



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**

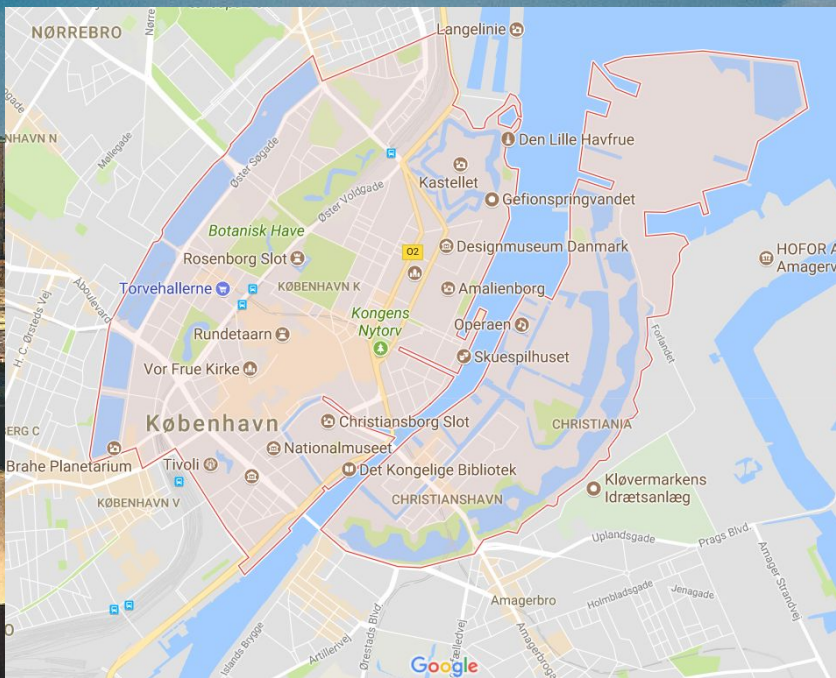
Copenhagen is celebrated for its  
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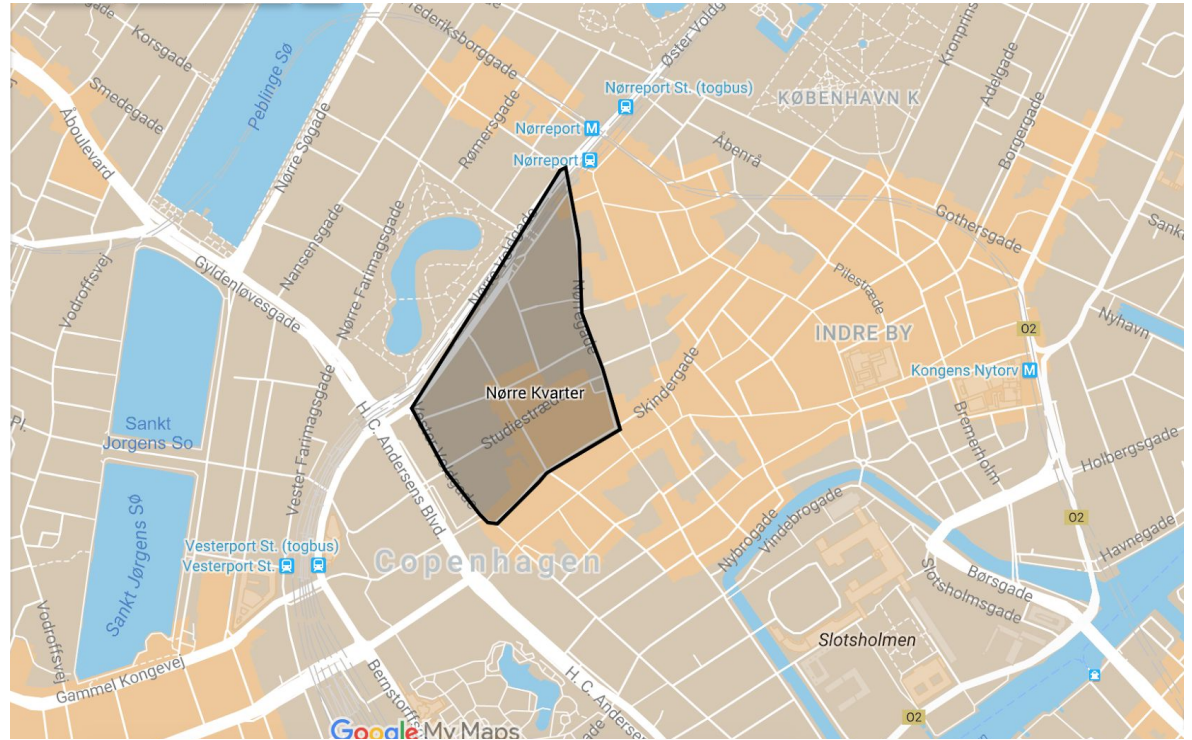
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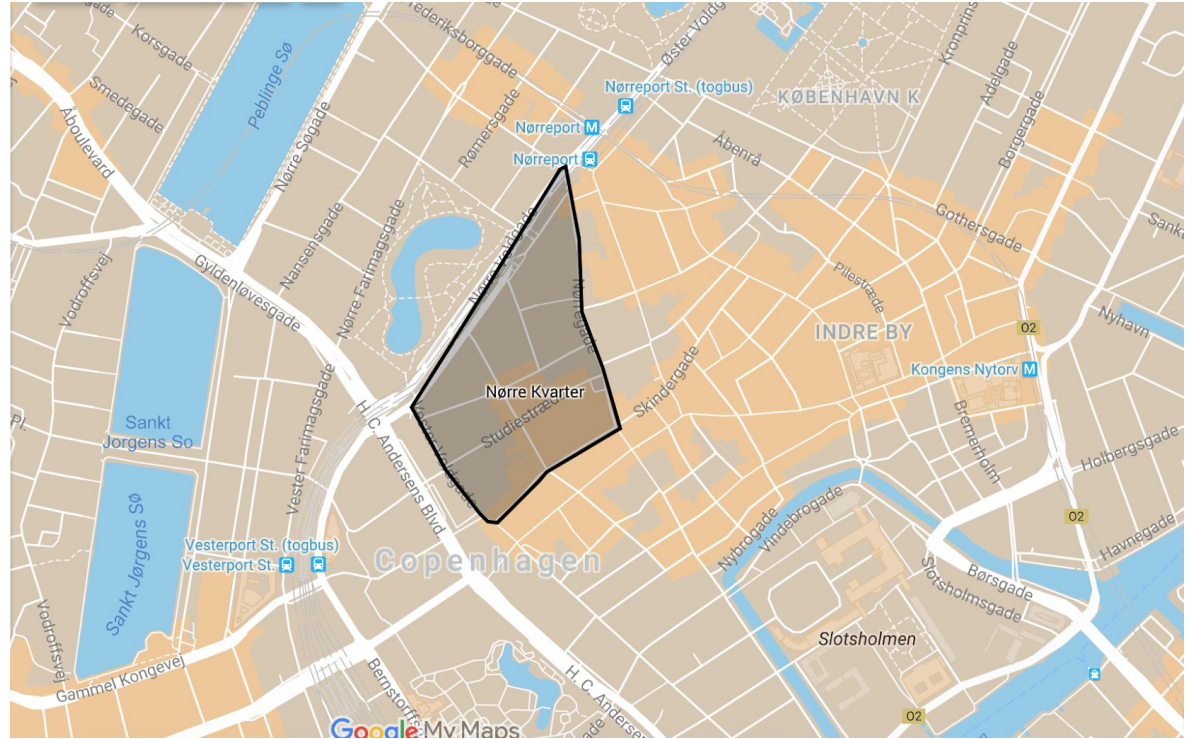
# NØRRE KVARTER

