



WORCESTER POLYTECHNIC INSTITUTE

Addressing the Quality of Living at Night

Indre By- Nørre Kvarter

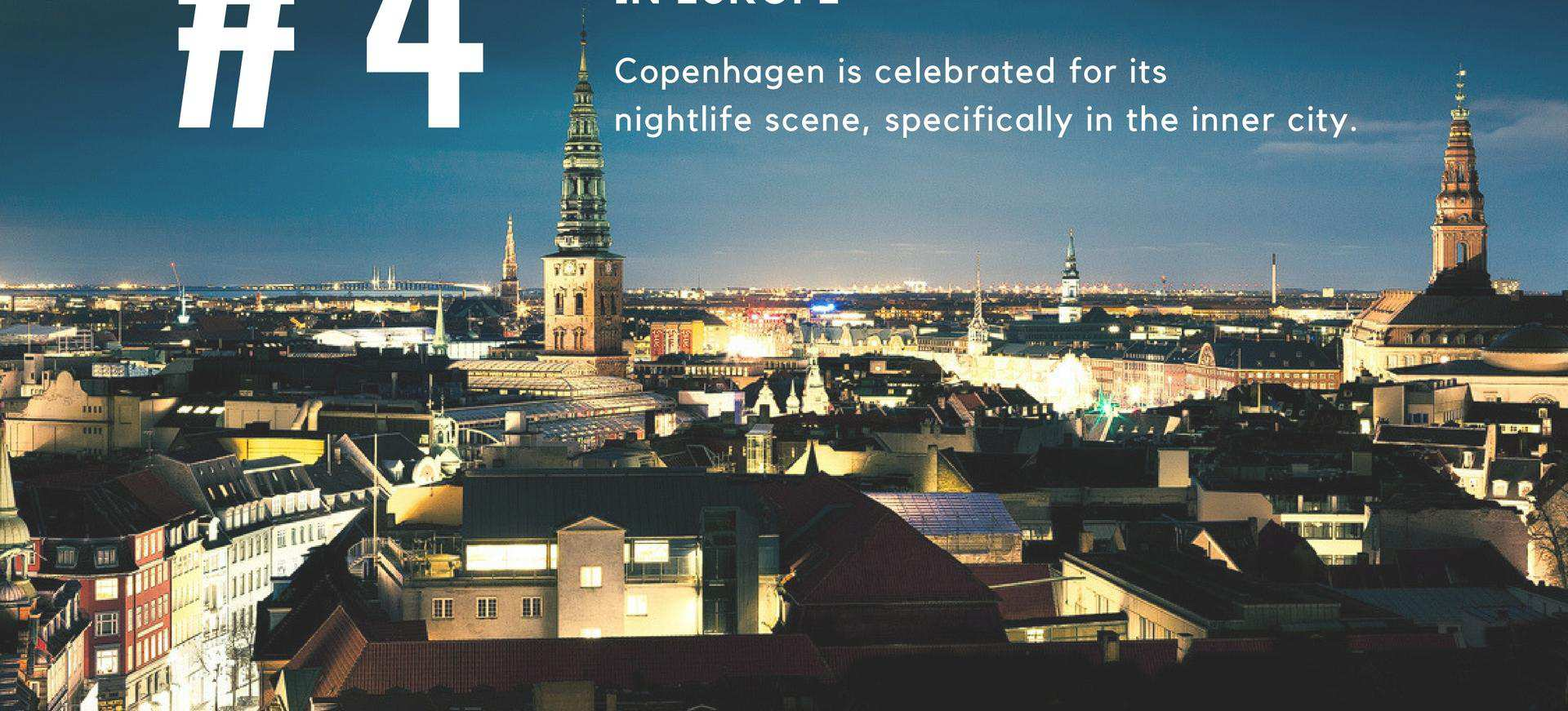
Chase Flibbert, Zachary Hearl, Angelina Nicolella, Hendrick Suwirjo

Advisors: Fabio Carrera and Hugh Lauer

#4

AMONG THE TOP 15 DESTINATIONS
IN EUROPE

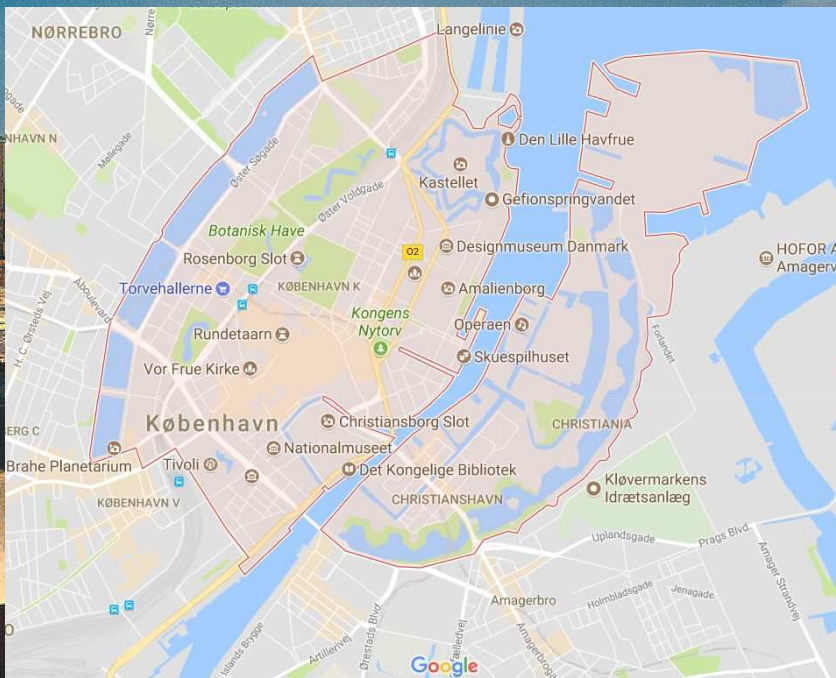
Copenhagen is celebrated for its
nightlife scene, specifically in the inner city.



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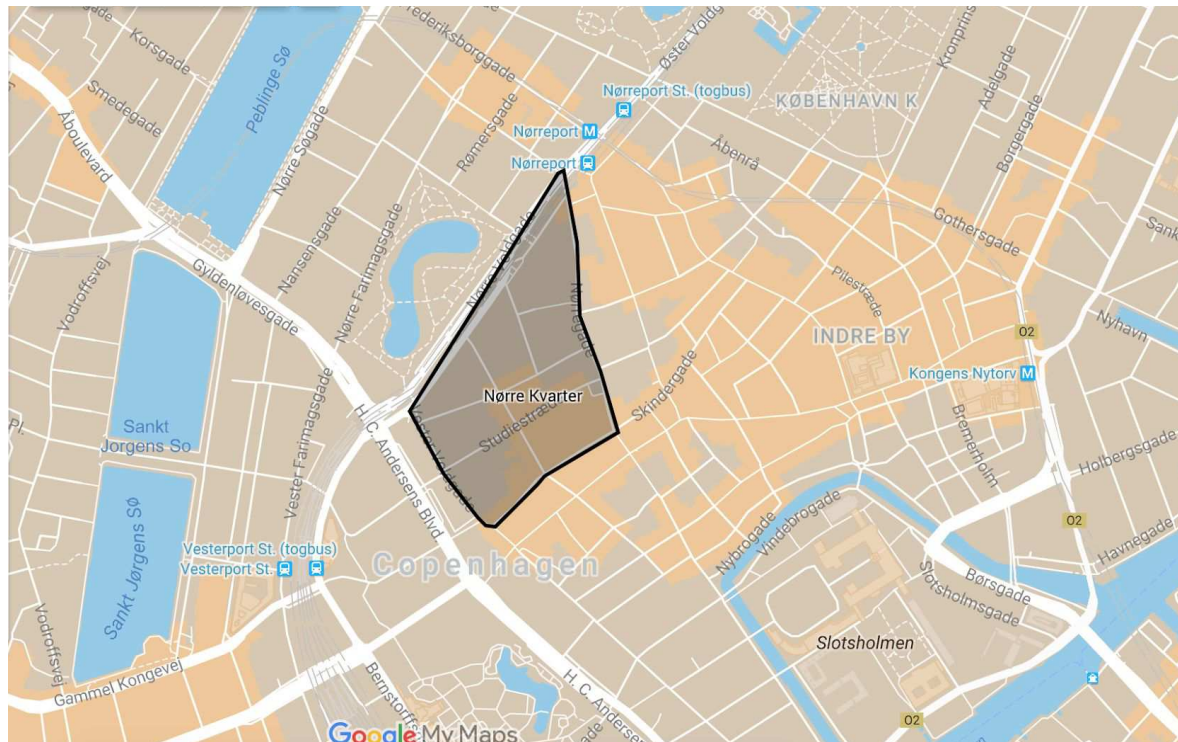
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NØRRE KVARTER

