

# Traficom sustainability report 2022

Responsible actions create  
safe, functional and sustainable  
connections



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# Management review

For the roughly one thousand of us who work at Traficom, acting sustainably means concrete actions that affect our society as a whole. Through responsible work, we ensure the safety, functionality and sustainable development of transport and communications. Our duty is to ensure the safe and smooth movement of data, goods and people.

Ensuring the human-centred sustainability of transport and communications services is important for us all in the future, too. We build reliability by improving the safety of transport and the digital society. In addition, we promote open competition on the transport and communications market and reasonable prices of the service offering in Finland.

Traficom plays an important role in the development of international and EU legislation in the field of transport and communications. We represent Finland around the world in the EU and international organisations, and we influence international regulations. Key themes include climate, automation and digitalisation. We support the advocacy of the Ministry of Transport and Communications by generating information for the Ministry and providing expert support for the assessment of technical details and the impact of regulations.

Our operations rely on responsibility, trust and interaction. Our operating culture is human-centred. We are developing a coaching-oriented approach to management and an operating method in which we support the people at Traficom taking responsibility and managing themselves. Our goal is to improve the wellbeing of the staff at work and ensure that Traficom can operate under all conditions. By combining different kinds of surveys and discussions, we obtain a wide variety of information about the work community, based on which we can develop wellbeing at work further.

We operate sustainably. Our staff already participated actively in producing our first sustainability report last year. In addition to our experts, our interest groups also share their thoughts in our sustainability report for 2022. We need continuous cooperation and a wide-ranging dialogue to implement our sustainable development goals.

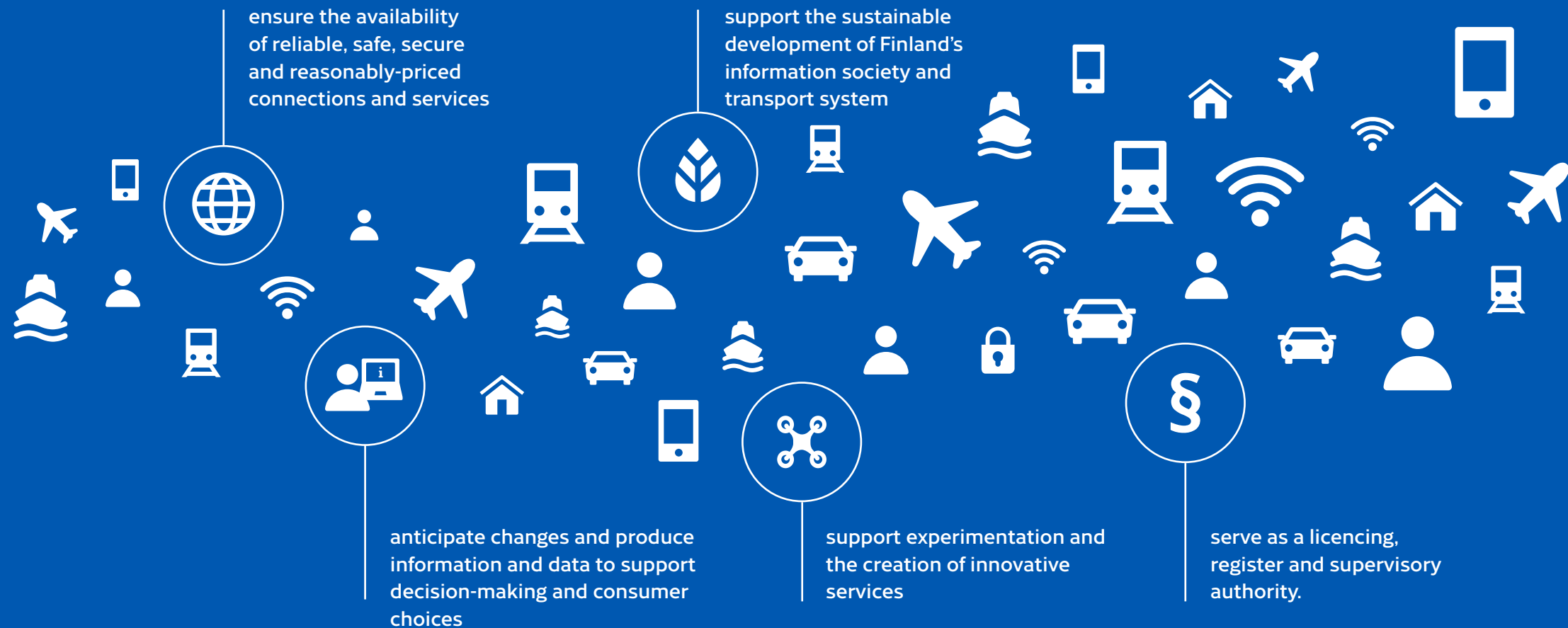
**Kirsi Karlamaa**  
Director-General





# The role of the Finnish Transport and Communications Agency Traficom in society

Traficom is a responsible and dynamic expert organisation for transport and communications. Our tasks are to





# Sustainability management at Traficom

The aim for sustainability at the Finnish Transport and Communications Agency Traficom is based on the performance agreement drawn up with the Ministry of Transport and Communications and the goals set for Traficom in the agreement, as well as Traficom's operational strategy. Our goal is to take care of our vital environment, enable innovative services and ensure well-functioning and secure transport and communications connections. The Director-General manages Traficom's operations with the help of the executive group. The Traficom executive group includes the Director-General, the Directors of the Sustainable Environment and Data Economy networks, the Director of Communication and the Director of Security.

The sustainability objectives that Traficom promotes through its own operations are closely related to the social impact objectives and performance objectives set for Traficom. In 2023, our goal is to take a step forward in our sustainability journey and design Traficom's own sustainability programme, which establishes concrete sustainability goals and measures to reach them.



# How the report has been drawn up

Sustainability means being responsible for the environment, the people and the economy. The State Treasury recommends that all central government organisations draw up an annual sustainability report on their operations. The common sustainability reporting framework is based on the UN plan of action Agenda 2030 and the 17 Sustainable Development Goals set in it. At Traficom, we have selected four goals for reporting (goals 3, 9, 11 and 13) that we promote with our core tasks.

A close-knit group of experts and representatives of the management has coordinated the compilation of Traficom's sustainability report. Traficom's different networks and areas of expertise have also participated in the selection of and work on the content of this second report of its kind through interviews, workshops and comments on the draft stages.

For this report, we challenged our whole staff to think about our work from the per-

spective of sustainability. The survey 'Ilmianna vuoden 2022 vastuullisuusteko' (Report the sustainability action of 2022) implemented in Traficom's intranet gave everyone at Traficom a chance to participate in drawing up the sustainability report. The respondents could present their own sustainability actions or those of their colleagues that had promoted the UN Sustainable Development Goals. In fact, the responses highlighted important themes, most of which were taken into account in the contents of the report or were included in the work planned for the coming years.

