



Helsinki



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Bicycle Action Plan 2020–2025

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A photograph of a person riding a bicycle on a city street. The rider is wearing a patterned jacket and a helmet. In the background, there is a stone building with a doorway and a parked bicycle. The word 'Introduction' is overlaid in large yellow letters.

Introduction

Helsinki's vision is to be the most functional city in the world. According to the Helsinki city strategy, the City is also striving to become carbon-neutral by 2035. Promotion of cycling and integrating cycling as a functional part of the transport system are highly significant factors in achieving both of these goals. Cycling is promoted because it helps achieve time savings, more efficient use of space, health benefits, environmental benefits, financial benefits and improved traffic safety. The promotion of cycling is not an end in itself; rather, it is a tool for creating a safer, more comfortable and more functional urban environment.

The City of Helsinki's previous Bicycle Action Plan was approved in 2014. At the time, the

goal was to increase the modal share of bicycle traffic from 11% to 15% by 2020. The 25 measures presented were focused on developing cycling infrastructure, building the inner city target network approved by the City Planning Committee in 2012, and increasing the investment level for bicycle traffic gradually to €20 million. Building the target cycling network and its comprehensive promotion are therefore based on valid decisions.

However, even though the bicycle traffic volumes have grown, its modal share has not increased enough to meet the goal. The key reason for this is the slow implementation of bicycle traffic's target network: bicycle traffic routes have not been built as quickly as hoped for, and the investment level will

achieve the goal level of €20 million for the first time in 2020.

The slower than hoped for progress of the measures determined in the previous action plan, coupled with the stagnating proportion of cycling as a mode of transport, have created a need to update the Bicycle Action Plan. At the same time, a need to continue updating the action plan every five years has emerged, so that the operators review the plan's progress, goals and the most effective measures of achieving the goals at regular intervals.

This Bicycle Action Plan will primarily focus on the ways of improving the different sectors of cycling infrastructure. Promotion of cycling also requires measures concerning matters such as cycling education and



activating others. These measures will be planned and implemented in connection to the City's other programmes and plans.

The work was commissioned by the Land Use and City Structure service unit of the City of Helsinki's Urban Environment Division. The work's project manager was Reetta Keisanen. The work's steering group:

- Reetta Putkonen (Chair), Head of Traffic and Street Planning, Land Use and City Structure
- Leena Silfverberg, Unit Manager, Land Use and City Structure
- Taika Tuunanen, Unit Manager, Management and Support Services
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ings and Public Areas

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- Markku Riekkö, Project Manager, Financial and Planning Division
- Reetta Keisanen, Cycling Coordinator, Land Use and City Structure
- Oskari Kaupinmäki, Project Manager, Land Use and City Structure

Various workshops were also held during the course of the work, and the experts and interest groups of the Urban Environment Division were consulted extensively.

The work's consultant was WSP Finland Oy. The consultant's project manager was Riikka Kallio. Essi Pohjalainen, Pia Salmi and Leila

Soinio also took part in the work. The visualisation of the report was carried out by Ari Kujala.

1. Current state

Promotion measures of cycling and their impacts

Cycling as a mode of transportation has been promoted in Helsinki since 1995, but the measures have grown and become more systematic in the 2010s. Figure 1 shows the main points of bicycle traffic's promotion measures in the 2010s as well as their effect on the amount of bicycle traffic and its modal share. The current state has been reviewed in more detail in Appendix 1 of this report.

The first plan for doubling the numbers of bicycle traffic was compiled in 1995. The plan was updated in 2003, and the new goal was to double the amount of bicycle traffic by 2009. Signing the Brussels Convention in 2009 boosted the promotion of bicycle traffic. By this convention, the goal for the modal share of bicycle traffic was increased to 15% by 2020. This target growth was considered more extensively in the City of Helsinki's first cross-administrative bicycle traffic action plan, which was approved by the

City Board on 27 January 2014. The approval of this action plan was preceded by a major step, where the target network of cycling traffic in the inner city was approved by the City Planning Committee on 22 May 2012. The City of Helsinki is thereby committed and obligated to build the inner city's target bicycle network and implement the measures proposed in the action plan. The guiding principle of the target network is that all destinations should be safely and easily accessible by bicycle via the most direct route possible.

There is plenty of political support for promoting cycling in Helsinki. Since the bicycle traffic action plan was approved, also other City programmes and strategies have addressed the promotion of bicycle traffic more extensively. Since the action plan was drawn up in 2014, the planning culture and general attitudes in Helsinki have clearly changed: The City has given up old-fashioned views of 'light traffic' and has included cycling as an equal mode of transport in the entire transport system. The Helsinki city strategy supports the promotion of bicycle

traffic, as it places pedestrian traffic as the first and bicycle traffic as the second priority in the transport system's planning work.

Implementing the target network of cycling has proceeded slower than expected. The inner city's target network comprises around 131 street kilometres (Figure 1). Of this number, 29 kilometres have been completed. There are about 30 street kilometres of existing routes that need to be improved. A total of 72 street kilometres of completely new cycling infrastructure need to be built. In 2016, the bicycle highway network was approved as a new part of the city plan by the City Council. The length of the bicycle highway network updated in connection with this is about 132 kilometres, 35 of which are located in the target network's area in the inner city and 97 kilometres in suburban areas. Currently, six kilometres of routes that meet the planning criteria have been built of the entire bicycle highway network.

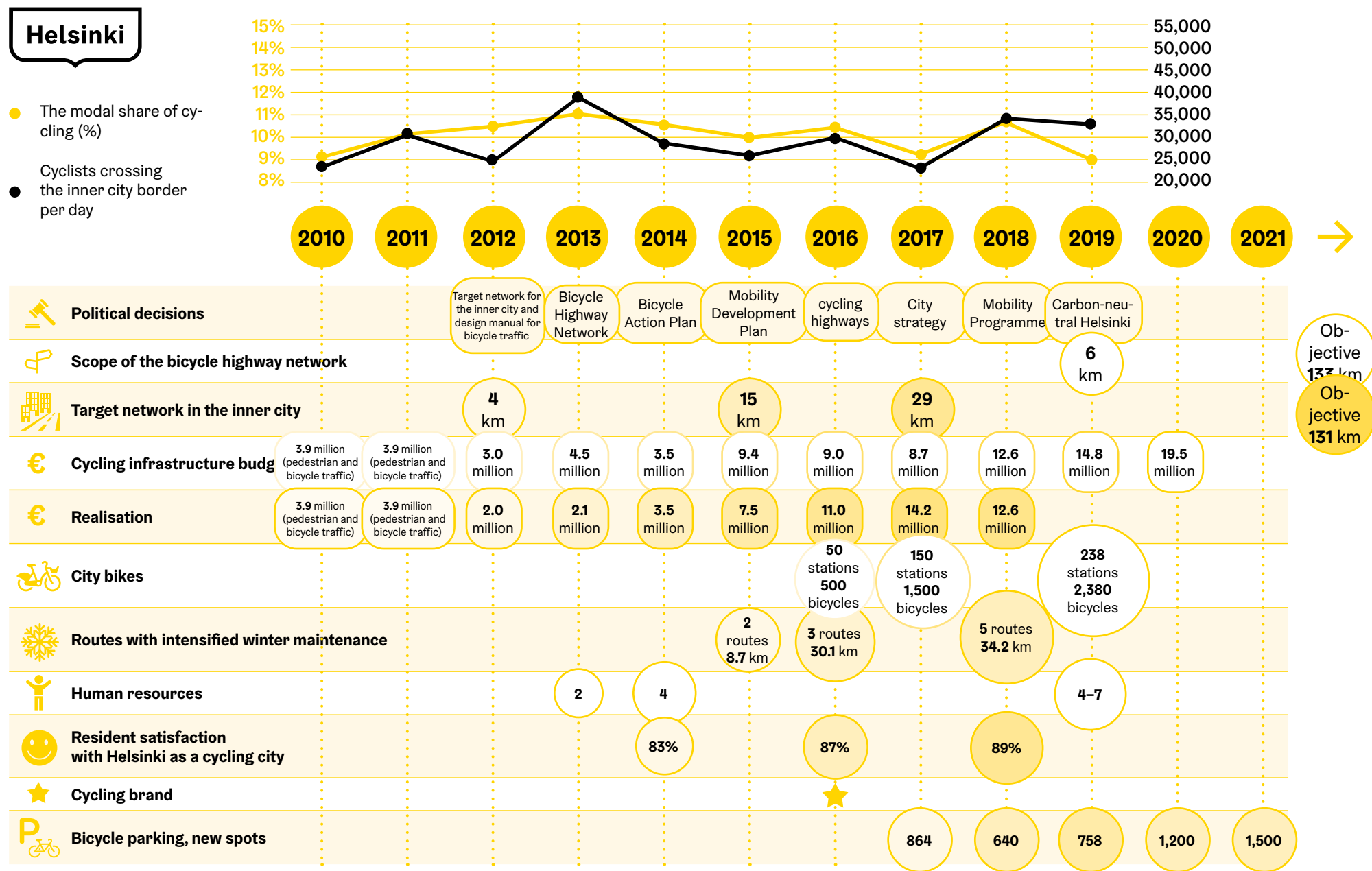


Figure 1. The figures for bicycle traffic in Helsinki, its proportion of all modes of transport and the key promotion measures since 2010.

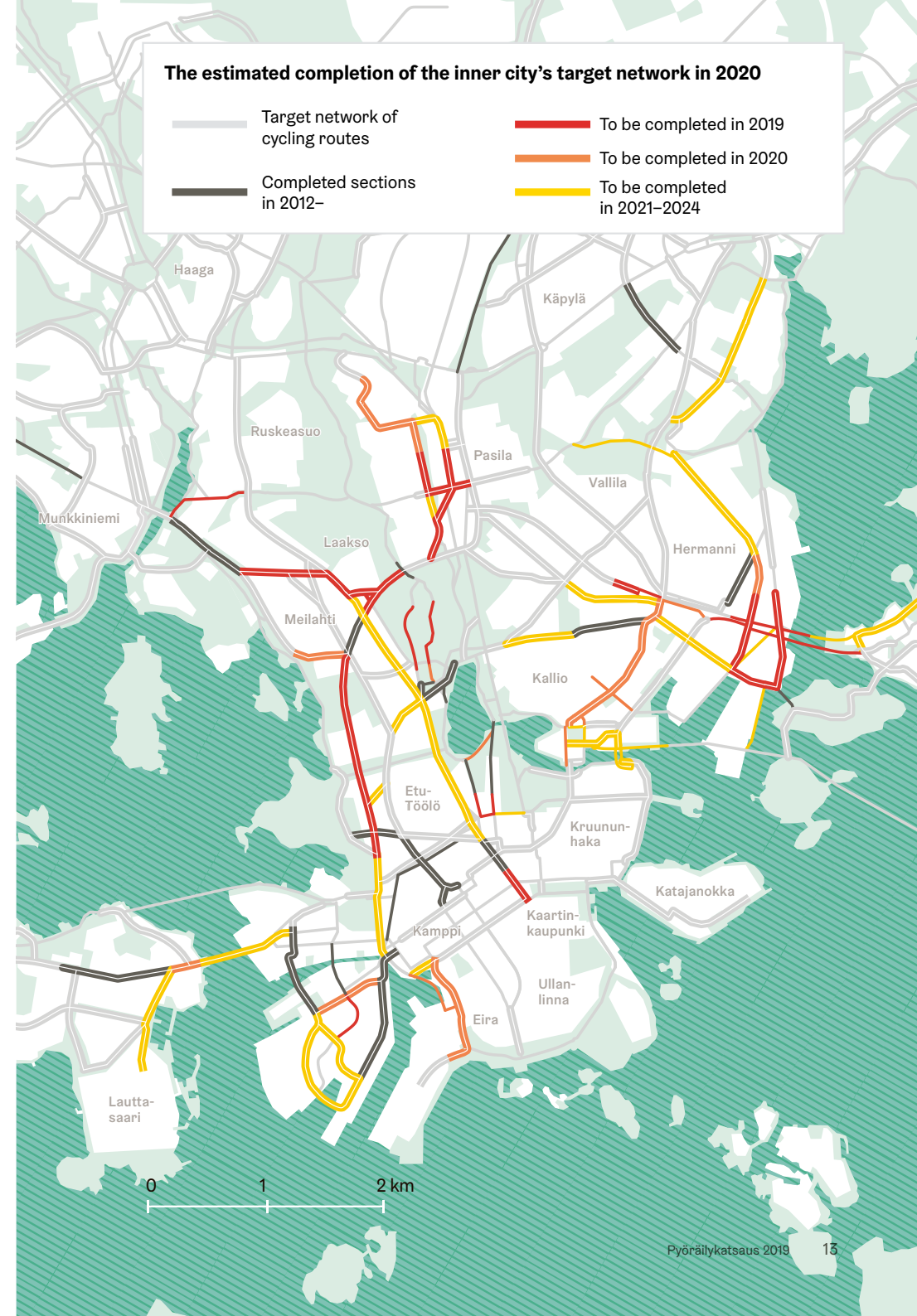
Bicycle parking, the city bike service, human resources and bicycle traffic's budget have seen some clear improvements, although the pace has been slower than hoped for. The human resources for promoting bicycle traffic had increased by two persons since 2017, by autumn 2019. Bicycle parking has been promoted systematically since 2015. In 2017, 864 new bicycle parking spots were built in Kallio, and 640 new spots were completed in Töölö in 2018. In 2019, 758 parking spots were completed in Kruununhaka and the waterfront areas in the city centre. The introduction and expansion of the city bike service is a highly significant individual measure to promote bicycle traffic, and it has brought visibility to cycling in the urban landscape.

Due to the incompleteness of the target network, the five key criteria of bicycle traffic are not currently met:

- safe
- direct
- extensive
- effortless
- pleasant.

The fact that these planning criteria have not been met is the key reason the growth objective for cycling as a mode of transport has not been reached. Even though

Figure 2. The progress of the inner city's target network and its implementation plan for the coming years.



the amount of cycling has grown, its proportion of all modes of transport has not increased in accordance with the objectives: Since 2010, the modal share of cycling has fluctuated between 9 and 11 per cent annually. In 2018, its proportion was at 11%. In 2019, this number was little lower, 9%.

The numbers of cyclists moving around the Helsinki inner city's borders have grown, on average, since the beginning of the 21st century: in 2000, about 20,000 people crossed the border on a weekday in June, while in 2018 this number had increased to around 34,800 people. In 2019, the number of people crossing the inner city border was 33,000, nearly the same as in 2018.

The small decrease in the modal share of cycling and in the cyclist numbers crossing the border aligns with the long-term tracking, according to which the modal share of cycling has remained close to 10% for several years. In addition to the five unfinished key criteria of the transport system, this fluctuation is due to changes in weather and the several worksites in the City. Despite this small decline of cross-border traffic to and from the inner city, the growth of the City has led to a growing trend of cycling.

Awareness and implementation of the Bicycle Action Plan 2014

The progress of the measures presented in the Bicycle Action Plan approved in 2014 was assessed in 2015 in a review by the City's Audit Committee, in 2017 by the Urban Environment Committee and in 2019, when this plan was being drafted. All these assessments reached a similar conclusion: Significant improvements have been made in the cycling conditions, but there is still plenty to be done. The key measures for promoting cycling, i.e. the measures related to infrastructure construction, did not progress as quickly as necessary. Human resources for infrastructure development need to be increased to an international level so that sufficient plans can be compiled and investments are possible. Additionally, compiling programmes for the projects and their organisation, management and division of responsibilities should be developed and the monitoring of measures improved. Solutions for implementing quick measures also need to be sought.

One reason for cycling infrastructure's slow realisation is weak commitment to the action plan's implementation. Based on the results of a survey sent to people in management roles in the Urban Environment Division in

May 2019, nearly half of the respondents felt that the units managed by them were not responsible for any measures defined in the action plan. The 25 measures in the Bicycle Action Plan are divided into measures related to the development of infrastructure, political support and monitoring, and services and communication, which means that they apply extensively to the entire Urban Environment Division.

The respondents from the Land Use and City Structure service unit felt that the main challenge facing realising the Bicycle Action Plan was the lack of human resources. This result indicates that the units that have adopted the promotion of cycling traffic as a part of their day-to-day work are able to experience successes, while also struggling with the lack of or insufficient human resources. On the other hand, there are several units in the Urban Environment Division that have not understood their role in the promotion of bicycle and have not yet started to implement the plan's measures.

Helsinki in comparison with other leading cycling cities in Europe

When comparing Helsinki to leading European cycling cities of similar sizes, we can achieve a good general view of the resources needed for promoting cycling. In this work, Helsinki's resources have been compared with the resources available in Copenhagen, Amsterdam, Munich and Stockholm. The comparison is presented in Table 1.

Today, a total of seven people are working on the promotion of cycling in Helsinki, one on

a fixed-term contract and two with 50% of their working time reserved for cycling matters. When compared to the other cities, it appears that Helsinki clearly has less in the way of human resources for the work, in particular.

With regard to the level of investments, Helsinki is not significantly behind the international cycling cities. In fact, if the €20 million allocated to cycling in the budget of recent years is invested in full, we are very close to the international level. However, the difference between Copenhagen, Amsterdam and Helsinki is that most of the cycling infrastruc-

ture has been completed in these top cycling cities in the past decades, whereas the majority of the target network is still missing in Helsinki. The sufficiency of the investment level must be reassessed to reach the goals determined for 2025 and the objectives of the carbon neutrality programme. The UN's recommendation to invest about 20% of all transport budget in promoting bicycle traffic would mean an annual budget of about €27 million in Helsinki.



Table 1. Human resources and investments in promoting bicycle traffic.

City	Population	Human resources	Investments MEUR	Investments as EUR per resident	Modal share of cycling (commuting, trips to educational institutions)	Note!
Helsinki	650,000	3–7	7–20	11–22	14%	Additionally, there are several people in Traffic and Street Planning who promote bicycle traffic as part of their other duties.
Copenhagen	620,000	20	11–27	18–45	49%	Other employees that promote cycling have also been integrated elsewhere in the organisation
Amsterdam	870,000	18	58	67	36%	The proportion of all modes of transport includes all trips. The investments do not include project targets, new areas and bicycle parking centres
Munich	1,530,000	18	11	7	18%	
Stockholm	960,000	15–20	19–26	20–27	16%	



2. Objectives and indicators

The high-level objective of the Bicycle Action Plan has been determined as follows:

Helsinki is a year-round cycling city for people of all ages – the modal share of cycling will be at least 20% by 2035.