# 9 Streets



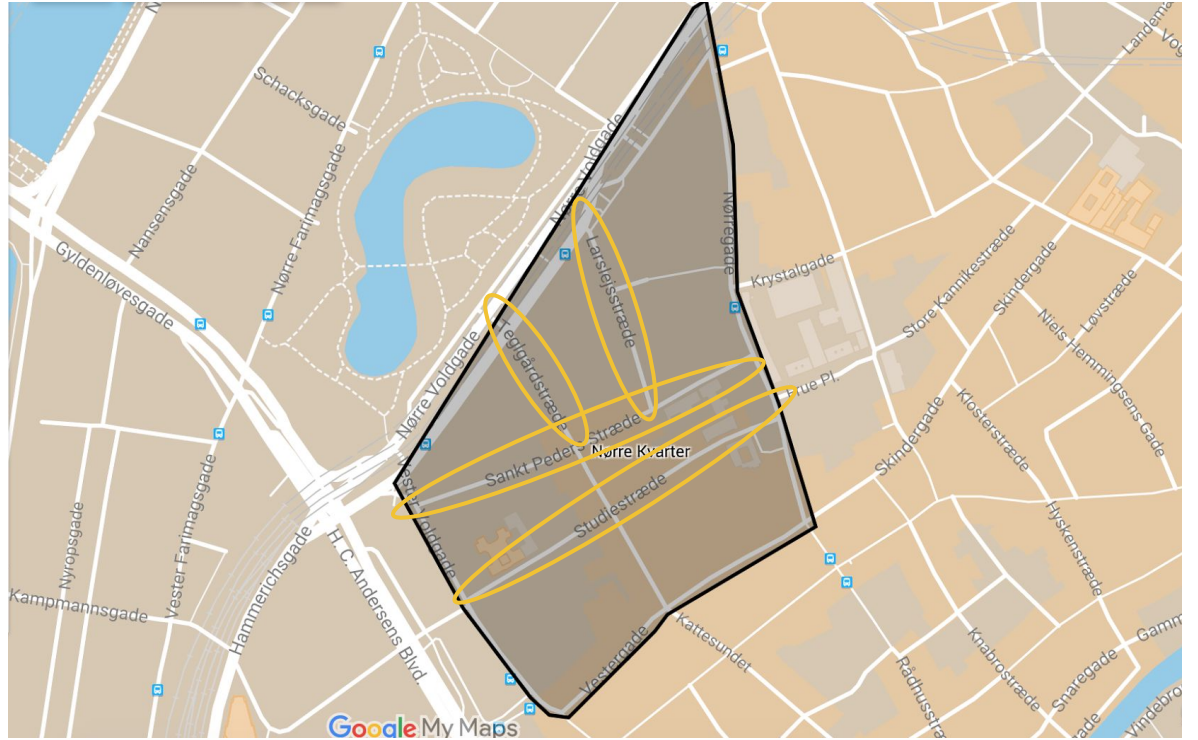
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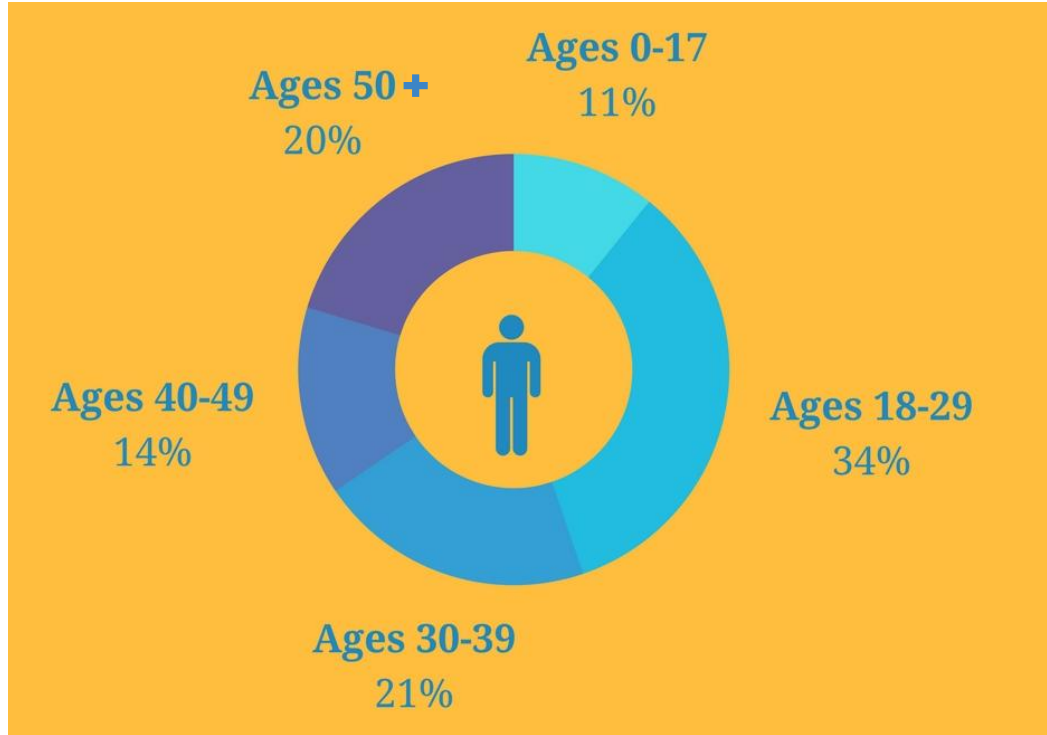


Stuðiestræde, Sankt Peders Stræde, Larslejsstræde, Nørregade, Larsbjørnstræde, Vester Voldgade, Gammeltorv, Teglgardstræde, and Larsbjornsstræde

