

# Hot Spots and Crime Harm Spots in A Swedish City

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# Objective

- Comparing Crime Hot Spot versus Crime Harm Spots in Swedish Cities: Descriptive research studies.



# Research Method and Design

- Identify all crimes in Gothenburg (Umeå and Malmö)
- Identify crimes against the person in public place
- Cluster these crimes onto the City map by location
- The "Swedish Crime Harm Index"
- Assess all crimes against the person in public place with the Swedish CHI
- Cluster the Swedish CHI by location onto the City map
- Comparing Crime Hot Spots with Crime Harm Spots

# Crime Data Gothenburg City 2014

**38,351** All crimes  
recorded in RAR

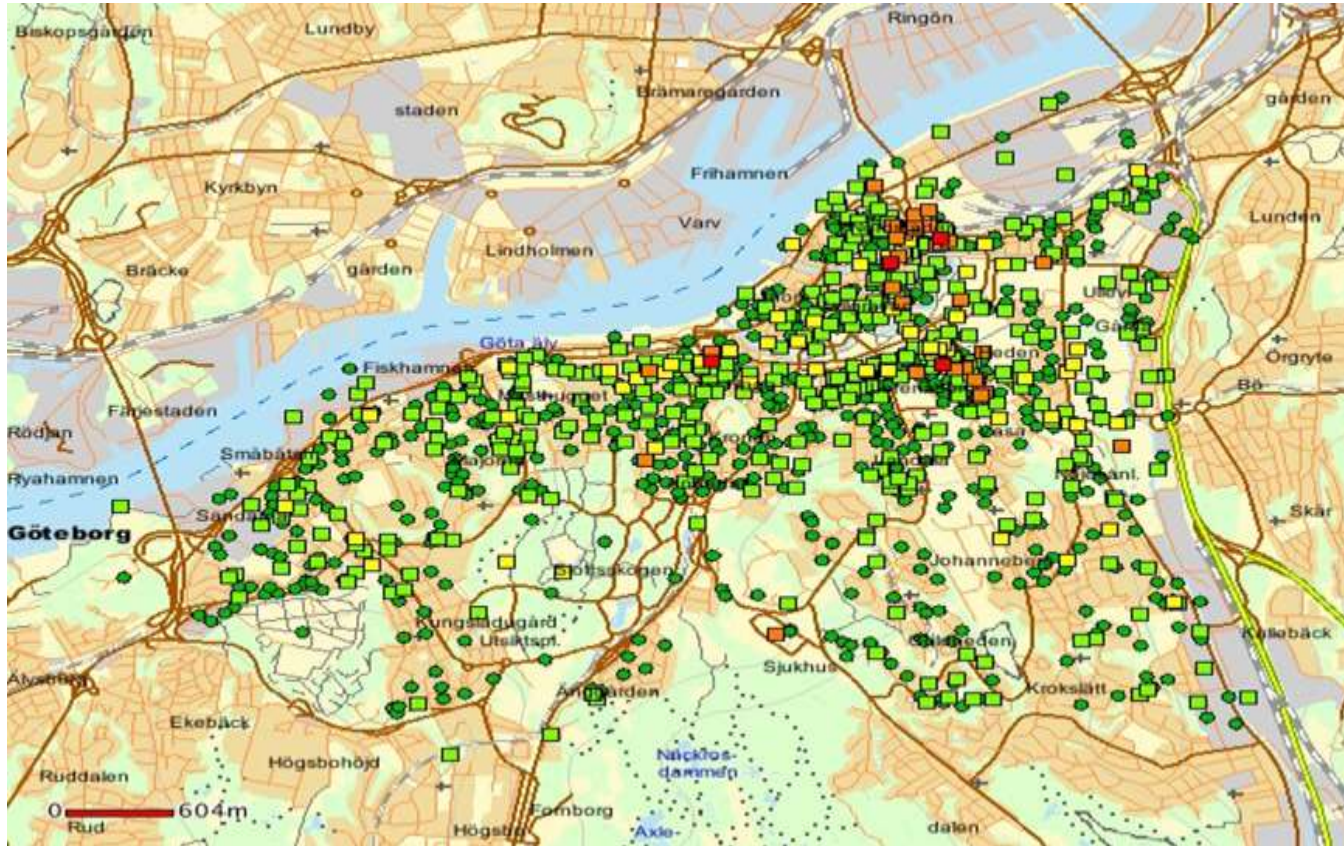
**2,717** recorded crimes against  
the person in public place

