

# Artificial Intelligence for Law Enforcement. Predictive Policing?

STEFANO CORRADO

KEYCRIME

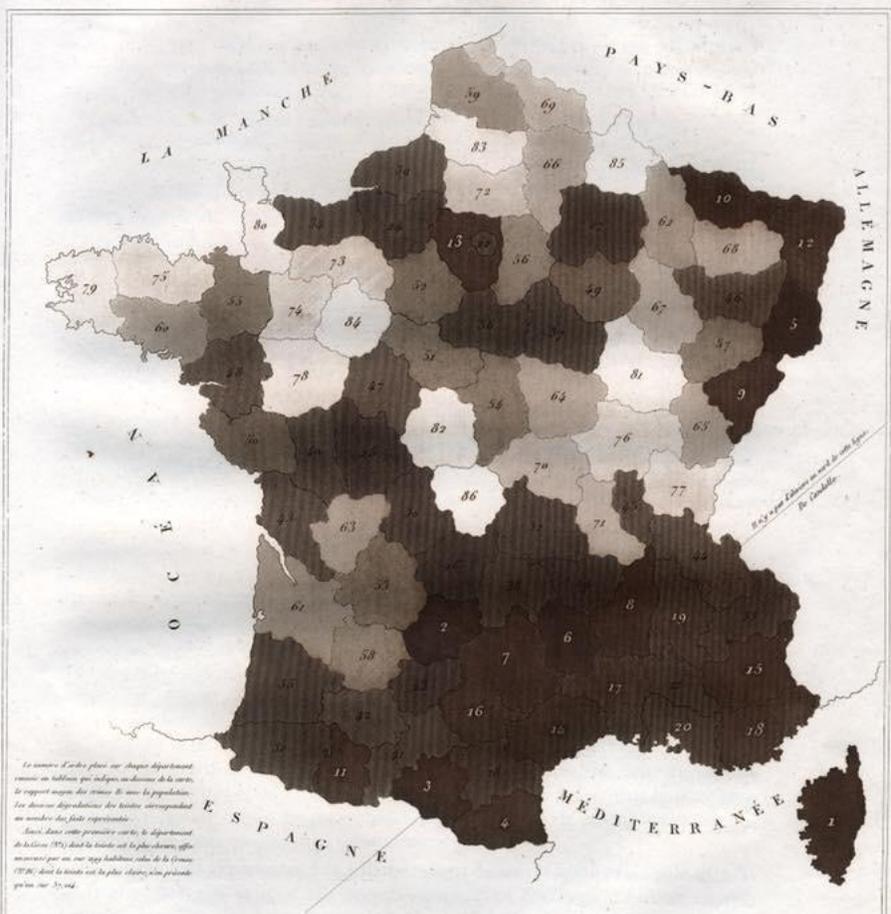
A photograph of the New Scotland Yard building in London. The image shows a large, multi-story classical building with a modern glass extension in the foreground. A large, dark, rectangular sign is mounted on a silver pillar, displaying the text 'NEW SCOTLAND YARD' in white, bold, sans-serif capital letters. The sky is blue with scattered white clouds. Bare trees are visible on the left and right sides of the frame.

NEW  
SCOTLAND  
YARD

# CRIMES CONTRE LES PERSONNES.

Statistique mensuelle

1881



Le nombre d'actes placés sur chaque département est en raison qui indique en raison de la carte le rapport entre les crimes et avec la population. Les données statistiques des crimes correspondent au nombre des faits constatés. Avant dans cette statistique, le département de la Seine (187) dont la limite est la plus élevée, offre un nombre par un sur 1000 habitants, celui de la Corse (178) dont la limite est la plus élevée, n'en présente qu'un sur 37,000.