1,220  
Residents

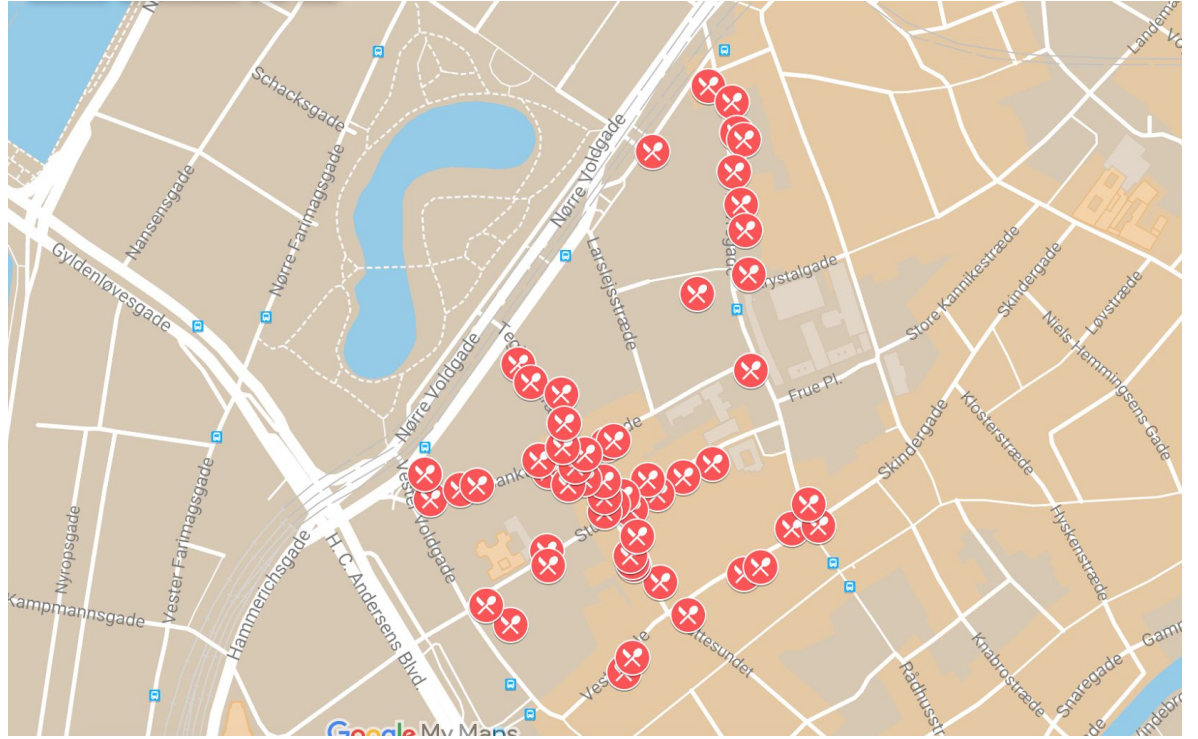


**1,220**  
**Residents**



55 +

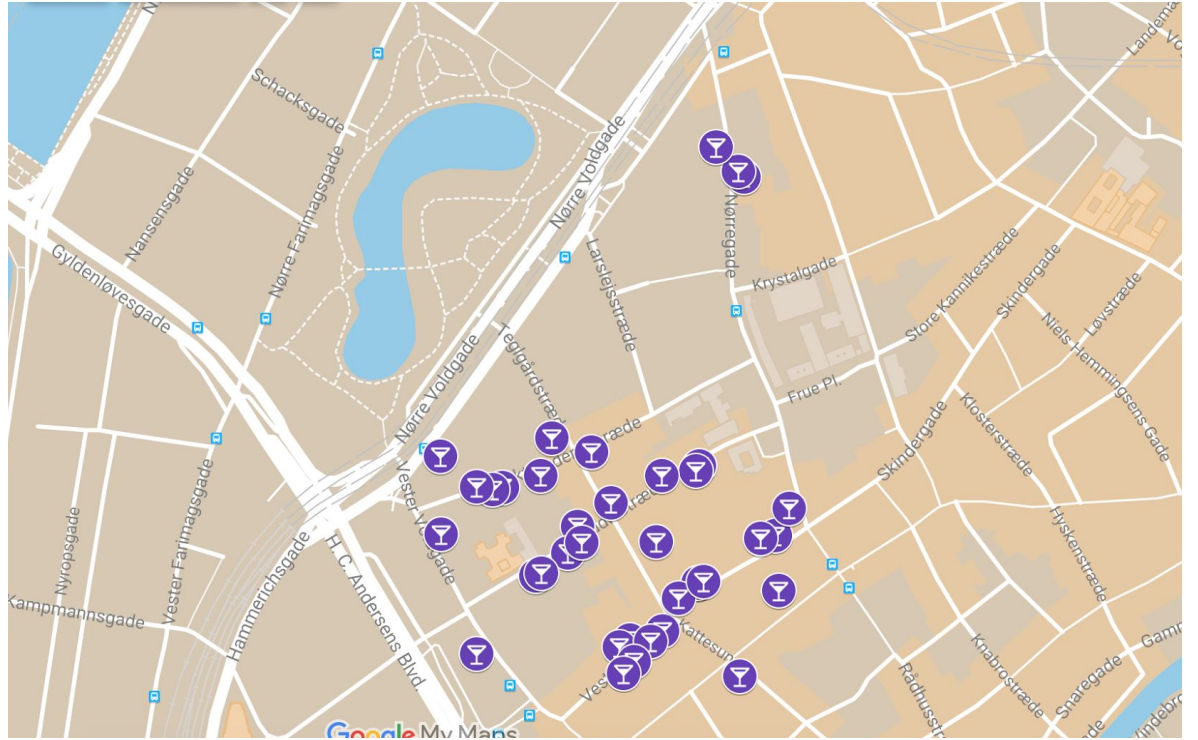
Restaurants





37 +

Bars &  
Clubs

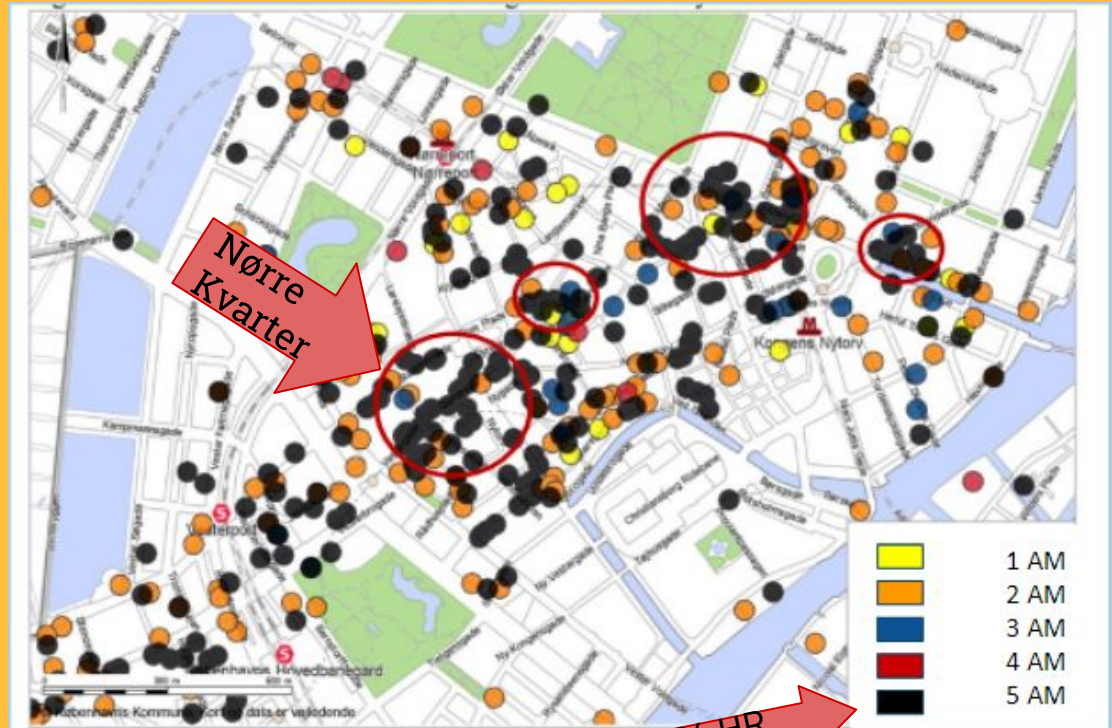


# NØRRE KVARTER HAS TOO MANY 5AM ALCOHOL PERMITS

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 and streets. A large teal circle is overlaid on the center of the image, containing the text. The city lights are visible in the background, including a prominent building with a clock tower on the right side.

# Mission Statement

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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

