



**THE CITIZENS' ASSEMBLY**  
ON CLIMATE ISSUES

# The Citizens' Assembly's recommendations



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# Preface: The Citizens' Assembly

Dear politicians,

The fight for a sustainable climate is crucial to the well-being - and survival - of our generation and the generations to come. This is a fact that most of us have acknowledged by now, and you, our politicians, decided to listen to us ordinary citizens. People who are not experts on the subject, but who have viewpoints and feelings about this important issue; people who can help make a difference through our behaviour.

We were around 80 proud citizens who, in late summer 2020, took on our role as the first national Citizens' Assembly, responsible for providing input to the political process in the field of climate change. Statistics Denmark was behind the selection process to ensure that the composition of our assembly was as representative as possible of the people of Denmark. This meant that we were all strangers to one another prior to our work in the Citizens' Assembly and that no opinions had been agreed on in advance.

The process that the Citizens' Assembly was initially envisaged to go through entailed physical meetings with speakers and dialogue, but due to the national Covid-19 restrictions, the Danish Board of Technology - which has been responsible for the practical aspects of the process - was forced to revise its plans and arrange online meetings instead. The process has accordingly consisted of two online weekend events as well as a number of online evening meetings.

The events consisted of a combination of presentations by subject matter experts and group discussions. These resulted in a number of overarching themes, which were divided into sub-themes. Fixed theme groups were subsequently responsible for working on one or several sub-themes. We have provided our observations, assessments and recommendations on each sub-theme, based on presentations from 48 experts as well as our personal opinions and experience.

With a view to ensuring the quality and general backing of our submissions, we have reviewed and provided feedback on each other's submissions as well as enlisted a few anonymous experts to fact-check the contents. Finally, at the conclusive weekend gathering in mid-March, we voted on which of the submissions we wanted to present to you.

We are a Citizens' Assembly that is characterised by considerable diversity. We think and formulate ourselves differently. We have attached importance to preserving our individual distinctiveness, and we therefore hope that you can get a sense of the individuals behind the submissions as you review them.

Ultimately, the result of our efforts is that we can now present you with our assessments on a number of issues that we have deemed both important and urgent and which we have had sufficient time to shape into a submission we found worth presenting to you. Some of our recommendations are less exact and concrete than we ourselves could have wished for, but we would rather send you a signal now instead of waiting until a later point, such as autumn 2021. We still have much to discuss and many issues that the Citizens' Assembly must address or wrap up in the next round.

We believe that Denmark should be a global frontrunner. We are a prosperous nation that possesses the economic means and willingness to exercise responsibility and lead the way for other countries. Try to imagine "Denmark" as an internationally known leader on climate-friendly action and sustainability.

It starts with all of us. As politicians, you must therefore be prepared to take a number of courageous choices today.

We are thrilled to have been given this opportunity to share our thoughts with you, and we hope you will find them a worthwhile read.

*Warm regards,*

**The citizens of Denmark's first national Citizens' Assembly on Climate Issues**

# Preface: The Danish Board of Technology

The Citizens' Assembly Concept paper states that the Citizens' Assembly shall "be responsible for debating citizen-level dilemmas associated with the green transition as well as providing input and recommendations to the drafting of the climate action plans".

The Citizens' Assembly submitted the first input provided to the political process on the climate action plans in autumn 2020 in the form of a vote on a number of issues that were being debated at the political level at the time. The results were handed over to the Danish Parliament's Climate, Energy and Utilities Committee (CEU Committee) and the Minister for Climate, Energy and Utilities at an online seminar on 12 November 2020.

This report from the Citizens' Assembly is accordingly the second contribution to the political process.

After working together with the Citizens' Assembly for over half a year, it becomes clear that practically everything related to the climate transition has "citizen-level" implications. This transition impacts the society that citizens value and worry about, carrying implications on things that affect us directly; local communities, the life and future of our families, food production and nature, to name just a few examples. The green transition also impacts citizens at the individual level, as we must all make an effort and adapt our behaviour.

In practice, the Citizens' Assembly has defined "citizen-level" as the issues to which we have attached the highest priority over the course of our work. This prioritisation came about in part through a number of brainstorming sessions which identified problems, perspectives and potential solutions that the Citizens' Assembly deemed important to investigate further. Additionally, there was an editorial process in which sub-groups of the Citizens' Assembly used a consensus-based approach to draft a submission on a specific subject, based on the Citizens' Assembly's brainstorming sessions and the groups' own considerations and experiences. The final step of the prioritisation process took place at the Citizens' Assembly's gathering over a weekend in March 2021, where the members held a vote on all the submissions and the recommendations contained therein. Only submissions and recommendations that could muster a majority were included in this report to be passed on to the politicians.

About a third of the Citizens' Assembly's working hours have consisted of attending presentations and debates from 48 subject matter experts and stakeholders. They have received written information material prepared by the Danish Ministry of Climate, Energy and Utilities, with contributions from and scrutiny by an expert panel appointed by Universities Denmark. The subject matter expert presentations were recorded and are freely available to both the citizens and the general public should they wish to watch them. Many of the experts also provided supplementary written material that was uploaded to the Citizens' Assembly's online portal. Two experts with expertise from the central administration and performing calculations on energy systems have served as 'opponents' by commenting on the Citizens' Assembly's draft submissions. The two opponents were anonymous to ensure they were free to comment as they wished on the submissions. None of the involved experts have played a role in the drafting of the submissions of the Citizens' Assembly. These submissions are entirely the product of the Citizens' Assembly.

It remains clear, however, that the Citizens' Assembly does not believe it has completed its assignment. Many subjects have been postponed because they require a more thorough review than time allowed for. On some of the subjects, the Citizens' Assembly has decided to make a partial submission. These can amount to signals that are important for the Citizens' Assembly to pass on to the politicians, but which only include a few (if any) clear and detailed recommendations. These will be further fleshed out in a later submission from the Citizens' Assembly.

Our hope is that everyone who reads the Citizens' Assembly's report will consider the recommendations thoroughly and seek to incorporate them into their own policies and practices. Regardless of the fact that much remains to be done by a Danish Citizens' Assembly on climate issues, there are many debates and considerations behind the large amount of work that the assembly has already done and which is presented in this report. This report reflects what a small, randomly selected extract of the Danish population believes needs to happen upon being given the opportunity to - on an informed basis - provide their own input on Denmark's climate policies.

*The Danish Board of Technology's facilitators*

**Lars Klüver, Kathrine Colin Hagan, Nicklas Bang Bådum, Aske Palsberg, Bjørn Bedsted and others**

# Introduction

In the December 2019 *Agreement on the Climate Act*, it was decided that Denmark should establish its first national Citizens' Assembly on climate issues where the Danish public could make their voices heard in the planning of national climate policies. It was subsequently decided that the Citizens' Assembly would consist of 99 individuals selected by Statistics Denmark based on few simple criteria such as their age, geographic location, level of education and income. They were tasked with debating citizen-level dilemmas associated with the green transition as well as providing input and recommendations to the drafting of the climate action plans. Their work took place over a number of weekend and evening gatherings in 2020 and 2021, where relevant subject matter experts educated them on topics such as funding and taxes, agricultural land and resources, transport, technical facilities in/as part of the landscape and lifestyle and behaviour. Through a series of dialogues and debates, the members of the Citizens' Assembly subsequently prepared a list of recommendations to the Minister for Climate, Energy and Utilities as well as the Danish Parliament's Climate, Energy and Utilities Committee.

This report is a compilation of the Citizens' Assembly's recommendations but is also intended to give readers an overview of the Citizens' Assembly as a method, insight into how the Danish Citizens' Assembly has worked and an introduction to some of the members of the Citizens' Assembly. This publication does not reflect the attitudes or views of the Danish Ministry of Climate, Energy and Utilities. The Danish Board of Technology has prepared the outline of the Citizens' Assembly's formation, work and processes as well as the Citizens' Assembly as a method, while the members have prepared and adopted the recommendations. However, some parts have been proofread or simplified to make them more readable.

We hope you find this an interesting and useful read.

# The Citizens' Assembly as a method

The Citizens' Assembly - or *Borgerting* in Danish - consists of a number of methods where a collection of citizens are educated on a societal challenge and subsequently prepare and vote on recommendations on how to address it. Certain characteristics are recurring in this method area, and the Danish Citizens' Assembly on Climate has been planned within that framework:

- **The citizens have been found through a draw.** A random and representative draw is performed to select a large group of citizens who are invited to participate. Out of those who express interest in participating, a citizens' assembly that best reflects the country's demographic makeup is put together.
- **The Citizens' Assembly is of a certain size.** In practice, a citizens' assembly process can be carried out with the involvement of 25-150 citizens. Both in the EU and globally, ideas on citizens' assemblies with several thousand participants are being explored. In other words, there is considerable variation in terms of the number of participants.
- **Many long meetings are held.** Some citizens' assemblies have held up to eight full weekend meetings, but there are also examples of as few as a single weekend meeting with a number of evening meetings.
- **There must be a political mandate.** A citizen's assembly must be established by political decision-makers. They should also pledge to listen carefully to the citizens' assembly and consider their proposals in earnest.
- **The citizens' assembly's process must be transparent.** Transparency is often ensured through websites, where the process is reported on and expert statements, results, etc. are published. Often, evaluations and follow-up research are conducted on the assemblies.
- **An arm's length principle must guide the facilitation of the citizens' assembly.** There must be an independent 'third party' working directly with the citizens' assembly to ensure that there is no political interference in its work and deliberations.
- **The citizens' assembly must be well-informed.** Often, the assembly receives information material that has been quality assured in advance by being subjected to review by experts. In addition, the citizens' assembly often entails a large number of oral presentations from experts and stakeholders.
- **The citizens' assembly works through dialogue.** A citizens' assembly's work can be carried out both through alternating plenary sessions and group work. As a general rule, citizens' assemblies are gathered in plenary sessions during presentations, debates on the process and at their conclusion. The preparation of recommendations and feedback mostly takes place in small groups.
- **The content is prioritised and drafted by the citizens themselves.** There are major differences between various citizens' assemblies in terms of how much freedom the citizens have to decide which themes they wish to work on. Sometimes, they are given a sharply defined theme, such as *abortion legislation* in Ireland. Other times, the theme is very broad, such as the *climate transition* in Ireland, the UK and Denmark. Yet regardless of how strict the delineation is, it is the citizens who decide on their own what they wish to write about and what conclusions to make. It is also the citizens' assembly's sub-groups that work together to compose submissions that ultimately come to a vote.
- **Usually, a citizens' assembly is a method that entails physical meetings.** However, during the Covid-19 pandemic, this method - as with other forms of citizen participation - has transitioned online.

## The Danish Citizens' Assembly on Climate Issues

It was decided that the Danish Citizens' Assembly on Climate Issues should consist of 99 citizens selected by Statistics Denmark based on a set of simple criteria such as age, gender, geographic location, level of education and income. The Danish Ministry of Climate, Energy and Utilities is the coordinating secretariat for the Citizens' Assembly. In order to ensure integrity and transparency in accordance with the OECD's principles for citizen participation, three guarantors were established:

- An expert panel of 4-6 experts to ensure quality and balance of expertise in themes, information material and questions to the Citizens' Assembly.
- An expert on citizens' assemblies and citizen participation who could provide guidance to ensure that each step of the method is carried out to a high standard in detail.
- An external overall facilitator for the Citizens' Assembly's gatherings.

The Danish Board of Technology was chosen as the independent overall facilitator and has been responsible for creating the agenda for the gatherings and managing the gatherings as well as the production of the Citizen Assembly's results. As the process unfolded, the planning was discussed with the expert panel and citizen participation expert (appointed by Universities Denmark) as well as a planning group consisting of five members from the Citizens' Assembly, one representative from the Ministry of Climate, Energy and Utilities and one representative from the Danish Board of Technology.

The Citizens' Assembly was originally planned to meet over three weekends in 2020. Due to the emergence of the Covid-19 pandemic, however, the decision was made to start up the Citizens' Assembly via online meetings in October 2020 with a goal to be able to submit their recommendations in spring 2021. The figure to the right outlines the process.

During the first weekend gathering, the Citizens' Assembly listened to presentations ranging from 5-15 minutes from a total of 18 experts. Subsequently, the citizens brainstormed subjects, points and recommendations that they wished to continue working on. The weekend concluded with a vote on a number of politically relevant proposals from the debate and experts that had been invited.

At the meeting with the CEU Committee and Minister for Climate, Energy and Utilities on 12 November, the results of the vote were presented and debated between 10 randomly selected citizens from the Citizens' Assembly.





The first 4 *evening gatherings* marked in green were thematic gatherings with expert presentations from 3-4 experts on the theme. The citizens formulated observations, assessments or recommendations that they believed the Citizens' Assembly's theme groups should continue working on.

These theme groups were composed through a draw in the Citizens' Assembly. Each group had a single meeting about their theme which included a couple of expert presentations or a debate panel, and where their chief task was to prepare a draft for the final recommendations from the Citizens' Assembly. These were written by sub-groups of 2-4 people.

The objective of the two *evening gatherings in February* were to complete the drafts. At the first gathering, the sub-groups were put together to comment on and suggest improvements to each other's drafts. Before the second gathering in February 2021, the Danish Board of Technology and two external critics also commented on the drafts. Based on all the feedback, the sub-groups prepared their final draft during the final weekend gathering.

The weekend in March was used to discuss and adopt all the assessments through voting in the Citizens' Assembly.

At the meeting with the CEU Committee and the minister on 29 April, the entire Citizens' Assembly will present the results of their work to the committee and minister.

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**The Danish process has in several ways been designed for prevailing circumstances in Denmark at the time:**

- The meetings were held online due to the development of the Covid-19 situation.
- Flexible planning. The fact that it had become an online process made it possible to arrange small extra meetings in the sub-groups when needed.
- Not restricted to weekends. Their work could be split into less arduous bits as the meetings were held online. A number of 3-hour evening gatherings were held, which created a good flow in the spring meetings.
- Self-facilitating groups. Danes are used to working in teams at work and in their recreational associations. Aside from the first weekend and during the voting of the concluding weekend, the members of the Citizens' Assembly have to a very large extent managed their own group work.
- Full texts - not just recommendations. Most citizens' assemblies only provide recommendations, i.e. statements no longer than 2-3 lines. The Danish Citizens' Assembly also explains the challenges they have taken note of as well as their view of the situation. The members' deliberations were included because Danish policy in this area is an active process, and if one wishes to have influence on it, it is important to make sure you have been understood.
- Results on a running basis. Because the Danish Climate Act entails the constant passing of new climate policies, the choice was made to submit results of the Citizens' Assembly's work on a running basis. The Danish model should accordingly be viewed as a continuous process which regularly provides new fuel for political debate.

# Members of the Citizens' Assembly

It was decided that the Danish Citizens' Assembly on Climate Issues should consist of 99 citizens selected by Statistics Denmark based on a set of simple criteria such as age, gender, geographic location, level of education and income. Statistics Denmark carried out the selection of its members through a two-step process: 1) An extract of a simple random sample of 5,000 people from the current adult population of Denmark, all of which were invited to express interest in participating in the Citizens' Assembly. 2) The selection process itself, where Statistics Denmark took a stratified sample of 99 persons and 99 alternates (among those who had expressed interest) who reflect the Danish population as representatively as possible.



## Meet 5 members



Louise, 26 years old, Aarhus, psychologist

*"Before I was invited to join the Citizens' Assembly, I was something of a pessimist; I thought there was no way of making the 70% target, that it was unrealistic. But now I've learned that it's possible, which is really uplifting. I hope we can find a good way to reach that goal."*



Sebastian, 49 years old, Nyrup, proofreader/IT support worker/knitter

*"It's been interesting and hard at the same time; hard in terms of how much we had to learn, as these are important issues that we need to address properly, but also in light of the fact that many of us are not used to online meetings. We have been unable to have quick chats over a cup of coffee, lunch or dinner and discuss things in other ways that you cannot when it all takes place online. But it has worked amazingly well. I think all of us are amazed at how well it has worked despite being online."*



Mads, 29 years old, Østervrå, auto instructor

*"I feel that I am able to contribute with a voice from one of Denmark's peripheral regions. I also have some specialist knowledge on cars and the electrification of our society, the transport sector and all that stuff. I'm knowledgeable about some things that others may not be."*



Hans Christian, 71 years old, Frederiksværk, retired researcher

*"I believe it's important for everyone to be heard, as everyone can provide different perspectives on how their everyday lives will be affected. After all, there's no point in offering a bunch of solutions that people can't live with. So, it's about the combination of what's technologically possible, what that technology requires and how it will work; will it work? That's very important."*



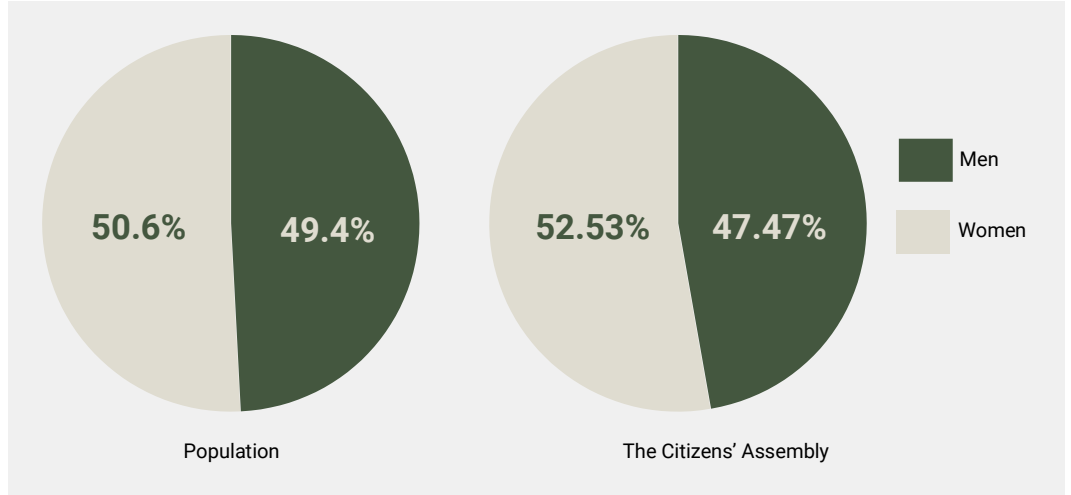
Freja, 21 years old, Skårup, student

*"I'm a part of the young generation, and this gives us a chance to address the politicians directly. And we're willing to compromise rather than just get agitated and demand change NOW; to have a dialogue about it and talk things through to ensure we do it right."*

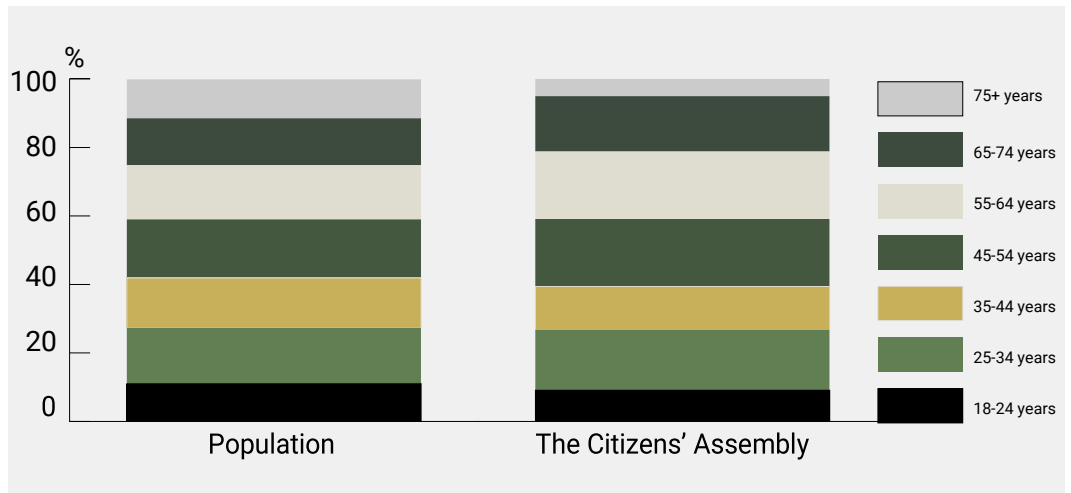
**Demographic data on the members**

- Population = everyone in Denmark over the age of 18
- The Citizens' Assembly = 99 members + 99 deputies