N°	DÉPARTEMENT	Crimes	N°	DÉPARTEMENT	Crimes	N°	DÉPARTEMENT	Crimes
1	Corse	178	33	Hauts-Alpes	17,488	61	Nord	26,740
2	Finistère	18,000	34	Calvados	17,577	62	Orne	26,740
3	Ille-et-Vilaine	18,000	35	Landes	17,577	63	Seine-et-Marne	26,740
4	Morbihan	18,000	36	Loiret	17,577	64	Seine-et-Oise	26,740
5	Mayenne	18,000	37	Loire	17,577	65	Seine-et-Normandie	26,740
6	Mayenne	18,000	38	Loiret	17,577	66	Seine-et-Oise	26,740
7	Mayenne	18,000	39	Loiret	17,577	67	Seine-et-Oise	26,740
8	Mayenne	18,000	40	Loiret	17,577	68	Seine-et-Oise	26,740
9	Mayenne	18,000	41	Loiret	17,577	69	Seine-et-Oise	26,740
10	Mayenne	18,000	42	Loiret	17,577	70	Seine-et-Oise	26,740
11	Mayenne	18,000	43	Loiret	17,577	71	Seine-et-Oise	26,740
12	Mayenne	18,000	44	Loiret	17,577	72	Seine-et-Oise	26,740
13	Mayenne	18,000	45	Loiret	17,577	73	Seine-et-Oise	26,740
14	Mayenne	18,000	46	Loiret	17,577	74	Seine-et-Oise	26,740
15	Mayenne	18,000	47	Loiret	17,577	75	Seine-et-Oise	26,740
16	Mayenne	18,000	48	Loiret	17,577	76	Seine-et-Oise	26,740
17	Mayenne	18,000	49	Loiret	17,577	77	Seine-et-Oise	26,740
18	Mayenne	18,000	50	Loiret	17,577	78	Seine-et-Oise	26,740
19	Mayenne	18,000	51	Loiret	17,577	79	Seine-et-Oise	26,740
20	Mayenne	18,000	52	Loiret	17,577	80	Seine-et-Oise	26,740
21	Mayenne	18,000	53	Loiret	17,577	81	Seine-et-Oise	26,740
22	Mayenne	18,000	54	Loiret	17,577	82	Seine-et-Oise	26,740
23	Mayenne	18,000	55	Loiret	17,577	83	Seine-et-Oise	26,740
24	Mayenne	18,000	56	Loiret	17,577	84	Seine-et-Oise	26,740
25	Mayenne	18,000	57	Loiret	17,577	85	Seine-et-Oise	26,740
26	Mayenne	18,000	58	Loiret	17,577	86	Seine-et-Oise	26,740
27	Mayenne	18,000	59	Loiret	17,577	87	Seine-et-Oise	26,740
28	Mayenne	18,000	60	Loiret	17,577	88	Seine-et-Oise	26,740
29	Mayenne	18,000	61	Loiret	17,577	89	Seine-et-Oise	26,740
30	Mayenne	18,000	62	Loiret	17,577	90	Seine-et-Oise	26,740
31	Mayenne	18,000	63	Loiret	17,577	91	Seine-et-Oise	26,740
32	Mayenne	18,000	64	Loiret	17,577	92	Seine-et-Oise	26,740
33	Mayenne	18,000	65	Loiret	17,577	93	Seine-et-Oise	26,740
34	Mayenne	18,000	66	Loiret	17,577	94	Seine-et-Oise	26,740
35	Mayenne	18,000	67	Loiret	17,577	95	Seine-et-Oise	26,740
36	Mayenne	18,000	68	Loiret	17,577	96	Seine-et-Oise	26,740
37	Mayenne	18,000	69	Loiret	17,577	97	Seine-et-Oise	26,740
38	Mayenne	18,000	70	Loiret	17,577	98	Seine-et-Oise	26,740
39	Mayenne	18,000	71	Loiret	17,577	99	Seine-et-Oise	26,740
40	Mayenne	18,000	72	Loiret	17,577	100	Seine-et-Oise	26,740



A STEVEN SPIELBERG FILM

# MINORITY REPORT

TOM CRUISE COLIN FARRELL SAMANTHA MORTEN AND MAX VON SYDOW MUSIC BY JOHN WILLIAMS  
EDITED BY INDUSTRIAL LIGHT & MAGIC COSTUME DESIGNER JUDY DEBORAH L. SCOTT EXECUTIVE PRODUCERS MICHAEL KAHN AND  
PRODUCED BY ALEX MCDONNELL WRITTEN BY JACQUES KAWINOSKI AND DIRECTED BY STEVEN SPIELBERG  
CASTING BY GARY GOLDMAN PRODUCTION DESIGNER RONALD CHISSETT  
EXECUTIVE PRODUCERS ANDREW A. KOSOVE PRODUCED BY JACQUES KAWINOSKI AND STEVEN SPIELBERG  
DISTRIBUTED BY UNIVERSAL PICTURES

