




Statens vegvesen



# City analysis Trondheim area

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Statens vegvesen Region midt

An orange triangle pointing downwards, located to the left of the section header.

## Mandate / Ambition

- The project is aimed at providing a coherent basis for the negotiation of a urban environment agreement (“byvekst-avtale”) in 2018, and to be a contribution to next revision of the National Transport Plan (NTP 2022–2033)
- The investigation highlight the necessary measures in order to achieve the goal that growth in personal transport shall be solved by public transport, cycling and walking (also known as the zero-growth target for passenger car traffic)
- The investigation is not supposed to conclude on one recommendation

NOT A PLAN BUT INPUT TO A PLAN

# Nullvekstmålet – «Zero growth goal»

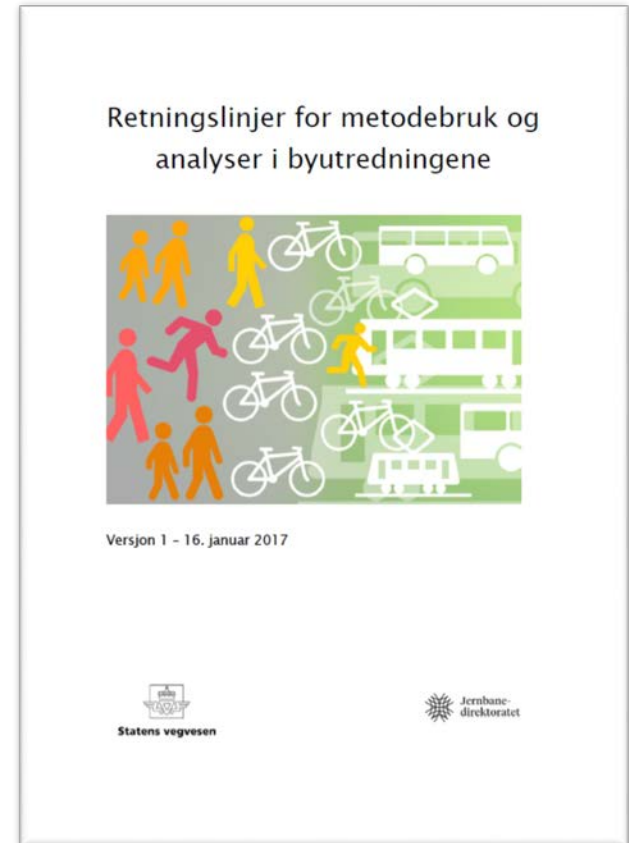
The growth in personal transport is to be taken by public transport, cycling and walking

- Measured in transportkm and 1.1.2016 is the starting point
- All kinds of small cars (including low- and zero-emission) that have either the starting or end point in the defined area are included
- Traffic passing thru is excluded from the goal
- Commercial transports (freight and service providers) are not included
- For the Trondheim region this means that personal transport by private car should not exceed 4.3 million km/day by 2030. Corresponding target figure for Trondheim municipality is 2.0 million km/day

