

# Are the activity spaces used?



Foto: Luke Tennant/Bård Gundersen/Tverga



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## What can AI-technology tell us about the use of neighborhood activity spaces?

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**Folkehelsekonferansen 2024**



# The need for knowledge and methods

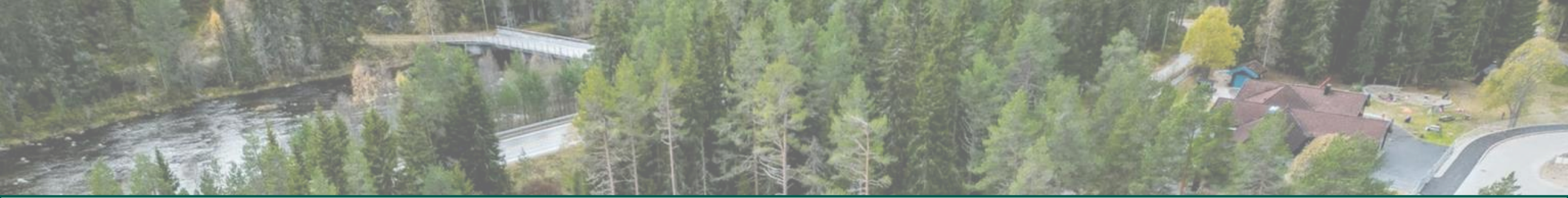
(Andersen et., 2017; King et al., 2010; Koorts et al., 2015; Hunter et al., 2015; Pawlowski et al., 2019)

- We need more research that assesses the use of neighborhood activity spaces to understand user patterns
- Long-term assessment to capture variations and seasonal differences
- Assessing use is a challenging and time-consuming task

Digital and AI-based tools designed to collect long-term data might help us assess activity patterns in less resource-intensive ways.







# PURPOSE



# Purpose of the study

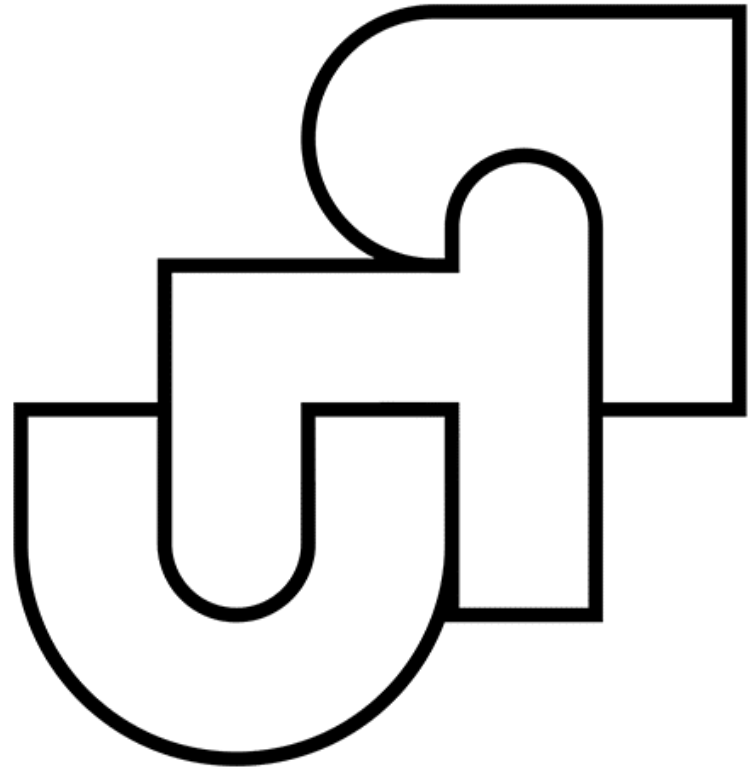
To test an AI-based monitoring tool at a local activity space to explore when and how much the place is being used and whether there are seasonal differences in usage.