**87** Misclassified

**2,630** Crimes against  
the person in public  
place



# 2,630 Crimes against person in public place – Extended Recording



## Extended Recording based on information from RAR and presented by Hobit 1.5

Population: 123,594

38,351 Crimes reported  
in RAR

In total 74 Crime  
Classification Codes

4 Hot Spots Addresses  
25 High Crime  
Addresses

### Teckenförklaring

- STORM
- PAR
- 2-5
- 6-10
- 11-25
- 26-



# The "Swedish Crime Harm Index"

## (Guiding verdicts from the Court of Appeal and precedents the Supreme Court)

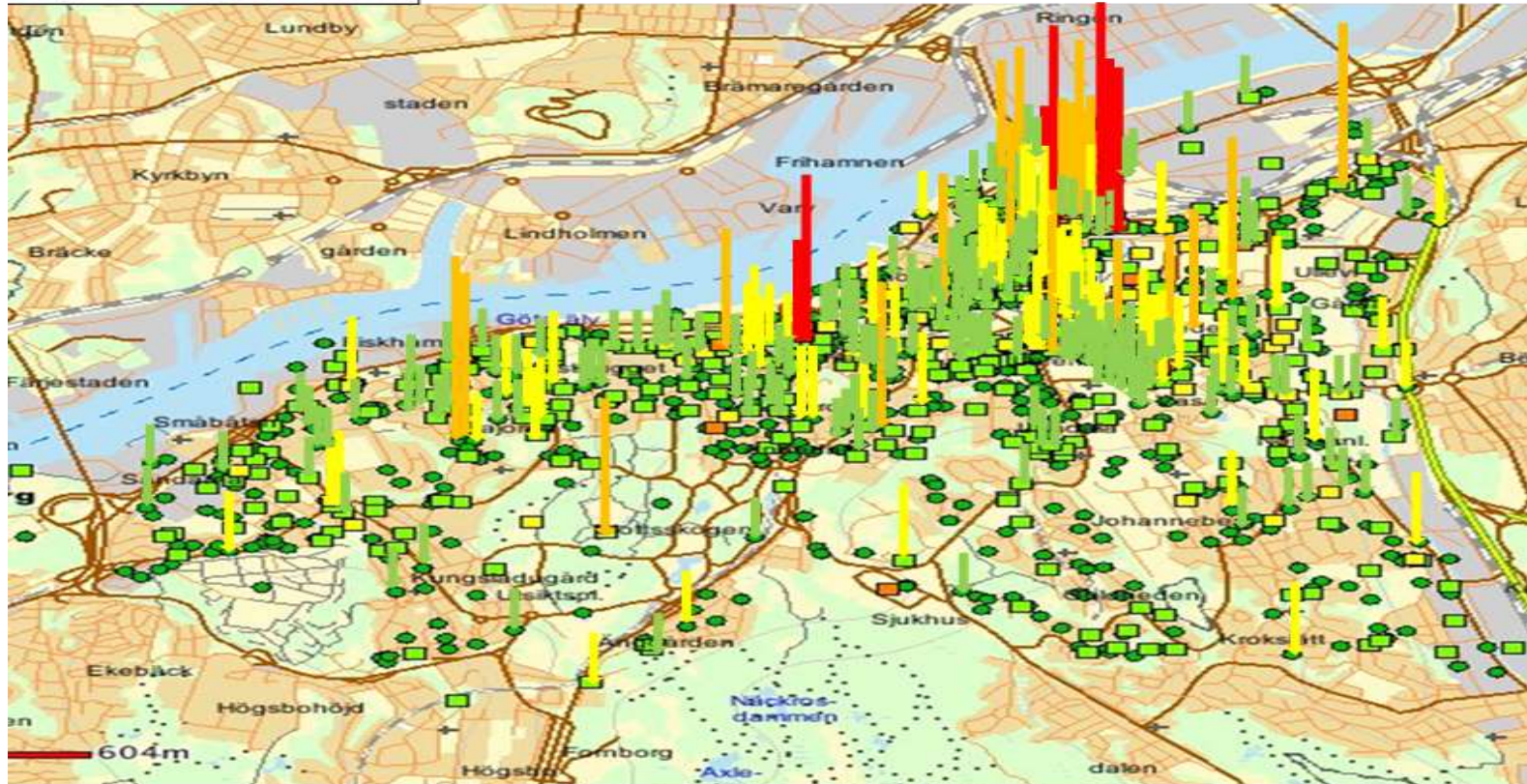
Crime Code	Crime Description	F/S/C	Days SCHI	Y.M.D	Lowest Y.M.D	Highest Y.M.D
0312	<b>Murder</b> , manslaughter or assault with a fatal outcome with the use of firearms against woman		<u>6570</u>	18.00.00	18 Years	18 Years
0357	<b>Physical abuse</b> , other than gross, against man 18 years or older, unfamiliar with the victim, outdoor	C	<u>60</u>	00.02.00	2 Months	2 Months
0441	Unlawful persecution of boy under 18 " <b>Stalking</b> "		<u>292</u>	00.09.22	6 Months	1 Year
9806	<b>Robbery</b> against an individual, not functional impairment, under 18 years, without firearms, outdoor (Mugging)		<u>365</u>	01.00.00	1 Year	1 Year