9

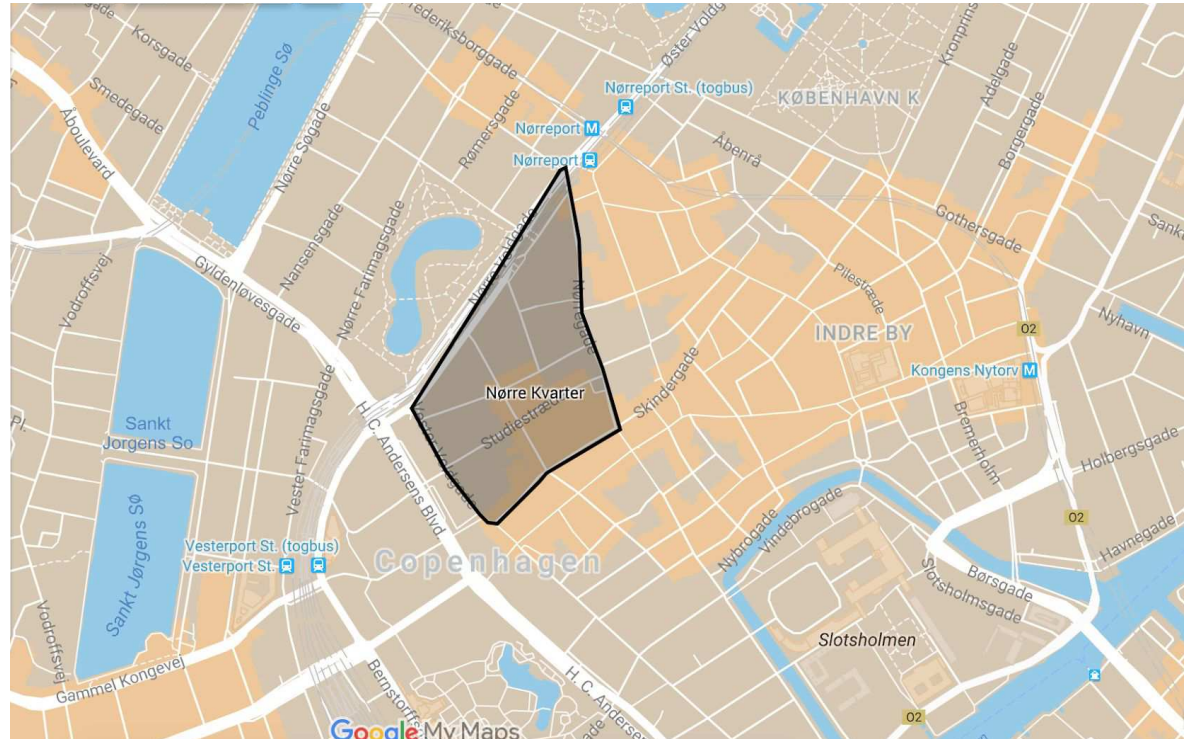
Streets



NØRRE KVARTER

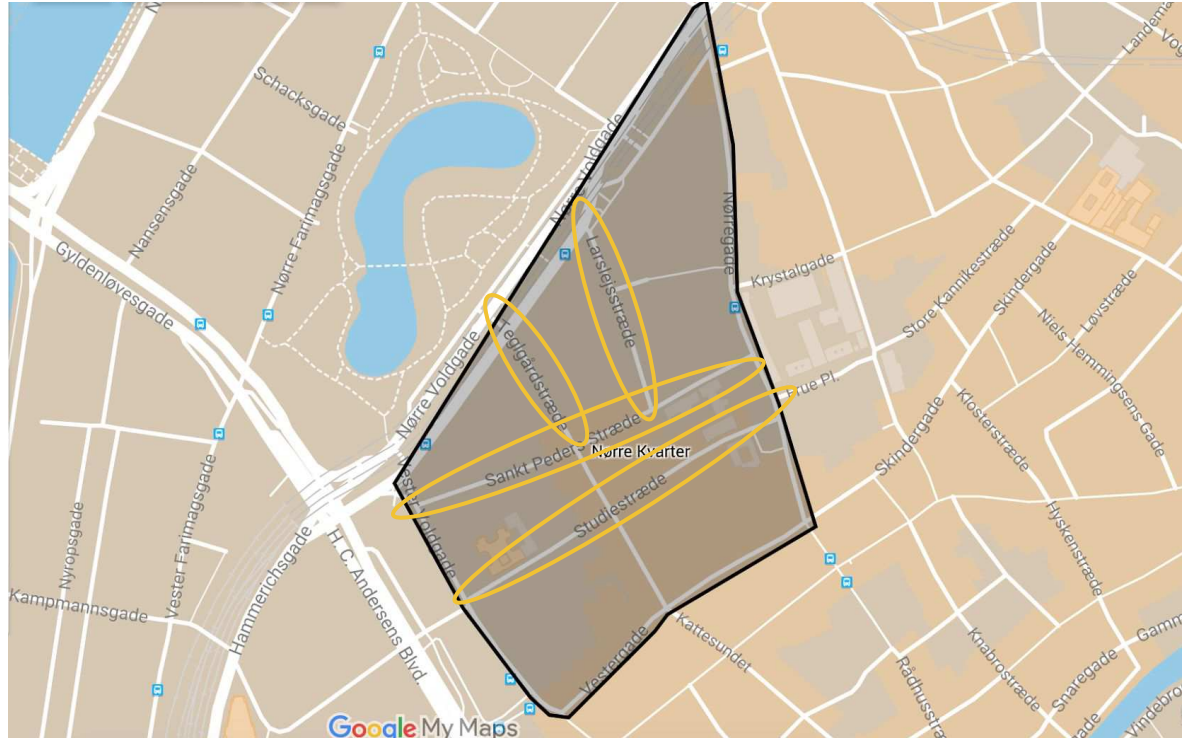
9

Streets

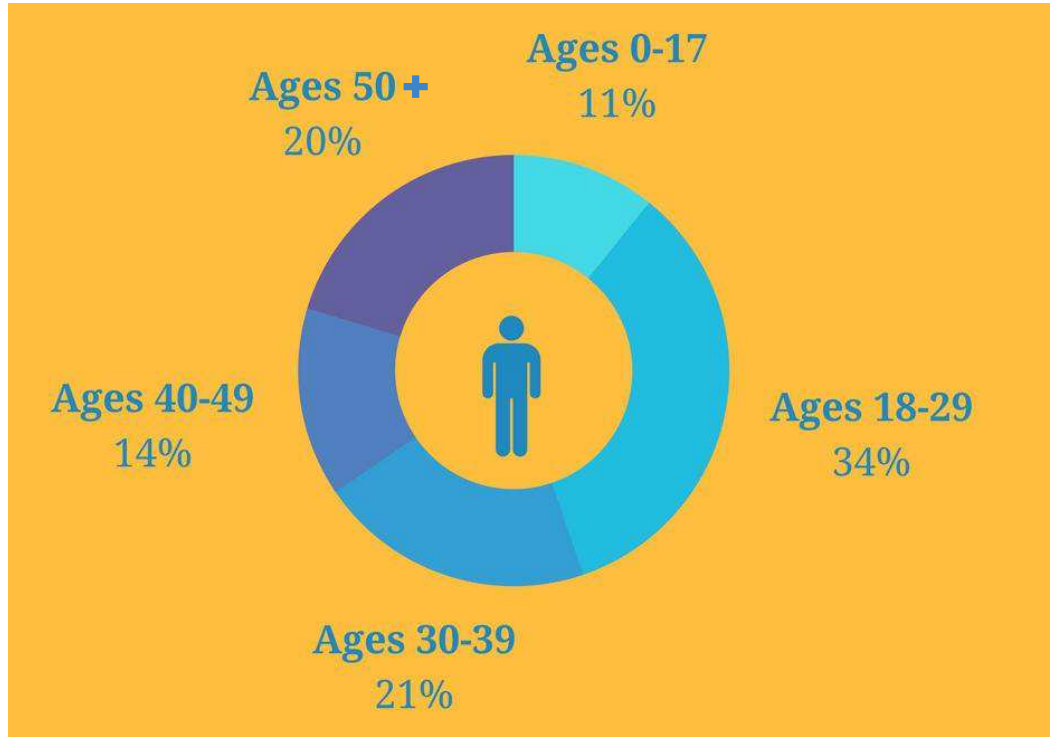


Studiestræde, Sankt Peders Stræde, Larslejsstræde, Nørregade, Larsbjørnstræde, Vester Voldgade, Gammeltorv, Teglgardstræde, and Larsbjornsstræde

