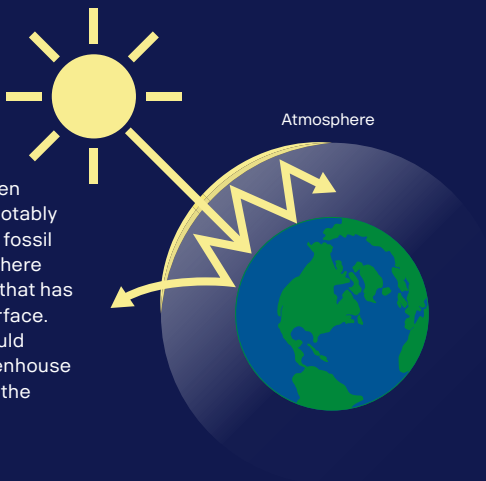
SCANIA CLIMATE DAY

SCANIA

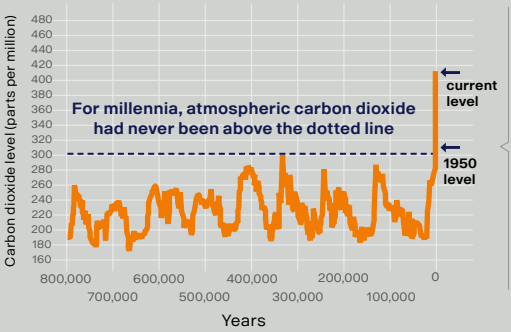
The science is clear. Climate change is real. Climate change is happening now, and it requires immediate and ambitious action to prevent the worst effects on people and nature all over the world.



The greenhouse effect
Global warming occurs when greenhouse gases, most notably CO_2 through the burning of fossil fuels, collect in the atmosphere and absorb solar radiation that has bounced off the Earth's surface. Normally, this radiation would escape into space but greenhouse gases trap heat and cause the planet to get hotter.

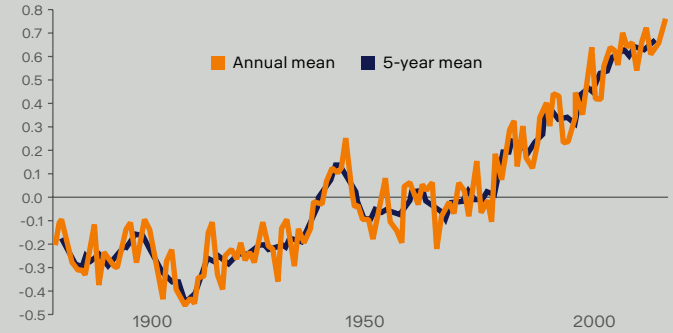
CLIMATE FACTS

Atmospheric CO_2 levels [1]



Since the industrial revolution began in 1750, CO_2 levels have risen by more than 30 percent. The concentration of CO_2 in the atmosphere is now higher than at any time over the past 800,000 years.

Global land-ocean temperature index [2]



Temperature records going back to the late 19th century show that the average temperature of the Earth's surface has increased by about 0.8 °C in the last 100 years. About 0.6 °C of this warming has occurred in the last three decades.

Sources: [1] NASA 2019, [2] NASA 2019

EFFECTS

The average global temperature should not rise above 2 °C, and ideally not above 1.5 °C. If this fails, we will see: [3]

Photo: onfilm / Getty Images

Rising sea levels

With a 2 °C increase, sea levels in 2100 will be 1.04 metres higher than they were in 1990, and Amsterdammers will be flooded up to their knees. An irreversible 'tipping point' of a 1.24 metre-rise is reached with a temperature of 3–4 °C, while a 5 °C rise raises sea levels by 1.43 metres, flooding coastal cities such as New York and Bangkok.

Photo: Sven Bachstroem / EyeEm / Getty Images

Extreme weather

Since 2010, we've seen the five warmest years on record. If the global temperature increases by more than 2 °C, the world will experience annual heatwaves. A 3–4 °C increase would turn Southern Europe into a desert. North America, Asia and Australia are already seeing more intense rainfall, more flooding and stronger hurricanes, typhoons and cyclones each year.