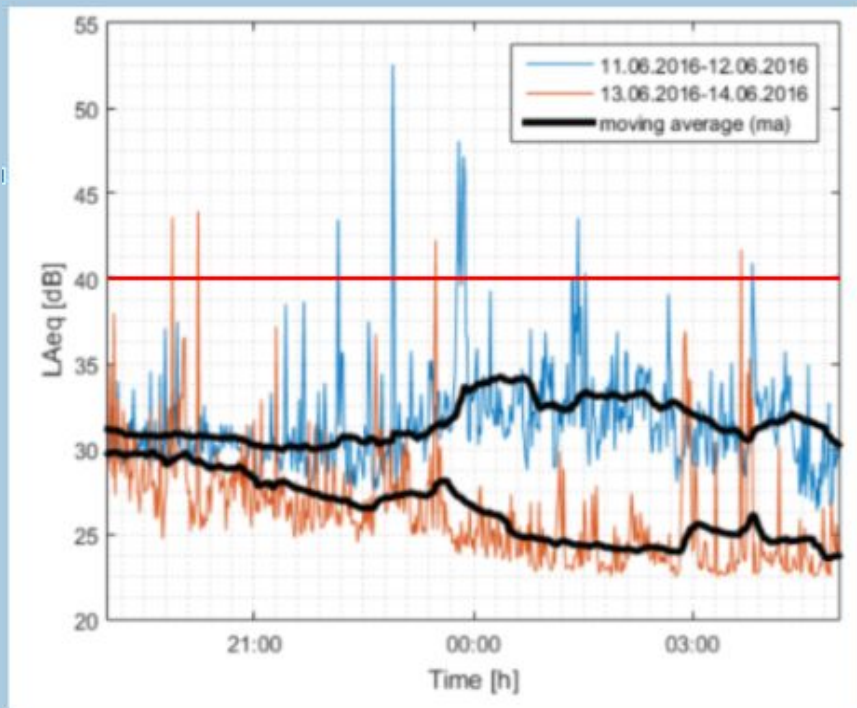
**IDENTIFY**  
recommendations



# OBJECTIVE 1

**Assess** the existing data of the  
nightlife problem in Indre By

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

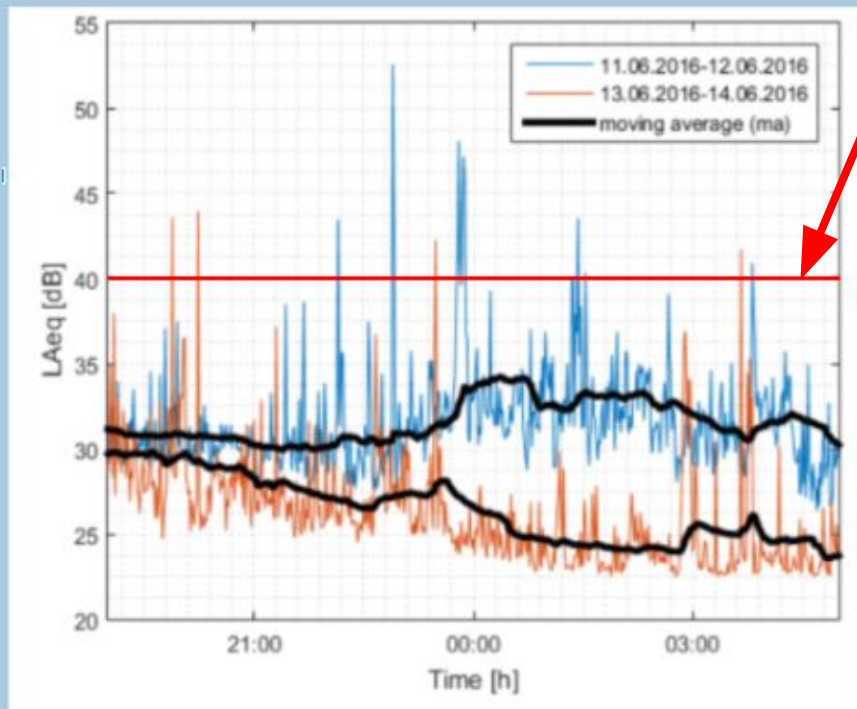


- With windows closed
- **Weekend: The threshold was exceeded 13 times**
- **Weekday: The threshold was exceeded 4 times**

*(Nocturnal noise exposure in Studiestræde, Copenhagen)*



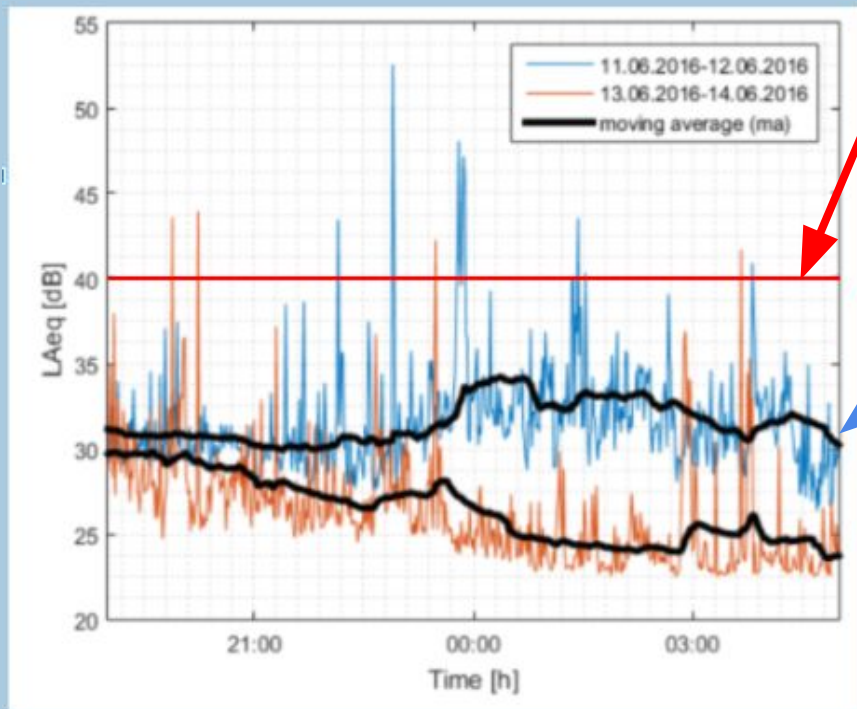
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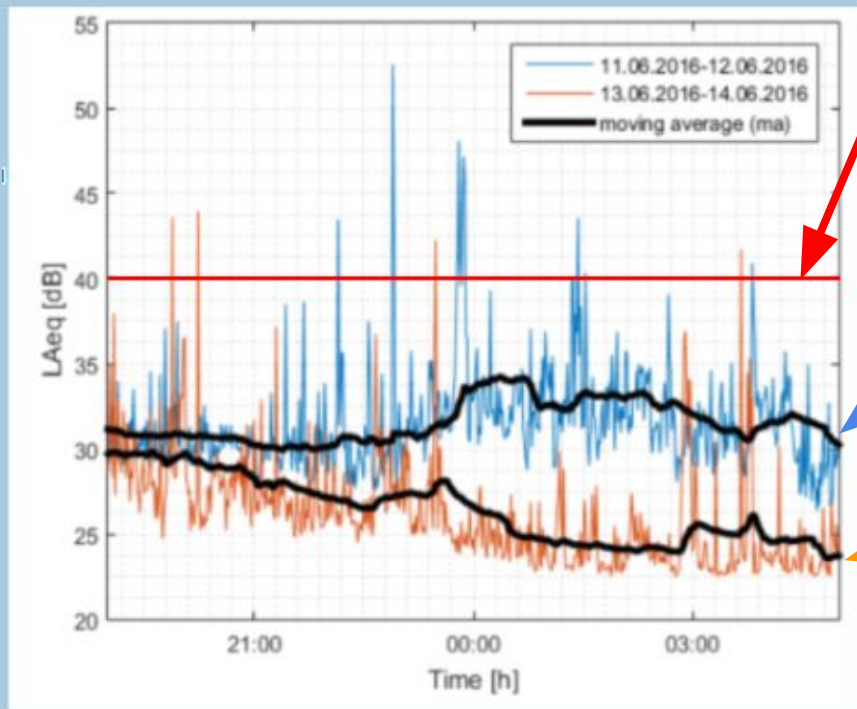
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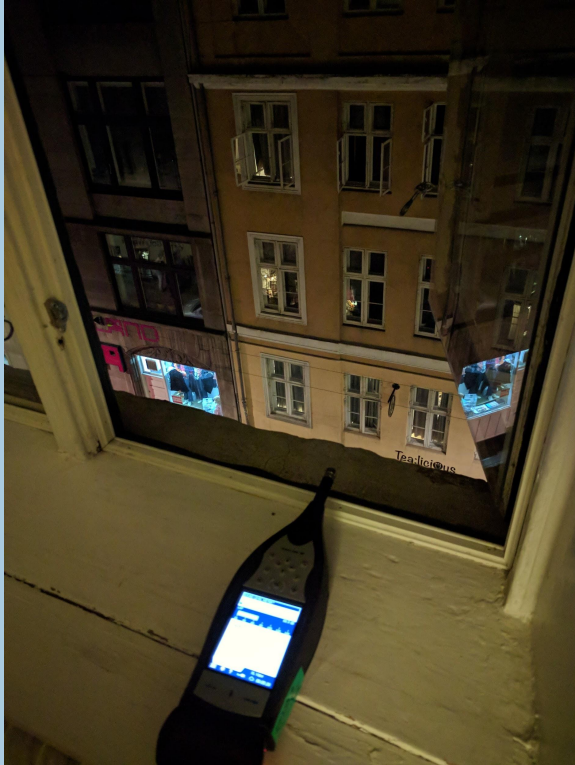
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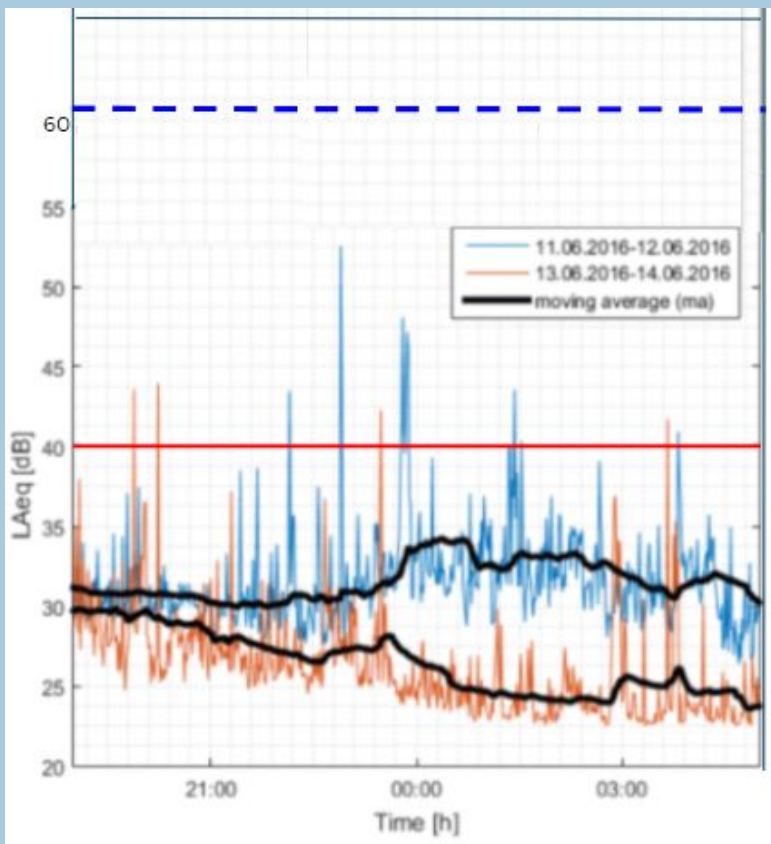
## Friday Night

