

Welcome to 100% Climate Neutrality Conference 2019 at Alision, Sonderborg – more than 250 people across planet Earth participated in the two days Climate conference early October 2019



The 2019 100% Climate Neutrality Conference was organized by ProjectZero & Southern Denmark University in close cooperation with the ActNow and CITIES projects.

More than 250 people from Denmark and from abroad meet at Alision on Oct. 1 and 2 to exchange ideas for a ZEROcarbon and sustainable future.

Welcome to young people and to everybody

Town council member Gerhard Bertelsen from the Sonderborg City Council welcomed everybody but especially the young people who joined the conference.

“Where I come from, most people are over the age of 65, so it’s lovely to see you. We need you to involve yourselves in the (Climate) work that must be done,” said Gerhard Bertelsen.



He highlighted Sonderborg's ProjectZero vision focused on becoming CO2-neutral by 2029 – 20 years ahead of the rest of Denmark. This is a joint task that, among other things, is focused on creating new green jobs.

"We're here to exchange ideas for further action – and to speed up Climate Actions," said Gerhard Berthelsen.

## Need for leadership



"We're running out of time, and it's about you and me. All of us have a responsibility," stated Flemming Lyng Nielsen, who is head of Sustainability at the Danfoss Company.

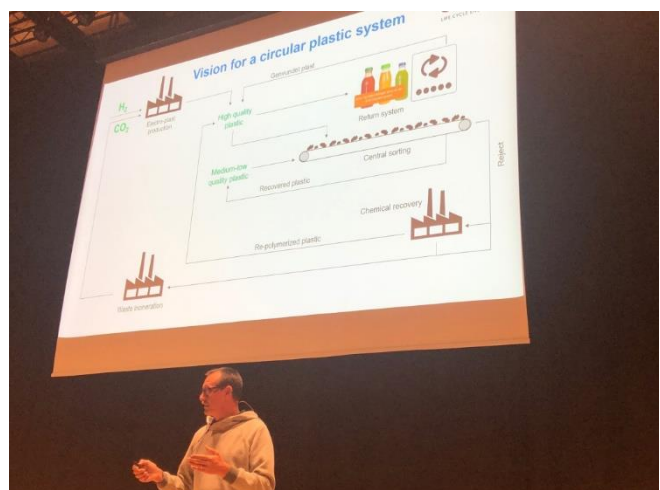
He also stressed that many companies have taken responsibility for Climate Actions and that partnerships with towns are part of the solution:

"10,000 square metres of new homes are built every day worldwide. This requires actions from companies, towns, cities and universities. In the future 91 percent of the world's population will live in towns where air pollution is a threat. Our message for governments is simple: energy efficiency must come first. And this is not a question of knowledge; it is a question of will. We have the technology that we need."

"Our direction has been joined/supported by several companies – it's about a transformation. **If there's no planet, there's no market**, said Flemming Lyng Nielsen.

## Plastic problems can be solved

Professor Henrik Wenzel from University of Southern Denmark introduced a model for recycling of plastic. Today



(only) 18 percent of plastic from Denmark is transformed into new plastic. But some of the wasted plastic ends up in Malaysia in a completely uncontrolled way, which is absolutely unacceptable.

Wenzel's method is simple:

**High quality plastic** must end up in the Danish recycle system.

**Medium quality plastic** must be sorted by machines for it to be reused.

**Low quality plastic** must be burned while new technology removes CO<sub>2</sub>.

This is not expensive. It simply requires that we pay a little extra for low quality plastic. Most people will not mind doing that.

## We are in deep trouble – but we will get there

Professor Poul Erik Morthorst, the DTU Technical University of Denmark and chairman of the CITIES project, explained that we are not getting even close to meeting the Paris Agreement objectives. What the countries have committed to, will only be achieved by a third of what is needed to meet the objectives. The world's temperature will rise 1.5 degrees in the course of 12-34 years – 8-10 times faster than agreed in Paris.

Unfortunately, we are approaching the so-called 'tipping point' where the ice will melt so fast that this, in itself, will influence the temperature. When that happens, we will be in deep trouble.

The good news is that we are on the right track in some fields such as wind and solar energy. Production costs are falling so fast that we can make it if we decide that we *want* to make it.

In Denmark we are moving in the right direction and have brought down our CO<sub>2</sub> emissions by 35 % since 1990. And now we have the new objective of 70 percent in



2030. By doing so, we will live up to the Paris Agreement from 2015.

The most important thing is “electrification” - the transformation to electricity. We still need gas and we need to continue develop the district heating system, but we must exploit the electricity for transport, industry and heating. An integrated energy system is possible, which means we must be able to exploit/integrate all of the electricity that we get from solar power and wind power into consumption, in a smart energy efficient way.