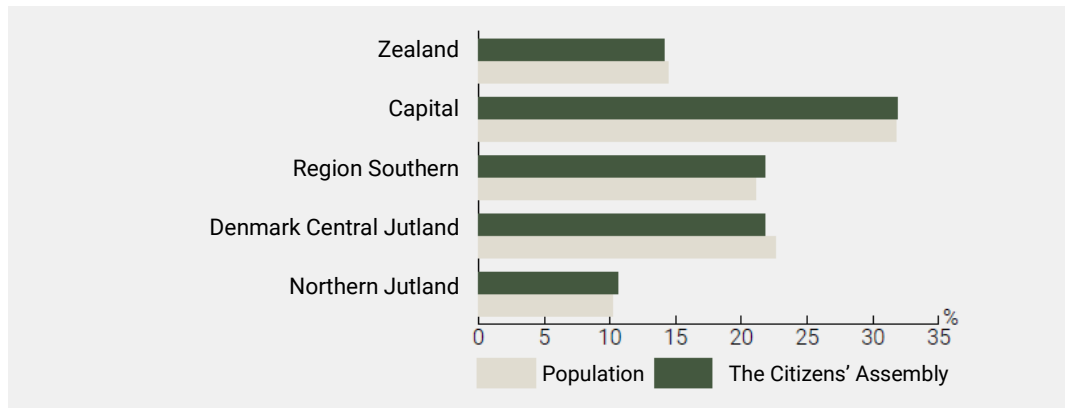
**Gender**



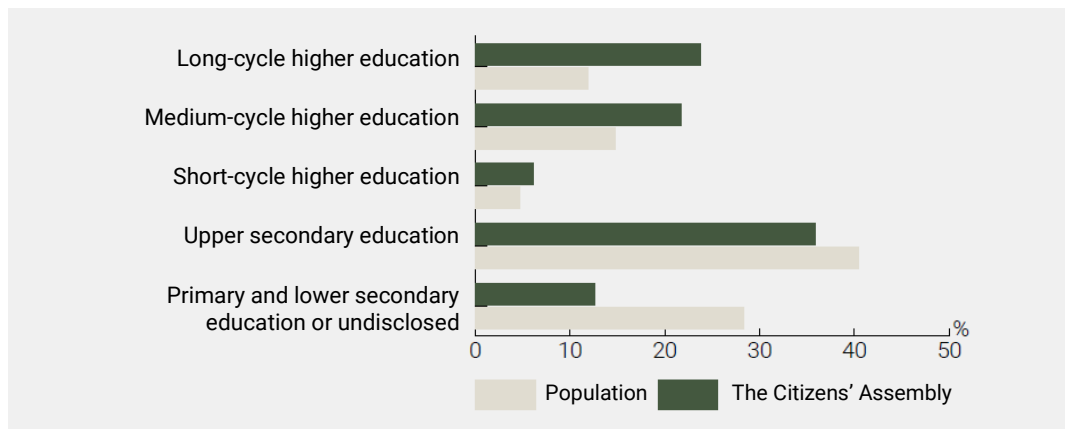
**Age**



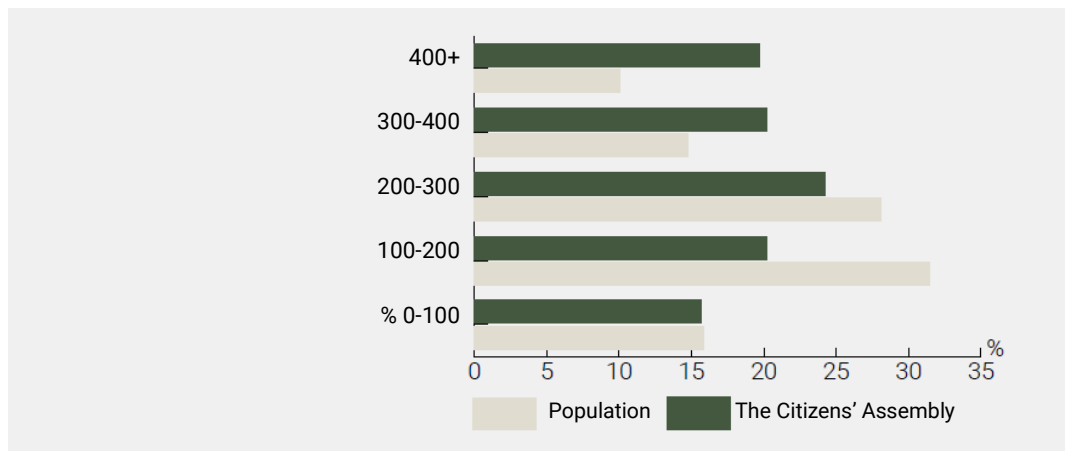
**Geography**



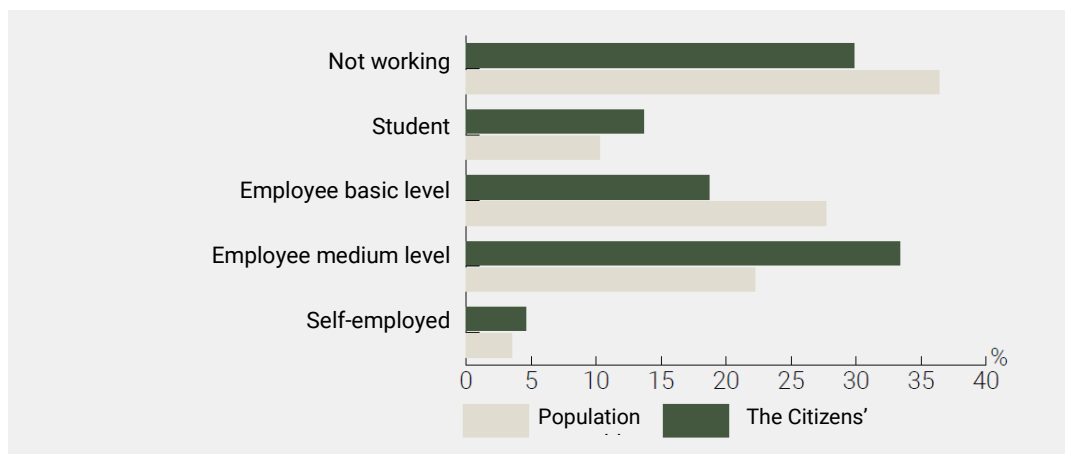
**Education level**



**Disposable income (DKK 1,000)**



**Socioeconomic status**



# The Citizens' Assembly's recommendations

The Citizens' Assembly has prepared 19 subject-specific submissions with a total of 119 recommendations falling under the subjects of popular education, participation and behaviour, funding and levies, agriculture, land and resources, transport and technical facilities in/as part of the landscape. These recommendations consist of an introduction with relevant observations, a section on the Citizens' Assembly's assessment of the challenges related to the subject and finally, the actual recommendations. This format was chosen to ensure that the reader would understand the Citizens' Assembly's considerations behind the recommendations. The Citizens' Assembly spent its last weekend voting on all the subject submissions and on all the recommendations under each subject. The voting question was formulated as ***"Should this submission/recommendation be passed on to the politicians this spring in 2021?"*** The interpretation of the Yes votes is accordingly unambiguous; a Yes vote means that the member agrees with the submission/recommendation and that it is ready to be passed on to the politicians. The interpretation of the No votes is more complicated, as a No vote can be attributed to disagreement or that the member does not believe that the submission/recommendation has been worked on sufficiently. Accordingly, we recommend interpreting the votes as "at least x% agree with this submission/recommendation".

# Recommendations on popular education, behaviour and participation



## 1. Political action

There is little progress being made in relation to what the experts say needs to be done, particularly in relation to how beneficial certain measures could be. For example, the 70% target does not include citizens' consumption and behaviour.

Too much consideration is given to stakeholders and large organisations in relation to what is needed to achieve the targets of the 2030 plan (and 2050 plan). Everyone must accept the necessity of making certain sacrifices to achieve the target. The politicians are taking too little responsibility and attaching too much importance to votes and popularity instead of taking the action that is necessary.

At present, it feels insurmountable for individual people and companies to live and operate sustainably. There is a sense that doing so will require making sacrifices. Politicians have a responsibility to make climate-friendly choices easier, e.g. by educating the population on sustainability from as early as the childhood years.

Possible instruments to maintain this political direction could be a green constitutional reform, as seen in neighbouring countries in Europe, or a project management system that is not elected every four years and which continuously progresses on agreements that have been made.

### Assessments

The Citizens' Assembly is in doubt as to whether Denmark can meet its politically established climate objectives.

However, the COVID-19 pandemic has demonstrated that when a crisis calls for it, politicians are willing to take action. It has also shown that people are willing to adapt and endure deprivation in the face of a crisis.

It is important to ensure that climate-related measures are as straightforward as possible to implement (e.g. in relation to administrative barriers, etc.).

We need positive stories/framings of the scientific solutions to climate issues and the benefits of living more sustainably (behavioural changes); the green transition should become part of our national identity and image. We must build a society that we want to live in, and we need to be equipped with the necessary knowledge to make the right decisions. Our politicians have a shared responsibility to advocate on behalf of the climate transition and invest in the education and the Danish public and the ability of Danes to take personal action.

Citizens and companies need help learning about sustainability (which takes time) through change processes and nudging. We need to obtain new skills. The politicians are responsible for making it easier for citizens and companies to change their behaviour and habits towards more climate-friendly decisions.

The Citizens' Assembly has listened to experts who have proposed a political frame of reference in the form of a "green constitution" that commits politicians to take action on sustainability and climate change and thereby helps ensure that those who control the reins of power have less control over the green transition. However, we are undecided on whether this will actually lead to more green policies or merely 'political pseudo-work' that take up a lot of resources.

There is a very difficult dilemma embedded in the fact that Denmark has a number of clear objectives related to climate change, but its likelihood of achieving them depends on which way the political environment changes after each election. In other words, there is a dilemma in the dichotomy between maintaining an effective transition and maintaining democracy.

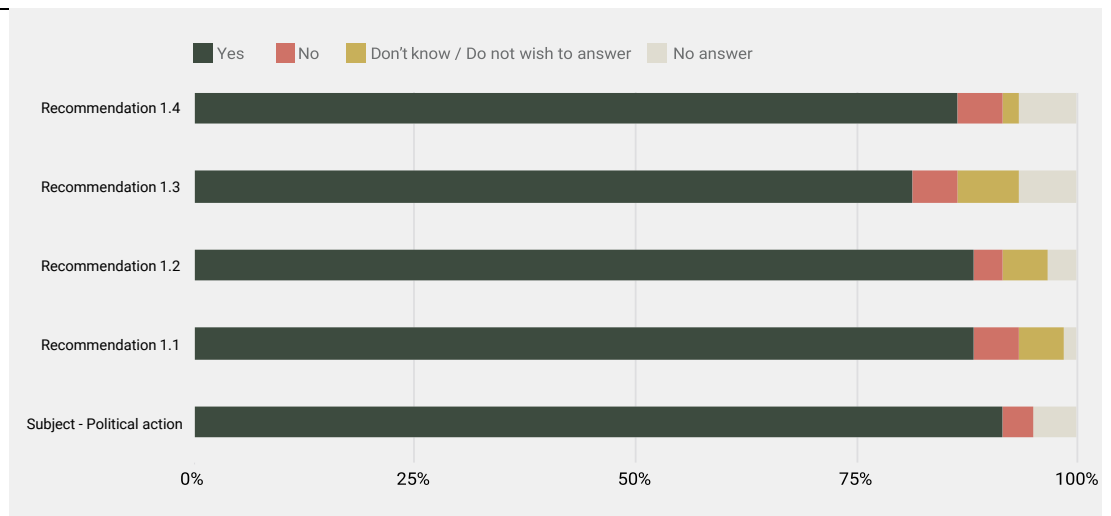
### Recommendations

- 1.1 We recommend that politicians be more proactive and bold, even if it comes at the expense of votes. There is a need to listen more to the experts - especially impartial experts - and push harder to implement the measures and policies that are necessary. We need action NOW! It is more important to listen to the experts - such as the Danish Climate Council - than laymen (which therefore technically includes the Citizens' Assembly).



- 1.2 It is important to get many minor initiatives underway (many small streams...), covering companies, citizens and other sectors, as less effort would therefore be involved for each initiative. Politicians should keep their eyes open for opportunities to promote and support good local initiatives, e.g. by removing obstacles in rules and administrative procedures.
- 1.3 There should be a public debate on the possibilities that a green constitution could lead to. This debate could draw upon experiences from other countries where the political responsibility for the environment, nature and climate has been enshrined in their constitutional framework and whether this has proved beneficial.
- 1.4 The Citizens' Assembly believes that the climate objectives must be achieved, but we are concerned about whether they can be achieved due to policies that shift from one government to the next. Our appeal is accordingly for broad and effective political agreements that can be upheld even after elections.

## Voting results



## 2. Citizen participation and popular education

Citizens have considerable influence on the climate through their choices, but they do not always have adequate knowledge to make climate-friendly decisions. At the same time, it can be difficult to accept an imposed change in behaviour if the causal connection is unclear or if people do not understand how influential their climate footprint can be. When it comes to personal 'harm' (financial or conscientiously), are we as individuals ready to set aside our personal needs and wants for the big picture?

Expert knowledge helps inform the choices of politicians and citizens. However, are we actually exposed to factual data when so much expert knowledge comes from interest groups and other actors that have their own special interests and agendas in relation to proposed solutions?

It can be a hindrance if the local population feels that initiatives are being imposed upon them without having been heard or getting any insight into why a given decision was made.

In Denmark, we have a set of laws that support popular education. For example, this includes the Danish Act on Non-Formal Adult Education, Danish Access to Public Administrative Documents Act, Danish Act on Media Subsidies, Danish Library Act and Danish Act on the Danish Arts Foundation's Activities.

For public libraries, the purpose is to promote the spread of information, education and cultural activities by making various materials available, such as books, journals and electronic information resources (including the Internet and multimedia).

### Assessments

The Citizens' Assembly believes that citizens are generally prepared to adapt their lifestyles if they have been given the opportunity to be informed and heard. If the green transition is to succeed, broad popular support is crucial.

If such popular support does not materialise, we face the risk that the green transition will encounter resistance based on falsehoods, conspiracy theories and covert political motives. Accordingly, there is a need for a focused, nationwide popular education initiative as well as citizen participation that is based on factual knowledge and which includes dialogue with all the different parties affected by climate change and climate action.

We need to engage citizens so that they can help accelerate change rather than slow it down. It should not be so much about development, but rather here-and-now initiatives as well as how we can make a difference in our local communities. However, the Citizens' Assembly believes that it is essential for local initiatives to be harmonised with national objectives. Similarly, at the national level, politicians should work to ensure that both technological development and the national socioeconomic model helps facilitate the green transition.

As we proceed as a country to implement different measures over the course of the green transition, it is crucial that the public remains informed of the positive as well as negative (partial) results of such measures so that they can be adjusted along the way and thereby remain credible.

We must keep in mind that citizens need help learning about sustainability (which takes time), change processes and nudging. We all need to obtain new skills. We ought to share relevant knowledge as the foundation for shaping the attitudes of the public. If the dialogue/conversation and educational efforts are sufficiently effective, it will also result in citizens making the best climate-friendly choices, which is why citizen participation is so crucial.

Popular education efforts can entail a wide range of media such as nationwide and local radio, TV stations, newspaper dailies, social media and Denmark's public libraries. It can also be provided via municipal institutions, NGOs, awareness-raising associations, utility companies, primary and lower secondary schools and youth education. Housing associations, sports associations, museums, theatres and cultural associations can also get involved.

## Recommendations

In order to support and get started with citizen participation, the Citizens' Assembly recommends the following:

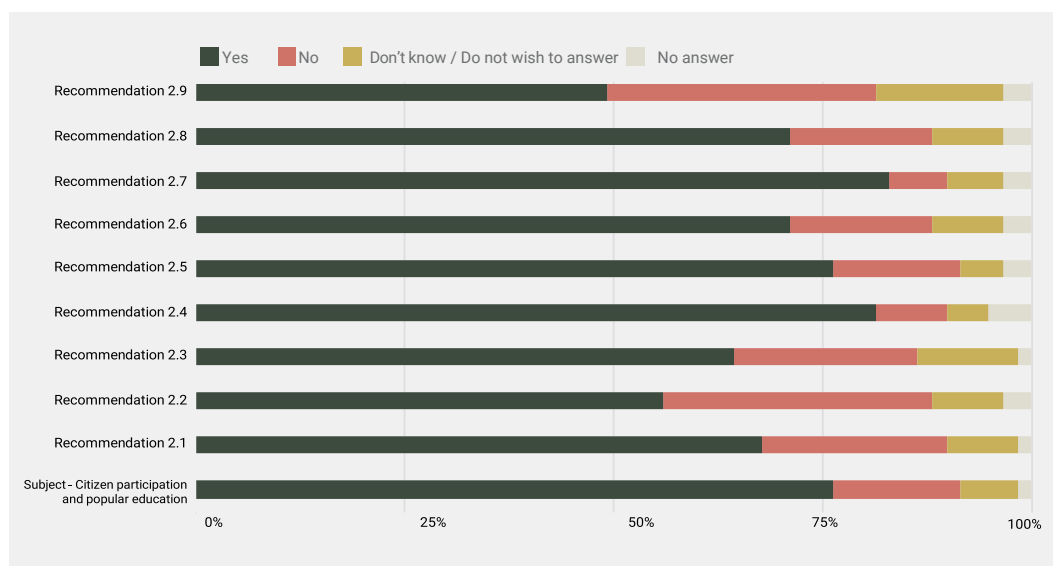
- 2.1 The establishment of a permanent Citizens' Assembly as part of the Danish Council on Climate Change.
- 2.2 Local citizens' assemblies on climate issues in each of the country's municipalities, with a view to supporting local agendas and debates. This will build a framework that allows those citizens who want to get engaged to make their voices heard and thereby get the best climate councils that live in the local communities they draft proposals for.
- 2.3 Climate objectives at the municipal level with citizen participation on how to achieve those objectives.

The Citizens' Assembly recommends the following to support popular education:

- 2.4 In general, the Citizens' Assembly recommends that the Government should ensure sound communication to and with the population. This communication should be simple and straightforward so that everyone understands what kind of behavioural changes are necessary, how these changes will be implemented and why they are needed.
- 2.5 The Citizens' Assembly recommends a greater degree of climate education in primary and lower secondary education (folkeskolen) and youth educational programmes as a general and mandatory part of early education curricula. There should be more education on climate-friendly diets in the subject home economics. Climate education should also cover in depth why it is so difficult for societies and the international community to tackle the climate crisis in relation to other crises, i.e. not primarily about the scientific aspects of the climate crisis.
- 2.6 There is a need for various awareness-raising campaigns such as: Awareness-raising radio and TV programmes, debate programmes, funding for educational material, funding for film, theatre, visual arts, non-fiction, presentations, festivals, news broadcasting and an organ that poses questions.

- 2.7 Information about the calculation basis and full transparency on what our total emissions are and how we can reduce them based on scientific evidence. This could include information on the CO<sub>2</sub> that is not included in our Danish emissions because some imported goods are produced abroad (such as soy-based animal feed from rainforest land in South America, which is used as feed in many conventional pig farms in Denmark).
- 2.8 The calculation basis should be fully synchronised and include all factors. In the long-term, it could be used for standardised labelling of packaging, groceries, etc.
- 2.9 Public libraries should take an active role in popular education and enter into collaborations with local media on local debates and news broadcasting. The efforts of public libraries should also be linked to efforts that support citizen-led initiatives and/or participation in specific sustainable adaptation issues, as concrete action can help make sense of the otherwise fairly abstract issues relating to climate and sustainability.

## Voting results



## 3. Behavioural changes with a focus on material consumption

Behavioural changes can occur partly through taxes and levies and partly through popular education. An example of a behavioural change as a consequence of levies is that many consumers have replaced incandescent bulbs with energy-saving bulbs due to levies on electricity.

Material consumption goods are largely produced abroad. The climate impact from this is therefore absent from reports on emissions from Danish consumption. The biggest impacts in terms of carbon footprint for individual citizens can be found in their food consumption, transport and construction/housing.

Most calculation models with a climate footprint reduction solely examine the CO<sub>2</sub>e footprint of national economic aspects and do not include the significance of consumer behavioural changes.

### Assessments

There is a need to regulate consumer behaviour through taxes and levies. Additionally, there is a need to include the significance of a change in consumer behaviour in the calculation models for CO<sub>2</sub> emissions.

Taxes and levies should be implemented in a balanced manner to avoid being socially imbalanced.

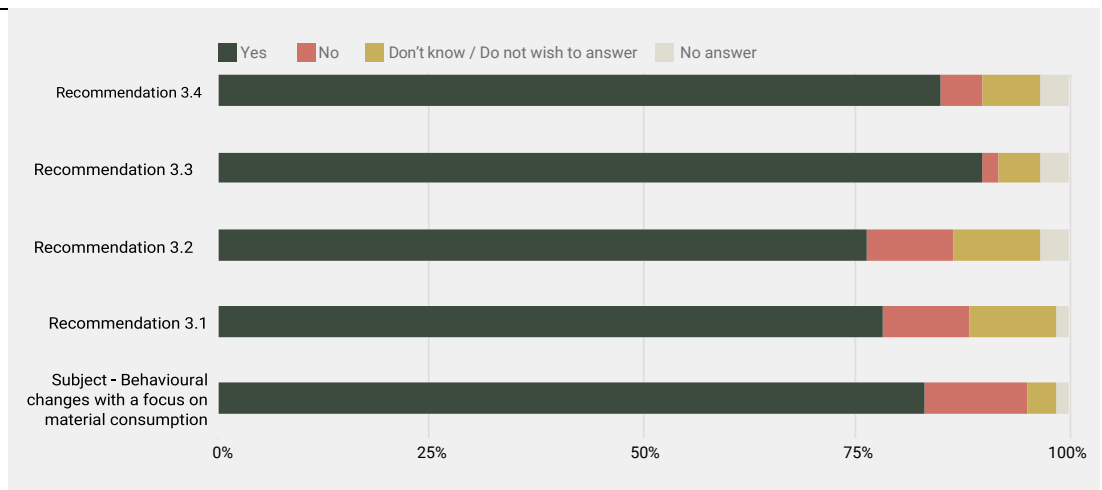
Changing consumer behaviour is difficult and will take time, but it is possible!

Popular education and exemplification should be regarded and function in connection with a change in green levies.

## Recommendations

- 3.1 Our national accounts should be measured on factors other than solely economics: Life quality (social groups, good health, a sense that one is making a difference, freedom), longevity, sustainability, natural resources. Statistics Denmark has already developed and calculated a green GDP model, welfare goals and resource consumption. The Government should accordingly publish an annual status report on these factors in connection with the publishing of the finance act with a view to increasing awareness of and providing an incentive for positive development.
- 3.2 The results from the annual status report can be used to initiate targeted information campaigns with positive messages as a way to change consumer ideals.
- 3.3 Consumers need to have the tools to be able to see where they can reduce their carbon footprint.
- 3.4 Provide discounts for appropriate consumer behaviour, similar to the low electricity fees consumers benefit from when using electricity at night.

## Voting results



## 4. Climate declaration

It can be difficult to determine whether a product you have purchased has a lower or greater climate footprint. For example, is it better for the climate to buy organic products or non-organic ones? And what does it really mean when a producer marks their products as 'sustainable'? It can be difficult for individual citizens to determine the most impactful things they can do on their own for the climate. Consumers lack knowledge about how much transport has been associated with an individual product and the conditions of its production (especially in relation to textile goods). It is rarely stated how large a part of a product consists of recyclable material and how much of the given product can be recycled after use.

### Assessments

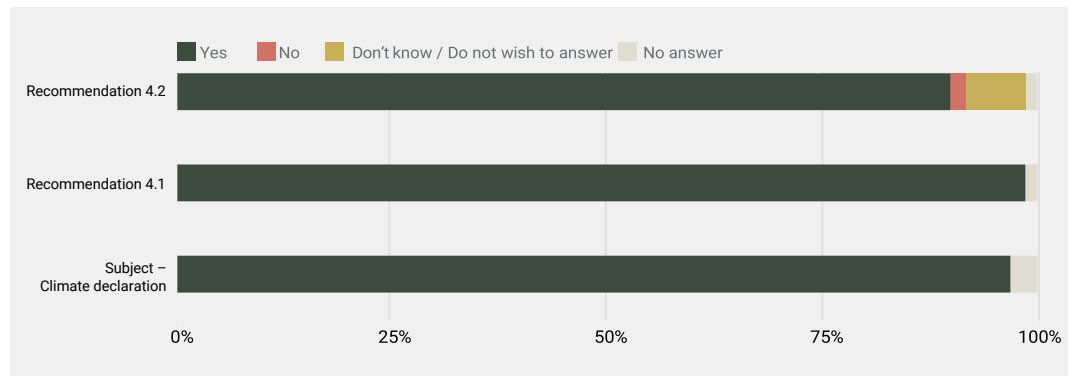
A standardised labelling of consumer goods could give people the required prerequisites/knowledge to make appropriate choices in relation to climate impact. Energy labelling is already used for white goods and homes, for instance. The labelling should be simple and easy to understand without compromising on accuracy.

As consumers change their consumption habits, the agricultural sector will begin to produce the goods that are in demand and profitable. The EU's agriculture subsidies are also considered to have a major impact on food production and consumption as well as consumer behaviour related to that.

## Recommendations

- 4.1 Establish a joint climate declaration with associated labelling (starting nationally and expanding to the EU/global level) which - just as the nutrition labelling indicates nutritional content - indicates how much a given product impacts the environment and climate. For example, this could be in relation to how much CO<sub>2</sub> was emitted in connection with the production of t-shirts from Portugal or China, minced meat from Denmark or Poland or cucumbers from Spain.
- 4.2 This declaration should be followed up with an awareness-raising and information campaign targeting consumers, e.g. in the form of raising awareness among young people in schools, which could lead to behavioural changes.

### Voting results



# Recommendations on funding and levies



## 5. Long-term investments from state and pension companies

An objective in the Danish Climate Act is for technological solutions and services developed by Denmark with the purpose of achieving the CO<sub>2</sub>e-neutrality goal by 2050 to also have a commercial purpose that will boost the country's economy and create jobs.

Levies can promote investments in climate-friendly technology to reduce the costs of industrial enterprises and households. However, levies will not incentivise the development of new technology in Denmark more than in other countries. Other instruments are needed if we are to make investors see the commercial and individual benefits of producing new technology in Denmark.

There appears to be good opportunities for the Danish pension funds to enter into a collaboration based on the green transition, including through creating new companies. However, pension funds are obligated to pursue low-risk opportunities.

### Assessments

The Citizens' Assembly agrees that it would be appropriate for the country as a whole to have a commercial focus during this transition. However, in order for that to succeed, a long-term investment strategy will be needed for those solutions that cannot push ahead without assistance from large institutional investors and the Danish state.

There will be initiatives and developments that could be driven forward by private companies with a commercial focus, leading to a positive contribution to the transition to a carbon-neutral society.

But there will also be investments and initiatives that will only become commercially interesting for investors once the development has progressed past the riskiest phase. These can be funded by the state with a view to creating commercial earnings in the future; energy islands and the development of biorefineries may be examples of such, for instance.

There will also be initiatives with no apparent commercial prospects but which require funding or support from the state before they can be realised, such as the development of solutions for the agricultural sector.

