction of the security demand for **VIP visit to Historical Excavation** to any level of Security Level*

APE - Area Perimetrale Esterna



API - Area Perimetrale Interna



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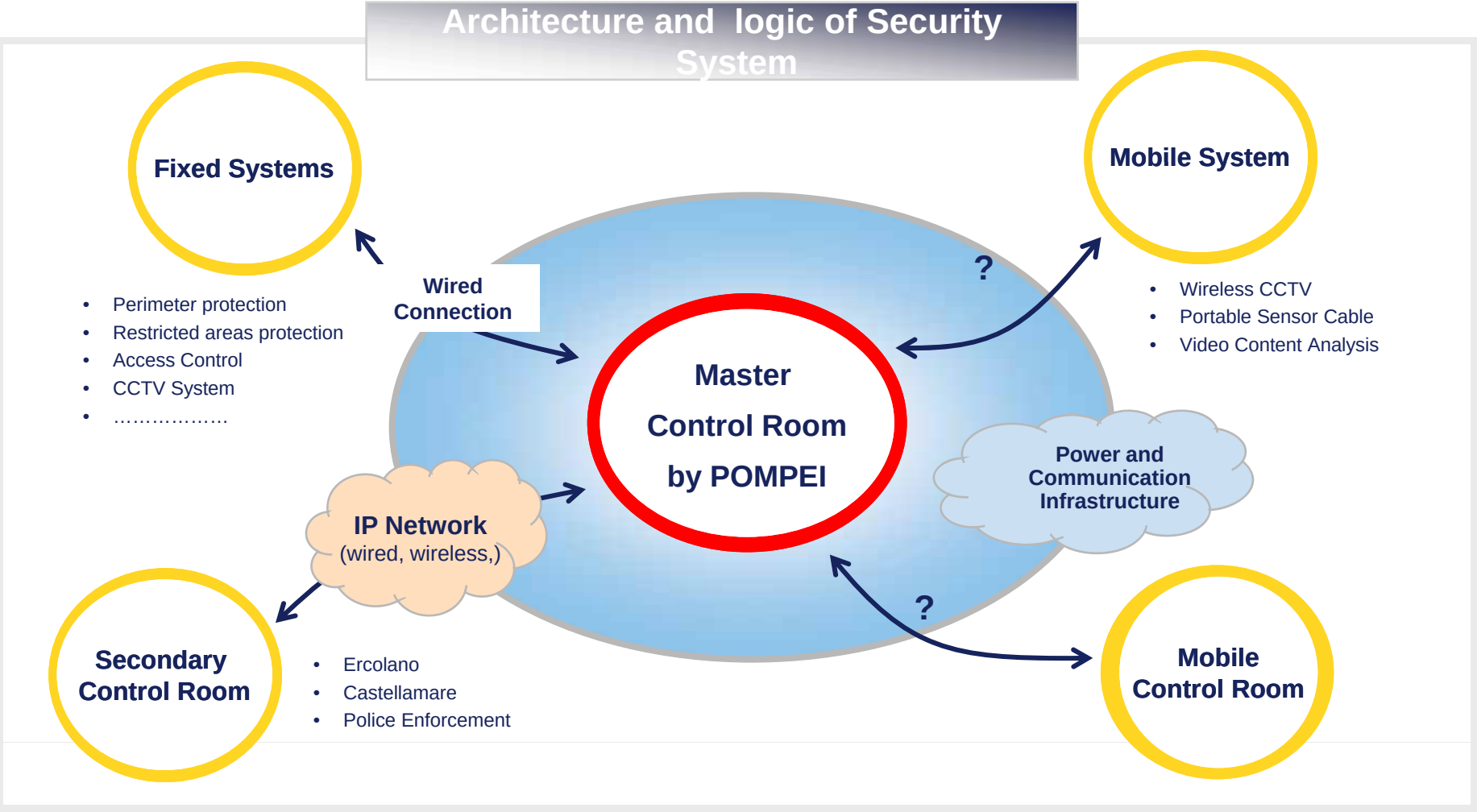
