



## Annex 63 in Trondheim

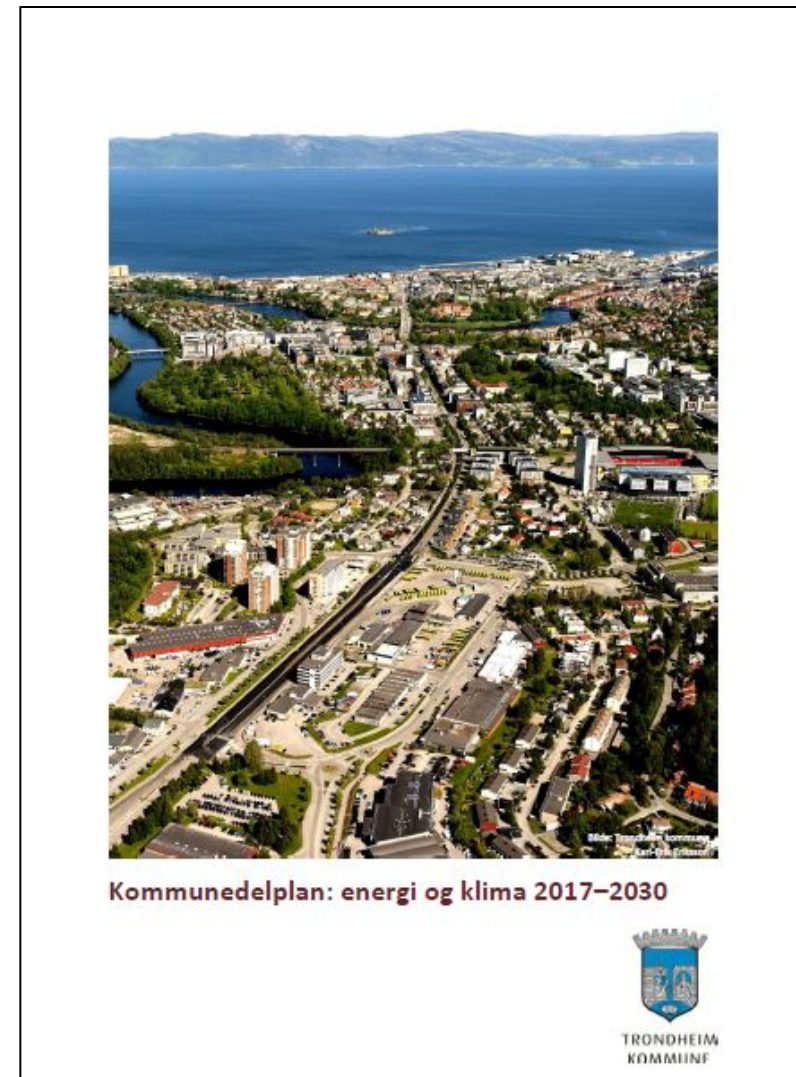
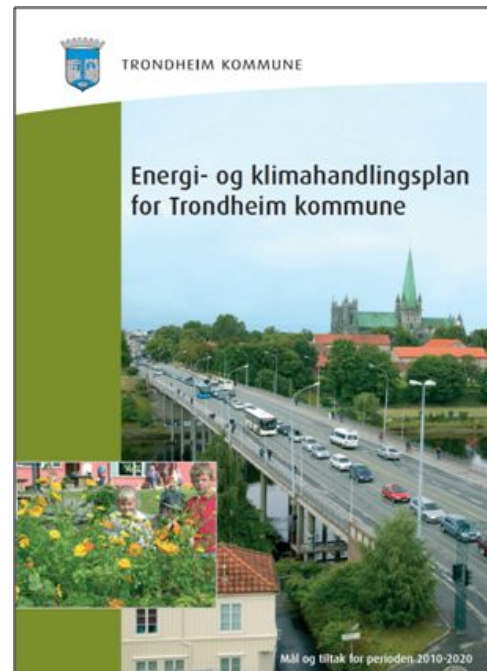
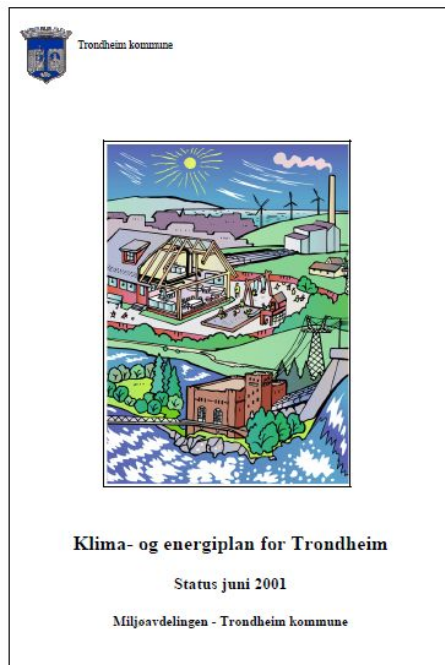
16.10.2017