The set goal of the modal share of cycling

being 20% by 2035 is also a prerequisite for the Carbon-neutral Helsinki 2035 strategy. Achieving this goal requires a clear change to the current trend of the modal share of cycling (Figure 3). The interim goal for the modal share of cycling for 2025 is 13%. This interim goal was achieved by setting linear growth between the current status and the

final goal. Chapter 1 presents the reasons the goal set for the growth of cycling's proportion of all modes of transport in the Bicycle Action Plan 2014 has not been achieved.

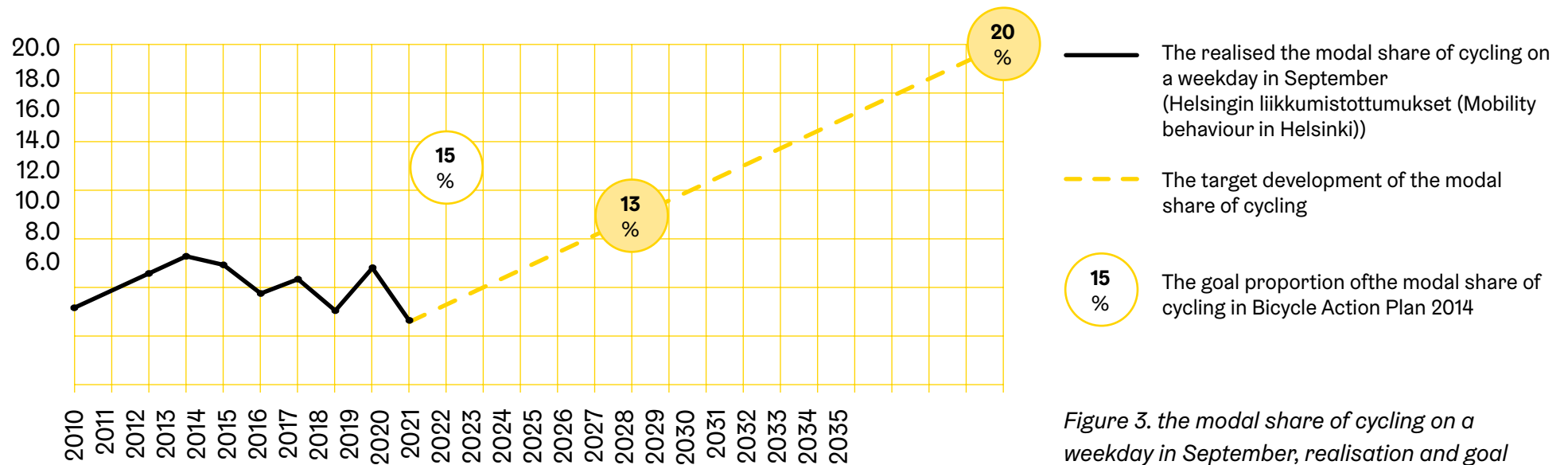


Figure 3. the modal share of cycling on a weekday in September, realisation and goal



Five sub-goals have been determined to achieve the high-level objective (Figure 4). These sub-goals have been determined based on responses to the Cycling Barometer by selecting the objectives that would, when realised, encourage the respondents to cycle more. Additionally, the sub-goals are aligned with the goals of the previous Bicycle Action Plan. The measures needed for achieving these sub-goals have been designed together with the experts of the Urban Environment Division, the steering group of this work, and the stakeholders.

The objectives and indicators will be integrated into the Urban Environment Division's continuous operative planning, such as their binding operative goals and action plans. The Urban Environment Committee will monitor the realisation of these goals annually through objective-specific indicators (Table 2). These indicators have been divided into two sets of indicators: the Urban Environment Division's performance indicators and the effectivity indicators achieved as the results of the operations. A goal level to be achieved by 2025 has been determined for each indicator.



Helsinki City Strategy 2017–2021

Vision: Helsinki is the most functional city in the world

Objective: Helsinki is a carbon-neutral city by 2035.

Bicycle Action Plan's high-level objective:

Helsinki is a year-round cycling city for people of all ages

– The modal share of bicycle traffic will be at least 20% by 2035.



Requires: Comprehensive and safe cycling conditions, which the residents are encouraged to make use of.

Sub-goals of the Bicycle Action Plan for the measures to be implemented by the City:

1. Cyclists have **direct and efficient routes** with clear junction arrangements, and bicycle and pedestrian traffic have been separated from each other well.

2. The cycling routes and parking areas **are maintained** to a high quality all year round.

3. Cycling has been taken into account in arrangements around **worksites**.

4. The amount of **bicycle parking spaces and services** meets the demand and they are of high quality.

5. Marketing and communications promote a positive image of bicycle traffic.

Figure 4. High-level objective and the sub-goals that help achieve it.

Table 2. Indicators for monitoring the realisation of the sub-goals.

Sub-goal	Performance indicators			Effectivity indicators		
		Current state	Objective for 2025		Current state	Objective for 2025
Helsinki is a year-round cycling city for people of all ages – the proportion cycling accounts for of all modes of transport will be at least 20% by 2035.				The modal share of cycling on a weekday in September	9%	13%
				Proportion of people considering cycling as safe **	16%	25%
				Satisfied with Helsinki as a cycling city *	24%	35%
Direct and efficient routes with clear junction arrangements and clearly separated walking and cycling areas.	The built kilometres of the inner city target network			The proportion of people satisfied with the number of routes suitable for cycling in the inner city *	18%	30%
	The built kilometres of the bicycle highway network	6 km	80 km	Satisfied with the efficiency of cycling in Helsinki *	19%	30%
The cycling routes and parking areas are maintained to a high quality all year round.	Number of routes with intensified winter maintenance	40 km	150 km	Satisfied with winter maintenance *	7%	20%
	The number of reviewed and inventoried cycling network kilometres	30 km	All main routes of bicycle traffic	Satisfaction with cycling route maintenance during other seasons *	47%	55%
				Proportion of cyclists who continue cycling in the winter	20%	30%
Bicycle traffic has been taken into account in arrangements around worksites .	The number of observed shortcomings at worksites and reacting to them (%)			Satisfied with the temporary traffic arrangements at worksites *	10%	20%
	Arranging training concerning the guidelines or similar indicators of measures (participants)	-	All people working with worksites in Helsinki have been trained in matters concerning the temporary arrangements of bicycle traffic.	Numbers of cyclists at large worksites (decrease %)		Cyclist numbers at worksites are not declining.
The number of bicycle parking spaces and services meets the demand and they are of a high quality.	The number of built bicycle parking spots for park-and-ride services	4,200	A total of 2,200 new bicycle parking spots***	Satisfied with bicycle parking at stations *	21%	30%
	Replacing the old bike racks with new racks facilitating the use of bicycle frame locks in park-and-ride areas.	1,700 spots that can be used with frame locks	A total of 2,500 new bike rack spots	Satisfied with bicycle parking in other public destinations *	18%	30%
	The number of built bicycle parking spots for parking in public areas	2,000	At least 900 new bicycle parking spots have been built every year	Satisfaction with the city bike system	Customer satisfaction with the city bikes, NPS is 59, overall grade 3.84	NPS 59
Marketing and communications promote a positive image of bicycle traffic.	Compiling and implementation of the bicycle traffic communication plan	-	The plan has been drawn up and is being implemented	Proportion of people with a positive attitude towards cycling promotion ****	78%	80%
				Satisfied with cycling communications *	16%	20%

* Scale: satisfied, fairly satisfied, I cannot say, fairly unsatisfied, unsatisfied /

** Scale: safe, fairly safe, I cannot say, fairly unsafe, unsafe.

*** The number does not include the new bicycle parking spots to be built in connection with large-scale projects (e.g. the Railway Station, Jokeri Light Rail, Tripla, Itäkeskus, Herttoniemi, Kamppi).

**** Scale: positive, somewhat positive, I cannot say, somewhat negative, negative

3. Measures

Helsinki's Bicycle Action Plan 2020–2025 includes 34 measures. These measures have been divided into sub-goal-specific groups: cycling routes, maintenance, worksites, parking and services, and communication and marketing. A summary of these measures has been presented in Figure 5.

These measures have been compiled based on the feedback received of the previous action plan, the Cycling Barometer, analysis of the current situation, workshops with interest groups, expert workshops and discussions with various specialists. The project component thinking of the Logical Framework Approach (LFA) was applied when designing the measures, which helps ensure the comprehensiveness and effectivity of these measures. Most of these measures are project units that follow the City of Helsinki's project management model, and their contents will be defined more clearly at the beginning of the project. The grounds, content, responsibilities and schedules of these measures have been described in more detail in the following chapters and tables.



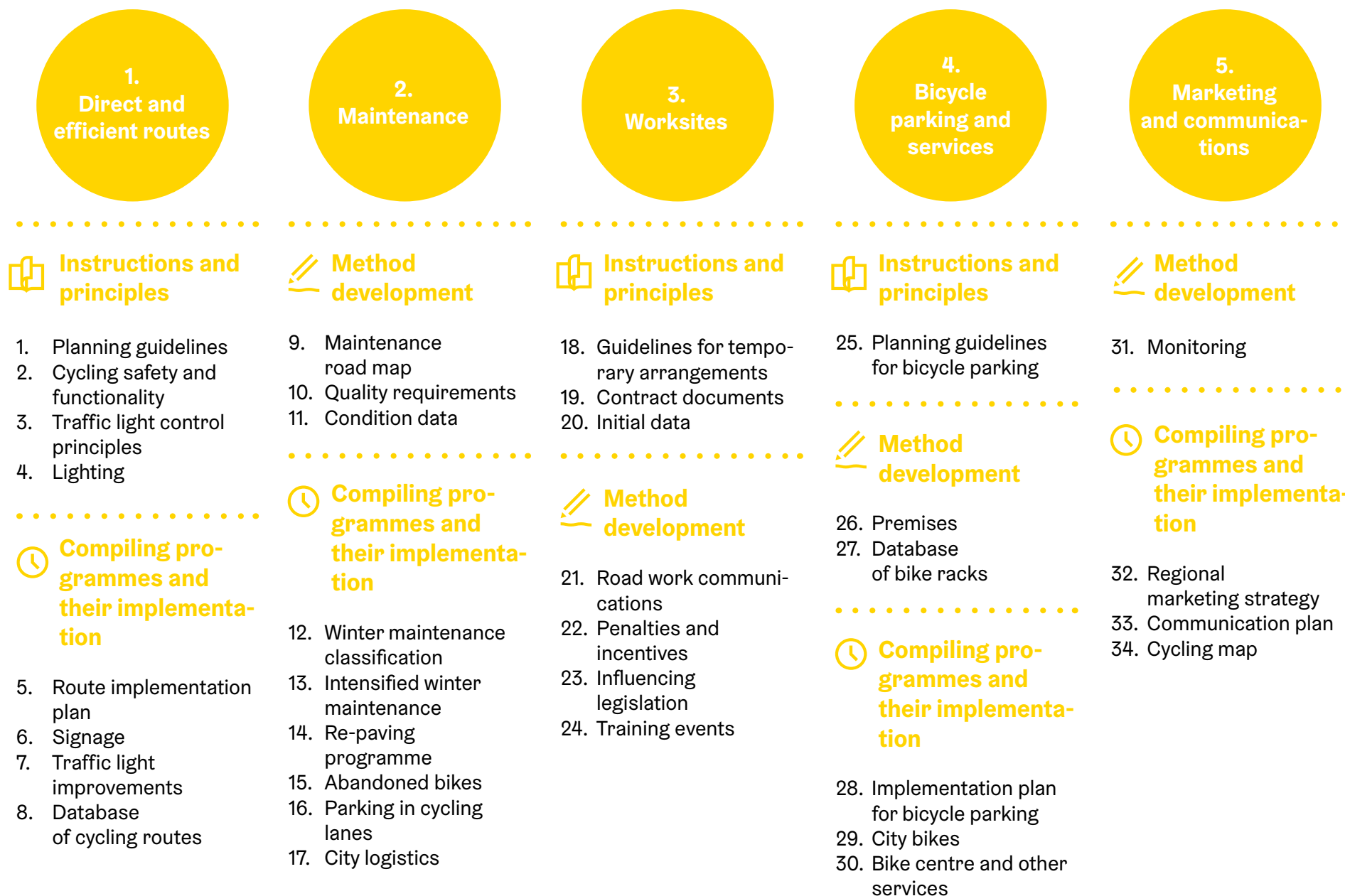


Figure 5. Measures of the Bicycle Action Plan 2020–2025

3.1 Direct and efficient routes

The key characteristics of cycling, cyclists and bicycle traffic need to be taken into account when planning bicycle traffic. Understanding and internalising these characteristics is the surest way to implement the infrastructure solutions while taking user needs into account. The key characteristics defined in the planning guidelines of bicycle traffic in the Netherlands (CROW-Fietsberaad) are:

- 1. Bicycles are muscle-powered
- 2. Using a bike requires balancing
- 3. A bicycle has no crumple zone
- 4. Bicycles have very little suspension
- 5. Cyclists travel in the open air
- 6. Cycling is a social event
- 7. A person is the starting point of everything.

People have, by nature, a tendency to make mistakes, if their environment is not intuitive. This is why these instructions also state that taking the key characteristics of cyclists (users) into account plays a key role in the traffic environment’s planning work. User-oriented planning based on these principles results in a traffic environment that supports people’s

intuition and where the probability of human error is minimised. These principles need to also be considered when updating the City of Helsinki’s planning guidelines and compiling the plans.

The factors affecting the slow implementation of cycling routes have been presented earlier in this report. In addition to this slow development, other improvement needs have been observed in the implementation order and method of projects and the quality of implementation, for example. The target network is being built in disconnected sections, which leads to unclear situations and safety issues at the connection points of the old and new infrastructure sections. Cycling infrastructure should be developed, in addition to comprehensive renovations, with lighter temporary arrangements in the sites where the goal implementation is still far in the future but which are still an essential part of a functional system. Additionally, more smaller improvements are needed in the current infrastructure and junction arrangements, and more specific quality guidelines are also needed for various situations. A new kind of approach to route implementation requires agreeing on principles, having new sets of

instructions and making an implementation programme.

All new cycling infrastructure is physically separated from pedestrian infrastructure, for the most part. Some old routes have also been changed from combined routes to separate lanes. Despite these improvements conducted, the City still has several routes where cyclists and pedestrians share road space. The changes made to these routes will continue, with the routes of the inner city’s target network forming the future focus point.

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Abbreviations used in the tables

- RBS = Resident and business services
- DPL = Detailed Planning
- CSS = City Survey Services
- USPL = Urban Space Planning and Landscaping
- OFFICE = City Executive Office
- TSPL = Traffic and Street Planning
- PCPS = Parking control and parking services
- COCO = Construction contracting
- BCS = Building Control Services
- BAM = Built Assets Management
- PRSE = Premises Services
- COSE = Communications services
- MAINT = Maintenance

- HKL = Helsinki City Transport
- HSL = Helsinki Region Transport

(Parties with the main responsibility have been indicated in bold)

Table 3. Actions for the routes sub-goal 2020–2025

Sub-goal: Cyclists have direct and efficient routes with clear junction arrangements, and bicycle traffic and pedestrian traffic have been separated from each other well.				
Action	Content of the action	Parties responsible	Necessary resources	Year of implementation, decision-making
Instructions and principles				
1. Updating the planning guidelines of cycling routes	<p>The following planning guidelines will be updated:</p> <ol style="list-style-type: none"> 1. Technical drawings of street areas 2. Technical requirements of cycling routes 3. Dimensioning guide for street space 4. Continuous updating of the pyöräliikenne.fi planning instructions <p>The technical drawings will be updated to adhere to best practices of bicycle traffic. The updated matters include, at least, the effects of legislative changes, the arrangements of the main sections' connection points, using road surface markings and setts to separate lanes, the recommendations in the report about the structural development needs (e.g. drainage methods, manhole covers, plot junctions, speed bumps) and designing vegetation.</p> <p>Compiling a technical cycling route check-list for worksite reception units based on the structural development of cycling routes report. Reviewing the current dimensions of the cycling routes' structural layers, with more durable structures as the goal. Implementing the actions defined in the structural development of cycling routes report. The guidelines will be included in worksite practices.</p> <p>The matters reviewed in the street space dimensioning instructions include, at least:</p> <ul style="list-style-type: none"> the dimensions of the lanes in relation to the speed limit, street-side parking practices of motorised traffic, updating the driving groove instructions for motorised traffic and compiling driving groove instructions for bicycle traffic. <p>The instructions available on Pyöräliikenne.fi will be updated gradually, introducing a zoning section and arranging training on the guidelines for the entire planning staff and consultants.</p>	<ol style="list-style-type: none"> 1. TSPL MAINT USPL 2. TSPL COCO 3. TSPL MAINT USPL 4. TSPL 	An additional human resource is needed for bicycle traffic development at Street Planning, cooperation must also be increased between the different services.	2020–2023 UEC
2. Determining the principles and measures for improving cycling safety and functionality	Creating principles for improving cycling safety and functionality while taking the functionality of motor traffic within the street network into account.	TSPL		2022 UEC
3. Compiling the principles of bicycle traffic signalization	Compiling principles for the bicycle traffic's signalization and adding the information to bicycle traffic's planning guidelines (Pyöräliikenne.fi). Defining further measures for developing the traffic signal system.	TSPL		2021 UEC
4. Lighting principles for cycling routes	Defining the criteria, principles and necessary further measures for cycling route's lighting. International experiences will be utilised.	USPL		2022 UEC

Action	Content of the action	Parties re-sponsi-ble	Necessary resources	Year of imple-mentation, decision-mak-ing
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Compiling a programme and implementation

5. Compiling and implemen-tation of the prioritising and implementation programme for the inner city target net-work and the bicycle highway network	<p>Compiling an implementation plan that features the actions for three different types of sites:</p> <ul style="list-style-type: none"> - sections requiring complete renovation, including connections to the rest of the cycling network - sections to be improved with temporary solutions - sites requiring smaller, quicker improvements. Compiling a repair plan, which focuses on 10 different sections annually, for example. <p>Reviewing the inner city's target network</p> <p>Compiling transport and street plans for the inner city's target network and the bicycle highway network based on the action plan, and building the the target network of bicycle traffic according to the action plan. The target network in the City's suburban areas is included in the action plan as applicable.</p> <p>National funding is applied for for the cycling routes, and close cooperation will be carried out with the regional cycling coordinator presented in HSL's MAL plan. The opportunities for EU funding will also be reviewed.</p> <p>Establishing a coordination group for cycling route network implementa-tion. The group will also coordinate the planning and execution of bicycle parking. Strengthening cooperation with detailed planning work.</p>	TSPL COCO	<p>Drafting a pro-gramme for bicycle traffic projects requires close cooperation with the Resource Planning unit and the Urban Environment Divi-sion's management.</p> <p>Making the plans requires more human resources, at least three project managers (one for the bicycle highway network, one for the inner city and one for small-scale improvements and operational develop-ment).</p>	2020, 2020–2025 UEC annually
6. Phased implementation of the cycling network's signage plan	Compiling a signage plan using the new legal signs, imple-menting the plan in stages	TSPL		2020–2023 LKSP
7. Identifying and repairing the improvement needs of the signalization system of bicycle traffic's current network	Implementing the practices in accordance with the com-piled recommendations and reviewing the improvement of traffic signal control in central sites.	TSPL		Starting from 2022 LKSP
8. Creating a database for the cycling route network	Collecting the bicycle traffic network data into its own database, which describes the existing cycling routes. The preparatory reviews for this will be carried out if necessary.	TSPL BAM		2020

3.2 Maintenance

A route-specific salting and brushing method has been applied in winter maintenance since 2015, and the use of the method has been extended by one route per year. In winter 2018–2019, four routes, totalling 33 kilometres, were maintained with the salting and brushing method, in addition to which intensified winter maintenance was used on one route of approximately five kilometres. The objective is to extend the routes maintained with the salting and brushing method. In other parts, winter maintenance is based on area-specific contract work, which means that it is not possible to guarantee uniform quality across the borders of these areas. Systematic extension of intensified winter maintenance also requires a growing, stable budget for maintenance of cycling infrastructure.