# Methodology

- Sistemi Statistici
- Sistemi Euristici
- Sistemi Esperti

## "Mathematizing" Criminal Behavior

Repeat Victimization



$$\frac{A}{t} = B + \frac{D}{4} \nabla^2 A \quad A+$$

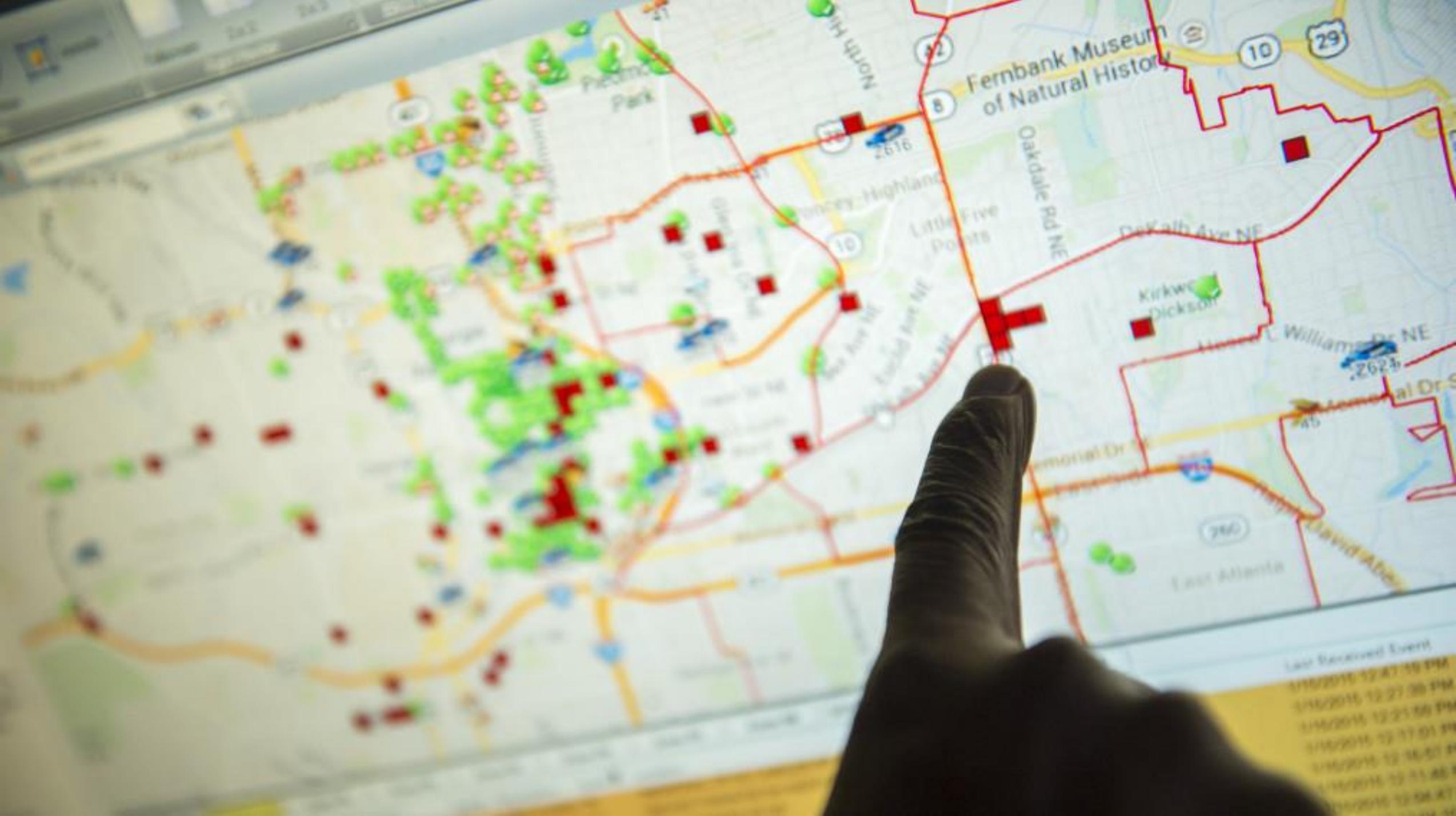
Near-repeats Environment

Crime Patterns

Mathematical Model

[www.predpol.com](http://www.predpol.com)





Fernbank Museum  
of Natural History

Kirkwood  
Dickson

Williams Dr NE

East Atlanta

- Last Received Event
- 1/16/2016 12:47:15 PM
  - 1/16/2016 12:27:30 PM
  - 1/16/2016 12:21:50 PM
  - 1/16/2016 12:17:01 PM
  - 1/16/2016 12:14:57 PM
  - 1/16/2016 12:11:48 PM
  - 1/16/2016 12:08:47 PM

# Criticisms

- Socialmente accettabile?
- Efficiente ed efficace?
- Etico?





113



POLIZIA

POLIZIA  
H2272



“Il Sistema pre-crimine ha ridotto I delitti del 99,8%. E' raro che si verifichi un delitto, perchè il colpevole sa che noi lo sbatteremo in un campo di prigionia una settimana prima che lui abbia la possibilità di compiere il suo crimine”

Philip K. Dick  
The Minority Report  
1952

STATISTICHE sugli eventi:

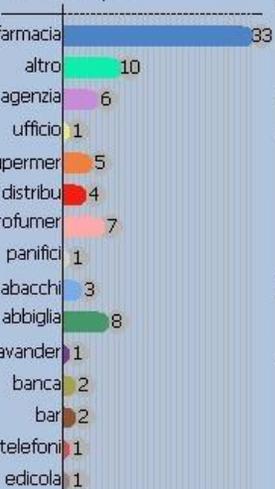
Giorni della settimana:



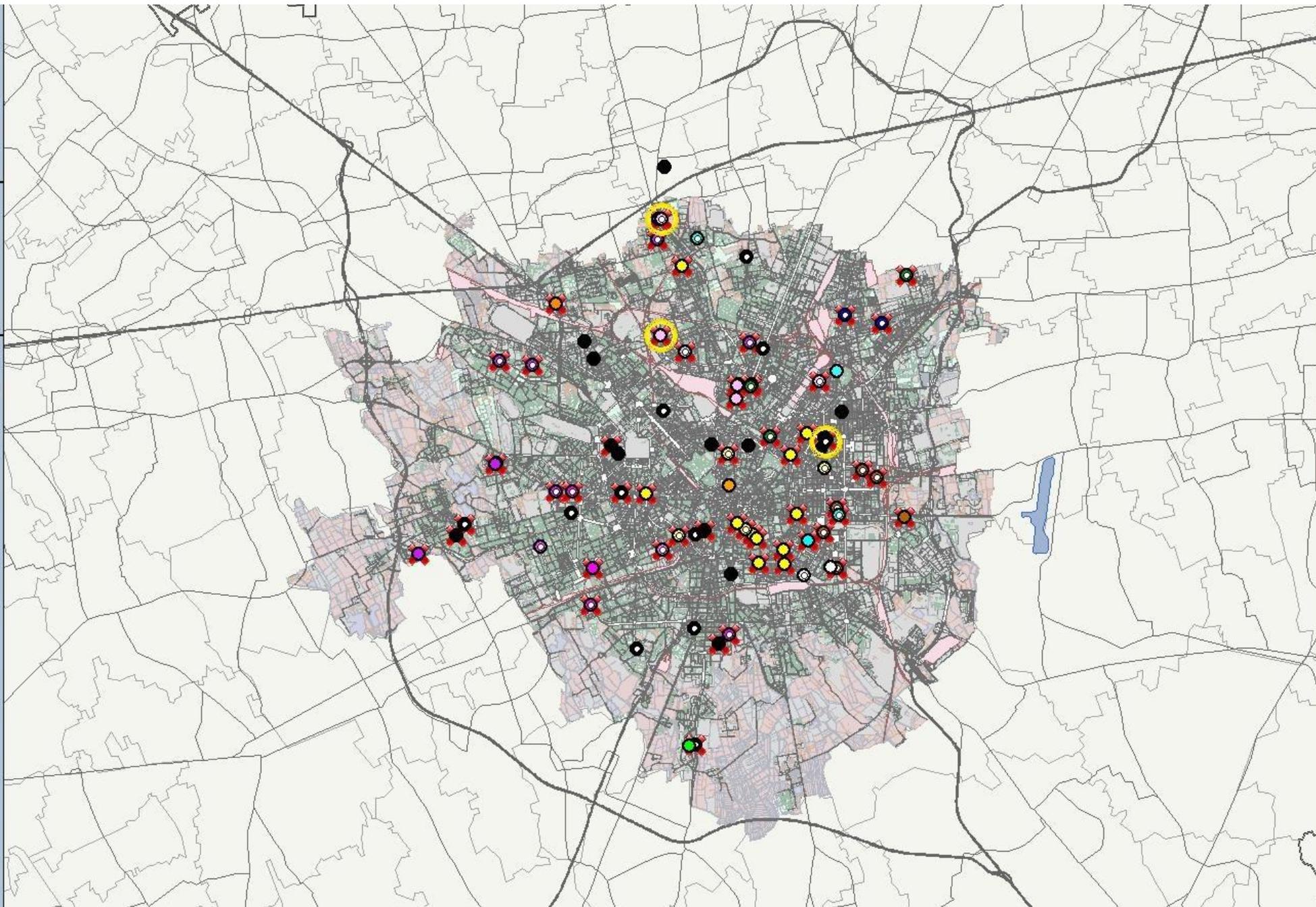
Fasce orarie:



Obiettivi colpiti:



**85 Eventi**



● EVENTO non collegato

LEGENDA serialità eventi:

STATISTICHE sugli eventi:

Giorni della settimana:



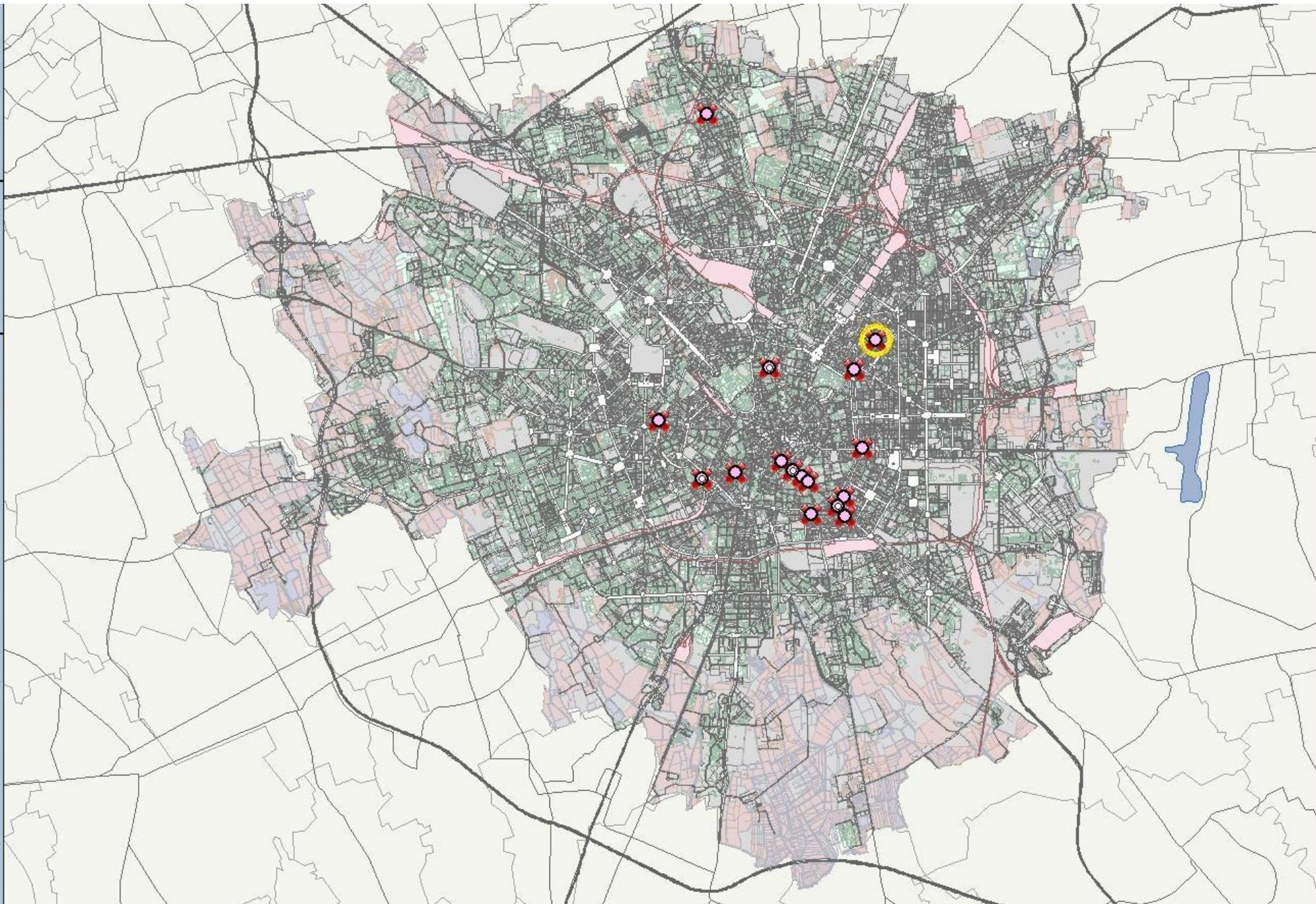
Fasce orarie:



Obiettivi colpiti:



**16 Eventi**



● EVENTO non collegato

LEGENDA serialità eventi:

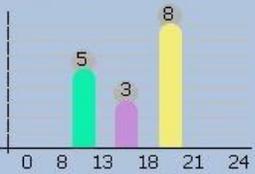
○ WW

STATISTICHE sugli eventi:

Giorni della settimana:



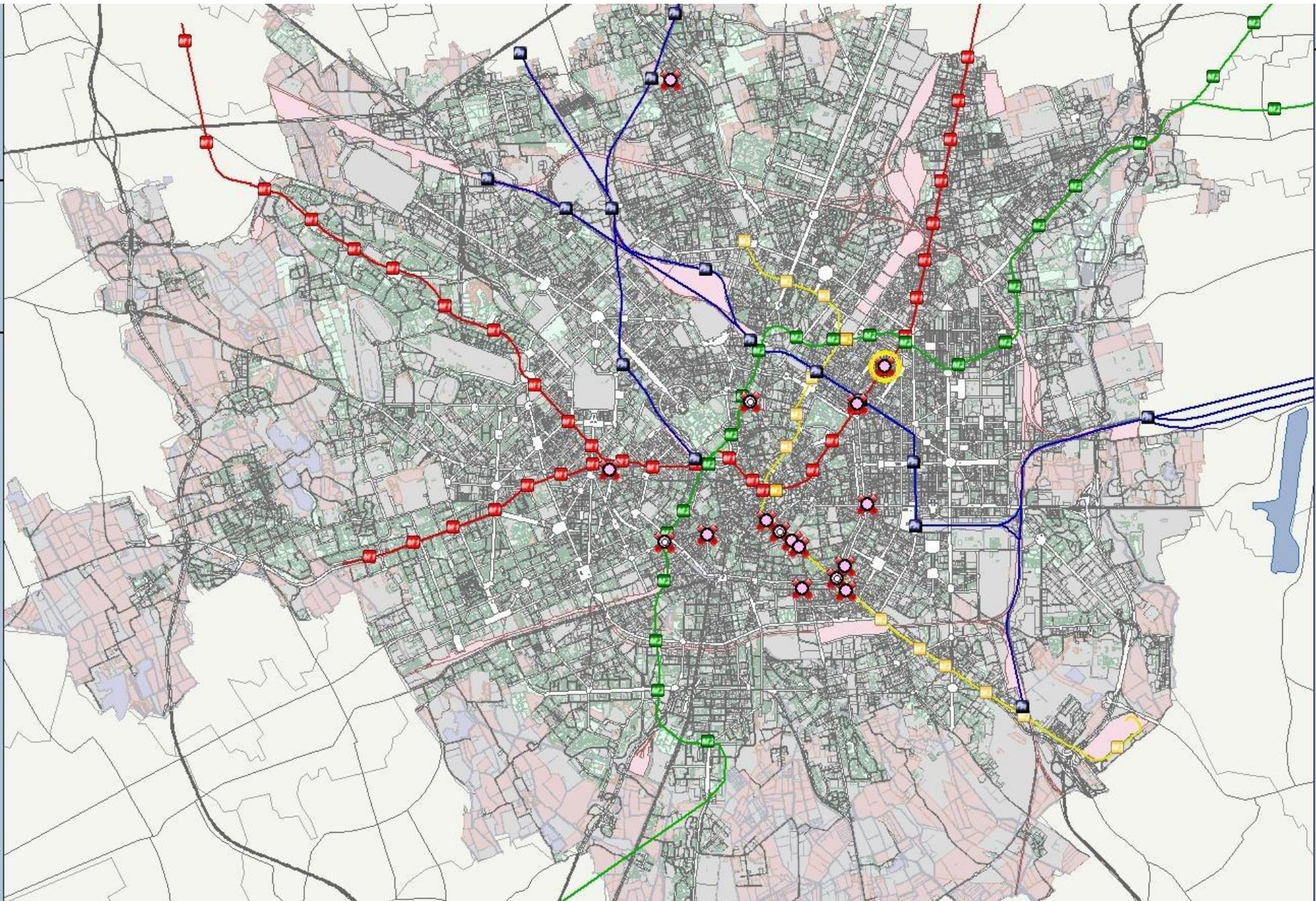
Fasce orarie:



Obiettivi colpiti:



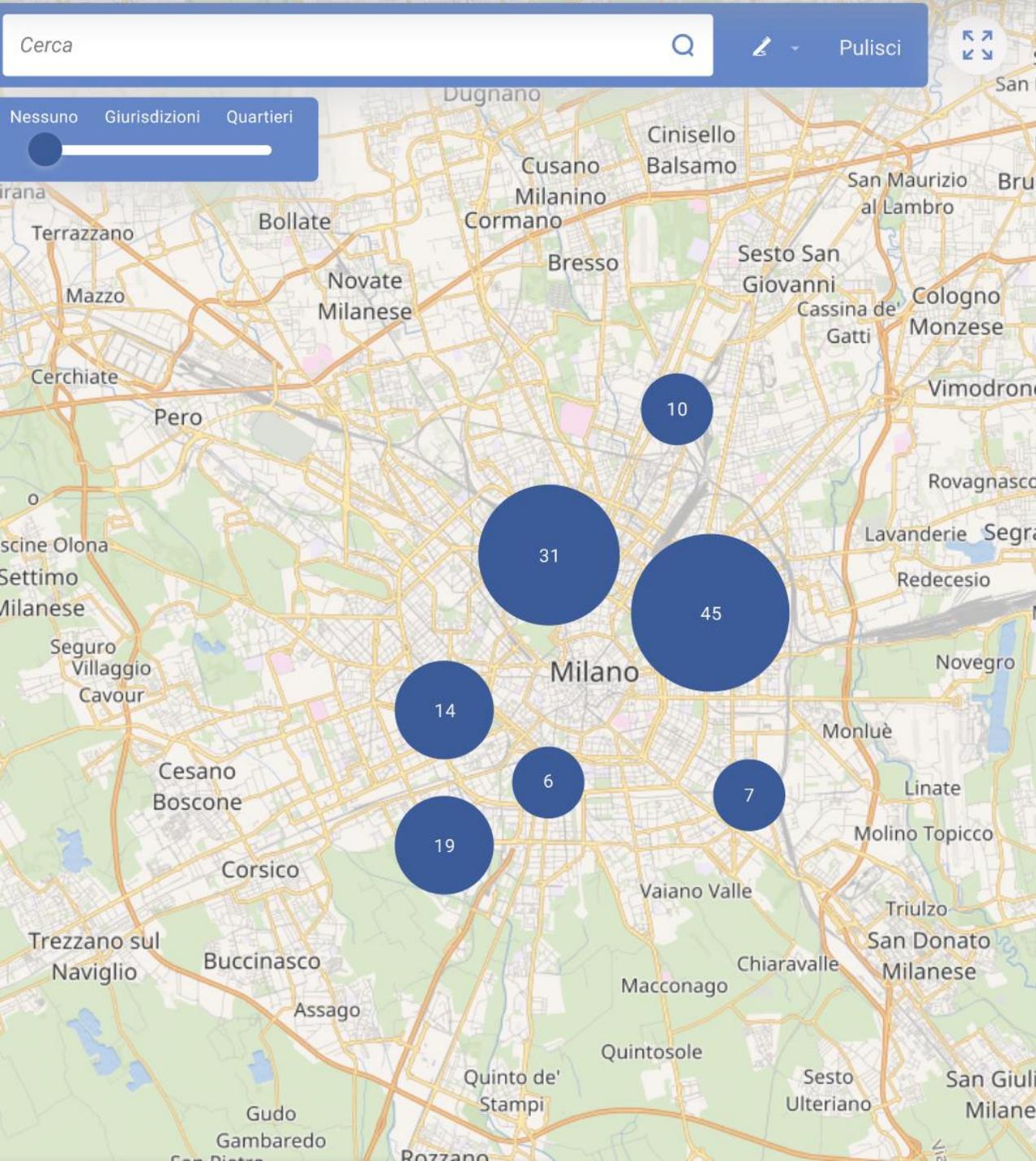
**16 Eventi**



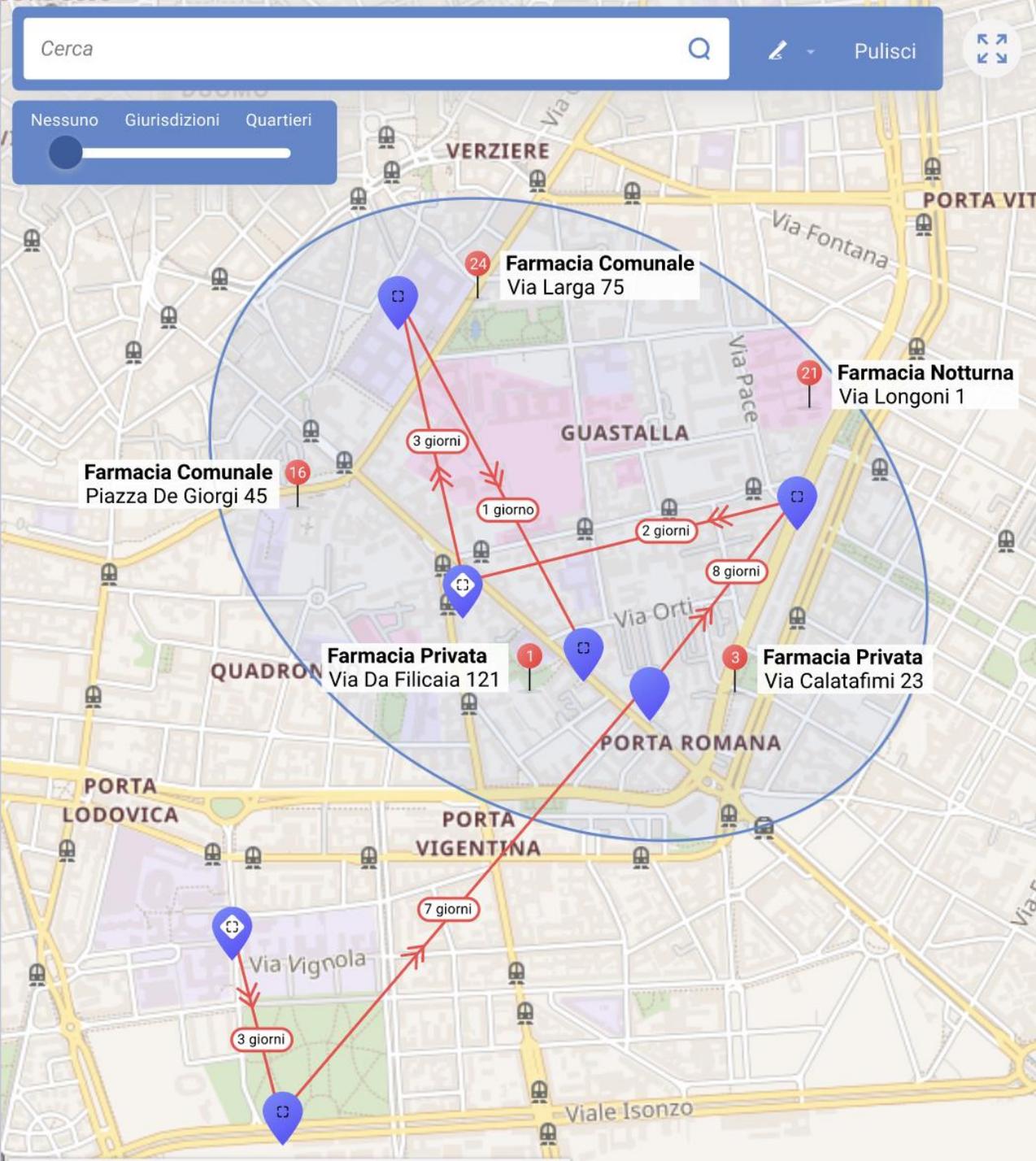
● EVENTO non collegato

LEGENDA serialità eventi:

○ WW



Da una rappresentazione globale degli eventi.....