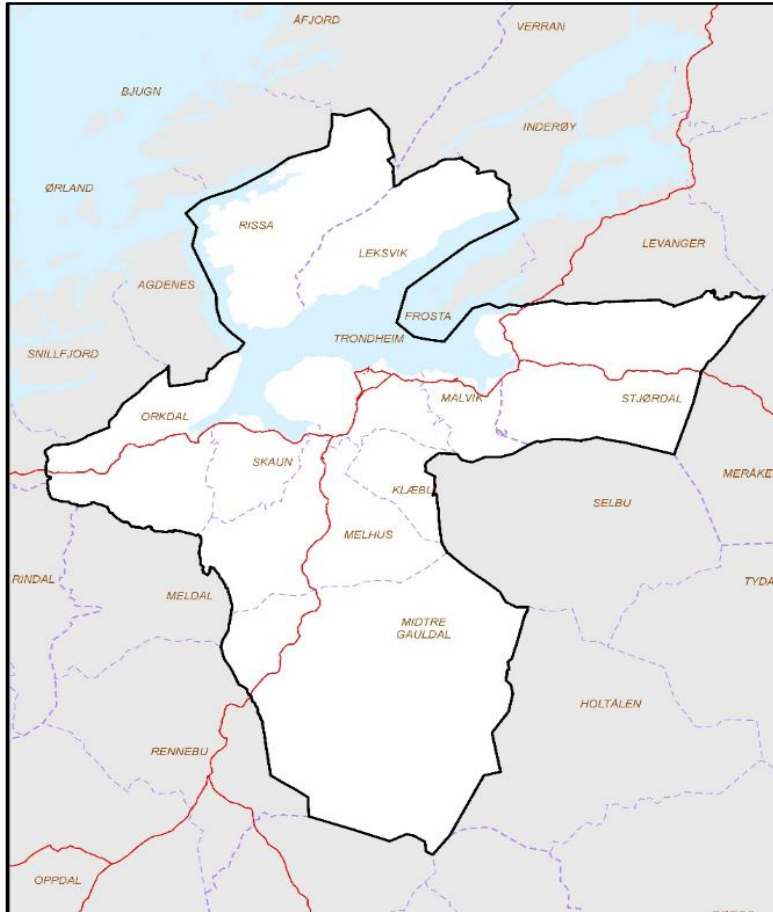


# Guidelines

- Similar projects performed in 8 of the 9 largest cities in Norway
- Common national guidelines
- The national transport authorities have a common methodology for transport analysis and social economic analysis that are used in the projects (i.e Regional Transport Model – RTM)
- There is a need for supplementary analysis

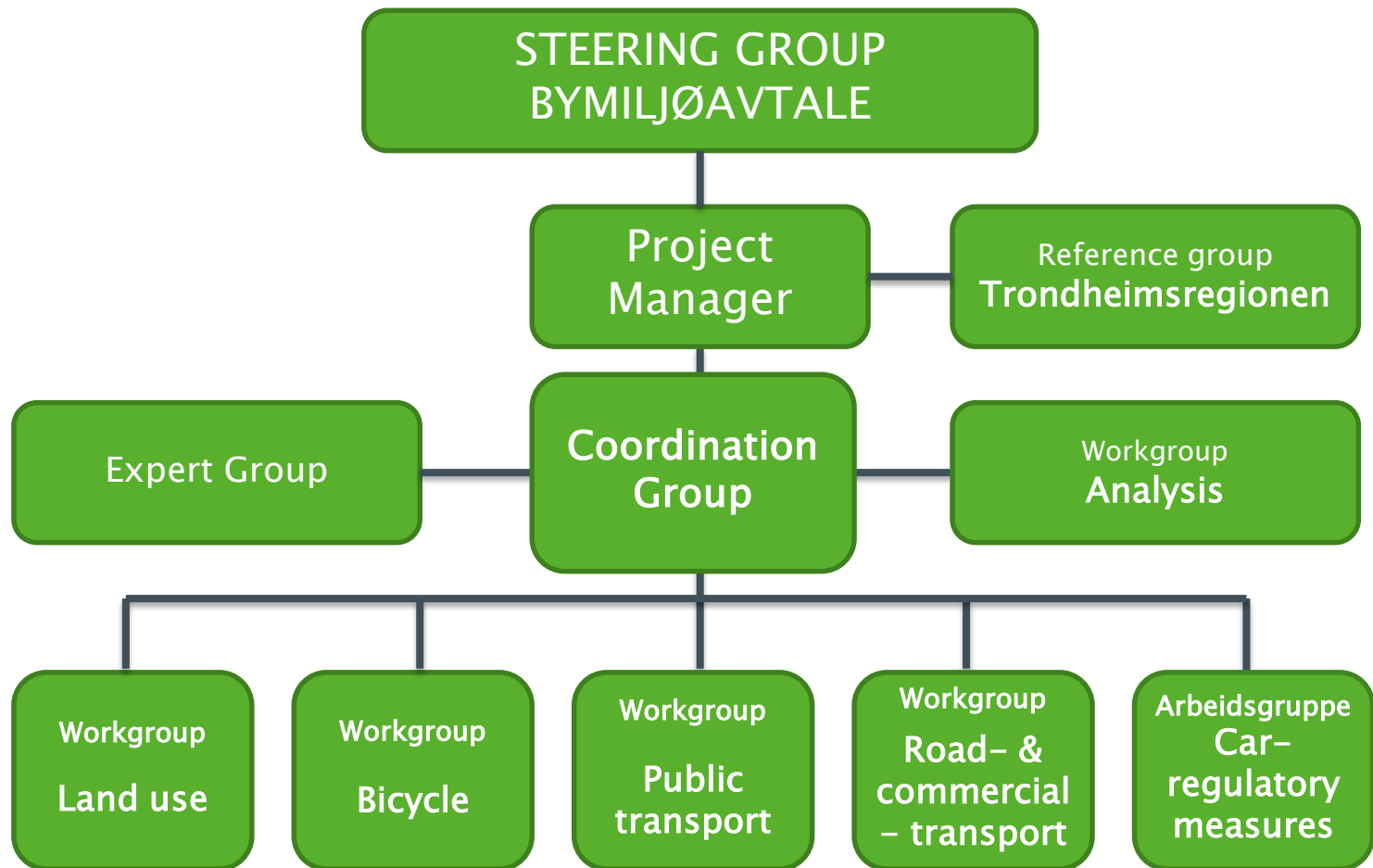


# Project area



- Existing environment agreement (bymiljøavtale) applies to Trondheim municipality
- Regional cooperation of Trondheimsregionen includes 10 municipalities
- Analysis includes traffic and personal transport to and from a larger area