In our everyday work, we cooperate extensively with companies and other organisations, and therefore we also asked the representatives of our interest groups to share their thoughts on sustainability. In this way, we also make the theme of sustainability and the UN Sustainable Development Goals known outside Traficom.





# Traficom's sustainable development goals

 [Learn more about the UN sustainable development goals here](#)

## **UN goal 3.**

Ensure healthy lives and promote wellbeing for all at all ages

## **UN goal 9.**

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

## **UN goal 11.**

Make cities and human settlements inclusive, safe, resilient and sustainable

## **UN goal 13.**

Take urgent action to combat climate change and its impacts



# Handprint

Traficom's impact on the selected four  
UN Sustainable Development Goals



# Health and wellbeing

UN goal 3. Ensure healthy lives and promote wellbeing for all at all ages


## Facts:

### Towards safer traffic as a whole

Promoting the safety of all forms of transport is a part of the core tasks of Traficom. The implementation of the National Traffic Safety Strategy for 2022–2026 that was completed in the spring of 2022 began during the year. The goal is Zero Vision, meaning that by 2050, no one will die or be seriously injured in traffic.

If deaths in traffic are used as an indicator, 2022 was a record year for safety, because fewer than 200 people died in road traffic for the first time since 1941. Still, we must do better. Led by Traficom, the micromobility network established as a measure to implement

the Traffic Safety Strategy has brought together a large number of different parties to develop the safety of micromobility, such as electric scooters. Traffic safety was also promoted by sharing information. Experts from Traficom held training events for doctors and other health care professionals on driving health and its assessment. Information on traffic safety was also shared on exhibitions in the field, at the Traficom Live social media event, the [Tieto. Traficom.fi](#) website and the media.

 [Traffic Safety Strategy 2022–2026](#)  
(in Finnish with an English abstract)

” We carry out long-term, versatile advocacy in international and EU forums. In this way, we build functional, sustainable and secure transport and communications connections and services for both today as well as the future. Thanks to the work by our experts, Finland is a valued and desired partner in cooperation.

**Mervi Kaikkonen**, Head of International Affairs, Transport System Services, Traficom

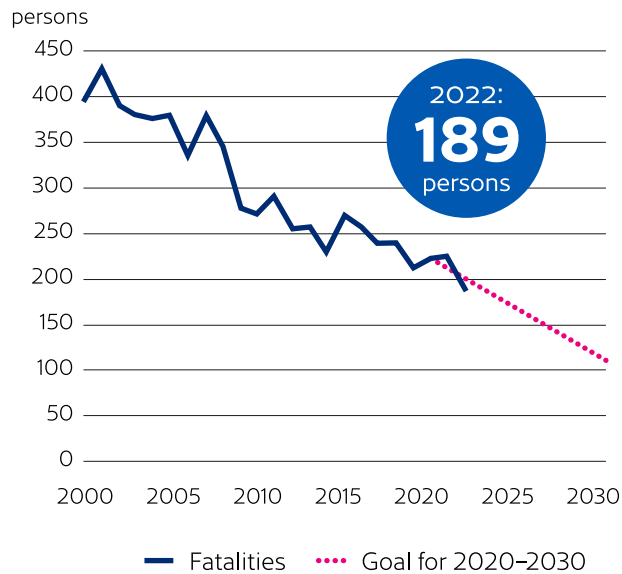
## UN target 3.6

By 2020, halve the number of global deaths and injuries from road traffic accidents. The current EU target is to halve the number of global deaths and injuries from road traffic accidents by 2030.



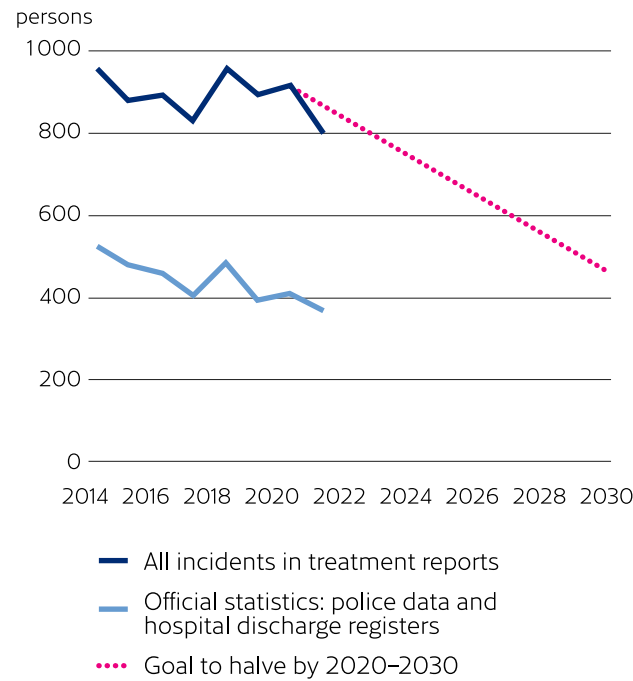


## Road traffic fatalities



Source: Statistics Finland. Preliminary data for 2022.

## Serious injuries in road traffic



Source: Statistics Finland

” We have been involved in a working group of the United Nations Economic Commission for Europe (UNECE) advocating for the mandatory requirement of three-point seat belts on long-distance buses in the EU. Three-point seat belts are a safer option than two-point seat belts, and they prevent head injuries of bus passengers in particular in case of an accident.

**Henri Takkinen**, Chief Adviser, Services for Motorists, Traficom





**Facts:**  
**Cyber security is everybody's business**

The key task of the National Cyber Security Centre Finland (NCSC-FI) at the Finnish Transport and Communications Agency Traficom is to ensure the reliability and information security of communications networks. The NCSC-FI supports organisations in ensuring cyber security and guides web users of all ages in improving their information security.

In 2022, the NCSC-FI and the Digital and Population Data Services Agency surveyed the vulnerabilities in the systems and digital services in the public network of municipalities and healthcare and social welfare operators. As a

result of the project, municipalities and healthcare and social welfare operators received up-to-date information on the vulnerabilities of their services and were able to implement corrections, thereby improving their security.

The information security voucher, or support from Traficom for the development of information security, was opened for applications at the end of 2022. Businesses that are considered vital for the functioning of Finnish society, also known as companies critical to security of supply, can apply for the information security voucher. Its purpose is to raise the level of information security of

companies and thus improve Finland's overall resilience against cyber security threats.

Examples of communications campaigns implemented include e.g. the 'Älyä ostoksiin' (smart consumer) campaign aimed at increasing the knowledge of consumers on information security issues related to smart devices, and the European Cybersecurity Month (ECSM) implemented in October, the main themes of which were phishing and ransomware. In 2022, a new weekly review of cyber security was also launched.