The Citizens' Assembly approves of the fact that pension companies have demonstrated a willingness to support the green transition. Pension companies are in a unique position to make long-term investments that are highly relevant in terms of the green transition. If the return is otherwise acceptable in terms of the pension contributors' returns, we believe that the pension companies face undesirable barriers to their efforts if they are subject to strict low-risk requirements.

Areas of development in which pension companies are prohibited from investing must instead be driven forward by the state. The results - in the form of new technologies, services and companies - could potentially be taken over by private companies and continue to be operated for commercial purposes in time. However, other investments will be necessary even if they have no commercial prospects simply for the sake of the climate and to achieve the climate goals.

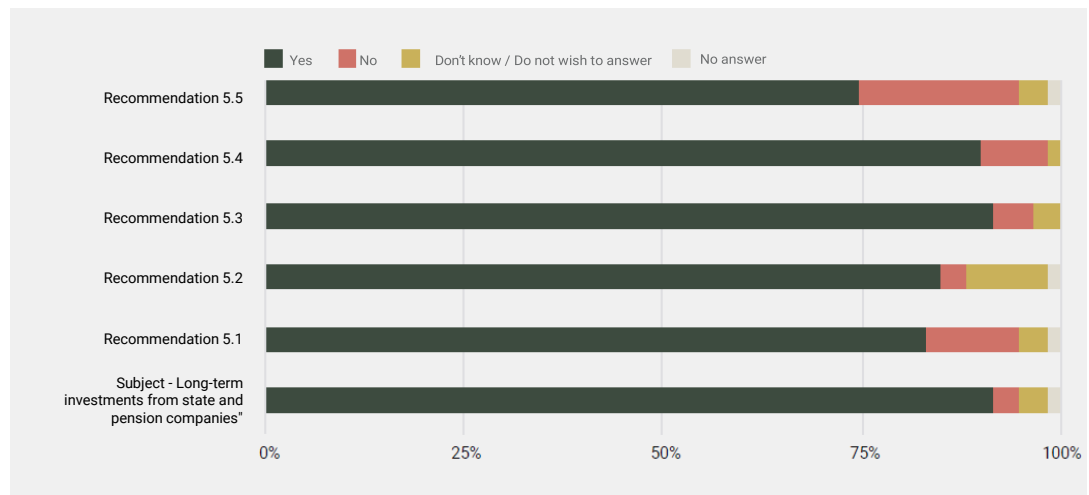
### Recommendations

- 5.1 The Citizens' Assembly believes that the Danish state and pension companies should take responsibility for investments that are necessary yet not driven by market forces. The state/public sector should invest in commercial initiatives as well as provide support for new climate solutions.
- 5.2 The state's investments should not be limited to the proceeds of a carbon tax, but the proceeds of such a tax should be included in the investments.
- 5.3 The state's investments should focus on areas that offer considerable potential for the climate transition, such as transport and the development of solutions for the agricultural sector, which are two areas where major progress can be achieved by developing and implementing

new solutions. This should not be seen as being in conflict with also supporting/investing in solutions with commercial prospects and which will make Denmark wealthier, e.g. through exporting the solutions; one should not exclude the other.

- 5.4 The Citizens' Assembly recommends that pension companies should invest in the green transition. They should have a clear target for how large a share of their funds should be deployed towards green investments.
- 5.5 Pension companies should be allowed to make higher-risk investments when it comes to green investments. The risk level requirements for that type of investments should be reassessed and perhaps eased.

## Voting results



## 6. Carbon tax, social balance and citizen participation

Experts believe that Denmark's climate goals are achievable. Denmark can become a wealthier country if we take the right approach to the 70% reduction target, researchers have told us.

Many researchers point to carbon taxes being a good solution. At the same time, they point out that a reform of the current energy tax system would be required in combination with the introduction of a carbon tax scheme. By carbon tax, we mean a tax levied on greenhouse gas emissions.

The Citizens' Assembly has learned that in order to achieve the desired positive effect of taxes, they often need to be supplemented with deductions, elimination/amendments to other taxes or other means to achieve a socially balanced model that spares the most disadvantaged citizens while also protecting businesses in Denmark.

The current energy levy systems burden low-income groups more than a hypothetical flat carbon tax.

A climate levy would serve as an incentive for behavioural change, not just among consumers, but also companies and organisations. Consumers are seemingly in favour of a carbon tax, but many are uncertain about the financial impact of such a tax.

### Assessments

The Citizens' Assembly has determined that a carbon tax should be introduced as soon as possible to achieve the climate goals.

In the preparation of a carbon tax system, it is especially important to ensure that it will remain attractive for companies to remain in Denmark and that it will not result in social inequality. Additionally, it is important for the state to take responsibility for not creating carbon leakage. Accordingly, the Citizens' Assembly has determined that in addition to national initiatives, the Government should also take action at the international level, especially within the EU in terms of developing and introducing a carbon tax system.



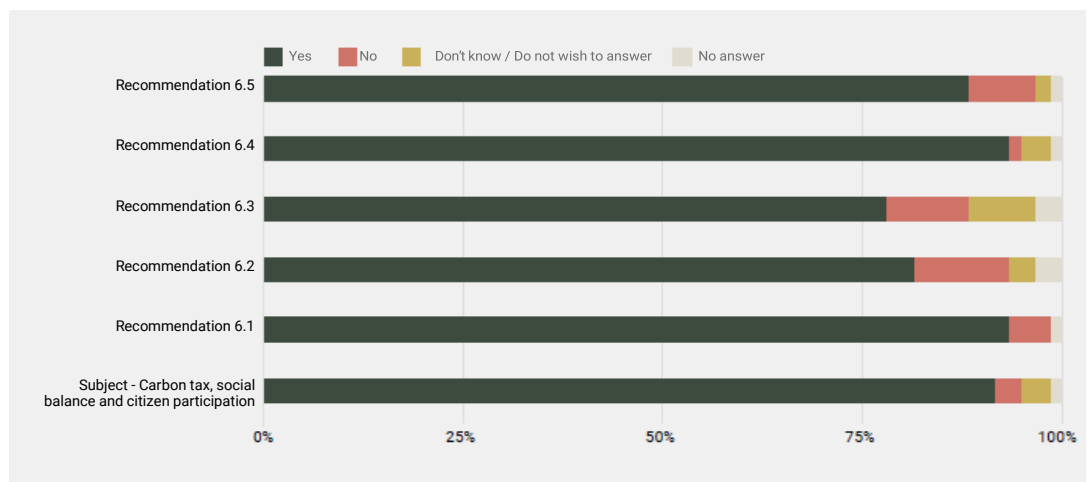
The expectations for private citizens remain unclear, and their understanding of the consequences of the climate transition is similarly vague; the average private citizen does not have a clear idea of what distortions the climate-related interventions will create in society. There is a lack of information and a single 'green thread' that allows citizens to understand the situation. Providing that would also motivate and nudge people towards contributing to the green transition.

The Citizens' Assembly has determined that private individuals are unaware of the implications of the proposed transition, making it difficult to support new proposals. There is a need to visualise the impact at the individual level by setting up realistic scenarios that allow the individual and their households to understand how they will be affected. Accordingly, the Citizens' Assembly has determined that there should be a focus on popular education and citizen participation if Denmark is to achieve its climate goals.

## Recommendations

- 6.1 The Citizens' Assembly strongly recommends the introduction of a carbon tax at the national level as soon as possible with a view to reaching our climate goals for 2030 and 2050. The carbon tax system should be primarily based on taxes levied at the production stage at the source of the emissions.
- 6.2 The Citizens' Assembly recommends that the Danish Parliament works to ensure social balance in the development and implementation of a carbon tax. It should be an objective to ensure that the most disadvantaged in society will not end up having to pay more in taxes than they already do. Accordingly, the new taxes must be counterbalanced by reductions or eliminations of present costs that do not benefit the green transition.
- 6.3 The Citizens' Assembly recommends that the Danish Parliament ensures effective communication with a 'green thread' vis-à-vis citizens and companies in the development and implementation of a carbon tax. We recommend that the Government ensures citizen participation, co-responsibility and an ongoing debate so that citizens of every strata in society are included in the carbon tax debate.
- 6.4 The Danish Parliament should inform citizens about what is needed to achieve the climate goals, why it works and who should do it. Communication, education and a pedagogical approach and explanation is important to ensure popular support. The effect that a carbon tax will have on the green transition in relation to private individuals and companies should be clarified.
- 6.5 If the green transition is to succeed, broad popular support is crucial. Civic engagement should be facilitated to cover all of Denmark and organised in such a way that it creates an opportunity for ongoing dialogue between experts, politicians and citizens.

## Voting results



## 7. Carbon tax: Contribution to a green tax reform

These observations are similar to the section in "Carbon tax, social balance and citizen participation", to which we also refer:

- The climate goals and a 70% reduction in CO<sub>2</sub>e emissions are achievable.
- Denmark will become wealthier if we take the correct approach to achieving the 70% reduction target.
- The current energy tax systems burden low-income groups more than a hypothetical flat carbon tax would.
- Many researchers point to carbon taxes being a good solution, but this would require a reform of the energy tax system in connection with the introduction of a climate/carbon tax.

### Assessments

Researchers have pointed out that we lack an overall assessment of the effect of a carbon tax on Denmark's tax system.

We have determined that there is a need to update the current tax system for a transitional period. Until the new carbon tax is fully rolled out, there must be a continuing focus on updating existing systems and fixing inappropriate tax systems.

We believe that a carbon tax would not be an expense in the long run, as Denmark will eventually become wealthier due to the effect of a carbon tax. The Citizens' Assembly considers it a matter of importance that the Government should avoid focusing on short-term economic costs and instead take a long-term focus and across many parameters, as efforts to reduce the emissions of greenhouse gases will result in a healthier population, greater know-how and opportunities to export knowledge and technologies, increased attractiveness for large companies that focus on green energy, etc.

Concrete proposals for what should be implemented should be put forward, and their impact on citizens should be clarified. It should be straightforward for individuals to contribute to the climate transition, also financially.

### Recommendations

- 7.1 We strongly recommend introducing a tax on the emission of greenhouse gases - a so-called carbon tax. This should be done through the development and implementation of a carbon tax system (green tax reform) that includes long-term considerations for how we can achieve Denmark's climate goals. At the same time, this long-term focus should ensure that the tax system is straightforward to citizens and companies in Denmark.

Specifically, the Citizens' Assembly recommends the following:

- 7.2 The Citizens' Assembly believes that in order to ensure the success of a carbon tax system, the current tax system must first be analysed to understand the basis for a carbon tax.
- 7.3 The Citizens' Assembly believes that the carbon tax system should mainly be based on taxes levied at the production stage/source of emissions.
- 7.4 It is important that "black energy" is taxed rather than green energy.

As a minimum, the following elements should be included in development of a carbon tax system in relation to companies:

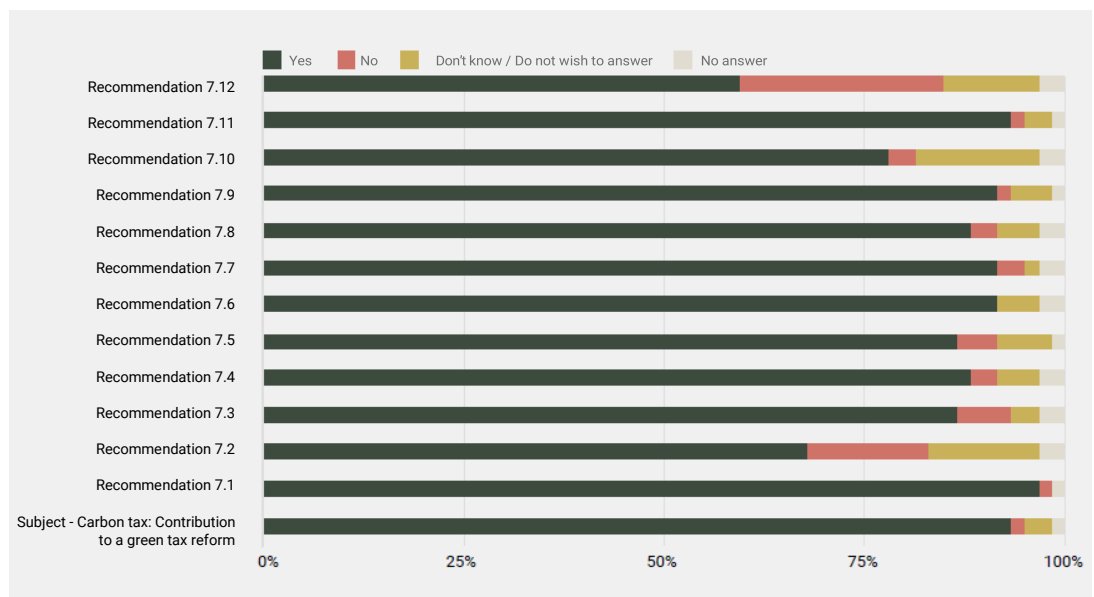
- 7.5 A lower-limit allowance for emissions should be reviewed. We would like to see a lower-limit allowance to be set as low as possible so that companies remain motivated to restructure their production processes while not being so low that we risk carbon leakage.

- 7.6 The Citizens’ Assembly recommends incorporating the possibility of a reduction in the carbon tax for companies investing in their own green transition.
- 7.7 There should be a focus on the fact that all companies will have to undergo a transition period, allowing each company time to ensure a long-term sustainable transition.
- 7.8 The complexity of individual industries and the timeframe for transition must be taken into account.
- 7.9 Efforts should be made to improve opportunities for (low-interest) loans for companies investing in climate improvements to their production or facilities.

As a minimum, the following elements should be included in development of a carbon tax system in relation to citizens:

- 7.10 Overall, consumption taxes should be kept to the same level as now and equalised between consumption/product groups (example: make hydrogen and electric cars more affordable and make diesel and petrol cars correspondingly more expensive).
- 7.11 Efforts should be made to improve opportunities for (low-interest) loans for citizens investing in climate improvements, e.g. to their homes.
- 7.12 Instead of levying taxes on the consumption stage (where unsustainable products are consumed/purchased), the Government should increasingly focus on awareness-raising and nudging to change consumer behaviour that has a negative impact on the climate.

**Voting results**



**8. Taxes on carbon-intensive industry**

There is a big difference in how much of a reduction in carbon emissions can be realised in industrial enterprises depending on whether a company is producing cement or clothes, for instance.

There are key industries that face major difficulties in addressing their CO<sub>2</sub> emissions at present.

Aalborg Portland, the country’s largest single emitter, has entered into a special cooperation agreement with the Government on achieving a reduction of at least 660,000 tonnes of CO<sub>2</sub>e, one of the goals being to retain the company in Denmark.

## Assessments

Taxes should incentivise companies to transition towards sustainability rather than relocate their production abroad. Other possibilities in addition to a tax should accordingly be considered.

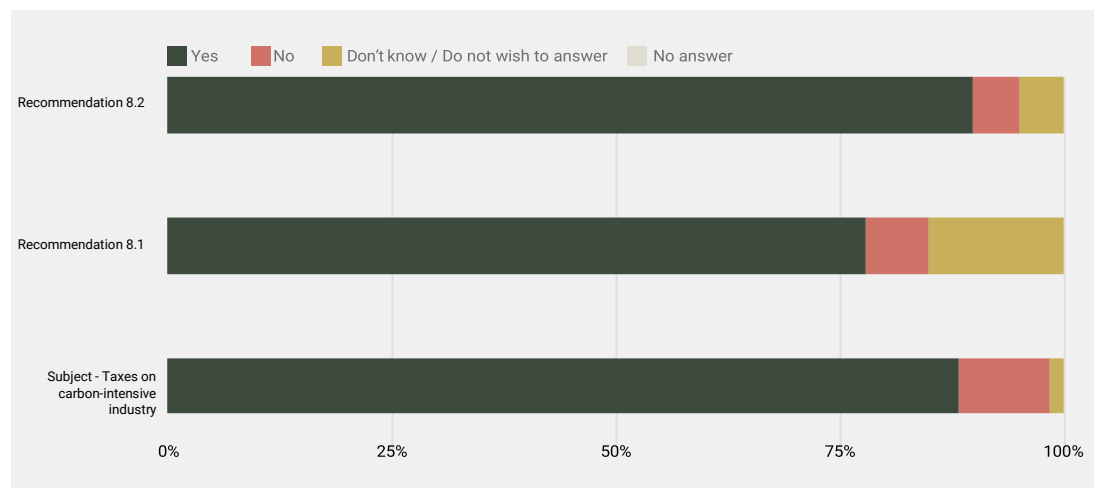
If full taxes are levied on companies such as Aalborg Portland, for example, one can expect production to be moved abroad, which will not only be a disadvantage for Denmark but perhaps also for CO<sub>2</sub> emissions at the global level. At the same time, however, there are some industrial sectors that are major CO<sub>2</sub> emitters, which needs to be addressed. Cement may be possible to partially replace with other building materials, which taxes can help incentivise.

The challenge is to find a balanced approach that allows existing industrial forms of production to be phased out over time and be replaced by less polluting alternatives through new technology and other materials - helped along by 'smart taxes'.

## Recommendations

- 8.1 As far as possible, a universal tax should be introduced, albeit with differentiation between industries as needed.
- 8.2 The Citizens' Assembly recommends introducing an incentive in the form of a CO<sub>2</sub>e-reduction incentive that repays a portion of a company's tax liability if they succeed in reducing their CO<sub>2</sub>e emissions.

## Voting results



# Recommendations on agriculture, land and resources



## 9. Bioeconomic solutions

Denmark is a producer country with an abundance of biomass from agriculture, side streams from manufacturing processes, wastewater and much more. This is biomass that we are not currently utilising and which is therefore regarded as 'waste'. This untapped resource can be used in a Danish bioeconomic solution. We lack a bioeconomic strategy in Denmark in spite of the fact that biomass is an important source of supplemental energy. In addition, a bioeconomic strategy would be in Denmark's interests as the world's resources are finite and because we have major Danish companies that are already collaborating on identifying bioeconomic solutions. We already dominate the field when it comes to wind power; let's turn our gaze to biomass next.

### Assessments

We do not know how much CO<sub>2</sub> has been emitted from imported biomass, which makes the sustainability of such biomass appear unappealing. If Denmark is to be a pioneering country - as we were with wind turbines - we need an ingenious strategy that ought to be based on the knowledge that already exists among the companies working with biomass. This strategy should address when biomass recycling can pay off, both in the short and long term.

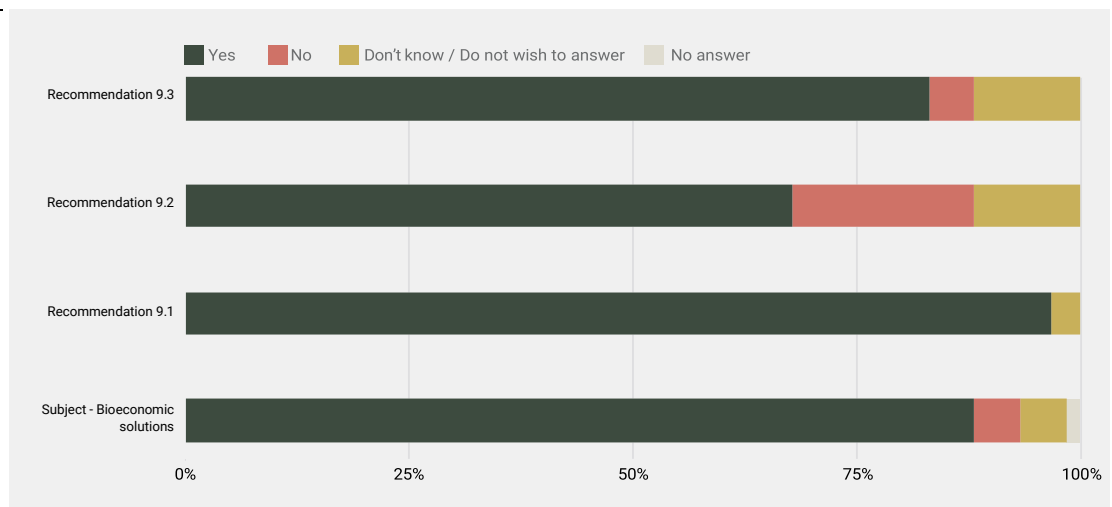
We need to expand our domestic production and utilisation of biomass so that we can extract the potential resources from it.

### Recommendations

We propose the immediate implementation of the following recommendations:

- 9.1 Denmark should be a pioneering country in relation to biomass recycling, and the Government should accordingly fund research aimed at promoting biomass production and utilisation. Additionally, the Government should create a framework that allows companies to enter into partnerships with research institutions to a greater extent than is the case today.
- 9.2 Denmark should avoid importing biomass and instead use the biomass we are able to produce domestically. Politicians should therefore find a solution as soon as possible to how we can avoid importing biomass.
- 9.3 Residual material from agricultural production, households and industry should circulate in the bioeconomy. Legislation should be drafted for businesses and agriculture which regulates and monitors the use of residual material/biomass.

### Voting results



## 10. Bioplastics action plan

Plastic is manufactured and utilised in outrageous quantities with an absence of responsibility for production and consumption.

Denmark lacks a strategy in relation to how fossil-based plastic production should transition to bio-based plastic production. Even today, there are alternatives to plastic produced from fossil-based resources, such as bioplastics produced from biomass.

In addition, bioplastics do not have an environmental footprint.

### Assessments

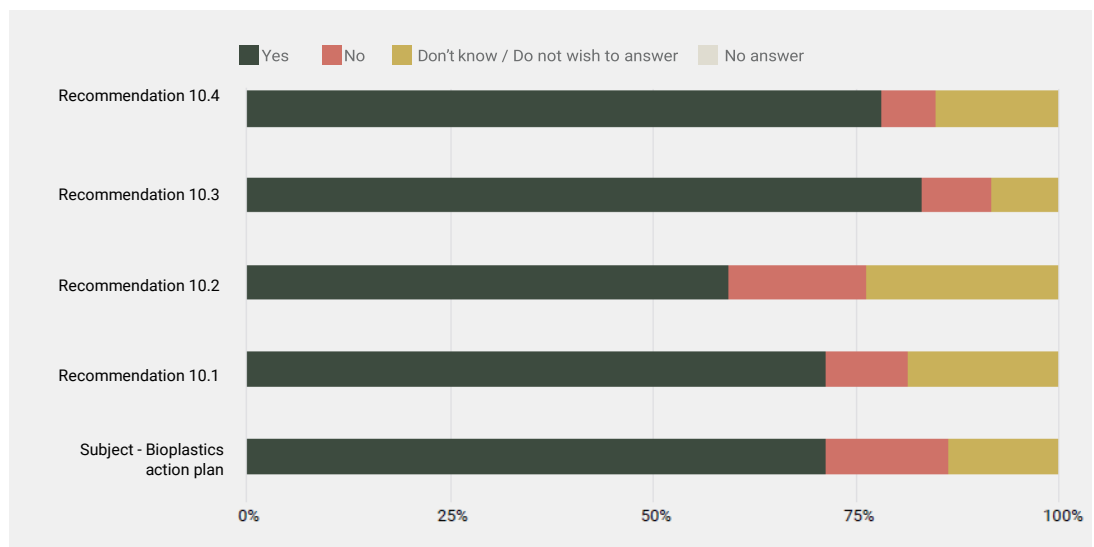
Denmark has a strategy for plastics in general, but not bioplastics. We need to phase out crude oil from domestic production, which is why we need to be at the forefront with bioplastics, given that we consume so much plastic in our everyday lives.

By using alternative plastics, we can reduce our CO<sub>2</sub> emissions.

### Recommendations

- 10.1 The Government should draft a national action plan for phasing out the use of fossil-based plastics in favour of adopting bio-based plastics or other materials.
- 10.2 The Government should accelerate efforts on developing incentive structures that make it attractive to utilise plastics based on biomass over plastics based on fossil resources, such as through taxes. Alternatively, the Government could consider banning or limiting the use of plastics made from fossil resources.
- 10.3 The industry/producers should be held responsible for their products and subjected to clearer labelling requirements.
- 10.4 Companies should be subjected to taxes and responsibility for production and recycling.