1,220
Residents

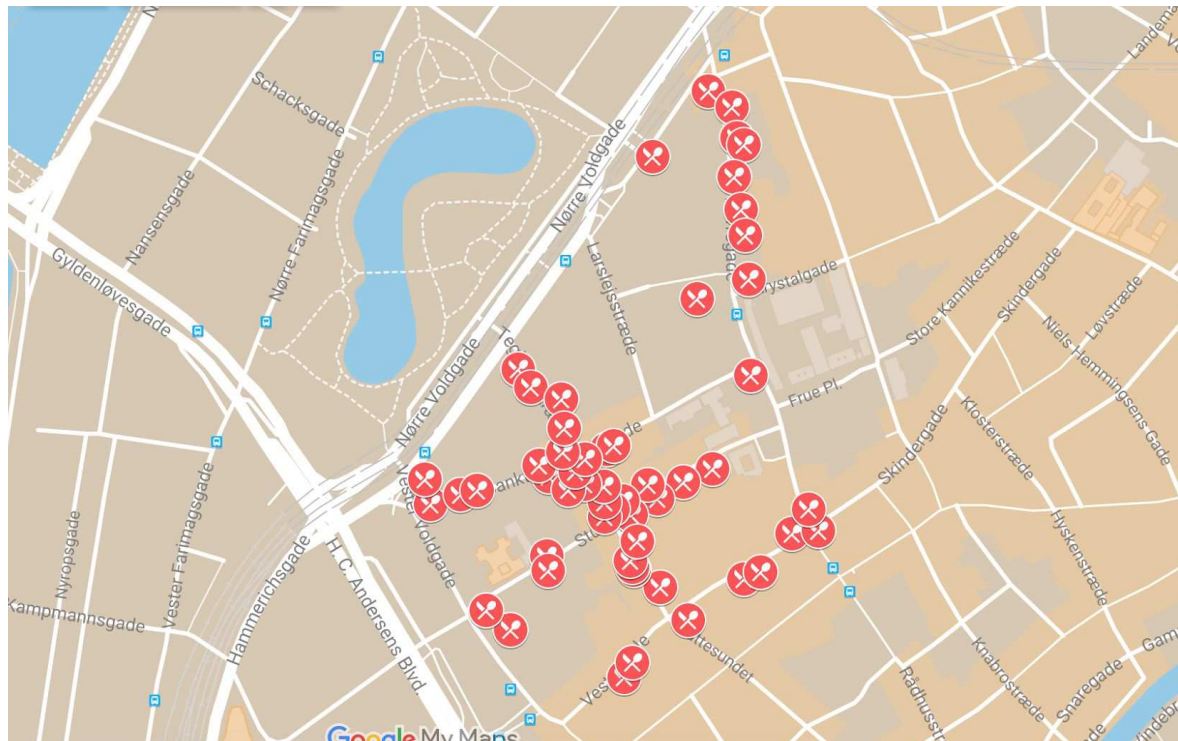


1,220
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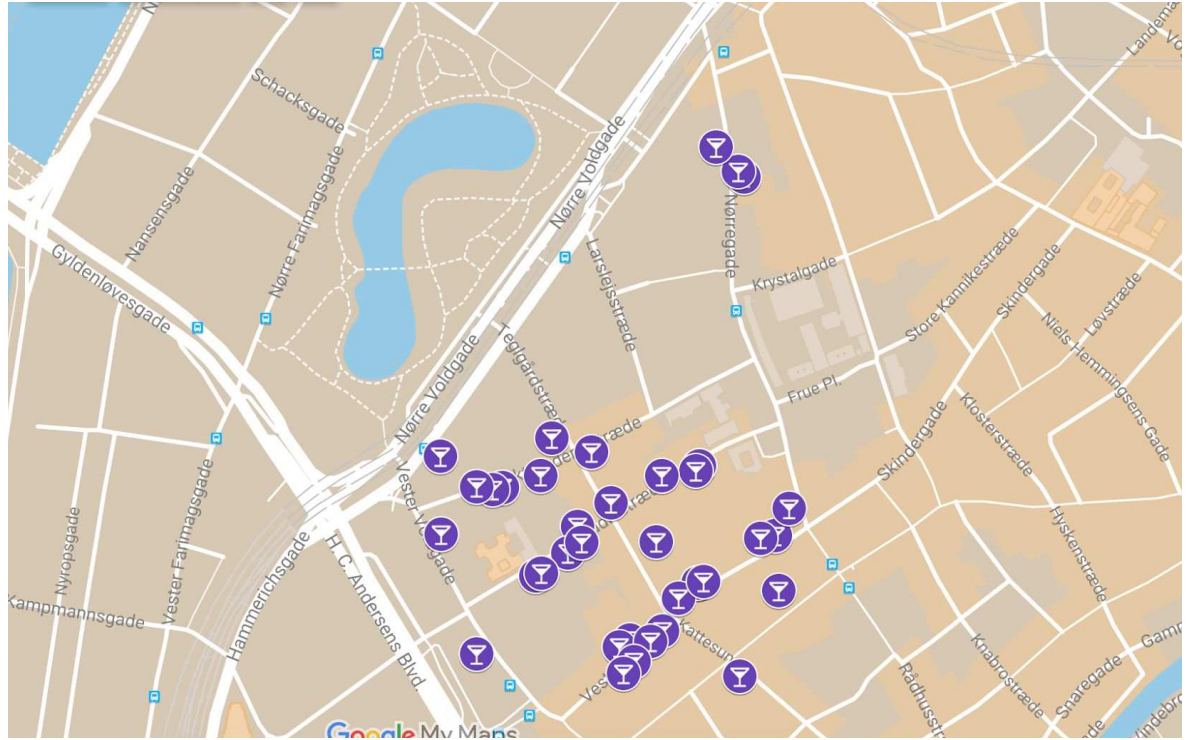
55 +

Restaurants



37 +

Bars &
Clubs

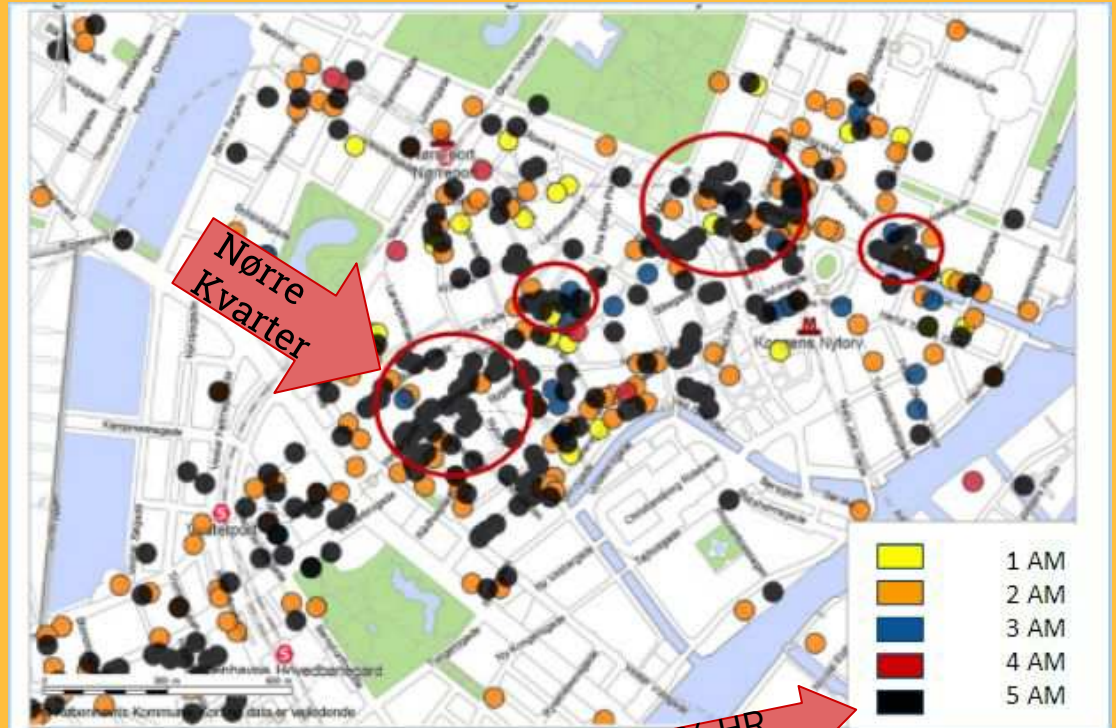


NØRRE KVARTER HAS TOO MANY 5AM ALCOHOL PERMITS

25- 5AM permits

Some serve past 5AM

Quantity and closing
times- main attractions





MILJØPUNKT

AGENDA 21 · FOR ET BÆREDYGTIGT KBH



INDRE BY
CHRISTIANSHAVN

As an **Agenda 21** organization,
Miljøpunkt wants to ensure
sustainable development in the city

An aerial night view of a city, likely Copenhagen, showing illuminated buildings, streets, and a prominent church spire on the right. A large teal circle is overlaid in the center, containing the text.

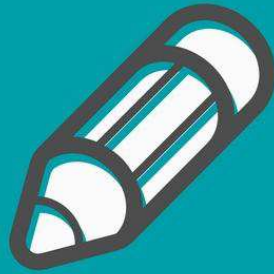
Mission Statement

The goal of this project is to help Miljøpunkt Indre By & Christianshavn to improve the quality of living at night by reducing noise and waste.