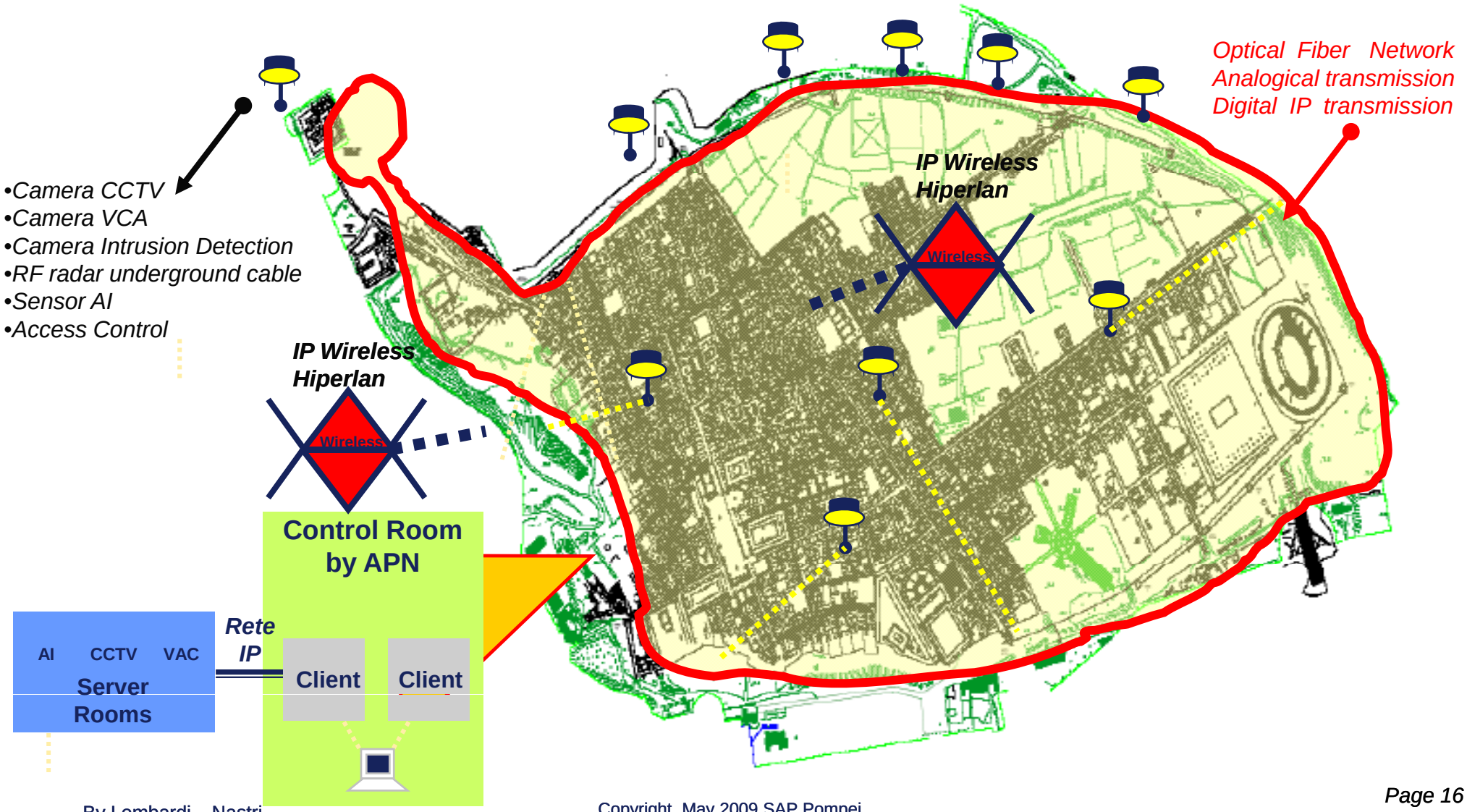
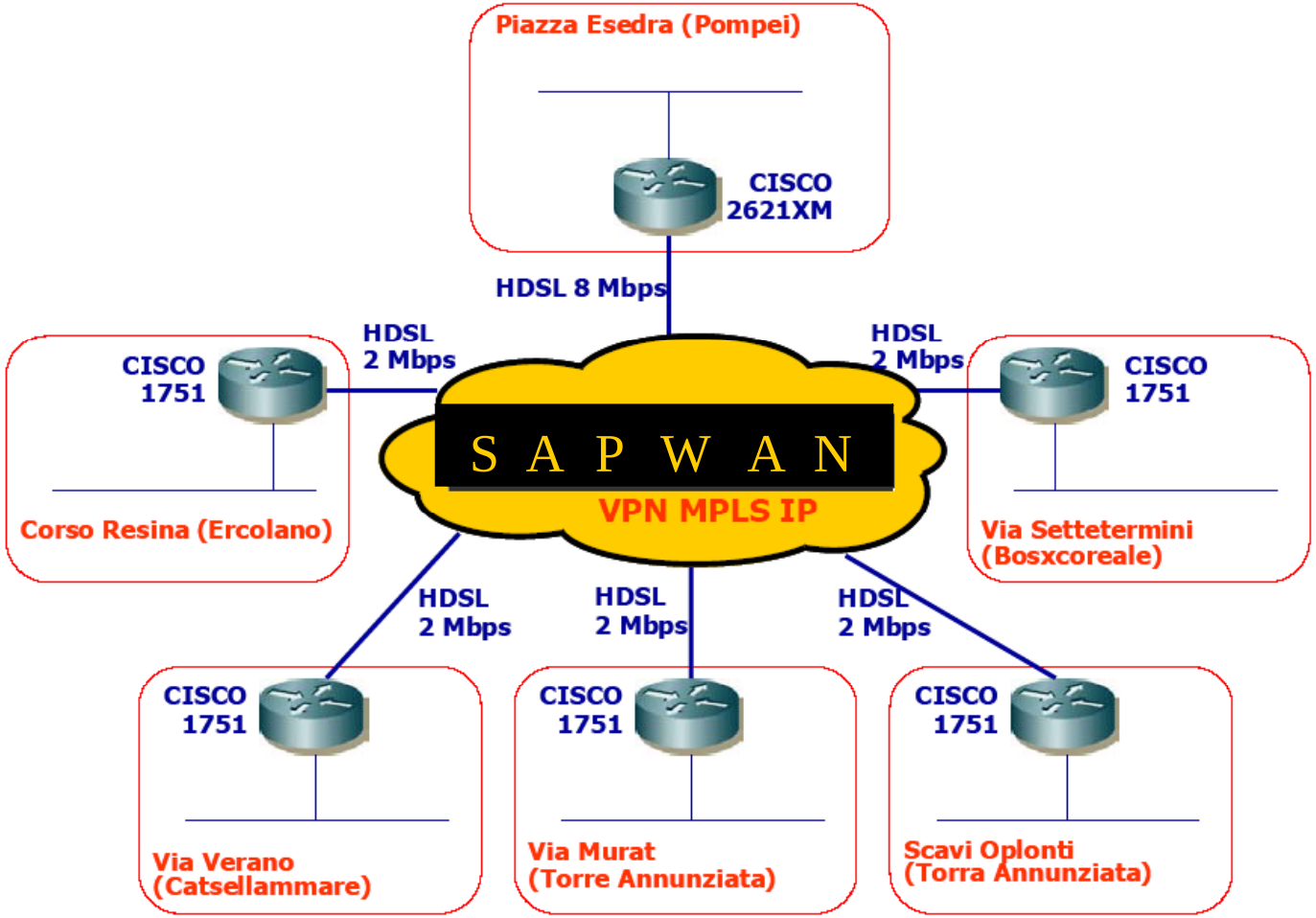
The technological solution is based on



