

Introduction of 30 km/h as general speed limit in European cities

What effects can be documented?

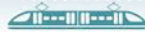
TØI Report 2009/2024 • Authors: Aud Tennøy, Cyriac George • Oslo 2024 • 46 pages

We have assessed and organized information related to the introduction of 30 km/h general speed limits in six European cities, as well as Spain. The decision to introduce such a speed limit can be taken at different levels – by national authorities defining speed limits in all cities, political authorities in urban municipalities, or authorities at different levels on parts of the road network they administer. With some exceptions for main roads, the 30 km/h general speed limit have been implemented on all or most streets and roads throughout the city or city region. Information about speed limits and enforcement of compliance are important elements of implementation. The cities have documented that the measure has produced desired effects, such as lower speeds, high levels of compliance, reduced noise and local pollution, no increase in travel time or congestion for vehicular traffic, and significantly fewer accidents, especially serious ones and those involving pedestrians and cyclists.

Background, assignment and implementation

Several European cities are working systematically to expand the share of their street network with a speed limit of 30 km/h. Many have introduced or are in the process of introducing a *general* speed limit of 30 km/h, which means that this is the default speed limit unless sign-posted otherwise. There are also ongoing discussions about the introduction of a general speed limit of 30 km/h in Norwegian urban areas, where there is a need for knowledge about the experiences of cities that have already implemented one. At the request of Viken County Administration, researchers at the Institute of Transport Economics have collected, assessed, summarized and structured information from cities and countries that have recently introduced 30 km/h speed limits, and who have expressed positive expectations and/or effects of the intervention on their websites.

Four of the cities (Brussels, Paris, Lille and Bilbao) introduced a general speed limit of 30 km/h in 2020 or 2021, while Grenoble did so in 2016 – 2017. London is in the process of gradually introducing a speed limit of 20 mph on parts of the main road network between 2020 and 2024, and in Spain a new law defining speed limits in all Spanish cities came into force in 2021. Viken County Council were interested in how the cities had proceeded with introducing the general speed limit, how the applicable areas were defined and which roads were exempt, what measures had been taken to monitor and enforce compliance, as well as the documented results and effects. In this study we seek to provide insight and knowledge to inform



discussions about the introduction of a general speed limit of 30 km/h in Norwegian cities and form a basis for further studies.

The main data source in this study has been documents describing how the six European cities, as well as Spain, have implemented changes to their speed limits in urban areas, how the new speed limits have been enforced and what the effects have been. Most of the cities implemented the changes just before or during the pandemic (most in 2020 and 2021). It is, therefore, to be expected that there is no well-documented knowledge of results from all cities, and that what exists mainly concerns more immediate effects regarding reduced speed, traffic accidents, noise, pollution, etc. We found considerable and thorough documentation from Grenoble, Brussels and London, and have emphasized these cities in the report. The relevant documents were taken from the websites of public authorities and organizations, and in some cases from more detailed reports.

Summary of main findings

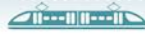
The decision to introduce 30 km/h speed limits can be made at different levels – by national authorities defining speed limits in all cities, by political authorities in urban municipalities, or by authorities at different levels choosing to introduce this speed limit on the parts of the road and street network they administer.

Most of the cities have implemented the general speed limit of 30 km/h on all or most of the streets and roads in the city or city region. The exceptions to the general speed limit are main roads that are signposted at higher speeds and some local streets that are signposted at a lower speed. In most cities, the general speed limit of 30 km/h applies in the city itself (typically the city municipality), but in Grenoble it applies to almost all municipalities in the city region. In Grenoble, the introduction of a general speed limit of 30 km/h was the first measure to be implemented as part of a larger urban mobility plan. In London, they have begun to introduce a 20 mph speed limit on parts of the main road network in central parts of the city. The change in the law in Spain means, among other things, that the speed limit of 30 km/h applies to all streets with one lane in each direction in urban areas.

The cities have taken steps to ensure speed limits are adhered to, and several were in the process of stepping up their efforts. They have conducted information campaigns, intensified speed controls and taken organisational steps to ensure that speed limits are enforced. Spain has introduced a ban on the possession of devices that detect speed control radars in vehicles.

The cities have documented that the measure has produced desired effects, such as lower speeds, high levels of compliance with speed limits, as well as significantly fewer traffic accidents, particularly serious accidents and accidents involving pedestrians and cyclists. In Grenoble, Brussels and London, they documented that speeds went down as soon as the measure was introduced. In Grenoble, where the new speed limit applies to large parts of the city region, they found a greater level of compliance in the city itself than in neighbouring municipalities. Grenoble and Brussels documented that speeds decreased both on streets where the speed limit was reduced and on streets that underwent no change. It is too early to document more long-term effects related to sustainable urban development, such as changes in travel behaviour, urban life, well-being, etc. Authorities in Brussels and London investigated whether reduced speed limits resulted in, respectively, longer travel times and more congestion; in both instances it was found to be not the case. The cities that have measured or estimated the development in local pollution (Grenoble and Bilbao) and noise (Brussels) also found reductions.