# Project Organization





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*Byutredning Trondheimsområdet*

## Population

Inhabitants in Trondheim 2016:

**190 000**



**New inhabitants (SSB) in  
Trondheim**

**2030: + ca. 30 000**

Inhabitants in Trondheims-  
region 2016:

**282 500**



**New inhabitants (SSB) i  
Trondheimsregionen**

**2030: + ca 41 000**

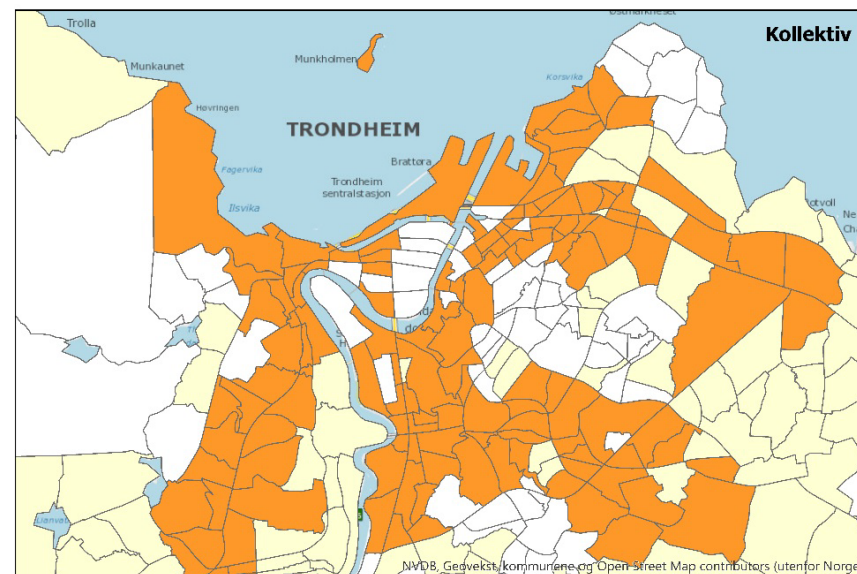
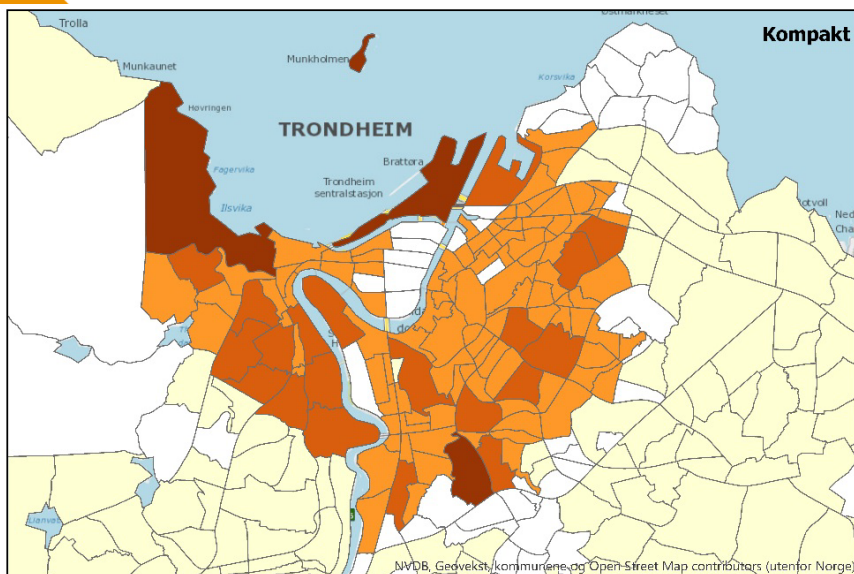