Photo: Donal Husni / EyeEm / Getty Images

Lower crop yields

Rising global temperatures mean there will be lower yields of staple crops such as wheat and corn. With a 2 °C rise the yield drops by 20 percent and there would be as much as 40 percent less yield if temperatures rose by between 3 and 4 °C.

Photo: Patricia Hamilton / Getty Images

Shrinking polar ice caps

The Arctic is in the frontline of global warming. The current reduction in sea ice is already at an unprecedented 15 percent, but that will double with a 2 °C global increase, threatening polar bears and other indigenous animals with extinction. Antarctica's ice mass loss has tripled in the past decade.

TIPPING POINTS

The world needs to keep the global temperature rise well below 2 °C to limit the risk of reaching tipping points of irreversible climate change. For instance, even if by that point we have stopped emitting new greenhouse gases, the higher temperature might thaw the Earth's permafrost layer. This will release large amounts of methane, a greenhouse gas that traps atmospheric heat 28 times more effectively than CO_2.

Source: [3] 2019 World Wildlife Fund

PARIS AGREEMENT

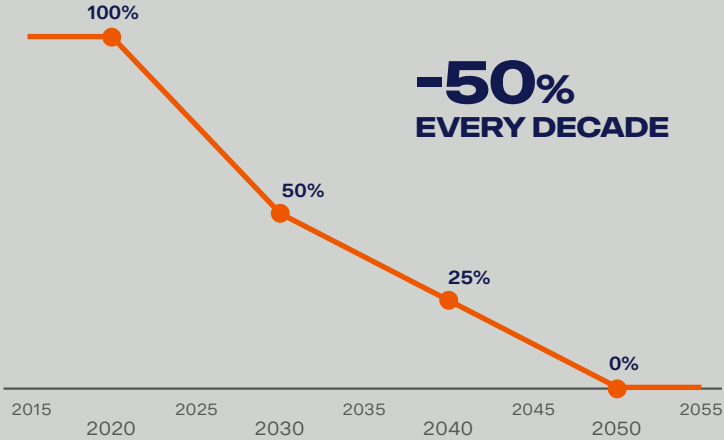
In 2015, world leaders met in Paris to sign an agreement to keep the increase in global average temperature to well below 2 °C above pre-industrial levels, and pursue efforts to limit the increase to 1.5 °C. This would substantially reduce the risks and effects of climate change.

"EVEN AS WE WITNESS DEVASTATING CLIMATE IMPACTS CAUSING HAVOC ACROSS THE WORLD, WE ARE STILL NOT DOING ENOUGH, NOR MOVING FAST ENOUGH, TO PREVENT IRREVERSIBLE AND CATASTROPHIC CLIMATE DISRUPTION."

António Guterres, UN Secretary-General

CARBON LAW

Reduce carbon emissons by half each decade to reach zero around 2050 [4]



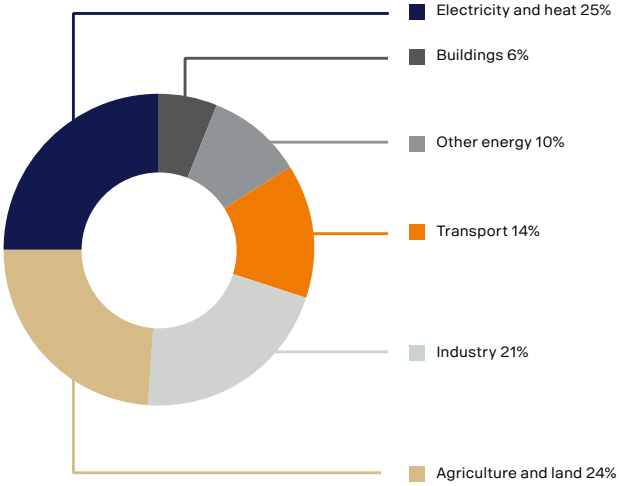
An international team of prominent climate researchers is proposing a solution for the global economy to rapidly reduce carbon emissions. The team advocates a carbon roadmap, driven by a simple rule of thumb of halving emissions every decade - a 'carbon law'.

The roadmap says that fossil fuel emissions will have to peak by 2020 at the latest and fall to around zero by 2050. A 'carbon law' would give the world a 75-percent chance of keeping Earth below the 2 °C Paris Agreement target.