So far there is no focus on energy-efficiency, and that is very disappointing, concluded Poul Erik Morthorst.

## You are in the front seat



Yashvardhan Gusani, project manager at Google, explained that children and young people are able to spread messages through social media extremely fast. In the past week over six million young people have made sure that Greta Thunberg’s speech was heard by UN leaders.

“My own journey began in 2007 when I was 13 years old. I took part in an Indian contest where you were supposed to speak for six minutes and then be assessed. The subject was climate change. I read a lot about it and talked about it with my friends. In no time it became a major issue and I got depressed after a couple of weeks.”

“I watched trees being felled outside my home and I watched how companies were polluting the environment. I lost the contest, but I began to talk about the subject with my classmates, and we started some activities in the local community.” - “Next year’s subject was water prizes. I won, but that wasn’t worth anything. We shouldn’t have contests like that. We should talk about the future and about dreams. We should talk about innovation and solutions.”



“Now I’m with Google, and I see things in a very different way now when it comes to sustainability. Google is a company that focuses very strongly on the climate. I work with sustainability in the data centers and I’m part of a team that works on reducing power consumption in the centers. I’m involved in that every day.”

“The path to a cleaner and healthier future begins with the small steps that we take every day.” “For that reason, I and all of Google’s staff must make sustainability part of everything we do. Our data centers use 50 percent less energy than similar centers.”

“My advice to you is: make sure every little bit counts. Small changes, make a big difference. You’re in the front seat!”

<https://sustainability.google/>

## Stress relief with professor Bringezu

Professor Stefan Bringezu, Center for Environmental Systems Research, University of Kassel, began his presentation with some physical stress relief – a bit of exercise for everybody.



Stress relief was also the topic of his speech. Our common task is to separate our consumption of resources and energy from economic growth. 90 percent

of the world’s consumption of water and 90 percent of the fall in biodiversity are caused by the way we exploit natural resources - for instance mining and agriculture.

Below are a range of recommendations from Stefan Bringezu:

- Production should be resource-efficient and based on recycling. This should include all of the value chain. For instance, we should not think about transport – we should think about *mobility*.
- CO2 should be used as a raw material for chemical production. Chemical production requires a lot of sustainable energy – more than it currently seems that we will be getting.
- All new surfaces on buildings should be use to capture solar energy – but remember
- that materials must be manufactured in a sustainable way.
- Plants should be used for food – not for energy. Plants exploit no more than one percent of the energy from the sun. Solar cells are a lot more efficient.
- We should eat less meat and waste less food.

## When towns and cities cooperate



Anna Esbjorn, program manager at the Danish Green Thinktank CONCITO, welcomed guests to the ActNow afternoon session, which focused on cooperation between towns/municipalities.

Climate challenges must be solved through partnerships, and it concentrates the mind when the platform is burning. This is why, it is important that towns/municipalities cooperate

and important that local stakeholders are involved.

## Network in the network

Per Alex Sørensen, partner in PlanEnergi explained about the 'Energybyernes.dk' approach (Danish Energy Towns", which is focused about collaboration between seven Danish



towns/cities that have high energy and climate ambitions.

The network is a Danish section of the international SmartEnCity Networks. The Energibyerne.dk meets three times a year in one another's towns to exchange knowledge. Here it is important to discuss the negative as well as the positive learnings and stories. The Energibyerne.dk are also taking active part in the Danish 'Folkemøde' (Denmark's Democratic festival on Bornholm), where the network is facilitating 13 energy challenge related discussions.

It is a good idea for a limited number of towns and cities to work close with one another. The same Network setup have been established in Estonia, and similar networks are scheduled in Latvia and Germany – if/when European funding will allow.

Success requires that everybody feels that they have brought something with them home and that there is an open dialogue across different backgrounds.

The Eneregibyerne.dk network consist of the following Danish municipalities: Frederikshavn, Skive, Ringkøbing-Skjern, Horsens, Middelfart, Sonderborg and Hoje Taastrup. Other active private company members of the network are: PlanEnergi and Tankegang.

## Riga learns from nine municipalities across the Baltic Sea



Francesco Romagnoli, associate professor at Riga Technical University, pointed out that the inhabitants in towns, municipalities and cities are responsible for 80 percent of emissions of greenhouse gases. This means, that the towns or cities are also responsible for taking responsibility and addressing the problem. Emissions are rising in Latvia, even though heat consumption has fallen.

This was the reason for creating the EU BSR Interreg ActNow program, which is focused on improving energy efficiency in buildings across the Baltic Sea region.