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

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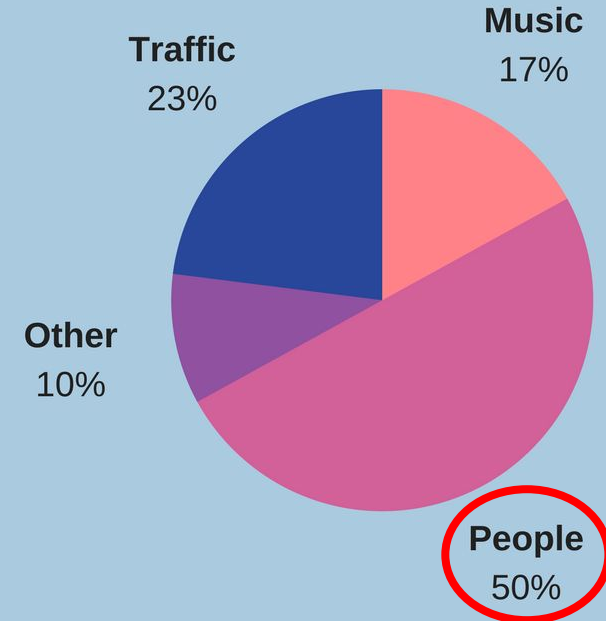
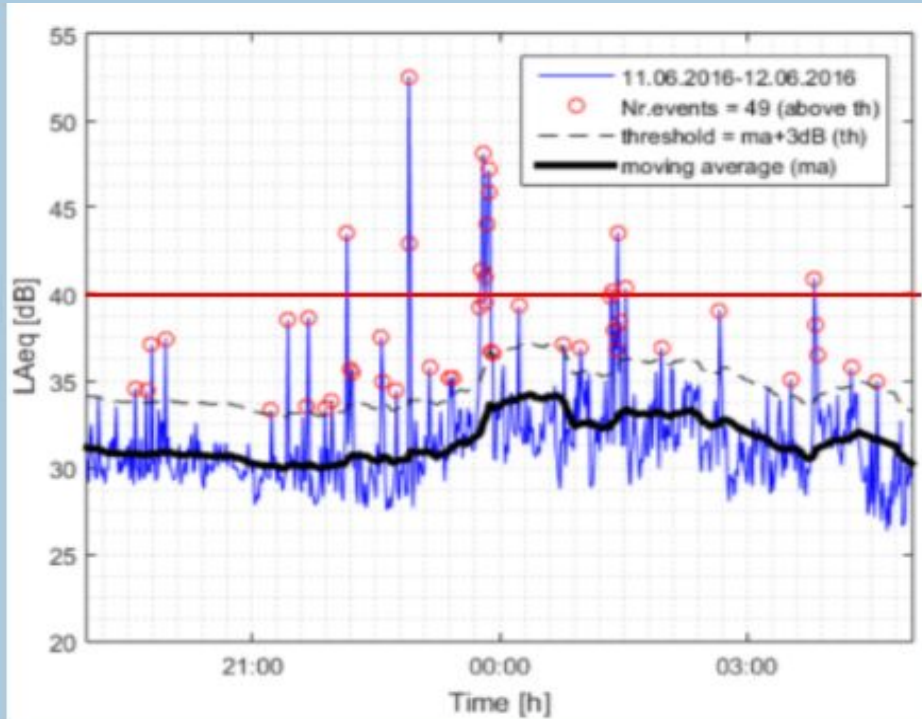
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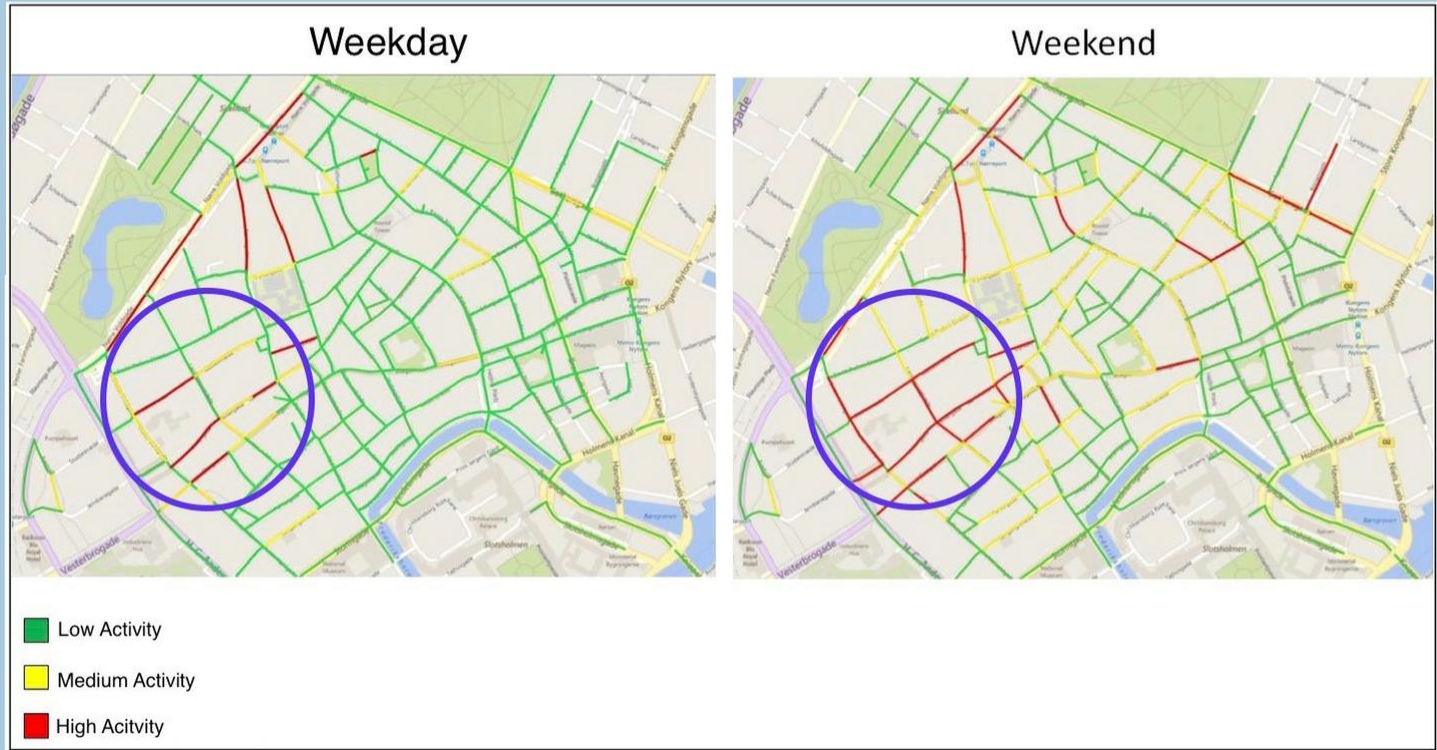
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# PEOPLE PRODUCE THE MOST NOISE