Nordic Edge Expo  
Stavanger



# Trondheim has a Climate Plan since 2001...



# The national regulatory framework

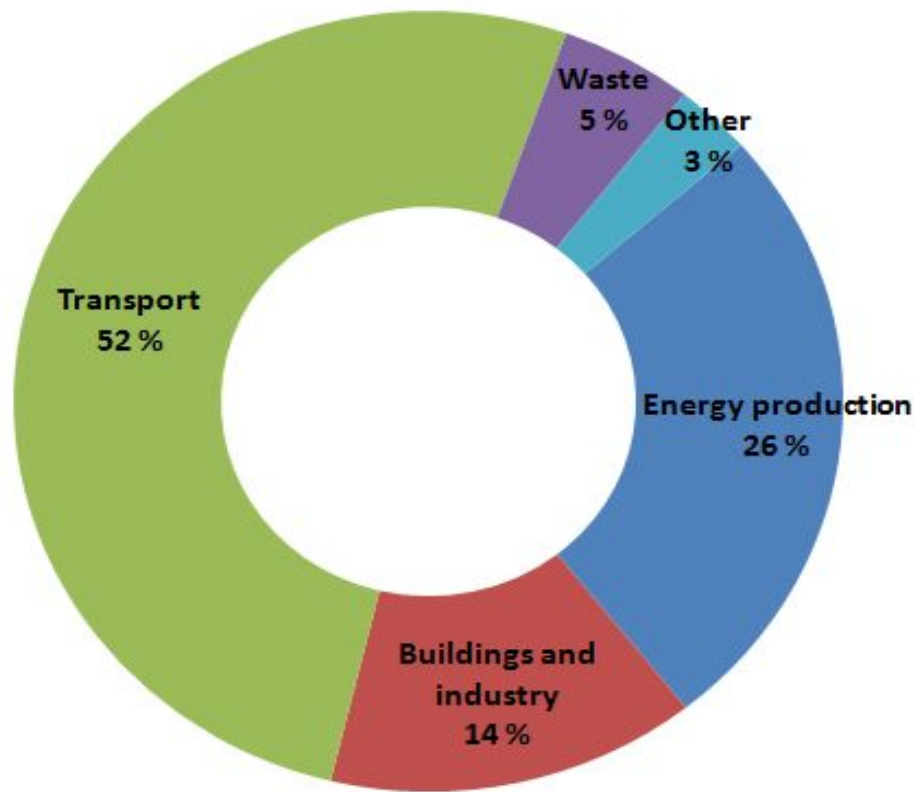
## **National Planning Guidelines for Climate and Energy Planning in Municipalities:**

The roles: The municipalities are both political and commercial actors, service providers, authority practitioners, purchasers, property owners and are responsible for planning and facilitating good living for the population.

The task: Measures of GHG reductions, effective energy use and environmentally friendly energy transition should be part of the municipal planning.