The major issue for winter maintenance are the routes excluded from intensified winter maintenance, which comprise more than 1,200 kilometres of cycling routes and combined traffic sections. The quality of winter maintenance should also increase in the cycling network sections that are not included

in the intensified winter maintenance operations. A project for coordinating the planning and maintenance of cycling routes was launched for this reason, but concrete measures that would be visible in the winter maintenance practices have not yet been carried out. While the development programme was compiled, a project manager in charge of bicycle traffic was hired for the maintenance operations.

The improvement needs observed outside the winter season include matters such as sand removal in the spring, vegetation maintenance and repaving of cycling routes. There are currently no repaving criteria and no programme for cycling routes.

Table 4. Actions for the maintenance sub-goal 2020–2025

Sub-goal: The cycling routes and parking areas are maintained to a high quality all year round.				
Action	Content of the action	Party responsible	Necessary resources	Year of implementation, decision-making

Method development

9. Compiling a roadmap for the development of year-round maintenance	A development project focusing especially on the routes excluded from the network with intensified winter maintenance, which is carried out in cooperation with maintenance and planning units. The roadmap includes phased measures for improving snow removal and anti-skid treatment measures and developing contract models.	MAINT TSPL	The cost estimate will be compiled in connection with the review.	2020–2021 UEC
10. Updating cycling routes' quality requirements	Adjusting the quality requirements of cycling routes concerning the various maintenance products to better meet the needs of cyclists. Updating these quality requirements on the maintenance product cards.	MAINT		in connection to the product card renewal of 2020–2021
11. Collecting and refining cycling routes' condition data	Finding a way to collect condition data for cycling routes and start utilising the collected data systematically. Mechanical condition measurements for collecting the condition data for the bicycle highway network's main cycling routes and its criteria will be reviewed. Reviewing the opportunity for crowdsourced condition data collection regarding the entire cycling network. Utilising the Filaroiva Stadi participatory budgeting project, for example.	MAINT	The cost estimate will be compiled in connection with the review.	Starting from 2020

Compiling a programme and implementation

12. Updating cycling routes' winter maintenance classifications	Updating the maintenance classification to meet the hierarchy and needs of the cycling network. Updating the winter maintenance classification of cycling routes in a user-oriented manner. Special focus should be placed on streets on the main route with low traffic and the interfaces of different classes at the City borders.	MAINT		2021
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Action	Content of the action	Party responsible	Necessary resources	Year of implementation, decision-making
13. Extending the network of intensified winter maintenance	Defining the target network of intensified winter maintenance to cover all bicycle highways and main routes, based on the main routes used and the user numbers. In 2025, the length of the target network of intensified winter maintenance is 150 km, in accordance with the Urban Environment Committee's decision.	MAINT	A stable funding level is required for the expansion to establish operations. The cost estimate is about €6,000 per km. Additional human resources will be needed when the network expands. The timing of these additional resources will be reviewed as a result of measure 9.	annual
14. Compiling a repaving and repair programme for cycling routes	Compiling a repaving and repair programme specifically for cycling routes. Compiling criteria for determining the condition of cycling routes, based on which the measures will be prioritised. The main cycling network as well as safety and comfort will be taken into account in the prioritisation. Repair measures may include e.g. resolving drainage issues caused by depressions on the streets, readjustment of manhole covers and renewal of street markings.	MAINT	A cost estimate will be drafted in connection with creating the programme.	2021
15. Plan for removing abandoned bikes	Compiling a plan according to which abandoned bikes will be removed from key areas a few times a year and once a year from the other areas. Current issues include too slow a removal rotation and bureaucracy working too slowly regarding the acute need to remove abandoned bikes.	PCPS TSPL HKL		2021
16. Implementation plan for penalising parking on cycling paths	Compiling a plan that facilitates systematic intervention in parking on cycling paths. Negotiating cooperation with the police. Ensuring the correct use of loading places through monitoring will also be taken into account.	PCPS TSPL		2020
17. Coordination of city logistics and bicycle traffic	Marking loading spaces by painting them, for example, to promote the correct use of loading spots. Reviewing the potential of carrier cycles and their implementation opportunities for city logistics.	TSPL		2020

3.3 Worksites

Traffic arrangements of worksites and various events have been improved through training and by more effective control and guidelines. There are still major defects in the operations and monitoring of worksites and events, and the temporary arrangements are not at a sufficient level with regard to the promotion of bicycle traffic. Large project areas, such as Kalasatama, Pasila and Kansalaistori have also brought their own challenges for the promotion of bicycle traffic. In the Cycling Barometers of 2016 and 2018, the worksite arrangements were the largest factor in decreasing satisfaction, and the situation deteriorated over the two years.

Clear cross-administrative instructions for bicycle traffic arrangements around worksites are needed to remedy the shortcomings, as well as extensive training and introduction of these instructions. The objective of developing the temporary bicycle traffic arrangements must be that the arrangements are planned and implemented with the same priority as other motorised traffic arrangements. The objective is that the temporary cycling route is built as direct as possible without the need to cross the driving

lane and, if necessary, the required space will be taken from the driving lanes of other motorised traffic. In connection to compiling the planning guidelines, which cycling routes are routes that should not be closed down at all except in very exceptional situations, must be reviewed.

In order to develop the temporary arrangements, bicycle traffic requirements should also be updated in all contracts. The contractors must be required to commit to these instructions and worksite supervision, and the methods of intervening in instances of negligence must be improved.

Table 5. Actions for the worksites sub-goal 2020–2025

Sub-goal: Bicycle traffic has been taken into account in arrangements around worksites				
Action	Content of the action	Party responsible	Necessary resources	Year of implementation, decision-making

Instructions and principles

18. Compiling planning guidelines for temporary bicycle traffic arrangements and updating the worksite instructions	<p>Compiling planning guidelines for temporary bicycle traffic arrangements, which should also be applied to arrangements taking place during events. Also includes the key cycling routes. The temporary bicycle traffic arrangements are to be planned with as much focus on them as the temporary arrangements of other forms of traffic.</p> <p>The current guidelines applying to street works will be updated to adhere to the planning guidelines of temporary cycling arrangements. The guidelines of cycling routes' asphalt pavements will also be updated with stricter requirements (seams in the pavement are not allowed to be too close together). The guidelines to be updated include, at least:</p> <ul style="list-style-type: none"> - event area cards - use of public areas in the Helsinki metropolitan area; temporary traffic arrangements and street works - SKTY temporary traffic arrangements in street areas. 	RBS TSPL	Additional human resources are needed for Services and Permits to develop the worksite arrangements of cycling and organise training events.	2020–2023, Environment and Permits Sub-committee of the Urban Environment Committee
19. Updating the contract document and agreement templates of worksites	The requirements of contract documents and project agreements will be updated to consider the key routes of bicycle traffic. Requirements such as restrictions for rush hour traffic levels, higher fees, and minimum and stricter paving requirements (seams in the pavement are not allowed to be too close together) can be applied to these.	COCO TSPL		2021–2022
20. Collecting all basic data for worksites in one place	Collecting all basic information required by a permit holder in one, easily accessible place and reviewing whether it is up to date (e.g. routes, amount of traffic, neighbouring worksites) The detrimental effects of worksites will be assessed with the Haitaton tool.	RBS TSPL		2020

Method development

21. Strengthening street work communications	Reviewing how street works, their duration and detours can be communicated more systematically with regard to bicycle traffic and linking the results of this review to the street work communication unit. The aim is to make the worksite information available to route service providers. Bicycle traffic will be taken into account in the Kohti kaupunkilähtöistä työmaakokemusta manual for city-oriented worksite experience, which is currently in the works.	COSE RBS TSPL		2020, ongoing
22. Developing a penalty and incentive system for worksites	Conducting a review of the opportunities available to encourage good performance and set penalties for poor performance. The recommendations of this review will be included in the guidelines, contract documents and agreements (immediate administrative compulsion). Permit terms, rates, inspections and recommissioning. A minimum level must be determined for worksite arrangements of bicycle traffic.	RBS TSPL		2021
23. Influencing worksite legislation	Active contact with lawmakers to facilitate an improved legal standing for penalising negligence.	TSPL RBS		
24. Organising training events for the planning guidelines of cycling routes' temporary traffic arrangements	Organising extensive internal and external training concerning the new guidelines. Parties that should undergo training: - permit approvers - supervisors - street planning officers - project managers of construction contracting - consultants - contractors, Stara - the police + internal communications The same matters will be included in the excavators' training in the future. Cooperation will be carried out with the authors of worksite experience communication guidelines.	RBS TSPL COSE	Additional human resources are needed for Services and Permits to develop the worksite arrangements of cycling and organise training events.	Twice a year 2020–2025

3.4 Bicycle parking and services

Better and safer bicycle parking opportunities emerged as the most significant driving force for increasing cycling in the Cycling Barometers of 2016 and 2018. The planning and implementation of bicycle parking has been systematic since 2015. The development programme of bicycle parking 2014–2018 requires updating so that this systematic implementation can also continue in the future. An action plan for removing abandoned bikes is also needed.

The Bike Centre has held fairly small-scale operations in Kamppi since 2012. In summer 2019, the Bike Centre, located on Narkinkatori, was moved to next to the bicycle highway at Kansalaistori. Another small-scale bike centre was opened in summer 2017 at Herttoniemi metro station, serving the area for two seasons until the centre was closed due to defects in the commercial facilities. There is demand for expanding the bike centre operations.

The city bike system was introduced in spring 2016. At first, there were 500 bikes at 50 stations. The system proved very pop-

ular already during its first year: 5–6 trips were taken per bike every day and there were about 11,000 seasonal users. For season 2017, the system was expanded to include 150 stations and 1,500 bikes. In 2018, the City of Espoo also acquired a city bike service, which was integrated with Helsinki's system. The city bike network was expanded to eastern and northern Helsinki in 2019. Currently, there are 238 city bike stations in Helsinki and 107 stations in Espoo. In 2019, the city bike services of Helsinki and Espoo had about 61,300 seasonal users in total, and the bikes in Helsinki were used for 6.5 trips per day on average, which is a high number even at international level. Many requests have been expressed for a year-round city bike system. It should also be ensured that the city bike system will continue to be as effective during the next contract term.

The development measures of bicycle parking and cycling services help make sure that this positive trend will continue and that the bicycle parking services and other cycling services can meet future demand.

Table 6. Measures for the parking and services sub-goal 2020–2025

Sub-goal: The amount of bicycle parking spaces and services meet the demand and are of high quality				
Action	Content of the action	Party responsible	Necessary resources	Year of implementation, decision-making
25. Updating the design manual for bicycle parking	<p>The content according to the City's bicycle parking guidelines and the RT card (construction safety card) will be included in the following City guidelines:</p> <ul style="list-style-type: none"> - parking norms - detailed planning guidelines (e.g. regional difference of parking norms, choosing the types of the racks based on needs, determining their placement) - guidelines and checklists for public areas - Building Control Services' instructions. <p>The instructions and guidelines will be updated in cooperation with the parties that apply them (workshops)</p> <p>Training for applying the guidelines</p>	TSPL		2021 + updates as necessary
Method development				
26. Review: Improving the conditions of bicycle parking in current premises	Facilitating the modification of current premises to make them better suited for bicycle parking. Reviewing the possibility of the City granting bicycle parking funding to housing companies. The City subsidies require their own budget.	TSPL OFFICE		2022
27. Compiling a situational database of bike racks	Gathering information on the current bike racks in public areas and their condition. Compiling this information in a database. Database of bicycle parking.	TSPL		2021

Action	Content of the action	Party responsible	Necessary resources	Year of implementation, decision-making
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Compiling a programme and implementation

28. Compiling implementation programmes for bicycle parking and executing them	<p>Compiling comprehensive implementation plans for bicycle parking and then more detailed execution plans based on it:</p> <ol style="list-style-type: none"> 1) Public areas 2) Parks and sports facilities 3) City properties <p>Review of the current situation (quantity, quality, location)</p> <p>Setting a goal level</p> <p>Regional cooperation that generated a uniform network. The needs of special bikes, such as electric charging and space requirements, will be taken into account.</p> <ol style="list-style-type: none"> 4) Compiling a programme for park-and-ride services. A programme will be compiled for HKL's park-and-ride operations. <p>The planning reserve must be at a sufficient level so that it is flexible.</p>	<p>TSPL PRSE HKL</p>		2021 UEC
29. Preparations for the acquisition of the city bike system 2025 and system development	<p>The demand for year-round operations, a regionally uniform system, inclusion of electric bikes in the system and many other new features will be taken into account in the acquisition of the next season's (2024) city bikes. The extent and technology of the city bike system will be developed.</p>	HKL	<p>A significant increase in the investment level should be expected when acquiring a more extensive system. The cost level will be reviewed during the course of the preparations.</p>	2021–2024
30. Expanding the bike centre concept and other services	<p>Expanding and developing the bike centre operations in connection to bicycle parking facilities. Establishing a permanent bicycle parking centre at the central railway station. Reviewing the possibilities of expanding the services and providing cyclist services in connection with park-and-ride facilities, such as air pumps, washing stations, etc. Carrying out cooperation with projects promoting the use of special bikes with the purpose of increasing their utilisation.</p>	HKL		2020–

3.5 Marketing and communications

Together with the City of Helsinki and other cities in the region, HSL has created a regional marketing strategy for bicycle traffic 2016–2020, which includes the brand, image, annual themes and spearheads of communication regarding cycling. HSL has the main responsibility for the marketing and new customer acquisition of the region's bicycle traffic. The bicycle traffic image is used in the City of Helsinki's bicycle traffic publications as well as the new street fixtures and park-and-ride facilities. The City of Helsinki does not have a separate cycling communication plan that would facilitate more systematic cycling communication.

The City published its Cycling Account in 2015, 2017 and 2019. These reviews are a part of the monitoring of bicycle traffic and they relay information about the status of cycling promotion in relation to its goals as well as the new bicycle traffic projects and the results of Cycling Barometers. These current accounts as well as better information on the effects of new infrastructure and worksites on bicycle traffic numbers are all needed for monitoring the progress of cycling promotion and related communications..



Table 7. Actions for the marketing and communications sub-goal 2020–2025

Sub-goal: Marketing and communications promote a positive image of bicycle traffic.				
Action	Content of the action	Party responsible	Necessary resources	Year of implementation, decision-making
31. Developing bicycle traffic monitoring operations	<p>The recommendations given in the development of traffic studies report will be implemented and a development plan will be compiled for developing the calculation of bicycle traffic as a part of the comprehensive traffic studies.</p> <p>The topics to be developed include, at least:</p> <ul style="list-style-type: none"> - Adding a before-and-after study. Before-and-after studies are needed at least for major worksites, on routes with intensified winter maintenance and new cycling routes. - Adding automatic counters. - Monitoring travel time and the number of stops. - Observing the behaviour of cyclists. <p>The data accumulated through the traffic studies will be published in a format required by the target group. Publications that are considered useful will be continued:</p> <ul style="list-style-type: none"> - Bicycle Account every other year - Cycling Barometer every other year - annual bicycle traffic counts 	TSPL UED		2020

Compiling a programme and implementation

32. Participation in the updating process of the regional bicycle traffic marketing strategy	Participating in the updating process of the regional bicycle traffic marketing strategy HSL carries the main responsibility of the strategy update.	TSPL Office communications		2020
33. Compiling and implementation of the bicycle traffic communication plan	<p>Compiling a communication plan for bicycle traffic for the whole City, built on the regional marketing strategy for cycling. This communication plan defines, for example, the planning of campaigns, stakeholders, communication channels and methods as well as the principles of media communications. It also determines the communication responsibilities within the City.</p> <p>An internal communications group will be established in the City for compiling and realising this plan. This group will work together with stakeholders such as the neighbouring cities, HSL and the police.</p> <p>Anyone working with bicycle traffic communication will receive training. Content of training:</p> <ul style="list-style-type: none"> - image of bicycle traffic (HSL + City coordination) - core messages - photograph policy, location and use of photobanks. 	COSE TSPL		2021
34. Updating the cycling map	Creating a cycling map together with the municipalities in the Helsinki metropolitan area. The database compiled of the cycling network will be utilised in the work process (separate measure). Will be implemented as participatory budgeting project.	CSS HSL		2021

4. Impacts of the action plan

A city with a high proportion of sustainable modes of transport is a comfortable, safe, healthy and vibrant city. Promotion of cycling is not an intrinsic value, but rather a way of achieving a desired goal. Prioritising cycling as a mode of transport enhances and improves a city's attractiveness and vitality comprehensively as well as the functionality of its transport system. Cycling also has a positive effect on people's level of physical activity and their health, which also helps cut the costs of healthcare and improve work productivity. Linking regular exercise to everyday routines is a productive way of promoting public health. Figure 6 presents the effects and the effect chains of promoting cycling.