The project involves nine key partners from other EU nations; among them are ProjectZero from Sonderborg in Denmark.

The method used, involves 1) establishing a baseline and 2) a Local Energy Efficiency working Group (LEEG) focused on an ActNow model. Step Three is about binding targets, and the last part is about creating Climate Actions.

Riga's SWOT analysis showed that citizens focus very little on energy consumption in their homes. It also showed that there was very little dialogue between the municipality and citizens.

The model used ensures there is a shared consciousness about the need for sustainable energy planning and also helps the towns and cities a lot when they are to formulate ambitious targets. Finally, the model makes it possible for the towns and cities to work systematically with energy planning.

## 20 Danish municipalities take the Climate lead using C40 framework



Anna Esbjorn from CONCITO explained about the DK2020-project, which is an ambitious program that involves/engages 20 Danish municipalities. Each of these towns must create Climate Action Plans following the C40 framework targeting Paris Agreement and the ambition to keep the global temperature below 1.5-degree C. This is meant to inspire the remaining 78 Danish municipalities as well as other towns and cities across

Europe and in the rest of the world.



The Framework has been created by the C40 partnership in cooperation with now 94 major and MEGA cities all over the world.

The 20 Danish municipalities that have been selected are very different and are also at very different learning/experience levels. A very important part of the process is learning. Through the DK2020-project, CONCITO and Realdania are going to help create a Danish learning environment for climate transformation.

The first constructive experiences from this partnership have to do with the fact that a great deal of hard work is required from the municipalities that are taking part. The mayors have already agreed by signing the declarations of intent, but, in real life, it is hard to find the requested CO2 reductions – to live up to the Paris agreement.

The four greatest challenges facing the DK2020 municipalities are:

- Transport
- Agriculture/farming
- Biomass
- Buildings

## Towns and cities will have greater importance

Professor Rüdiger Wurzel from University of Hull in England: the Paris Agreement opens the way for new approaches in relation to the Kyoto Protocol.

Now things must be developed from the bottom and up, which will give towns, municipalities and cities a completely new role.

The towns, municipalities and cities are laboratories for experiments and innovation. Learning develops in and between the towns and cities. Then it can be scaled up and include the entire country or other regions.



The researchers have focused on the large cities, but have not paid much attention to small and medium-size towns and local communities.

The reasons that things are not moving fast are:

- Lack of political backup
- Poor data
- Lack of resources (money, personnel and knowledge)
- Resistance from strong players
- Lack of support from local communities

The politicians' job is to create win-win strategies, so all parts of society can benefit from the efforts. The added bonus may be jobs, growth, branding and stronger local confidence.

Innovation in this field takes political networking and involvement, and here the keyword is trust. We must talk about things and learn from one another's mistakes. We learn more from mistakes than from successes.

## Till and the burning platform

One presentation after another at the conference highlighted the burning platform that we are standing on.

And the problem was stated very clearly by Till Scherzinger, Stadt Bremerhaven in Germany, when he spoke on behalf of Municipalities at the hotel Alsik dinner during the 100% Climate Neutrality Conference.



Till Scherzinger lives in a small town near Bremerhaven where he has joined the local fire brigade because he wants to be a part of the local community. But he and his colleagues are lacking water to put out fires. If they tap water from a fire hydrant, the water supply in town suffers. Then people cannot cook and wash their clothes. So, the

fire brigade is working on a solution where they are going to pump water from a small lake on the fringe of town. Global warming causes the lake to dry out, making it impossible for the fire fighters to pump enough water from the lake.

"I know that, and my *colleagues* know that, but people here don't realize that global warming means it's getting harder for us to put out blazes in our town," explained Scherzinger.

Some of the work that Till Scherzinger does for the municipality has to do with the Youth Climate Council discussion for young people, which also took place during the 100% Climate Neutrality conference in Sonderborg. Here he had discovered that the young people need to learn about the municipality and about how decisions are made. This is necessary to be able to work on concrete solutions that can help the climate. Basically, the young people know as little about the municipality as the rest of us knows about the fire brigade's lack of water.

Involving young people – and everybody else – is also about providing those involved with knowledge. Burning platforms are everywhere.

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The 100% Climate Conference 2019 took place at Alsion/Sonderborg on 1. – 2. October 2019.

These articles have been written in Danish by journalist Stener Glamann, Tankegang and published online on a blog during the conference:  
<https://climateneutral201645121.wordpress.com/>

Foto-credits are also given 100% to Stener Glamann, Tankegang.

The articles have later been translated into English and integrated into one document.

**ProjectZero**  
Peter Rathje