[Information security in 2022](#)

Information security incidents processed (2022, pcs)



12,965

2021: 17 572  
2020: 10 892

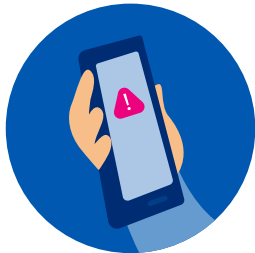
Information security incidents processed automatically (2022, pcs)



188,561

2021: 209 237  
2020: 115 000

Disturbances in communications networks (2022, pcs)



45

2021: 73  
2020: 67

Cybersecurity Label adoptions (2022, pcs)



15

2021: 5  
2020: 6

Serious cyber incidents (2022, pcs)



15

2021: 2  
2020: no statistics available

### Example:

#### A decade of shared media literacy

The Media Literacy Week that was held for the tenth time in 2022 is a media education theme week and a part of the international Safer Internet Day campaign. The goal is to develop the media literacy of the citizens and strengthen the capabilities of adults for media education on the national level. The Media Literacy Week is celebrated annually around the country on the second week of February, featuring campaigns and different kinds of events such as webinars and seminars on media literacy. The Media Literacy Week is co-ordinated by the National Audiovisual Institute (KAVI), and dozens of organisations, including the National Cyber Security Centre Finland (NCSC-FI) of Traficom, participate in the planning and organisation of the event.

During the 2022 Media Literacy Week, equal and inclusive media education in particular was highlighted. It is important to take account of the availability of content as well as its equality and accessibility in the planning. The NCSC-FI campaigned on the importance of media literacy in information security competence during the week. Online scam attempts are here to stay, but good media literacy helps people of all ages to identify them.

 [Media Literacy Week](#)



” Every year, it is a joy to see how the Media Literacy Week that we implement together inspires many parties such as day care centres and schools, educational institutions and institutes, public libraries and even the libraries of higher education institutions, youth centres, various associations and senior citizens’ organisations around the country to hold media literacy events and workshops and share media literacy tips.

**Leena Pylkkö**, Communications Specialist, National Audiovisual Institute (KAVI)

# Sustainable infrastructures

UN goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

## Facts:

### Implementation of the National Transport System Plan is in progress

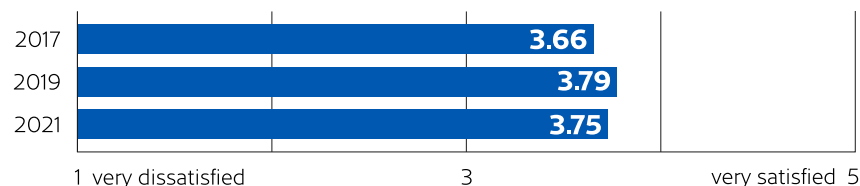
Traficom is implementing the National Transport System Plan, also known as Transport 12. It is used to maintain the Finnish transport system and develop it to meet the various mobility and transport needs of people, trade and industry around the country. In 2022, Traficom implemented several measures in the Transport 12 plan with the aim of improving the preconditions for knowledge-based decision-making. The knowledge base was developed and expanded as a part of e.g. transport system analysis, which compiles a strategic overview of the current state of the transport system, its development needs and the development of the operating environment.

A guide to support the impact assessment of transport system plans of regions and urban areas as well as cross-regional plans was pre-

pared as one of the measures of the Transport 12 plan. The guide helps with the impact assessment of transport system plans from the start of preparations to the completion of the plan. The aim is to ensure that there is well-founded information available to support decision-making and that transport system plans implement the goals set for them and mitigate the harmful impact of transport.

- [The National Transport System Plan for 2021–2032](#)
- [Transport system analysis \(in Finnish\)](#)
- [Guide for the impact assessment of regional transport system plans \(in Finnish\)](#)

### General citizen satisfaction with the functioning and safety of trips



## UN target 9.1

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all.



## Facts:

### Our efforts to promote digital connections streamline everyday life

Digital connections ensure that people are able to work remotely as well as use services provided by authorities and companies. Future solutions, too, such as smart mobility and virtual reality, require comprehensive communications networks of high quality. Traficom promotes the joint construction and use of networks. We also grant government support for the construction of fast broadband networks in areas where market-based broadband connections are unavailable.

In 2022, we invested in the development of the bittimittari.fi service. The service will be launched in 2023, and users can measure the speed of their broadband service with it. In 2022, Traficom also prepared for the 2023 World Radiocommunication Conference (WRC), in which a joint international framework for the use of radio frequencies in the future will be specified.

In 2023, Traficom is actively involved in the international cooperation for the specification of 6G networks. The UN Sustainable Development Goals constitute one of the starting points, and for its part, Traficom has emphasised the importance of these goals and taking them into account from the start of the work on 6G specifications.

Coverage of fast (100 Mbit/s) 5G networks of all households 2022



87%

2021: 82%  
2020: 67%

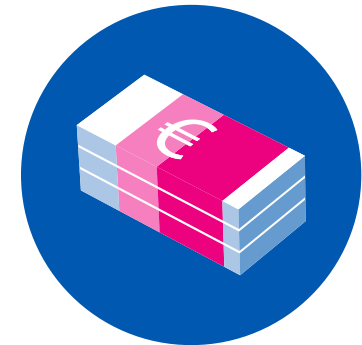
Share of fibre optic connections of fixed connections 06/2022



62%

06/2021 : 58%  
06/2020: 55%

Broadband aid paid 2022



EUR 3 million

2021: EUR 2.3 million  
2020: EUR 2.6 million

” Our long-term cooperation in the research and development of mobile networks between companies, research parties and the authorities has continued and intensified concerning future 6G networks. Together we bring the sustainability perspective, among other things, to the international 6G specification work.

**Marja Matinmikko-Blue**, Research Director, the University of Oulu, 6G research programme

### Example 1:

## Cooperation between Traficom and the John Nurminen Foundation reduces chemical emissions into the Baltic Sea

When a tanker carrying liquid bulk cargoes – i.e. chemicals – washes its tanks, this can result in the discharge of hundreds of litres of harmful and hazardous chemicals into the sea in one go. In 2022, the John Nurminen Foundation and Traficom launched the Chemical Tanker Project, which seeks to identify the most harmful and hazardous chemical discharges into the Baltic Sea resulting from the washing of tanks in chemical tankers calling at Finnish ports. In addition to the UN goal 9, the project promotes goal 14 on conserving and sustainably using the oceans, seas and marine resources for sustainable development.

After unloading their cargo, chemical tankers often wash their tanks with seawater en

route to the next port of loading. According to international legislation, discharging washing water that contains chemicals into the sea during tank washing is permitted within certain limitations. At the beginning of the project, a risk assessment was carried out to identify the chemicals that have the greatest harmful impact on the marine environment and human health. The risk assessment took into consideration how harmful each chemical is to the environment and how hazardous it is to human health, and the quantities discharged at Finnish ports. On the basis of the risk assessment, styrene and tall oil were selected as chemicals to be studied.