In connection to the Bicycle Action Plan of 2014, a tool was created for calculating the costs and benefits of new investments in bicycle traffic (A review by the Helsinki City Planning Department, 2014:5. *Pyöräilyn hyödyt ja kustannukset Helsingissä* (Benefits and costs of cycling in Helsinki)). The work calculated the cost-benefit ratio of the

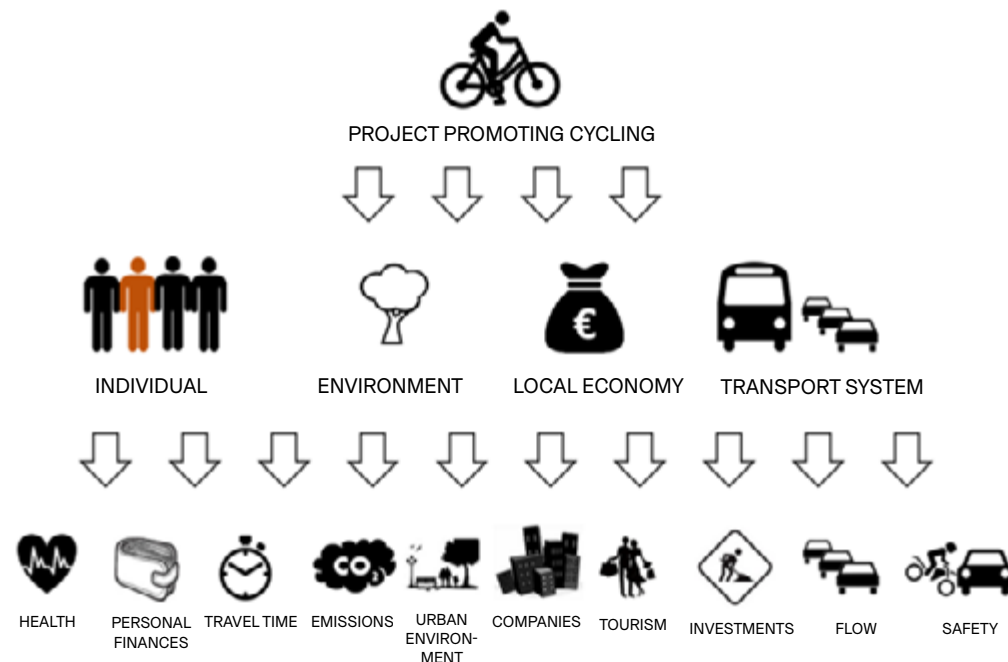
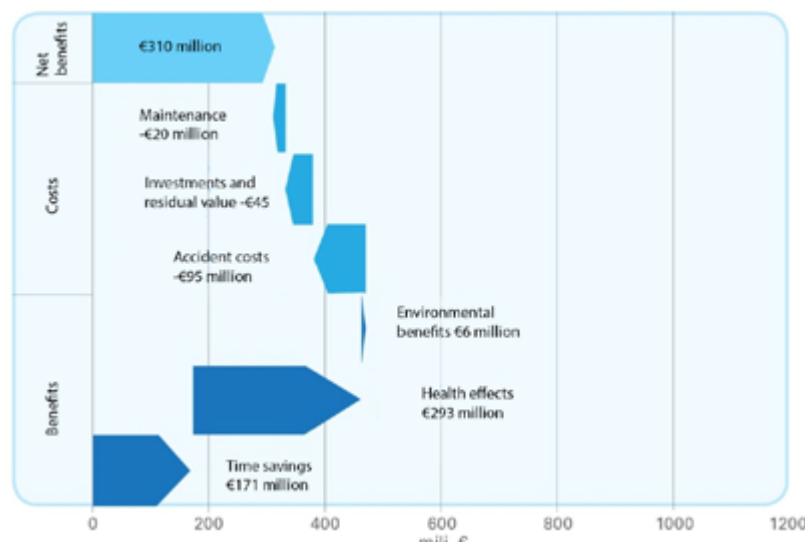


Figure 6: Effect chains of promoting bicycle traffic (Source: *Bikenomics, pyöräilyn taloustietoa päätöksenteon tueksi* (Economic cycling data to support decision-making), 2016)

Baana network construction for the €10 and €20 million ten-year investment plans. The bicycle highway network plan was approved as a part of Helsinki's city plan in 2016. Currently, six kilometres of the 132-kilometre bicycle highway network have been built, and the investment level of bicycle traffic's infrastructure has been around €20 million annually since 2019. For these reasons, the calculations made in 2014 can still be considered up-to-date and relevant.

Based on the calculation, the health effects of constructing the bicycle highway network for bicycle traffic are notable and the socio-economic benefits are significant both in the €10 and €20 million investment programmes. The cost-benefit ratio is multiplied compared to regular road projects: the cost-benefit ratio of both goal scenarios rises to close to eight. Regarding the overall impact, however, the €20 million annual investment programme is more profitable. The benefits gained mostly comprise health benefits and time savings achieved through faster cycling routes (Figure 7). The largest cost items are accident costs and investment costs. According to the review, the cost-benefit ratio of the bicycle highway network's investments is 7.8.

INVESTMENT PROGRAMME OF €10 MILLION



INVESTMENT PROGRAMME OF €20 MILLION

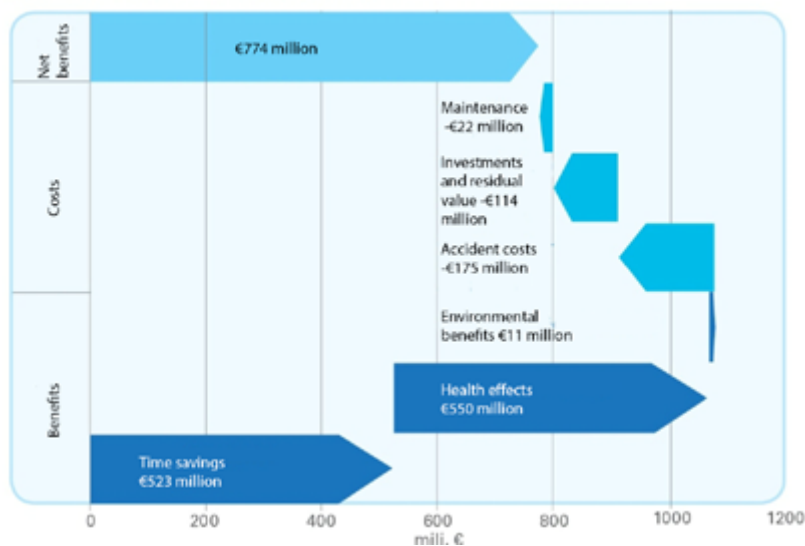


Figure 7. The type-specific costs and benefits of the investment options (Source: Pyöräilyn hyödyt ja kustannukset (Benefits and costs of cycling), 2014).

The compiled calculations do not include the measures of maintenance, worksites, bicycle parking and cycling services, or communications and marketing, which, according to international experiences, have a major effect on the growth of the modal share of cycling and, thereby, the advantages gained through cycling, especially if implemented at the same time as infrastructure improvements.

The Bikenomics tool allows for the socio-economical, environmental, quantitative and qualitative effects of individual projects to be assessed. The tool has been used extensively in the Netherlands, and its utilisation was also funded by EU as an extended part of the Civitas Handshake project, in which Helsinki was included with nine other Future Cycling Capitals in 2018. This tool facilitates assessing projects' cost-benefit ratio while also taking into account the financial impacts, for example regarding the conditions of the region's business life.

This way, the results of these estimates can be used to optimise and argue for projects promoting cycling. At the same time, the tool highlights bicycle traffic's major role in the comprehensive operational field of the urban environment while considering the needs of all of its users. The results are also recommended for utilisation for project-specific commu-

nications, which helps increase the overall acceptance of ambitious projects. Additionally, the assessment creates a good basis for assessing the project impacts after realisation.



Bikenomics was utilised in the Handshake project to make the Hämeentie cost-benefit estimate while compiling the Bicycle Action Plan. The project's cost-benefit ratio was 4.0. The assessment included all the street surface improvements and it included the space reserved for all modes of transport. More extensive utilisation of the Bikenomics tool in connection with all cycling promotion projects in Helsinki should be taken into serious consideration.

Figure 8. Structure of the Bikenomics tool (Handshake EU)

5. Interactions

The objective of the dialogue that took place during the course of compiling this Bicycle Action Plan was to improve awareness amongst the Urban Environment Division's personnel and external stakeholders of the plan of cycling and the measures of this action plan and increase their commitment to them. The interactions continued throughout the programme's compilation period, and their goal was to ensure information flow between the different parties.

A core team that held regular meetings was in charge of compiling the action plan and the interactions related to it. This team includes the key persons of the consulting party as well as the project manager and planning officer from the Bicycle Traffic Planning Team. The personnel of the Urban Environment Division were determined as the internal stakeholder group and the personnel of the City's other divisions and public enterprises, transport authorities, transport organisations, other organisations interested in the matter and the City's residents were identified as the external stakeholders.

The project's internal interaction measures consisted of the steering group's and the

core team's meetings, meetings of the other internal project stakeholders, a survey targeted at the Urban Environment Division's management and the objective and measure workshops held for the Urban Environment Division's staff. The information learned as a result of an internal survey held during the project's early stages was utilised to review the project's premise, and the materials generated during the objective and measure workshops were utilised to define the action plan's sub-goals and actions. Additionally, the Urban Environment Division's experts were heard separately when forming measures, and the personnel were informed on a general level through news pieces highlighted in the organisation's internal communication channel.

With regard to external communication, the representatives of stakeholders were invited to the objective and measure workshops. A participatory information seminar was also held for the stakeholders and a public resident event was held for the City residents. The purpose of the seminar held for the external stakeholders was to share information about the current situation of bicycle

traffic and the objectives of the action plan while also facilitating understanding between the different parties. The seminar was held to discuss matters that the external stakeholders consider especially important for achieving the plan's goals and to consider the stakeholder organisations' possibilities for facilitating achievement of the set goals. The purpose of the resident evenings held at Bryggga was to offer the City residents a chance to share their expectations, needs and goals regarding the promotion of bicycle traffic and city development. The results of the stakeholder seminar and the resident events were utilised when designing the plan measures.

A meeting was also held with the cyclist association of Helsinki during the initial stages of compiling the programme. The association's views were utilised to determine the most important matters of the programme.

A more detailed description of the interaction measures is presented as an attachment to this report (Appendix 2 Interactions).



6. Implementation and monitoring of the action plan

Prioritising and implementation of measures

Of all the 34 measures in the action plan, compiling and implementation of the prioritising and implementation plan for the inner city target network and the bicycle highway network (measure 5) is the most urgent and critical. The plan is necessary to allocate the bicycle traffic investment budget to the targets that will best increase the numbers of bicycle traffic, which means that the money spent will also have the best yield. When compiling the implementation plan, attention will also be paid to building the network in sections that are large enough and logical from the perspective of the users. The investment level of the bicycle traffic's route network has grown to €20 million a year with the previous Bicycle Action Plan, totalling around 14% of the total transport budget.

In the future, the prioritising of projects will be reviewed in detail, and the measures of connections will be categorised based on the investment's size (e.g. new route/improved route). The connections requiring measures will be prioritised utilising the existing prioritising method. A result of this is a list of bicycle traffic's project propositions. The prioritising process is also reviewing the dependencies on other development projects that will be implemented within 10 to 15 years. The objectives forecast will be made based on the proposed projects with programmes. If necessary, the methods and prerequisites for facilitating the constructing of the target networks according to the goals will be defined.

Another significant measure is updating the planning guidelines of cycling routes (measure 1). The measure comprises the updating of several different planning guidelines from

both planning and maintenance perspectives. Updating these guidelines quickly is important so that the results of the measures can be utilised when constructing new infrastructure. This way, the new cycling network's sections will be safe, of high quality and meet future demand.

A year of implementation has been presented for all measures in the plan. It is recommended that these measures be carried out as scheduled, as research shows that implementing several measures at the same time has a greater impact than individual measures implemented separately. The growth of the modal share of cycling that meets the set goal requires significant changes to be made and, thereby, several simultaneous measures to be carried out.

Land use and urban structure

General Land Use Planning

Detailed planning

Land Property Development and Plots

Traffic and Street Planning

1. Planning guidelines
2. Cycling safety and functionality
3. Traffic light control principles
5. Route implementation programme
6. Signage
7. Traffic signalization improvements
8. Database of cycling routes
17. City logistics
23. Influencing legislation
25. Planning guidelines for bicycle parking
26. Premises
27. Database of bike racks
28. Implementation plan for bicycle parking
31. Monitoring
32. Regional marketing strategy

Urban space and landscape planning.

4. Lighting

Buildings and public areas

Built Assets Management

Premises Services

Maintenance

9. Maintenance roadmap
10. Quality requirements
11. Condition data
12. Winter maintenance classification
13. Intensified winter maintenance
14. Re-paving programme

Construction

19. Contract documents

Housing Production

Services and permits

Resident and business services

18. Guidelines for temporary arrangements
20. Initial data
22. Sanctions and incentives
24. Training events

City Survey Services

34. Cycling map

Building Control Services

Environmental Services

Parking control and parking services

15. Abandoned bikes
16. Parking in cycling lanes

Sector administrative and support services

Administrative and legal services

Personnel services

Development services

Financial and planning services

Information management services

Communications services

21. Road work communications
33. Communication plan

HKL

29. City bikes
30. Bike centre and other services

Figure 9. Division of the plan implementation responsibilities within the organisation.

Promoting bicycle traffic requires co-operation and commitment throughout the entire Urban Environment Division. Both larger measures and smaller actions as well as adjustments to guidelines and practices are needed to promote cycling. The good, open co-operation between the different service units and services of the Urban Environment Division and clear commitment to responsibility are the keys to success. All Urban Environment Division measures should strive to ensure that all actions carried out facilitate the improvement of bicycle traffic's conditions or that they do not hinder it.

The party mainly in charge of a measure has been determined in the action plan, and the other services needed for implementing the action have also been defined. The other necessary services have been defined based on needs identified when this plan was compiled, which means that they will likely be added to when the content of the measures is specified. The party with the main responsibility is in charge of launching the measure, assembling a group needed to implement the measure, and completing the measure. Figure 9 presents the Bicycle Action Plan's measures relating to the Urban Environment Division, listing them under the party carrying the main responsibility for the measure in question.

Adding human resources

It is proposed that **human resources** are increased in 2020–2025 from the current level by four people, three of whom are proposed for Traffic and Street Planning and one for the Services and Permits Unit. It is proposed that these human resources are added as soon as possible to facilitate the implementation of the action plan's measures. Inadequate resources for promoting bicycle traffic burden individual employees too heavily, slow down the progress of cycling matters and, at worst, lead to poor quality solutions from the perspective of bicycle traffic. The number of street planners and worksite supervision personnel must be increased urgently so that the €20 million cycling budget can be utilised in full and that worksites can be designed in a way that is better for bicycle traffic. Adding four new staff members in Helsinki is still quite a modest increase, based on international comparisons, and with this addition Helsinki will not yet reach the number of personnel working on bicycle traffic in other cycling cities of a similar size.

Linking the action plan to the objectives guiding the Urban Environment Division's operations

Promotion of cycling is based on the City of Helsinki's existing decisions on the construction of a target network for bicycle traffic and the Bicycle Action Plan. To make the monitoring work of the execution of these decisions more effective, the monitoring should be directly tied to the goals guiding the operations. At the moment, the Urban Environment Division's performance targets, i.e. their binding operational goals, do not include any indicators guiding operations for bicycle traffic, such as the indicator of floor area for housing production. The progress of cycling route and bicycle parking plans is currently measured through the effectivity objectives in the City's budget. However, it is of key importance to the residents that the indicator be tied to the implemented measures themselves.

In order to link in this action plan as a part of the Urban Environment Division's continuous operations, it is proposed that of the main objectives presented in this plan, the ones included in the Urban Environment Division's performance targets are:

- number of kilometres of implemented target network
- number of implemented bicycle parking spots.

In addition to the performance targets, the management must ensure better that the measures presented in this plan are included in the services' annual action plans. An executive group for the plan will be established for this purpose.

Monitoring the completion of the plan

A group will be established to execute the plan, and it will hold meetings about four times a year. The group must have representatives from the plan's each five sub-sections (routes, maintenance, worksites, parking and services, marketing), including HKL's representation. Visiting members can also be invited to the group based on the theme discussed. The central duty of the group is to ensure and check that the measures presented in this plan are included in the action plans of the Urban Environment Division's different services and units in the years during which these measures need to be executed. The group will also carry out active

communications inside the organisation with the units that need to implement these measures.

The group prepares an annual follow-up of the plan for the Urban Environment Committee (UEC). This follow-up will be presented to the committee every spring, when the residents and media are most interested in matters related to bicycle traffic. The progress of the goals is also reported through the Cycling Account, which is published every other year.

The measures in this Bicycle Action Plan have been planned for 2020–2025, and the plan must be updated again for 2025–2030. This work must be carried out in 2024–2025. Before starting the updating process, a situational review should be carried out, assessing which matters have succeeded and which still have room for improvement in order to allocate the plan's measures correctly.

Other divisions

Holistic promotion of cycling requires, in addition to the development measures of infrastructure and cycling services, the development of other matters related to bicycle traffic, including those that are the responsibility of the City's other service divisions. Such divisions include units focusing on education, positive marketing, sports services and healthcare. The City of Helsinki's other service units should therefore review their current situations and possibilities for promoting cycling and compile a plan of bicycle traffic development measures. The Urban Environment Division will be happy to work with other units to help them compile a development programme.

