The Road Towards a Carbon-Free Society

A Nordic-German Trade Union Cooperation on Just Transition

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This publication is part of a joint project entitled **"The Road Towards a Carbon Free Society – A Nordic-German Trade Union Cooperation on Just Transition"**. The project is a collaboration between the Council of Nordic Trade Unions (NFS), the Friedrich-Ebert-Stiftung (FES) and the German Trade Union Confederation (DGB). Represented by the Council of Nordic Trade Unions (NFS) in the project are 13 national Trade Union Confederations within NFS, from five Nordic Countries: Denmark (FH, Akademikerne), Finland (SAK, STTK), Iceland (ASÍ, BSRB, BHM), Norway (LO-N, Unio, YS) and Sweden (LO-S, TCO, Saco).

A Just Transition towards a carbon neutral future is the most urgent environmental, social and economic issue of our times. This project aims to develop strategies and requirements from a trade union perspective on how to manage the process to a carbon free society. The participating labour organisations are united in their vision that this goal can only be reached if the social costs of this transition process are socially mitigated. This means harmonising efforts to combat climate change with the aim of ensuring decent working and living conditions. To this end, the participating labour organisations have not only analysed their respective countries' transition path towards a fossil free future but have also formulated joint policy recommendations for the national and European arenas. The ensuing discussions and debate have strengthened the cooperation and dialogue between the Nordic and the German trade union movements on common challenges and solutions.

A total of six country reports on the Just Transition path of the participating countries (Denmark, Finland, Germany, Iceland, Norway, and Sweden) have been formulated. Each contains an analysis of the climate policies, economic and societal consequences, an evaluation of the respective national instruments and offers European perspectives. The main findings of the country reports are brought together in a synthesis. It features policy recommendations that aim to help guide the transition to a decarbonised society and an economy that is just and sustainable. The reports and their results are presented and discussed in a series of events nationally as well as in terms of Nordic and European cooperation and at the international level.

This is the Finnish country report and a collaboration between Central Organisation of Finnish Trade Unions SAK and Finnish Confederation of Professionals STTK

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01 CURRENT STATE OF PLAY

Table 1: Overview

	Finland	EU-28/OECD
Population, 2019 (EU-28 and Norway and Iceland)	5,500,000	519,160,000
Real GDP aggregates per capita, 2019	€ 37,170	€ 28,630
GHG emissions CO_2e per capita (excl. LULUCF), 2017	10.1 t	8.5 t
GHG emissions CO_2e (excl. LULUCF), 2017	55 mt	4,323 mt
Difference (excl. LULUCF) from 1990 to 2017	-22%	-23%
Net GHG CO_2e emissions/removals from LULUCF, 2017	-20 mt	-258 mt
Share of renewable energy in gr. final energy consumpt. 2018	41%	18%
Workforce, "active population", (aged 20-64), 2019	2,567,000	238,515,000
Collective bargaining coverage, 2016	89%	32%
Union density, 2018	60%	N/A

(Data source: Eurostat 2019a, Eurostat 2019b, UNFCCC 2017, Eurostat 2018, Eurostat 2019c, OECD 2016, OECD 2018)

1.1 THE IMPACT OF CLIMATE CHANGE ON FINLAND

The average temperature in Finland has already risen by two degrees Celcius compared to pre-industrial times. Climate change brings new species to Finland, changes habitats and hampers the life of the animals especially adapted to the northern environment. The amount of snow, ice and frost has decreased in many areas. The Finnish forest, the Baltic Sea and the fells of Lapland have already changed due to climate change. Besides the storms, floods, rain and heat waves during the summer have already increased, which is harmful to peoples´ livelihoods (farmers) or creates extra stress at work e.g. for healthcare professionals, firefighters, construction workers and electricians.

1.2 CLIMATE TARGETS

The government's goal is to make Finland a carbon-neutral country by 2035. The objective of the government led by Prime Minister Sanna Marin is to turn Finland into the world's first carbon-neutral welfare state by 2035 (Finnish Government 2020a). To achieve this, Finland must find new means to reduce emissions and strengthen carbon sinks. Finland's present objective is to reduce greenhouse gas emissions from non-emissions trading sectors at least 16 per cent by 2020 and 39 per cent by 2030 from the levels in 2005. Finland has finalised its national energy and climate plan, which was submitted to the EU Commission in December 2019 (Ministry of the Environment 2020).

The National Energy and Climate Strategy (NECP) outlines the actions that will enable Finland to reach the targets specified in the government programme and adopted in the EU for 2030, and to systematically set the course for achieving an 80–95 per cent reduction in greenhouse gas emissions by 2050.

With minor exceptions, Finland will phase out the use of coal for energy production. The Strategy contains objectives for the share of transport biofuels to be increased to 30 per cent and an obligation to blend light fuel oil used in machinery and heating with 10 per cent bioliquids. The minimum aim is to have 250,000 electric and 50,000 gas-powered vehicles on the roads.

The Strategy aims for development of the electricity market at the regional and the European level to improve flexibility to better match electricity demand and supply as well as system-level energy efficiency in general. New, cost-effective production of renewable energy is being enhanced through technology-neutral tendering in 2018–2020.

In 2017, the NECP prepared the Climate Change Adaption Strategy, the Energy and Climate Strategy for 2030 and the Climate Strategy for 2050. These strategies are now in the process of being updated.

Trade unions have been heard with other relevant stakeholders. Little by little they are also invited to participate in the preparation and up-dating of the strategies. Stakeholders include both employer and trade union organisations, farmers, municipalities but also NGOs like environmental and development organisations.