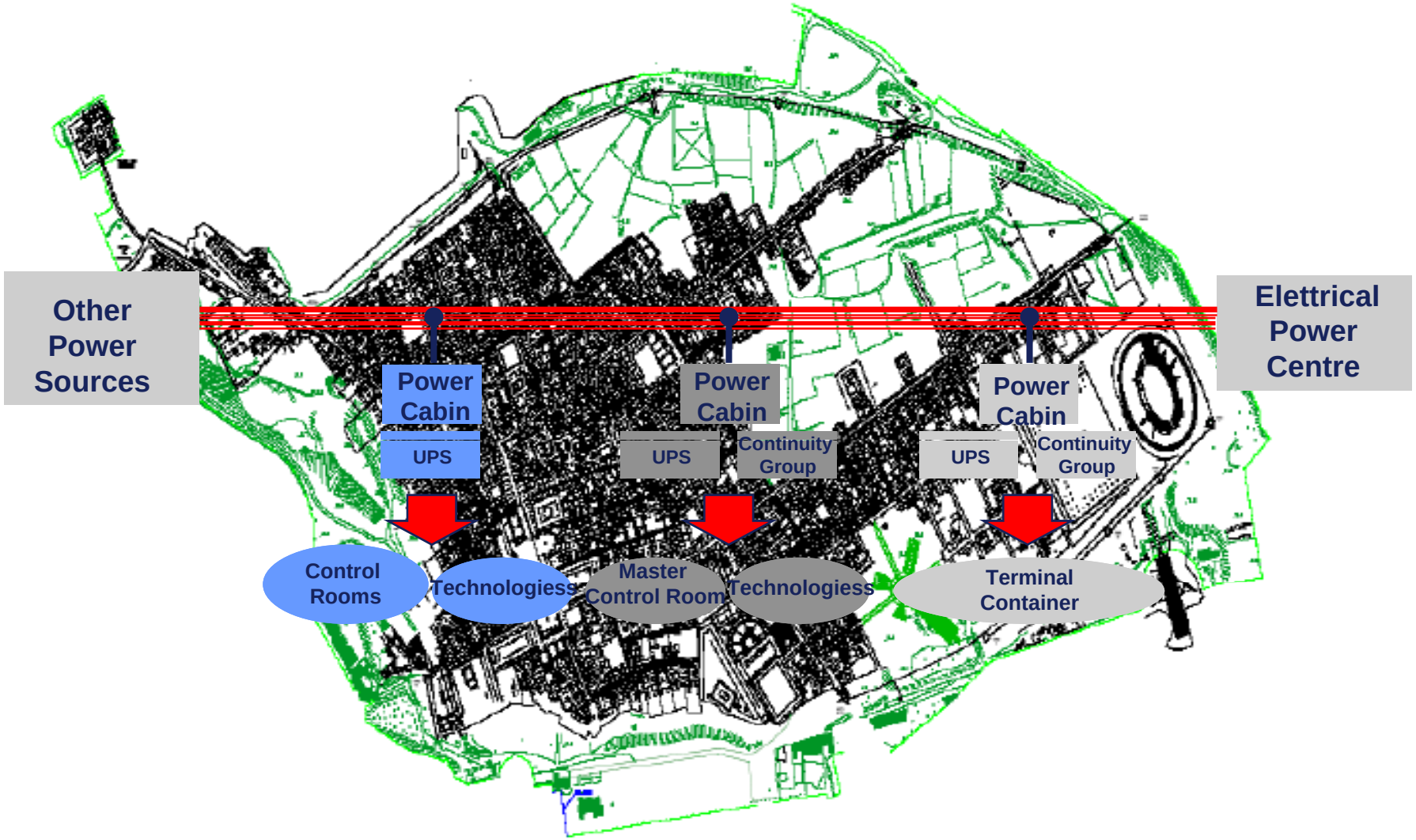
Communication Infrastructure Architecture