## Direct Emissions in Trondheim 2013

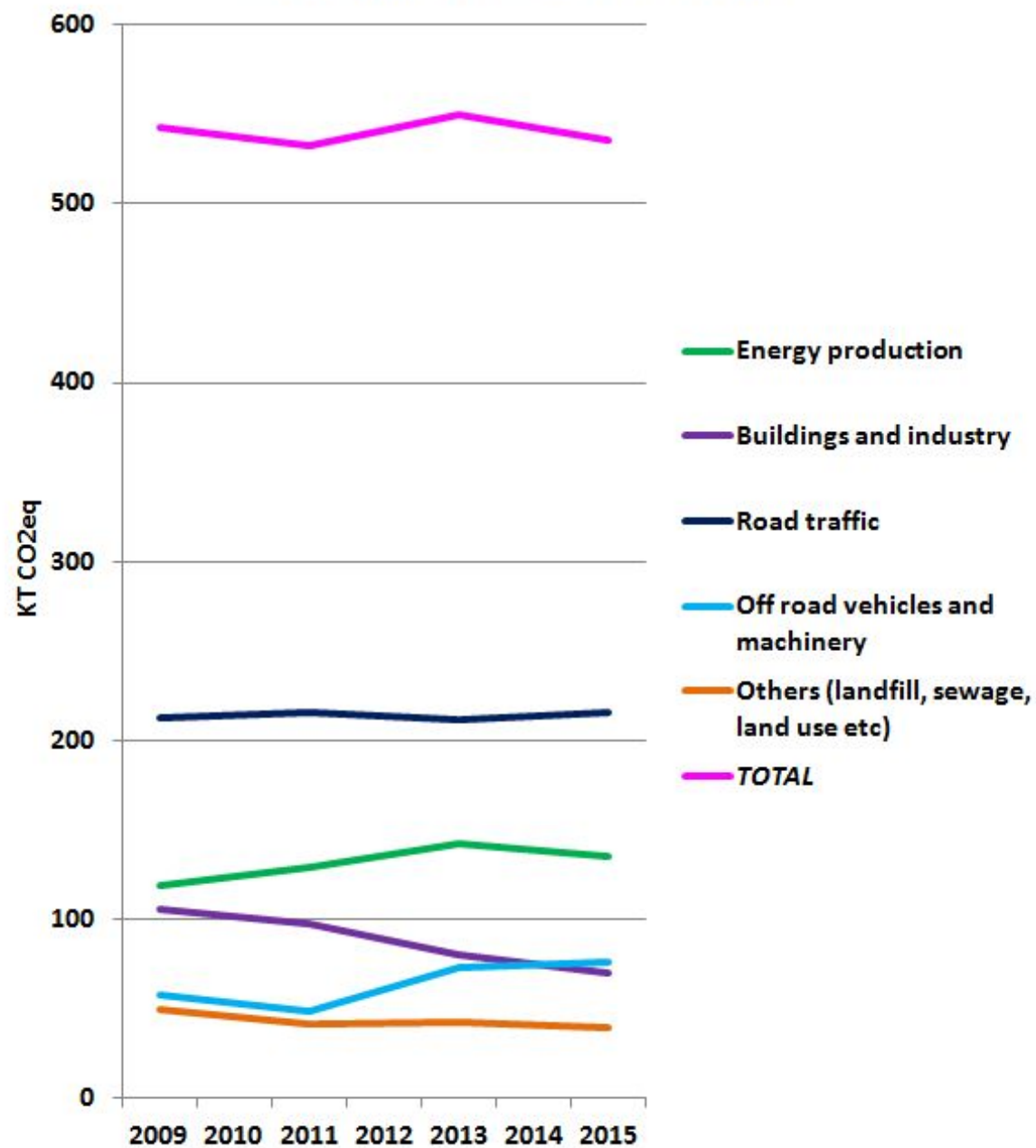


Total emissions:  
550 kT CO<sub>2</sub>e  
(15 % increase since 1991)

Emissions per capita:  
3 tones CO<sub>2</sub>e

Stationary energy:  
3.5 TWh

## GHG EMISSIONS TRONDHEIM



# The newly-adopted goals (for the city)

1. By 2020, Trondheim is a role model and arena for green value creation and development of climate-friendly technology and lifestyles.
2. In 2020, direct GHG emissions are 10 % lower than in 1991.
3. By 2025, Trondheim is resilient to meet future climate change.
4. In 2030, stationary energy use is the same level as in 2013.
5. In 2030, direct GHG emissions are 80 % lower than in 1991.