# Byutredning Trondheimsområdet

## Land use

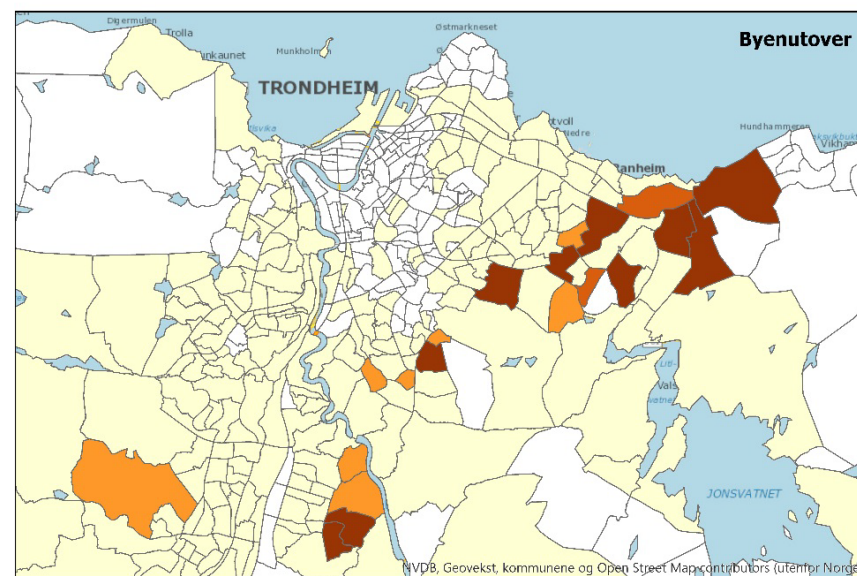


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Kartet viser differanse i forhold til antall bosatte mellom KPA (0 alternativ) og øvrige arealalternativ.