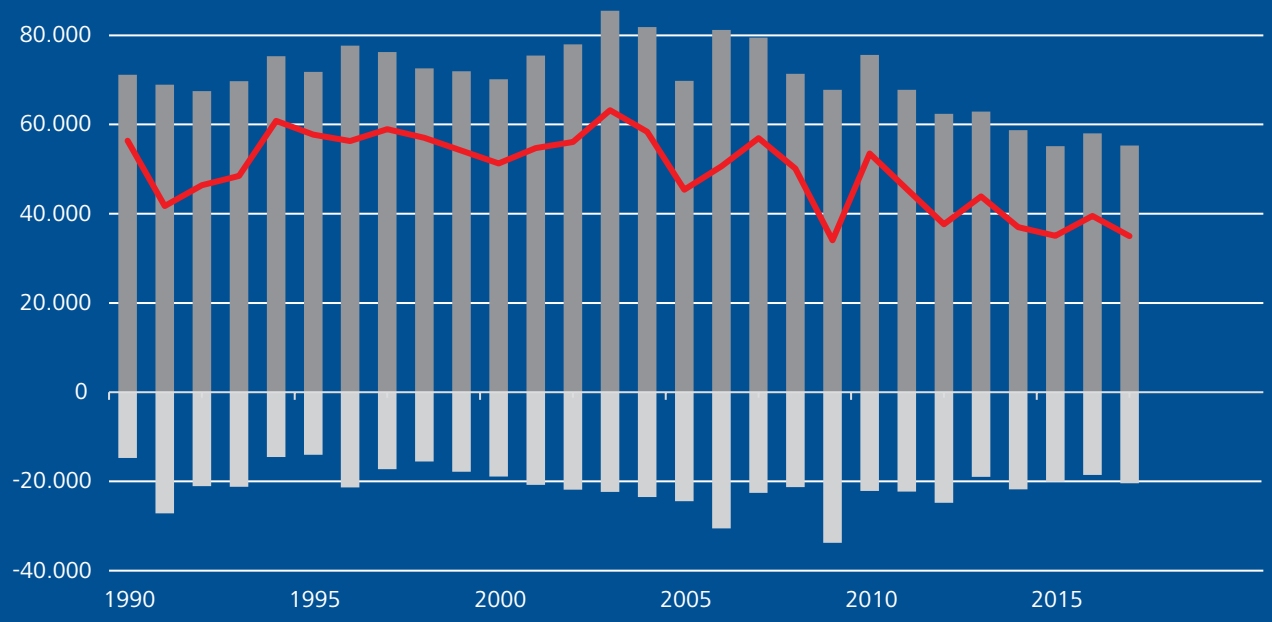
So far, there is no specific plan on a Just Transition of the workers included in the national, sectoral or regional climate strategies but it is under discussion. The government programme mentions the implementation of Just Transition as a part of its climate policy activities. The trade unions continue to push for the inclusion of concrete Just Transition plans into policies, legislation and institutional practices in Finland.

The total population of Finland is 5,517,000. GDP per capita in the current prices is 37,174 euros. CO_2 emissions per capita are still high but decreasing. For 2017, the figure was 8.3 t. Emissions were highest in 2003, totally 13.9 t.

In 2017, Finland's greenhouse gas emissions totalled 55.4 mt of CO_2e. Total emissions in 2017 were approximately 22 per cent (15.9 mt) below 1990 levels (Official Statistics of Finland 2019a).

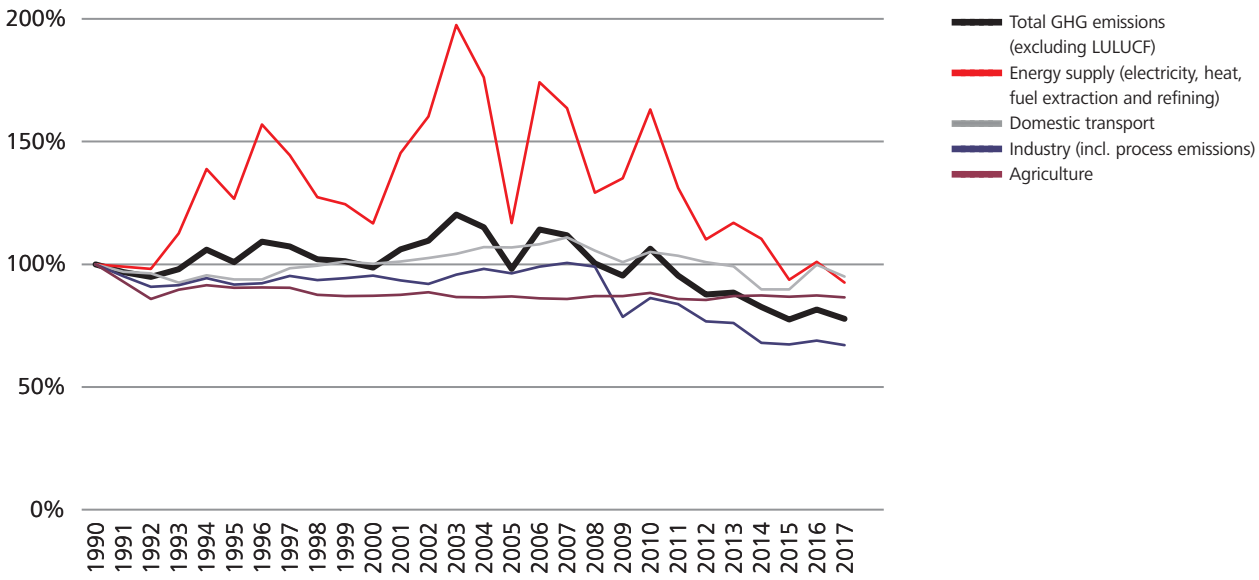
Figure 1. shows a time series of CO_2e emissions with and without the net removals in the LULUCF sector in Finland from 1990 to 2017. The total greenhouse gas emissions by gas as CO_2e and indexed emissions in relation to 1990 levels.

Figure 1: Finland's total domestic GHG emissions including and excluding LULUCF in kt CO_2e



(Figure in collaboration with Nordregio, data source: UNFCCC 2017)

Figure 2: Finland's domestic greenhouse gas (GHG) emissions, indexed to 1990



Data source: UNFCCC 2017; indexed to 1990 (Figure in collaboration with Nordregio)

Climate target: by accelerating emissions reduction measures and strengthening carbon sinks, Finland should be carbon neutral by 2035 and carbon negative soon after that. By 2030, emissions should be reduced by at least 55 per cent below 1990 levels.

The energy sector is the most significant source of greenhouse gas emissions. The share of total emissions in 2017 was 74 per cent (41.0 mt CO_2e). The energy sector includes emissions from fuels used to generate energy, including fuel used in transport and the fugitive emissions related to the production, distribution and consumption of fuels.

Emissions have decreased by 23 per cent (12.5 mt CO_2e) since 1990. Energy-related CO_2 emissions vary mainly according to the economic situation, the energy supply structure and climate conditions. The main reasons are the high-energy intensity of Finnish industry, extensive energy consumption during a long warm period, as well as energy consumption for transport in a large, sparsely inhabited country.

In 2017, the total consumption of energy in Finland amounted to 1.35 million terajoules (TJ), a decline of one per cent compared with the previous year and a growth of 18 per cent since 1990. The share of renewable energy in total energy consumption was 37 per cent in 2017. In 1990, the share was only 18 per cent, but since then, renewables have grown steadily, and in the 2010s faster than before.

The emissions in the transport sector have fluctuated between 11 to 13 mt CO_2e from 1990 to 2017, meaning they were five per cent lower in 2017 than in 1990. The transport sector's share of total greenhouse gas emissions was approximately 17 per cent (12.1 mt CO_2) in 1990 and 21 per cent in 2017. Road transportation is the most important source of emissions in transport, accounting for over 94 per cent of the sector's emissions in 2017.