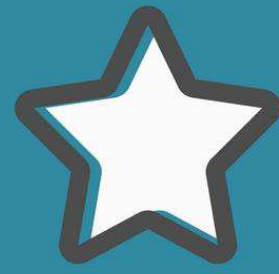
OBJECTIVE 1

ASSESS
existing data



OBJECTIVE 2

COLLECT
local opinions



OBJECTIVE 3

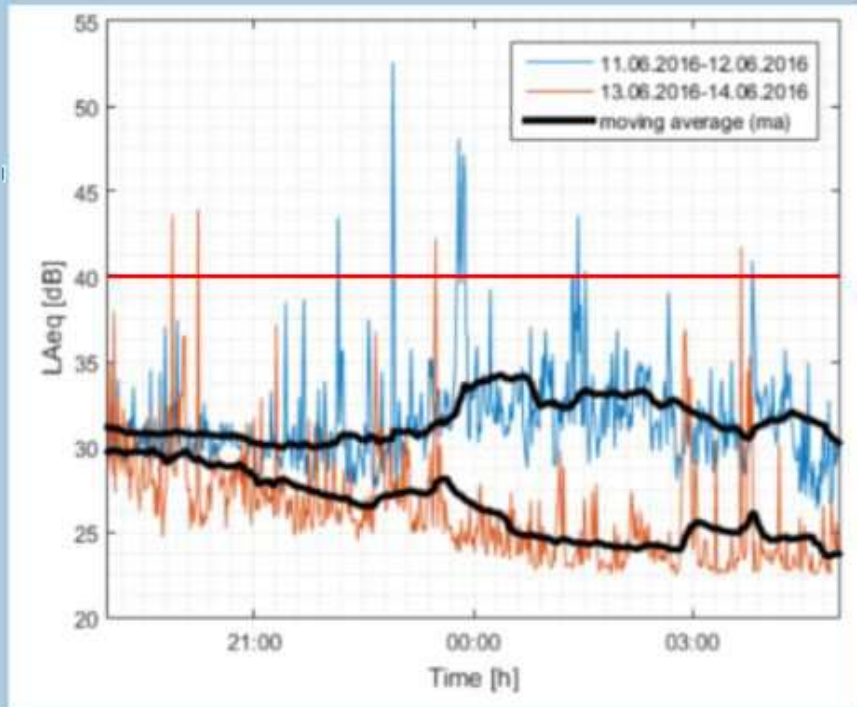
IDENTIFY
recommendations



OBJECTIVE 1

Assess the existing data of the
nightlife problem in Indre By

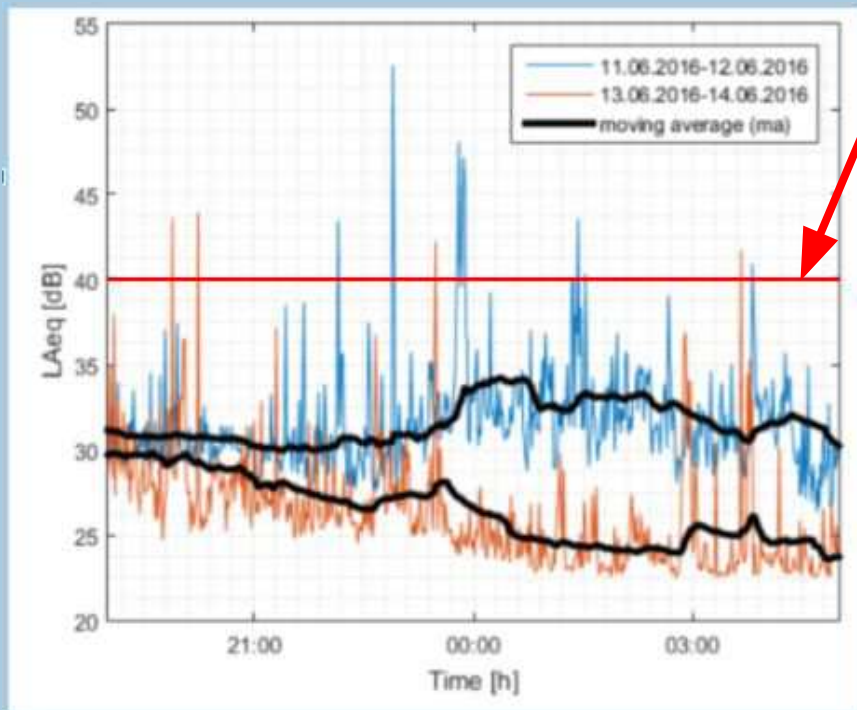
THE NOISE LEVELS EXCEEDED THE CITY'S THRESHOLD OF 40 DB



- With windows closed
- **Weekend: The threshold was exceeded 13 times**
- **Weekday: The threshold was exceeded 4 times**

(Nocturnal noise exposure in Studiestræde, Copenhagen)

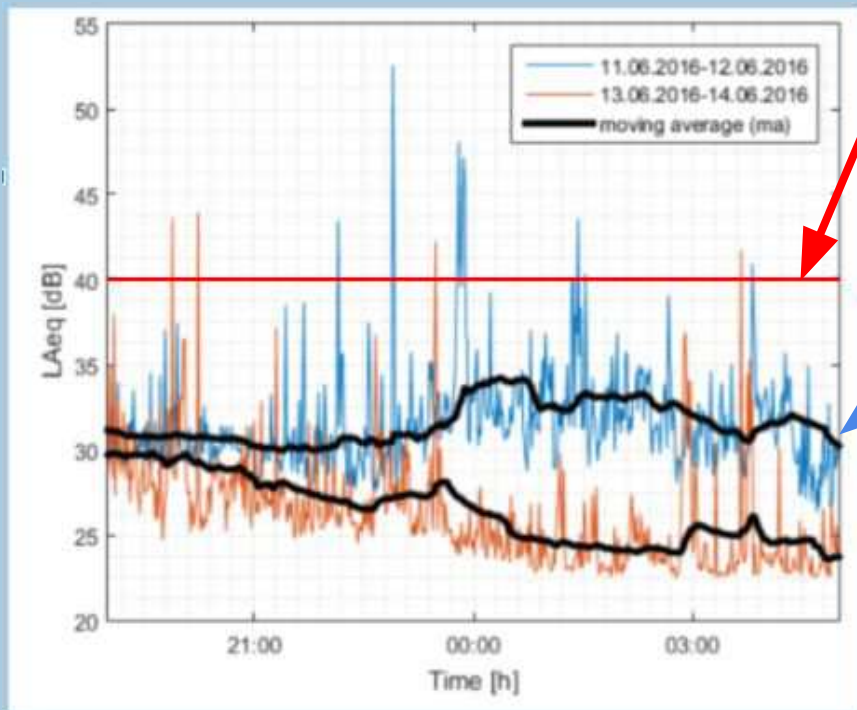
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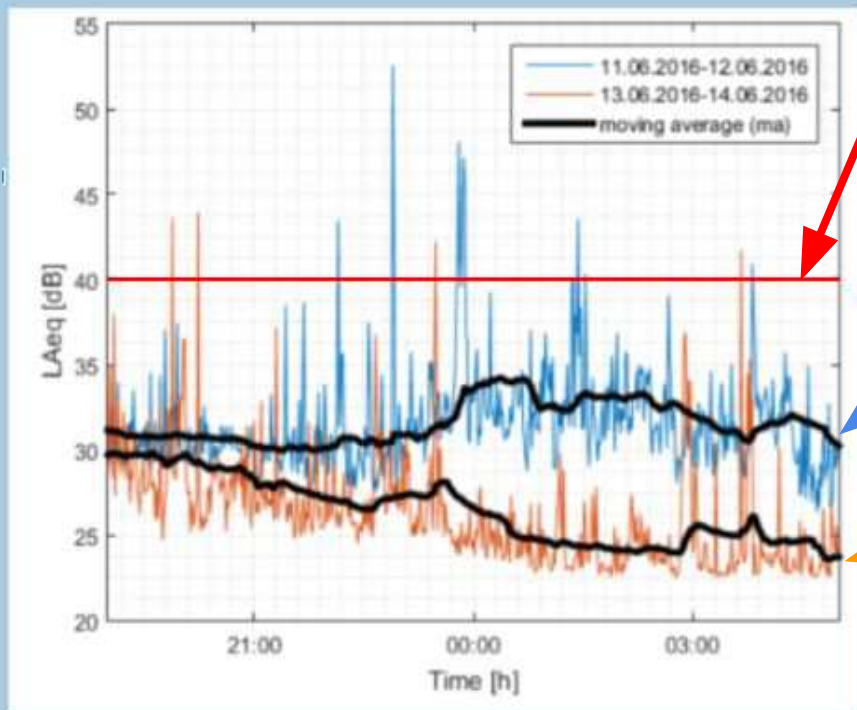
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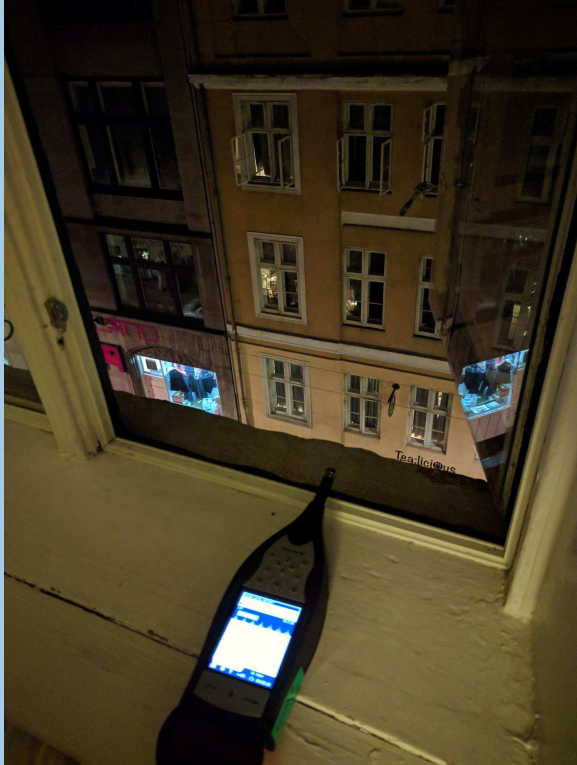
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OUTSIDE NOISE CONSISTENTLY EXCEEDS 40 DB