### Voting results



## 11. Standardisation of waste sorting

Waste sorting in Denmark is standardised at the municipal level rather than the national level. Waste sorting has been underway for 50 years, and the implementation of such systems has been too slow.

We need a greater focus on informing citizens about the importance of how waste should be sorted and handled.

In isolation, waste sorting and waste minimisation may not have a major impact on Denmark's emissions of greenhouse gases, but it has a more general impact in terms of resource consumption and behavioural changes in society.

### Assessments

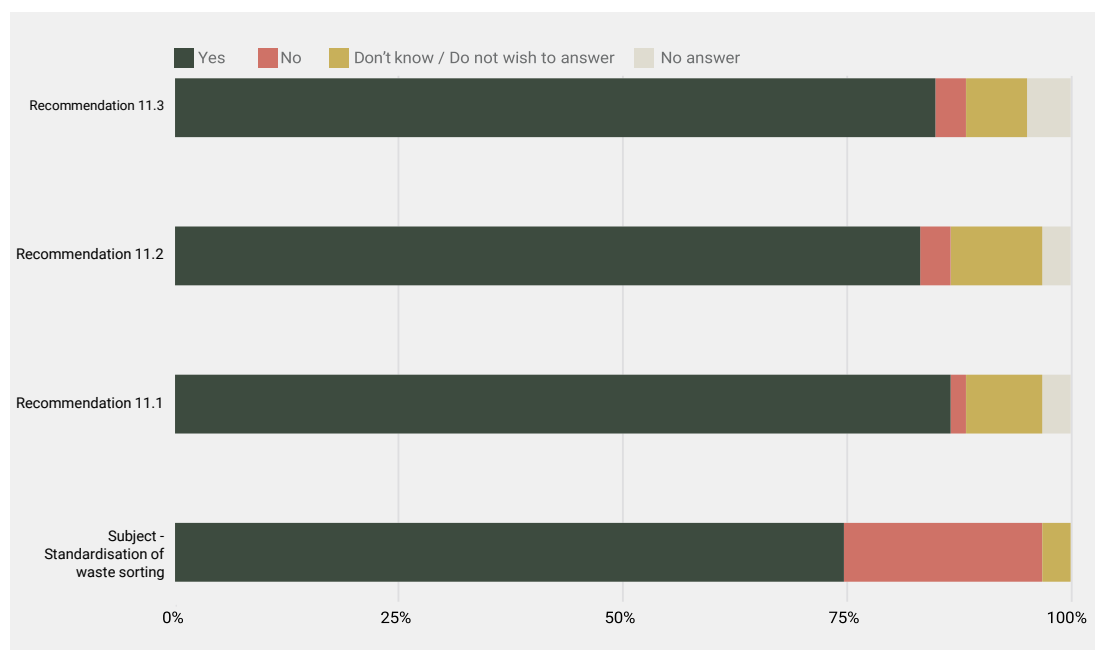
If companies and citizens become better at sorting their waste through standardisation at the national level, we could benefit through a higher rate of biomass collection and resource recycling.

Citizens would become more motivated to sort their waste if they are regularly informed about how the systems work and the impact it has.

### Recommendations

- 11.1 There should be a strong collaboration across municipalities and the Danish state on waste sorting.
- 11.2 The Government should set uniform standards for municipalities and companies, including for packaging. Municipalities should develop better waste sorting infrastructure (e.g. incineration plants or waste/recycling stations) that makes waste sorting simpler for the individual citizen.
- 11.3 Municipalities should provide more information to citizens with a view to changing their waste sorting habits. Citizens should regularly receive information about the impact of our waste sorting.

### Voting results





## 12. Agricultural land

The so-called “harmony rules” (requirements for livestock pasture land) can result in inefficient use of agricultural land from a climate perspective, as farmers are forced to use all their land to spread out liquid manure - including land that should perhaps be designated for nature.

A significant part of emissions from land use stems from carbon-rich peat soils which have historically been naturally flooded. The annual emissions from these areas correspond to 20% of the 70% reduction target (according to the Danish Council on Climate Change) There is a broad consensus among actors such as the Danish Council on Climate Change, Danish Agriculture & Food Council and the Danish Society for Nature Conservation that from a climate perspective, it would be a good idea to stop the draining of those lands, thereby rewetting them. A voluntary scheme for rewetting peat soils that ran from 2016-2020 has resulted in less than 1% of the potential reduction, according to the Danish Council on Climate Change.

The Citizens’ Assembly has been informed that there have never been any focused and mandatory climate interventions in Danish agriculture, which would indicate a political reticence to draft climate legislation relating to the sector.

We use 80% of Danish agricultural land for the production of animal feed. We also import additional animal feed, which is produced from agricultural land abroad corresponding to an additional 25% of Denmark’s agricultural land. 4-5 kg of animal feed is used for the production of 1 kg of pork. Animal husbandry and milk production where the feed solely consists of locally grown grass (“grassmilk”) can result in more efficient use of agricultural land and eliminate the need for cultivation or importing of animal feed. This would allow for a higher production of plant-based foods and more land to be allocated to nature, but it would also reduce the number of animals that can be raised within a given area. The Citizens’ Assembly was given an example from a farmer who, using this form of production, can produce food for three times as many people on the same area of land.

The global demand for food is rising due to a rise in population as well as increased prosperity. Denmark currently produces food for 4 times our own population. There is a need for an increase in production which is also sustainable.

### Assessments

Degassing liquid manure could be a better way to utilise it than directly spreading it on fields as fertiliser, and it could counteract unnecessary investments in local liquid manure containers that are problematic in a number of ways, such as their methane emissions.

A major and immediate impact on the emissions of greenhouse gases could be achieved if peat soils are rewetted by stopping the drainage of such soils. The Danish Ministry of Food, Agriculture and Fisheries recommended such a measure in their 2008 report. It was recommended by the climate partners in 2020, and experts have also called for similar action both before and after: “Take peat soils out of operation and stop the drainage.” The Citizens’ Assembly finds it unacceptable to wait any longer to do something that has been so clearly necessary for so long.

The voluntary model for rewetting has historically not been adequately effective, and we believe the time has come for a compulsory model.

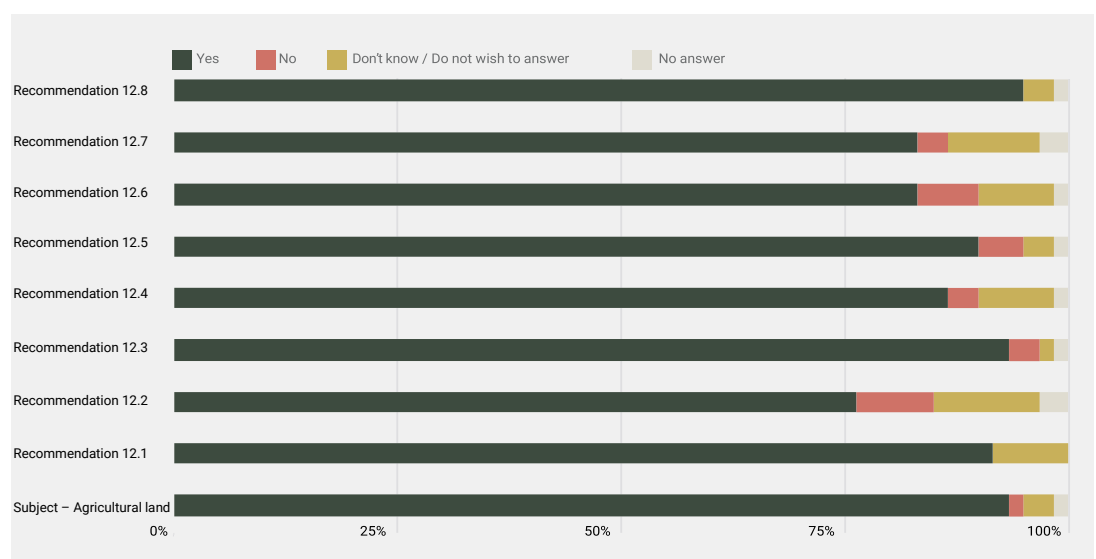
It seems inappropriate for such large tracts of land to be used for animal feed which provides a relatively modest level of food production per unit of land. A purely plant-based production or other forms of production such as “grassmilk” would result in a far higher food yield from the same amount of land.

The development of more climate-friendly forms of production in Denmark would not only reduce our national emissions, but also enable the export of know-how and technologies that could lead to far higher global reductions through improved local food production.

## Recommendations

- 12.1 The "harmony rules" should be amended to avoid standing in the way for designating land to other uses such as nature simply because the farmer needs to be able to document having sufficient land for their livestock. It should be possible to deliver liquid manure to a biogas plant immediately, which would also result in a reduction of methane emissions from liquid manure tanks. The number of livestock could thereby be decoupled from access to land, allowing livestock to be produced in areas where it makes the most sense to do so.
- 12.2 A more aggressive - possibly compulsory - model for rewetting peat soils should be implemented, both in terms of the speed of rewetting and total land area; ideally up to the 170,000 hectares recommended by the Danish Council on Climate Change. Experts have agreed on the necessity of such action for years, without any real progress being made.
- 12.3 It should be examined what peat soils can be used for after being rewetted, such as for free-range grazing animals, renewable energy facilities, energy forestry, free nature, etc. This should be included in the assessment on whether the land should be bought from the farmer or continue to be used for some form of agricultural production.
- 12.4 A large part of the land currently used to produce animal feed should be converted to produce plant-based foods for people or converted to clover grass, e.g. for the production of "grassmilk".
- 12.5 The Citizens' Assembly also recommends the institution of measures to reduce the import of animal feed such as soybeans to avoid carbon leakage. One potential solution could be via a carbon levy on animal feed that does not stem from CO<sub>2</sub>e-neutral production.
- 12.6 The demand for plant-based foods should be strengthened, e.g. through incentive schemes or taxes on animal-based products. This would reduce meat consumption in Denmark, which would in turn have a beneficial impact on our national greenhouse gas emissions.
- 12.7 Per hectare subsidies should be converted from pure land subsidies to subsidies for efficient (and climate-friendly) production.
- 12.8 Research on efficient and sustainable forms of production that can also be adopted in other countries should receive further support with a view to increasing sustainable food production.

## Voting results



## 13. National strategy for land use

*"All of Denmark's land is in use. But many more needs are becoming more urgent. Priorities must be made. We cannot keep pretending that our country is bigger than it really is."* Prioritisation of Denmark's land area in the future, 2017.

In our deliberations, the Citizens' Assembly has noted the lack of a national strategy to guide our overall goals and framework in relation to the smartest use of the land we have. It is clear that our land area can play a major role in helping us through the climate crisis: Creating climate-friendly foods, sequestering carbon and producing biomass, which can be used to reduce the consumption of building materials such as concrete, for example.

However, space is limited, and all the considerations that must be taken stand in complex relation to one another. Such considerations include agriculture, new forms of energy, natural areas, infrastructure, forestry, outdoor interests and the possibilities of coexistence and the future balance between the various interests.

Today, approximately 60% of Denmark's land consists of cultivated fields or grasslands, and 15% is covered by forest. Soils and forests are important in relation to the climate, as they can absorb greenhouse gases from the atmosphere as well as be a source of emissions. Accordingly, it is essential to determine the best use of Denmark's total land area.

New construction projects are undertaken without a balanced consideration for how Denmark's land area can be used most appropriately to build our common future: Renewable energy installations in rural areas may be in conflict with a general desire for more nature and afforestation, resulting in too little land allocated to nature. Not enough land has been reserved for nature and biodiversity. Solar plants are established on agricultural land which could be used for food production or other purposes, and we will still need biomass for heat production and biofuels for some time to come, which will also require land.

### Assessments

In order to be able to prioritise which forms of land use are most sensible in terms of reducing CO<sub>2</sub> emissions, we need to draft a strategy for land use. Such a strategy could help prevent the inappropriate use of land and inappropriate investments in the acquisition of land, such as for nature. This strategy for land use should not solely focus on climate considerations, but also take into account other aspects of sustainability. We believe that the Sustainable Development Goals should be linked to economic thinking so that there is a greater focus on the connection between social (welfare) and environmental (biodiversity and nature) sustainability. The Citizens' Assembly would therefore also like to see the strategy consider minor and highly practical opportunities such as the use of 'residual areas' to promote biodiversity, e.g through 'wild on purpose' initiatives launched locally in Denmark's municipalities.

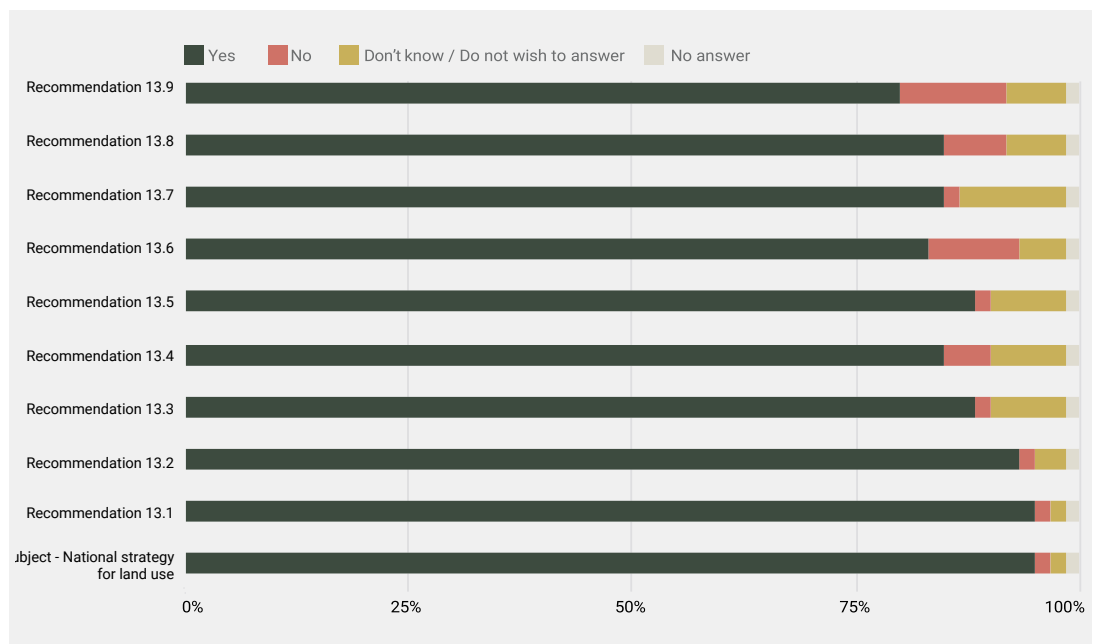
In addition to creating a prioritisation overview for the land we have, the strategy should also cover how we can increase the area at our disposal to start with. We believe that we need to demand a higher degree of innovation and consideration for the way in which we go about building. We need to build vertically, using building surfaces for gardens and solar panels, such as roofs on residences, production facilities and parking lot roofs. Lands such as undrained peat soils should be considered for the placement of wind turbines or raised solar farms. This will allow us to create more space for the nature we sorely need, such as forests, to which experts argue that we need up to 40% more land reserved for forests than we currently have.

### Recommendations

- 13.1 Prepare a national strategy for land use.
- 13.2 The strategy should establish clear goals for how Danish land should, in percentage terms, be used in the future with a view to meeting the needs for more nature, woodland, area for extracting renewable energy, biomass, etc.

- 13.3 This strategy should have clear ambitions for a positive change in land use in Denmark year by year, and if there is to be any kind of hockey stick effect in this regard, the efforts should be planned sooner rather than later.
- 13.4 The strategy should support a goal to increase the overall amount of land we have at our disposal by using land for multiple purposes at once (e.g. through vertical agriculture, using land both for grazing and green energy, wind turbines in intensively cultivated fields or using rooftops for gardens and solar farms).
- 13.5 This strategy should ensure that biodiversity is supported to the greatest extent possible in all measures, and the impact of initiatives should be assessed similarly to an EIA.
- 13.6 The implementation of the strategy should be executed locally, where decision-makers have the greatest insight into how to manage local areas and to ensure local backing and ownership of the strategy.
- 13.7 Introduce an incentive scheme for land use that makes it attractive to use land in accordance with the strategy.
- 13.8 The incentive scheme should be based on subsidies or tax exemptions or linked to permits for the use of land for other purposes such as wind turbines or solar panels.
- 13.9 It should be made attractive to use rooftops for solar panels rather than using agricultural land for the same purpose.

## Voting results



## 14. Agriculture with a smaller carbon footprint

There is a need to strike a sensible balance between intensifying and extensifying food production in Denmark. This is partly due to the fact that the majority of Danish meat production is exported and therefore constitutes a major part of our national carbon footprint.

In addition, our extensive meat production also 'steals' phosphorus reserves from South America due to our massive imports of soy for animal feed. Phosphorus is a globally finite resource that is important for growing crops.

### Assessments

In order to be able to strike a balance between intensification and extensification of food production, we need more knowledge, new approaches and development of new technology.

Research and innovation are accordingly necessary in order to enable more efficient agriculture with a lower carbon footprint.

In other areas, such as utilisation of agricultural land, less intensive exploitation would be beneficial (e.g. the "Feed no food" strategy - grass-fed cows and a focus on food production for humans).

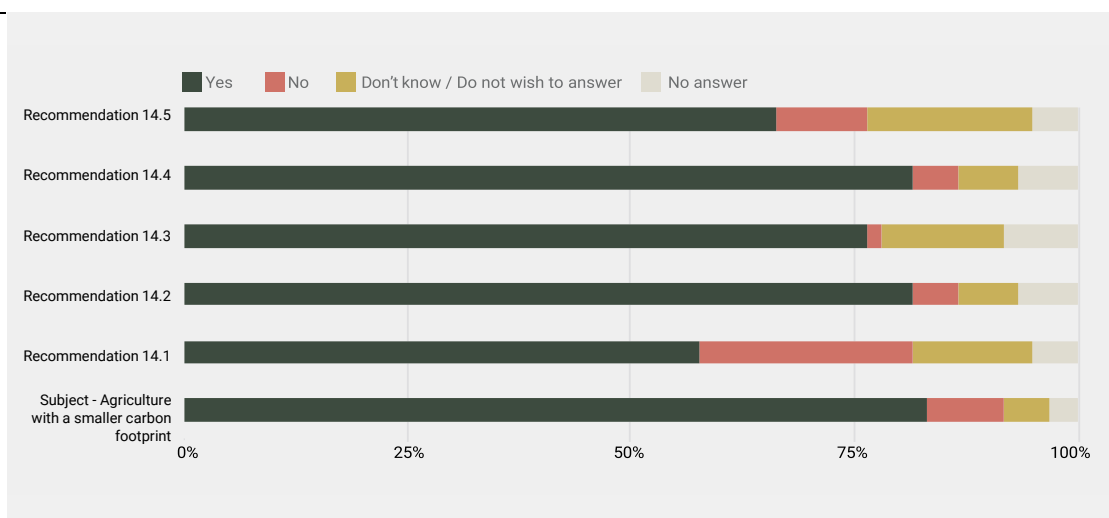
In addition, we must also reduce animal production in Denmark, which would help reduce Denmark's carbon footprint while also resulting in other environmental benefits:


- Fewer animals would lead to less nutrient leaching into streams, lakes and the ocean.
- It would lower methane emissions (with a decrease in cattle production).
- Fewer animals would lead to lower imports of animal feed and nutrients.
- It would encourage biodiversity, assuming some of the land currently used to grow animal feed is converted to forest/nature.

### Recommendations

- 14.1 Denmark should reduce its meat production.
- 14.2 Make use of the new dietary recommendations to minimise meat consumption in Denmark.
- 14.3 Offer climate consultants/expertise to farmers (both nationally and abroad) to ensure they receive the necessary knowledge to make an effective transition to more climate-friendly food production.
- 14.4 The state must provide support and research funding to enable agricultural intensification (new types of crops, fertilizers and feed).
- 14.5 Introduce an 'intelligent' meat tax, i.e. a tax on the production stage so that it becomes more expensive for agricultural enterprises that are not as climate-friendly.

### Voting results





# Recommendations on transport



## 15. Transition to electric transport

Private motoring is projected to emit the highest proportion of CO<sub>2</sub>e out of the total emissions from the transport sector in 2030. Today, private motorists' leisure consumption amounts to no less than 41% of total emissions from transport, primarily because mobility rapidly becomes a routine in people's everyday lives; it becomes a tool through which to organise everyday life. The transport of goods and public transport are the second-biggest sources of emissions in the transport sector after private motoring.

Only a small percentage of cars on Danish roads today are electric cars. The price of electric cars remains relatively high, even though the trend is moving in the right direction as more models arrive on the market. Many Danes therefore may not feel that they can afford an electric car today. They appear to be more expensive than cars running on fossil fuels, even though the Eldrup Commission has found that the total costs are actually lower in real terms.

Today, it can take a long time to charge an electric car, and its range is typically shorter than a petrol or diesel car. This may deter some people from acquiring one. In addition, there is some uncertainty in relation to using trailers and caravans with electric cars, as there are not many such cars on the market at present that can pull these.

There is currently a lack of charging stations around Denmark. Furthermore, different subscriptions are required to gain access to different charging stations, and there are three different charging/plug standards, amounting to even more potential barriers for new as well as 'old' electric car owners.

It remains unclear how electric cars can be scrapped and whether their batteries can be recycled.

In relation to road and traffic safety/accidents, people and emergency services must also be prepared for the switch to electric cars.

Noise and local pollution from motor vehicles result in major nuisances and health issues, specifically in densely populated areas. Other countries such as Germany have a labelling system for cars, where cars that emit too much hazardous pollution are prohibited from entering large cities. Here in Denmark, we could also achieve major savings on the health-related consequences of a transport sector that still mainly runs on fossil fuels.

### Assessments

We must reduce the number of cars in general and ensure that people driving for business and personal affairs get an incentive to replace their petrol/diesel cars with an electric car. Growth often follows a logistic (S-) curve: A slow start, followed by exponential growth and a subsequent evening out. This is a pattern we should also strive to accelerate if we are to accomplish getting between 750,000 - 1,000,000 electric cars on the roads by 2030 as well as eliminate fossil fuels from passenger transport by 2045.

This is a necessity that needs to be addressed at the political level. We require bold action from politicians who will look aside from how it will affect their popularity, e.g. in terms of prices, taxes and fees. We also need to expand the required infrastructure, e.g. in relation to charging stations. The electric vehicle charging grid needs to be expanded to ensure it is just as easy to access a charging station as it is to find a filling station. At the same time, we need to incorporate the design of infrastructure requirements into big cities, where opportunities for private individuals are hampered by population density. This could also help eliminate the so-called "range anxiety" many people have when it comes to electric cars. Until these factors are in place, a rise in the proportion of electric cars can be encouraged along with a decline in the proportion of petrol/diesel cars through a 'carrot and stick' approach in the form of taxes and levies. Inspiration could be found in cities and countries that have made a successful integration of public transport and removal of car transport, such as in Norway.

We need politicians to address what should happen with all the petrol/diesel-fuelled cars still being purchased and which will therefore still be on the roads in 2030, in light of the fact that the average lifespan of a car is 15 years.

There is a need to improve the public's knowledge about electric cars so that people can make an informed opinion about electric cars based on the facts. This applies to everything from their range and safety to the potential savings of owning one, and of course also the environmental advantages that we all benefit from, considering that the most polluting trips are short drives by private motorists.

Due to electric cars involving the production of batteries and the like, we also need to consider the cradle-to-grave aspect of electric cars, not only in terms of their financial cost, but also the environmental impact in relation to the production and disposal of car batteries.