# CONTEXT & METHODS







# SAMSKAPING AV AKTIVE MØTEPLASSER



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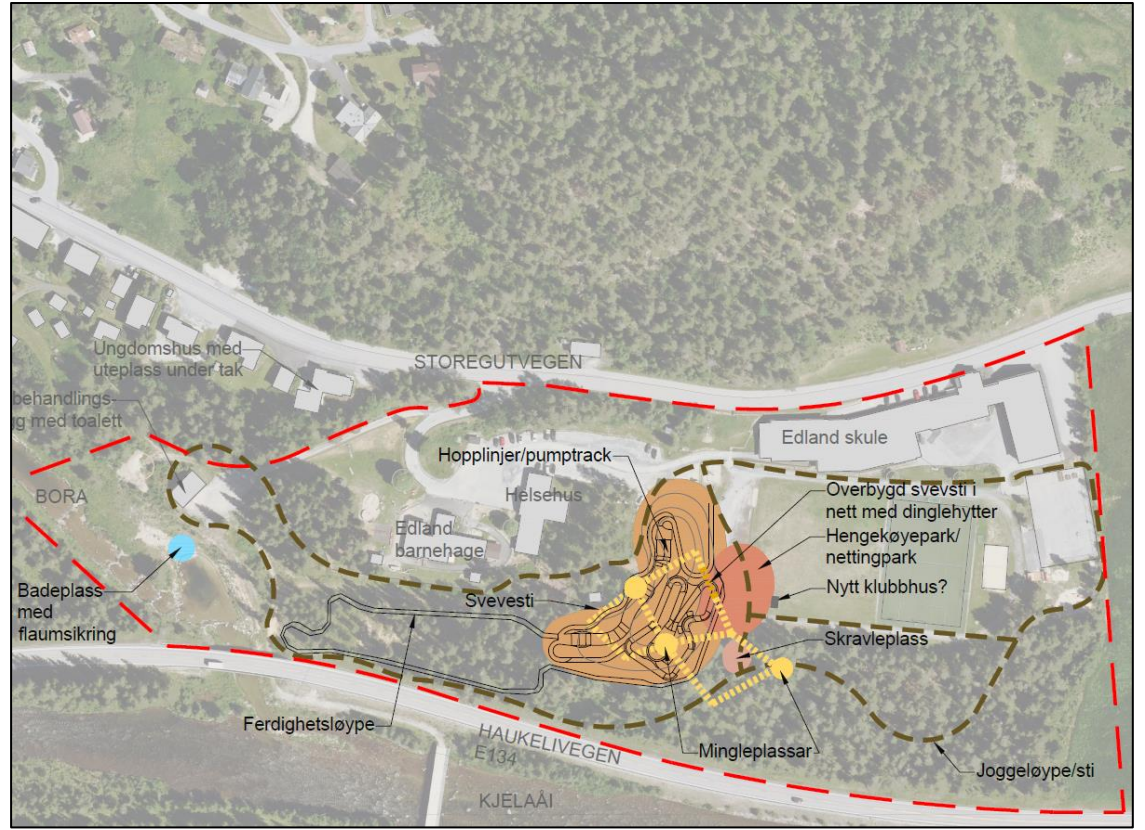
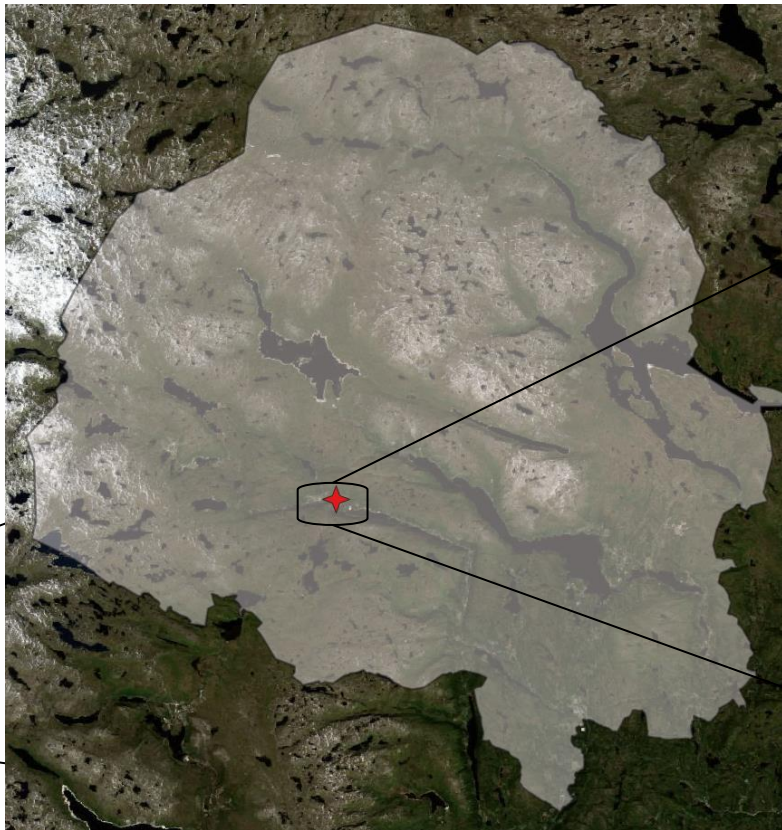
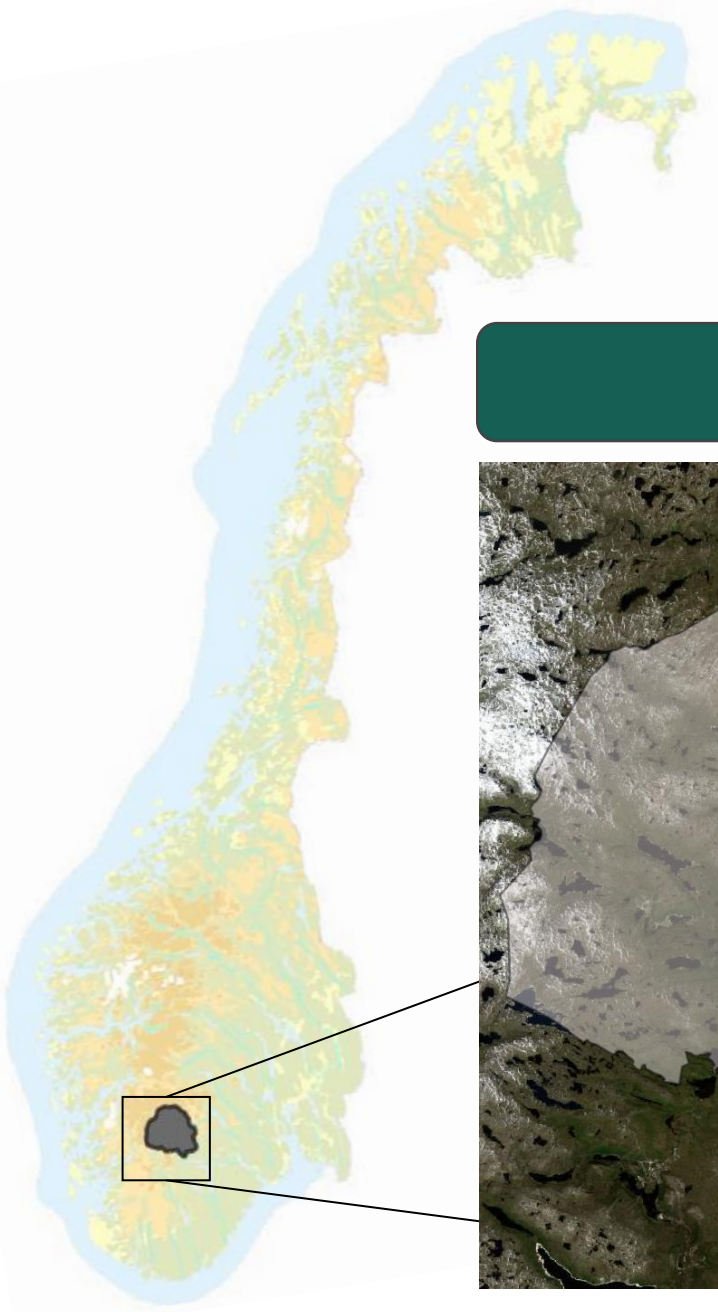


