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SCOTLAND

2016



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## International Case Studies for Scotland's Climate Plan

# Year-round cycling, Oulu, Finland

### Facts & Figures

22% of the population regularly cycle

17km of bicycle paths built every year (on average) since the 1980s

The cycling rate is 44 times higher than in Aberdeen, a city of comparable size & that is 8 degrees of latitude further south.

300 safe places to cross the road across the city

98% of the cycle network is maintained, and cycle paths are often cleared of snow before roads are

Less than 8tonnes of climate pollution from each resident per year

### Overview

The city of Oulu is situated on the coast of northern Finland and is home to just under 200,000 people. Despite winter temperatures which can drop as low as  $-40^{\circ}\text{C}$ , over 12% of the population cycles in winter, rising to an average of 22% across the year. This is due to an extensive 613km long network of cycle paths which are well maintained throughout the seasons. The rate of cycling in the city is significantly higher than in Scotland (where currently just 1.4% of journeys are made by bike) and 44 times greater than Aberdeen, a city of comparable size.

### Aims

Work began on Oulu's world-leading cycle infrastructure in the 1980s following planning decisions in the 1970s. Ever since, the city has built an average of 17km of bicycle paths per year, focusing on connecting people with workplaces, shops and leisure.

At its outset, the infrastructure plans aimed to tackle the reluctance to travel by bicycle in cold weather or on icy surfaces. Finland's winter cycling survey shows the top reasons for not cycling in winter are the cold weather and slippery paths. However, the top enabler for winter cycling is good maintenance.

### Actions

The cycle network serves cyclists and pedestrians and connects homes with workplaces, schools, shopping and other destinations, often providing the quickest and most convenient way to travel short distances. The network is separate from the road network, fully lit and includes 300 safe places to cross roads.

Crucial to securing the city's high modal share is maintenance of this network. In the winter, 98 percent of the network is maintained and cycle paths are often cleared of snow before the roads.

Ongoing action in the city includes a cycling route planner; a winter cycling development plan to increase even more year-round cycling; the creation of new business opportunities around cycling and health technology, and increase local, national and international awareness about winter cycling in Oulu.

## Benefits

Finland's winter cycling survey shows an increase of 25% in winter cycling rates since the introduction of better maintenance of cycle ways.

Almost half of those aged 13-17 use a bike as their main form of transport and a high proportion of older residents cycle throughout the year. Studies show that people who cycle regularly in mid-adulthood typically enjoy a level of fitness equivalent to someone 10 years younger and have a life expectancy of two years above the average.

Since 2010, Oulu's carbon emissions have fallen by nearly a third from around 2.2MtCO<sub>2</sub>e to 1.5MtCO<sub>2</sub>e in 2014. Although much of this reduction came from the electricity sector, emissions from transport have been steadily decreasing.

### Carbon

32% reduction in carbon emissions from 2010-2015. At 7.8tCO<sub>2</sub>e per capita, Oulu's emissions are lower than Scotland's (10tCO<sub>2</sub>e per capita) and lower than the average for wealthy nations of 11.2tCO<sub>2</sub>e.

### Economic

Oulu's cycle infrastructure, maintenance and promotion supports quick, low cost commuting, avoiding congestion costs. It also provides a tourist attraction through initiatives like the Winter Cycling Congress.

### Social

Increased life expectancy and improved health. Transform Scotland estimates that moving to continental levels of cycling could save Scotland £1-4bn in health costs.

### Timescales

1972: City of Oulu cycling plan  
 1987: Opening of "Rotuaari" walking district  
 1993: Rotuaari extensions in 1993  
 1998: Regional maintenance contracts started  
 2002: Winter cycling research, first year round bike counts done  
 2002: Regular user satisfaction studies on maintenance, repeated every second year

### Cont.

2007: Oulu region cycling development strategy  
 2010: Update of Oulu cycling development plan  
 2010: Installation of automatic bike counters  
 2010: Winter cycling development plan  
 2012: Cycling route planner launched  
 2013: Winter Cycling Congress takes place

*"People who stop cycling as the winter comes mention two obstacles—no safe infrastructure, no winter maintenance—as the most important barriers. Once there's no proper cycling infrastructure nor winter maintenance, cycling through the year becomes an extreme sport. By investing in winter maintenance, the number of winter cyclists has increased by 25% in Oulu"*

Timo Perälä, Winter Cycling Federation founder, Oulu

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