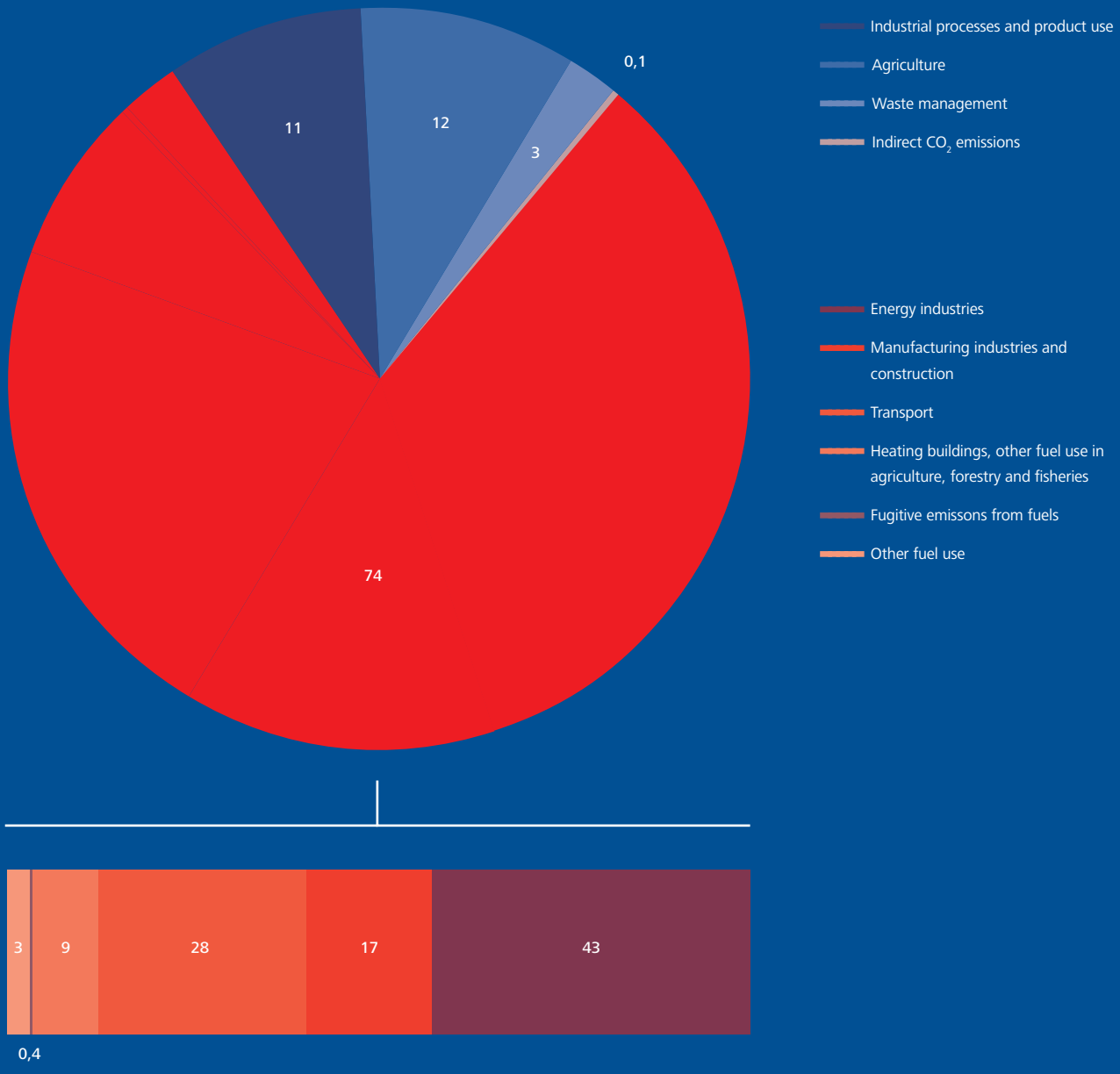
The second largest source of greenhouse gas emissions is agriculture. In 2017, agricultural emissions accounted for 12 per cent (6.5 mt CO_2e) of total emissions. Annual emissions have declined by 13 per cent since 1990 due to a reduction of the number of livestock and a decrease in the use of nitrogen fertilisers.

Emissions from industrial processes and product use, including CO_2, CH_4, N_2O and F gases, made up 11 per cent (5.9 mt CO_2e) of total greenhouse gas emissions in 2017, making them the third largest source of greenhouse gas emissions. Emissions in this area have increased by 10 per cent (0.5 mt CO_2e) since 1990. Their share of total greenhouse gas emissions varied between 7 and 11 per cent during the reporting period. The fluctuation in the emissions from industrial processes and product use is largely consistent with fluctuations in economic output, even if the factors influencing the emissions are more diverse.

The waste sector accounted for 3 per cent (1.9 mt CO_2e) of total greenhouse gas emissions in 2017. Emissions from the waste sector consist of CH_4 and N_2O emissions and they have been decreasing since 1990. Overall, annual emissions in the waste sector have decreased by 60 per cent since 1990.

The LULUCF sector is a net carbon sink in Finland (20.4 mt CO_2e). From 1990 to 2017 the proportion has varied from approximately 19 per cent to 50 per cent of annual emissions. The most important components of the forest sink are the expansion of growing stock and harvest removals. Growth has increased since 1990 from 78 million m^3 to 107 million m^3. During this period there has been less fluctuation in the growth compared to the harvest rates. In 2017, the total output was 87 million m^3.

Figure 3: The composition of Finnish greenhouse gas emissions in 2017 (in %)



Data source: Nordregio

1.3 ECONOMY

Total employment in these different sectors was 801,000 employees in the year 2019 and 924,000 employees in the year 2000. There were 843,000 people employed in the year 2010. Employment in these sectors has decreased in the past two decades by 120,000 jobs and 40,000 in the last ten years. The changes are mainly due to globalisation and European Union Common Agricultural Policies but also to automation and technological developments. In the same time period the total number of employed people rose: 2,566,000 (2019), 2,447,000 (2010) and 2,335,000 (2000).

Employment (aged 15–74) in the CO_2-emitting sectors in Finland in 2019 (Official Statistics of Finland 2019b):

- Agriculture, forestry and fishing; mining and quarrying: 105,000
- Manufacturing; electricity, gas, steam, air conditioning and water supply; sewage and waste management: 353,000
- Construction: 193,000
- Transportation and storage: 143,000
- Miscellaneous industries: 7,000.

In general, more than 100,000 industrial jobs have been lost over the last 20 years, mainly due to globalisation and automation and not to climate policy as such. It is hard to predict in more detail the impact of the climate targets and measures on different sectors since no comprehensive studies are being performed.

According the Finnish Climate Change Panel, the government's climate objective of carbon neutrality by 2035 means reductions of 5-10 per cent per year (Finnish Climate Change Panel 2020). The burning of fossil fuels (energy, transportation, industry) must be reduced by 65-90 per cent. The use of peat for heating causes approximately 10 per cent of Finland's CO_2 emissions.