5 judges, Inter-rater reliability:  
Pearson correlations ranging from  $r = .966$  to  $.994$



# Crime Harm Locations in Gothenburg City

H. SCHI and Hot Spots 2014.



Map 4. Hot Spot Map for Gothenburg City 2014 assessed with Swedish Crime Harm in bars.

# Comparison Crime Harm – Hot Spots

			HOT SPOTS top 5% locations		Total
			no	yes	
CHI_top 5% location	no	Count	0	28	28
		% within CHI_top 5%	0,0%	100,0%	100,0%
		% within HOT SPOT_top_5%	0,0%	50,0%	31,8%
	yes	Count	32	28	60
		% within CHI_top 5%	53,3%	46,7%	100,0%
		% within HOT SPOT_top_5%	100,0%	50,0%	68,2%
Total	Count	32	56	88	

A sole focus on hot spots would miss 50% of CHI spots

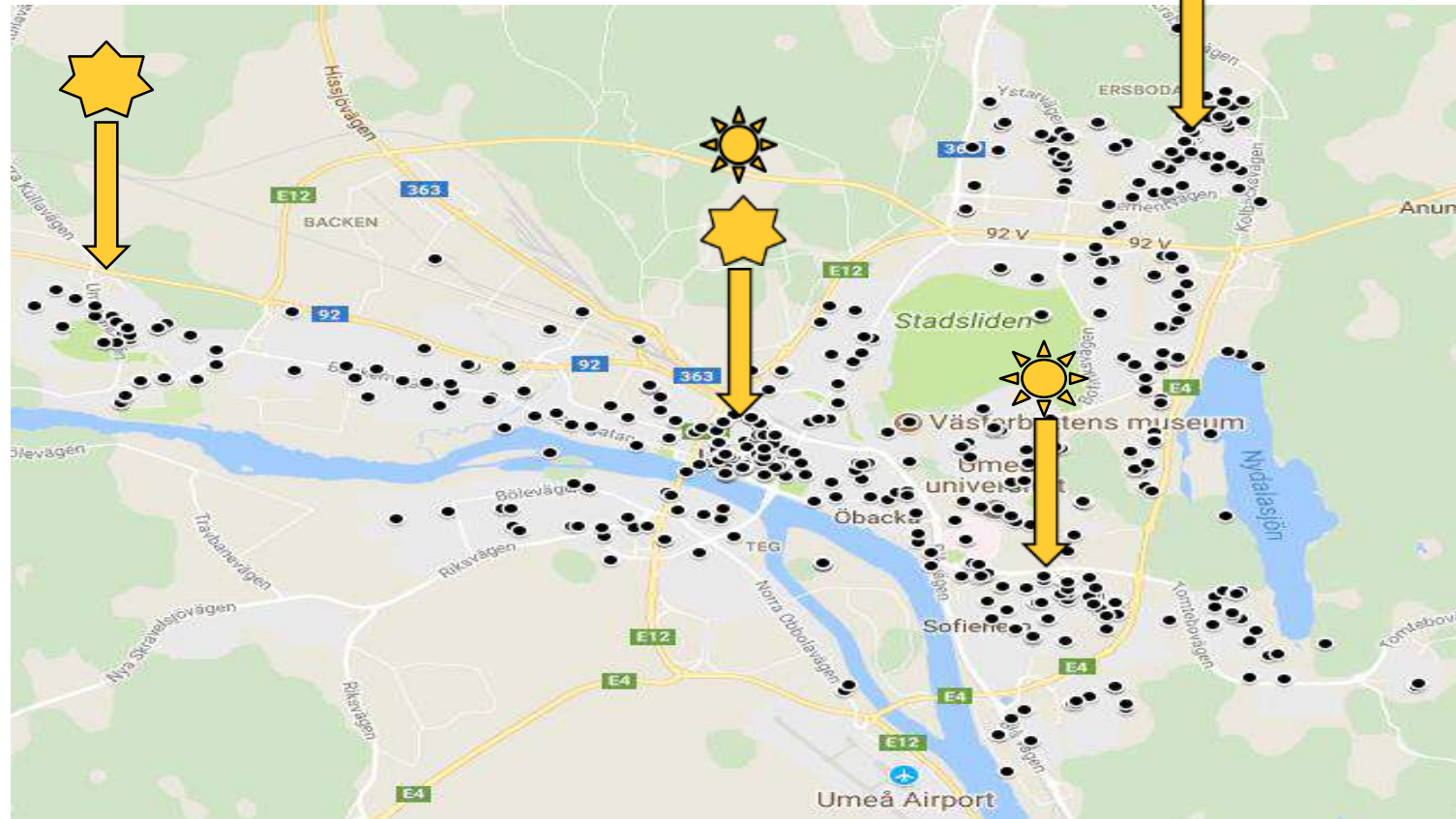
A sole focus on CHI would miss 53% of hot spots



# Summary of Findings

- **2,630 crimes** against the person in public place
- Swedish Crime Harm Index: **333,871 prison days**
- **60 locations** make up for nearly half the crime harm (154649 days = 46,3 %) (= top 5% of CHI Harm per location)
- Number of crimes in these top 5% locations ranges from 1 – 45.
- The top 60 CHI spots include the 4 locations that are also hot spots:
  - The highest hotspot is also the highest harm spot,
  - Two hotspots within the top 1% of CHI spots, 1 hot spot is in the top 2% of CHI spots.
- A sole focus on Hot Spots would miss 50% of CHI spots
- A sole focus on CHI would miss 53% of hot spots