We have thus found that the introduction of a general speed limit of 30 km/h in urban areas can be implemented in various ways, that cities have seen a need for information about and



intensified control and enforcement of speed limits, and that the measure has had the desired effects in the cities from which we have obtained documentation. The documentation is based on a few cases, which were initially understood as 'good cases', and the surveys were conducted relatively soon after the introduction of the intervention. Documentation from more cases is needed to be able to say something about whether similar results can be expected if a general speed limit of 30 km/h is introduced in other cities. The results, on the other hand, coincided across cities that are different in many ways.

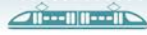
Based on this, discussions related to the introduction of a general speed limit of 30 km/h in Norwegian cities may concern: Who should have the authority to decide which areas, streets and roads should have a speed limit of 30 km/h in Norwegian cities; To what extent should the speed limit apply in cities and regions; Which roads should be signposted at a higher speed; What information, control and enforcement measures need to be taken to ensure compliance with the lower speed limits; What further measures should be taken to ensure that a general speed limit of 30 km/h contributes to achieving national targets related to sustainable urban development; How will introducing this in Norway be investigated and documented?

Decisions have been made at various levels

The introduction of a general 30 km/h speed limit and the significant expansion of road networks on which such speed limits apply were taken at various levels. Spain imposed general speed limits on all streets and roads in all Spanish cities by law in 2021. The speed limits are either 50, 30 or 20 km/h, depending on the number of lanes. According to the law, the speed limit in all streets with one lane in each direction in all Spanish cities, including one-way streets, is now 30 km/h. In 2015, France passed a law giving mayors the right to implement municipal speed limits lower than those specified in the French Highway Code. By 2022, more than 30 French cities had introduced a general speed limit of 30 km/h throughout parts of the city. Also in Brussels, it was the authorities in the city who decided to introduce such a speed limit. In the UK, local London borough authorities have been implementing a 20 mph speed limit on an increasingly large share of the local street network for years, and at least one borough has introduced a general speed limit of 20 mph. The change happening now is that a 20 mph speed limit is also being introduced on parts of the main road network, which is administered by the more overarching authority Transport for London, and particularly on the main road network in central parts of the city. This is part of a larger plan initiated by the Mayor of London. We cannot determine the best way to organise these findings based on the cases and material we have examined. The descriptions of how implementation is carried out in different countries and cities may nevertheless be relevant in discussions about whether and how a general speed limit of 30 km/h should be introduced in Norwegian urban areas.

How areas with a general speed limit of 30 km/h are delimited

In most cases, the introduction of the 30 km/h general speed limit took place in the city proper or in large parts of the city region with signposting for specific roads that allow higher speeds. In Spain, a national law defines which roads can have a speed limit higher than 30 km/h (mainly roads with two lanes or more per direction of travel). Bilbao stands out as the only city that has a general speed limit of 30 km/h on all streets and roads throughout the city, without exception. In most cities, the general speed limit of 30 km/h applies in the city proper (typically at the municipal level), but in Grenoble it applies to almost all municipalities in the city region. In Grenoble, the introduction of a general speed limit of 30 km/h was the first measure to be implemented as part of a larger urban mobility plan. It appears that this was an early measure also in Brussels (part of the Good Move Strategy) and London (part of the Mayor's Vision Zero Action Plan). The Greater London Authority is since 2020 in the process of introducing a speed limit of 20 mph on key parts of the Transport for London Road Network in central parts of the



city, while all or parts of the street network administered by the various boroughs already have such a speed limit. Most cities introduced the general speed limit to the pertinent areas on a single day, whereas Grenoble and London introduced it gradually in different parts of the city region. All six cities already had experience with speed limits of 30 km/h (or 20 mph), and the proportion of streets that had such a speed limit in the pre-situation varied from 15% (Grenoble) to 87% (Bilbao). The descriptions of how the various cities have defined the areas and streets to which the general speed limit of 30 km/h applies, and which roads are sign-posted at higher speeds, can be a useful background if such speed limits are to be introduced in Norwegian cities. Important questions may revolve around whether the general speed limits should apply only to the city itself and how much of the city region they should apply to, as well as what types of roads should permit higher speeds.