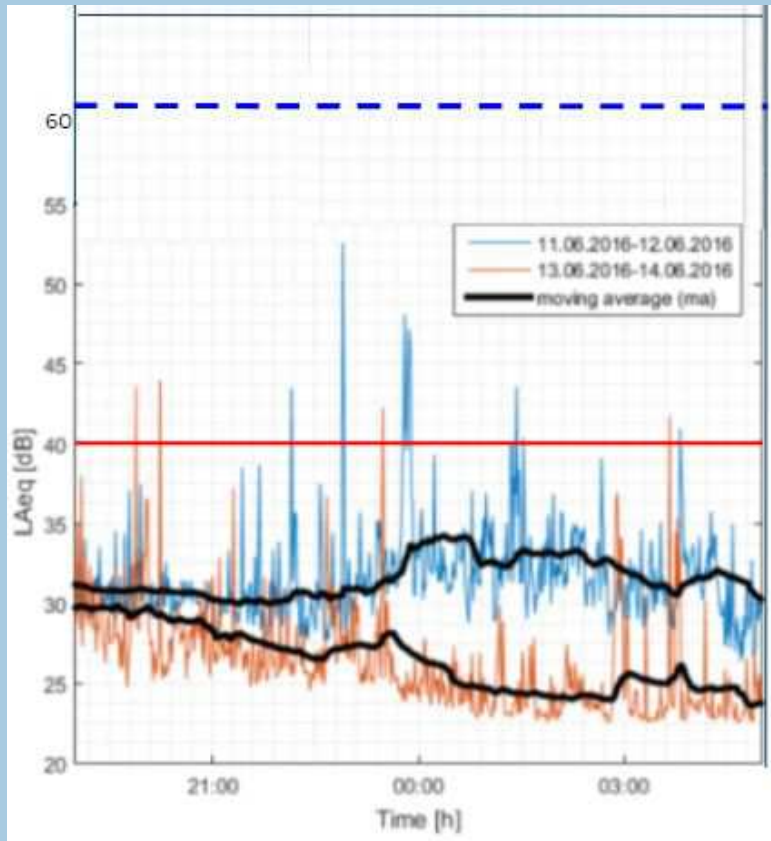
Friday Night

Start Time	Stop Time	Elapsed Time	LAeq [dB]	LCpeak [dB]
9/2/2017 12:07:03 AM	9/2/2017 5:07:03 AM	05:00:00	61.0	114.4

Saturday Night

Start Time	Stop Time	Elapsed Time	LAeq [dB]	LCpeak [dB]
9/3/2017 12:03:52 AM	9/3/2017 5:03:52 AM	05:00:00	64.8	109.2

OUTSIDE NOISE CONSISTENTLY EXCEEDS 40 DB



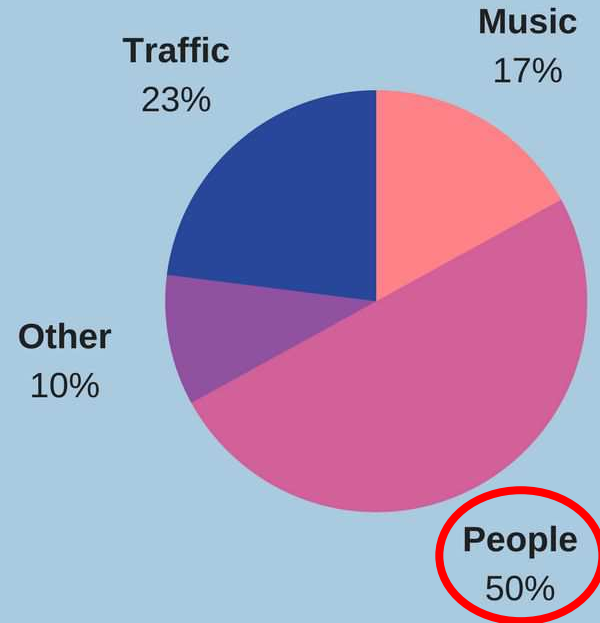
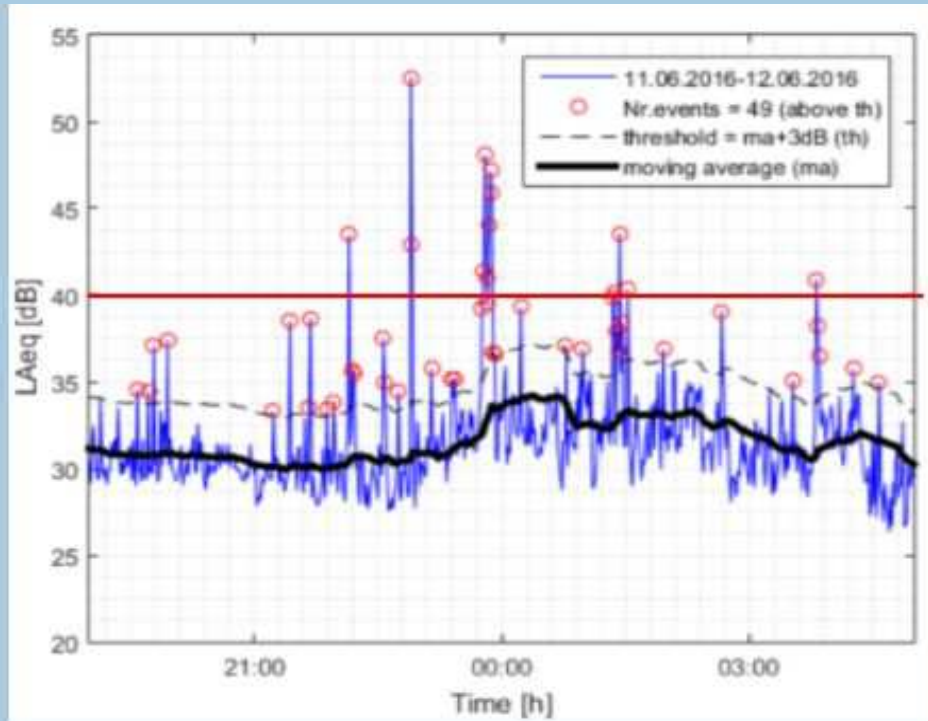
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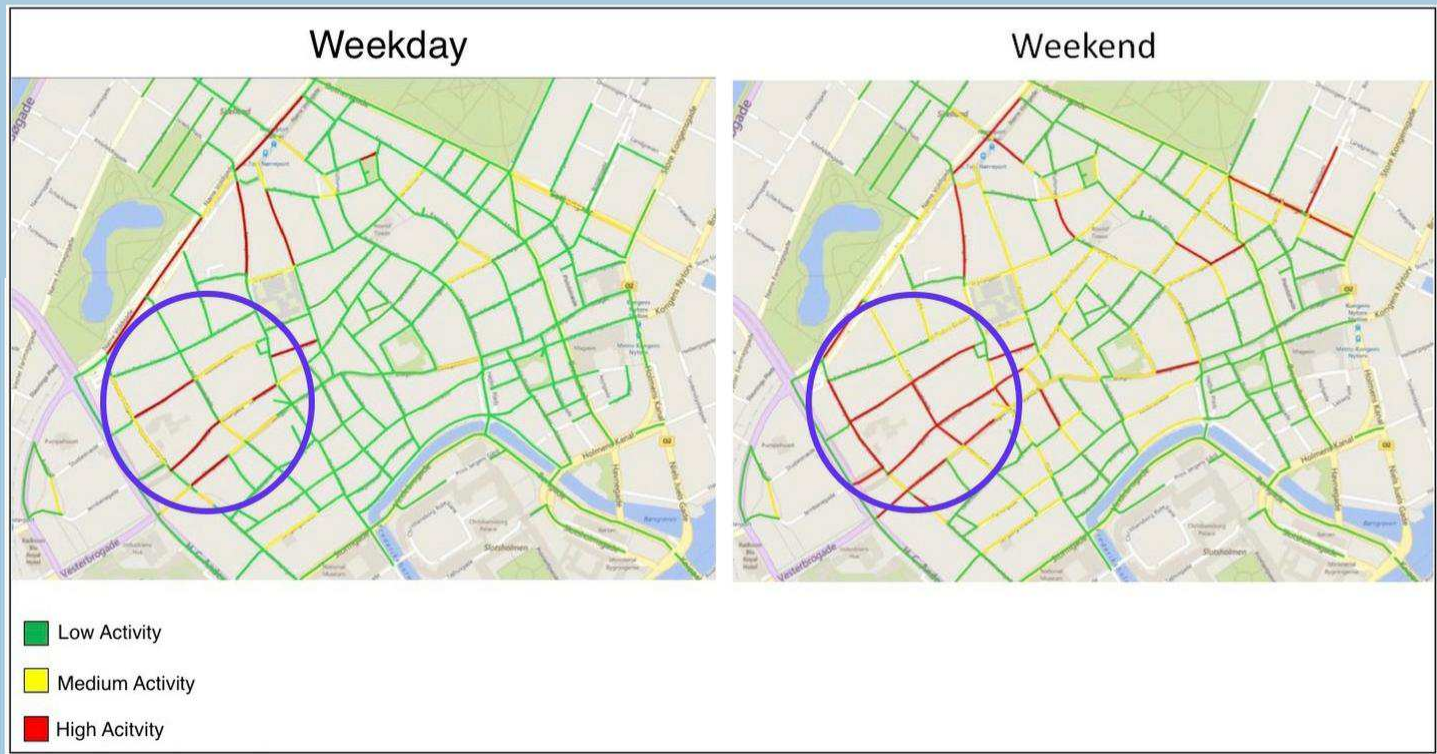
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PEOPLE PRODUCE THE MOST NOISE



(Nocturnal noise exposure in Studiestræde, Copenhagen)