Appendices

Situational review of bicycle traffic 2019

Bicycle Action Plan 2.0

Contents

- 1 Bicycle traffic development in Helsinki
 - 1.1 Amount of bicycle traffic and its modal share
 - 1.2 Political support for promoting cycling
- 2 Situation of the previous Bicycle Action Plan
 - 2.1 Progress of the action plan's measures
 - 2.2 Awareness of the action plan and its management
- 3 International comparisons
- 4 Conclusions

1 Bicycle traffic development in Helsinki

1.1 Amount of bicycle traffic and its proportion of all the modes of transport

The numbers of cyclists moving around the Helsinki inner city borders have grown, on average, since the beginning of the 21st century: in 2000, about 20,000 cyclists crossed the peninsular border on a weekday in June, while in 2018 this number had increased to around 35,000 cyclists. The amount of bicycle traffic tends to fluctuate a great deal, depending on the weather in the summer and the cycling conditions in the winter. Furthermore, large worksites and the detours they cause bring about major changes to the number of cyclists at certain counting points.

The busiest cycling route in Helsinki is Lauttasaari bridge, over which a total of 1.4 million trips were made by bike in 2018. About 0.98 million cycling trips were taken on the bicycle highway network on the same year. About 12 per cent of Helsinki residents cycle all year round. The goal is to increase this number.

Even though the amount of cycling has grown, its modal share has not increased in accordance with the objectives: Since 2010, modal share of cycling has fluctuated between 9 and 11 per cent annually. The objective established in the City of Helsinki's Bicycle Action Plan states that the modal share of cycling should be 15% of all trips taken in 2020.

Figure 1 presents information about bicycle traffic numbers and proportions in Helsinki as well as the key measures that have been applied to increase these numbers. The image shows that several political decisions have been made to support bicycle traffic. However, they have been slower to influence the implementation of bicycle traffic projects than hoped, and the City is behind on goals regarding the construction of the target network.

Helsinki has about 1,300 km of cycling routes, most of which are bidirectional and shared with pedestrians. The major shortcomings of the network are the fragmented network in the inner city and the lack of fast, high-quality connections (bicycle highways). The goal length of the bicycle highway network is 130 kilometres, of which 6 have been completed, and 29 kilometres of the inner city's goal network of 131 kilometres have been finished.

The individual matters presented in the image have been described in more detail in the next chapter.

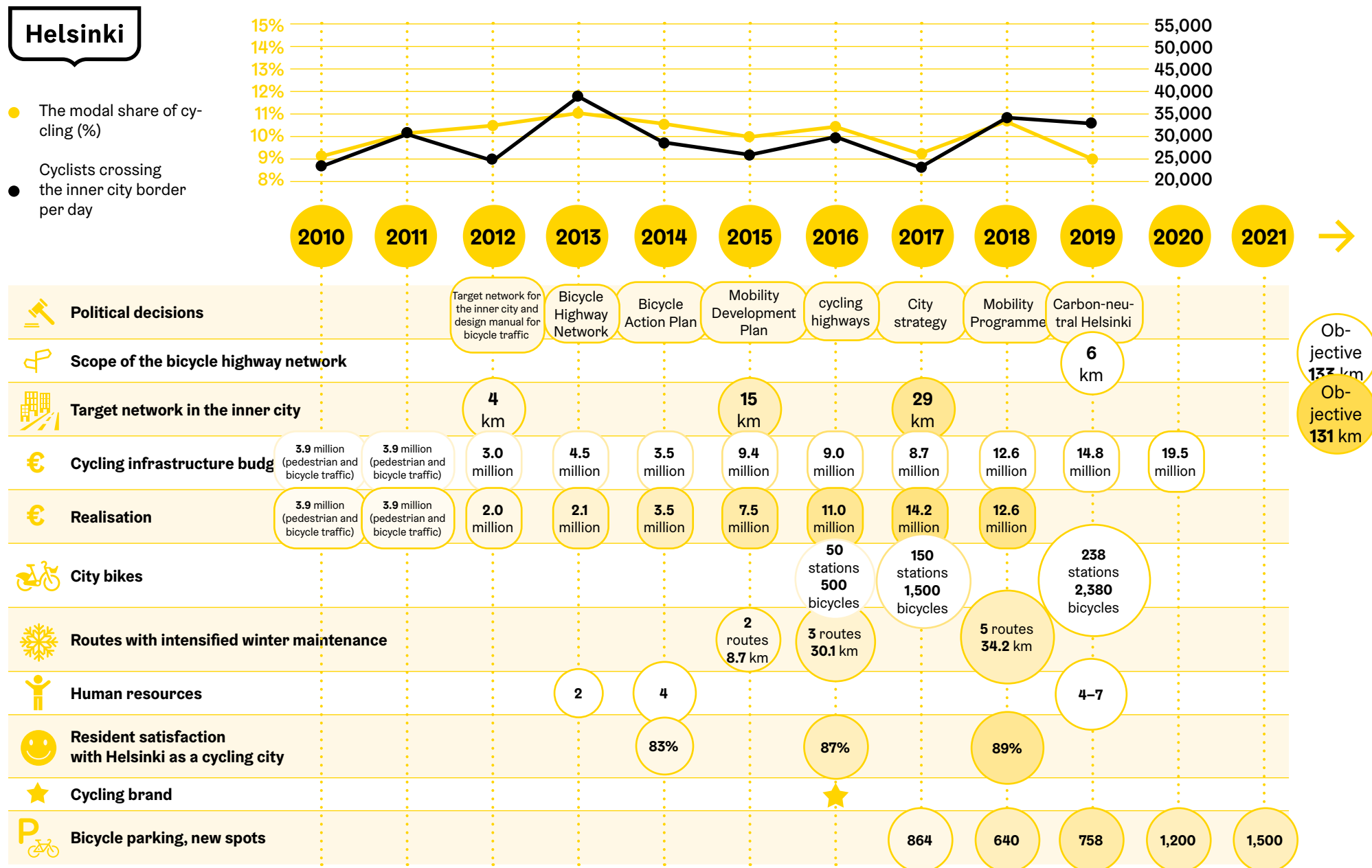


Figure 1. The figures for bicycle traffic in Helsinki, its proportion of all modes of transport and the key promotion measures since 2010.

1.2 Political support for promoting cycling

City of Helsinki has had a plan for doubling the amount of cycling since 1995. The plan was updated in 2003, and an objective was set to double the amount of bicycle traffic by 2012. In 2009, the City signed the Brussels Convention, according to which the goal regarding the modal share of cycling (weekday traffic in autumn) was updated to 15% by 2020. The City of Helsinki's strategy for 2009–2012 established that the transport system would be developed to promote sustainable modes of transport. This action plan defined several measures aiming to promote cycling, one of which was to compile an implementation programme for cycling. The City's first cross-administrative Bicycle Action Plan was approved by the City Board in 2014. The objective of this action plan was to increase the modal share of cycling from 11% to 15% in weekday traffic in autumn by 2020.

Since 2014, promotion of cycling has been included in several high-level strategies and programmes, and its political support has thereby strengthened even further. The following section presents the newest programmes in which the promotion of cycling is included.

Development plan for mobility (2015): A programme approved by the City Board, which aims to meet the demands set for transport and mobility in the City's strategy programme, other City strategies and regional plans. The development plan for mobility combines the visions of the strategic programmes and the city plan as well as the actions and goals of traffic planning. The operational strategies of the programme defines the priority of the different modes of transport: pedestrian traffic, bicycle traffic, public transport, logistics and motorised traffic. Promoting sustainable modes of transport is vital when considering the perspectives of the attractiveness and accessibility

of the urban environment, efficient mobility and the management of environmental impacts.

Helsinki city strategy 2017–2021 'The most functional city in the world' (2017): Helsinki's vision is to be the most functional city in the world. This is how it will create the best preconditions for urban living for its residents and visitors. Five key objectives have been identified in the strategy, one of which states that 'securing sustainable growth is the City's central duty'.

The Helsinki city plan (came in to effect in 2018): a city plan approved by the City Board, which described the City's strategic intent and will guide the detailed planning work in Helsinki in the future. The transport system in the city plan creates the preconditions for denser city development. Consequently, the denser urban structure will increase the competitiveness of sustainable modes of transport, which means that increasing efficiency of the transport system and the growing city density support each other. The three most significant changes in the new city plan regarding the transport system are an extensive light rail system covering the entire city, transforming the entrance routes to the city from highway-type roads to resemble city boulevards, and the prioritisation of walking and cycling. The target network of bicycle highways has been presented in the city plan.

Mobility programme (2018): The Helsinki mobility programme expands the view of promoting physical activity to promoting mobility and cutting down time spent sitting. The programme highlights that even a small amount of everyday mobility and activity has beneficial effects on health and well-being. The programme's measures include several projects related to promoting bicycle traffic, such as updating

the development programme of bicycle traffic, increasing the amount of available bicycle parking spots, construction of the inner city target network and the bicycle highway network and increasing the number of city bikes.

2019: Carbon-neutral Helsinki 2035: Helsinki is committed to doing its part in mitigating climate change. The objective of the Helsinki City Strategy 2017–2021 is to make Helsinki carbon-neutral by 2035. The climate goals not only affect the City organisation, but also the residents and the organisations operating in Helsinki. The Carbon-neutral Helsinki 2035 Action Plan is a proposal on how these emissions reductions can be achieved in practice. The plan presents several measures related to bicycle traffic, and it states that the modal share of cycling should double compared to the current level, so that cycling's proportion of the action plan's total emission savings potential (2%) can be achieved by 2035. Based on this, cycling's proportion of all modes of transport should be around 20% by the target year.

MAL 2019 (HSL) (2019): The strategic plan of the 14 municipalities in the Helsinki region 2019–2050 outlines how the traffic emissions in the region can be deducted, the day-to-day life of the region's residents can be made better, how people are able to find affordable homes along good traffic connections and how they can easily commute. Investing in bicycle traffic's growth plays a key role, and hiring a regional cycling coordinator in the HSL region has also been proposed.

The bicycle traffic objectives in the City of Helsinki's budget 2020: effectivity goals regarding bicycle traffic's target network, the planning of bicycle parking and the budget level have been established in the budget until 2022.



2 Progress of the previous Bicycle Action Plan

2.1 Progress of the action plan's measures

Background

The objective of the Bicycle Action Plan 2014, approved by the Helsinki City Council, was to improve the attractiveness of cycling and increase modal share of cycling on an autumn weekday from 11% to 15% by 2020. A total of 25 measures were presented in the action plan to achieve this goal.

The progress of these measures was first evaluated by the Audit Committee in 2015. At the time, the committee came to the conclusion that nearly half of the measures in the plan had progressed or progressed very well. Despite this positive overall image, the key measures for promoting cycling, i.e. the construction measures for cycling infrastructure, had not moved forward at an adequate speed. It had not been possible to produce enough complete transport and street plans to implement as many projects as the funding would allow. The bicycle parking measures were also behind schedule despite the finished plans and sufficient funding. Additionally, it was estimated that the funds reserved for promoting cycling had not been spent on the routes that would have the greatest potential for bicycle traffic.

As a result of this evaluation carried out in 2015, clearer objectives were set for the planning and construction of bicycle parking. Additionally, in 2016, the different sectors of the cycling network were prioritised to support the planning of cycling projects and their imple-

mentation programmes. Since 2017, the operative goal set for the City Planning Department in the City's budget are the bicycle highway and main route kilometres and the bicycle parking spots planned.

The status of the action plan was assessed for the second time at the end of 2017, and this status review was processed by the Urban Environment Committee. As a summary, it was stated at the time that the conditions of bicycle traffic has been successfully improved a great deal. Establishing the city bike service has been a significant, individual cycling promotion measure. With regard to meeting the goal of increasing the modal share of cycling and achieving the other objectives, the focus was still on improving the infrastructure. In order to improve infrastructure, both human resources and investments should be set at the target level determined in the action plan. With regard to human resources, hiring one person full time for the role of managing plans and construction for bicycle traffic projects would be important to achieve the goals set. As a result of this committee's review, a decision was recorded according to which the committee requires the division to allocate work assignments to bicycle traffic project plans and construction tasks.

Situation in 2019

The situational review of the action plan recorded in this report is based on the updated expert evaluation of 2017 and on the expert assessment of the changes that have occurred since then. Figure 2 is a general overview of the measures' progress status.

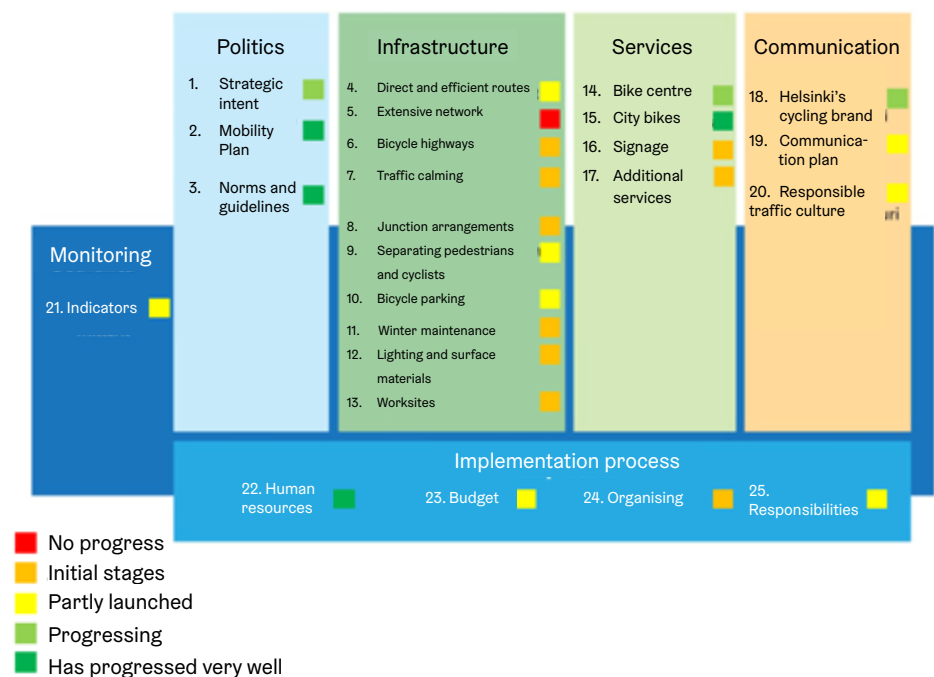


Figure 6. Division of the plan's implementation responsibilities within the organisation.

Political measures (has progressed well)

The political support for promoting cycling is strong in Helsinki. The council strategy for 2013–2016 stated that the recommendations of the Bicycle Action Plan would be implemented. The strategy also mentioned that sustainable mobility would be promoted by increasing the combined modal share of walking, cycling and public transport by one per cent a year each.

In 2015, the City Board approved the City of Helsinki's development plan for transport to be followed as a guideline. However, the monitoring work of this plan has not been systematic.

In 2016, the bicycle highway network was included in the Helsinki city plan, which came into force in 2018. The Helsinki mobility programme was also approved in 2018. The mobility programme includes several measures promoting cycling. Furthermore, Helsinki's vision of being the most functional city, approved in 2017, and the Carbon-neutral Helsinki 2035 programme approved in 2019 also offer support for the promotion of cycling. Additionally, one of the performance goals of the City budget in 2019 and 2020 was the planning of the number of kilometres included in the target network and the number of bicycle parking spots. In addition to these, a decision has been made to increase the budget level of bicycle traffic until 2022, at least.

The norms and guidelines have also improved since 2014. Both the bicycle traffic planning guidelines and the parking guidelines were approved as guidelines by the City Planning Committee in 2016. The website for bicycle traffic planning guidelines, www.pyöräliikenne.fi, has been visited 37,000 times (November 2019), and 400 planning officers, City employees and representatives of interest groups and

consultants have taken part in the related training.

The norms of detailed planning have been improved with regard to bicycle parking, but the norms and guidelines of both the detailed planning and building control services still need to be reviewed to improve bicycle traffic's status.

Infrastructure measures (at the initial stages)

The quality levels of routes have been determined in planning guidelines and target networks for bicycle traffic to ensure the directness and efficiency of routes. Technical drawings of streets have also been compiled. The inner city's target network was approved by the City Planning Committee in 2012 and the suburban areas' target network in 2016.

The progress status of the inner city's target network was evaluated for the City Planning Committee's decision in 2017. The inner city's target network comprises around 131 street kilometres (figure 3). Of this, 29 kilometres have been completed. There are about 30 street kilometres of existing routes that need to be improved. A total of 72 street kilometres of completely new routes need to be built as follows: about 45 kilometres of routes will be built counted as bicycle traffic projects, and an additional approximately 22 kilometres of routes will be built in project areas and about 5 kilometres in connection with urban infills. In addition to these, some routes have been built in the suburban areas.