## Recommendations

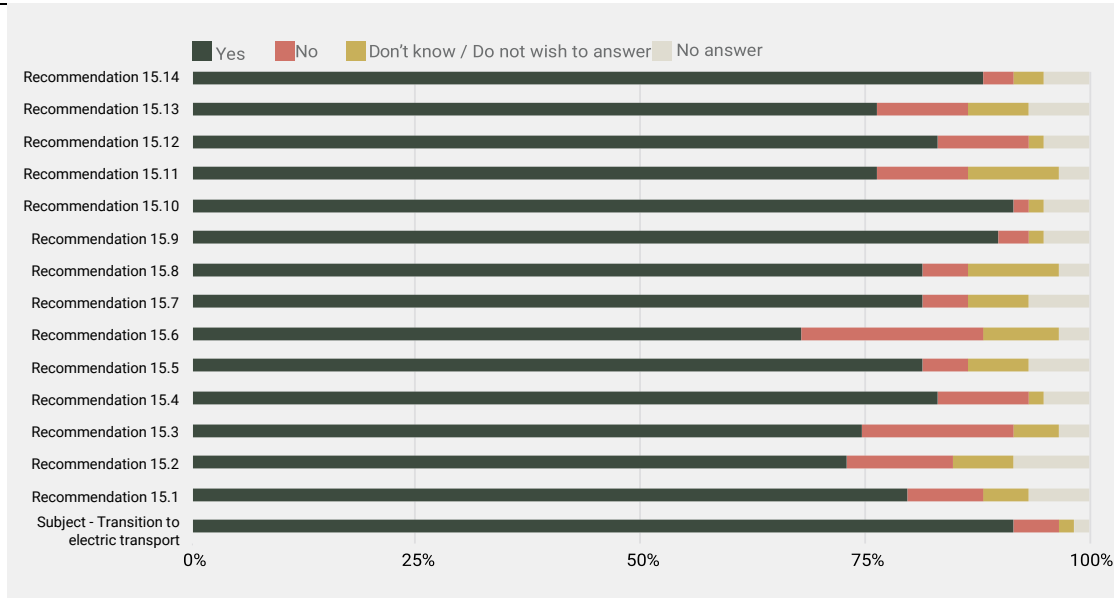
- 15.1 Both reductions and increases in taxes and levies should be viewed in relation how much a car pollutes. That is, cars that pollute more should 'pay' for cars that pollute less until the logistic (S-)curve breaks and the market is sufficiently saturated with electric cars. For example, this could be implemented through a form of sunset clause for exemption of levies on electric cars, so that petrol/diesel-fuelled cars remain expensive while electric vehicles gradually end up contributing taxes and levies to the Treasury in the same way as normal cars do today.
- 15.2 Similarly, fixed parking fees for private citizens as well as businesses could be generally raised on cars that pollute, as is currently the case in cities such as Copenhagen.
- 15.3 However, the design of these taxes and levies should avoid creating distortions in relation to being able to purchase and use electric cars; electric cars should be affordable for every income strata, even though people with higher incomes use cars to a greater extent.
- 15.4 All petrol/diesel-fuelled distribution transport within large cities should be taxed via environmental labelling by 2030 in relation to their degree of pollution.
- 15.5 Electric cars could be exempted from such taxation. For example, a form of CO<sub>2</sub> labelling should be introduced (akin to the energy labelling we have today) to help consumers make an informed choice. Such an initiative would not even have to be restricted to cars. The cradle-to-grave perspective as well as energy consumption in terms of load on the electricity grid are also examples of factors that labelling schemes could be developed for.
- 15.6 An increased scrapping premium for petrol/diesel cars should be granted up to 2030, the idea being once again to make the incentive to switch to an electric car even more favourable.
- 15.7 Charging infrastructure should be expanded in such a way to ensure an even distribution of accessibility, even in big cities.
- 15.8 Requirements should be placed on private and public sector workplaces to provide a number of charging stations in proportion to their number of employees.
- 15.9 Requirements should also be placed on electric charging station providers to eliminate payment models that require customers to have one subscription per provider (and their associated stations), making the choice of where to recharge an electric vehicle as free as it is today with petrol/diesel cars and filling stations.
- 15.10 Charging station providers should also be required to allow for every type of plug to be used at every charging station.
- 15.11 All public transport, the public sector's use of vehicles and taxis should be electrified no later than 2030.
- 15.12 The Government should launch a public information campaign that addresses all aspects of people's scepticism and uncertainties about switching to electric cars.



15.13 Requirements must be established for transparency in the production as well as recycling of electric cars, including appropriate production of batteries. Without this transparency, makers of electric cars should be prohibited from selling their cars in Denmark.

15.14 In addition, the Government should provide significant funding towards research on the recycling of materials used in electric cars.

## Voting results



## 16. Flexible public transport as an appealing choice

84% of all passenger transport occurs by car, with an average of only 1.1 passengers per car. People have too little time and have behaviourally adjusted to make it a necessity to own one or several cars.

Often, it makes more financial sense to use one's own car, as well as being more convenient and fast than public transport, which is frequently not flexible enough.

We can significantly minimise CO<sub>2</sub> emissions by moving people out of their own cars and into public transport or other options, such as shared cars that run on electricity.

Public transport is often poorly functioning outside of Denmark's big cities. Citizens in rural areas drive twice as many kilometres by car as Copenhageners do. This is due to longer distances on the countryside and a lower availability of public transport options. In some places, using public transport is not a realistic option. It can take a long time to get somewhere, even though you do not travel much due to a lack of public transport routes and infrequent departures. Many citizens therefore choose to travel in their own cars instead. At the same time, it is time-consuming and difficult for families with young children in particular to pick up their children from several different locations and do their shopping via public transport.

It is no easy endeavour to incentivise people to use public transport instead of their own cars. Often, it can be relatively costly to improve public transport, but such improvements are necessary to entice people to stop using their own cars.

What should we strive for first? High passenger numbers on the most used public transport routes, or good public transport services at an adequate and flexible level, even in peripheral areas?

Bus lines in the country side are being replaced with flextrafik ("flex-traffic") services, resulting in closed bus lines even though flextrafik is not a real replacement. Flextrafik can be characterised as a needs-driven form of public transport with smaller vehicles. The journey is planned according to the citizens' individual driving needs and not according to a fixed schedule, as is the case with ordinary buses.

Transport profiles could be a tool that could help optimise public transport. The Citizens' Assembly will examine transport profiles in more detail in the autumn.

## Assessments

Collective mobility should be nuanced to strike the right balance across the country. Alternatives to passenger car transport should become cheaper and more widely available, even outside the big cities. Therefore, we need new approaches in this area if we want to incentivise people away from cars, which transport fewer than 2 people per journey on average, regardless of the purpose.

Rural areas face major challenges in this regard, as they have the greatest need for better public transport, which could also be lucrative from a consumer perspective. We need to learn from those who have well-functioning solutions. Most of the bus systems that work well abroad offer frequent bus departures - even on weekends - and often with shorter and more direct routes. Unfortunately, the trend in Denmark is the opposite. In the long term, it should be examined whether driverless buses/taxis can become an option for servicing sparsely populated areas with public transport.

A greater focus on urban planning and reducing the need for cars among people living in cities should be a focus for the Government. Institutions, shopping opportunities and workplaces should be located close to the consumer or transport hubs. Design cities for people, not cars. However, urban motoring should not be made more complicated, e.g. by narrowing lanes, as long as there is no feasible public transport alternative. It makes little sense from a socioeconomic perspective to make transport times for commuting, picking up children, etc. longer.

It is not climate-friendly for large and half-empty diesel buses and trains to remain in service over long distances, which is why green electrification should be given higher priority. Part of the railway system in Denmark has already been electrified, and it is expected that the main lines will be electrified by 2028. If we want to see an increased use of public transport in Denmark, we have to stop the trend of cutbacks to bus routes and departures and instead improve the public transport systems we have. We can find examples of solutions in other countries with well-functioning public transport. For example, we could use minibuses that connect smaller areas together instead of the typical large/standard-sized buses. This would make it possible to have more departures on certain routes. It is important for bus and train departures and arrivals to be coordinated with each other. A good example can be found in Switzerland, where the vast majority of buses only drive along a route that typically takes 20-25 minutes from the train station to the bus' terminus. This solution results in both frequent and reliable bus connections, as buses rarely miss a train departure due to delays thanks to a 5-10 minute buffer per route. This would make public transport faster and entice more people to use it. In Denmark, the concepts of flextrafik and flextur are not used uniformly across the country. The Citizens' Assembly believes that there should be a system to provide flexible transport to all citizens in areas where there is little sense in having regular public transport services.

Buses should also be electrified so they can reap the benefits of electrification services. There are already electric buses in Denmark, but they must be prioritised in order to accelerate the transition.

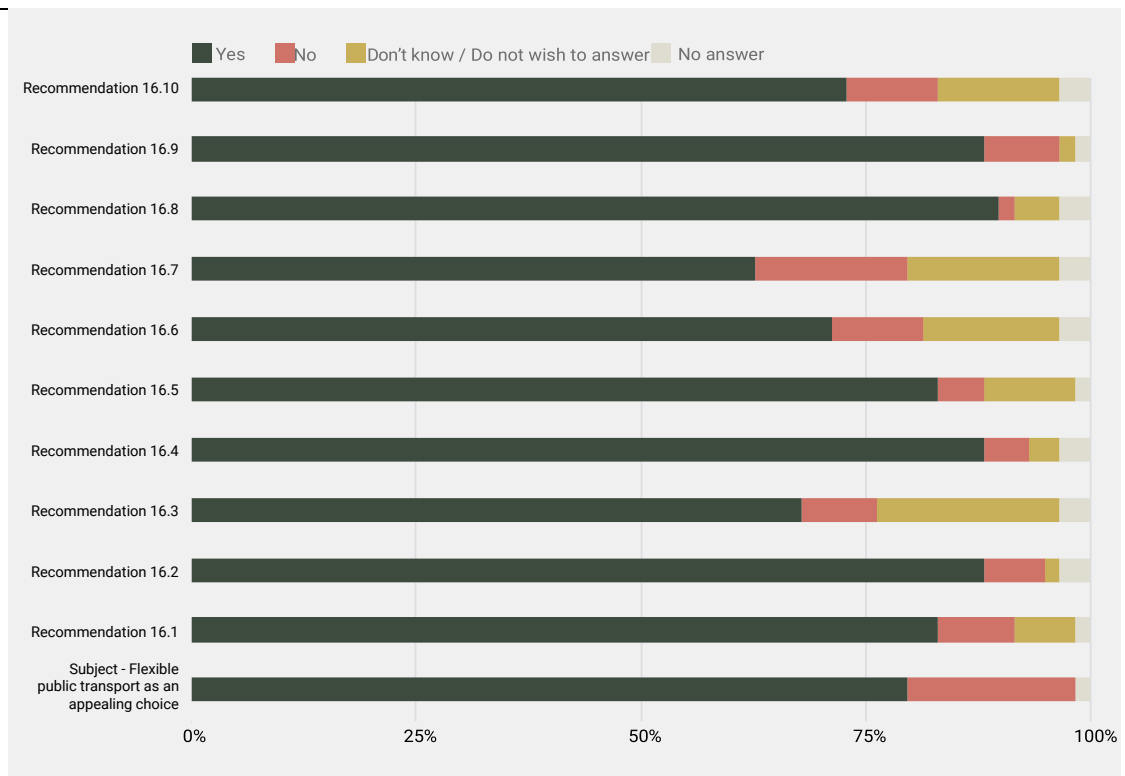
The Citizens' Assembly believes that a behavioural change and awareness-raising is needed for the population to limit leisure and business motoring. A greater awareness among the population of the climate-related costs of using cars for leisure activities and errands may help reduce that type of car use.

## Recommendations

- 16.1 Public transport should be a natural choice due to being cheaper, superior and the most environmentally friendly option. The Citizens' Assembly's general recommendations are accordingly that public transport should be revised with a view to making it more flexible. We need more solutions with lower user fees without compromising on flexibility.
- 16.2 The Citizens' Assembly believes that public transport should be optimised and made more appealing and easily available, both outside and inside cities; e.g. with free parking outside the cities and free collective transport into cities from such parking areas (park and ride).
- 16.3 Outside major cities, bus routes need to be more direct, with shorter transport times and coordinated with each other.
- 16.4 Minibuses should be employed in appropriate areas instead of large, half-empty buses.

- 16.5 Flextrafik should be marketed better and to everyone in areas that lack well-functioning public transport.
- 16.6 The price of public transport - if not free of charge - should be based on distance and not regional borders.
- 16.7 One could also consider testing driverless electric flex-buses.
- 16.8 Public transport should run on electricity or hydrogen, as public transport should serve as a precedent for how electrification should work in practice.
- 16.9 Efforts to educate the public on green transport options should take place at the national, regional and municipal level.
- 16.10 An app that provides a comprehensive overview of carpooling options (such as GoMore), public transport and flex-traffic should be developed. The app should be available on mobile phones

**Voting results**



**17. Climate-friendly freight transport (e.g. PtX)**

We are relatively far ahead technologically when it comes to the green transition of passenger cars. When it comes to long-distance and freight transport, however, more development and research is needed. Little development has occurred within the area of heavy transport on the railway network. Less than 2% of Danish freight transport today occurs by train. A lot of transport therefore relies on lorries driving across Europe, but there are no carbon-neutral solutions for heavy transport.

Assessments

The Citizens' Assembly has determined a need for more support for long-distance freight transport if we are to achieve the 2030 and 2050 goals of the Danish Climate Act.

It is simply too inexpensive to transport goods in relation to the environmental impact of the types of transport used for such purposes. Long-distance transport of goods should be possible via other means of transport than lorries, such as by train. However, it would be challenging to reorient such

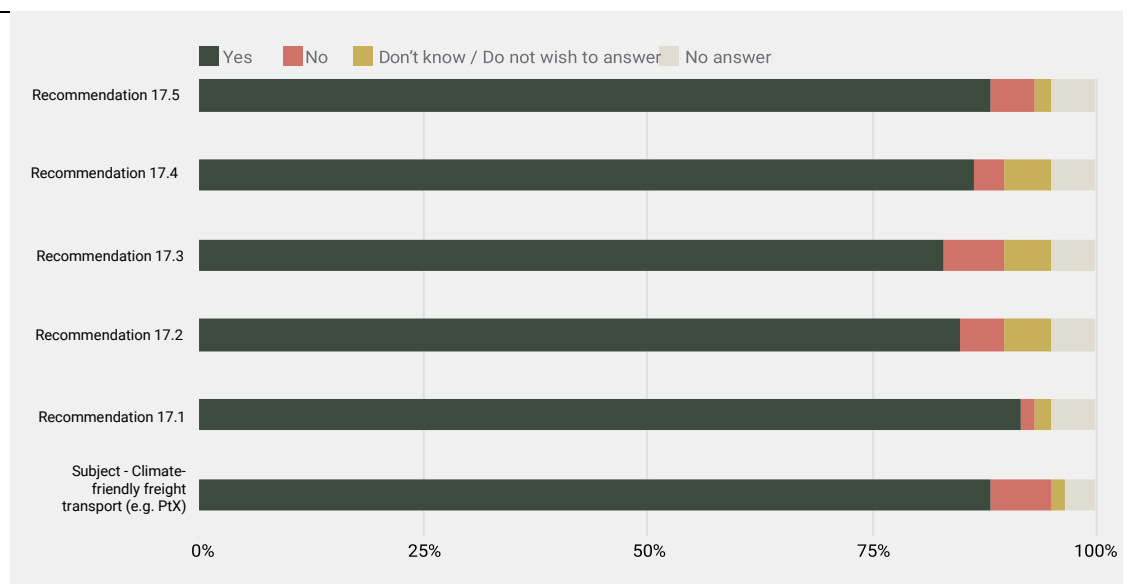
transport onto rails when working on solutions that must be feasible in the short term, i.e. by 2030 or 2050. This is especially true because we still have a long way to go from fully electrified railway, which would otherwise be able to help make freight transport by rail more climate-friendly. It is only in the long term that the Government could work on shifting long-distance transport onto railways (with electrified trains).

Accordingly, new technology is needed in the area of long-distance transport of goods with lorries, which could include electric lorries. Transport by lorries on road will always be a fact of life. The most promising technologies at present appear to be biofuel and e-fuels, but it is difficult to be certain that they will not be overtaken by other new technologies in the long run.

## Recommendations

- 17.1 Political initiatives aimed at supporting green development in the area of transport are needed. First and foremost, the Government should provide public sector funding for the development and research of new technologies that appear to have promise today, i.e. biofuel and PtX (e-fuels). There should also be a more long-term plan with public funding designated for research and development of hitherto undiscovered technologies that show long-term potential.
- 17.2 There should be a financial incentive to use biofuel, electricity or PtX. This would allow for part of the lorry transport to transition over to trains, electric lorries or more climate-friendly methods. One possibility could be creating a system where a fee is charged depending on how much CO<sub>2</sub> is emitted in connection with the long-distance transport of goods. Another possibility could be a financial incentive for freight and logistics companies to use biofuel and PtX (e-fuels), thereby creating an incentive to transition to greener solutions and ensuring that the risks are not solely borne by the freight and logistics companies.
- 17.3 Public procurement by the state, regions and municipalities should also serve as pioneering role models in this area. We therefore recommend that public authorities should ensure that their procurements are transported in a climate-friendly manner.
- 17.4 We recommend taking initiatives to develop railway transport with a view to making it competitive, thereby moving heavy transport off the roads and onto the railways in the long term. This would ensure that long-distance transport with lorries that cannot be electrified is minimised to the greatest possible extent, as the stretch from the railway station and the final delivery point will be a shorter distance where smaller and electrified lorries could presumably be used.
- 17.5 We recommend establishing unloading hubs outside the cities so that goods can be transported into cities in a more climate-friendly manner, e.g. via electric vans.

## Voting results



# Recommendations on technical facilities in/as part of the landscape



## 18. Renewable energy co-ownership

Popular opposition emerges against renewable energy facilities in local areas if they do not contribute to the local community or if there is not a sense of co-ownership. This recommendation focuses on different solutions for co-ownership and influence on renewable energy projects.

Part of this popular opposition stems from the fact that citizens do not know what happens to renewable energy facilities once they are no longer in use/discontinued. Will the old wind turbines/solar farms remain standing? Part of the opposition also stems from the fact that renewable energy facilities have gained a reputation for seizing land and removing natural areas, as well as harming biodiversity (for instance when migratory birds fly into wind turbines).

When renewable energy projects are locally anchored, consumer-owned and non-profit, they have a high chance of being successful. Consumers approve of having a local power supply.

It is the large energy producers that own the large offshore wind farms.

### Assessments

There is much to learn from wind power projects that have been a success, such as in Hvide Sande.

Instead of waiting until the final stage of planning for the local community to accept the project, the planning should start by giving locals influence and co-ownership of the projects.

Co-ownership can be granted to many different types of facilities, including for instance charging stations for electric cars.

Some municipalities do not have the possibility to erect large renewable energy facilities, especially in the big cities.

The magnitude of the investments needed for the green transition, but also the need for all citizens to gain co-ownership, suggests that the Danish state could become an investor in such projects, especially large-scale ones. There is a risk that only the wealthy can invest and reap the financial benefits of renewable energy projects, but via the Danish state, their electricity supplier, citizens' groups and their pension company, ordinary citizens with limited resources can also gain influence. One could imagine a parallel scenario to how Norway earned a lot of money off its vast oil resources, which are considered "the people's money" in the Government Pension Fund of Norway.

People should be made aware of how they can benefit from choosing green solutions over fossil fuel solutions (via co-ownership).

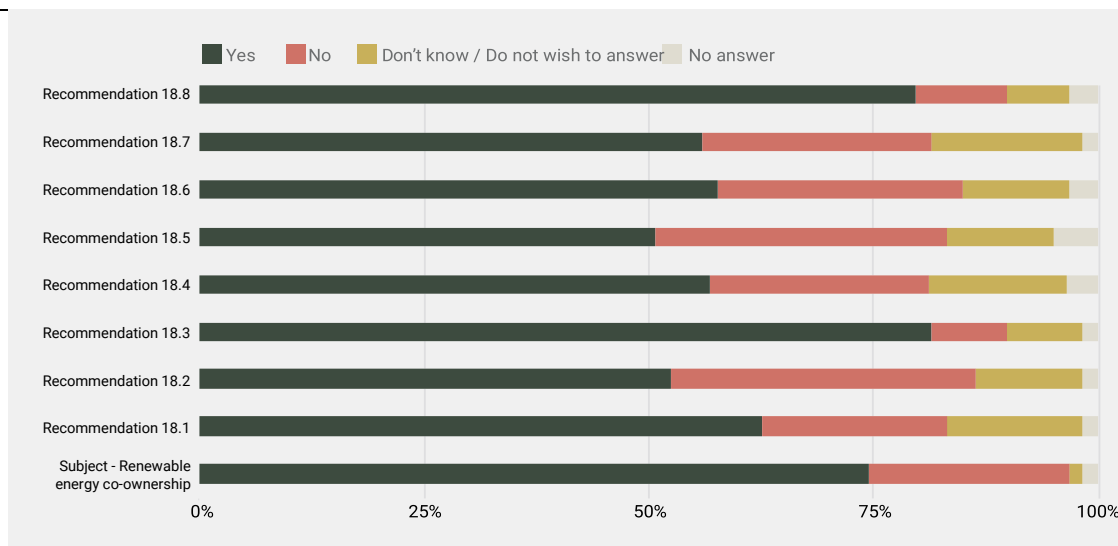
### Recommendations

- 18.1 There should be more opportunities for citizens to buy stakes in offshore wind farms and other large facilities that can supplement the opportunity to purchase shares in large energy companies (independently or via their pension contributions). For example, citizens could be given the opportunity to acquire a stake in the investments. This would also be a way of getting citizens involved in the planning of such projects.
- 18.2 Municipalities should also be able to purchase a stake in renewable energy facilities, including municipalities that do not have the land to erect wind turbines locally. In general, there should be more possibilities for citizens, municipalities, associations, etc. to invest in offshore wind farms and other facilities instead of merely having wind turbines in their local area.
- 18.3 More wind projects akin to the ones in Hvide Sande should be prioritised, where the wind turbines by the harbour provided opportunities to develop the harbour and local area. It should also be made mandatory for the development associated with such projects to be sustainable.
- 18.4 As a way of mitigating the loss of biodiversity and nature that renewable energy facilities result in, profits from state-owned facilities in municipalities should be spent on nature areas that

benefit biodiversity and the local citizens' outdoor recreational lives. The type of nature areas should be decided at the local level.

- 18.5 The Parliament/Government should investigate whether any models can be developed that would allow the Danish state to invest in renewable energy in a way that the profits end up in the public purse (assuming they are not passed on to the municipalities) rather than with private energy companies.
- 18.6 Instead of a process where the citizens' approval is sought at the final stage of planning large facilities and offering compensation to those living nearby, such projects should start by giving the local citizens influence and co-ownership of the projects. Compensation should be awarded in the form of co-ownership.
- 18.7 The landowners' association, cooperative association and/or local community should have the opportunity to use their financial resources to purchase a stake in major renewable energy projects. The returns should be used for green areas with a view to encouraging biodiversity or outdoor recreational activities.
- 18.8 Support initiatives for the local establishment of renewable energy so that a portion of the operational profits remain in the local area, ensuring the citizens have a more positive view of such projects when they are not large, unfamiliar and 'outside' businesses erecting wind turbines and funnelling the profits somewhere outside the local communities.

## Voting results



## 19. Placement of technical facilities in/as part of the landscape

If we want more renewable energy, placing such technical facilities in the Danish landscape will be necessary. There are several forms of renewable energy facilities in the Danish landscape, such as wind turbines, solar parks and high-voltage power lines.

We need to find models for the most optimal placement of decentralised renewable energy facilities to ensure the greatest possible backing while avoiding unnecessary and extremely costly expansions of the electricity grid.

Technical facilities in the Danish landscape can end up costing individual citizens, e.g. in the form of lower property valuations due to noise or unappealing views. There are a growing number of civil protests being organised against wind and solar energy projects that need to be addressed.

The recommendation "Co-ownership of renewable energy" contains some proposals that we regard as prerequisites for local acceptance of renewable energy facilities.

This also offers an opportunity to relocate innovation out into rural areas, which may encourage their further growth and development.