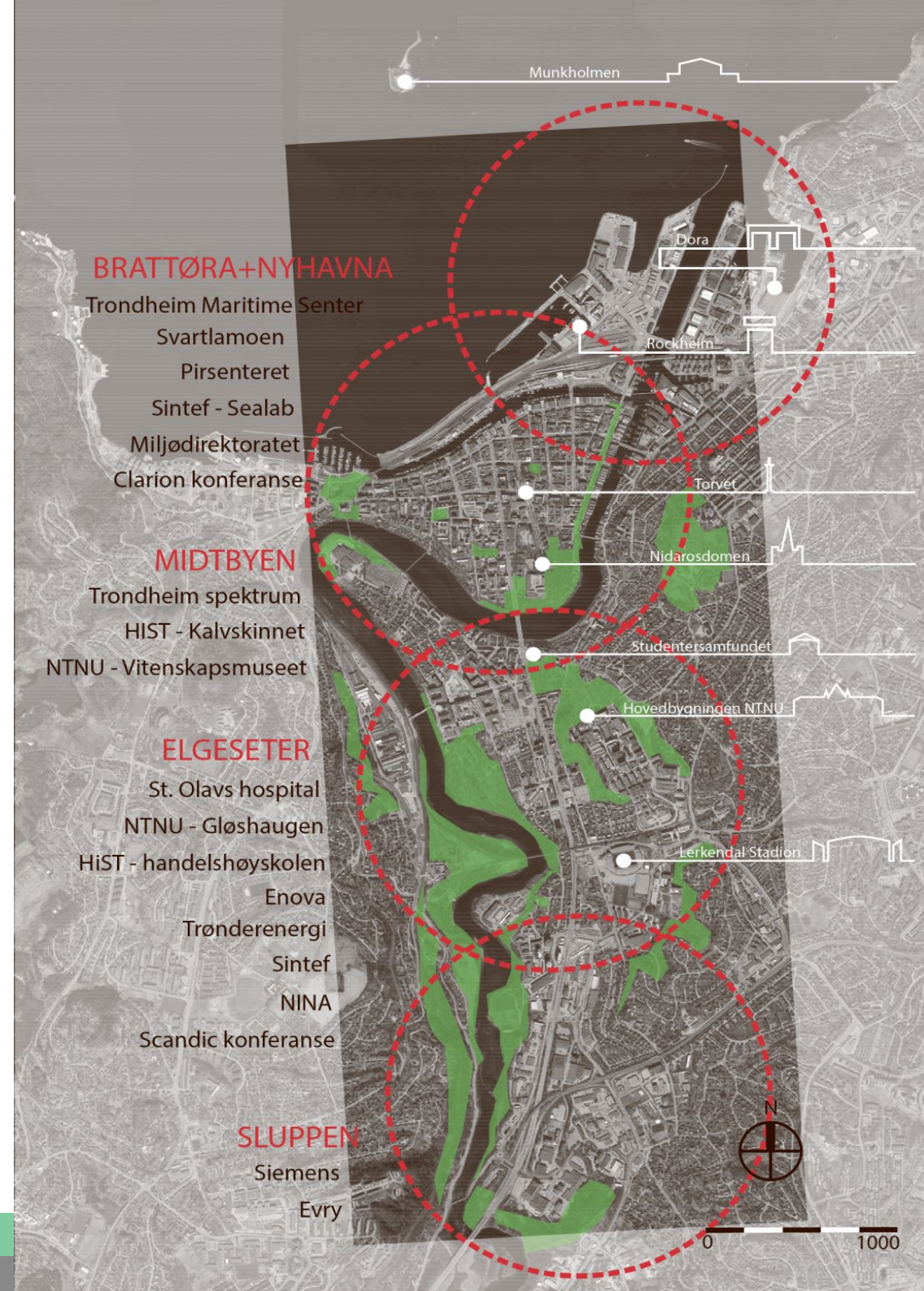
# The Knowledge Axis

## Trondheim's biggest "playground"

What can happen when city and knowledge are merged together?

Can it bring...

- new urban forms?
- innovation and business?
- new ways of collaboration?
- new meeting places?
- new energy solutions?
- low-carbon lifestyle?
- better international competitiveness?





# Knowledge Axis – Tempe/ Sluppen

Urban development with height



New transport solutions increase accessibility. This area will be regenerated as business and housing districts with large potentials.

# Knowledge Axis – Elgeseter

NTNU's city campus



NTNU will relocate their campus around Elgeseter-area.  
We'd like to maximize the synergy!



# Knowlegde Axis – Midtbyen

The historic core as the vital city centrum



Living centrum with business and cultural activities.  
Preservation of cultural heritage.