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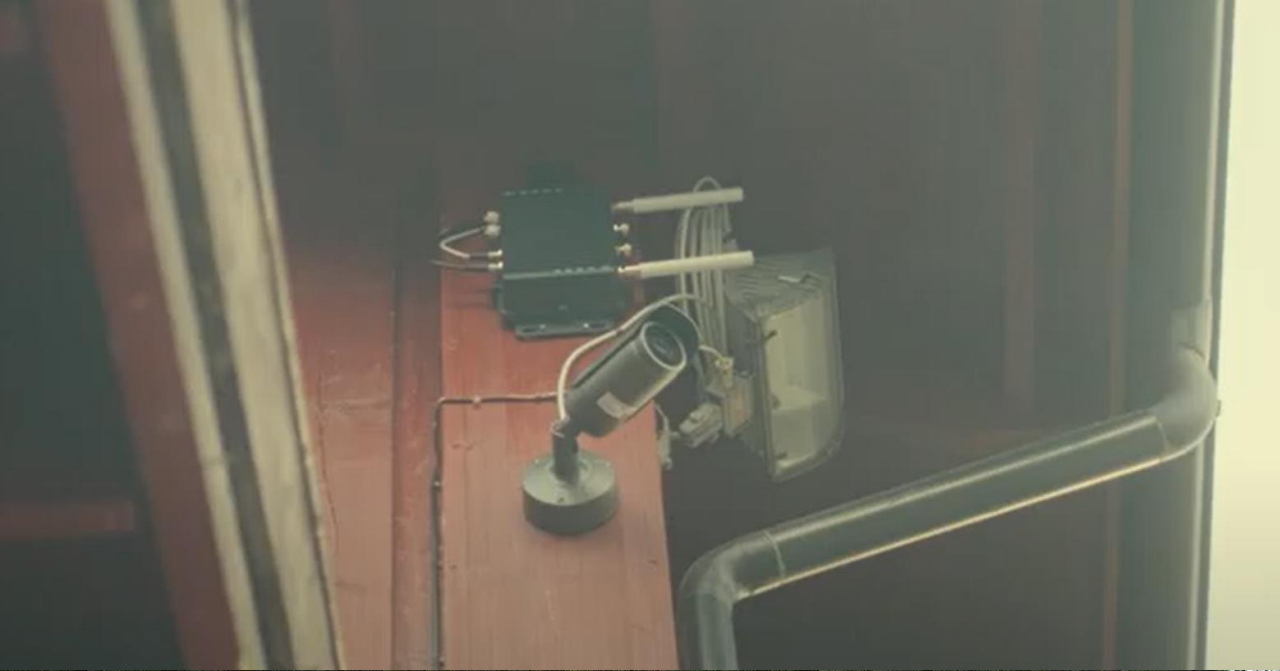
asplan  
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# Reinsparken in Vinje municipality