The Citizens' Assembly still has many questions that warrant further investigation in autumn 2021. For example, there are three questions we have not had time to address yet:

- How much wind and solar power is needed to make Denmark a green country? Both in terms of how much land that would take as well as how large a share could come from offshore wind turbines.
- Are current investments in new technologies, such as wave technology and geothermal energy, adequate?
- It would appear that offshore wind is the best solution, even though it may appear to be a less attractive investment than onshore wind turbines. How do the financial prospects look for offshore vs onshore wind turbines?

## Assessments

Some citizens are concerned about what will happen to facilities after they are discontinued. Should there be a requirement that they should be removed upon no longer being in use and that the materials should be reused in a sustainable manner? The manufacturer could be legally required to ensure that the materials are recycled, e.g. by selling the materials to other companies that could recycle them. Such a requirement would be similar to the law in France which stipulates that supermarkets are not allowed to have food waste but must donate/sell all their food products.

The Citizens' Assembly has determined a need for citizen inclusion when constructing technical facilities in the Danish landscape, especially in relation to planning the location.

We have heard that Energinet.dk is obligated to ensure that the electricity grid can handle every kind of established renewable energy facility, including large solar parks far from cities. We have also heard that it is inappropriate from a socioeconomic perspective to erect large facilities far from the households that will be consuming that energy when it would require a massive expansion of the electricity grid. One such example is the island of Ærø which will be supplying power to Copenhagen.

The Citizens' Assembly believes that it can cause confusion when citizens hear about those kinds of disproportionate rules that can cast renewable energy facilities in a bad light. In addition, it makes the green transition disproportionately expensive if we establish renewable energy facilities that require further expansions to the electricity grid rather than simply finding better locations for them. Thus, poorly thought-out locations of renewable energy facilities can become costly, thereby requiring more renewable energy facilities which can once more give rise to even more popular opposition.

## Recommendations

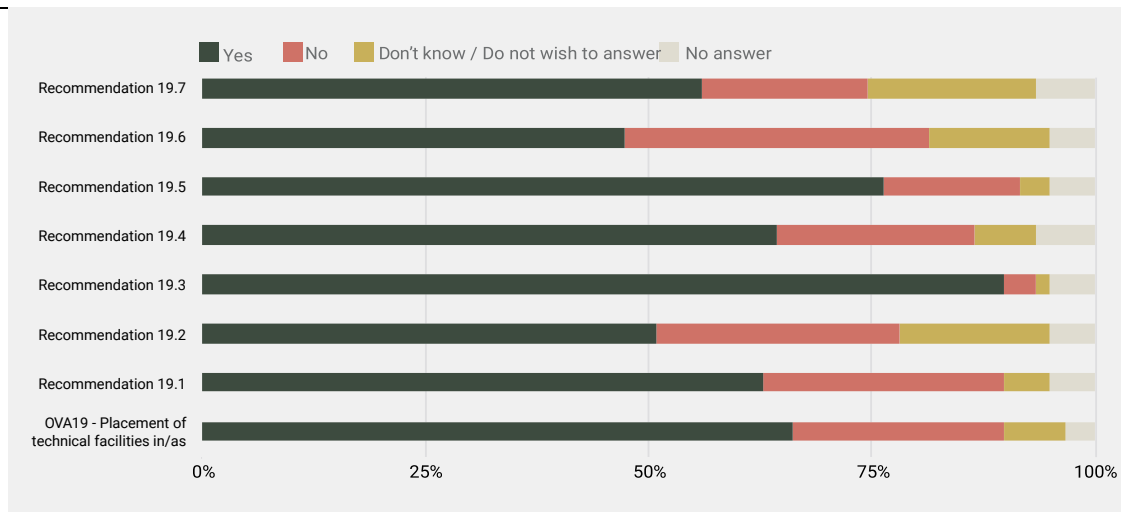
- 19.1 An overall national plan for how to roll out the establishment of renewable energy facilities so that the energy is produced close to where it will be consumed.
- 19.2 Legislation in the area of solar thermal collectors should be amended to avoid creating unnecessary expansions of the electricity grid and wasted power. In addition, subsidies should not be granted to solar thermal collectors when it does not make socioeconomic sense to do so (e.g. in the case of small solar thermal collectors on private homes that produce energy when people are not home versus factories that consume the power during daytime hours for production). There are also examples of solar panels being installed on buildings and existing industrial building roofs.
- 19.3 The Citizens' Assembly recommends that consideration be given to locating green facilities along existing infrastructure such as motorways, railways, etc. It would be helpful to determine the location of such facilities in consultation with local citizens' groups based on where they believe the facility would create the least possible nuisances for the local community. A real-life example of such an approach is Hvide Sande, with wind turbines close to the city and placed on/by the harbour.
- 19.4 The Danish Parliament should set targets for municipalities regarding their contribution to the production of renewable energy, ideally with an option to 'trade' such an obligation between



municipalities. The Danish regions should have a role in ensuring that each region also supplies the necessary amount of renewable energy.

- 19.5 Municipalities should be obligated and incentivised to prepare a roadmap/action plan for achieving energy targets - with sub-targets. Municipalities should be given the flexibility to determine on their own how to achieve their sub-targets. The action plan should be developed jointly with local citizens. Local co-ownership should be a requirement.
- 19.6 The Danish state should pass legislation prohibiting pension companies from investing in fossil fuels after a certain year. This would make citizens feel that they will benefit from renewable energy and result in less local resistance to - and better placement of - renewable energy facilities.
- 19.7 A green central register: In order to make it easier to place such renewable energy facilities, experts should develop an interactive online tool that would allow everyone to check how sustainable (socioeconomically and environmentally) it would be to place a new renewable energy facility in a given location. I.e. the tool should display Denmark's land areas as well as the electricity grid. Additionally, it should be able to calculate what the extra cost would be to society if one were to expand the electricity grid in connection with the establishment of a new facility somewhere, versus how much the power generated benefits the location the user has selected on the map of Denmark. This would allow municipalities, citizens, companies, investors, etc., to see whether developing renewable energy facilities is more sustainable (environmentally and socioeconomically) in one location versus another, or whether, for instance, it would make more sense to establish a single large facility or two smaller ones in two different locations.

**Voting results**



# Overview of recommendations



## Recommendations on popular education, behaviour and participation

### 1. Political action

- 1.1 We recommend that politicians be more proactive and bold, even if it comes at the expense of votes. There is a need to listen more to the experts - especially impartial experts - and push harder to implement the measures and policies that are necessary. We need action NOW! It is more important to listen to the experts - such as the Danish Climate Council - than laymen (which therefore technically includes the Citizens' Assembly).
- 1.2 It is important to get many minor initiatives underway (many small streams...), covering companies, citizens and other sectors, as less effort would therefore be involved for each initiative. Politicians should keep their eyes open for opportunities to promote and support good local initiatives, e.g. by removing obstacles in rules and administrative procedures.
- 1.3 There should be a public debate on the possibilities that a green constitution could lead to. This debate could draw upon experiences from other countries where the political responsibility for the environment, nature and climate has been enshrined in their constitutional framework and whether this has proved beneficial.
- 1.4 The Citizens' Assembly believes that the climate objectives must be achieved, but we are concerned about whether they can be achieved due to policies that shift from one government to the next. Our appeal is accordingly for broad and effective political agreements that can be upheld even after elections.

### 2. Citizen participation and popular education

- 2.1 The establishment of a permanent Citizens' Assembly as part of the Danish Council on Climate Change.
- 2.2 Local citizens' assemblies on climate issues in each of the country's municipalities, with a view to supporting local agendas and debates. This will build a framework that allows those citizens who want to get engaged to make their voices heard and thereby get the best climate councils that live in the local communities they draft proposals for.
- 2.3 Climate objectives at the municipal level with citizen participation on the matter of how to achieve those objectives.
- 2.4 In general terms, the Citizens' Assembly recommends that the Government should ensure sound communication to and with the population. This communication should be simple and straightforward so that everyone understands what changes in our behaviour are necessary, how these changes will be implemented and why they are needed.
- 2.5 The Citizens' Assembly recommends a greater degree of climate education in primary and lower secondary education (folkeskolen) and youth educational programmes as a general and mandatory part of early education curricula. There should be more instruction on climate-friendly diets in the school subject home economics. Climate education should also cover in depth why it is so difficult for societies and the international community to tackle the climate crisis in relation to other crises, i.e. not primarily about the scientific aspects of the climate crisis.

- 2.6 There is a need for various awareness-raising campaigns such as: Awareness-raising radio and TV programmes, debate programmes, funding for educational material, funding for film, theatre, visual arts, non-fiction, presentations, festivals, news broadcasting and an organ that poses questions.
- 2.7 Information about the calculation basis and full transparency on what our total emissions are and how we can reduce them based on scientific evidence. For example, information about the CO<sub>2</sub> emissions that is not included in our Danish emissions because some imported goods are produced abroad (such as soy-based animal feed from rainforest land in South America, which is used as feed in many conventional pig farms in Denmark).
- 2.8 The calculation basis should be fully synchronised and include all factors. In the long-term, it could be used for standardised labelling of packaging, groceries, etc.
- 2.9 Public libraries should take an active role in popular education and enter into collaborations with local media on local debates and news broadcasting. The efforts of public libraries should also be linked to efforts that support citizen-led initiatives and/or participation in specific sustainable adaptation issues, as concrete action can help make sense of the otherwise fairly abstract issues relating to climate and sustainability.

### **3. Behavioural changes with a focus on material consumption**

- 3.1 Our national accounts should be measured on factors other than solely economics: Life quality (social groups, good health, a sense that one is making a difference, freedom), longevity, sustainability, natural resources. Statistics Denmark has already developed and calculated a green GDP model, welfare goals and resource consumption. The Government should accordingly publish an annual status report on these factors in connection with the publishing of the finance act with a view to increasing awareness of and providing an incentive for positive development.
- 3.2 The results from the annual status report can be used to initiate targeted information campaigns with positive messages as a way to change consumer ideals.
- 3.3 Consumers need to have the tools to be able to see where they can reduce their carbon footprint.
- 3.4 Provide discounts for appropriate consumer behaviour, similar to the low electricity fees consumers benefit from when using electricity at night.

### **4. Climate declaration**

- 4.1 Prepare a joint climate declaration with associated labelling (start nationally and expand to the EU/global level) which - similar to how the product declaration on food products indicates the nutritional content indicates how much a given product impacts the environment and climate. For example, this could be in relation to how much CO<sub>2</sub> was emitted in connection with the production of t-shirts from Portugal or China, minced meat from Denmark or Poland or cucumbers from Spain.
- 4.2 This declaration should be followed up with an awareness-raising and information campaign targeting consumers, e.g. in the form of raising awareness among young people in schools, which could lead to behavioural changes.



## Recommendations on funding and levies

### 5. Long-term investments from state and pension companies

- 5.1 The Citizens' Assembly believes that the Danish state and pension companies should take responsibility for investments that are necessary yet not driven by market forces. The state/public sector should invest in commercial initiatives as well as provide support for new climate solutions.
- 5.2 The state's investments should not be limited to the proceeds of a carbon tax, but the proceeds of such a tax should be included in the investments.
- 5.3 The state's investments should focus on areas that offer considerable potential for the climate transition, such as transport and the development of solutions for the agricultural sector, which are two areas where major progress can be achieved by developing and implementing new solutions. This should not be seen as being in conflict with also supporting/investing in solutions with commercial prospects and which will make Denmark wealthier, e.g. through exporting the solutions; one should not exclude the other.
- 5.4 The Citizens' Assembly recommends that pension companies should invest in the green transition. They should have a clear target for how large a share of their funds should be deployed towards green investments.
- 5.5 Pension companies should be allowed to make higher-risk investments when it comes to green investments. The risk level requirements for that type of investments should be reassessed and perhaps eased.

### 6. Carbon tax, social balance and citizen participation

- 6.1 The Citizens' Assembly strongly recommends the introduction of a national carbon tax as soon as possible with a view to achieving our climate targets for 2030 and 2050. The carbon tax system should primarily be based on levies charged at the production stage/source of emissions.
- 6.2 The Citizens' Assembly recommends that the Danish Parliament works to ensure social balance in the development and implementation of a carbon tax. It should be an objective to ensure that the most disadvantaged in society will not end up having to pay more in taxes than they already are. Accordingly, the new taxes must be counterbalanced by reductions or eliminations of present costs that do not benefit the green transition.
- 6.3 The Citizens' Assembly recommends that the Danish Parliament ensures effective communication with a 'green thread' vis-à-vis citizens and companies in the development and implementation of a carbon tax. We recommend that the Government ensures citizen participation, co-responsibility and an ongoing debate so that citizens of every strata in society are included in the carbon tax debate.
- 6.4 The Danish Parliament should inform citizens about what is needed to achieve the climate goals, why it works and who should do it. Communication, education and a pedagogical approach and explanation is important to ensure popular support. The effect that a carbon tax will have on the green transition in relation to private individuals and companies should be clarified.
- 6.5 If the green transition is to succeed, broad popular support is crucial. Civic engagement should be facilitated to cover all of Denmark and organised in such a way that it creates an opportunity for ongoing dialogue between experts, politicians and citizens.

### 7. Carbon tax: Contribution to a green tax reform:

- 7.1 We strongly recommend introducing a tax on the emission of greenhouse gases - a so-called carbon tax. This should be done through the development and implementation of a carbon tax system (green tax reform) that includes long-term considerations for how we can achieve Denmark's climate goals. At the same time, this long-term focus should ensure that the tax system is straightforward to citizens and companies in Denmark.
- 7.2 The Citizens' Assembly believes that in order to ensure the success of a carbon tax system, the current tax system must first be analysed to understand the basis for a carbon tax.
- 7.3 The Citizens' Assembly believes that the carbon tax system should mainly be based on taxes levied at the production stage/source of emissions.
- 7.4 It is important that "black energy" is taxed rather than green energy.
- 7.5 A lower-limit allowance for emissions should be reviewed. We would like to see a lower-limit allowance to be set as low as possible so that companies remain motivated to restructure their production processes while not being so low that we risk carbon leakage.
- 7.6 The Citizens' Assembly recommends incorporating the possibility of a reduction in the carbon tax for companies investing in their own green transition.
- 7.7 There should be a focus on the fact that all companies will have to undergo a transition period, allowing each company time to ensure a long-term sustainable transition.
- 7.8 The complexity of individual industries and the timeframe for transition must be taken into account.
- 7.9 Efforts should be made to improve opportunities for (low-interest) loans for companies investing in climate improvements to their production or facilities.
- 7.10 Overall, consumption taxes should be kept to the same level as now and equalised between consumption/product groups (example: make hydrogen and electric cars more affordable and make diesel and petrol cars correspondingly more expensive).
- 7.11 Efforts should be made to improve opportunities for (low-interest) loans for citizens investing in climate improvements, e.g. to their homes.
- 7.12 Instead of levying taxes on the consumption stage (where unsustainable products are consumed/purchased), the Government should increasingly focus on awareness-raising and nudging to change consumer behaviour that has a negative impact on the climate.

## **8. Levies on carbon-intensive industry**

- 8.1 As far as possible, a universal tax should be introduced, albeit with differentiation between industries as needed.
- 8.2 The Citizens' Assembly recommends introducing an incentive in the form of a CO<sub>2</sub>e-reduction incentive that repays a portion of a company's tax liability if they succeed in reducing their CO<sub>2</sub>e emissions.



## Recommendations on agriculture, land and resources

### 9. Bioeconomic solutions

- 9.1 Denmark should be a pioneering country in relation to biomass recycling, and the Government should accordingly fund research aimed at promoting biomass production and utilisation. Additionally, the Government should create a framework that allows companies to enter into partnerships with research institutions to a greater extent than is the case today.
- 9.2 Denmark should avoid importing biomass and instead use the biomass we are able to produce domestically. Politicians should therefore find a solution as soon as possible to how we can avoid importing biomass.
- 9.3 Residual material from agricultural production, households and industry should circulate in the bioeconomy. Legislation should be drafted for businesses and agriculture which regulates and monitors the use of residual material/biomass.

### 10. Bioplastics action plan

- 10.1 The Government should draft a national action plan for phasing out the use of fossil-based plastics in favour of adopting bio-based plastics or other materials.
- 10.2 The Government should accelerate efforts on developing incentive structures that make it attractive to utilise plastics based on biomass over plastics based on fossil resources, such as through taxes. Alternatively, the Government could consider banning or limiting the use of plastics made from fossil resources.
- 10.3 The industry/producers should be held responsible for their products and subjected to clearer labelling requirements.
- 10.4 Companies should be subjected to taxes and responsibility for production and recycling.

### 11. Standardisation of waste sorting

- 11.1 There should be a strong collaboration across municipalities and the Danish state on waste sorting.
- 11.2 The Government should set uniform standards for municipalities and companies, including for packaging. Municipalities should develop better waste sorting infrastructure (e.g. incineration plants or waste/recycling stations) that makes waste sorting simpler for the individual citizen.
- 11.3 Municipalities should provide more information to citizens with a view to changing their waste sorting habits. Citizens should regularly receive information about the impact of our waste sorting.

### 12. Agricultural land

- 12.1 The "harmony rules" should be amended to avoid standing in the way for designating land to other uses such as nature simply because the farmer needs to be able to document having sufficient land for their livestock. It should be possible to deliver liquid manure to a biogas plant immediately, which would also result in a reduction of methane emissions from liquid manure tanks. The number of livestock could thereby be decoupled from access to land, allowing livestock to be produced in areas where it makes the most sense to do so.
- 12.2 A more aggressive - possibly compulsory - model for rewetting peat soils should be implemented, both in terms of the speed of rewetting and total land area; ideally up to the 170,000 hectares recommended by the Danish Council on Climate Change. Experts have agreed on the necessity of such action for years, without any real progress being made.
- 12.3 It should be examined what peat soils can be used for after being rewetted, such as for free-range grazing animals, renewable energy facilities, energy forestry, free nature, etc. This should be

included in the assessment on whether the land should be bought from the farmer or continue to be used for some form of agricultural production.

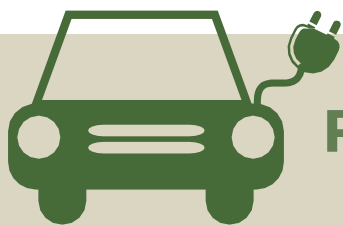
- 12.4 A large part of the land currently used to produce animal feed should be converted to produce plant-based foods for people or converted to clover grass, e.g. for the production of "grassmilk".
- 12.5 The Citizens' Assembly also recommends the institution of measures to reduce the import of animal feed such as soybeans to avoid carbon leakage. One potential solution could be via a carbon levy on animal feed that does not stem from CO<sub>2</sub>e-neutral production.
- 12.6 The demand for plant-based foods should be strengthened, e.g. through incentive schemes or taxes on animal-based products. This would reduce meat consumption in Denmark, which would in turn have a beneficial impact on our national greenhouse gas emissions.
- 12.7 Per hectare subsidies should be converted from pure land subsidies to subsidies for efficient (and climate-friendly) production.
- 12.8 Research on efficient and sustainable forms of production that can also be adopted in other countries should receive further support with a view to increasing sustainable food production.

### **13. National strategy for land use**

- 13.1 Prepare a national strategy for land use.
- 13.2 The strategy should establish clear goals for how Danish land should, in percentage terms, be used in the future with a view to meeting the needs for more nature, woodland, area for extracting renewable energy, biomass, etc.
- 13.3 This strategy should have clear ambitions for a positive change in land use in Denmark year by year, and if there is to be any kind of hockey stick effect in this regard, the efforts should be planned sooner rather than later.
- 13.4 The strategy should support a goal to increase the overall amount of land we have at our disposal by using land for multiple purposes at once (e.g. through vertical agriculture, using land both for grazing and green energy, wind turbines in intensively cultivated fields or using rooftops for gardens and solar farms).
- 13.5 This strategy should ensure that biodiversity is supported to the greatest extent possible in all measures, and the impact of initiatives should be assessed similarly to an EIA.
- 13.6 The implementation of the strategy should be executed locally, where decision-makers have the greatest insight into how to manage local areas and to ensure local backing and ownership of the strategy.
- 13.7 Introduce an incentive scheme for land use that makes it attractive to use land in accordance with the strategy.
- 13.8 The incentive scheme should be based on subsidies or tax exemptions or linked to permits for the use of land for other purposes such as wind turbines or solar panels.
- 13.9 It should be made attractive to use rooftops for solar panels rather than using agricultural land for the same purpose.

### **14. Agriculture with a smaller carbon footprint:**

- 14.1 Denmark should reduce its meat production.
- 14.2 Make use of the new dietary recommendations to minimise meat consumption in Denmark.
- 14.3 Offer climate consultants/expertise to farmers (both nationally and abroad) to ensure they receive the necessary knowledge to make an effective transition to more climate-friendly food production.
- 14.4 The state must provide support and research funding to enable agricultural intensification (new types of crops, fertilizers and feed).
- 14.5 Introduce an 'intelligent' meat tax, i.e. a tax on the production stage so that it becomes more expensive for agricultural enterprises that are not as climate-friendly.



## Recommendations on transport

### 15. Transition to electric transport

- 15.1 Both reductions and increases in taxes and levies should be viewed in relation how much a car pollutes. That is, cars that pollute more should 'pay' for cars that pollute less until the logistic (S-)curve breaks and the market is sufficiently saturated with electric cars. For example, this could be implemented through a form of sunset clause for exemption of levies on electric cars, so that petrol/diesel-fuelled cars remain expensive while electric vehicles gradually end up contributing taxes and levies to the Treasury in the same way as normal cars do today.
- 15.2 Similarly, fixed parking fees for private citizens as well as businesses could be generally raised on cars that pollute, as is currently the case in cities such as Copenhagen.
- 15.3 However, the design of these taxes and levies should avoid creating distortions in relation to being able to purchase and use electric cars; electric cars should be affordable for every income strata, even though people with higher incomes use cars to a greater extent.
- 15.4 All petrol/diesel-fuelled distribution transport within large cities should be taxed via environmental labelling by 2030 in relation to their degree of pollution.
- 15.5 Electric cars could be exempted from such taxation. For example, a form of CO<sub>2</sub> labelling should be introduced (akin to the energy labelling we have today) to help consumers make an informed choice. Such an initiative would not even have to be restricted to cars. The cradle-to-gate perspective as well as energy consumption in terms of load on the electricity grid are also examples of factors that labelling schemes could be developed for.
- 15.6 An increased scrapping premium for petrol/diesel cars should be granted up to 2030, the idea being once again to make the incentive to switch to an electric car even more favourable.
- 15.7 Charging infrastructure should be expanded in such a way to ensure an even distribution of accessibility, even in big cities.
- 15.8 Requirements should be placed on private and public sector workplaces to provide a number of charging stations in proportion to their number of employees.
- 15.9 Requirements should also be placed on electric charging station providers to eliminate payment models that require customers to have one subscription per provider (and their associated stations), making the choice of where to recharge an electric vehicle as free as it is today with petrol/diesel cars and filling stations.
- 15.10 Charging station providers should also be required to allow for every type of plug to be used at every charging station.
- 15.11 All public transport, the public sector's use of vehicles and taxis should be electrified no later than 2030.
- 15.12 The Government should launch a public information campaign that addresses all aspects of people's scepticism and uncertainties about switching to electric cars.
- 15.13 Requirements must be established for transparency in the production as well as recycling of electric cars, including appropriate production of batteries. Without this transparency, makers of electric cars should be prohibited from selling their cars in Denmark.
- 15.14 In addition, the Government should provide significant funding towards research on the recycling of materials used in electric cars.