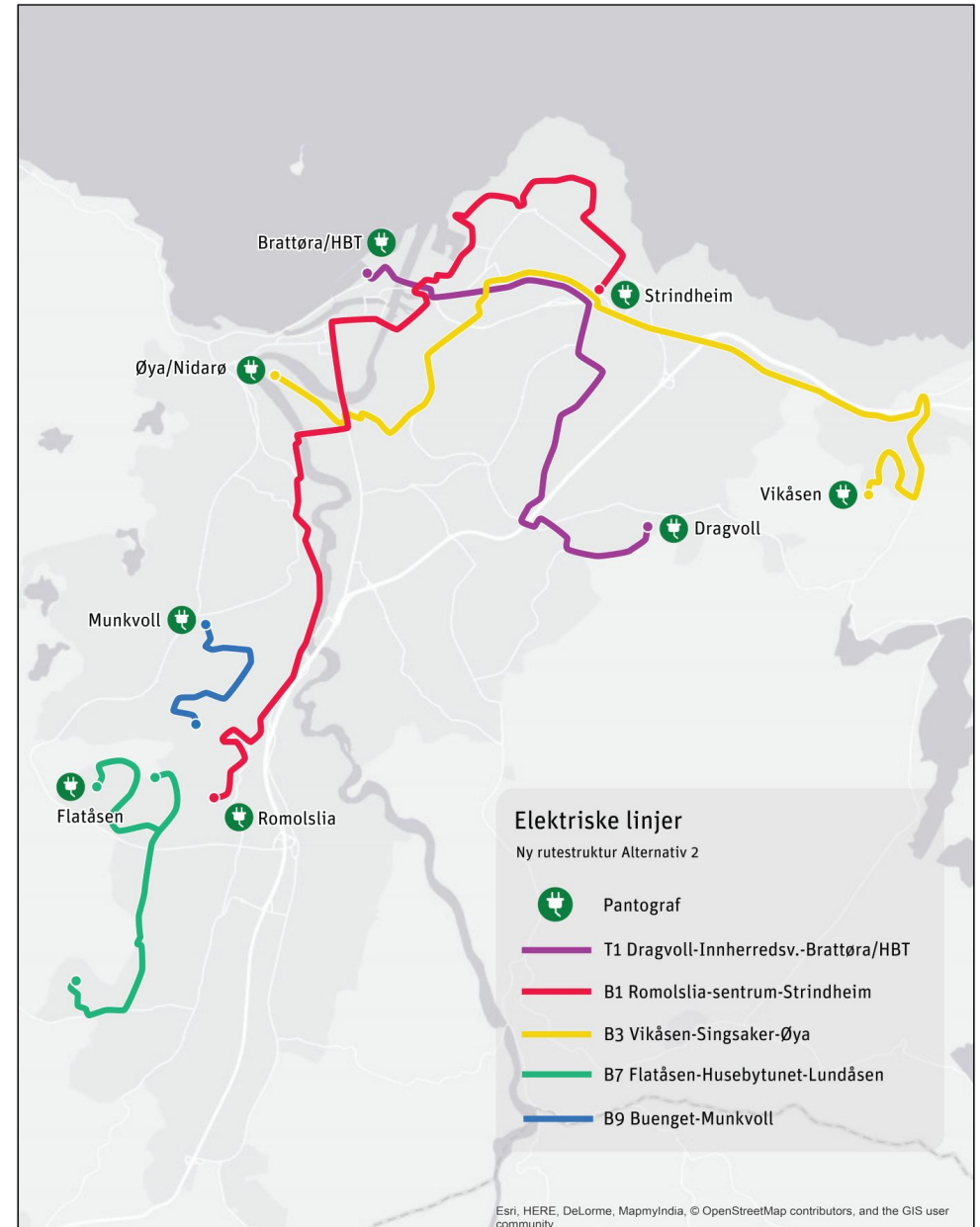
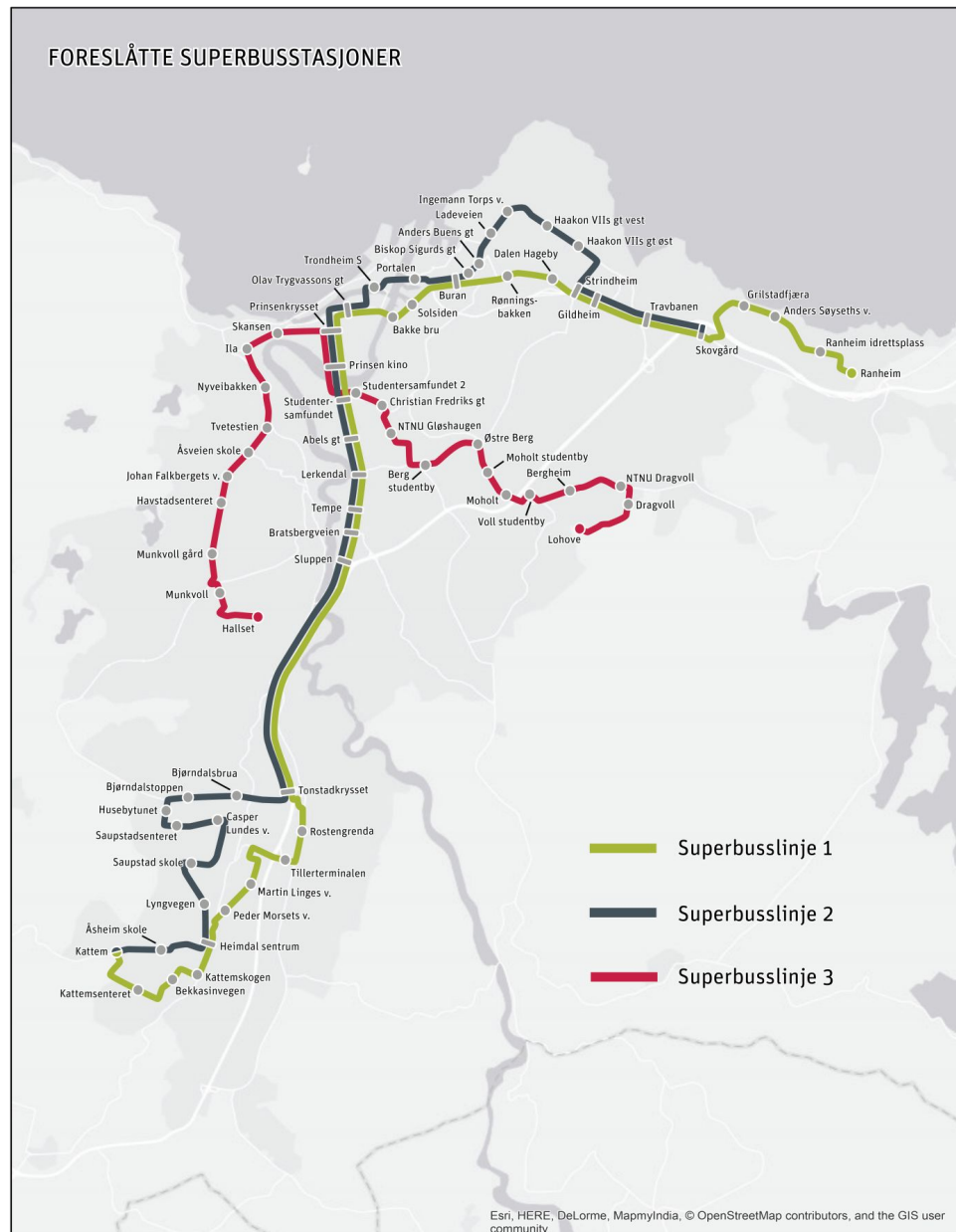
# Knowledge Axis – Brattøra/ Nyhavna