The project seeks to find solutions to reduce permissible discharges in coopera-

tion with ports and operators in the chemical industry. The intention is to have all operators in Finland that handle styrene and tall oil to join. The chemical load caused by tank washing can be reduced by means such as developing tank emptying and washing methods as well as the treatment of washing water. In the future, the project may be expanded to include new chemicals. The aim is to influence the issue internationally, because the status of the Baltic Sea is not limited to Finland alone. The results of the project will be presented at the 2023 HELCOM Maritime meeting.

 [The Chemical Tanker Project](#)

” **The Chemical Tanker Project is an excellent example of successful cooperation between companies, the authorities and the third sector. In the cooperation, we have identified the most important substances that involve risks, sought the best solutions and inspired operators to join the effort. As a result, we are achieving concrete reductions in chemical emissions.**

**Eeva Tähtikarhu**, Project Manager, John Nurminen Foundation



## Example 2: National transport forecasts extend up to 2060

Traficom has drawn up new national transport forecasts for road, rail and maritime transport up to 2060. Transport forecasts are used in national transport system planning as well as the impact assessment of transport system development measures, among other things.

The base forecasts generated depict development based on current measures. The developments identified based on them include, for instance:

1. the growth of passenger car performance as a result of the increased number of electric cars
2. the reduction of railway goods transport due to the end of Russian traffic in particular
3. the increase in the maritime transport volumes both in import as well as export.

In the future, the national transport forecasts will be updated every two years, because the operating environment changes constantly and up-to-date transport forecasts will be needed more and more in the preparation for social decision-making.

 [National transport forecasts](#)

”  
The rail transport between Finland and Russia is undergoing a major change. Border traffic faces new kinds of demands, which have also required us to develop our operating methods. The key issue is making sure that border traffic is managed in the way required by regulations while ensuring the safety of the railway system.

**Pietari Pentinsaari,**  
Deputy Director-General,  
Transport System Services,  
Traficom



# Sustainable cities

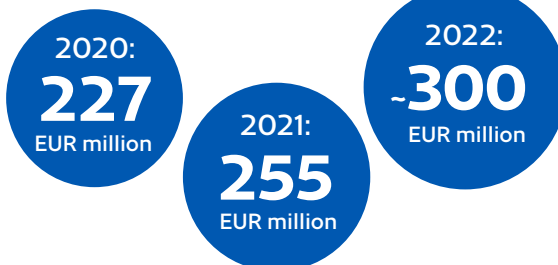
UN goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

## Facts:

### We award government support and grants to accelerate change

Serving as an authority granting government support is one of the core tasks of Traficom, and we award government support and discretionary government grants that support mobility, transportation, road traffic safety activities and functional network connections and promote emission targets. Traficom grants support that accelerates change or development, which we use to build an increasingly safer, more functional and sustainable future.


### Government support to branches and citizens related to transport and communications granted by Traficom



Examples of support and grants we awarded in 2022:

- Government grant in the investment programme for walking and cycling used to improve walking and cycling conditions in locations in the street network or on municipal land.
- Broadband aid, used to promote the building of fixed broadband networks in areas where commercial operators are unlikely to build networks in the coming years.
- Government grants for the safety of road traffic used to support development projects and research on road traffic safety.

In 2022, we also initiated six impact assessments that we use to monitor the effectiveness and appropriateness of the government grants we have awarded. This gives us important information on the effectiveness of the grants, and also allows us to develop our operating methods.

 [Support and grants awarded by Traficom \(in Finnish\)](#)

## UN target 11.2

By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.



## Facts:

### We promote the accessibility of transport and communications services

Accessibility means that all people should have equal opportunities to participate and operate in society. In terms of Traficom, this means promoting accessibility in passenger transport services, audiovisual content services as well as the electronic products and services in the information society, among other things.

The European Accessibility Act of the EU will also bring Traficom new monitoring duties. Preparations for national implementation took place in 2022, and the application of the new legislation will begin in 2025. The new accessibility requirements promote the equality of people with disabilities in particular, but everyone will benefit from the accessibility and improved usability of products and services.

Traficom surveyed the use of subtitles for the deaf and hard of hearing (SDH) in autumn 2022 as part of the annual consumer survey on communications services. It was discovered that all age groups find subtitling an important service. Inarticulate speech in the programme, poor audibility and the desire to keep the sound off, among other things, were the most common reasons for using SDH subtitles.

Traficom participated in the two-year accessibility working group appointed by the Ministry of Transport and Communications tasked with matters such as drawing up a goal state for the accessibility of the transport system by the autumn of 2023. The new situational pictures of accessibility of passenger ship traffic and air transport will be completed in 2022. Traficom organised a webinar on accessibility for public transport operators, presenting the use of accessibility information in journey planners, the age-friendly public transport project and taking the EU passenger rights into account in bus transport, as well as the impact of the European Accessibility Act on the field of public transport.

#### [Accessibility](#)

” We monitor the rights of people with disabilities and reduced mobility in all forms of transport. In recent years, we have paid attention to things such as the training of the staff responsible for assisting travellers and the quality of the assistance service. I feel that our work is important, because we improve the opportunities of people with reduced mobility to move around smoothly in their everyday life.

**Kirsi Tervola-Joutsen**, Special Adviser, Transport System Services, Traficom

### Citizen satisfaction with accessibility

Range of responses: 1–5, where 5 is very satisfied and 1 is very dissatisfied

Citizen satisfaction with accessibility	2017	2019	2021
Pedestrian environment	3.62	3.75	3.70
Local public transport	3.41	3.78	3.73
Bus transport, long distance	3.38	3.64	3.57
Train transport, long distance	3.58	3.75	3.69
Air transport, long distance	3.69	3.82	3.81

### Example 1: Climate funding speeds up emission-free buses

The aim of climate-based discretionary government grants for public transport is to strengthen the positive climate impact of public transport by promoting emission-free, energy-efficient and attractive bus traffic. The grants awarded by Traficom speed up the adoption of electric- and gas-powered buses as well as future hydrogen-powered buses in bus transport organised by competent authorities in the field of road transport. In this way, fossil fuels can be replaced by clean power sources.