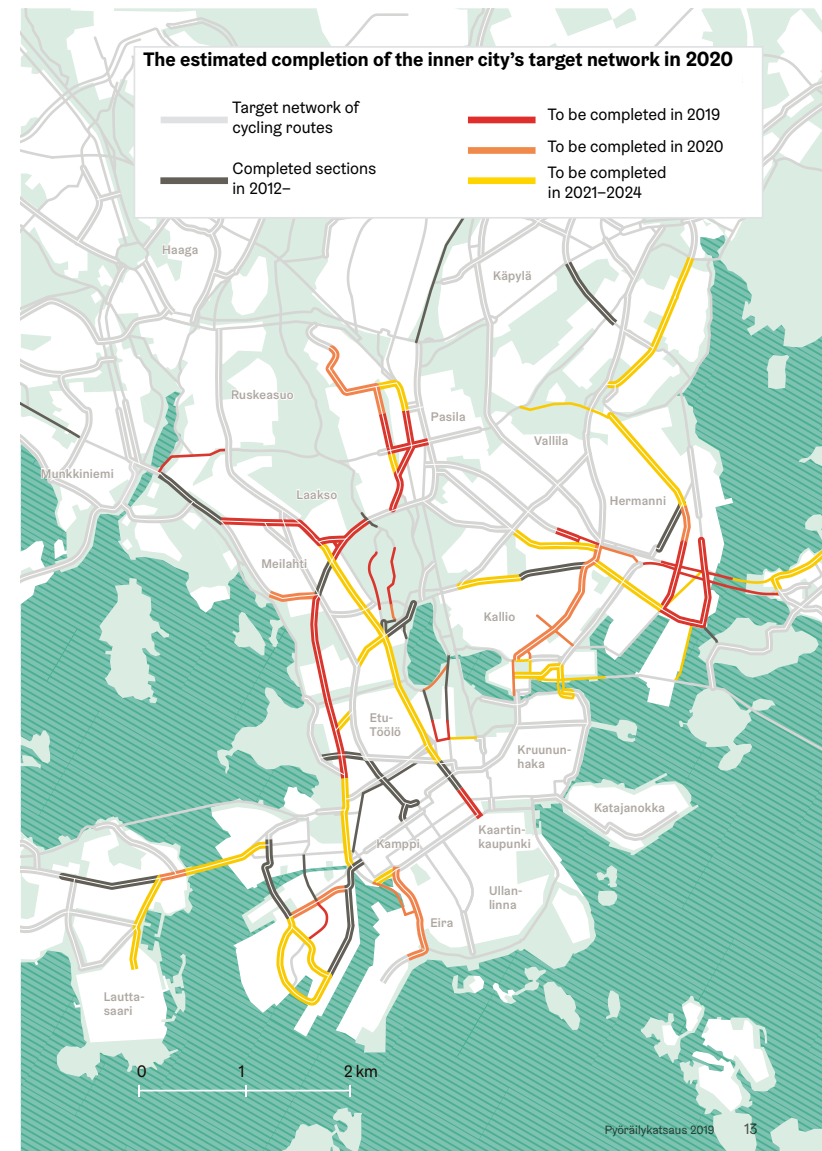


Figure 3. Target network in the inner city: completed sections and construction estimate by 2025. (Source: Cycling Account 2019)

In 2016, the bicycle highway network (figure 4) was approved as a part of the new city plan by the City Council. The length of the bicycle highway network updated in connection with this is about 132 kilometres, 35 km of which are located in the target network's area in the inner city and 97 kilometres in suburban areas. Currently, six kilometres of routes that meet the planning criteria have been built of the entire bicycle highway network. Part

of the future network is included in the current infrastructure, which can be improved to meet the bicycle highway standards through fairly simple measures. Some sections of the network will also be built in connection with other projects, such as the city boulevards and Jokeri Light Rail. Still, a significant amount of new routes are needed to achieve the goals set for the bicycle highway network.

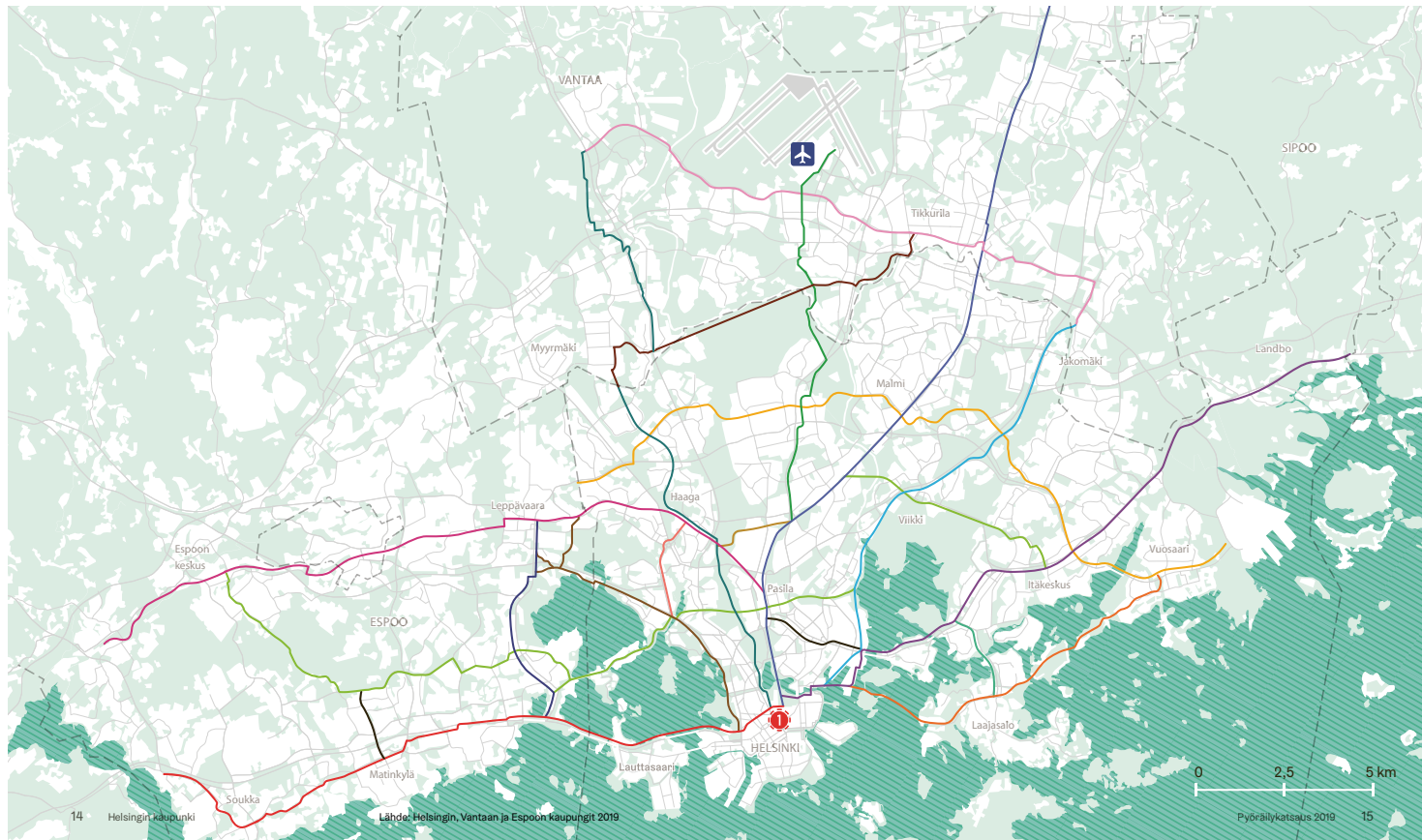


Figure 4. The planned bicycle highway network in the Helsinki metropolitan area (Source: Bicycle Account 2019)

The target network's construction process has progressed slower than hoped for, partly due to the lower investment level than proposed in the action plan and partly because there were insufficient transport and street plan reserves. This, in turn, is partly due to the fact that the entire organisation has not committed to the implementation of the bicycle traffic target network and there have not been adequate follow-up measures. Some projects were also delayed due to complaints. To improve the network's coverage, a clear public project plan that allows progress monitoring is also needed.

In Helsinki, the speed limits of residential areas have been reduced in large areas. One purpose of this is to improve traffic safety by cutting the speed of motorised traffic. In addition to other benefits, this also provides improved and safer cycling conditions. Other measures to calm traffic or structure the street network to calm traffic have not been carried out.

Junction arrangements will improve along new construction as the planning guidelines' new practices are applied. A significant part of the target network of cycling will be unidirectional routes, which will improve junction safety in particular. The junction areas will also be improved on the existing routes. The work for removing kerbstones along the existing routes has already partly begun, for example.

All new cycling infrastructure is separated from pedestrian infrastructure, for the most part. Some old routes have also been modified by separating bicycle traffic from pedestrians by a white line, for example. Despite these improvements implemented, the City still has several routes where cyclists and pedestrians are combined. The changes made to these routes will continue, with the routes of the inner city's target network the current focus point.

Better and safer bicycle parking opportunities emerged as the most significant driving force for increasing cycling in the Cycling Barometer of 2016. New parking facilities have been built in the inner city (2016) and in the Kallio (2017), Töölö (2018), Kamppi, Punavuori and Kruununuhaka (2019) areas. In 2020–2021, the development area of bicycle parking includes city districts from the northern inner city and some parts of the western city districts. The planning and implementation of bicycle parking has been systematic since 2015. HKL is currently responsible for the park-and-ride operations in the Helsinki region, and it will develop these operations in close cooperation with the other operators. Thus far, HKL has carried out park-and-ride improvements at Siilitie, Puotila and Vuosaari metro stations, among other locations. Removal of abandoned bicycles has not improved since 2013.

A route-specific brushing and salting method has been applied in winter maintenance since 2015, and the use of the method has been extended by one route per year. In winter 2018–2019, four routes, total of 33 kilometres, were maintained with the brushing and salting method, in addition to which intensified winter maintenance was used on one route of approximately five kilometres. The results of intensified winter maintenance methods have been good. With regard to bicycle traffic's winter maintenance, it has been decided that the recommendations the winter maintenance final report (Urban Environment Committee 2018) will be followed and the intensified winter maintenance will be extended in accordance with the report. The quality of winter maintenance should also increase in the bicycle traffic's network sections that are not included in the intensive winter maintenance operations. A project for coordinating the planning and maintenance of cycling routes was launched in 2019 to comprehensively improve the winter maintenance operations, but concrete measures

that would be visible in the winter maintenance practices have not yet been carried out.

The City is constantly improving lighting, but development work that would specifically focus on the lighting of bicycle traffic has not been launched.

A few new cycling route surface materials have been tested by Stara. In the future, attention should be paid to the consistency and uniformity of surface materials.

Traffic arrangements of worksites have been improved through training and more effective control and guidelines. There are still major shortcomings in the operations and monitoring of worksites, and the temporary arrangements are not at a sufficient level with regard to the promotion of bicycle traffic. Large project areas, such as Kalasatama, Pasila and Kansalaistori have also brought their own challenges for the promotion of bicycle traffic. The large amount of feedback has shown that the worksites are often on cycling routes, which is naturally desirable when improving bicycle infrastructure, but the temporary arrangements have not succeeded well enough when considered from the perspective of promoting bicycle traffic. In the Cycling Barometers of 2016 and 2018, the worksite arrangements were the largest factor in decreasing satisfaction, and the situation deteriorated over the two years.

Measures for services (progressing)

The bike centre has held fairly small-scale operations in Kamppi since 2012. Another small-scale bike centre was opened in summer

2017 at Herttoniemi metro station. In summer 2019, the bike centre, located on Narinkkatori, was moved to next to the bicycle highway at Kansalaistori. HKL is in charge of the bike centre's operations. The bike centre's facilities are small and do not allow the centre to provide its full service selection. There is still demand for a full-service bike centre also providing quick maintenance services and high-quality parking services in a central place in the city centre.

HKL established a bicycle maintenance location at all metro stations in 2018.

The city bike share system was introduced in spring 2016. At first, there were 500 bikes at 50 stations. The system proved very popular already during its first year: 5–6 trips were taken per bike every day and there were about 11,000 seasonal users. For season 2017, the system was expanded to include 150 stations and 1,500 bikes. In 2018, the system was extended to Espoo with 100 new stations and 1,000 bikes. In 2019, there were 238 city bike stations in Helsinki and 107 stations in Espoo. In 2018, the city bikes of Espoo and Helsinki had a total of 48,500 seasonal users, and 6.8 trips were taken per bike, which is a high number even at an international level. Many requests have been expressed for a year-round city bike system.

A pilot project of bicycle traffic signage is currently underway. Due to the new Road Traffic Act, more extensive use of new kinds of signs is now possible. The regional signage plan was completed in late 2017. This requires even more careful planning in Helsinki and the execution of signage. The intention is to launch the work by the end of 2019. Additionally, a plan for the signage of bicycle highways was completed in 2018, and the intention is to take the first information boards in use in 2019.

The latest cycling map was published by the Sports Department in 2016, and there have been many requests to update the map. The Sports Department has stated that it will stop making the map, and a new party responsible for it needs to be found.

Communication measures (partly launched)

Together with the City of Helsinki and other cities in the region, HSL has created a regional bicycle traffic brand and image. HSL has the main responsibility for the marketing and new customer acquisition of the region's bicycle traffic. The bicycle traffic image is used in the City of Helsinki's bicycle traffic publications as well as the new street fixtures and park-and-ride facilities.

Helsinki has no separate communication plan for cycling. HSL has compiled a regional communication plan that defines the annual themes and communication spearheads. The City published its Cycling Account in 2015, 2017 and 2019. This account reflects on the progress of cycling promotion, new bicycle traffic projects and the results of the Cycling Barometer. The account's purpose is to also reinforce Helsinki's positive cycling brand. The account is intended to be published every two years.

Traffic rules have been communicated through the Bicycle Account 2017 and the cycling map. A campaign on bicycle traffic rules was also carried out on social media with HSL and the City in autumn 2018.

Monitoring measures (partly launched)

A thesis concerning the cycling monitoring plan was completed on 19 August 2014, presenting tools for monitoring the action plan's progress. The Cycling Account, Cycling Barometer, cycling calculation and the effectiveness of City operations are some of the methods presented for monitoring bicycle traffic's development. Bicycle traffic counts are carried out annually, both manually and with automatic counters, more of which are acquired every year. The Pyöräliikenteen laskennat (bicycle traffic counts) publication presents the counted data in more detail. The report on bicycle traffic calculations was drawn up in Helsinki every year 2000–2017, but it was not completed in 2018 or 2019. The report is still needed.

The Cycling Barometer was carried out in 2014, 2016 and 2018, and its publication will be continued every two years. The barometer reviews Helsinki residents' satisfaction with cycling conditions. The modal share of cycling will be reviewed annually and it will be reported on in the development of traffic in Helsinki publication.

There are still shortcomings, especially in matters such as monitoring the progress of measures, constructing the infrastructure, monitoring the planning and funding of measures and tracking the effectiveness of measures.

Measures of the implementation process (partly launched)

Hiring three new people was proposed in the Bicycle Action Plan, and they were hired by the end of 2019. A cycling coordinator and one additional person for HKL were hired in 2014. One street planning project manager for project manager traffic was hired in the Urban

Environment Division in 2018, and a person in charge of bicycle traffic maintenance was employed at the end of 2019. In total, seven people were working on the promotion of cycling in the City and HKL organisations by the end of 2019, in addition to which the City has one EU-funded fixed-term project employee. The communications and marketing work has been promoted in cooperation with HSL.

The human resources are still fairly small when compared internationally, and very small when compared to the City's other, strategically important goals. For example, five people were hired to resolve the bottlenecks of completing the zoned floor areas in 2019 alone. As another example, a total of 652 people had worked on the Jokeri Light Rail project by June 2019. The project office offers workstations for about hundred people.

Due to this, carrying out the infrastructure projects and maintenance measures has been slower than hoped for. One major factor slowing down the completion of street plans is that the project managers' limited resources have been mainly allocated to projects other than cycling projects. The assessment report of the Audit Committee in 2015 also states that the human resources for promoting cycling in Helsinki are very small at an international level.

The bicycle traffic target level of funding determined in the action plan is €20 million annually, which will be reached for the first time in 2020. In 2015, bicycle traffic's infrastructure budget was increased from the previous €3–€4 million to about €9 million and then, in 2018, to €12.6 million. Lack of funding during the earlier stages of the reviewed period is one factor explaining why building cycling infrastructure was not possible within the desired schedule. The budget for 2020 states that bicycle traffic budget will remain at the level

of €19.5 million during the coming years. This facilitates more systematic construction of cycling routes and catching up to the inner city's target network schedule for 2025. Increasing the budget also requires increasing the number of staff in order to carry out the plans according to the new budget. Additionally, increasing the funds to the UN's recommended level (20% of all transport investments) should be evaluated.

The bicycle traffic coordination group held meetings from 2015 up until 2018. The group has not held meetings since then, as its operations did not have the desired impact. Cycling matters are now processed together with other transport matters in the executive team of the Traffic and Street Planning. The assembly of the bicycle traffic coordination group and its purpose need to be reassessed.

Summary

The summary result does not significantly differ from the conclusions reached in the assessment in 2017. Significant improvements have been made in the bicycle traffic conditions, but there is still plenty to be done. Of the 25 measures in the plan, six (24%) have been assessed as progressing or progressing very well. According to the assessment, two of the measures had not started at all, while seven measures (28%) were still at their initial stages.

The biggest positive changes since 2017 have taken place in bicycle parking, the city bike share service, human resources and the bicycle traffic budget. The human resources for promoting bicycle traffic had increased by two persons since 2017, by autumn 2019. Bicycle parking has been promoted systematically since 2015. In 2017, 864 new bicycle

parking spots were built in Kallio, and 640 new spots were completed in Töölö in 2018. In 2019, about 1,800 spots were completed in the Kamppi, Punavuori and Kruununuhaka areas. The annual expansion of the city bike service is one of the highly significant individual measures to promote bicycle traffic, and it has brought visibility to cycling in the urban landscape.

The largest issue is still the slow pace of implementing the measure with the largest impact on bicycle traffic numbers, i.e. building the infrastructure. Human resources of infrastructure development need to be increased at an international level so that the investments can be carried out. Additionally, compiling programmes for the projects and their organisation, management and division of responsibilities should be developed and the monitoring of measures improved. Solutions for implementing quick measures also need to be sought.

2.2 Awareness of the action plan and its management

Survey respondents

In May 2019, a web-based survey was carried out of employees in management roles in the Urban Environment Division, which reviewed how well people were aware of the Bicycle Action Plan approved in 2014, with the aim of collecting development suggestions for the new Bicycle Action Plan.

A total of 37 people from the target group answered the survey. Of the respondents, 20 worked for the Urban Environment Division as team managers, 16 as unit managers and 1 as a service manager. The

respondents are evenly spread across the division's different service units, excluding the division's administrative and support services, where only three people filled in the survey.

Awareness of the action plan and implementation responsibilities of measures

The respondents' awareness of the Bicycle Action Plan was reviewed in the survey. Based on the answers, the Land Use and City Structure service unit is best aware of the action plan, as 85% of the unit's respondents considered themselves very familiar, familiar or quite familiar with the plan. In the Buildings and Public Areas service unit, this number was 60% and in the Services and Permits unit 36%. One respondent at the Sector Administration and Support Services said that they were familiar with the action plan.