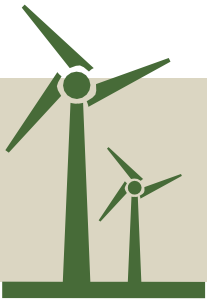


**16. Flexible public transport as an appealing choice**

- 16.1 Public transport should be a natural choice due to being cheaper, superior and the most environmentally friendly option. The Citizens' Assembly's general recommendations are accordingly that public transport should be revised with a view to making it more flexible. We need more solutions with lower user fees without compromising on flexibility.
- 16.2 The Citizens' Assembly believes that public transport should be optimised and made more appealing and easily available, both outside and inside cities; e.g. with free parking outside the cities and free collective transport into cities from such parking areas (park and ride).
- 16.3 Outside major cities, bus routes need to be more direct, with shorter transport times and coordinated with each other.
- 16.4 Minibuses should be employed in appropriate areas instead of large, half-empty buses.
- 16.5 Flextrafik should be marketed better and to everyone in areas that lack well-functioning public transport.
- 16.6 The price of public transport - if not free of charge - should be based on distance and not regional borders.
- 16.7 One could also consider testing driverless electric flex-buses.
- 16.8 Public transport should run on electricity or hydrogen, as public transport should serve as a precedent for how electrification should work in practice.
- 16.9 Efforts to educate the public on green transport options should take place at the national, regional and municipal level.
- 16.10 An app that provides a comprehensive overview of carpooling options (such as GoMore), public transport and flex-traffic should be developed. The app should be available on mobile phones and smartwatches.

**17. Climate-friendly freight transport (e.g. PtX)**

- 17.1 Political initiatives aimed at supporting green development in the area of transport are needed. First and foremost, the Government should provide public sector funding for the development and research of new technologies that appear to have promise today, i.e. biofuel and PtX (e-fuels). There should also be a more long-term plan with public funding designated for research and development of hitherto undiscovered technologies that show long-term potential.
- 17.2 There should be a financial incentive to use biofuel, electricity or PtX. This would allow for part of the lorry transport to transition over to trains, electric lorries or more climate-friendly methods. One option is to implement a system that makes it possible to pay a fee according to how much CO<sub>2</sub> was emitted during long-distance transport. Another possibility could be a financial incentive for freight and logistics companies to use biofuel and PtX (e-fuels), thereby creating an incentive to transition to greener solutions and ensuring that the risks are not solely borne by the freight and logistics companies.
- 17.3 Public procurement by the state, regions and municipalities should also serve as pioneering role models in this area. We therefore recommend that public authorities should ensure that their procurements are transported in a climate-friendly manner.
- 17.4 We recommend taking initiatives to develop railway transport with a view to making it competitive, thereby moving heavy transport off the roads and onto the railways in the long term. This would ensure that long-distance transport with lorries that cannot be electrified is minimised to the greatest possible extent, as the stretch from the railway station and the final delivery point will be a shorter distance where smaller and electrified lorries could presumably be used.
- 17.5 We recommend establishing unloading hubs outside the cities so that goods can be transported into cities in a more climate-friendly manner, e.g. via electric vans.



## Recommendations on technical facilities in/as part of the landscape

### 18. Renewable energy co-ownership

- 18.1 There should be more opportunities for citizens to buy stakes in offshore wind farms and other large facilities that can supplement the opportunity to purchase shares in large energy companies (independently or via their pension contributions). For example, citizens could be given the opportunity to acquire a stake in the investments. This would also be a way of getting citizens involved in the planning of such projects.
- 18.2 Municipalities should also be able to purchase a stake in renewable energy facilities, including municipalities that do not have the land to erect wind turbines locally. In general, there should be more possibilities for citizens, municipalities, associations, etc. to invest in offshore wind farms and other facilities instead of merely having wind turbines in their local area.
- 18.3 More wind projects akin to the ones in Hvide Sande should be prioritised, where the wind turbines by the harbour provided opportunities to develop the harbour and local area. It should also be made mandatory for the development associated with such projects to be sustainable.
- 18.4 As a way of mitigating the loss of biodiversity and nature that renewable energy facilities result in, profits from state-owned facilities in municipalities should be spent on nature areas that benefit biodiversity and the local citizens' outdoor recreational lives. The type of nature areas should be decided at the local level.
- 18.5 The Parliament/Government should investigate whether any models can be developed that would allow the Danish state to invest in renewable energy in a way that the profits end up in the public purse (assuming they are not passed on to the municipalities) rather than with private energy companies.
- 18.6 Instead of a process where the citizens' approval is sought at the final stage of planning large facilities and offering compensation to those living nearby, such projects should start by giving the local citizens influence and co-ownership of the projects. Compensation should be awarded in the form of co-ownership.
- 18.7 The landowners' association, cooperative association and/or local community should have the opportunity to use their financial resources to purchase a stake in major renewable energy projects. The returns should be used for green areas with a view to encouraging biodiversity or outdoor recreational activities.
- 18.8 Support initiatives for the local establishment of renewable energy so that a portion of the operational profits remain in the local area, ensuring the citizens have a more positive view of such projects when they are not large, unfamiliar and 'outside' businesses erecting wind turbines and funnelling the profits somewhere outside the local communities.

### 19. Placement of technical facilities in/as part of the landscape

- 19.1 An overall national plan for how to roll out the establishment of renewable energy facilities so that the energy is produced close to where it will be consumed.
- 19.2 Legislation in the area of solar thermal collectors should be amended to avoid creating unnecessary expansions of the electricity grid and wasted power. In addition, subsidies should not be granted to solar thermal collectors when it does not make socioeconomic sense to do so (e.g. in the case of small solar thermal collectors on private homes that produce energy when people are not home versus factories that consume the power during daytime hours for production). There are also examples of solar panels being installed on buildings and existing industrial building roofs.

- 19.3 The Citizens' Assembly recommends that consideration be given to locating green facilities along existing infrastructure such as motorways, railways, etc. It would be helpful to determine the location of such facilities in consultation with local citizens' groups based on where they believe the facility would create the least possible nuisances for the local community. A real-life example of such an approach is Hvide Sande, with wind turbines close to the city and placed on/by the harbour.
- 19.4 The Danish Parliament should set targets for municipalities regarding their contribution to the production of renewable energy, ideally with an option to 'trade' such an obligation between municipalities. The Danish regions should have a role in ensuring that each region also supplies the necessary amount of renewable energy.
- 19.5 Municipalities should be obligated and incentivised to prepare a roadmap/action plan for achieving energy targets - with sub-targets. Municipalities should be given the flexibility to determine on their own how to achieve their sub-targets. The action plan should be developed jointly with local citizens. Local co-ownership should be a requirement.
- 19.6 The Danish state should pass legislation prohibiting pension companies from investing in fossil fuels after a certain year. This would make citizens feel that they will benefit from renewable energy and result in less local resistance to - and better placement of - renewable energy facilities.
- 19.7 A green central register: In order to make it easier to place such renewable energy facilities, experts should develop an interactive online tool that would allow everyone to check how sustainable (socioeconomically and environmentally) it would be to place a new renewable energy facility in a given location. I.e. the tool should display Denmark's land areas as well as the electricity grid. Additionally, it should be able to calculate what the extra cost would be to society if one were to expand the electricity grid in connection with the establishment of a new facility somewhere, versus how much the power generated benefits the location the user has selected on the map of Denmark. This would allow municipalities, citizens, companies, investors, etc., to see whether developing renewable energy facilities is more sustainable (environmentally and socioeconomically) in one location versus another, or whether, for instance, it would make more sense to establish a single large facility or two smaller ones in two different locations.

# Glossary

**Committee report:** A committee report details a parliamentary committee's work on a matter or proposal. It concludes the committee work and contains the committee members' position on the matter.

**Minister for Climate, Energy and Utilities:** Dan Jørgensen (the Social Democratic Party) took office as Minister for Climate, Energy and Utilities on 27 June 2019.

**Ministry of Climate, Energy and Utilities:** A Danish ministry responsible for Denmark's national and international climate efforts, the energy sector and cases regarding waste incineration plants, geological surveys in Denmark and Greenland and meteorology, among other things.

**The Climate, Energy and Utilities Committee:** A committee in the Danish Parliament that works on all subjects related to energy, utilities and climate policy.

**The OECD principles:** The OECD has developed [11 principles](#) for how citizen participation processes can function as well as possible.

# Annex 1 - The Citizens' Assembly concept



## The Citizens' Assembly concept

**Date**  
29. June 2020

This concept note outlines the overall concept of the citizens' assembly on climate issues. It includes a description of the purpose and organisation of the Citizens' Assembly, methodological considerations, the first and second phase of Citizens' Assembly gatherings as well as information on follow-ups and the public availability of material, etc. The concept is based on a report prepared by the Danish Board of Technology as well as the OECD's guiding principles for citizen participation.

### **Purpose and organisation**

The Citizens' Assembly will consist of 99 citizens selected on the basis of some simple criteria such as age, gender, geography, education and income. Their task will be to debate citizen-level dilemmas associated with the green transition as well as provide input and recommendations to the drafting of the climate action plans. This process will take place via a number of Citizens' Assembly gatherings, which will host relevant experts who can educate them on a variety of issues prior to their discussion, where they reach a final conclusion by vote. Thereafter, the Citizens' Assembly presents its conclusions and recommendations to the Minister for Climate, Energy and Utilities (hereinafter referred to as the minister) as well as the Danish Parliament's Climate, Energy and Utilities Committee (CEU Committee).

### *Credibility-building guarantors*

The Danish Ministry of Climate, Energy and Utilities (MCEU) is the coordinating secretariat for the Citizens' Assembly. With a view to ensuring integrity and transparency in accordance with the OECD's principles, three guarantors will be established:

- 1) An expert panel consisting of 4-6 experts who can ensure the quality and balance of expertise on themes, information material and questions to the Citizens' Assembly.
- 2) An expert on citizens' assemblies and citizen participation who can provide guidance to ensure that each step of the method is carried out to a high standard in detail.
- 3) An external overall facilitator for the Citizens' Assembly's gatherings.



### **Method for selecting and recruiting citizens**

#### *Random representative sample*

Statistics Denmark will carry out the selection of citizens with the aim of achieving approximate representativeness between the Citizens' Assembly's members and the population of Denmark as a whole. The MCEU is currently in dialogue with Statistics Denmark regarding the exact method and process for recruiting citizens. The method will ensure autonomy and approximate representativeness.

#### *Dropout*

Statistics Denmark will also be asked to prepare a group of alternates that should be as and which can be contacted in the event of any dropouts.

#### *Time period*

The members of the Citizens' Assembly will be the same people in the first and second phase outlined in this concept note.

### **Subjects and themes**

Subjects and themes that the Citizens' Assembly will address in the first phase should be ones that directly impact ordinary citizens ("citizen-level"). In accordance with the OECD's principles, a subject should be chosen that is relevant to the general population, after which the specific questions to the citizens on the subject should be formulated clearly and distinctly in neutral language. Dialogue with the OECD as well as experiences from other countries shows that this is an important component in enabling a debate that results in concrete recommendations from the citizens.

The framework for the first gathering will be the guiding principles of the Danish Climate Act. These entail that Denmark's climate efforts should be conducted with consideration for sound public finances, cost-effectiveness, employment, sustainable business development and Danish competitiveness as well as ensuring that Denmark is a pioneering country in the international fight against climate change so that we can inspire and influence the rest of the world. Denmark has not only a historical, but also a moral responsibility to take the lead.

Material will be prepared for the first gathering. At the same time, a list of other themes that directly impact ordinary citizens will be created for the Citizens' Assembly to prioritise at the first gathering. The themes that the Citizens' Assembly chooses to give the highest priority will form the basis for future gatherings.

### **First phase of the Citizens' Assembly**

2020 will be organised so that the Citizens' Assembly will debate concrete dilemmas over the course of three gatherings.

The first phase is outlined in chronological order below:



- A main topic will be selected along with a number of other themes believed to directly impact ordinary citizens and which are relevant to the drafting of the climate action plans as well as other current political agendas. This will ensure that the Citizens' Assembly's conclusions and recommendations are applicable to concrete climate policy agendas.
- Information material will be prepared which inform the members about challenges and potential solutions in relation to the subject. The material will be prepared in collaboration with the expert panel.
- A number of tasks/questions will be formulated for the citizens in relation to the main topic and themes.
- This information material and tasks will be sent to the Citizens' Assembly.
- The first gathering of the Citizens' Assembly will be held over a weekend. In addition to completing/formulating answers to the tasks/questions, the Citizens' Assembly will be tasked with prioritising the themes for further consideration at the next gathering.
- This will be followed by a status report to the CEU Committee and the minister.
- Supplementary information material on the highest priority themes from the first gathering will be prepared in collaboration with the expert panel, after which it will be sent to the Citizens' Assembly.
- The second gathering of the Citizens' Assembly will be held over a weekend, where a number of the prioritised themes from the first gathering will be considered.
- The result of the second gathering will be communicated to the minister and CEU Committee a few days after during a three-hour seminar at Christiansborg. 9 members selected from the Citizens' Assembly will be present at the seminar to present the results for discussion.
- Supplementary information material on the remaining prioritised themes will be prepared in collaboration with the expert panel, after which it will be sent to the Citizens' Assembly.
- The third gathering of the Citizens' Assembly will be held over a weekend to address the subjects that were prioritised at the first gathering but which there was not time to consider at the second gathering.





- A few days after the meeting, a three-hour seminar (plus time for networking) at Christiansborg will be held, attended by the minister, CEU Committee and other relevant societal stakeholders. All 99 members of the Citizens' Assembly will be invited to present their results for discussion.

### **Second phase of the Citizens' Assembly**

The second phase of the Citizens' Assembly consists of two weekend meetings in 2021. The contents will be determined on the basis of experiences with the meetings in 2020.

### **Follow-up**

The members will be asked to anonymously evaluate the gatherings. An additional follow-up mechanism has been planned in the form of the seminars with a view to ensuring that the Citizens' Assembly's results are listened to by the politicians. The further follow-up will depend on the specific recommendations submitted by the Citizens' Assembly. There are no plans for subsequent follow-ups in the form of the comply or explain principle, but the minister can provide written feedback on specific measures on which the Citizens' Assembly has provided its recommendations and positions. In addition, the Danish Parliament's CEU Committee intends to discuss the Citizens' Assembly's recommendations and allow their discussion to be reflected in a report from the Committee.

### **Compensation**

It is important for the Citizens' Assembly to be both representative and inclusive. In connection with the OECD's recommendations, members of the Citizens' Assembly will accordingly be compensated for their participation in the gatherings.

#### *Transport costs*

The MCEU will cover up to DKK 700 in transport costs per gathering for each member. Members will be refunded their exact expenses on transport upon providing their receipts to the MCEU. Compensation will be awarded after each gathering has been held. Citizens are encouraged to use public transport, although some will not have that possibility due to geographical or other circumstances. Transport in a member's own car is accordingly covered according to current rates issued by the Employee and Competency Agency (Medarbejder og Kompetence Styrelsen), which is DKK 1.96 per km. Transport in one's own car is also subject to the limit of DKK 700 per gathering. Flights and taxi rides are not covered.

#### *Remuneration for participation*

Each member of the Citizens' Assembly receives DKK 1,000 in remuneration for participating in the first Citizens' Assembly gathering. It is expected that there will be three Citizens' Assembly gatherings in 2020 and an additional two gatherings in 2021. The total remuneration in 2020 is accordingly DKK 3,000 per member and DKK 2,000 per member in 2021.



Remuneration is only granted to members who attend the Citizens' Assembly gatherings. If, for instance, a member only attends one or two gatherings, they would only be eligible to receive DKK 1,000 or 2,000, respectively.

Payment of the remuneration for 2020 gatherings is disbursed as a lump sum after the third Citizens' Assembly gathering.

#### *Other expenses*

The MCEU also covers expenses for meals and hotel accommodation for the 99 members of the Citizens' Assembly. The MCEU is responsible for ordering meals and accommodation. Citizens will therefore not be required to submit receipts for meals and hotel accommodation.

#### **Citizens' anonymity**

Respect for the citizens' privacy and desire for anonymity is a key principle of the OECD's recommendations for citizen inclusion. The citizens' names will therefore not appear in external material published on the Citizens' Assembly. The members of the assembly are free to publicise their membership of the Citizens' Assembly, but are not actively encouraged to do so.

#### **Public accessibility**

Public accessibility of material and insight into the gatherings is a key element to ensuring transparency. Among other things, the OECD's principles prescribe that material and a visual insight into the Citizens' Assembly's gatherings be made publicly accessible. The Citizens' Assembly's presentation of results and recommendations to the minister and CEU Committee will be live-streamed similarly to how ministerial consultations are live-streamed today. However, the gatherings themselves should be held anonymously in order to secure the citizens' anonymity and ensure that their discussions are not influenced by other actors. The information material as well as the questions from gatherings are also published after each event.

*Updated 29 June 2020*

# Annex 2 - Code of Conduct for the Citizens' Assembly

## **Code of Conduct for the Citizens' Assembly**

### **Transparency**

The Citizens' Assembly is fully transparent. All presentations are recorded, and material used at the gatherings will be freely available once a gathering has concluded.

### **Respect**

It is important that the members of the Citizens' Assembly can freely and safely contribute and express their views without fear of personal attacks. The discussions during the Citizens' Assembly's gatherings are not recorded, and no individual members will be quoted without their prior consent.

### **Equality**

All the Citizens' Assembly's members have equal access to make their voice heard and speak if they wish.

### **Justice**

It is important that the full spectrum of views is heard on each subject and that orientation material provided to the members of the Citizens' Assembly is of the highest quality.

### **Speakers**

The Citizens' Assembly must be presented with several aspects of the same issue. When choosing speakers, the counter-expert principle applies.

### **Subjects**

A list will be prepared on subjects that the Citizens' Assembly should prioritise at the first gathering. The subjects that the Citizens' Assembly chooses to give the highest priority will form the basis for future gatherings.

### **Voting**

Voting, if necessary, is done by secret ballot among the members present. Votes are monitored by the main facilitators and at least two members of the Citizens' Assembly.

### **Publication of recommendations**

The Citizens' Assembly's recommendations will be made public.

# Annex 3 - The Citizens' Assembly's expert panel

The concept for the Citizens' Assembly states that it would be appropriate to establish three guarantors to ensure credibility and transparency in accordance with the OECD's guiding principles on citizen participation.

1. An expert panel consisting of 4-6 experts who can ensure the quality and balance of expertise on themes, information material and questions to the Citizens' Assembly
2. An expert on citizens' assemblies and citizen participation who can provide guidance to ensure that each step of the method is carried out to a high standard in detail.
3. An external overall facilitator for the Citizens' Assembly's gatherings.

The concept and programme for the Citizens' Assembly was developed in collaboration with the Danish Board of Technology, which is also responsible for facilitating the autumn gatherings.

Universities Denmark has appointed members to the expert panel of the Citizens' Assembly on climate issues as well as an expert on citizen participation.

Universities Denmark has proposed the following persons, who were appointed by the Rector's Conference appointment committee on the recommendation from the universities:

*The expert panel*

Professor Carsten Rahbek  
Center for Macroecology, Evolution and Climate  
University of Copenhagen

Professor Jørgen E. Olesen,  
Department of Agroecology,  
Aarhus University

Professor with special responsibilities Birgitte Sloth  
Department of Business and Economics,  
University of Southern Denmark

Associate Professor Jonas Egmos  
Department of People and Technology,  
Roskilde University

Professor Lone Kørnøv  
The Danish Centre for Environmental Assessment,  
Aalborg University

Professor Christina Tvarnø,  
CBS LAW  
Copenhagen Business School

*Expert on citizen participation:*

Associate Professor Annika Agger  
Department of Social Sciences and Business,  
Roskilde University

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# Annex 4 - Statistics Denmark

## The Citizens' Assembly on Climate Issues: Data collection and selection

### *For documentation*

In the summer of 2020, Statistics Denmark contacted a cross section of the Danish population with a view to identifying individuals who would be interested in participating in the Citizens' Assembly on Climate Issues under the auspices of the Danish Ministry of Climate, Energy and Utilities (MCEU). The Citizens' Assembly is a working group of 99 ordinary Danes tasked with discussing climate-related issues over the course of a number of meetings planned for autumn 2020.

Two processes were involved in the selection of members for the Citizens' Assembly. 1) An extract of a simple random sample of 5,000 people from the current adult population of Denmark, all of which were invited to express interest in participating in the Citizens' Assembly. 2) The selection process itself, where Statistics Denmark took a stratified sample of 99 persons and 99 alternates (among those who had expressed interest) who reflect the Danish population as representatively as possible.

In a questionnaire survey among the Danish population, there is a skewed dropout rate when examining a long list of parameters. Older persons are more likely to respond than younger generations, and women are more likely to respond than men. Additionally, the level of education among the respondents often has a positive effect on the response rate. The selected approach of extracting a stratified sample among those who signed up is to ensure that the distribution among the members of the Citizens' Assembly is as representative as possible of the general Danish population.

### **Data collection**

SRS from the Civil  
Registration System

Approximately 5,000 persons with an address in Denmark were selected from the Danish Civil Registration System, i.e. the current population in Denmark. The selection was performed as a simple random sample (SRS).

When drawing a sample of so many people, the outcome in 99 percent of cases will be a sample that adheres to the proportions of the selected population on a large number of parameters, including gender, age, region, income group, education group, ethnic origin and family type. We call this a universally representative sample, as our samples fit a wide range of background variables and not solely gender, age and geography, which is a somewhat narrow albeit oft-used measure of representativeness.

The questionnaire

A brief online questionnaire was set up for the selected individuals providing a brief explanation on the Citizens' Assembly and asking whether they wished to take part in it. Respondents who answered "Yes" were asked to submit their contact information (name, e-mail address and telephone number) and consent to their contact information being forwarded to the MCEU.

About the data collection  
process

In the data collection process, the persons in the sample were contacted through enquiries primarily sent as Digital Post to their e-Boks (a secure e-mail service in Denmark). In cases where the respondent was not registered to receive Digital Post,



we instead sent a letter in the mail. A total of three enquiries were sent to the sample group.

1. enquiry	The first enquiry with an invitation to the survey was sent on 2 July 2020. The invitation was sent to 5,018 persons. 4,604 received a letter by Digital Post. 415 were not registered for Digital Post and instead received a letter in the mail. <sup>1</sup> Initially, the invitation was sent without information about the specific meeting dates. Therefore, a subsequent e-mail/letter was sent to the 349 respondents who confirmed their interest prior to knowing the dates. In the e-mail/letter, those 349 persons were asked to look over the dates and confirm whether they still wished to participate in the Citizens' Assembly.
1. reminder	On 17 July, a reminder was sent to 4,636 persons who had not reacted to the invitation e-mail/letter. 4,215 e-mails were sent by Digital Post and 416 letters by mail.
2. reminder	On 23 July, the second reminder was sent, with 4,071 sent by Digital Post (planned to be sent by post)
Reminder to recipients of "date-mail"	On 27 July, 143 reminders were sent by e-mail as a follow-up on unanswered e-mails about dates. An additional 8 individuals were sent an e-mail, as there were errors in the e-mail address entered for the first e-mail.
Data collection results	Statistics Denmark had received 745 responses when it was time to select members for the Citizens' Assembly. Of these, 457 had responded "Yes" to participating, and it is from those 457 persons that members were selected for the Citizens' Assembly.

Do you want to participate in the new Citizens' Assembly?	
Yes	457
No	288
<b>Total</b>	<b>745</b>
Frequency Missing = 4273	

### Selection for the Citizens' Assembly

The 457 positive responses were the starting point for the formation of the Citizens' Assembly. From the beginning, the aspiration was for the Citizens' Assembly to reflect the current Danish population on as many parameters as possible, i.e. that the Citizens' Assembly should follow the same proportions as the current Danish population in terms of the distribution of gender, age, residence, ethnic origin, education, income and family type.

Among the responses we received, we observed some skewed proportions in relation to the population. Most of the positive responses came from the group of middle-aged persons in terms of income, and the disposable income of the group of "Yes-sayers" was accordingly higher than the rest of the sample. Some of those skewed proportions can be mitigated through selection with the help of a stratified sample.