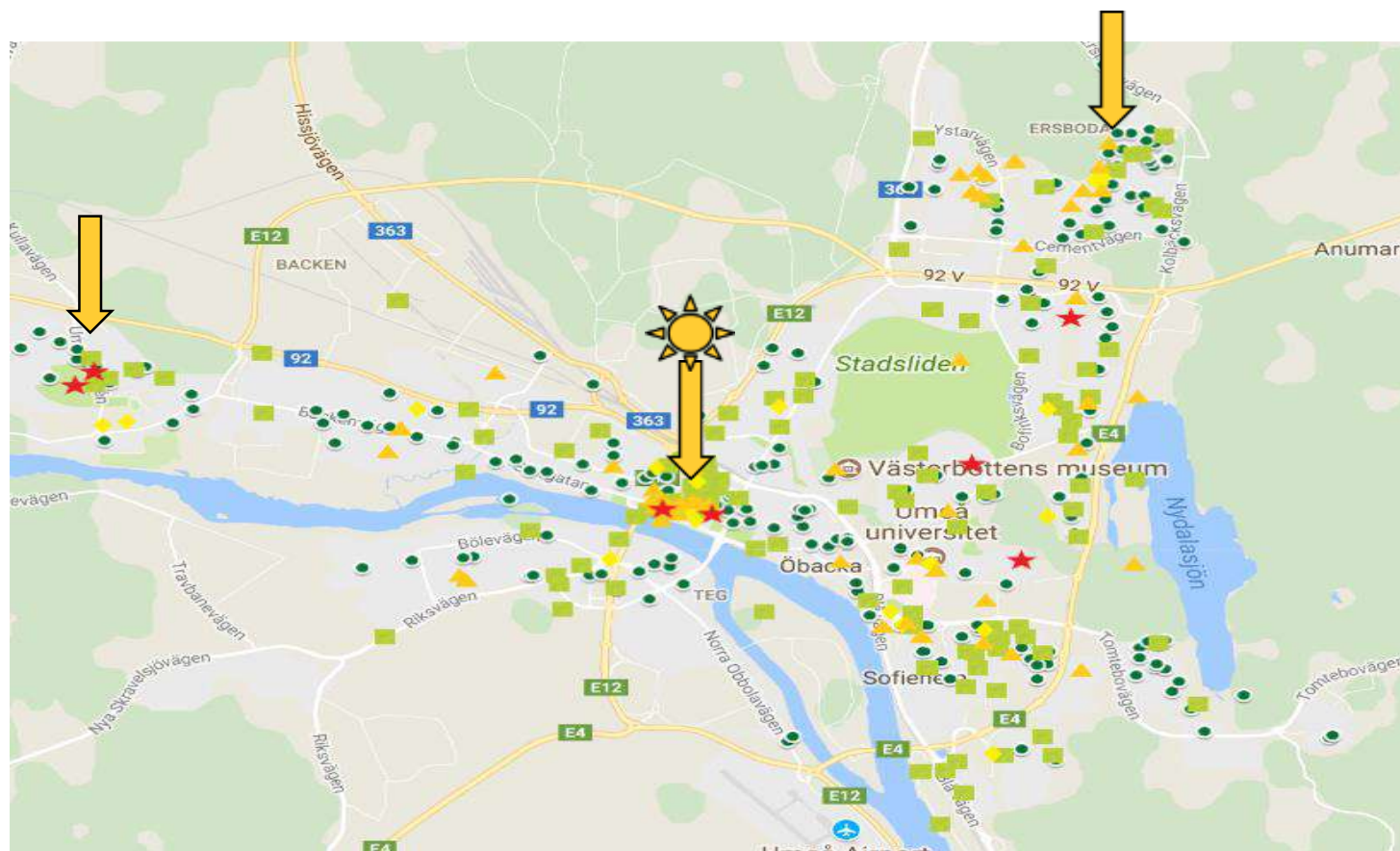
# Reported Crimes against person in public place in Umeå 2017 (647 total)