In 2022, a total of EUR 20.3 million was granted in climate-based discretionary government grants. The corresponding sums in 2021 and 2020 were EUR 15.5 and 7 million, respectively. Most of the funding was allocated to clean equipment and power sources, and a minor portion to projects promoting the

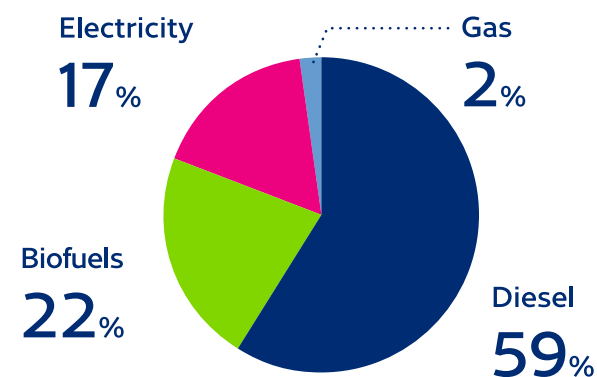
growth and monitoring of the share of different modes of transport. Roughly 90% of the climate-based discretionary government grants were focused on the regions with a land use, housing and transport agreement with the State, i.e. Helsinki, Tampere, Turku, Oulu, Jyväskylä, Kuopio and Lahti. Bus traffic has the greatest volume and impact in these areas.

Traficom has estimated the carbon dioxide emissions of climate-based discretionary government grants for public transport based on the number of equipment and monitoring data on kilometres driven of the competent authorities that participated in the application procedure. The amount of emission reduction during use is estimated by calculating the amount of emissions that would have been caused if the kilometres driven using clean

” In Kuopio, the revolution in power sources and the adoption of electric buses have required major investments from transport operators and new kinds of expertise from the client concerning the planning of routes, route network and vehicle rotation. Traficom’s climate-based government grants have provided important support for our city in these development steps. Travellers have greeted the new electric buses with enthusiasm. The electric buses have also made the city centre more pleasant thanks to being quiet and emission-free.

**Kim Venesjärvi**, Public Transport Engineer, the City of Kuopio

Total number of equipment of operators that received climate funding in 2022 by power source



power sources would have been driven with diesel power. In 2022, the share of diesel power out of the total equipment of the operators that received climate funding was 59% and that of biofuels was 22%, while the share of electricity was 17% and gas 2%. A good indication of the growth of clean power sources is that the share of diesel was still 75% in 2020. In 2022, the emission reduction obtained with clean power sources amounted to approximately 57,000 tonnes of carbon dioxide. This means that the total emissions were roughly 40% lower than if only diesel-powered equipment had been used.



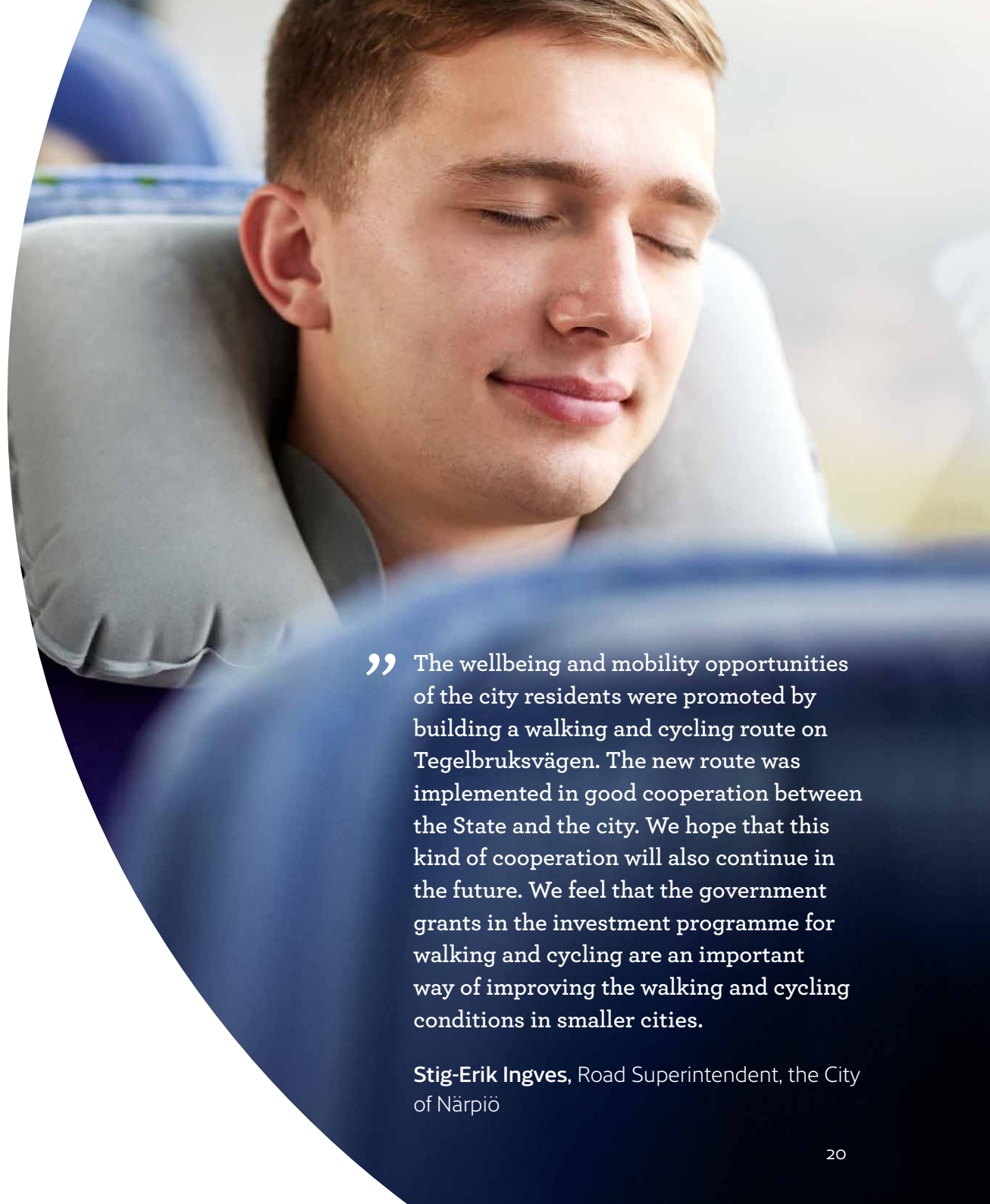
### Example 2:

#### The Finnish National Travel Survey shed light on the impact of the coronavirus epidemic on mobility

The Finnish National Travel Survey collects information on the mobility of Finns. The results are used in transport planning, the development of traffic safety and reducing the environmental damage caused by transport, among other things. The information is also used to improve the understanding of factors that affect mobility as well as the differences in passenger transport trips by population group, region and time.

The latest information from the Finnish National Travel Survey was collected in 2021. It shows the impact of the coronavirus pandemic, because mobility decreased by as much as 2,500 km per inhabitant in Finland during the year. However, there were no significant changes in the distribution between modes of transport. The survey also showed that even though the amount of remote work increased, remote workers replaced the commutes saved nearly completely by other leisure time trips as well as trips for shopping and taking care of other matters.