- Færre enn KPA
- Lik
- Opp til 500 fler
- 500 - 1000 fler
- Over 1000 fler



en



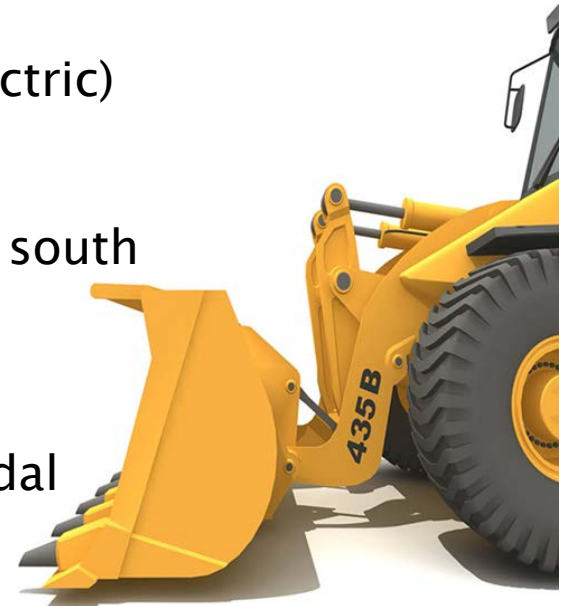


## *Byutredning Trondheimsområdet*

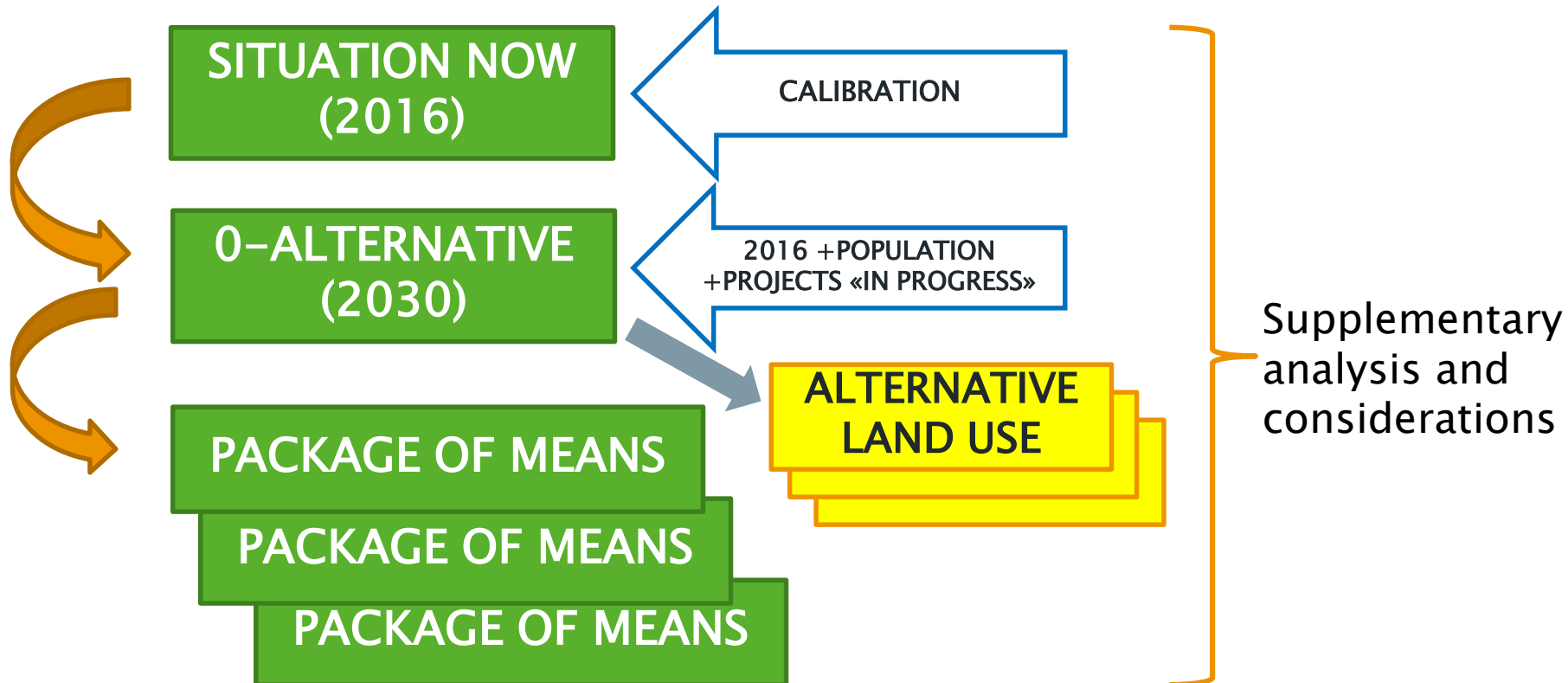
«0-alternativ 2030» includes projects «in progress»

Projects included in 0-alternativ:

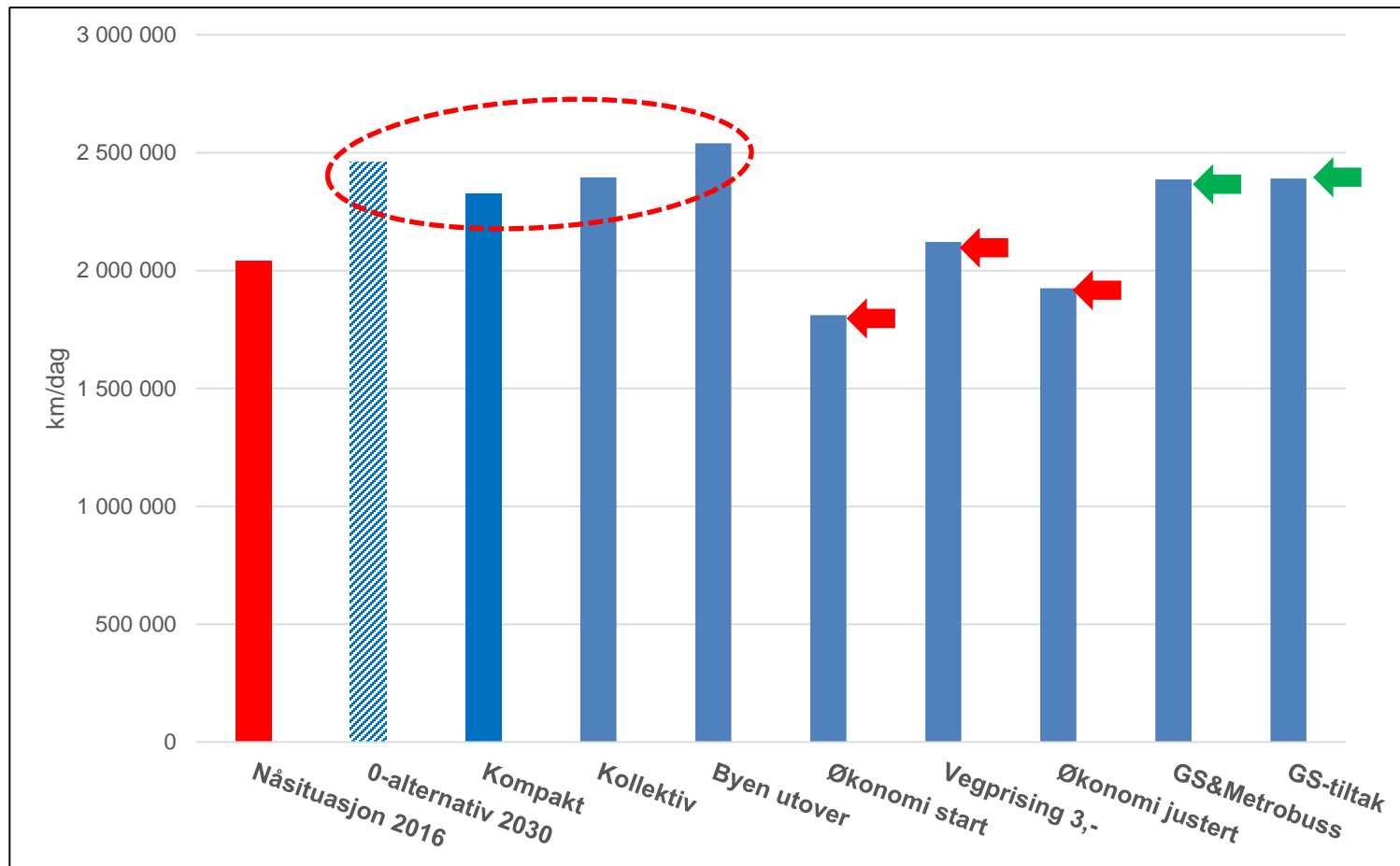
- E6 Jaktøya – Klett – Sentervegen
- New route structure bus (Metrobus)
- Nydalsbridge including road attachments
- Trønderbanen railroad (from diesel to electric)
- Leangen railroad station
- Projects in portefolio of Nye veier a/s (E6 south and east of Trondheim)
- Toll road collection on E39 to Skaun/Orkdal removed