SAPWAN: The Pompei Wide Area Network



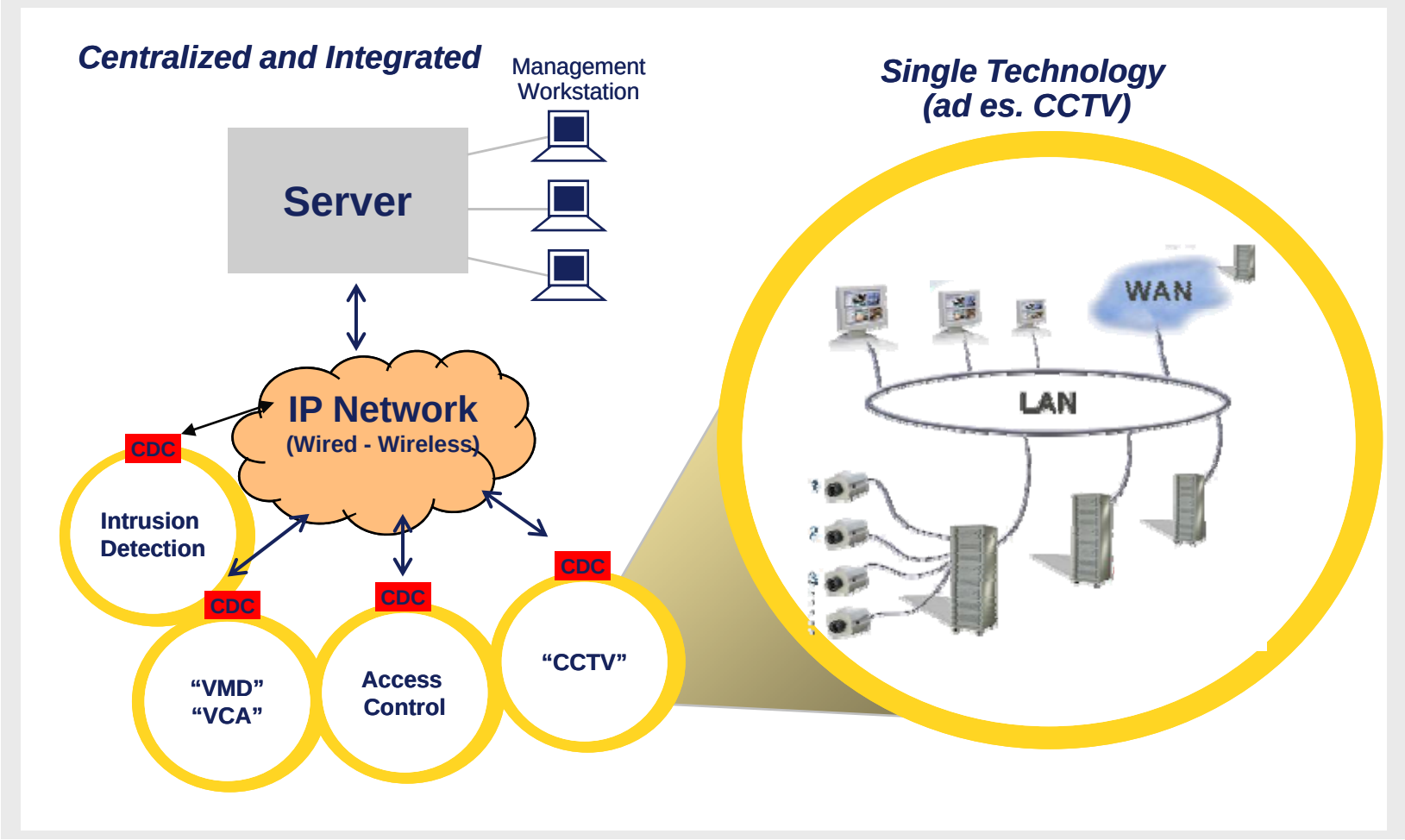
Electrical Power Architecture



Arguments

- Introduction
- Key Requirements
- High-level Architecture
- **System Components**

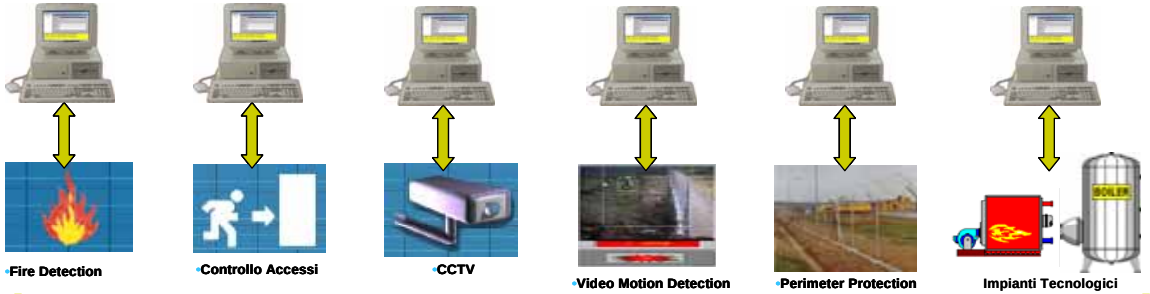
All Security Management on a centralized System and/or directly on the single technology.