 [National Travel Survey](#)



” The wellbeing and mobility opportunities of the city residents were promoted by building a walking and cycling route on Tegelbruksvägen. The new route was implemented in good cooperation between the State and the city. We hope that this kind of cooperation will also continue in the future. We feel that the government grants in the investment programme for walking and cycling are an important way of improving the walking and cycling conditions in smaller cities.

**Stig-Erik Ingves**, Road Superintendent, the City of Närpiö

# Climate action

UN goal 13. Take urgent action to combat climate change and its impacts

## Facts:

### Accelerating climate actions in transport

Domestic transport emissions account for roughly one fifth of all greenhouse gas emissions in Finland. Of these, 95% are caused by road transport.

In 2022, Traficom promoted many of the measures of Finland's Roadmap to fossil-free transport with the aim of halving the greenhouse gas emissions in domestic transport by 2030 compared to the level of 2005. These included, for instance, purchase subsidy for electric- and gas-powered cars, support for sustainable modes of transport, participating in the distribution infrastructure working group

and studies on the topic. For its part, Traficom also promoted the measures to reduce emissions in accordance with the resolutions on maritime and inland waterway transport and air services. We promoted taking winter navigation into account in international and EU regulations as well as restricting black carbon emissions in the Arctic regions. We worked on the instructions for the life cycle analysis of international maritime fuels. We also commissioned reports on the use of electricity and hydrogen in air transport.

” Electric cars have become more common, and the charging infrastructure that serves them has expanded rapidly in recent years. It's amazing to monitor the progress of the power source revolution and promote it in our work. We not only have unsurpassed vehicle knowledge but also expertise concerning the distribution infrastructure, and we generate information to support domestic decision-making as well as EU advocacy.

Heidi Auvinen, Special Adviser, Sustainable Transport, Traficom

## Target 13.2

Integrate climate change measures into national policies, strategies and planning, acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.



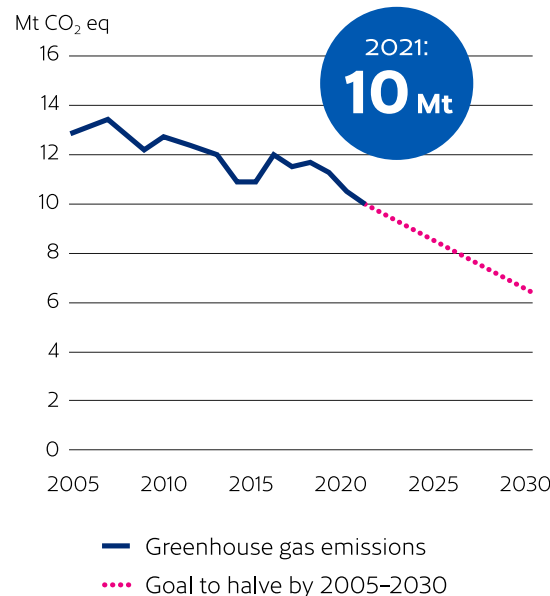
With its knowhow, Traficom also supported the Ministry of Transport and Communications in the processing of the legislative proposals in the 'Fit for 55' package of the EU. The package includes several measures in the transport sector required to reach the climate goals of the EU. The proposals involve matters such as alternative fuel infrastructure, carbon dioxide emission standards for vehicles, emissions trading as well as alternative fuels for maritime and air transport.

- ✈ [Roadmap to fossil-free transport](#)
- ✈ [Fit for 55 package](#)
- ✈ [Government resolution on reducing greenhouse gas emissions from aviation](#)
- ✈ [Government Resolution on reducing greenhouse gas emissions from maritime and inland waterway transport](#)

” The greatest challenge in goods transport on European roads in the coming decades will be reducing emissions and energy consumption. Thanks to long HCT trucks, loads of foodstuffs, for instance, are transported in Finland while producing as much as one third less emissions than in Central Europe.

**Otto Lahti**, Chief Adviser, Services for Motorists, Roadworthiness and Monitoring, Traficom

## Greenhouse gas emissions in domestic transport



Source: Statistics Finland. Preliminary data for 2021.





## Facts:

### Pilot data collection on the energy consumption of networks

Information and communications technologies (ICT) play a key role in the reduction of climate impact in many other sectors. On the other hand, the networks, devices and data centres required by ICT leave their own footprint in terms of energy consumption, emissions and material consumption.

In 2022, Traficom implemented the Climate and Environmental Strategy for the ICT Sector in Finland by the Ministry of Transport and Communications by means such as carrying out a pilot data collection on the energy consumption of networks for the largest telecommunications operators. The study was the first of its kind, and in the future Traficom will generate corresponding statistics annually. The data offers a more detailed picture of the environmental impact of the field and makes it possible to monitor the development of the energy consumption of communications networks.

According to the study, the energy consumption of communications networks in 2021 was approximately 650 gigawatt hours. The study also showed that most energy is consumed by the network sections closest to the end user. These include the access network of fixed networks and the radio network of mobile networks. Additionally, the study showed that the mobile network consumes more energy per byte transferred compared to the fixed network. It is estimated that communications networks cover approximately one fourth of the total carbon footprint of the ICT sector.

[Climate and Environmental Strategy for the ICT Sector](#)

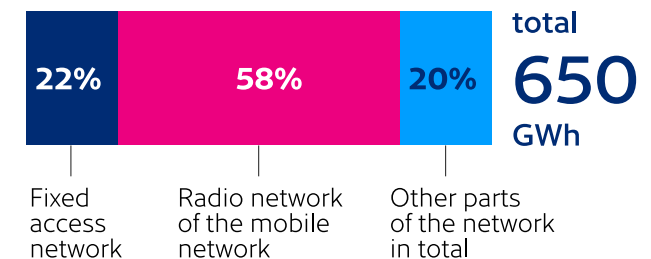
[Energy consumption in communications networks](#)

” We cooperate closely with the people at Traficom in climate issues. Traficom provides us important support in policy preparation with its expert knowledge. Our open communication for the exchange of opinions and information is also something that I value highly.

**Päivi Antikainen**, Director of Climate and Environment Unit,  
Ministry of Transport and Communications



### Energy consumption of Finnish communications networks



### Example:

## Electricity and hydrogen as solutions for reducing the climate impact of aviation


The emissions from air transport can be reduced by means such as technological development, improving the efficiency of routes and flight methods, and renewable aviation fuels. However, more climate-friendly solutions are needed alongside these measures, such as the use of electricity and hydrogen as power sources for aviation. In order to survey these opportunities, Traficom commissioned two reports, which implemented the task assigned to Traficom in the Government resolution on reducing greenhouse gas emissions from air services.

In the report on electric aviation, it was found that electric aircraft could become more common in Finland in the 2030s. In aviation, electricity is particularly well suited for short-range and small capacity aircraft, and in fact, it could be an excellent solution for the needs of tourism and the industry in Finland and managing flight connections to the neighbouring countries. Electric aviation becoming more common still requires several development steps in technology, regulation and profitability.