The National Energy and Climate Strategy 2030 estimates that future employment in the national economy will drop by 0.15 per cent (Ministry of Economic Affairs and Employment in Finland 2019a). Employment could even increase by three per cent. It is expected that the primary production and energy supply sectors will preserve at least their current employment levels.

The government has agreed to close down the peat energy sector, so there is a need to plan Just Transition measures for workers in the sector. To manage that, the government has established a Peat

Commission to manage the transition in a just manner. Trade unions were not invited to this Committee. According to estimates, some 2,500 people are directly employed in the energy heating business. Most are self-employed and/or owners of land and forestry. The jobs created by the peat industry are mostly seasonal (except the ones in the municipal power stations using peat as fuel).

There is also a need to reduce process-based emissions by 40-50 per cent in industry, especially in steel, chemicals and cement (which means mainly construction in Finland since we have only one cement factory). Since process-based emissions in industry are so huge, we will require big investments in new technologies and processes in the sector. This also means a huge demand for skilled workers, though no specific numbers exist so far regarding this challenge. This might be both an opportunity and a risk to Finnish companies and could have either a positive or negative impact on levels of employment.

Also needed is a 20-30 per cent CO_2 emissions reduction in agriculture. This will affect the way work is done on farms. All sectors will require new skills for workers in order to manage the new ways of working in non-CO_2-emitting companies.

Positive employment opportunities in the energy sector can be seen in renewable energy, nuclear power and carbon capture (CC) including bio-CC. In particular, more employment will be created in the production of biofuels and bioenergy. The increase in the biorefining of raw forest materials (300 ktoe) will increase employment by 2,000 man-years. In other biorefining sectors, the increase (300 ktoe) is estimated to be 150 man-years.

In construction, positive employment impacts are seen due to the obligatory energy efficiency directive, increased recycling demands and the promotion of wooden construction. In 2017, the construction employer organisation estimated that some 20,000 additional jobs could be created in the construction sector by 2020 due climate policies (Finnish Construction Workers Union 2017).

1.4 SOCIETY

So far, no research has been finalised on the subject in Finland. The most likely affected groups are people with low levels of education who will lose their jobs due to restructuring of the economy and jobs in production and services. Low-income people living in rural areas where there is hardly any public transport available and the private car is the only way to get to work will be affected. In industry, most employees are men (Official Statistics of Finland 2019c, Ibid. d). The groups most affected by mitigation policies are poorly educated or people with a basic educational background, older age groups, and people with simple and repetitive tasks (who will also feel the impact of automation and digitalisation), especially in CO_2-emitting sectors.

The trade union position on the CO_2-reduction targets is that to strengthen Just Transition principles, different measures must be planned and implemented to help workers get through the transition to a carbon-free society. Concretely, this means a Just Transition of workers to a new job, profession or retraining, and creating a strong model of change security.

The principles of Just Transition should be incorporated into climate laws so that climate and energy strategies include assessments of the sectoral impacts of proposed measures on employment and on regions, proposals for supporting workforce, employer and community transitions, and monitoring the effectiveness of planned measures and progress towards objectives.

Climate policies must guarantee full and equal participation of both labour market organisations (labour and employer organisations) in the preparation, implementation and monitoring of climate and energy policies, including investment strategies.

Employment and training policy must be an integral part of climate policy. The government should set up a tripartite working group which could consider the impact of climate policy on employment and the need for skills. This working group would identify the opportunities and threats for employment trends arising from restructuring, monitor existing national, regional and sectoral initiatives, and forecast sectoral changes in the need for skills.

Examples of Just Transition policy measures could include enlarging the employer's duty to provide training, boosting labour mobility and employment through the labour market and social protection policies, workers having a right to upgrade their skills at the expense of the central government or an employer, enabling equitable access to continuous learning for all, and improving financial conditions for workers undergoing retraining.

02 NATIONAL INSTRUMENTS

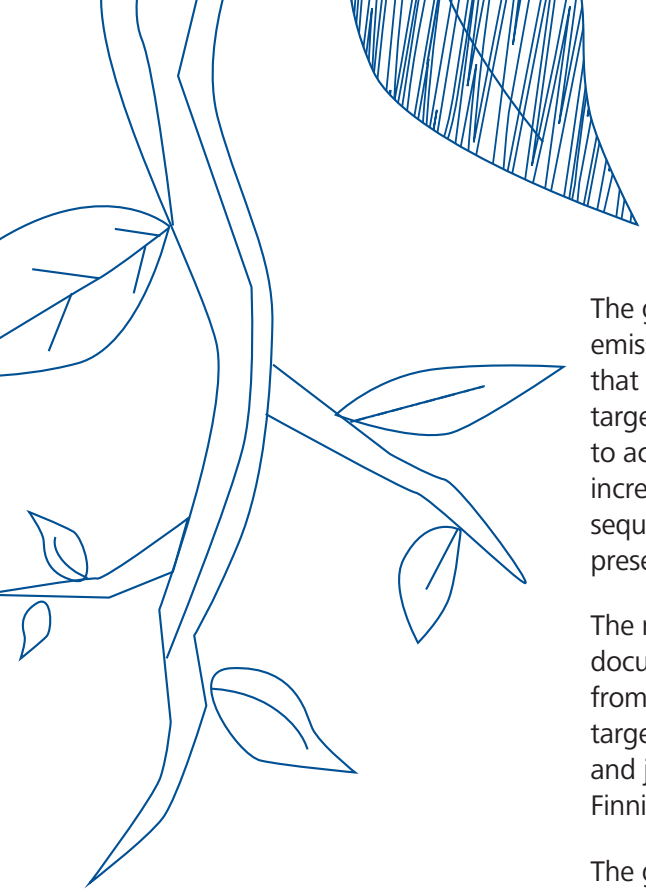
The Finnish Climate Change Panel estimates that achieving the climate objectives requires emissions to be reduced by 35 mt of CO_2 (Finnish Climate Change Panel 2020). The government aims to reduce emissions by 17–24.6 mt, on top of the emission reductions of 16 mt that are already being implemented.

Needed are annual reductions of 5–10 per cent through 2035. The burning of fossil fuels (energy, transportation, industry) needs to reduced by 65–90 per cent. We need to increase renewable energy, nuclear power and carbon capture including bio-carbon capture. Process-based emissions in industry (steel, chemistry, cement) must be reduced by 40–50 per cent. Emissions from agriculture need to be reduced by 20–30 per cent.

Table 2: An overview of the existing energy and climate policy measures from the 2030 strategy and measures added when adjusting for the government programme of Prime Minister Marin.