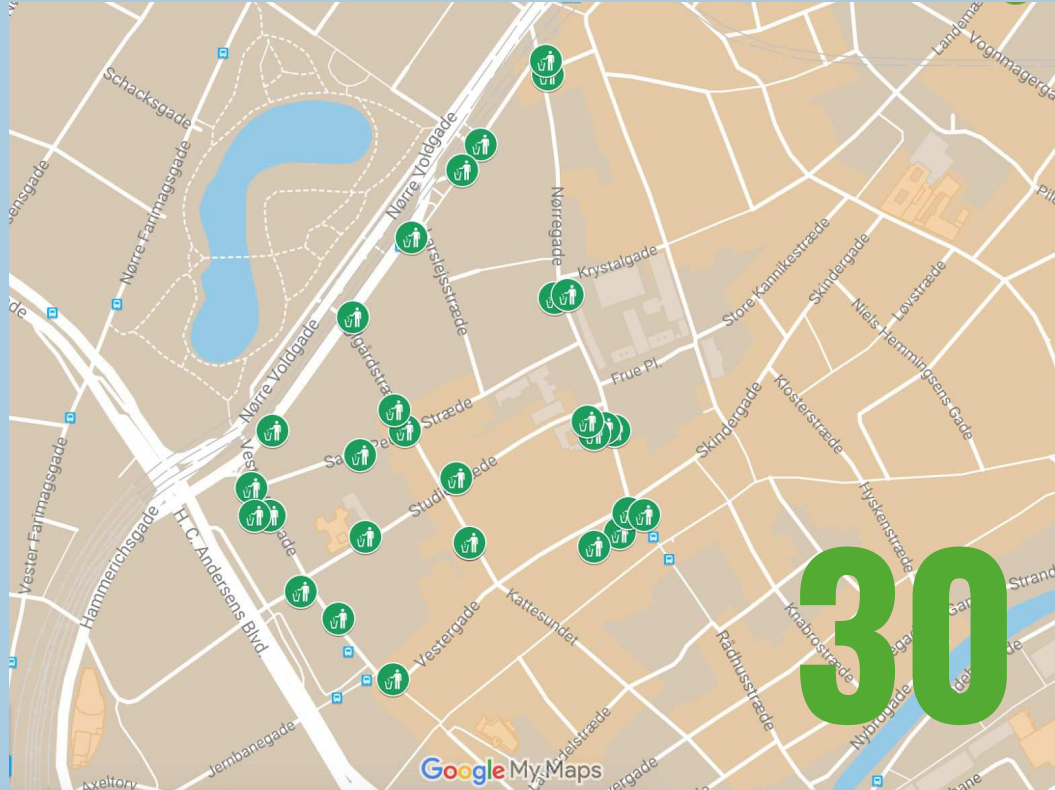
THE AMOUNT OF TRASH RISES ON THE WEEKEND

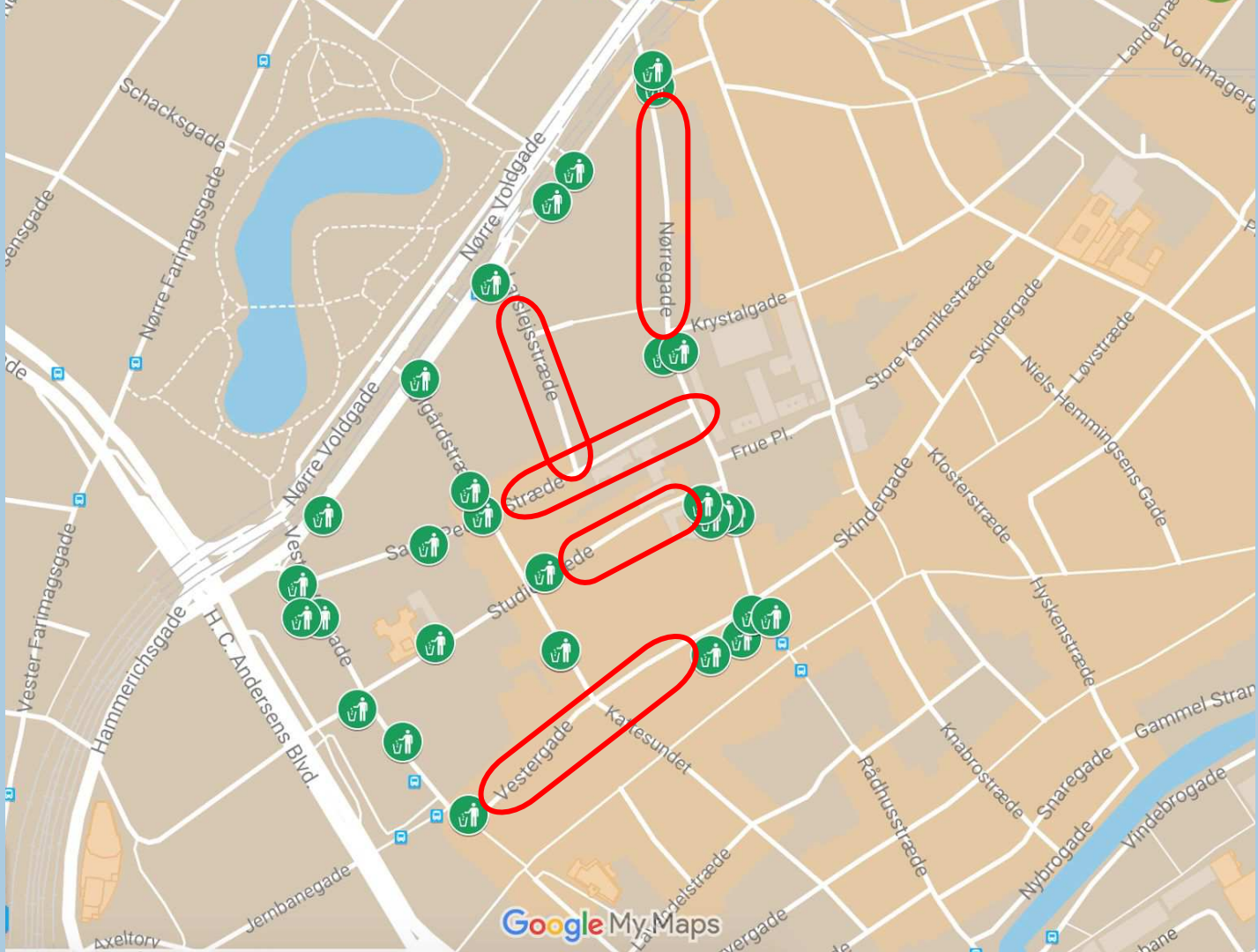


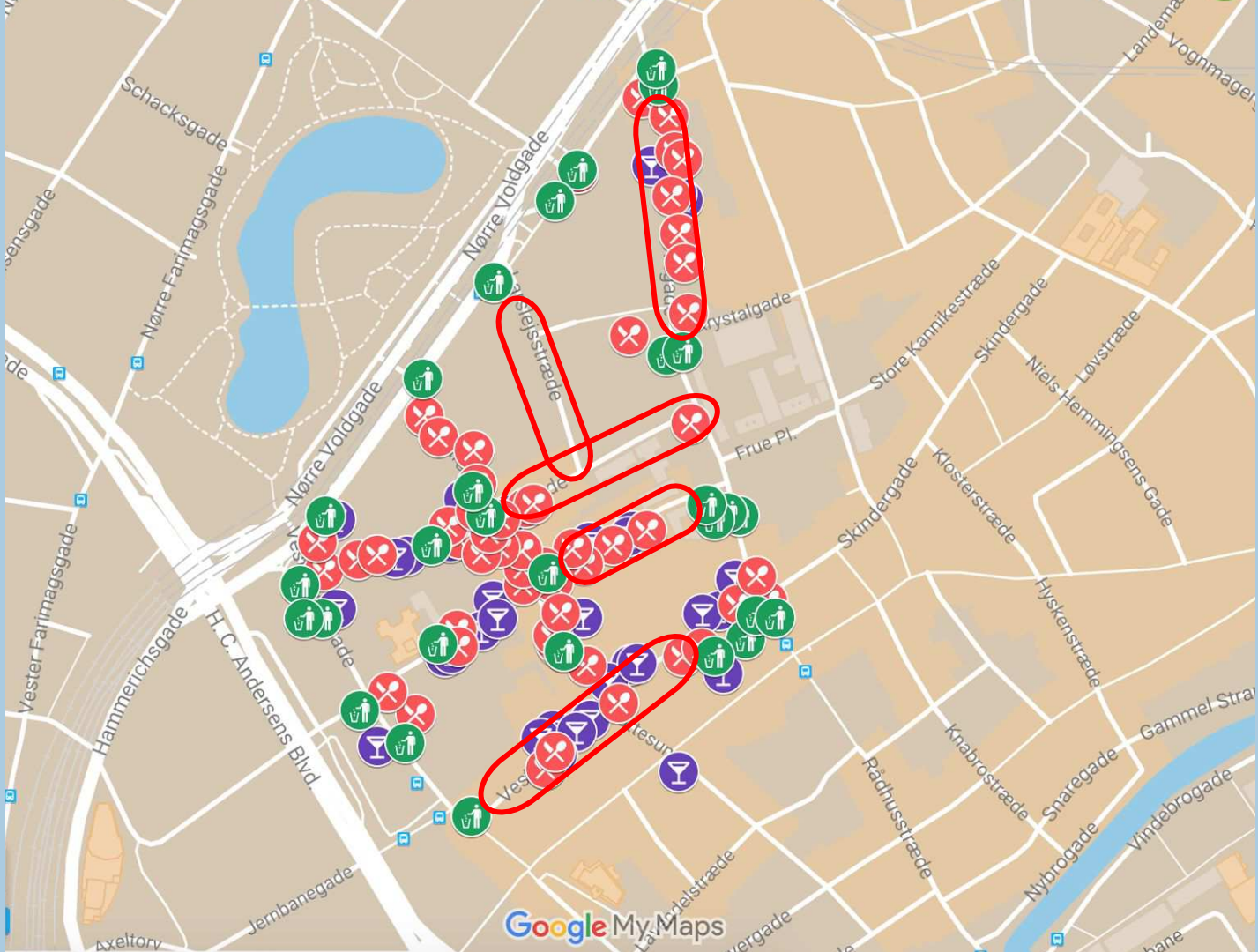
TRASH CANS CANNOT HOLD THE AMOUNT OF WASTE PRODUCED