Meeting the fjord



Intermodal logistics solutions and possible new housing district

# New public transportation system from August 2019



# Trondheim: a smart and sustainable city

We'd like to identify and run demonstration projects within the Knowledge Axis. What kind of solutions do we need and which technologies are available?

- ✓ Smart buildings
- ✓ Smart energy distribution (production and storage)
- ✓ E-mobility (vehicles and infrastructure)
- ✓ ICT as enablers
- ✓ Business models
- ✓ Citizen engagement





# Zero Emissions Neighbourhoods in Smart Cities (ZEN)

Trondheim Municipality is a partner of this national research center led by NTNU. There is growing focus on **climate-neutral districts** in urban development (Sluppen, Granåsen,...).

*What does this actually mean and how do we achieve this?*



# Old vs. New

By the Trondheim Fjord, **Powerhouse Brattørkaia** is under construction and will produce more energy than it consumes.

Climathon Trondheim 2017 will focus on “smart energy solutions in **historic urban environment**” in Midtbyen.

*Old buildings and new technologies, do they have room for each other?*





# Climathon



Thank you!

## Join the Climathon movement, drive climate action!

Climathon brings together the challenges of the world's cities with the people who have the passion and ability to solve them. Climathon is a global 24-hour climate change event which will take place simultaneously in major cities around the world on **27 October 2017**.

SIGN UP FOR CLIMATHON TRONDHEIM

[climathon.climate-kic.org/trondheim](http://climathon.climate-kic.org/trondheim)

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t @ClimathonTrheim

#climathon

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