Energy supply	Industry	Transport	Residential and services	Waste	Agriculture
Energy and carbon dioxide taxes	Energy and carbon dioxide taxes	Energy and carbon dioxide taxes	Energy and carbon dioxide taxes	Waste tax	Energy and carbon dioxide
Energy Efficiency Agreements	Energy Audit Programme	Quota obligation for the use of biofuels in the transport sector, enhanced measures*	Consumer energy advice	Regulation on packaging, waste management	Energy Efficiency Agreement for Agriculture and other energy efficiency initiatives
Promoting wind power	Energy Efficiency Agreements	Promoting biogas in road transport	Ecodesign and energy labelling	Landfill regulation limiting deposit of organic waste	Rural Development Programme for Mainland Finland
Promoting forest chips and other wood based fuels	Implementation and improved enforcement of F-gas regulationsorcement	Improving the energyefficiency of vehicles, enhanced measures*	Information dissemination and campaigns on energy efficiency		Climate Programme for Finnish Agriculture
Promoting biogas in electricity and heat production	Public procurement criteria, information measures, etc concerning F-gases *	Improving the energyefficiency of the transport system, enhanced measures *	Building regulation		Activities on organic soils *
Promoting solar power	Quota obligation for the use of bioliquids in machinery *		Energy certificates for buildings		Quota obligation for the use of bioliquids in machinery *
A premium system for renewable electricity*			Quota obligation for the use of bioliquids in space heating *		Promoting the production and use of biogas *
Phasing out coal in energy production *					

Source: Finnish Government 2020b



The government will continue the preparation of measures to reduce emissions according to the agreed timetable in the programme work that is under way. It has decided on estimated emission reduction targets for individual sectors to ensure that the necessary reductions to achieve carbon neutrality will be implemented. The aim is to increase Finland's net carbon sink. The government aims for additional sequestration of at least 3 mt in the land use sector compared to the present measures (Finnish Government 2020b).

The main items of the government's climate work is listed in a document titled 'A fair transition towards a carbon-neutral Finland' from February 2020. It aims to put Finland on a path towards the target of carbon neutrality in a way that is socially and regionally fair and just. The idea is that climate leadership will offer opportunities for Finnish industry and workers in all parts of the country.

The government's climate work includes a comprehensive reform of energy taxation and carbon neutrality plans for specific sectors. But it also includes a road map for fossil-free transport and sustainable transport taxes and payment reform, a medium-term climate change policy plan, a national energy and climate strategy, a climate programme for the land use sector and a set of measures concerning Fair Transition.

To boost clean investments, the government has decided to gradually lower the electricity tax paid by the manufacturing industry to the minimum allowed in the EU, starting in 2021. This will support the electrification of industry and create predictability for companies.

The government has established a climate fund based on the State Business Development Company (VAKE). The fund will focus on combating climate change, promoting digitalisation and boosting low-carbon operations in manufacturing industries. Transition to a low-carbon economy requires sufficient investment in developing a circular economy, clean technology solutions and energy efficiency. The State Business Development Company presides over more than two billion euros. During this government term, hundreds of millions of euros from the climate fund can be invested.

The government plans to launch additional measures to boost the transition towards carbon neutrality. It will create a set of measures to support a Fair Transition to ensure that climate actions are fair and just, and to maximise the positive impacts of climate measures on employment and the viability of regions, and compensate for the impacts of the transition on income distribution. The government has established a Ministerial Working Group on Climate and Energy Policy which will head efforts to monitor the social, regional and employment effects of the climate policies and prepare a set of measures for a Fair Transition.

In addition, the government has decided on measures/road maps to improve the conditions for clean energy production (Finnish Government 2020b):

- Objective: Comprehensive reform of the energy taxation system, moving to the EU minimum in industrial electricity tax. It is estimated that a minimum of 3-4 mt CO_2e in reductions can be achieved. Mostly completed in summer 2020.

- Objective: Paths towards carbon neutrality in key industrial sectors. Estimate of minimum achievable reductions: 6-8 mt (through the electrification of industry and low-carbon technologies). Road map completed in autumn 2020, followed by decisions based on the road map. Legislative proposals on the taxation of employee benefits concerning fully electric and other low-emission vehicles in autumn 2020.

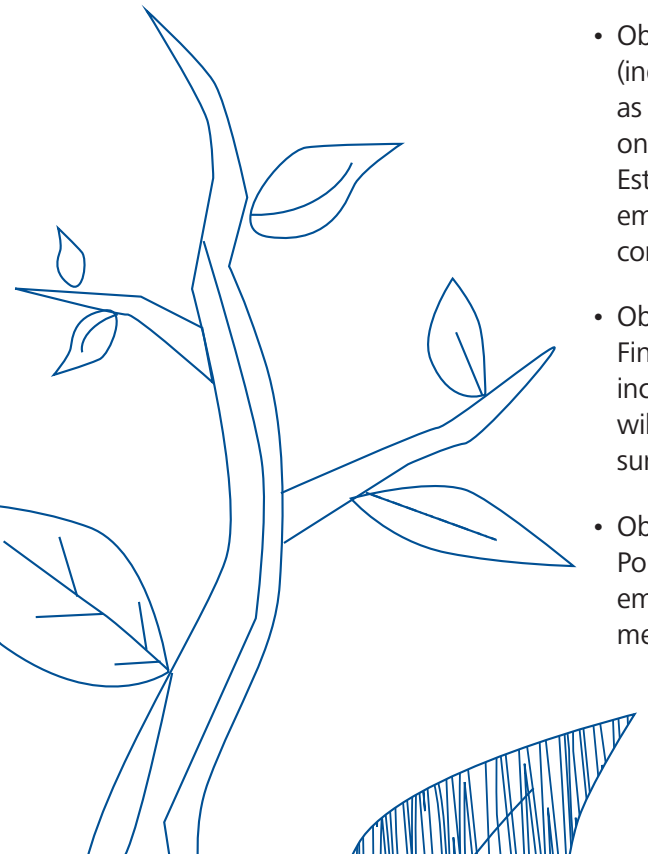
- Objective: Facilitating reform of vehicle propulsion technologies and gradual achievement of a zero-emissions vehicle fleet. The aim is to halve emissions from transport by 2030 and achieve carbon-free transport by 2045. Estimated achievable minimum reductions: 2—2.6 mt (halving emissions from transport by 2030) and about 2 mt (preliminary estimate of additional emission reductions by 2035, if the target is carbon-free transport by 2045). To be completed by June 2021.

- Objective: Study of emissions reductions in the effort-sharing sector and decisions on policy outlines. Estimate of the achievable minimum reductions: 1–2 mt (individual heating of homes according to the action programme on oil heating) + 1–2 mt (rest of the effort-sharing sector), plus the above-mentioned emission reductions in transport. To be completed June 2021.