The 25 measures in the plan have been divided into three groups: infrastructure; political support, implementation and monitoring; and bicycle traffic services and communication (the groups are presented as different colour bars in the graph). The survey reviewed how the plan's measures are divided between the different units' scopes of responsibilities. Based on the answers, the units most often considered the measures related to infrastructure development to be included in their scope of responsibility. In comparison, only one or two respondents believed that the measures related to political support and the services and communications of Bicycle Action Plan traffic were included in their unit's scope of responsibilities. Nearly half of the respondents felt that none of the listed measures were part of their unit's responsibilities or were not certain whether the measures were included in their scope of responsibility.

Which measures in the programme are included in the responsibilities of your unit?

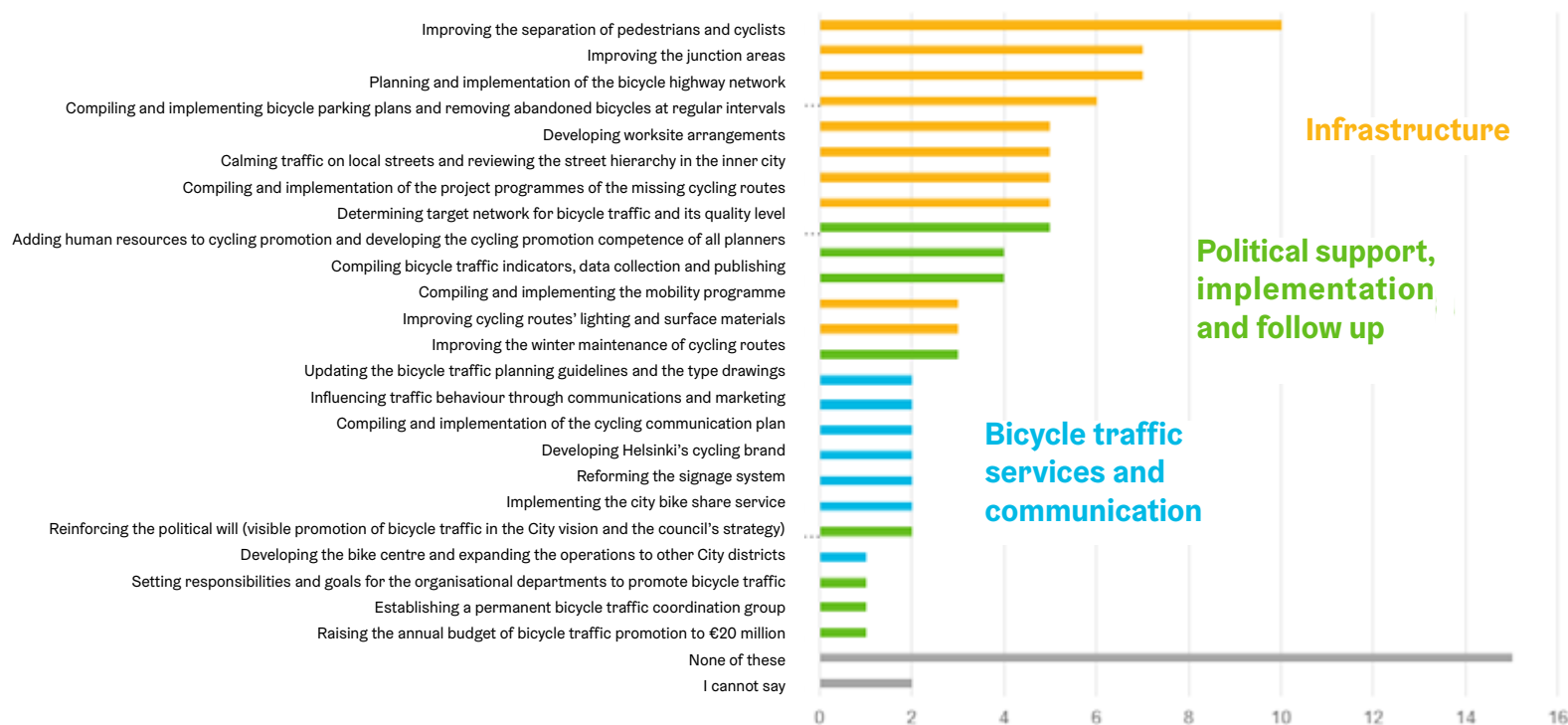


Figure 5. Scope of responsibilities of the Bicycle Action Plan

Success in implementing the measures

About one third of the respondents feels that the competence of promoting cycling as well as co-operation and information flow within the organisation have improved since the Bicycle Action Plan was launched. The Land Use and City Structure service unit has achieved the most successes. However, at the same time, the respondents

from the Land Use and City Structure service unit stated that the major challenge for promoting bicycle traffic has been the lack of human resources. According to a few of the respondents, there are also shortcomings in information flow and competence. About half of the respondents were not involved in carrying out the action plan's measures.

In what ways have you succeeded in the implementation of the programme measures included in the responsibilities of your unit?

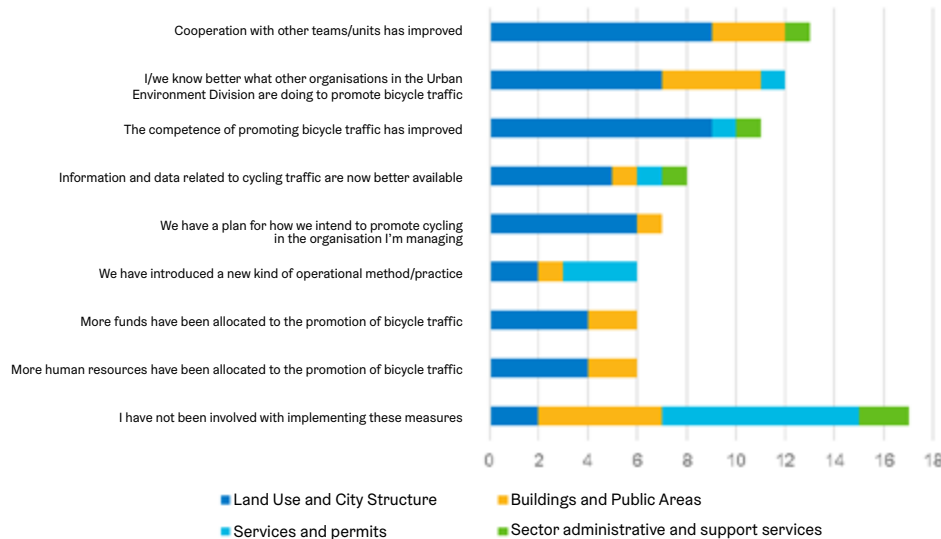


Figure 6. Successes achieved in the promotion work of bicycle traffic.

The respondents' suggestions for continuing the work

The respondents were asked to share some concrete examples of what their unit could do to promote cycling and increase its modal share. Some actions brought up by the employees of the Land Use and City Structure service unit were: reserving adequate resources from general planning for implementation, producing high-quality, uni-

What kinds of challenges have you faced when implementing these measures in your unit?

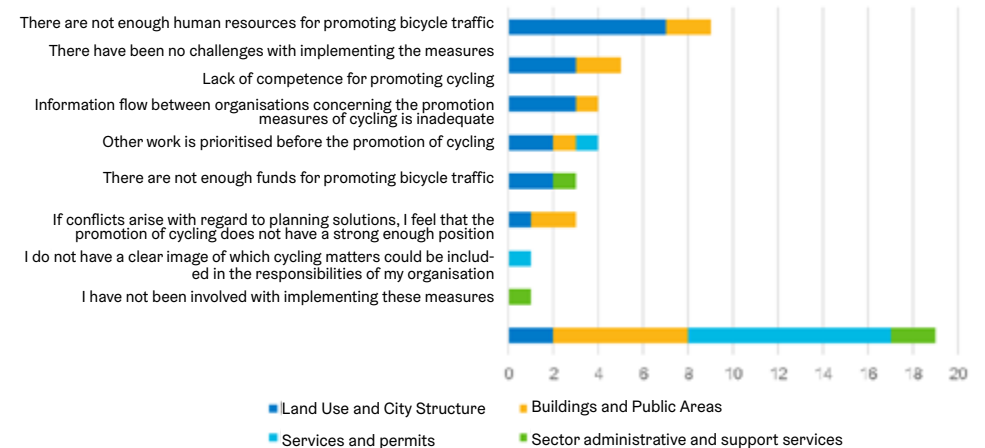


Figure 7. Challenges faced in the implementation of the Bicycle Action Plan's measures.

form planning solutions, and compiling planning guidelines for traffic signalization planning for the street and traffic planning officers. The suggestions of the Buildings and Public Areas service units focused on anti icing guidelines on cycling and walking routes as well as the planning of bicycle parking and the washing and changing rooms of

properties. People working for the Services and permits service unit brought up actions such as improving the traffic arrangements of worksites and forwarding feedback from cyclists to the right operators to ensure that their opinions are heard. People working for the Sector Administration and Support Services unit did not bring up any examples of bicycle traffic promotion actions.

At the end of the survey, the respondents were asked to evaluate the importance of promoting bicycle traffic as a part of developing the City of Helsinki on a scale from 0 (not at all important) to 5 (very important). The average grade was 3.6. The employees of the Land Use and City Structure gave the highest score, with an average of 4.1, and the employees working in Sector Administration and Support Services the lowest, with an average of 2.7. The units' importance in bicycle traffic's promotion work was evaluated applying the same scale. The Land Use and City Structure service unit considered its role the most important, with an average score of 3.5, whereas other service units saw their role as clearly less important, leading to an average score of 2.2.

Conclusions on the survey results

Based on the survey results, the management of the Land Use and City Structure are well aware of the Bicycle Action Plan and the related measures, but the management of other sector units are not quite as familiar with the action plan. This is also reflected in how important promoting bicycle traffic as a part of Helsinki's development is considered, in the operations of each unit and in how actively the units have taken part in carrying out the action plan.

The 25 measures in the Bicycle Action Plan are divided into measures

related to the development of infrastructure, political support and monitoring, and services and communication, which means that they apply extensively to the entire Urban Environment Division. However, nearly half of the survey respondents felt that the units they manage are not responsible for any of the measures in the action plan. Based on the survey, it also seems that only very few units are responsible for some measures related to the services and communication of bicycle traffic as well as measures concerning political support and implementation, in particular. At the same time, the Land Use and City Structure unit's respondents felt that the major challenge of implementing the Bicycle Action Plan is the lack of human resources.

This result indicates that the units that have adopted the promotion of bicycle traffic as a part of their day-to-day work are able to experience successes, while also struggling with the lack of or insufficient human resources. On the other hand, there are several units in the Urban Environment Division that have not understood their role in the promotion of cycling and have not yet started to implement the action plan's measures. The key challenge of the action plan now being drafted seems to be forming a clear division of responsibilities for each measure and getting all necessary parties to commit to implementing the action plan's measures.

3 International comparisons

To form an accurate view of the resources needed for promoting cycling, Helsinki should be compared to the leading cycling cities in Europe. The comparisons include human resources as well as funds used for bicycle traffic investments. Copenhagen also provided comprehensive information about the development of the bicycle traffic infrastructure and cyclist bicycle traffic volumes, for example. The cities used in the comparison were Copenhagen, Amsterdam, Munich and Stockholm. Of these four cities, every city except Stockholm took part in an EU-funded Handshake project focusing on the best practices of bicycle traffic during the compilation of this action plan. At the time, the cities also actively interacted with each other. The comparison can be used to facilitate assessing human resource needs and budget change needs in Helsinki.

Human resources

Promotion of cycling in Copenhagen is currently an integrated part of the city development, due to which the human resources of cycling promotion have been gradually decreased since 2014. Despite this, a significant number of people still work mainly on the promotion of bicycle traffic in Copenhagen. The personnel are divided as follows:

- bicycle traffic planning 5–6 people
- bicycle parking planning 5–6 people
- separate cycling routes 8 people.

This means that up to 20 people work mainly to promote cycling in Copenhagen, regardless of the redefined job assignments. It should also be noted that the regional transport organisation of Copenhagen, resembling HSL, has five people assigned to bicycle traffic. This means that the regional organisation is also able to facilitate the construction of regional bicycle highways through their operations. Amsterdam is another of the world's top cycling cities, and actively plans bicycle traffic with the following resources:

- bicycle traffic planning 13–15 people
- political advice for bicycle traffic 3 people.

In Munich, people promoting bicycle traffic work in bicycle traffic planning, at the construction department, at the general order department as well as at the urban and construction planning department. Allocation of their human resources:

- bicycle traffic planning 2 people
- construction department; 3 people and 4 people for each area (there are 25 areas in total, but these people also have other planning duties, similar to the City of Helsinki's areal traffic planners)
- general order department 8 people
- urban and construction planning 5 people.

The total amount of human resources is 18 people (excluding the regional planning officers) and area-specific planning officers of bicycle traffic.

An estimated 15 full-time experts work in bicycle traffic planning, construction contracting and maintenance roles in Stockholm. Additionally, about four people work full-time in marketing and communications, with bicycle traffic communications as their main area of responsibility. These experts work for the Transport System Unit (Trafikkontoret), Urban Development Unit (Exploateringskontoret) and the Environment and Health Unit (Miljöförvaltningen). About six people also work in a separate traffic data, modelling and analysis team that covers all modes of transport.

Bicycle traffic infrastructure investments

Since 2010, about €11–27 million has been spent annually to construct bicycle traffic infrastructure in Copenhagen. The state's proportion of the investment funding has been 4–27% between 2009 and 2018. In Helsinki, the state has not yet taken part in the City's bicycle traffic investments.

Amsterdam's budget for promoting bicycle traffic for 2017–2022 is €351 million, which translates to an average annual budget of around €58.5 million. In addition to the City of Amsterdam, funding was received from the local public transport authority, Amsterdam Regional Transport Authority VRA, Prorail, and the national rail traffic operator, Dutch Railways NS. The budget above does not include ongoing projects, such as the planned bicycle parking centres and the cycling

infrastructure of new areas. Additionally, the City of Amsterdam will invest €240 million in a cycling bridge over the IJ river.

The 2019–2022 budget of Munich's bicycle traffic is distributed between marketing and representation (€0.8 million per year) and the promotion of cycling and walking (€10 million per year).

Stockholm is committed to investing a total of 1 billion Swedish crowns (approximately €94.2 million) in cycling infrastructure in 2019–2022. Distribution of the annual investments:

- 2019: SEK 200 million (€18.8 million)
- 2020: SEK 250 million (€23.6 million)
- 2021: SEK 275 million (€25.9 million)
- 2022: SEK 275 million (€25.9 million)

Development of bicycle traffic infrastructure and volumes in Copenhagen

Copenhagen, Helsinki's reference city in the Handshake project, has determinedly promoted cycling as a part of the operational field of the entire transport system and urban development. The routes built within the last two decades, investments and their impacts on the bicycle in commuter and school trips has been presented in the graph below.

The development of bicycle traffic volumes, modal share and infrastructure in Copenhagen.

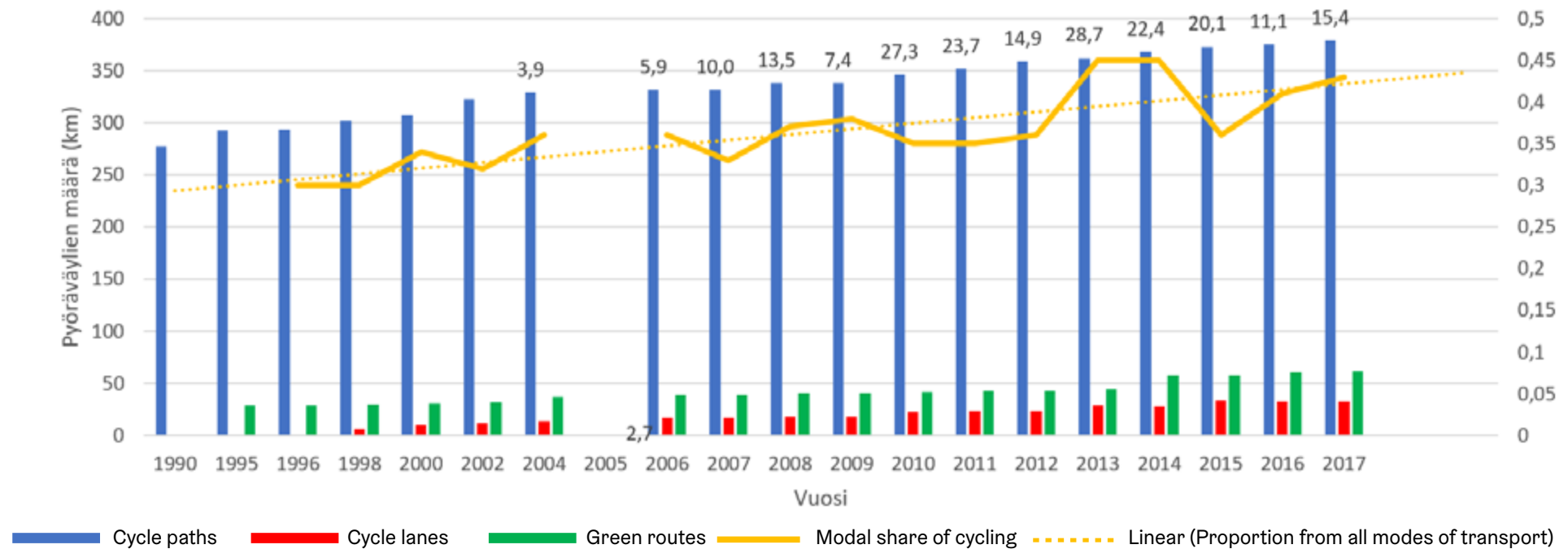


Figure 8. The development of bicycle traffic volumes, modal share and infrastructure in Copenhagen.

The graph reveals that annual fluctuations in both directions have occurred with regard to built infrastructure, investments (figures on top of the bars, MEUR) and the modal share of cycling, but the correlation still shows clear growth. It should also be noted that the growth can clearly be attributed to construction of physically separated cycling infrastruc-

ture, which comprise the majority of Copenhagen's cycling network. By far the most common structurally separated solution in Copenhagen is an unidirectional cycle track separated from both the car lane and the pedestrian sidewalk with kerbstones. The cycle lanes and green routes are mainly complementary sections of the main cycling network.

Conclusions

Table 1 comprises the data of the cities included in the comparison as absolute values and in relation to the city's population number.