*(Nocturnal noise exposure in Studiestræde, Copenhagen)*

# THE AMOUNT OF TRASH RISES ON THE WEEKEND

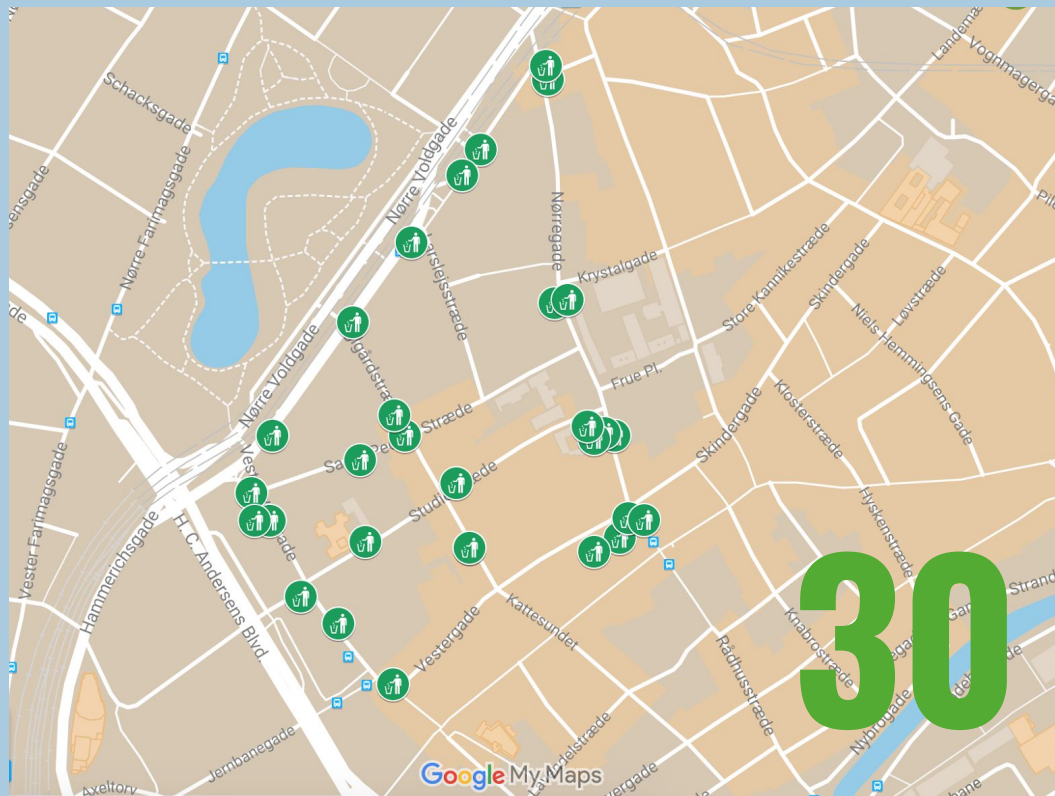


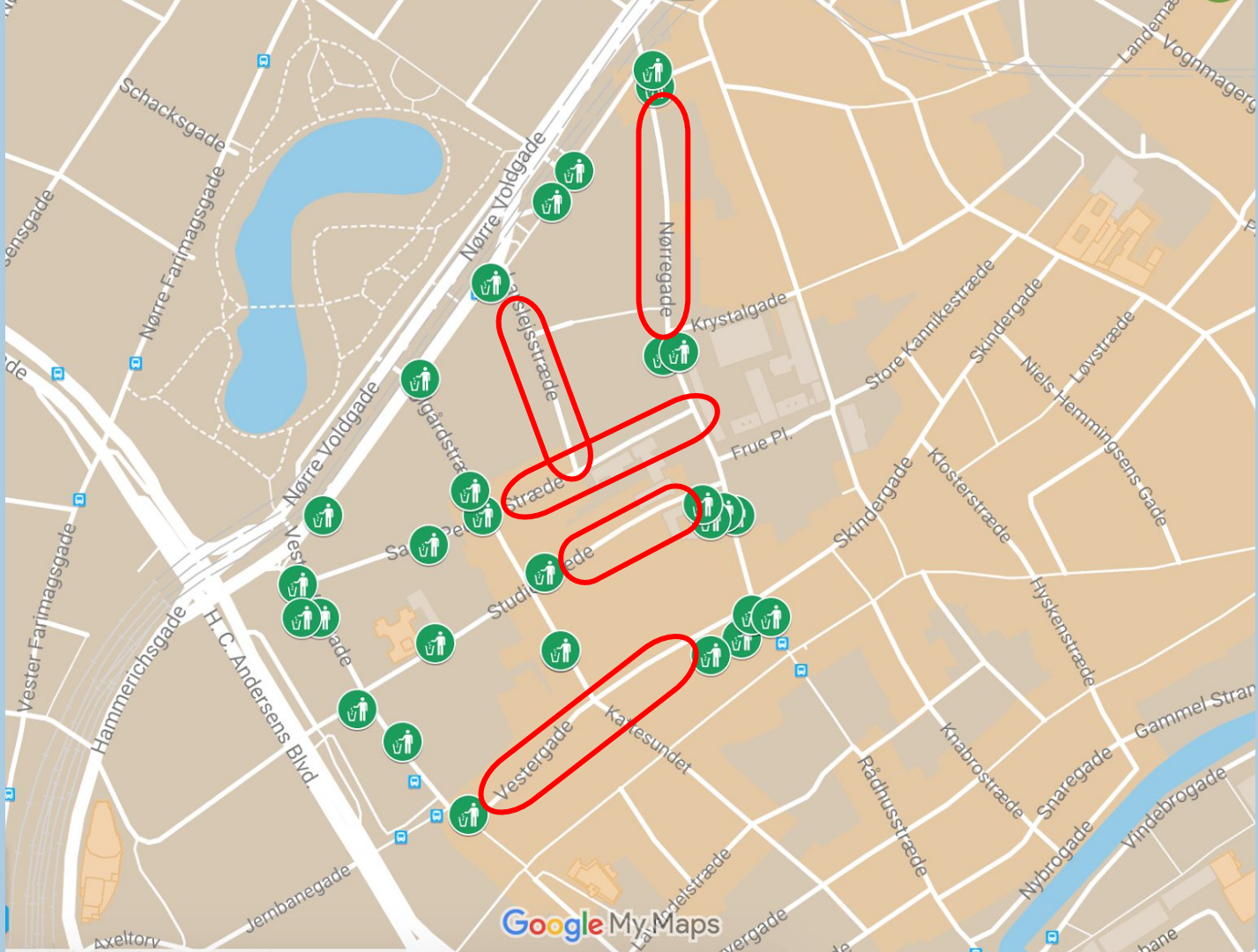
# TRASH CANS CANNOT HOLD THE AMOUNT OF WASTE PRODUCED