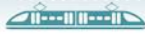
Control and enforcement of speed limits

The cities covered in this study have adopted various measures to help ensure compliance with the new speed limits. We have documented that Grenoble, Brussels and Paris have carried out information campaigns, and we assume that the other cities have done so as well. Several cities (at least Grenoble and Bilbao) have increased their use of roadside displays that show drivers their speed based on radar measurements, but where no fines are imposed. London and Bilbao have increased the number of speed controls. Bilbao has doubled its numbers, and in London it now prioritises the most dangerous drivers, areas and times. This has resulted in a 72% increase in the number of fines issued in London. In Bilbao, the police's long-term goal is to issue fewer fines, despite increased efforts. In Belgium, they have established a new National Prosecutor's Office for Road Safety to manage the expected increase in fines. In Paris, they are considering establishing a municipal police force dedicated to enforcing traffic rules. In order to encourage compliance, authorities in Spain have, among other things, legislated a ban on the possession of radar detection devices in vehicles, violations of which are punishable by fines and loss of points on one's license.

Documented results and effects

All the cities that had examined the effects of the new speed limits on the vehicle speeds (Grenoble, Brussels, London and Bilbao) documented a significant reduction. In Grenoble and Brussels, they found that speeds were reduced both on streets where speed limits were reduced to 30 km/h and on streets that maintained higher limits. In Grenoble, the proportion of the street network with a speed limit of 30 km/h increased from 15% to 82%, and the introduction of the general speed limit was the first measure taken as part of a larger plan to improve the urban environment. A year after the introduction of the measure, the average speed on streets where the speed limit had been reduced from 50 to 30 km/h was as low as 30.5 km/h in the central areas, but were higher (39.2 km/h) in neighbouring municipalities (where the same speed limit applied). In Brussels, they found that the reduction in speed occurred immediately after the new speed limits were introduced, and that the effect increased over time. In London, the effects of introducing general and lower speed limits have been documented several times, and each time they have found significant speed reductions. In the cities that investigated compliance with the speed limit (Grenoble, Brussels, London and Bilbao), they found that speed limits were largely complied with, especially in the central urban areas. In Bilbao, the number of fines for running a red light was reduced by 47%. Speed measurements on 19 city streets in Spain showed that 32% of motorists complied with the speed limit of 30 km/h and that the average speed in these streets was 35.6 km/h.

All the cities documented significant reductions in the number of road accidents, particularly those involving pedestrians (e.g., 24% in Grenoble and 63% in London), and the number of serious accidents (e.g., 25% in both Brussels and London). This was as expected, given previous



research showing that reduced speeds result in fewer serious traffic accidents. In Spain, they found that the number of fatal accidents in urban areas decreased by 9% from 2019 to 2022 (the law came into force in 2021).

Authorities in Brussels and London investigated whether reduced speed limits resulted in, respectively, longer travel times and more congestion; in both instances it was found to be not the case. The cities that have measured or calculated the development in local pollution (Grenoble and Bilbao) and noise (Brussels) have found reductions.

The documentation of desired results following the introduction of a 30 km/h general speed limit provides useful insights that can inform discussions about similar efforts in Norwegian urban areas.

Too early to document long-term consequences

Grenoble is the only city for which we have obtained documentation of surveys on changes in how the street environment is experienced. A clear finding was that low vehicle speed was among the most important factors highlighted by those who stated that they were satisfied with the street environment, while high vehicle speed was the factor highlighted by a large majority of those who stated that they were not satisfied with the street environment. As expected, we did not find studies on whether the introduction of a 30 km/h general speed limit in cities has contributed to effects that can be linked to more sustainable urban development, such as: changing travel habits towards greater use of public transport, cycling and walking; improved public health; livelier and more pleasant neighbourhoods and cities; increased well-being in and use of cities; more space for pedestrians, city life and greenery, etc. Although it will take more time to be able to measure and verify, knowledge from previous studies has led to clear expectations that reduced speed limits and vehicular speed on streets will contribute to such results.

Further investigations

A general speed limit of 30 km/h is being introduced in an increasing number of cities, most recently Amsterdam in December 2023. One can hope and expect that the effects and results of their implementation will be thoroughly evaluated and documented, also if carried out in Norwegian cities. Such documentation provides a basis for cities to learn from each other and to develop more sustainable, pleasant, safe and efficient cities in the future.

The document study presented in this report has raised several questions that may be useful in future investigations. In order to gain a broader and more thorough understanding of what results can be expected following the implementation of such measures in other cities, documentation should be obtained from more cities where a general speed limit of 30 km/h, or similar, has been introduced. Such investigations should include smaller towns and cities where such measures have been in place for years. Interviews with academics and politicians, both in the case cities in this study and others that have taken similar measures, would also provide valuable insights on how decisions and administrative implementation of the measure were carried out, as well as what discussions arose and developed during and after the proposal and implementation stages.