- Objective: Emissions reductions in the emissions trading sector (industry and energy) and enabling emission-free energy production as a replacement. The strategy measures are also covered in the work on the road map for industry and in the reform of energy taxation. Estimated achievable minimum reductions: 2–4 mt and necessary emission reductions to achieve carbon neutrality by 2035. To be completed by December 2021 (some of the measures began in 2020).

- Objective: Reduce emissions from the land use sector, strengthen Finland's carbon sinks in the short and long term. The aim is to increase Finland's net carbon sink. It is estimated that the measures will strengthen the net carbon sink by 3mt. Ongoing work, review in summer 2021.

- Objective: The Ministerial Working Group on Climate and Energy Policy will lead the work to monitor the social, regional and employment effects of the climate policies and to prepare a set of measures for a Just Transition.



The government has immediately launched a number of additional measures (Finnish Government 2020b):

- A study will be conducted on incorporating synthetic fuels into the blending obligation.
- The biogas programme will be implemented on the basis of the working group's proposals.
- A study will be made as quickly as possible concerning measures to dismantle barriers to investments in terrestrial and marine wind farms, including restrictions due to the radar system, and to release investments worth billions.
- Necessary legislative amendments will be implemented to make it possible for housing companies to utilise solar energy for household electricity and measures will be taken to promote the use of solar energy and other forms of renewable energy production in public buildings and commercial properties.
- The carbon footprint of the investments in the State Pension Fund will be studied. The fund will be obliged to present a plan on measures to reduce the carbon risk of its investments.
- In the development, use and maintenance of the state's building stock, the focus will be on low-carbon operations and energy efficiency. Promoting the use of wood for building will also be emphasised.
- Use of wood for building will be promoted in the context of the agreements concerning land use, transport and housing.
- The Academy of Finland and Business Finland will look at the range of research and development work that has been carried out on climate change, carbon neutrality and biodiversity. This will serve as the basis for identifying strong centres of expertise and particular gaps that may exist in regard to carbon neutrality, and the necessary measures will be taken.
- Concrete objectives and measures will be included both in the government report to parliament on education policy and the RDI roadmap for raising the level of research and competence relating to climate change, continuous learning, science education, and research, development and innovation activities.
- An Act on Afforestation will be prepared that will enter into force on 1.1.2021.

- To increase forest growth, ash fertilisation will be included on a temporary basis in the scheme for financing sustainable forestry (KEMERA) as a measure that is eligible for support.

The preparations for the sustainable taxation roadmap will seek solutions that promote the government's climate objectives in the most economically effective way, accelerating the shift away from fossil fuels while meeting the requirements of social justice (Finnish Government 2020c). Moreover, the package is to include a reform of energy taxation, a reform of transport taxation, promotion of the circular economy, and a study of emissions-based consumption taxation.

Two stages of sustainable taxation reform

Stage I

- Lowering the industrial electricity tax in a cost-neutral manner to the minimum rate allowed by the EU. To be phased in from the start of 2021.
- Abolishing the industrial energy tax rebate system. This will be carried out in such a way that it does not lead to unreasonable situations for individual operators. To be phased in from the start of 2021.
- Reducing tax subsidies for combined heat and power production and increasing heating fuel taxation, so that tax revenues increase by a total of 100 million euros over the duration of the current government.
- Energy taxation reform, including the question of tax on peat, will begin in spring 2020. The use of peat for energy is to be cut by at least half by 2030. The overhaul of energy taxation will include an assessment of the necessary changes to peat taxation to ensure the 2030 target for peat is achieved. From the start of 2021.
- Heat pumps and data centres generating heat for district heating networks will be transferred to category II electricity tax. The aim is for this to be implemented at the start of 2021. The proposal's compliance with EU law must first be verified.
- The future of emissions trading compensation will be examined with due regard to the content of the energy taxation reform. Decisions will be made in the autumn 2020 government budget session. Detailed contents of the measures will be determined before the autumn 2020 budget session.

Stage II

- Assessing the need for further changes in energy taxation in the next 10–15 years by drawing up an energy taxation road map which, together with emissions trading, will support achievement of the 2035 carbon neutrality target and take into account business competitiveness and social and regional considerations. The aim, in connection with emission reductions and technological advances, is to safeguard the tax base in the longer run beyond the current government term. Work on the road map measures will begin during the government term. A preparatory body will be set up in autumn 2020, after the energy taxation working group's term is over.

The reform of the Climate Change Act, as detailed in the government programme, began in autumn 2019 (Ministry of the Environment 2020b). The first phase of the reform is listening to citizens' views on what the new Climate Change Act should look like. The goal of the reform is to strengthen the leglislation and ensure that Finland can be carbon neutral by 2035. The results of the survey and workshops held February-March 2020 provided a basis to establish the guidelines for the Climate Change Act. The government's proposal for a revised Climate Change Act is due to be completed in early 2021. The goals for the years 2030, 2040 and 2050 will be defined in the law.

In accordance with the government programme, low-carbon sectoral road maps (industrial sectors, construction, transport, agriculture and forestry) have been drawn up in cooperation with companies and organisations in the relevant sectors (Ministry of Economic Affairs and Employment in Finland 2019b). The road maps will provide a more detailed picture of the scale and cost of the measures required in different sectors.

The preparation of low-carbon sectoral road maps is well underway in many sectors. The government plans to use the road maps in the preparation of its climate and energy policies, due for completion by the end of October 2020. In addition, the road maps will be included in the international growth programme.

The workers' perspective is weak in the government's different climate programmes. Real targeted employment and training measures are mainly lacking, although the government has stressed the importance of Just Transition. There was e.g. no real tripartite participatory approach when low-carbon sectoral road maps were prepared. So far, Just Transition has not been included in the Climate Law nor in the National Energy and Climate Strategy plans. But one new participatory institution has been created: a climate policy roundtable under the Sustainable Development Council.

The most important trade union issues – employment and lifelong-learning policies – are not sufficiently included in the energy and climate policies. One example of this shortcoming is the industry-specific road maps to carbon neutrality. The government programme has identified rightly that we need industry-specific road maps with planning and measures to reach the carbon-neutral goal. Unfortunately, these road maps have been made without employee input, with only a few exceptions (transport, construction, accommodation and restaurant sectors). As consolation for not being fully involved in the road map preparations, the Ministry of Economic Affairs and Employment organised a Just Transition seminar for the social partners and asked for ideas on implementation of the Just Transition in Finland. All confederations participated in the seminar, where SAK and STTK explained the meaning of Just Transition and highlighted the need for reskilling workers and also focusing on employment issues. The seminar and a Just Transition report prepared by SAK are mentioned in the synthesis report of the industry-specific road maps by the Ministry.

