Top line: investment in walking and cycle track networks in three Norwegian cities seems to be highly beneficial to society since net benefit/cost ratios in these cities were approximately 4:1, 14:1 and 3:1, respectively (ie highly positive).¹

Since the start of the 21st century there has been an increasing number of studies addressing cost-benefit analysis (CBA) of walking and cycling. These indicate that including health impacts arising from existing and new users could make a major difference to CBA results.² One study undertaken in three Norwegian towns (Hokksund, Hamar, Trondheim) of their walking and cycling track networks directly addressed this short-coming.³ The CBA included conservative estimates of some benefit components:

- **Traffic accidents** - assumed that the number of traffic accidents resulting in injury would remain unchanged because of the new walking and cycling tracks.
- **Travel time** – assumed that travel times for pedestrians and cyclists remain unchanged
- **Insecurity** - felt by pedestrians and cyclists moving along a road was included at a cost of NOK 2 per kilometre. Assuming an average speed of 10–20 km/h the cost of insecurity was about NOK 20–40 per hour for cyclists.
- **School bus transport** - assumed that 50% of children previously using a bus would not need this if walking and cycle track networks were constructed.
- **Less severe diseases and ailments and less short-term absence** – assumed that short-term absence from work would be reduced by 1 percentage point (from 5% to 4%) and that 50% of new pedestrians and cyclists would see improvements in their health.
- **Severe diseases and ailments and long-term absence/disability** - moderate amounts of daily physical activity reduce risk of premature mortality in general. Risk reductions were related to just four types of severe diseases or ailments - cancer, high blood pressure, type-2 diabetes and musculoskeletal ailments. Estimated costs due to welfare loss for people suffering from these diseases or ailments were included. The welfare loss is estimated to be 60% of the total costs - the same magnitude as for welfare loss for people injured in traffic accidents used in Norwegian CBAs of other road investments.
- **External costs of road transport** - included the external costs were CO2-emissions, local emissions to air, noise, congestion and infrastructure costs.
- **Parking costs** – commute trips by car replaced by walking or cycling were assumed to reduce parking costs for businesses in Trondheim, Hamar and Hokksund by NOK 1165, NOK 560 and NOK 325⁴ per month, respectively.

Compared to the relatively low net benefit/cost ratios for other transport investments, investments in walking and cycle tracks provides a chance to make investments yielding considerably higher profitability to society than seen from most other programmes in the transport sector. This conclusion is supported in more recent studies.

¹ A benefit to cost ratio greater than 1 represents "value for money" to the public sector.
² Elvik, R. 2000 Which are the relevant costs and benefits of road safety measures designed for pedestrians and cyclists? *Accident Analysis and Prevention*, 32: 37-45.
⁴ £1 = 10 Norwegian Kroner (NOK)