# Transport analysis (RTM-calculations)



# Initial calculations – Trondheim municipality



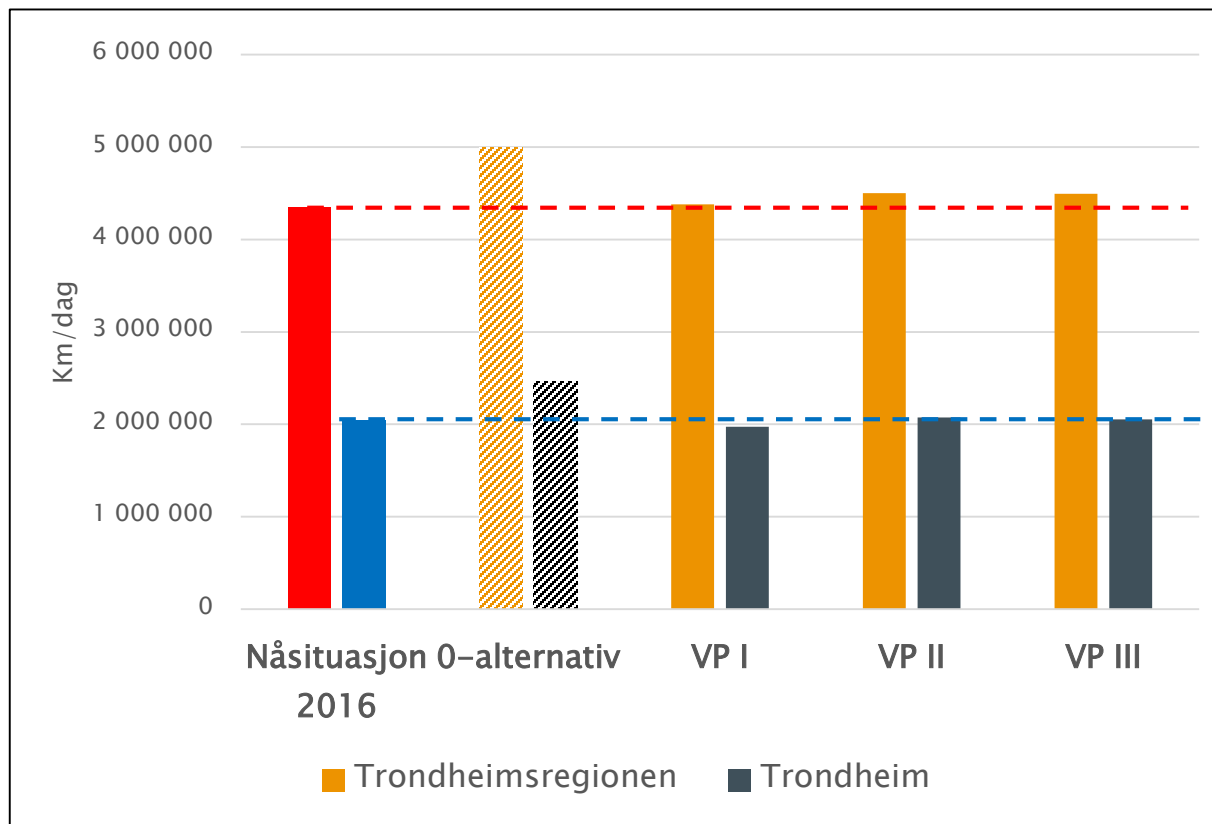
## Means / Instruments

- **Land use:**
  - Development of areas close to public transport
- **Public transport:**
  - Three different steps to increase public transport service
  - Metrolines + Railroad (regional) + Light rail
- **Toll roads:**
  - Existing toll stations
  - Fees increased by two or four times compared with today
- **Parking regulations and fees:**
  - Area for parking fees expanded
  - Main focus on long term («workplace parking»)

# Combinations of means

		I (+metrobus & toll roads & parking fees)	II (+train & parking fees)	III (+light rail & economy)
Walking/Cycling		X	X	X
Public transport	Metrobus-lines	X	X	X
	Metrobus-lines & railroad service		X	X
	Metrobus-lines, railroad service & light rail			X
Economy	Increased fees toll roads (4x)			X
	Increased fees toll roads (2x) and parking fees		X	
	Increased fees toll roads (2x) and increased parking fees	X		
Land use alternative «kollektiv»		X	X	X