The preparation of the Climate and Energy Strategies for the years 2035, 2040 and 2050 have just begun. The Ministry of Economic Affairs and Employment has stated that stakeholders will somehow be involved in the process. Trade unions have so far been invited to participate in the preparation of the plans to one sub-committee. The Ministry of Environment has shown interest in understanding how trade unions understand the connection between Just Transition and the climate law and green recovery measures.

As part of a green recovery package after the corona crisis, TU made the following proposals:

- The government should involve trade unions more in the preparation, monitoring and follow-up of the Finnish Energy and Climate Strategy plans. Just being heard is not enough.
- Assessments of the employment and skills needs should be included in both the national and all of the sectoral climate strategies.
- Just Transition as defined by the ILO should be included at both the EU level and in Finnish climate policies.
- Both national and regional Just Transition plans should be developed.
- A cooperation structure between the social partners should be created. Climate actions implemented at workplaces should be agreed through cooperation. This could be recorded e.g. in the climate or cooperation act law.
- Climate, biodiversity and ecological sustainability issues should play a greater role in vocational training.

The Trade Union Confederations are also concerned about the lack of academic research and studies available in Finland on the effects of climate policy on employment and the new skills that will be required of workers. It is positive that in the spring the Prime Minister's office launched a project titled 'Climate Change and Employment' and is funding it with 150,000 euros. This was something trade unions strongly advocated for (Government's analysis, assessment and research activities 2020).

The SAK's union's study suggests that climate change and efforts to mitigate it are unlikely to reduce the total volume of labour in Finland if climate action is implemented in a managed way (SAK 2019a). Stricter emissions reduction targets nevertheless remain a cause for concern in terms of maintaining competitiveness and jobs in many sectors. The shift of work between and within sectors will heighten the need to update employee skills. Though survey respondents felt that this need could largely be met through on-the-job training in most industries, there were nevertheless also many industrial sectors, like steel, chemicals and paper, which will require completely new expertise. These assessments are based on interviews with specialists from 13 unions in various industries.

In a poll by the Central Organisation of Finnish Trade Unions SAK of shop stewards, one third of the shop stewards who answered stated that investments in new technologies and ecological products have been made in their workplaces (SAK 2019b). Most investments were made in transport. The least were made in industrial sectors. The majority of the respondents did not believe the investments affected employment at their workplaces. Half of all the respondents believed that mitigation measures would not affect employment at all. Only 15 per cent believed there would be less jobs available in the future.

Members of SAK-affiliated trade unions think climate change is a serious problem that unions should be tackling actively. This is the key finding of a survey of union members aged between 20 and 40 conducted by SAK (SAK 2019c). A total of 69 per cent of SAK-affiliated trade union members aged between 20 and 40 would retrain for a new career if this was required in order to tackle the problem of climate change. Willingness to switch occupations is greatest in public and private services and among women.

SAK also conducted a study on 'Fair climate policy for workers – implementing a just transition in various European countries and Canada' which is also available in English (SAK 2020). The report aims to provide information to substantiate the implementation and preparation of Finland's climate policy and to promote its social fairness. It sets out some credible concrete examples in which a Just Transition for workers has already been implemented in European

countries, specifically the Netherlands, Germany, Spain, France and Scotland. It also provides concise presentations of conditions of Nordic peers in Sweden and Norway. It also examines the example of Canada, where climate policy has been prepared and implemented in a way that is exceptionally fair and socially inclusive. SAK prepared recommendations for Just Transition implementation in Finland as part of this study. This study with its recommendations has been widely shared with political parties and ministers´ political advisors. So far, reactions towards the demands have been polite, but no action has been taken.

It is crucial that the Finnish Trade Union Confederations get the Just Transition of workers included in every plan, programme, legislation and follow-up. Just Transition means the measures to help workers find new jobs or the modification of tasks at the workplace and upgrading employees' skills in order to build a bridge between jobs or to a new career. Both the Just Transition perspective and the funding of the needed measures are lacking in both EU and national plans and financial instruments. No measures have been established that are clearly focused on Just Transition. Usually, Just Transition is mentioned in government programmes and political speeches. Frequently it is also confused with socially fair actions (like taxation).

A parliamentary group is discussing a possible new system for training and reskilling in which trade unions participate, but the Just Transition perspective is not strong within the group. Some of the sectoral road maps for carbon-free industry have planned to take competence issues on board in their project's second phase.

Best national practices to highlight in Finland are activities connected to UN Sustainable Development Goals (SDG) and groups that assist. The Confederations are permanent members of the National Commission of Sustainable Development. The Finnish National Commission of Sustainable Development is an influential forum bringing the key societal actors together. The Commission promotes cooperation in order to achieve the sustainable development goals and strives to integrate the strategic objectives of sustainable development into national policy, administration and social practices. The Commission is assisted by the Climate Policy Round Table, the Scientific Sustainability Panel and the Agenda 2030 Youth Group (The Finnish National Commission of Sustainable Development 2020). The social partners were asked to participate in the Round Table of Climate Change. One topic to be discussed should be how to ensure and implement Just Transition in Finland. The first meeting was held at the end of May.

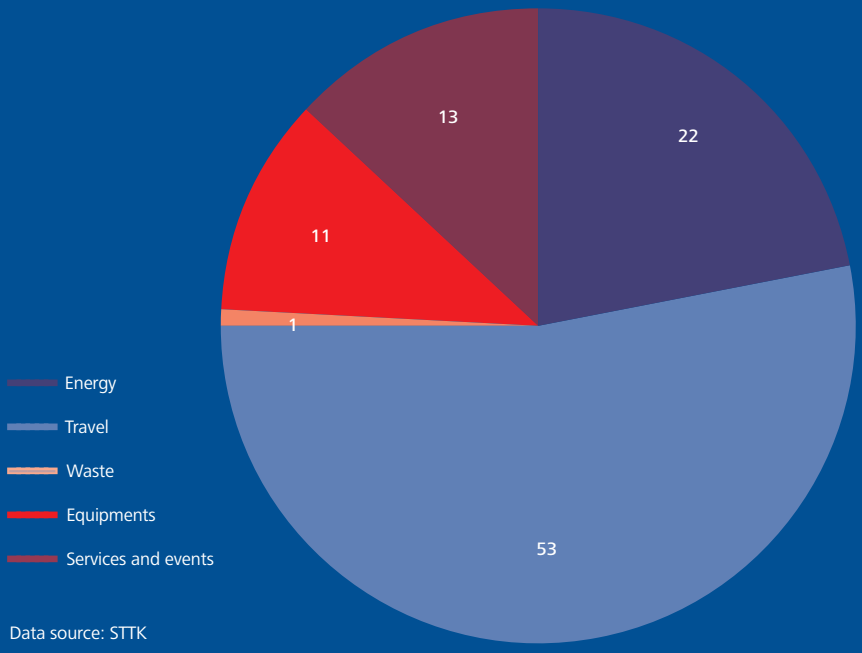
The preparation of Finland's 2020 Voluntary National Review (VNR) of the Sustainable Development Goals (IISD, International Institute for Sustainable Development 2020) introduced new approaches for "intensified stakeholder participation," with several stakeholders providing their own assessment of progress. Progress on each SDG is presented in the report through two assessments: one from government officials, covering all targets, and another from civil society, providing an overall assessment of progress as well as recommendations for further progress. SAK and STTK participated in this work.