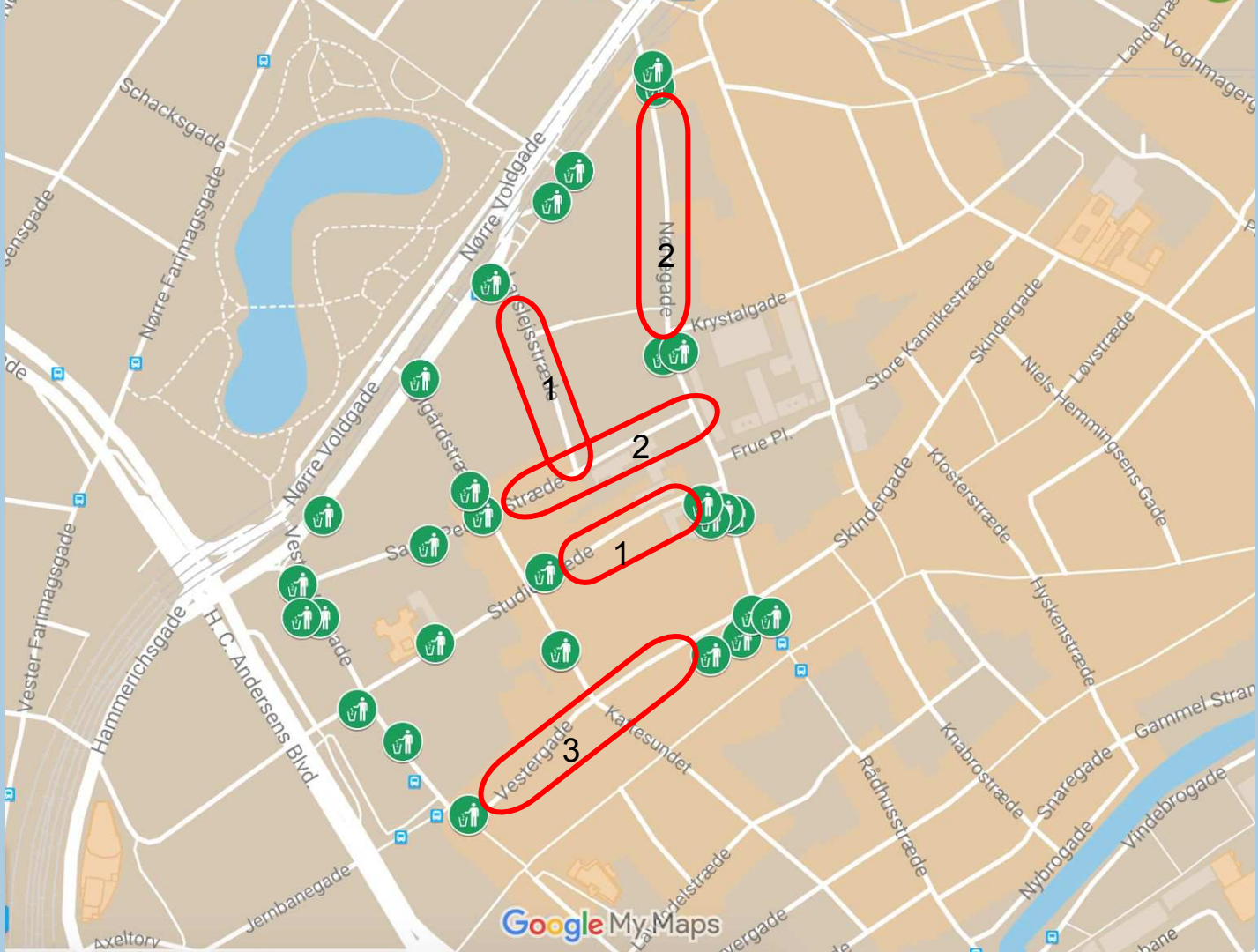


SOME STREETS HAVE INSUFFICIENT TRASH CANS

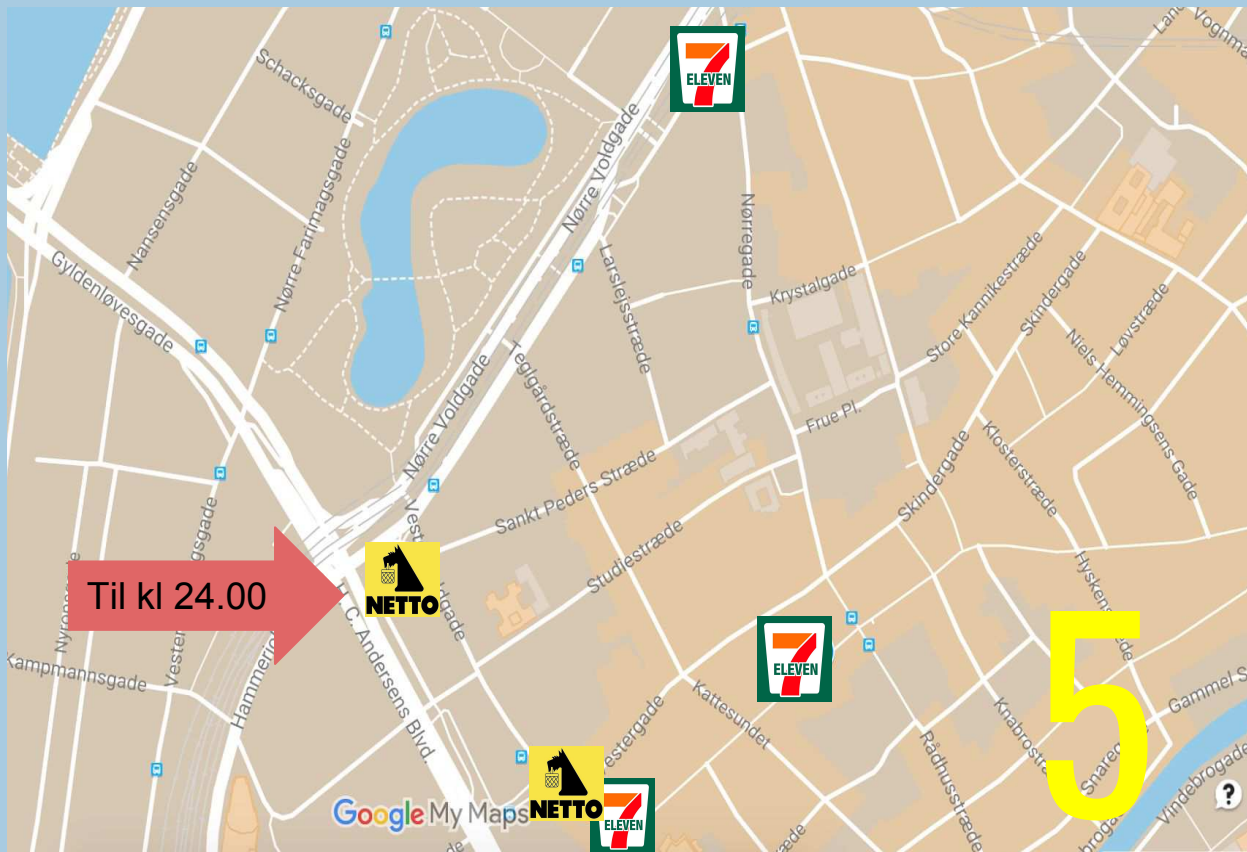


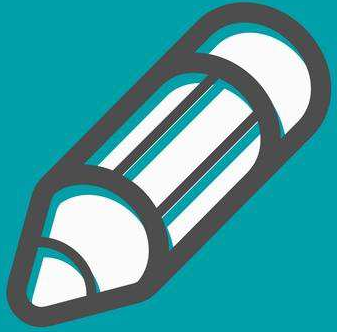






24HR STORES FUEL THE NIGHTLIFE





OBJECTIVE 2

Collect the **opinions** of the impacts of
nightlife on the local community

Interviews



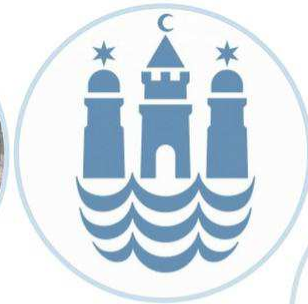
Residents

(5)