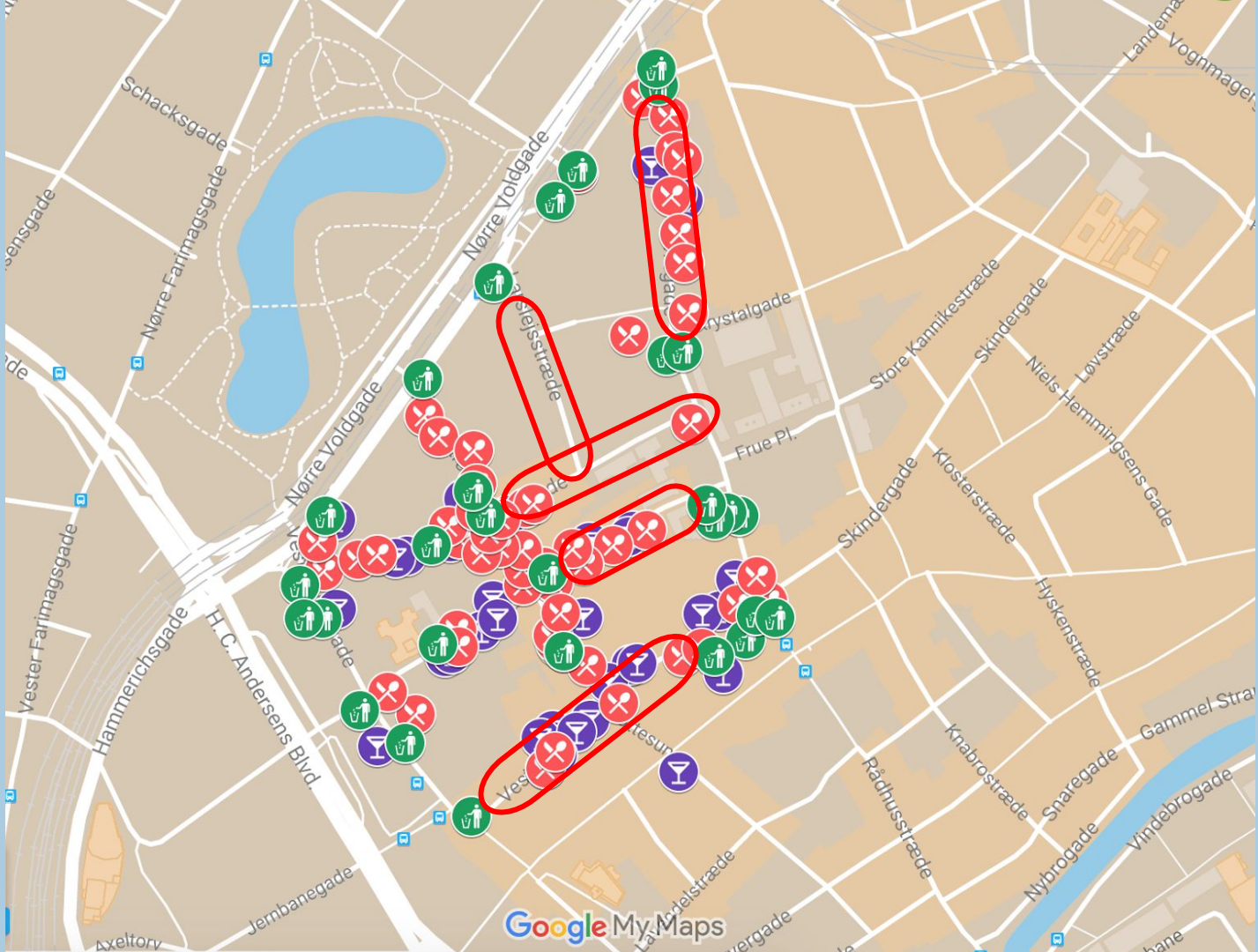


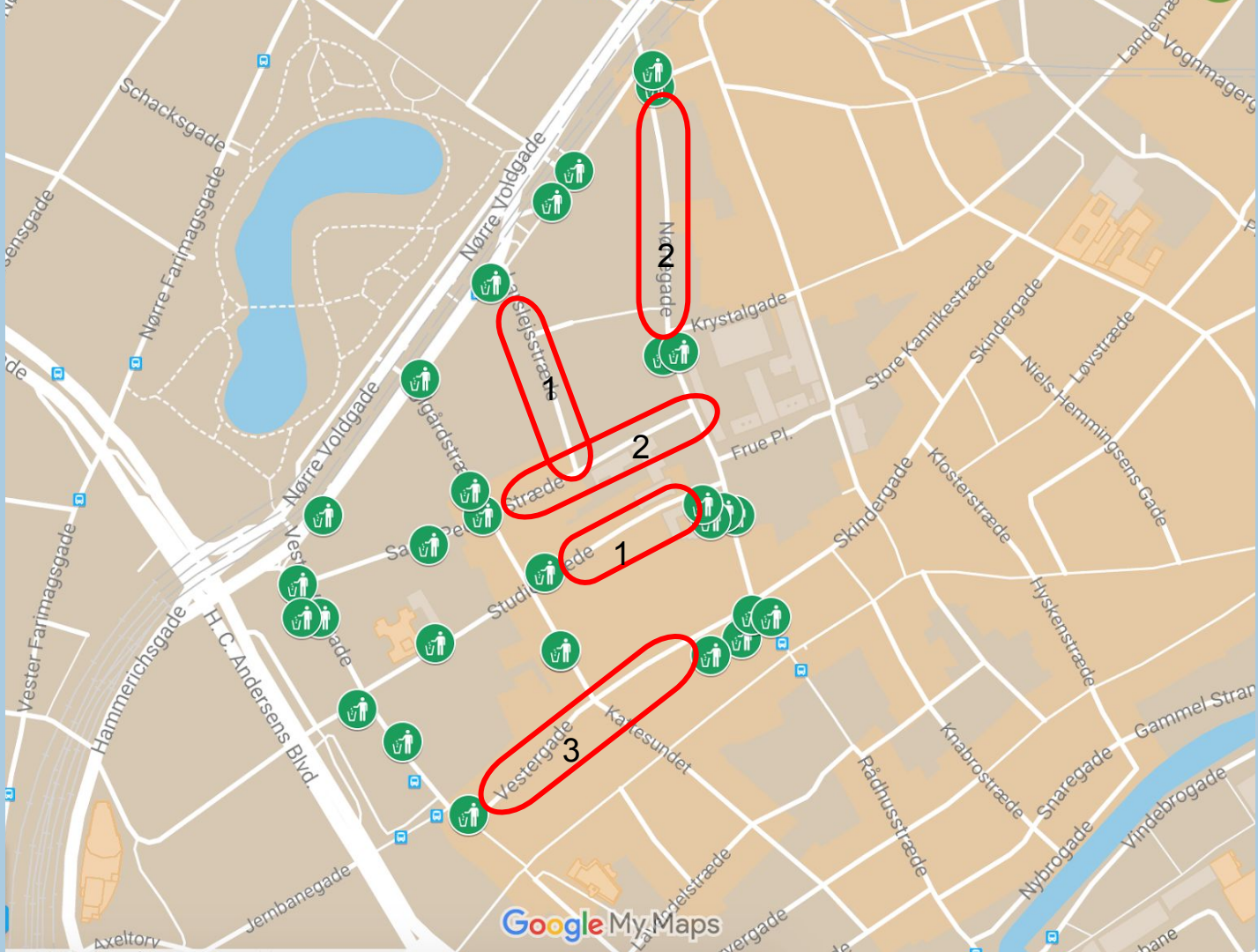


# SOME STREETS HAVE INSUFFICIENT TRASH CANS

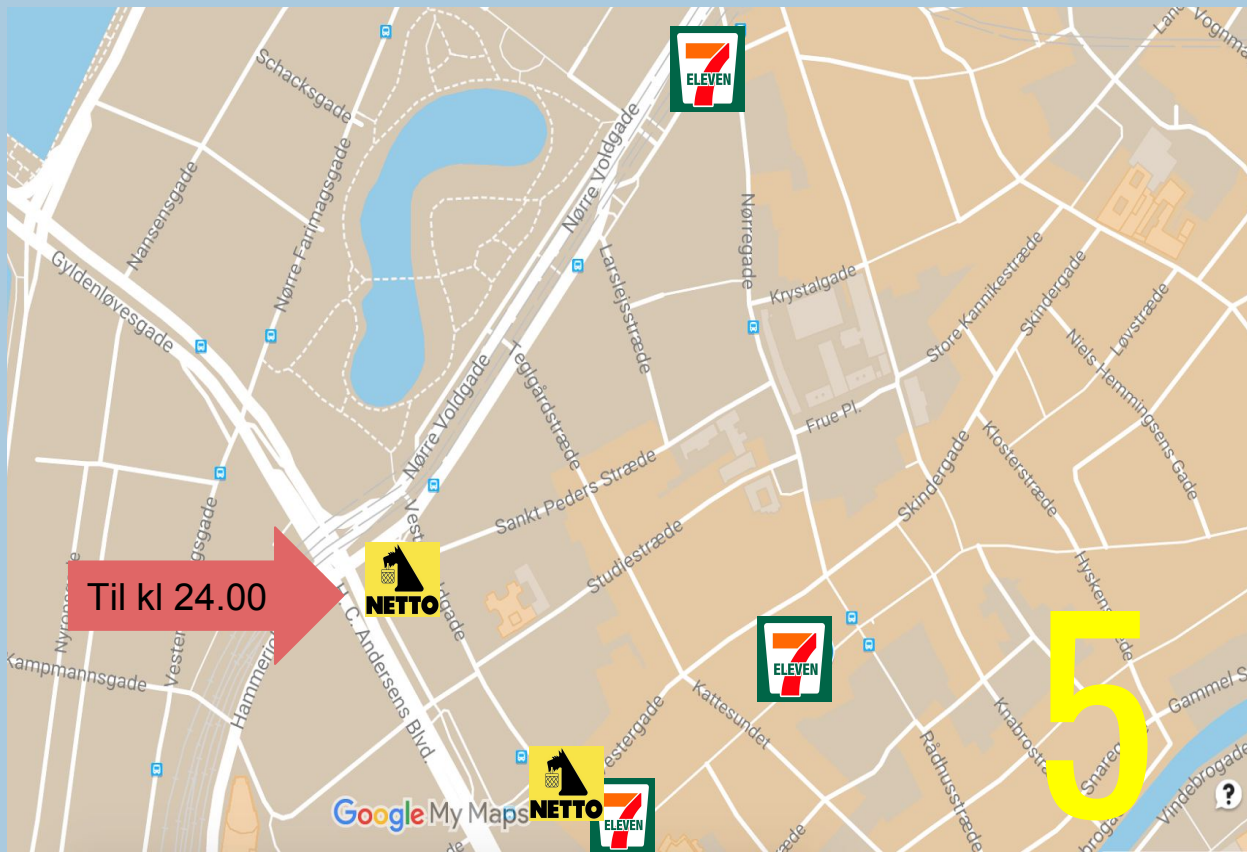








# 24HR STORES FUEL THE NIGHTLIFE





## OBJECTIVE 2

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

# Interviews



# Residents

( 5 )

**Have to cleanup  
themselves in morning**

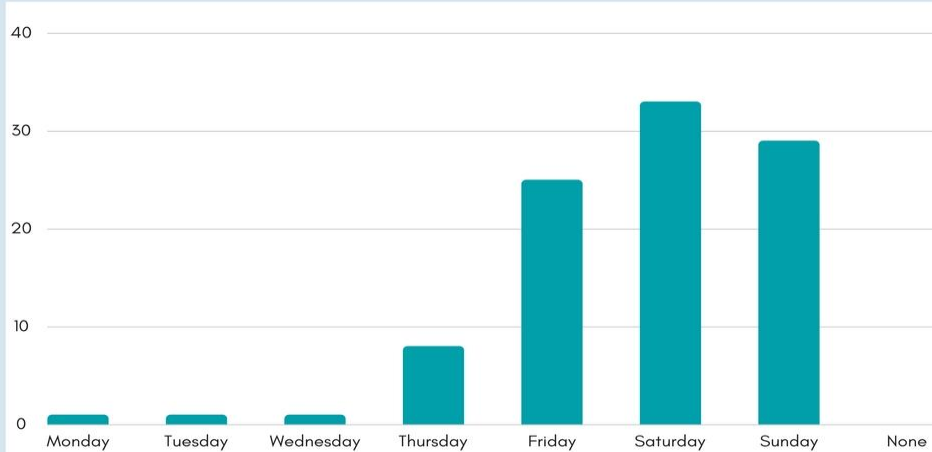
**Feel ignored by police**

**Taking legal action**





# Surveying the Residents Confirmed Our Observations

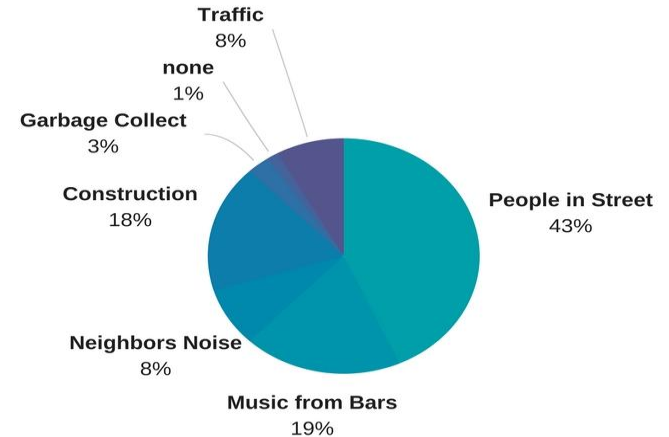


## WASTE

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



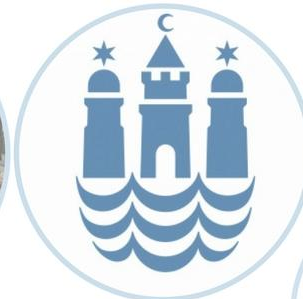
# Youth

( 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



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**Raise alcohol purchasing age**

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**Electric street cleaners**

**regulate retail sale of alcohol**

**Fines for trash**

**High School Campaign**

**Redistribution of bars**

**Event**

**Night mayor**



**Met with Martin Gyldstrand**

**Limitations of the  
Municipality**

**Helped refine  
recommendations**





**Resident representation**

**Bigger trash cans**

**Fines for noise**

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# The Good Night Plan

**CAMPAIGN**

**REGULATIONS**

**ENFORCEMENT**



# The Good Night Plan

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  - November elections have politicians listening

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- **Raise awareness about health risks associated with excessive nighttime noise**

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- Promote educational campaigns in gymnasiums
  - Parent supervision
  - Events without alcohol

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- **Raise age** to purchase alcohol in stores
- Institute a **universal** closing time

# The Good Night Plan

**CAMPAIGN**

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## ENFORCEMENT



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

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- 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

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



# The Good Night Plan



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