The Trade Union Confederations have a permanent stakeholder representation in the UN national COP delegation (Ministry of the Environment 2020c). Worth mentioning is that Finland has an active National IPCC panel (Finnish Meteorological Institute, 2020).

Both confederations have internal trade union groups for climate policies at the confederation level. Both the Central Organisation of Finnish Trade Unions (SAK) and Finnish Confederation of Professionals (STTK) have their own climate and energy strategies, which have been prepared together with the member unions (SAK 2019d; STTK 2019a). In some sectors, the discussion on the role of collective bargaining (working hours, working conditions, health and safety, education) in tackling climate change has begun. Many workplace carbon neutrality actions have already been carried out and there are plans to launch a model to calculate the carbon footprint of the workplace. The problem seems to be that workers are not usually involved in these processes. So far, there are no collective bargaining agreements or tripartite initiatives on national or European CO_2-reduction policies.

STTK has calculated its carbon footprint annually from the year 2017 (STTK 2020). STTK has also trained some of the unions to do the same, so this measure is easy to scale. The footprint calculation shows all the big changes in the organisation's behavior, e.g. last year's renovation of the office increased the footprint. This year, the Covid-19 pandemic will decrease it.

Figure 4: STTK Carbon Footprint 2019



Data source: STTK

To support these positive developments, the STTK office implemented an inhouse project called 'Carbon-neutral STTK', which resulted in outlining a procedure of six measures in January 2020: 1) New website for carbon-neutral measures; 2) Calculation of the footprint of the office; 3) Training of staff and union members; 4) Responsible procurement (e.g. recycling of waste, responsible food, drinks, and materials, electricity of the building); 5) Decreasing travel during working time (e.g. remote working and meetings, supporting public transport, study on how to compensate for flights); 6) Supporting employees for smarter commuting (e.g. organising space for bikes, showers at work).

In 2019, the Trade Union Confederations organised joint climate change-related workshop-training and a seminar. This method of training received a lot of positive feedback and we plan to organise a follow-up seminar in autumn. The Confederations trained member unions in 2017 and 2018, with shared training materials.

03 EUROPEAN INSTRUMENTS

In many respects, Finland's goals and measures go beyond EU goals and measures (e.g. carbon neutrality by 2035), but Finland also has lessons to learn (e.g. waste recycling and phasing out peat). In general, Finland has a positive but not very active attitude towards proposals from the EU Commission. The exception is forest and land use policy and LULUCF in general, where Finland is very active. Also, Finland often takes the initiative in circular economy and digital issues.

The Finnish Government has not been actively pushing stronger positions of Just Transition with regards to e.g. EU Commission proposals under the Green Deal but do support Just Transition in general. Employment and skills in future carbon-neutral jobs have been raised as an important part of the impact of climate action, but targeted concrete proposals are missing.

Some administrators both in the EU Commission and in member states are not willing or able to recognise the trade unions as equal social dialogue partners or even as a stakeholder which should be always heard when energy and climate policy strategies are prepared, monitored and followed up. Unfortunately, Just Transition is often a foreign concept to many politicians and political advisors, while some actors give new interpretations to the concept departing from the original idea.

Just Transition mechanisms should be integrated into the different EU Commission communications (Green Deal, Circular Economy, Climate Law, Industry Policy Strategy, Just Transition Mechanism/ Fund) and in legislation on climate and energy policy issues such as in national energy and climate plans.

A problem in the whole Nordic region is the high level of consumption and our big carbon footprint. The EU should adopt the idea of the 'carbon handprint' and launch measures[2] for that (Pajula, T. er al. 2018). The carbon handprint is a good measurement of a climate-responsible export policy. As important as the carbon handprint is, it is not a substitute for climate measures that lower the carbon footprint.

[2] • Life cycle assessment, LCA: A methodology to quantify and assess the inputs, outputs and potential environmental impacts of a product system throughout its life cycle (ISO 14040; ISO 14067:2018).
• Footprint: An LCA-based metric that describes the potential negative environmental impacts of a product system. Limited to a specific environmental theme or impact category. For example, carbon footprint (climate change impacts) (ISO 14067) or water footprint (water-related impacts) (ISO 14046).
• Handprint: An LCA-based metric that describes the potential positive environmental impacts of a customer's (or customers') activities achieved by replacing a baseline solution with a handprint solution.

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SAK

SAK is a national confederation of affiliated trade unions that serves as a stakeholder and lobbying organisation, a movement for social reform, and part of the international trade union movement. SAK has 17 affiliates organising one million members in industry, transport and services, in the central and local government sectors, and in the journalism and cultural sectors.

STTK

STTK – Finnish Confederation of Professionals is a confederation of 13 affiliated trade unions which represents approximately 500,000 trained professionals in both the private and the public sector.

The Friedrich-Ebert-Stiftung

The Friedrich-Ebert-Stiftung (FES) was founded in 1925.It is the political foundation with the longest history in Germany. It has remained true to the legacy of its founder and namesake, and it upholds the values of social democracy: freedom, justice and solidarity. Its ideals are linked to the Social Democratic Party and free trade unions.

The FES promotes social democracy primarily through:

- political education work to strengthen civil society
- political consultancy work
- international collaboration with foreign offices in over 100 countries
- providing financial support for gifted students
- preserving the collective memory of social democracy with facilities including an archive and a library

NFS

The Council of Nordic Trade Unions (NFS) is a regional trade union council. Its affiliates are 15 national trade union confederations of the Nordic countries which together represent more than 8.5 million members from blue collar, white collar and academic sectors in Denmark, Finland, Iceland, Norway, Sweden, Greenland and the Faroe Islands.

Founded in 1972, the main task of NFS is to coordinate and foster regional trade union cooperation in the Nordic countries, particularly with regard to employment, economic and social policy and in relation to ETUC, ITUC, TUAC, ILO and PERC. NFS represents its members in relation to the Nordic Council and the Nordic Council of Ministers and has close ties with the Baltic Sea Trade Union Network (BASTUN).

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Abstract

The Trade Unions support the Finnish Government's ambitious climate policy aiming for carbon neutrality in 2035 and carbon negativity in 2050. To reach these goals, the trade unions must be more included in the preparation, implementation and monitoring of climate and energy policy strategies. Active participation of workers in planning the climate targets and measures on the sector and company level is crucial. As Just Transition measures, employment and further education and training are important elements in planning the transition to carbon neutral industry.