In the first attempt to select the members of the Citizens' Assembly, it was clear that it would be a major challenge to form a Citizens' Assembly that fully represented the current population of Denmark across all the aforementioned

<sup>1</sup> The procedure for sending Digital Post means that there will be an overlap between a small portion of recipients of Digital Post and letters by physical post. The number of Digital Post letters sent and physical letters sent accordingly does not add up to the total number of people in the sample.

parameters. The number of members in the assembly (N=99) alone makes the expectation that it is possible to extract a sample composed of the same proportions as the sample population highly improbable.

Following a number of analyses and test runs of various selection models, attempts to create stratification variables, etc., we determined that it was possible to get gender and region to match the population distributions but that it would be necessary to create a rough division of age: young, middle-aged and elderly. It was not possible to include additional parameters in the stratification, e.g. family type and education, as that would result in disproportionality in terms of gender and region. The dataset was not able to support a more detailed distribution.

The strata for selection were accordingly gender \* age group \* region. Age was grouped into 3 groups. Thus, a total of 30 strata were created, from which a number of persons corresponding to the proportions in the population were selected.

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# Annex 5 - Programme/agenda



## Programme/agenda

### First weekend gathering in the Citizens' Assembly, 24-25 October 2020

SATURDAY		
9:00	10:00	Check-in, equipment testing (audio, tools and tech)
10:00	10:15	<b>Official opening and welcome</b> , Dan Jørgensen, Minister for Climate, Energy and Utilities
10:15	10:30	<b>Tasks, working methods, ground rules and procedures</b> , Lars Klüver, Danish Board of Technology.
10:30	11:45	<b>Group dialogue:</b> Introduction round, expectations for the Citizens' Assembly and comments on tasks and working methods Subsequent wrap-up.
BREAK		
12:15	13:45	<b>The climate transition - overview of the challenges and options</b> <ul style="list-style-type: none"> <li>• Overview presentation by Kenneth Karlsson, PhD, senior project manager at IVL Svenska Miljöinstitutet and CEO of Energy Modelling Lab.</li> <li>• Group discussions and questions for Kenneth Karlsson</li> </ul>
BREAK		
14:30	17:15	<b>The climate transition - the major technological solutions</b> <p>Four experts providing their individual perspectives:</p> <ul style="list-style-type: none"> <li>• <i>Henrik Lund</i> (Aalborg University, Professor of Energy Planning): How the Danish Society of Engineers' envisages the achievement of the 70% target</li> <li>• <i>Jørgen E. Olesen</i> (Aarhus University, Climate Researcher): How should the major challenges in agriculture be tackled?</li> <li>• <i>Mette Boye</i> (Head of Secretariat in the Danish Environment Technology Association): What is the best use of biomass?</li> <li>• <i>Jakob Christensen</i> (COWI): Reorganisation of transport based on climate and economic considerations</li> </ul> <p><b>Group work:</b> What does the Citizens' Assembly believe is important - brainstorming session in each group on 5+ issues or possible solutions that should be considered further</p>
17:15	17:30	<b>End of today's</b> gathering - goodbye and thank you for today
SUNDAY		



9:00	11:45	<p><b>Welcome and introduction to today's programme</b></p> <p><b>The climate transition - measures that are predominantly non-technological</b></p> <p>Four experts providing their individual perspectives:</p> <ul style="list-style-type: none"> <li>• <i>Katherine Richardson</i> (Professor, Macroecology, Evolution and Climate): The climate transition – what is the challenge and what societal changes are needed?</li> <li>• <i>Peter Mølgaard</i> (Head of the Danish Council on Climate Change): What will be the cost of achieving our climate goals?</li> <li>• <i>Jens Hauch</i> (COO of Kraka): How do we achieve a climate transition that is not at the expense of society's most disadvantaged?</li> <li>• <i>Kristian Borch</i> (Aalborg University): Technical facilities in/as part of the landscape (solar power, wind turbines, etc.) - better processes and collaboration</li> </ul> <p><b>Group work:</b> What does the Citizens' Assembly believe is important - brainstorming session in each group on 5+ issues or possible solutions that should be considered further.</p>
<b>BREAK</b>		
12:30	16:30	<p><b>Current issues and the course of the transition</b></p> <p>Addressing three selected subjects that are politically relevant.</p> <p>Programme for each of the three subject sessions: 1) Three short video presentations, 2) Group discussions, 3) Voting in plenary sessions. Questions focusing on the course, speed and most important measures</p> <p><b>Green tax reform and funding the transition</b></p> <ul style="list-style-type: none"> <li>• Inger Røpke, Professor of Organic Economics</li> <li>• Lars Andersen, Head of the Economic Council of the Labour Movement</li> <li>• Otto Brøns-Petersen, Head of Analysis at CEPOS</li> </ul> <p><b>Biomass and land use</b></p> <ul style="list-style-type: none"> <li>• Henrik Wenzel, Professor of Green Technology at SDU</li> <li>• Niels Peter Nørring, Climate Director at the Danish Agriculture &amp; Food Council</li> <li>• Rikke Lundsgaard, Agricultural Policy Advisor at the Danish Society for Nature Conservation</li> </ul> <p><b>Lifestyle, known or future technology?</b></p> <ul style="list-style-type: none"> <li>• Brian Vad Mathiesen, Professor at AAU</li> <li>• Christian Ibsen, Director at CONCITO</li> <li>• Theresa Scavenius, Associate Professor at AAU</li> </ul>
16:30	17:30	<p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>• Votes on which issues should be prioritised in the Citizens' Assembly's further work</li> <li>• Wrap-up, presentation of the further process and evaluation of the weekend (questionnaire)</li> </ul>
<p><b>BIO-breaks: in addition to the scheduled breaks, additional short breaks will be held on a running basis over the course of Saturday and Sunday</b></p>		



## Programme/agenda

### First evening gathering, 16-17 November 2020

This gathering will focus on funding and levies.

18:00 - 19:00: **Presentation** on funding and levies

- **Peter Birch Sørensen**, Professor at the University of Copenhagen and former head of the Danish Council on Climate Change: Carbon tax: How does it work in practice and what are the barriers?
- **Torben Möger Pedersen**, Head of the Climate Partnership on the Financial Sector and CEO of PensionDanmark: Where should we source the money for funding?

19:00 - 21:00 **Group work** on ideas for the Citizens' Assembly's work on Funding, taxes and levies



# Programme/agenda

## Second evening gathering, 2-3 December 2020

This gathering focuses on transport.

18:00 - 19:00 **Presentation** on Transport

- **Susanne Krawack**, Senior Consultant at CONCITO: The transport infrastructure's development towards sustainability. Goal-oriented planning of transport. Ambition and investment in the reorganisation of transport.
- **Malene Freudendal-Pedersen**, Professor of Urban Planning at AAU: Increased mobility, less transport. Walking and biking more. Improved connections in transport systems. Better planning to minimise the need for transport. Daily transport-creating habits.
- **Torben Lund Kudst**, Department Head at Federation of Danish Motorists: Converting passenger car transport to electricity and sustainable fuels. Bumps on the road to getting there and how to overcome them.

19:00 - 21:00 **Group work** on ideas for the Citizens' Assembly's work on Transport



## Programme/agenda

### Third evening gathering, 13 January 2021

This gathering focuses on agriculture, land and food production.

18:00 - 19:00 **Panel debate** on agriculture, land and resources. Each participant gives a 5-minute introduction.

- **Kenneth Karlsson**, Energy Modelling Lab - how much do the climate goals depend on action in the agricultural sector?
- **Jørgen E. Olesen**, AU - What can the agricultural sector do?
- **Torsten Wetche**, Hvanstrup farm - A farmer's experience with transitioning to more climate-friendly operations.
- **Rikke Lundsgaard**, Danish Society for Nature Conservation - what policies should be pursued for more climate-friendly agriculture?
- **Niels Peter Nørring**, Danish Agriculture & Food Council - what policies should be pursued for more climate-friendly agriculture?

19:00 - 21:00 **Group work on the Citizens' Assembly's determinations**





## Programme/agenda

### Theme group meeting on transport, 11 January 2021

18:00 - 19:10 **Presentation** on transport

- **Niels Buus Kristensen**, Institute of Transport Economics, Norway, as well as a member of the Danish Council on Climate Change - Investment needs in the field of transport
- **Hans Henrik Lindboe**, EA Energianalyse - Road map towards eFuels for transport

19:10 – 19:20 **Break**

19:20 - 21:00 - **Group work** on the theme and drafting of recommendations



## Programme/agenda

### Theme group meeting on funding and levies, 18 January 2021

18:00 - 19:10 **Presentation and panel debate** on funding and levies

- **Lena Kitzin**, Technical University of Denmark - What is needed to motivate investments in renewable energy?
- **Per Callesen**, Danmarks Nationalbank - How can the state participate in funding the transition aside from the running public budget, e.g. to increase the pace of the transition?
- **Henrik Lund**, Aalborg University - Incentives for citizens' and companies' own investments in climate-friendly solutions.
- **Kirsten Halsnæs**, Technical University of Denmark - How should a carbon tax be designed to overall result in the right incentives while also being fair and effective?
- **Lars Aagaard**, Danish Energy - How should a carbon tax be designed to overall result in the right incentives while also being fair and effective?

19:10 – 19:20 **Break**

19:20 - 21:00 - **Group work** on the theme and drafting of recommendations



## Programme/agenda

### Theme group meeting on agriculture, land and resources, 20 January 2021

18:00 - 19:20 - **Group work** on the theme and drafting of recommendations

19:20 – 19:30 - **Break**

19:30 - 21:00 - **Group work** on the theme and drafting of recommendations



## Programme/agenda

### Theme group meeting on technical facilities in/as part of the landscape, 26 January 2021

18:00 - 19:10 **Presentation and panel debate** on technical facilities in/as part of the landscape.

- **Peter Rathje, Project Zero, Sønderborg** - Tailwinds and headwinds when achieving a vision for a carbon-neutral municipality. Advice for creating a consensus among the actors
- **Søren Stensgaard, Samsø Municipality** - Municipal considerations when striving for carbon neutrality. Conflicts and transferable solutions.
- **Kristian Borch, AAU** - Irresolution on conflicts when setting up facilities in the Danish landscape. What tools should be employed?
- **Brian Vad Mathiesen, AAU** - Where should the facilities be set up and where shouldn't they? What are the costs to the consumer if they are set up in the least controversial areas - and will they supply enough energy if set up there?

19:10 – 19:20 **Break**

19:20 - 21:00 - **Group work** on the theme and drafting of recommendations



## Programme/agenda

**Theme group meeting on lifestyle, behaviour, popular education and citizen participation, 3 February 2021**

18:00 - 19:20 - **Group work** on the theme and drafting of recommendations

19:20 – 19:30 - **Break**

19:30 - 21:00 - **Group work** on the theme and drafting of recommendations

# Annex 6 - Meeting attendance

### Annex 6 Meeting attendance

Statistics Denmark selected 99 members and 99 alternates for the Citizens' Assembly based on simple criteria such as age, gender, geography, education and income. The Danish Ministry of Climate, Energy and Utilities is the secretariat for the Citizens' Assembly and has therefore been in contact with members and alternates on a running basis. Due to developments in the Covid-19 situation, the conversion to a digital format and therefore also new dates than the ones originally agreed to by the citizens, as well as personal circumstances among the members, approximately 75 members showed up for the first weekend gathering on 24-25 October 2020. At the last weekend gathering (20-21 March 2021), approximately 60 citizens voted on the final recommendations. In the following, the number of citizens in attendance is indicated for all of the Citizens' Assembly's meetings.

Date	Attendees	Type	Subject	Comments
24 October 2020	75	Weekend gathering		Everyone participates
25 October 2020	72	Weekend gathering		Everyone participates
16 November 2020	38	Evening gathering		Participate on the 16th or 17th.
17 November 2020	28	Evening gathering		Participate on the 16th or 17th.
2 December 2020	40	Evening gathering		Participate on the 2nd or 3rd.
3 December 2020	26	Evening gathering		Participate on the 2nd or 3rd.
11 January 2021	10	Theme group meeting	Transport	
13 January 2021	55	Evening gathering		Everyone participates
18 January 2021	14	Theme group meeting	Funding	
20 January 2021	15	Theme group meeting	Agriculture	
25 January 2021	49	Evening gathering		Everyone participates
26 January 2021	5	Theme group meeting	Technical facilities in/as part of the landscape	
3 February 2021	15	Theme group meeting	Behaviour	
8 February 2021	54	Evening gathering		Everyone participates
23 February 2021	51	Evening gathering		Everyone participates
20 March 2021	58	Weekend gathering		Everyone participates
21 March 2021	56	Weekend gathering		Everyone participates

# Annex 7 - Voting results



The voting results for each recommendation is indicated by the number of citizens who voted Yes, No, Don't know or abstained.

## **1. Political action:**

**Yes: 54, No: 2, Don't know: 0, No answer: 3**

- 1.1 Yes: 52, No: 3, Don't know: 3, No answer: 1
- 1.2 Yes: 52, No: 2, Don't know: 3, No answer: 2
- 1.3 Yes: 48, No: 3, Don't know: 4, No answer: 4
- 1.4 Yes: 51, No: 3, Don't know: 1, No answer: 4

## **2. Citizen participation and education:**

**Yes: 45, No: 9, Don't know: 4, No answer: 1**

- 2.1 Yes: 40, No: 13, Don't know: 5, No answer: 1
- 2.2 Yes: 33, No: 19, Don't know: 5, No answer: 2
- 2.3 Yes: 38, No: 13, Don't know: 7, No answer: 1
- 2.4 Yes: 48, No: 5, Don't know: 3, No answer: 3
- 2.5 Yes: 45, No: 9, Don't know: 3, No answer: 2
- 2.6 Yes: 42, No: 10, Don't know: 5, No answer: 2
- 2.7 Yes: 49, No: 4, Don't know: 4, No answer: 2
- 2.8 Yes: 42, No: 10, Don't know: 5, No answer: 2
- 2.9 Yes: 29, No: 19, Don't know: 9, No answer: 2

## **3. Behavioural changes with a focus on material consumption**

**Yes: 49, No: 7, Don't know: 2, No answer: 1**

- 3.1 Yes: 46, No: 6, Don't know: 6, No answer: 1
- 3.2 Yes: 45, No: 6, Don't know: 6, No answer: 2
- 3.3 Yes: 53, No: 1, Don't know: 3, No answer: 2
- 3.4 Yes: 50, No: 3, Don't know: 4, No answer: 2

## **4. Climate declaration**

**Yes: 57, No: 0, Don't know: 0, No answer: 2**

- 4.1 Yes: 58, No: 0, Don't know: 0, No answer: 1
- 4.2 Yes: 53, No: 1, Don't know: 4, No answer: 1

## **5. Long-term investments from state and pension companies**

**Yes: 54, No: 2, Don't know: 2, No answer: 1**

- 5.1 Yes: 49, No: 7, Don't know: 2, No answer: 1
- 5.2 Yes: 50, No: 2, Don't know: 6, No answer: 1
- 5.3 Yes: 54, No: 3, Don't know: 2, No answer: 0
- 5.4 Yes: 53, No: 5, Don't know: 1, No answer: 0
- 5.5 Yes: 44, No: 12, Don't know: 2, No answer: 1

## **6. Carbon tax, social balance and citizen participation:**

**Yes: 54, No: 2, Don't know: 2, No answer: 1**

- 6.1 Yes: 55, No: 3, Don't know: 0, No answer: 1
- 6.2 Yes: 48, No: 7, Don't know: 2, No answer: 2
- 6.3 Yes: 46, No: 6, Don't know: 5, No answer: 2
- 6.4 Yes: 55, No: 1, Don't know: 2, No answer: 1
- 6.5 Yes: 52, No: 5, Don't know: 1, No answer: 1

## **7. Carbon tax: Contribution to a green tax reform:**

**Yes: 55, No: 1, Don't know: 2, No answer: 1**

- 7.1 Yes: 57, No: 1, Don't know: 0, No answer: 1
- 7.2 Yes: 40, No: 9, Don't know: 8, No answer: 2
- 7.3 Yes: 51, No: 4, Don't know: 2, No answer: 2
- 7.4 Yes: 52, No: 2, Don't know: 3, No answer: 2
- 7.5 Yes: 51, No: 3, Don't know: 4, No answer: 1
- 7.6 Yes: 54, No: 0, Don't know: 3, No answer: 2
- 7.7 Yes: 54, No: 2, Don't know: 1, No answer: 2
- 7.8 Yes: 52, No: 2, Don't know: 3, No answer: 2
- 7.9 Yes: 54, No: 1, Don't know: 3, No answer: 1
- 7.10 Yes: 46, No: 2, Don't know: 9, No answer: 2
- 7.11 Yes: 55, No: 1, Don't know: 2, No answer: 1
- 7.12 Yes: 35, No: 15, Don't know: 7, No answer: 2

## **8. Levies on carbon-intensive industry**

**Yes: 52, No: 6, Don't know: 1, No answer: 0**

8.1 Yes: 46, No: 4, Don't know: 9, No answer: 0

8.2 Yes: 53, No: 3, Don't know: 3, No answer: 0

## **9. Bioeconomic solutions**

**Yes: 52, No: 3, Don't know: 3, No answer: 1**

9.1 Yes: 57, No: 0, Don't know: 2, No answer: 0

9.2 Yes: 40, No: 12, Don't know: 7, No answer: 0

9.3 Yes: 49, No: 3, Don't know: 7, No answer: 0

## **10. Bioplastics action plan:**

**Yes: 42, No: 9, Don't know: 8, No answer: 0**

10.1 Yes: 42, No: 6, Don't know: 11, No answer: 0

10.2 Yes: 35, No: 10, Don't know: 14, No answer: 0

10.3 Yes: 49, No: 5, Don't know: 5, No answer: 0

10.4 Yes: 46, No: 4, Don't know: 9, No answer: 0

## **11. Standardisation of waste sorting:**

**Yes: 44, No: 13, Don't know: 2, No answer: 0**

11.1 Yes: 51, No: 1, Don't know: 5, No answer: 2

11.2 Yes: 49, No: 2, Don't know: 6, No answer: 2

11.3 Yes: 50, No: 2, Don't know: 4, No answer: 3

## **12. Agricultural land:**

**Yes: 55, No: 1, Don't know: 2, No answer: 1**

12.1 Yes: 54, No: 0, Don't know: 5, No answer: 0

12.2 Yes: 45, No: 5, Don't know: 7, No answer: 2

12.3 Yes: 55, No: 2, Don't know: 1, No answer: 1

12.4 Yes: 51, No: 2, Don't know: 5, No answer: 1

12.5 Yes: 53, No: 3, Don't know: 2, No answer: 1

12.6 Yes: 49, No: 4, Don't know: 5, No answer: 1

12.7 Yes: 49, No: 2, Don't know: 6, No answer: 2

12.8 Yes: 56, No: 0, Don't know: 2, No answer: 1

### **13. National strategy for land use:**

**Yes: 56, No: 1, Don't know: 1, No answer: 1**

13.1 Yes: 56, No: 1, Don't know: 1, No answer: 1

13.2 Yes: 55, No: 1, Don't know: 2, No answer: 1

13.3 Yes: 52, No: 1, Don't know: 5, No answer: 1

13.4 Yes: 50, No: 3, Don't know: 5, No answer: 1

13.5 Yes: 52, No: 1, Don't know: 5, No answer: 1

13.6 Yes: 49, No: 6, Don't know: 3, No answer: 1

13.7 Yes: 50, No: 1, Don't know: 7, No answer: 1

13.8 Yes: 50, No: 4, Don't know: 4, No answer: 1

13.9 Yes: 47, No: 7, Don't know: 4, No answer: 1

### **14. Agriculture with a smaller carbon footprint:**

**Yes: 49, No: 5, Don't know: 3, No answer: 2**

14.1 Yes: 34, No: 14, Don't know: 8, No answer: 3

14.2 Yes: 48, No: 3, Don't know: 4, No answer: 4

14.3 Yes: 45, No: 1, Don't know: 8, No answer: 5

14.4 Yes: 48, No: 3, Don't know: 4, No answer: 4

14.5 Yes: 39, No: 6, Don't know: 11, No answer: 3

### **15. Transition to electric transport:**

**Yes: 54, No: 3, Don't know: 1, No answer: 1**

15.1 Yes: 47, No: 5, Don't know: 3, No answer: 4

15.2 Yes: 43, No: 7, Don't know: 4, No answer: 5

15.3 Yes: 44, No: 10, Don't know: 3, No answer: 2

15.4 Yes: 49, No: 6, Don't know: 1, No answer: 3

15.5 Yes: 48, No: 3, Don't know: 4, No answer: 4

15.6 Yes: 40, No: 12, Don't know: 5, No answer: 2

15.7 Yes: 48, No: 3, Don't know: 4, No answer: 4

15.8 Yes: 48, No: 3, Don't know: 6, No answer: 2

15.9 Yes: 53, No: 2, Don't know: 1, No answer: 3

15.10 Yes: 53, No: 1, Don't know: 1, No answer: 3

15.11 Yes: 45, No: 6, Don't know: 6, No answer: 2

15.12 Yes: 49, No: 6, Don't know: 1, No answer: 3

15.13 Yes: 45, No: 6, Don't know: 4, No answer: 4

15.14 Yes: 52, No: 2, Don't know: 2, No answer: 3

## **16. Flexible public transport as an appealing choice:**

**Yes: 47, No: 11, Don't know: 0, No answer: 1**

16.1 Yes: 49, No: 5, Don't know: 4, No answer: 1

16.2 Yes: 52, No: 4, Don't know: 1, No answer: 2

16.3 Yes: 40, No: 5, Don't know: 12, No answer: 2

16.4 Yes: 52, No: 3, Don't know: 2, No answer: 2

16.5 Yes: 49, No: 3, Don't know: 6, No answer: 1

16.6 Yes: 42, No: 6, Don't know: 9, No answer: 2

16.7 Yes: 37, No: 10, Don't know: 10, No answer: 2

16.8 Yes: 53, No: 1, Don't know: 3, No answer: 2

16.9 Yes: 52, No: 5, Don't know: 1, No answer: 1

16.10 Yes: 43, No: 6, Don't know: 8, No answer: 2

## **17. Climate-friendly freight transport (e.g. PtX).**

**Yes: 52, No: 4, Don't know: 1, No answer: 2**

17.1 Yes: 54, No: 1, Don't know: 1, No answer: 3

17.2 Yes: 50, No: 3, Don't know: 3, No answer: 3

17.3 Yes: 49, No: 4, Don't know: 3, No answer: 3

17.4 Yes: 51, No: 2, Don't know: 3, No answer: 3

17.5 Yes: 52, No: 3, Don't know: 1, No answer: 3

## **18. Renewable energy co-ownership**

**Yes: 44, No: 13, Don't know: 1, No answer: 1**

18.1 Yes: 37, No: 12, Don't know: 9, No answer: 1

18.2 Yes: 31, No: 20, Don't know: 7, No answer: 1

18.3 Yes: 48, No: 5, Don't know: 5, No answer: 1

18.4 Yes: 33, No: 14, Don't know: 9, No answer: 2

18.5 Yes: 30, No: 19, Don't know: 7, No answer: 3

18.6 Yes: 34, No: 16, Don't know: 7, No answer: 2

18.7 Yes: 33, No: 15, Don't know: 10, No answer: 1

18.8 Yes: 47, No: 6, Don't know: 4, No answer: 2

## **19. Placement of technical facilities in/as part of the landscape:**

**Yes: 39, No: 14, Don't know: 4, No answer: 2**

19.1 Yes: 37, No: 16, Don't know: 3, No answer: 3

19.2 Yes: 30, No: 16, Don't know: 10, No answer: 3

19.3 Yes: 53, No: 2, Don't know: 1, No answer: 3

19.4 Yes: 38, No: 13, Don't know: 4, No answer: 4

19.5 Yes: 45, No: 9, Don't know: 2, No answer: 3

19.6 Yes: 28, No: 20, Don't know: 8, No answer: 3

19.7 Yes: 33, No: 11, Don't know: 11, No answer: 4





Klima-, Energi- og  
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