**The monitoring  
tool: A camera**

**Installed in Vinje  
in 2023**







# Briefly about the monitoring tool

- Embedded AI-solution with algorithms trained to detect if it is people in a picture.
- Reads approximately 30 images per second and moving objects are continuously detected.
- Video images deleted every second and no personally identifiable information is stored.
- Number of objects at an hourly basis throughout the monitoring period (until 2027).





# A longitudinal monitoring study

- Analyzed data over 98 consecutive days
- Linked to daily weather data from the Norwegian Centre for Climate Services

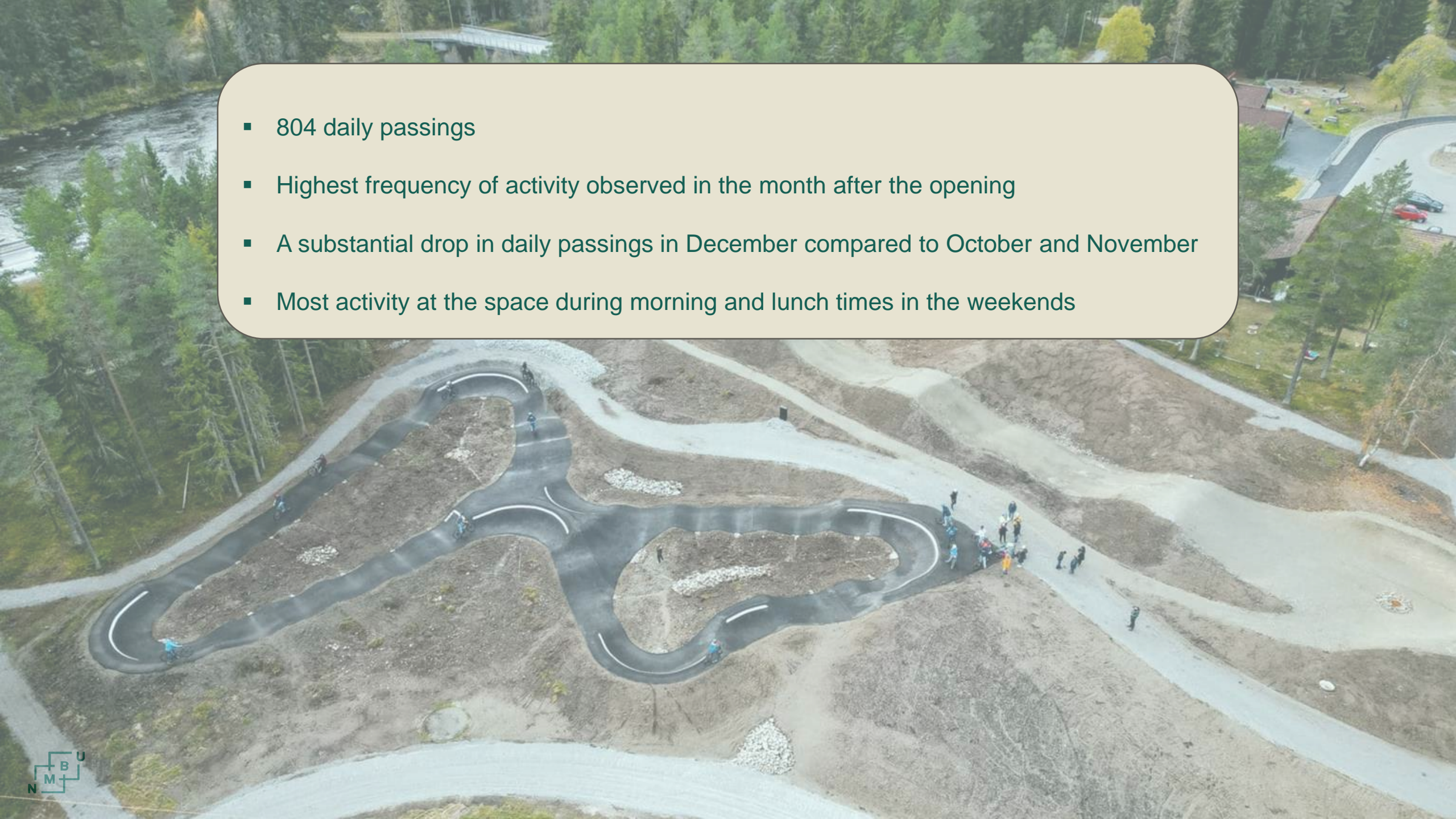


# PRELIMINARY FINDINGS



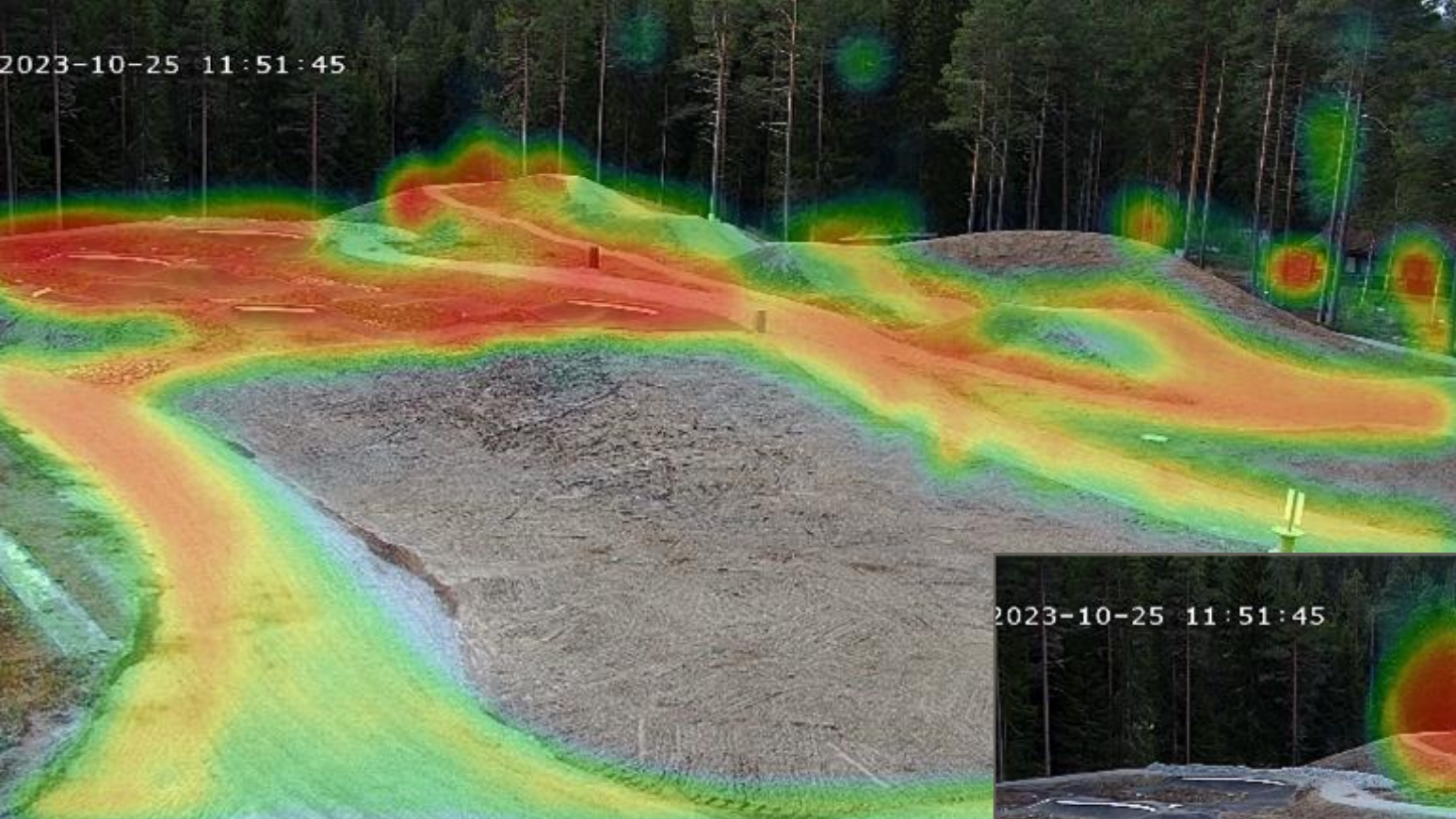


- 804 daily passings
- Highest frequency of activity observed in the month after the opening
- A substantial drop in daily passings in December compared to October and November
- Most activity at the space during morning and lunch times in the weekends





2023-10-25 11:51:45



Extracted heat map from week 46

2023-10-25 11:51:45



Extracted heat map from week 39



# CONCLUSION & IMPLICATIONS





## Conclusion

Our results indicate that this is a place people visit on weekends and that season characteristics influence how the place is being used.

## Implications

A monitoring system with embedded AI-technology might be a useful tool for municipalities to understand activity patterns at activity spaces, which can inform municipal planning, priorities and local community engagement activities.





**Takk for oppmerksomheten!**

Sjekk ut prosjektets nettside <https://tverga.no/samskaping-av-aktive-moteplasser/>  
og følg oss gjerne på Facebook.

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