  
Summer 322  
crime reports

  
Winter 295  
crime reports

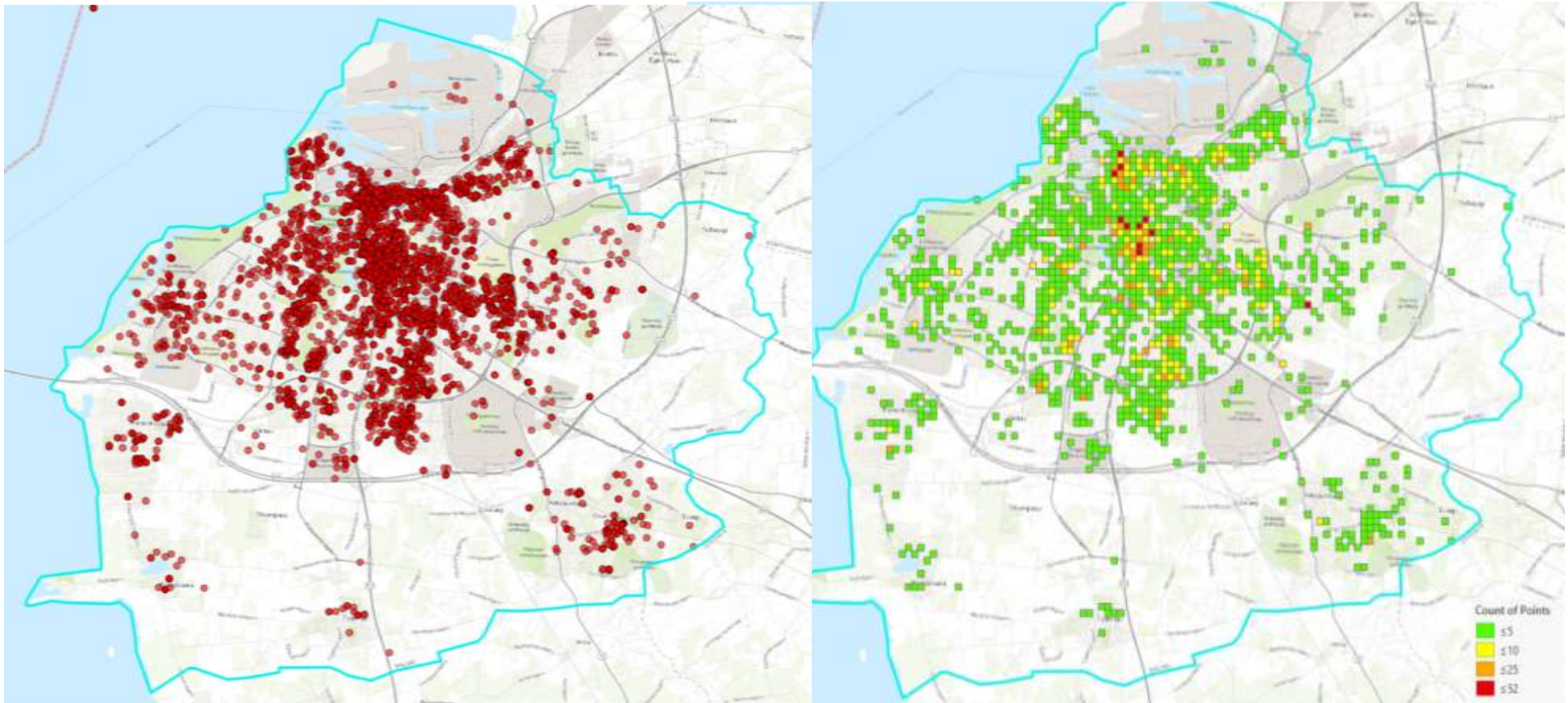
# Crime Harm in Umeå 2017



- 647 crime reports generates 76 726 prison days divided on 198 addresses
- 3 locations

