
Summary:

European cities with car-free city centres

TØI Report 1476/2016

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The report describes car-free city centres in 15 European cities and offers an assessment of three cities that are considered to be the most relevant for The City of Oslo. The three recommended cities are, in ranked order, Brussels, Copenhagen, and Munich. Other cities described in the report are Stockholm, Nuremberg, Zurich, Gothenburg, Freiburg, Groningen, Strasbourg, Utrecht, Gent, Dublin, Glasgow, and Helsinki. The selection of the cities, their descriptions, and the relevance to Oslo are based on a set of predefined criteria.

The report was prepared on behalf of the Oslo Alive Secretariat (the Real Estate and Urban Renewal Agency, Municipality of Oslo). The Secretariat has a need for knowledge about European car-free city centres relevant to Oslo. The report can also be useful for other Norwegian cities that are discussing car-free areas.

The cities described in this report have been chosen because they have large, continuous car-free areas in their centres¹ and because they are relevant in discussions on car-free city centres. Venice, for example, is not included. Despite having a large car-free city centre, the many canals are considered to provide a too different context for comparison with Oslo.

The following framed our selection of cities:

- **City size:** To enhance comparison with Oslo population size have been emphasised. All cities are Euro Cities (a network containing larger cities in Europe) except two. None of Europe's largest cities are included, for this reason
- **Forerunner cities:** Some cities have been included despite their obvious different characteristics compared to Oslo. These are smaller cities, typically with a medieval street network, which have been recognised as forerunners in terms of developing car-free city centres.
- **Geographical coverage:** 10 different European countries are represented in the report.
- **Planned and implemented measures:** Both cities which have implemented car-free areas and cities planning to do so are included. Emphasis has been put on the former ones.

In total 32 European cities have been considered.

¹ The exception is Gothenburg which has a small car-free area.

The report divides the cities into three groups:

- Major European cities
- Midsized European cities
- European cities with plans of pedestrianizing their city centres

For each city, the following are described:

- Population size and position within the region
- Main structure of the transport system
- Urban plan and city life
- Characteristics of the car-free area
- Grounds for political decisions
- Summary and evaluation of relevance to Oslo
- Map showing the form and extent of the car-free area
- Map showing the relationship between the outline of the planned car-free area in Oslo and the described city

The shape and regulation of car-free areas varies. An important project task is to describe how creating and maintaining a car-free area is done in the different cities. The following structure will be used to describe a car-free city centre:

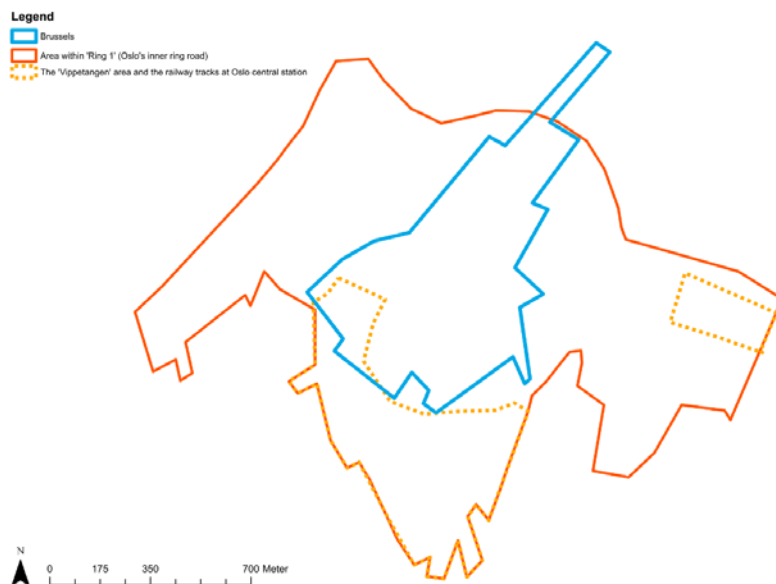
- Number of (planned) square kilometres in the car-free areas
- Form of (planned) car-free area, including whether it is continuous or consists of several smaller, discrete areas
- General description of conditions for walking, cycling, and public transportation in the car-free area
- Development of the car-free area (whether the area has increased or decreased in size over time)
- Design of the downtown grid; specifically, whether the (planned) car-free area is characterized by a narrow or open-gate line
- Availability of parking outside of the (planned) car-free area
- Regulation of the car-free area

The descriptions of car-free area regulations include explanations of how access to the area is physically and legally restricted, including exceptions, such as exemptions for disabled people, taxis, and emergency vehicles, or permission for the delivery of goods at certain times.

For the description of the cities, we gathered information from a variety of sources – scientific articles, books, statistics, etc., – and internet sources. We provide references for our sources either in the reference list or as links in the footnotes of the text. We have also drawn up and calculated the size of the car-free areas in cities using Geographic Information Systems (GIS). We have exercised a degree of discretion in the appraisal of the areas.