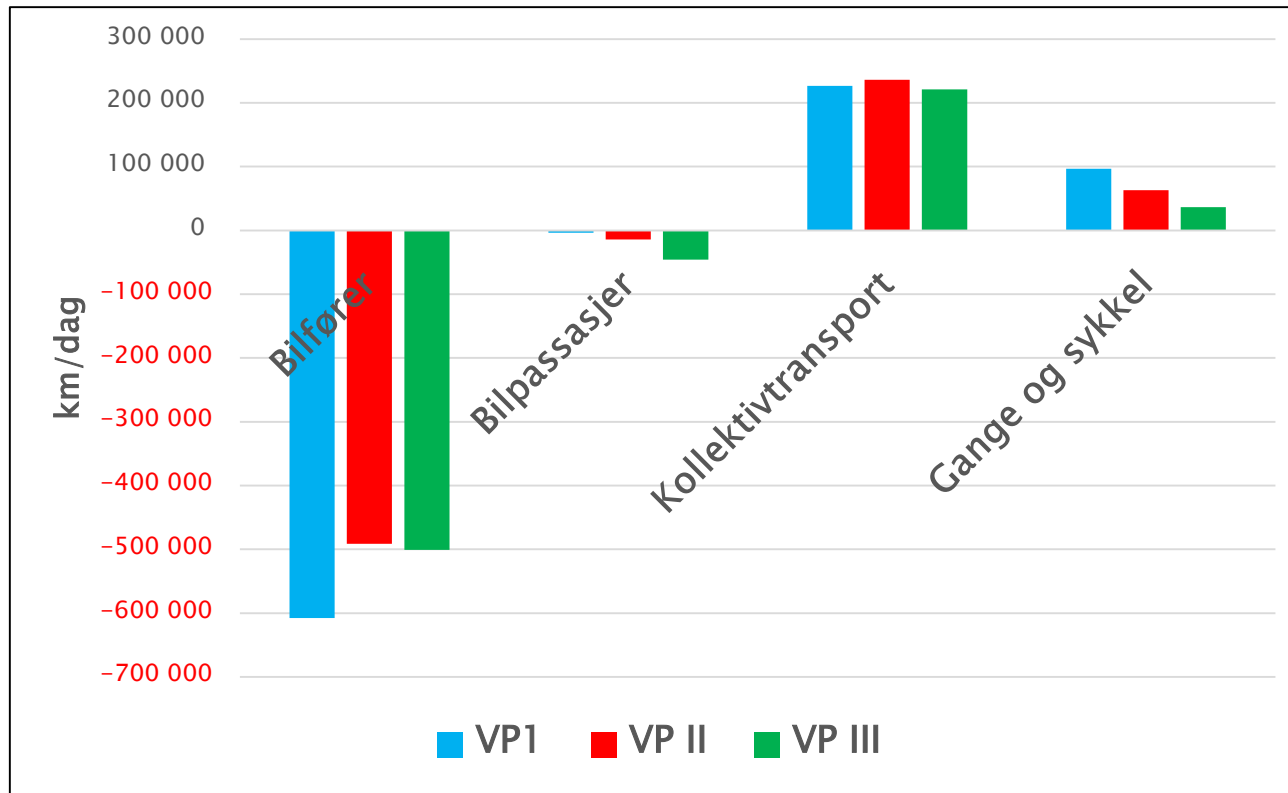
# Goal achieved



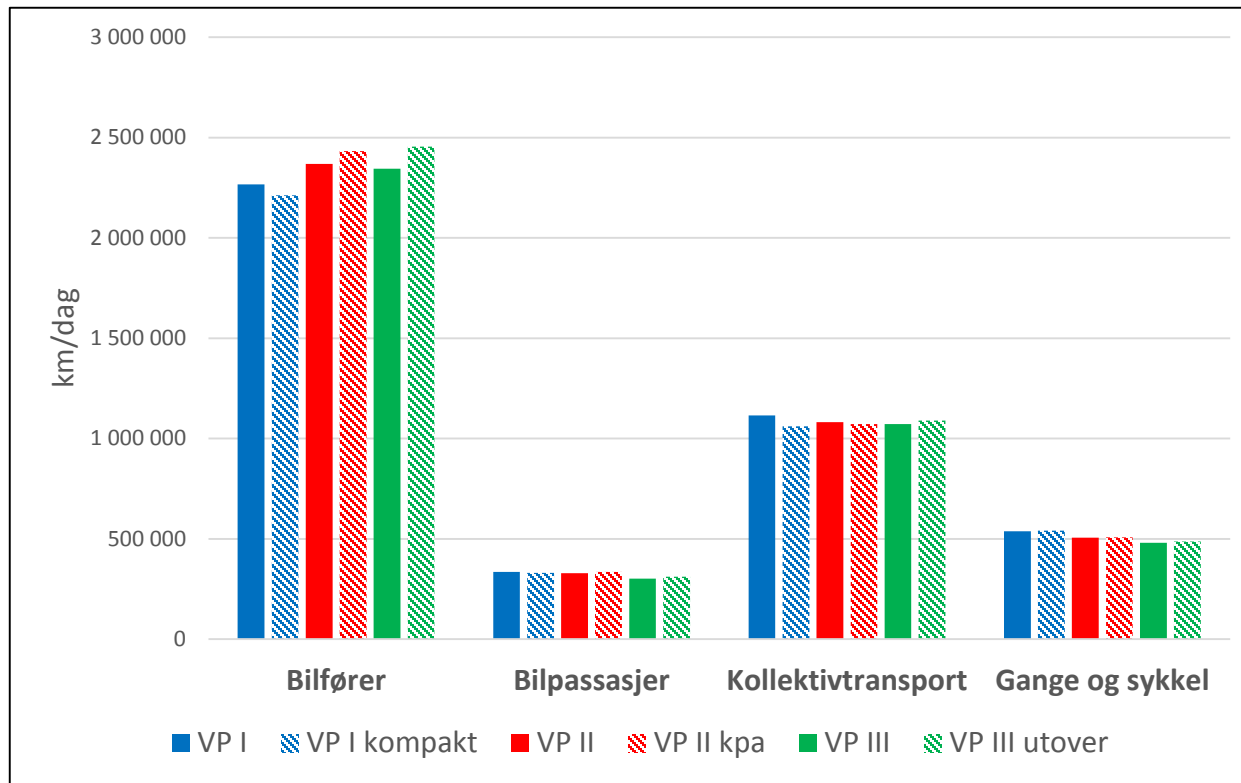
Goal: 4,3 mill. km/day i Trondheimsregionen  
2,0 mill. km/day i Trondheim kommune



# Changes compared to 0-alternative (2030)



# Land use alternatives in Trondheim municipality



Change «driver-km»:

VP I/kompakt:	– 2,4 %
VP II/kpa:	+ 2,7 %
VP III/byen utover:	+ 4,7 %



## Investment costs

	VP 1	VP 2	VP 3
Walking/Bicycling	8 600	8 600	8 600
Public transport (Bus)	4 500	4 500	4 500
Public transport (railroad)		10 000	10 000
Public transport (light rail)			6 000
<b>TOTAL</b>	<b>13 100</b>	<b>23 100</b>	<b>29 100</b>

Amounts in mill. NOK

## *Byutredning Trondheimsområdet*

# Summary

- All instrument packages provide a computational reduction that corresponds to the “zero growth goal”
- Most clearly effect in Trondheim, somewhat more demanding for the entire Trondheim region
- Combinations of measures are necessary
- Land use is of great importance
- There are a lot of options for different toll road system and parking restrictions / charges
- There are a number of measures that are not taken into account in the calculations, but which can help reduce the necessary economic means (travel attitudes, bicycle parking, environmentally differentiated toll rates, etc.)