The report on hydrogen opened up the various future opportunities of the hydrogen economy in aviation. Hydrogen could be used in aircraft equipped with fuel cells and electric motors or in aircraft with hydrogen combustion engines. A hydrogen combustion engine would also make it possible to fly long distances. The development of new hydrogen-powered equipment still requires considerable investments in product development, and it is estimated that hydrogen-powered aviation will start in the turn of the 2030s and 2040s at the earliest. Hydrogen could also be refined into a synthetic fuel that would already be suitable for use in the current combustion engines and could be mixed in with fossil fuels.

Both reports were drawn up by Destia Oy. The knowledge base gathered on electricity and hydrogen as power sources for aviation, including the equipment, technologies, regulation and infrastructure, has also benefited other interest groups in addition to our administrative branch.

 [Electric aviation in Finland](#)  
(link to report in Finnish)

 [Report on hydrogen-powered aviation](#)  
(in Finnish)



” The impact assessment of measures included in road transport plans provides a foundation for knowledge-based decision-making. The preparation of the assessment guide in a dialogue with regional operators has received warm praise and led to a result that benefits everyone.

**Suvi Jousmäki**, Chief Adviser, Team Leader,  
Transport System Work, Traficom

” By participating in international cooperation projects and influencing regulation, we can develop the information exchange required by smart mobility and increasingly more automated transport. We must ensure that the Finnish conditions and interests are taken into account as well as possible on the road to a safer, more efficient and sustainable mobility.

**Mikko Räsänen**, Chief Adviser, Transport System Services, Transport digitalisation and road infrastructure, Traficom Liikenteen digitalisaatio ja tieinfra, Traficom

” The electrification of motorcycles is only starting. Thanks to their short range and convenient charging at home, electricity is an excellent fit as a power source for motorcycles. There is no need to compromise on power or handling, either. An electric motorcycle does not cause exhaust emissions, and it's a nicely quiet set of wheels. Our team had the pleasure to provide type approval to bring the motorcycle by the Finnish company Verge Motorcycles to the EU market.

**Jukka Juhola**, Adviser, Type Approval, Traficom





# Footprint

The social, ecological and economic impact of  
Traficom on its operating environment

 [Traficom financial statements \(in Finnish\)](#)



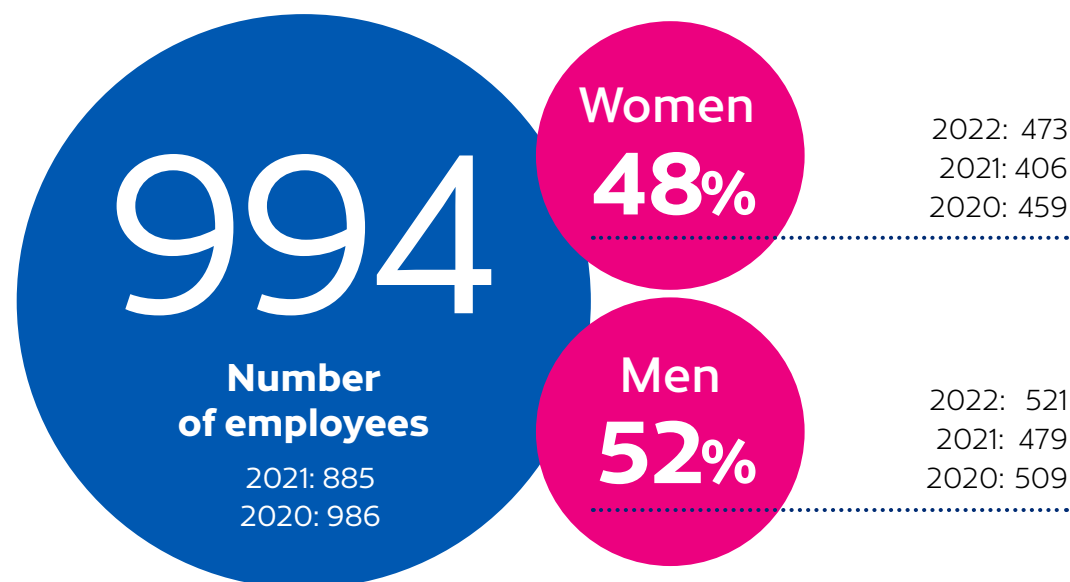
## Staff wellbeing

In early 2022, we drew up a human resources strategy that complements our operational strategy and is based on our values – trust, cooperation and capacity for renewal.

During the year, we continued to develop an interactive operating culture. We launched a training for supervisors to strengthen a coaching-oriented approach to work. We increased dialogue between the Traficom's management and staff by organising Traficom discussion sessions, in which Traficom management communicate about current affairs affecting the agency and answer any staff questions.

During the year, we revamped the performance review so that instead of having one performance review in a year, there will be discussions about work, goals and development throughout the year. We also improved the competence management and development of the staff.

We monitor the development of staff wellbeing with Fiilismittari surveys and the annually conducted VM Baro job satisfaction survey. According to the Fiilismittari surveys, staff wellbeing developed positively during the year, and the VM Baro results saw excellent development in all areas. We are especially happy about the positive development and the impact of the development measures we have implemented.



### Average age of employees

**2022** ..... **46.4**  
2021: 47.3, 2020: 46.3

### Overall job satisfaction index on a scale of 1–5\*

**2022** ..... **3.66**  
2021: 3.52, 2020: 3.52

### 2022



### 2021



### 2020



\*Response rate 2022: 73.3, 2021: 74, 2020: 77.5

” In the ‘Tuumasta toimeen’ (From idea to action) group, we promote adopting a teamwork approach, improving the flow of information, and the sense of community at Traficom. Based on the Fiilismittari surveys and the staff survey, we have succeeded in this. The group is an excellent example of an open and appreciative discussion culture and teamwork with a positive attitude.

**Seppo Ollikainen**, Special Adviser, Services for Motorists, member of the ‘Tuumasta toimeen’ (From idea to action) group, Traficom

” The best thing at our workplace is absolutely the people, the whole work community. For me, interaction and meeting colleagues is important for wellbeing at work. For its part, our recreation group Virtapiiri supports the sense of community and makes it possible to meet people. Our exercise and recreation event in the autumn gathered hundreds of people from Traficom to the Olympic Stadium and other locations with offices. The positive feedback from the staff about these events is rewarding and motivating.

**Sari Koivusaari-Joensuu**, Adviser, Occupational Safety and Health and Wellbeing at Work, Traficom





# The head office was renovated to improve energy and cost efficiency

Traficom operates in a total of 15 offices around Finland. In August 2022, Traficom's head office in Helsinki moved from Vallila into premises three times smaller in the Pasila Office Centre (Pasilan Virastokeskus), which improved energy and cost efficiency. The use of energy has also been taken into account on the premises by introducing motion-sensitive lights and water taps. Recycling and the sorting of waste are encouraged at all offices. The use of the premises will be monitored and developed during 2023.