All'isolamento della serie criminale e alla previsione del possibile nuovo reato.

OGGI  
LA TABACCHERIA  
RIMARRA' CHIUSA  
PER FURTO

CHIUSO PE

RAPINA

CHIUSO  
X  
RAPINA

CHIUSURA  
MOMENTANEA  
PER RAPINA E  
AGGRESSIONE FISICA

# Riduzione dei crimini

**Dal 2008 al 2017**  
**-58%**  
**di rapine in attività commerciali**

Fonte: Polizia di Stato - Questura di Milano



**Keycrime**  
INTELLIGENCE SOLUTION









Quale crimine è stato commesso?



Rapina



Violenza sessuale



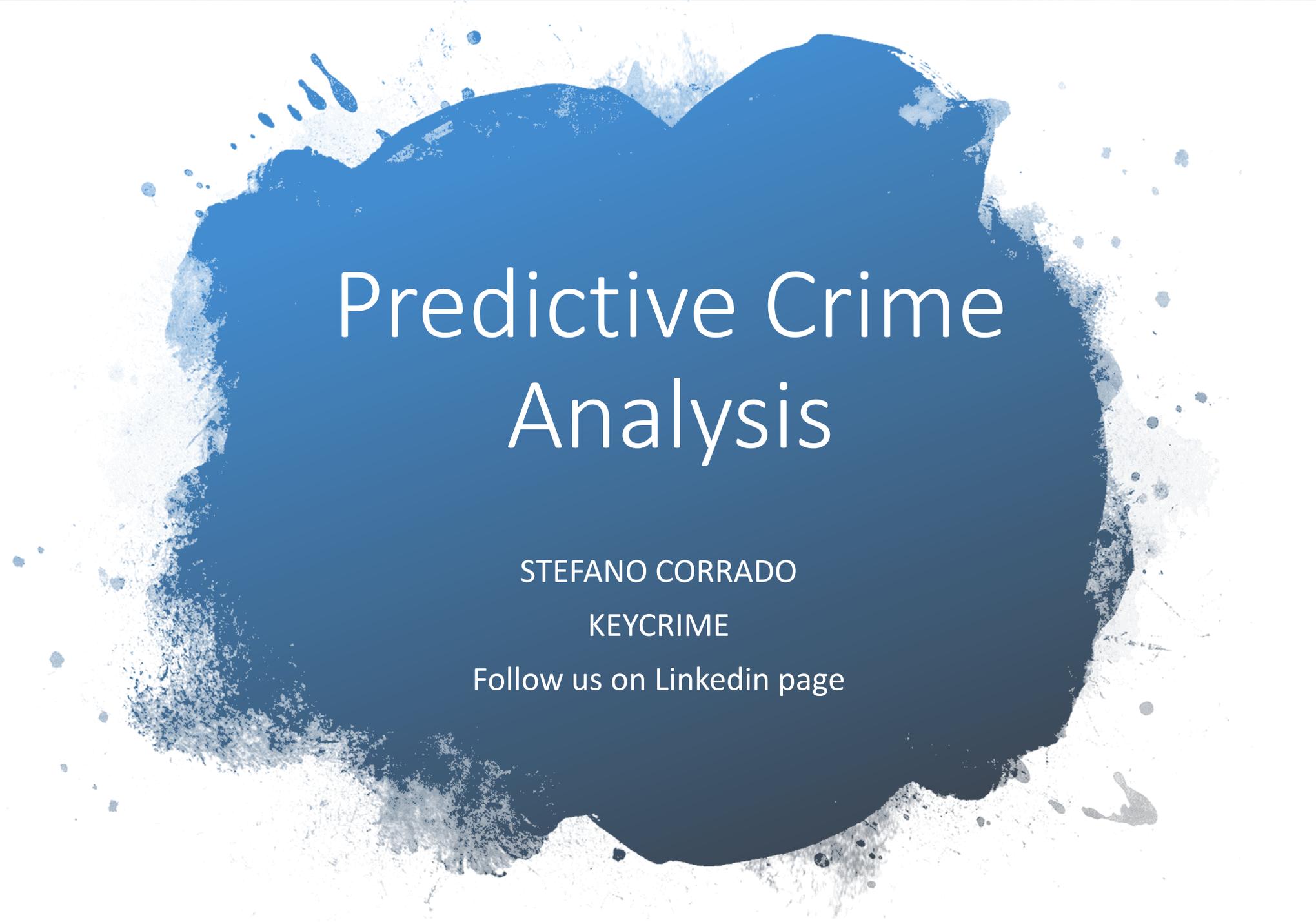
Truffa



Furto



Omicidio



# Predictive Crime Analysis

STEFANO CORRADO

KEYCRIME

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