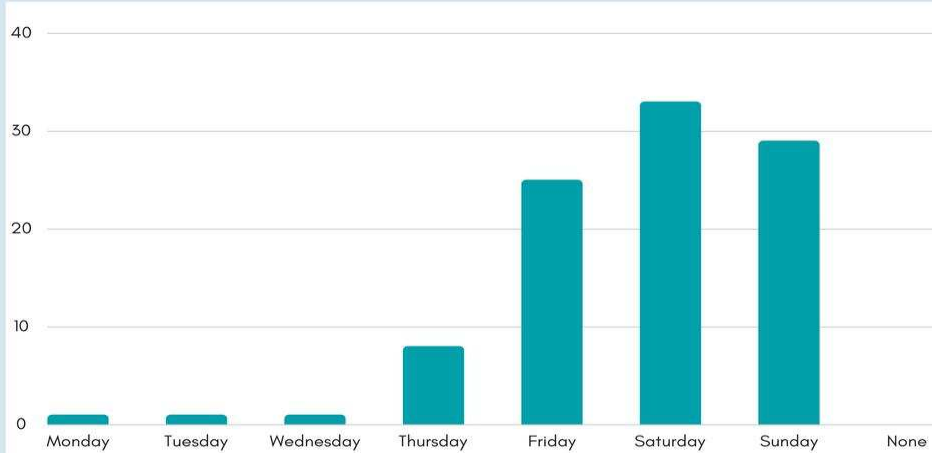
Have to cleanup
themselves in morning

Feel ignored by police

Taking legal action



Surveying the Residents Confirmed Our Observations

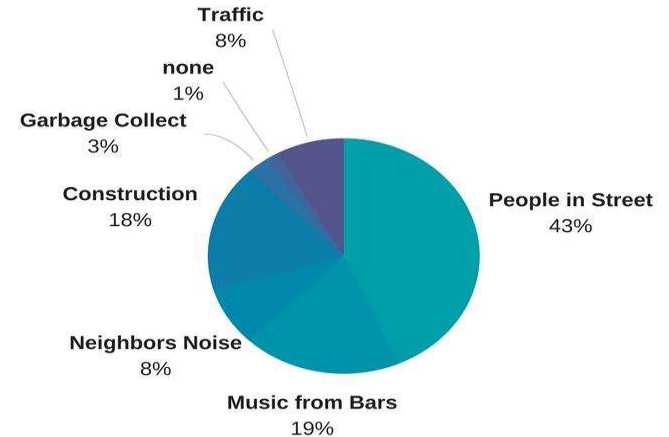


WASTE

WHAT DAYS HAVE YOU NOTICED THE MOST
WASTE ON THE STREETS?

NOISE

WHAT TYPE OF NOISE ANNOYS YOU THE
MOST?



Festival Researcher

Thomas Burø

**Largest Festival in
Northern Europe**

Organize large crowds

**Roudest group is
Gymnasium (age 16-18)**



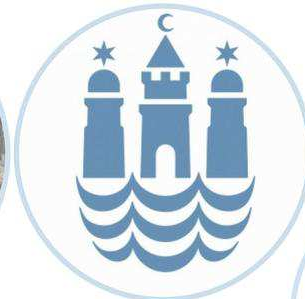
Bar Employees

(5)

Active observers of the
nightlife

In charge of controlling
patrons

Some wear uniforms



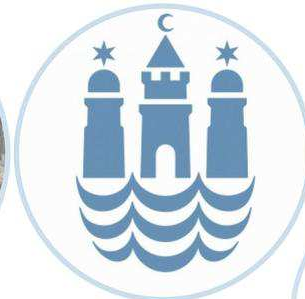
Youth

(6)

Drawn by cheap drinks

Nørre Kvarter is popular

Only half know there are residents



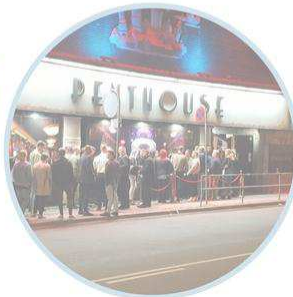
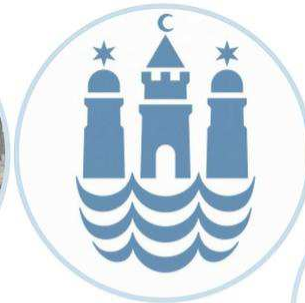
Noise Guard

Jesper Hansen

Official Organization

Environmental
Administration of
Copenhagen

Cannot regulate people
on streets



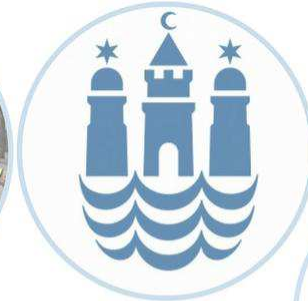
Noise Group

(11)

Citizen network to find solutions

We learned their previous efforts

They would like to be included in decisions



Police

Jacob Vilner

**Deputy Chief
Superintendent of local
Police**

Safe Nightlife Initiative

8 officers

**Prioritize terrorism and
gangs**



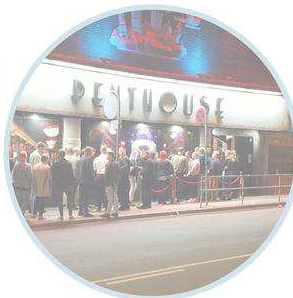
Municipality

Martin Gyldstrand

**Special Consultant for the
Culture and Leisure
Administration**

Municipality's solutions

**The importance of health
impacts**



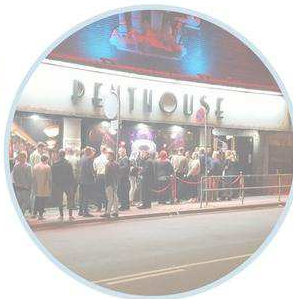
Gymnasium Director

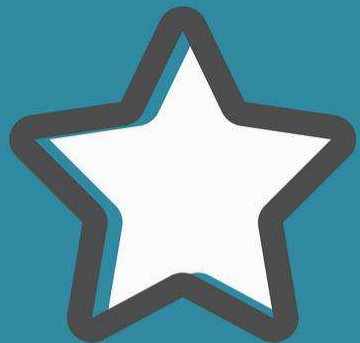
Allan Andersen

Ørestad Gymnasium

Gymnasiums role in youth
drinking

Events without alcohol





OBJECTIVE 3

Identify recommendations for
Miljøpunkt to reduce noise and
waste at night

Resident representation

raise alcohol prices

sound reducing cement

Raise alcohol purchasing age

urine repelent

Bigger trash cans

political demonstration

more trash cans

Portable Urinals

Fines for noise

play classical music

Responsibility Campaign

soundproofing windows

universal closing time

Electric street cleaners

regulate retail sale of alcohol

campaign to parents

Fines for trash

Nightlife events in parks

hand out

High School Campaign

lollipops

Restrict car traffic on streets

Redistribution of bars

Event

reorganize cleaning schedule

Night mayor

RESIDENTS NARROWED DOWN RECOMMENDATIONS



RESIDENTS NARROWED DOWN RECOMMENDATIONS



Resident representation

Raise alcohol purchasing age

Bigger trash cans

Fines for noise

Responsibility Campaign

Electric street cleaners

regulate retail sale of alcohol

Fines for trash

High School Campaign

Redistribution of bars

Event

Night mayor



Met with Martin Gylstrand

**Limitations of the
Municipality**

**Helped refine
recommendations**



Resident representation

Bigger trash cans

Fines for noise

Responsibility Campaign

Fines for trash

Redistribution of bars

Event

The Good Night Plan

CAMPAIGN

REGULATIONS

ENFORCEMENT



The Good Night Plan

CAMPAIGN

The Good Night Plan

CAMPAIGN



- Organize an awareness event outside city hall
 - November elections have politicians listening

The Good Night Plan

CAMPAIGN



- Organize an awareness event outside city hall
 - November elections have politicians listening
- Add residential representation on alcohol license board
 - Fully representative of residents

The Good Night Plan

CAMPAIGN



- Organize an awareness event outside city hall
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- **Raise awareness about health risks associated with excessive nighttime noise**

The Good Night Plan

CAMPAIGN



- Organize an awareness event outside city hall
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- Add residential representation on alcohol license board
 - Fully representative of residents
- Raise awareness about health risks associated with excessive nighttime noise
- Promote educational campaigns in gymnasiums
 - Parent supervision
 - Events without alcohol

The Good Night Plan

CAMPAIGN

REGULATIONS



The Good Night Plan

REGULATIONS



- Collect trash more **often**

The Good Night Plan

REGULATIONS



- Collect trash more **often**
- Introduce **bigger** trash cans

The Good Night Plan

REGULATIONS



- Collect trash more **often**
- Introduce **bigger** trash cans
- Require **uniformed security** for bars

The Good Night Plan

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The Good Night Plan

REGULATIONS



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- Require **uniformed security** for bars
- Give **fin**es for **noise/waste**
- **Regulate** the sale of retail alcohol

The Good Night Plan

REGULATIONS



- Collect trash more **often**
- Introduce **bigger** trash cans
- Require **uniformed security** for bars
- Give **fin**es for **noise/waste**
- **Regulate** the sale of retail alcohol
- **Raise age** to purchase alcohol in stores
- Institute a **universal** closing time

The Good Night Plan

CAMPAIGN

REGULATIONS

ENFORCEMENT



The Good Night Plan

ENFORCEMENT



- Implement **night patrol** to control noise and waste
 - Tell people to quiet down
 - Crowd control
 - Police mandated or part of another authority figure

The Good Night Plan

ENFORCEMENT



- Implement **night patrol** to control noise and waste
 - Tell people to quiet down
 - Crowd control
 - Police mandated or part of another authority figure
- Promote **self regulations** of bars
 - Tax deductions
 - Universal fine for complaints to promote collective governance

“Nightlife should be more than drinking, it should be able to bring out the liveliness of the city without hindering the lives of residents.”



Acknowledgements

- **Marianne Spang & Miljøpunkt Indre By-Christianshavn**
- **Fabio Carrera and Hugh Lauer**
- **Martin Glydstrand**
- **Noise Group**
- **Interviewees**



The Good Night Plan



CAMPAIGN

- Organize an awareness event outside city hall
 - November elections have politicians listening
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 - Fully representative of residents
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ENFORCEMENT

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