The Office Centre is located next to the Pasila railway station, meaning that the office is easy to reach by public transport, and free or affordable park-and-ride facilities are available when arriving from different directions. The excellent staff facilities and safe bicycle

storage at the new office encourage people to exercise on their commute. The Mall of Tripla, located next door, also makes it possible to combine the commute with shopping and dealing with other matters.

After the coronavirus pandemic, Traficom has adopted a multi-location working approach, which combines working from home and in the office. In the new activity-based office environment of the Pasila Office Centre, the staff can choose a workspace that suits the nature of the work. The open areas encourage interaction over the borders of networks and areas of expertise, while spaces into which you can retreat and rooms for quiet work make it possible to do work that requires focus and confidentiality.

” The idea for also arranging theoretical knowledge examinations in aviation at other offices and wherever the education takes place came from our employees. Before, you had to travel to Helsinki or Lappeenranta to take the exam, but starting from 2022, the service is available at the Tampere regional office, which reduces the need for travel.

**Jani Kosonen**, Team Leader, Personal Licences (Aviation), Traficom



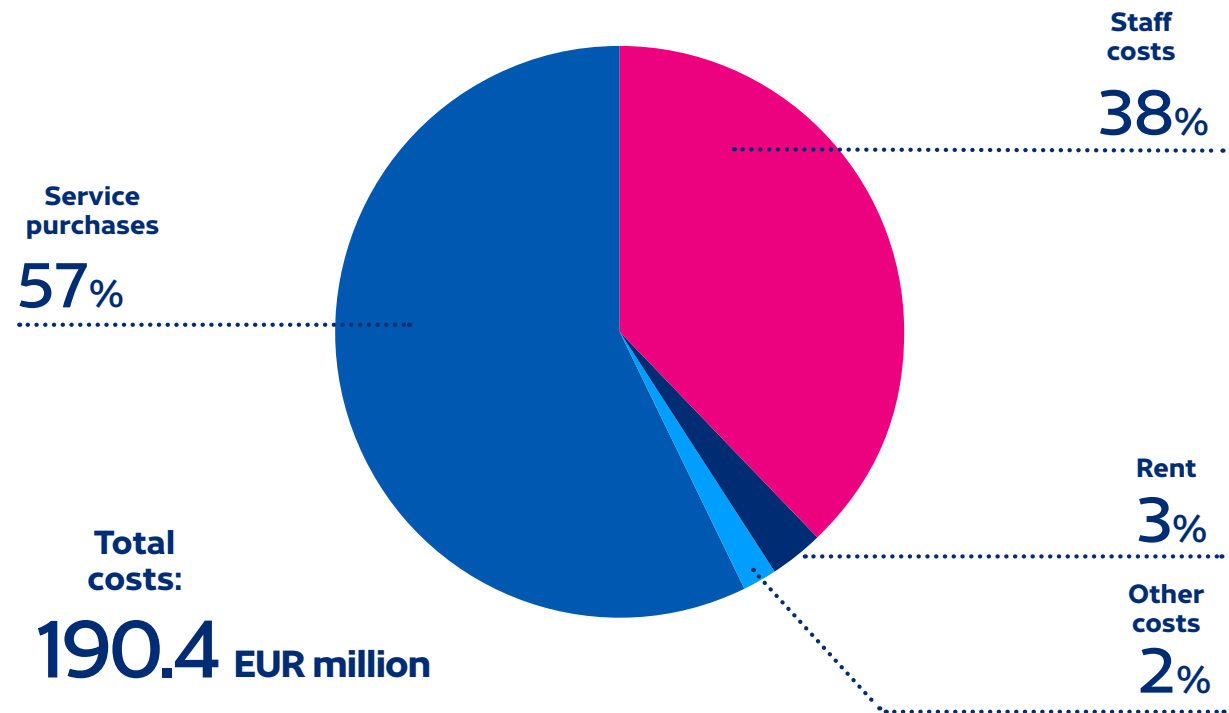
# Sustainability in procurement

Key sources of emissions in Traficom operations are energy consumption in premises, travel for work, commutes, material consumption and service and product acquisitions.

Procurements are Traficom's largest expense item, and they can be used to make a major impact. We are committed to responsible procurement. When preparing for procurement, we assess whether it can be used to promote sustainable development via the perspectives of environmental, social and economic responsibility. Responsibility must be reviewed at all stages of the procurement procedure. In 2022, Traficom's total costs amounted to EUR 190.4 million, of which EUR 109.5 million was spent on purchasing services.

Our goal is to develop the monitoring of Traficom's footprint with the sustainability programme currently under construction and take advantage of the shared central government data bank that is being prepared.

## Traficom's expenses 2022



” We monitor the realisation of the procurement plan and the use of our agreements through close cooperation with our contracting partners. I feel that the cooperation is important, because continuous dialogue ensures that risks and costs stay under control.

**Sanna-Kaisa Kaikkonen**, Procurement Manager, Technology and Information Services, Traficom

# Digital services save the environment and make everyday life easier

Many people at Traficom presented their development ideas related to the digitalisation and automation of customer service and our service processes in the survey 'Ilmianna vuoden 2022 vastuullisuusteko' (Report the sustainability action of 2022). We have already been carrying out this development, but we identified more development targets and potential benefits based on the responses. Digitalisation reduces the consumption of natural resources, with paper as an example, and at its best, it improves the customer experience, reduces errors and misuse and helps the people at Traficom to work more efficiently.

Traficom's with a high volume – related to vehicles, vehicle taxation and watercraft – have already been automated. The focus areas of their development include the mod-

ernisation of technology, development in accordance with the quality criteria for the services of public administration as well as the high quality of accessibility, usability and information security. The focus of the development of services with a low volume, such as services related to aircraft and aviation licences, is on increasing the level of digitalisation so that the services are fully electronic for the customer and the applications arriving at Traficom are automatically entered into the register and the client can receive an electronic decision after the processing. Viewing one's own register data is an integral part of the digital customer experience. We promote the adoption of digital services and e-invoices with communications campaigns in different kinds of media.







**In 2022**

**Of the services  
with a high volume,  
71.5% were  
electronic**

**E-services were  
used 7.5 million  
times**

**People viewed  
their own data in  
the Transport Register  
electronically  
approximately  
2.5 million times**

**We produced 11 new  
electronic services  
for purposes such as  
the purchase subsidy  
application process for  
low-emission vehicles**

**Of the vehicle tax  
bills, 35.6% were  
sent electronically  
as an e-invoice**

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Communications Agency Traficom**

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