Source: [4] 2017: Rockström J., et al

THE ROLE OF TRANSPORT

CO_2 emissions by sector [5]



Road transport accounts for approximately 14 percent of greenhouse gas emissions, and transport-related emissions are increasing. But with better planning and smarter logistics, a CO_2 reduction of about 25 percent can already be achieved.

Scania's Pathways Study [6] shows that achieving net zero CO_2 emissions for heavy commercial transport by 2050 is not only possible, but financially attractive. However, we need to start now. The study says biofuels offer the fastest, 'here and now' way to cleaner transport, but electrification is the least costly option in the long run and will be key to a future sustainable transport system.

Source: [5] IPCC 2014, [6] Scania, the Pathways Study

SCANIA CLIMATE DAY

SCANIA

We at Scania are committed to driving the shift towards a sustainable transport system.

We are also committed to carrying out our operations in a sustainable manner.

As with everything else we do, we base our climate work on the core values, priorities and principles that are illustrated by the Scania House (see above).

Scania has set ambitious targets and plans to move towards fossil-free operations well before 2050.

STRATEGY AHEAD

Sustainability is at the core of Scania's Strategy ahead and reducing the climate impact from our products and our operations will be key priorities in the years ahead.

Looking at both our direct and indirect emissions, the vast majority of Scania's total climate impact is generated when our products are being used.

Starting now Scania is setting new corporate targets related to climate and the impact of our products. These targetsunderline our commitment to ensuringthat emissions from Scania products are in line with what is required by the Paris Agreement.

To support our climate goal of reducing CO_2 emissions from the rolling fleet, we are also setting clear volume targets for biofuel and electrified buses and trucks.

These vehicles will enable big savings in CO_2 emissions, but only through efforts by Scania and its partners to ensure that the fuel and electricity used are sustainable; i.e. the gas should be biogas and the electricity generated should come from renewable sources.

SCANIA CLIMATE TARGETS

To hold ourselves accountable we are setting targets and monitoring progress both with regard to the emissions from our operations and from our rolling fleet.

Cut CO_2 emissions by 50 percent from our purchased land transport per tonne by 2025.

Cut CO_2 emissions in our operations by 50 percent by 2025.

Switch to 100 percent fossil-free electricity by 2020.

WHAT DO THE TARGETS MEAN TO YOU?
These corporate level targets have been or should be broken down to relevant objectives and activities throughout the organisation. This could entail department, production unit, business unit, distributor, dealer or workshop. Find out what targets are most relevant to your operation.

In addition to the three corporate level climate targets, Scania offers the broadest range of products that run on alternatives to fossil fuel available on the market today. It's our intention to continue with this.

CLIMATE DAY QUIZ

1. By how much did Scania in Angers reduce its electricity usage through switching to LED lights?

- ☐ **A. 10 %**
- ☐ **B. 40 %**
- ☐ **C. 60 %**
- ☐ **D. 80 %**

2. What percentage of a truck's CO_2 footprint is generated when the product is in use?

- ☐ **A. 26%**
- ☐ **B. 46%**
- ☐ **C. 76%**
- ☐ **D. 96%**

3. How much lower can well-to-wheel CO_2 emissions be for renewable fuel biogas compared to diesel?

- ☐ **A. 45%**
- ☐ **B. 60%**
- ☐ **C. 75 %**
- ☐ **D. 90 %**

4. Rank the following alternatives from highest to lowest in CO_2 reduction at Scania (1 – highest to 4 – lowest)?

A. Switching off computers .....

B. Biogas vehicles .....

C. Web meetings vs. flights .....

D. Recycling of plastic .....

ACTION PLAN

A. Here and now. What can we do right now?

B. Short term. What can we implement in 3–6 months' time?

C. One change for the strategic plan or business plan (up to 3 years)?

FOR A DEEPER UNDERSTANDING
OF CLIMATE CHANGE AND SCANIA'S RESPONSE:

The facts in this booklet are from the following sources:

[1] 2019: NASA; climate.nasa.gov/evidence/

[2] 2019: NASA; climate.nasa.gov/climate_resources/127/global-temperature/

[3] 2019: World Wildlife Fund

[4] Rockström J. et al. (2017), *A roadmap for rapid decarbonization*, Science 6331

[5] 2014: IPCC, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

[6] 2018: Scania, the Pathways Study

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