SISS = Integrare ➔ maggiori performance + minori costi di esercizio

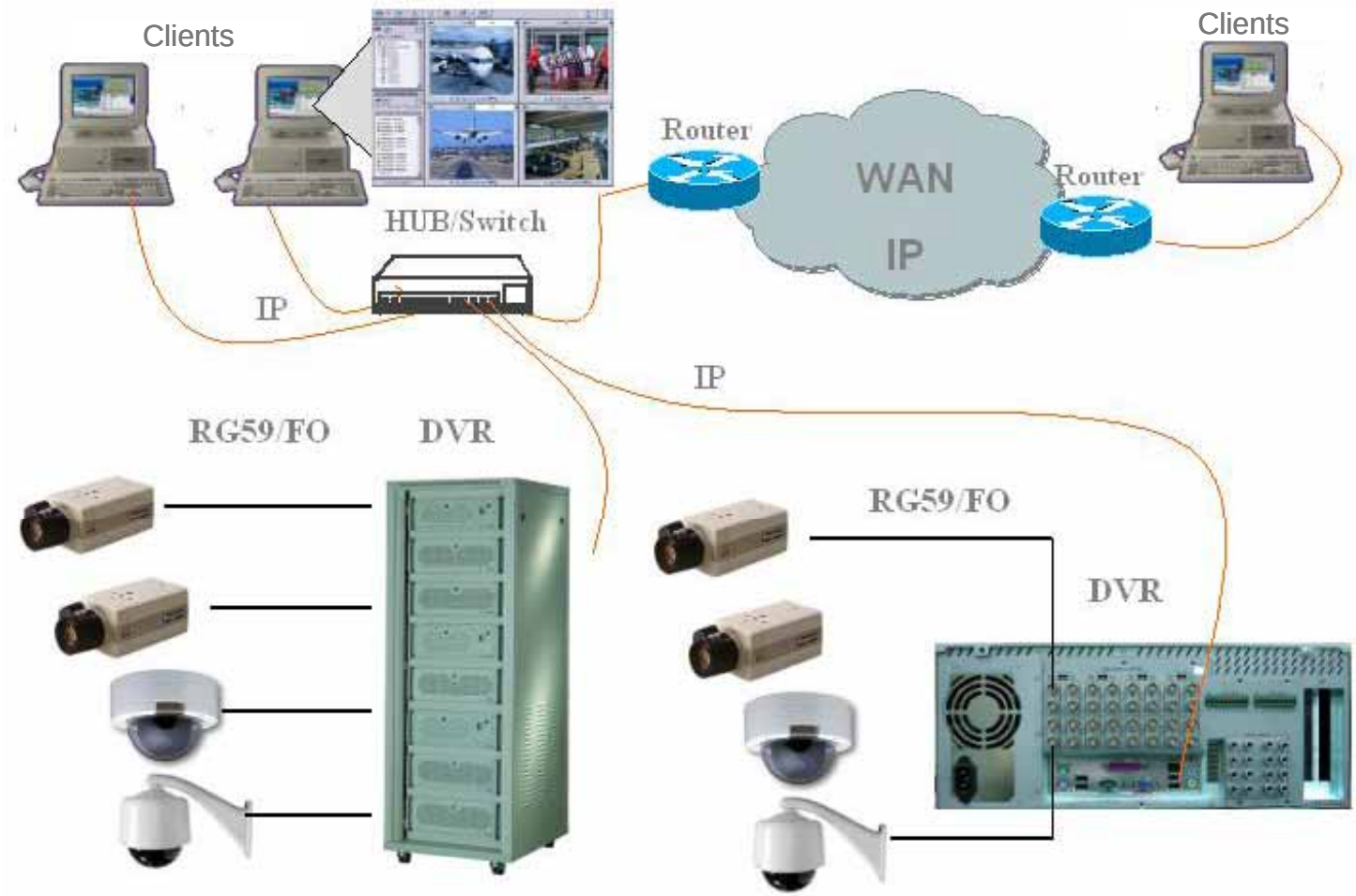
Passo da un'architettura dove:

- **ho una workstation di gestione/supervisione per ogni tecnologia**



- **ad una con unica workstation e interfaccia per la gestione/supervisione di ogni tecnologia.**