City	Population	Human resources	Investments MEUR	Investments as EUR per resident	Modal share of cycling (commuting, trips to educational institutions)	Note!
Helsinki	650,000	3–7	7–20	11–22	14%	
Copenhagen	620,000	20	11–27	18–45	49%	Other employees who promote cycling have also been integrated elsewhere in the organisation
Amsterdam	870,000	18	58	67	36%	The modal share includes all trips. The investments do not include individual projects, new areas and bicycle parking centres
Munich	1,530,000	18	11	7	18%	
Stockholm	960,000	15–20	19–26	20–27	16%	

Table 1. Human resources and investments in promoting bicycle traffic.

Based on the international comparisons, it becomes clear that the human resources for cycling promotion are not currently at an adequate level in Helsinki. Today, a total of seven people are working on promoting bicycle traffic in Helsinki, one on a fixed-term contract. In the light of the city structure, Helsinki's population and other comparable factors, the City of Helsinki should follow Copenhagen's human resourcing example. The international comparisons show that the general promotion of bicycle traffic should have at least five full-time employees, one of whom

has a clear management responsibility. Additionally, about eight bicycle traffic planners should be included in the planning work of bicycle traffic infrastructure (for example, two for every traffic planning area of the urban environment), and at least five employees should be working on bicycle parking, maintenance and worksite planning. This would mean that at least 18 people in the City of Helsinki's organisation were working on bicycle traffic matters, which means hiring 11 new employees.

With regard to the level of investments, Helsinki is not as much behind the international cycling cities as with human resources. In fact, if the €20 million allocated to cycling in the budget of recent years is invested in full, we are very close to the international level. However, the difference between Copenhagen, Amsterdam and Helsinki is that most of the bicycle traffic infrastructure was already built during the past decades in these top cycling cities, whereas the difference between current situation and the target networks of bicycle traffic in Helsinki is immense – a large amount of high quality bicycle traffic infrastructure that meets modern standards is still lacking in the inner city target network and the bicycle highway network. Building the target networks will take at least ten years with the planned investment level of €20 million, and the target network will not be finished by the target year 2025. To complete the target networks by, for example, the target year of Helsinki's carbon neutrality programme (2035), the human resources for bicycle traffic should be increased significantly and its investment level should be raised to about €27 million annually, which would meet the UN's recommendation of allocation 20% of all transport budget to promoting cycling.

Based on Copenhagen's numbers and the discussions with them, it can be stated that high-quality infrastructure has a key role in increasing the modal share of cycling. The modal share will not grow by just building cycle lanes and green routes. Helsinki has only about 7 kilometres of physically separated cycling routes, which is a very small number compared to the 382 kilometres in Copenhagen. This also makes it obvious that the bicycle traffic network in Helsinki is not coherent or continuous. In the future, the City should focus significantly more on building grade-separated unidirectional cycle tracks, and lanes should be built with careful consideration for sections completing the network. Temporary cycling routes should, however, be used as sections completing the network during the initial stages in sites where the target solution is a grade-separated cycle track, but where the street renovation is scheduled for further in the future.

4 Conclusions

Since the action plan drawn up in 2014, the planning culture and general attitudes in Helsinki have clearly changed: The City has given up old-fashioned views of 'light traffic' and has included cycling as an equal mode of transport in the entire transport system. The Helsinki city strategy supports the promotion of bicycle traffic, as it places pedestrian traffic as the first and bicycle traffic as the second priority in the transport system's planning work. This supports the objectives of promoting cycling very well, as promoting cycling also facilitates pedestrian traffic. In addition to the City Strategy, the Carbon-neutral Helsinki programme and the promotion plan for mobility support the promotion of bicycle traffic.

The goals set in the previous action plan have not come to fruition as planned in all respects, however. The most significant shortcoming compared to the plan is the slow progress of the inner city's target network and Helsinki's bicycle highway network, which threatens the completion of the target network by 2025. There is also room for improvement in the infrastructure quality, arrangements while worksites are in operation, maintenance, and marketing and communications. Implementing these actions requires raising the amount of human resources to the international level.

A survey that was held during a review of the current situation also revealed that the management of the Land Use and City Structure has clearly adopted the Bicycle Action Plan the best. However, promotion of cycling needs to be integrated as a part of the City's ongoing cross-administrative process so that it can be included in all the relevant City operations. The responsibilities for measures need to

be defined more clearly than before, and the implementation of measures must be actively monitored, both by the Urban Environment Division and the committee.

Direct and efficient routes

The underlying idea of building the inner city network approved by the City Planning Committee is that all destinations should be accessible via the most direct and efficient route. The problem in the current situation is that the routes are built in sections, so that cycling infrastructure on a clearly orientable street may come to a sudden end, which often leads to cycling on sidewalks and risky street-crossing. One reason for this disjointed implementation of traffic arrangements is that the arrangements made for the target network have, thus far, been made in connection with comprehensive street renovations. This is still well-founded, but not all streets can be fully renovated and the construction of sections cannot wait until the renovation in all cases.

A decision has been made on a system level in Helsinki to transition to a unidirectional bicycle network.. The disjointed new arrangements create disconnected sections, where a unidirectional cycle path is often connected to an old, bidirectional system. This also leads to system-level disconnected sections. An alternative to street renovations is implementing the target network's arrangements with lighter methods, such as cycle lanes. Even though cycle lanes do not meet the objectives on all streets, they can still be a good temporary solu-

tion. This way, the target network can be realised much quicker, at least in terms of system-level cohesivity and continuity.

With regard to the quality issues of infrastructure, it is important to create more specific planning and implementation criteria and guidelines. This was also brought up in the survey results, which called for better guidelines, especially for traffic signalization, but specifying the guidelines is also necessary for other sections of infrastructure.

Traffic arrangements whilst worksites are in operation

Most of the feedback sent to the City is related to traffic arrangements around worksites in the City's street network. Based on feedback and observations, the most common problems are related to 'forgetting' bicycle traffic when making the arrangements. One obvious reason for this is the lack of clear worksite guidelines. Discussions have been held with contractors about topics such as taking bicycle traffic into account in worksite arrangements, but these discussions have not led to a separate commitment to change practices.

To rectify this situation, the ongoing work on the cross-administrative guidelines concerning traffic arrangements around worksites (Planning guidelines for bicycle traffic: worksites and events) should be completed. In addition to this, the importance of infrastructure continuity for bicycle traffic must be highlighted around worksites, the contractors must be committed to the guidelines and worksite supervision should be improved. The guidelines require cross-administrative commitment.

Bicycle parking and services

Improving the quality and amount of bicycle parking spots has progressed the best, but it has not progressed fully according to the previous plan either. However, the planning guidelines for bicycle parking drafted in 2016 partly help achieve the goal, as they present the guidelines according to which bicycle parking has to be developed in different areas and through local operations very well. Implementing the bicycle parking sites presented in the development plan for bicycle parking 2014–2018 has started well, excluding the areas near railway stations, where the availability of bicycle parking spaces is poor compared to demand. The development plan for bicycle parking also needs to be updated.

Abandoned bikes significantly decrease the capacity of bicycle parking, especially near railway stations, and they also affect urban image and the usability of bike racks negatively. No improvements have been achieved in the removal process of abandoned bikes since 2014. Abandoned bikes need to be removed from central areas much more frequently than now, and practices should be agreed for their removal, with cross-administrative commitment.

The city bike share system, which is also popular internationally, has been especially successful cycling service. The expansion of the city bike system and making it year-round should still be considered. The existing bike centre has also been useful to the residents and its development should be continued.

Maintenance

In total, Helsinki has about 40 kilometres of routes with intensified winter maintenance. Improving quality on these routes is currently based on brushing and salting, which has yielded good results. Despite the varying feedback, cycling volumes at the automated counting points have been systematically growing since intensified winter maintenance was introduced. Based on this, it can be assumed that most people have been satisfied with the maintenance improvements.

The issue now are the routes excluded from intensified winter maintenance, which may, at worst, be completely unusable after snowfall. This covers about 1,300 km of cycling paths and combined traffic routes in practice. Problems have occurred in particular on grade-separated routes, i.e. the 'grade-separated cycling paths'. Arrangements in accordance with the new three-level system require improved winter maintenance methods, which are not yet applied in practice. Based on this, a need to integrate winter maintenance arrangements and the above mentioned renewed planning solutions has been identified. This has led Helsinki to begin developing a common roadmap for transport system planning and maintenance, which helps achieve a common understanding and intent on the coordinated actions of winter maintenance and transport planning.

Marketing and communications

The previous plan stated that attracting new cyclists also requires marketing and communications actions, in addition to the infrastructure investments. For now, compiling the communication plan has not yet been started, but it is being planned. Solutions that follow the new planning guidelines are becoming more common in the urban environment, which creates pressure for compiling a communication plan, as the need for communication is highlighted due to the confusion of using both new and old arrangements. Furthermore, the users have to get used to the system's new arrangements, which requires instructing them through positive marketing.



Bicycle Action Plan 2020–2025

Interactions

Contents

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- 2 Measures of internal interactions
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 - 2.2 Objective and measure workshops
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1 Objectives and interest group of interactions

The main objective of the dialogue that took place during the course of compiling this Bicycle Action Plan was to improve the awareness of the Urban Environment Division's personnel and external stakeholders of the promotion of cycling and the measures of this action plan and increase their commitment to them. The aim was to include the stakeholders in creating the action plan, especially at the time the objectives and measures were formed, so that the goals would be achievable and would be adopted easier, which would also facilitate taking the measures into practice more actively.

Another important goal for interactions was ensuring information flow between the different parties. In addition to this, there was a desire to inform the media and other stakeholders proactively and openly.

The internal and external interactions of the Bicycle Action Plan through various measures and organised events continued throughout the project. The personnel of the Urban Environment Division were determined as the project's internal stakeholder groups. The personnel of the City's other divisions and public enterprises, transport authorities, transport organisations, other organisations interested in the matter and the City's residents were identified as the external stakeholders.

The project's internal interaction measures consisted of the steering group's and the core team's meetings, meetings held by the other internal project stakeholders, a survey targeted at the Urban Environment Division's management and the objective and measure workshops. External interactions took place through different meetings organised with the external interest groups, by inviting their representatives to the project's objective and measure workshops, by holding an informative and participatory seminar for the external stakeholders and by organising a public resident event.

2 Measures of internal interactions

2.1 Groups of internal interactions

The project's internal interaction groups have been presented in figure 1. The work was led by a steering group, with Head of Traffic and Street Planning Reetta Putkonen as its chair. The group comprised the Team Managers of the Urban Environment Division, and it met four times during the work process.

The project's main implementer was a core team that included the key persons of the consulting party as well as the Project Manager and Planning Officer from the Bicycle Traffic Planning Team. The core team met once a week to agree on the next work stages and carry out the work together. The core team was in contact with the Urban Environment Division's experts two to four times when the objectives and measures were created, depending on the subject. Additionally, the experts took part in the internal workshops and commented on the measures and the report. The Urban Environment Division's staff members were invited to internal objective and measure workshops as well as a stakeholder seminar intended for external interest groups. Additionally, the staff were kept informed through the Urban Environment Division's intranet, HELMI, by highlighted new pieces on the front page.

In connection with compiling the plan, separate meetings were held with the City of Helsinki's collegial body of transport, the project and management group of the City's mobility plan and the managers of the Urban Environment Division's service units. The work has also been discussed amongst the steering group of transport projects. At the meetings, the current state of bicycle traffic, the development plan's compilation work

and the objectives set in the plan and their components were presented to the participants. At the meetings with the mobility plan's project group and the Heads of Service, we also considered the most important measures that the mobility plan's different sectors and the service units of the Urban Environment Division could carry out to promote bicycle traffic.



Figure 1. The project's internal interest groups

A survey for employees in management roles in the Urban Environment Division

In May 2019, a web-based survey was carried out for employees in management roles in the Urban Environment Division, which reviewed how well people were aware of the Cycling Promotion Programme published in 2014 and collected ideas and comments for the new programme.

Based on the survey, the management of the Land Use and City Structure are well aware of the previous Cycling Promotion Programme and the related measures, but the management of other sector units are not quite as familiar with the programme. The survey revealed that the units that have adopted the promotion of cycling traffic as a part of their day-to-day work are able to experience successes, while also struggling with the lack of or insufficient human resources. On the other hand, there are several units in the Urban Environment Division that have not understood their role in the promotion of cycling and have not yet started to implement the programme's measures. The results of the survey have been presented in more detail in the Situational review of cycling traffic 2019 report.

2.2 Objective and measure workshops

Three workshops were held for people working for the City of Helsinki's Urban Environment Division. The themes of these workshops focused on the most important sectors identified in the development programme. The themes of the workshops held were cycling traffic communication, maintenance, arrangements around worksites, and cycling routes and parking. In addition to the Urban Environment Di-

vision, key persons from the Helsinki City Transport and the regional transport organisation as well as construction service Stara also partook in the workshops.

The purpose of these workshops was to divide experts into small groups to consider what kind of measures would facilitate achieving the goals set for the different sectors of cycling traffic, who should be responsible for these measures, what kinds of resources were needed for the measures and how their progress should be measured. The problem tree and objective tree method included in the Logical Framework Approach (LFA) was applied to the work process along with an action matrix. The workshops generated plenty of materials that were utilised for defining the sub-goals and measures of the development programme.

Workshops, their dates and the participants in addition to the programme's workgroup:

- Cycling traffic communications 26 August 2019: the Urban Environment Division's Communication and Map Services, HKL Communications, City Executive Office's Communications
- Maintenance of cycling routes and arrangements around worksites 29 August 2019: the Urban Environment Division's Transport System Planning, Maintenance, Area Surveillance, Construction Contracting Service Stara and the contractor's representative from Destia Oy
- Cycling routes and bicycle parking 2 September 2019: the Urban Environment Division's Transport System Planning, Resource Planning, Street Planning, Spatial Planning, Urban Space and Landscape Planning, HKL, HSL, Vantaa, Espoo



Figures 2 and 3. Internal objective and measure workshops at work.

3 Measures of external interactions

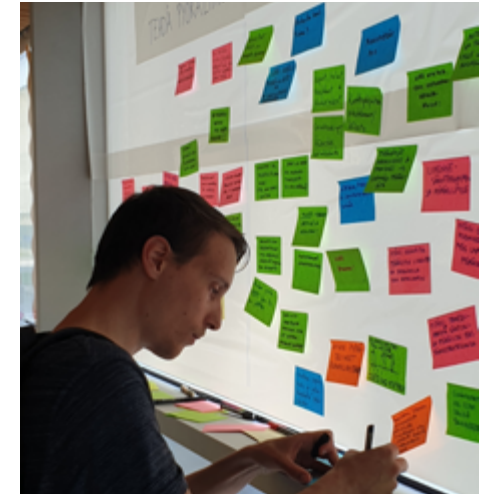
3.1 Resident events at Bryggä 27–28 August 2019

The purpose of the public resident evenings, which were open to all, was to offer the City residents a chance to share their expectations, needs and goals regarding the promotion of bicycle traffic and city development. The city residents were also given information about the current state of bicycle traffic and shown the purpose of the new action plan. Three representatives from the plan's core team took part in both public resident events.

The residents were encouraged to present their wishes and ideas by answering the questions 'What should Helsinki do and not do to promote bicycle traffic?' The residents presented a total of 90 wishes and ideas on how to promote cycling and 35 examples of measures that the City should not carry out. Most answers to both questions concerned improvements to cycling routes. Many comments were also shared about the routes' winter maintenance.

3.2 Seminar for stakeholders

The seminar intended for the stakeholders was held on 3 October 2019. The purpose of the event was to share information about the current situation of bicycle traffic and the progress of the action plan while also facilitating understanding between the different parties. Eighteen people took part in the seminar. The stakeholder organisations represented were the Centre for Economic Develop-



Figures 4 and 5. City residents talking with Cycling Coordinator Reetta Keisanen about the Bicycle Action Plan at Bryggä's resident event.

ment, Transport and the Environment; the City of Espoo; the Helsinki Sports Services; Helsinki's Cyclists; the Helsinki Region Chamber of Commerce, Helsinki Region Transport, the City Executive Office, the Urban Environment Committee, Liikenneturva, Motiva Oy, NewCo Helsinki, Pyöräilykuntien verkosto ry, the Finnish Cyclists' Federation, the Social Services and Health Care Division, and Traficom.

The sub-goals and factors defined for bicycle traffic in the action plan were presented to the participants and they were asked to assess

the importance, urgency and feasibility of the objectives. The participants were also divided into smaller groups to discuss which matters the stakeholders considered especially important to achieving the goals and how the different stakeholder organisations could facilitate achieving the objectives.

With regard to cycling routes and bicycle parking, the stakeholders prioritised matters such as signage, rectifying disjointed sections and improving bicycle parking. The key matters to be considered with regard to worksites and maintenance were, among others, implementing the worksite arrangements as instructed, issuing penalties for neglect, quality control of route maintenance, resources and training. In matters related to bicycle traffic communication and marketing, the interest groups would highlight the multifaceted (8–80 principle) and experience-rich nature of cycling. Communication was also considered to have a role in reminding people about bicycle traffic rules.

The workshop's results were utilised when creating the plan's measures.

Other meetings with external stakeholders

A meeting was held with Helsinki Cyclists during the initial stages of compiling the action plan, in early summer 2019. The association's views were utilised for determining the key matters of the action plan.

Communication through websites

Information about the action plan has also been shared online. The start of the work and the resident events held at Bryggä were advertised on the Urban Environment Division's website. The work was also presented in the Pyöräliikenne blog, which offered a chance to comment on it. Comments were received from six people. In addition to this, the City's website has a general description of the work's progress.

- the Urban Environment Division's news article about launching the action plan (in Finnish): <https://www.hel.fi/uutiset/fi/kaupunkiymparisto/tule-keskustelemaan-pyoraliikenteen-kehittamisesta?&pd=v>
- a blog post about the action plan in Pyöräliikenne blog (in Finnish): <http://pyoraliikenne.fi/blogi/millainen-pyorailykaupunki-helsingin-tulisi-olla/>
- the City's cycling website: <https://www.hel.fi/helsinki/en/maps-and-transport/cycling/promotion>.