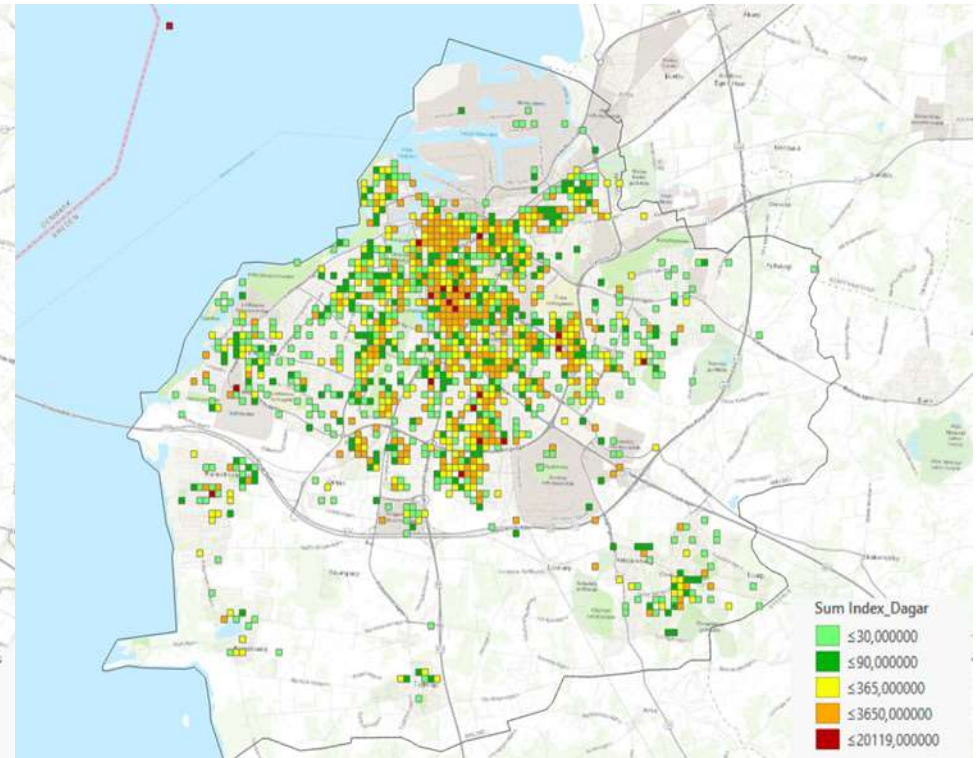
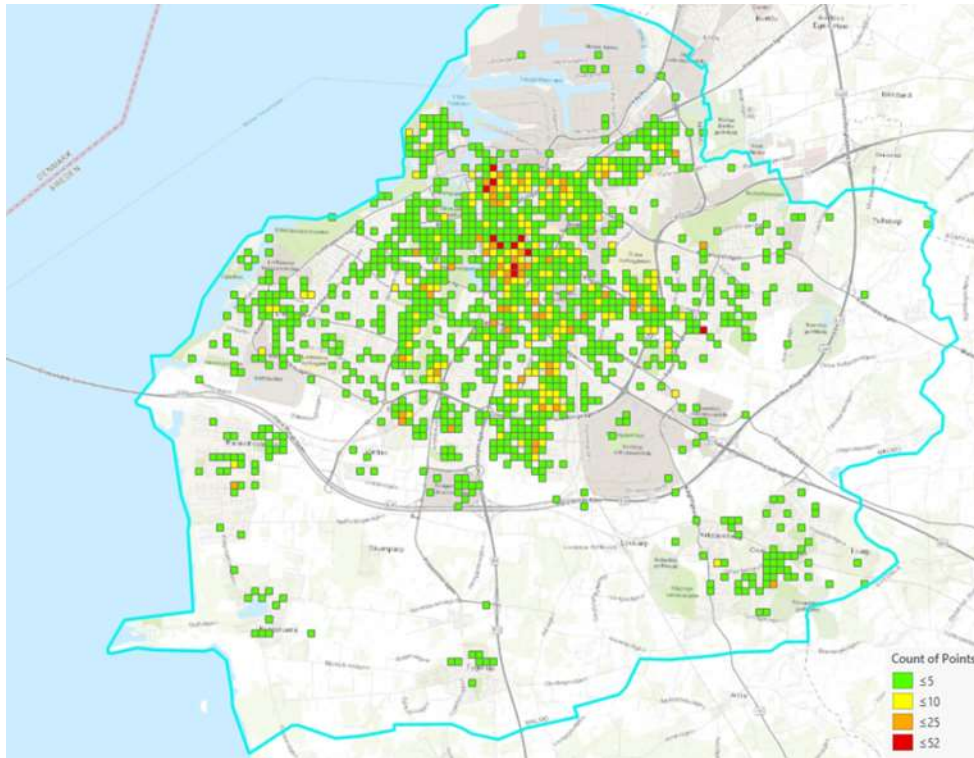


# Reported Total Crimes and Crimes Against Person in Public Place in Malmö 2018





# Hotspots versus Crimes Harm Spots Malmö 2018



A sole focus on hot spots would miss 28% of CHI spots  
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A sole focus on CHI would miss 28% of hot spots

# Implication and Implementation

- Future Research
- Harm-Focused Management
- Harm-Focused Strategy
- Police Allocations
- Police and Stakeholders
- Geographical Information (GIS)
- Further Training
- Financial Applications

# THANK YOU

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