CCTV System



From 16 cameras up to 40

Resolution D1, 4CIF

DVR

Frame Rate 12,5/25

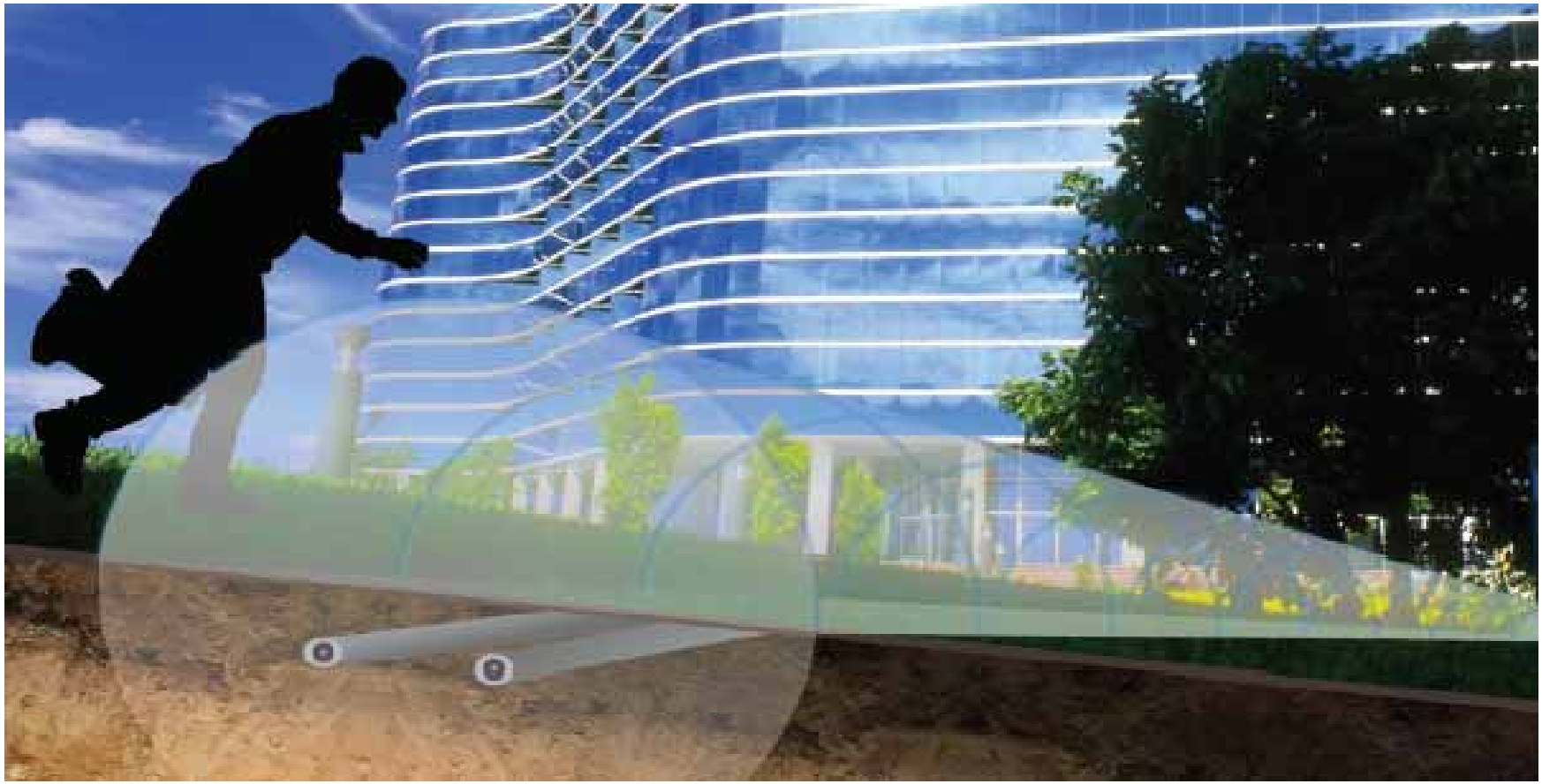
Storage 1 week

Perimeter Protection: Video Motion Detection System

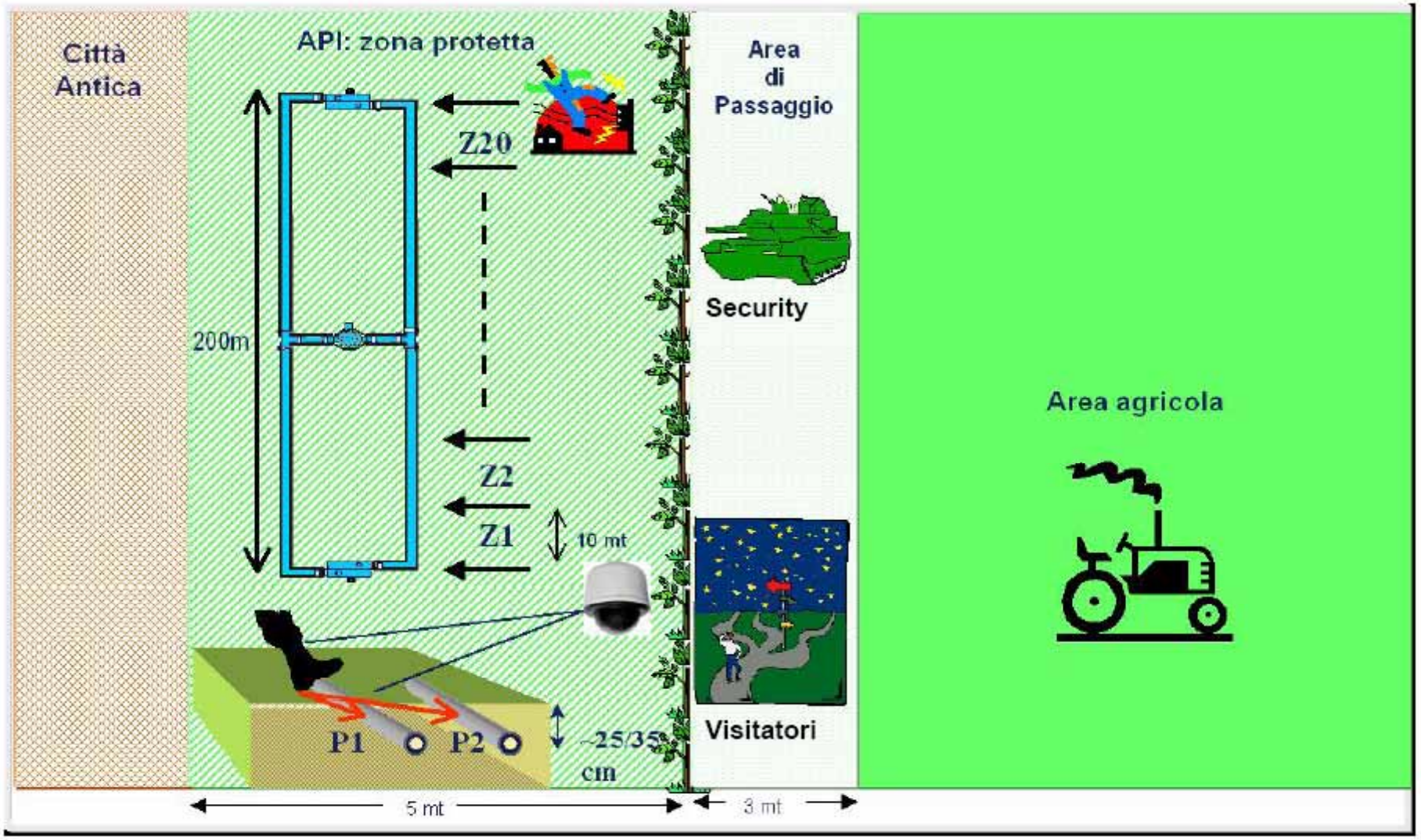
Thermal Camera

Perimeter Protection: Ported Coax Cable

Intrusion and Extrusion Detection



Perimeter Protection: API e APE



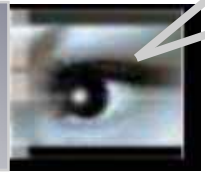
Answer

4

3

Master
Control Room

Real Time
Intrusion Detection



Sending

1

2

The Operation

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