The last chapter summarizes and discusses the findings, and an assessment is made of the three cities that were considered to be most relevant for Oslo. A brief description of these cities is as follows:

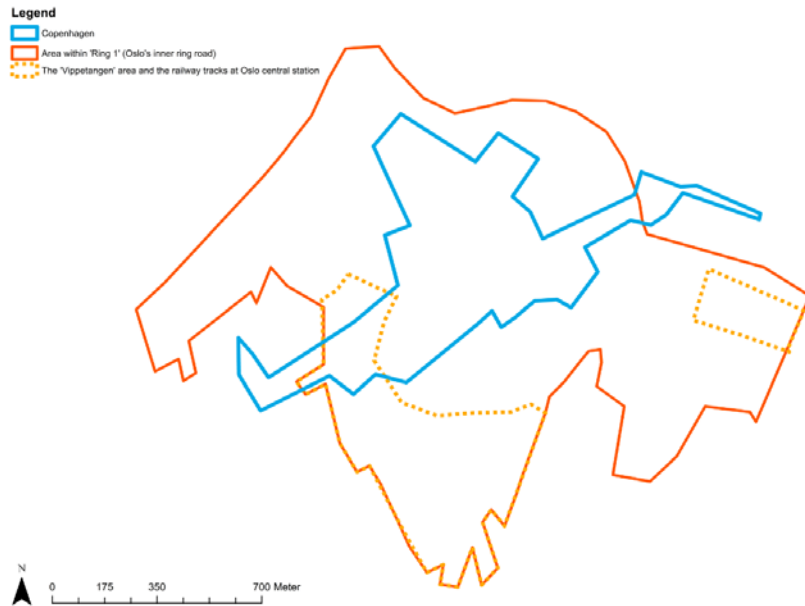
Brussels is relevant given their current work on expanding their car-free city centre. First in 2012 and then in 2015, Brussels' car-free downtown area has been expanded. Regardless of the final outcome further studies will provide insight into how this process was completed, including the use of test periods for the car-free area. Brussels also provides relevant knowledge about the transformation of major streets to car-free areas, including how to relocate traffic flows and efforts to fill the car-free streets with new content. Such knowledge is regarded relevant, despite the fact that the city centre of Oslo does not contain main through-traffic roads. Brussels is the capital city, as is Oslo in its respective country, and has a comparable population. Its car-free area (0.5 sq km) is smaller than what is being discussed in Oslo (1.9 sq km within a Ring 1, or 1,5 sq km if the Vippetangen-area and the track area at Oslo central station are excluded).



Comparing car-free area in Brussels with area within Ring 1, Oslo

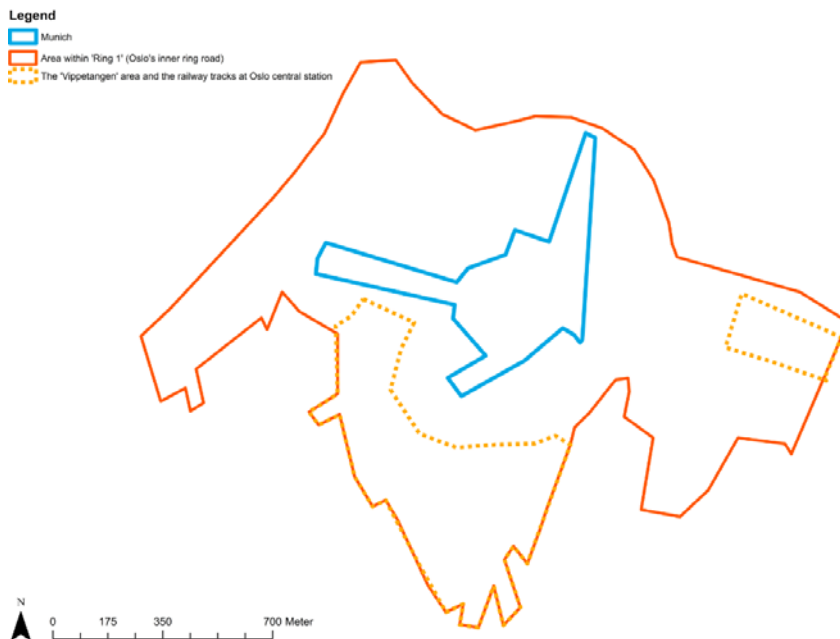
Copenhagen – As Nordic capitals, much of the context in Copenhagen is the same as that in Oslo. Copenhagen's relevance is based on the systematic and longstanding efforts to pedestrianize its city centre. Where Brussels provides insight into major ongoing changes, Copenhagen an example of the early introduction of a car-free area. It provides insight into how to work with the management of the car-free area over time. The area in Copenhagen (0.6 sq km) is less than what is being discussed in Oslo; nevertheless, it is among the largest described in this report. The high bike-share rate (26% compared with 5% in Oslo) and the city's facilitation for cyclists provides important information. Copenhagen is an example of a gradual, targeted introduction that not only involves the car-free area but also the adjacent streets (where cars can drive, but only at low speeds).

European cities with car-free city centres



Comparing the car-free area in Copenhagen with area within Ring 1, Oslo

Munich: Similar to Copenhagen, Munich provides insight into the management of car-free city centres over time. The car-free area in Munich (0.2 sq km) is significantly less than what is being discussed in Oslo (1.9 km²), but it is characterized by similar street width as found in downtown Oslo. Munich is also interesting because of the extensive cycle-path system and high share of bicycling (14%).



Comparing pedestrianized area in Munich with area within Ring 1, Oslo