

## Beyond the Fossil Era

# 1849 – 2053

## Historical overview



### Crucial historical events

- 1849** Fossil fuel usage increases dramatically as coal becomes the staple energy source in manufacturing.
- 1882** The world's first coal-fired power plant is built in London.
- 1896** Swedish scientist Svante Arrhenius shows that humanity can cause climate change.
- 1908** The first T-Ford is manufactured. Its low cost enables more people to buy a car, paving the way for extensive private car use.
- 1910** A new discovery (the Haber-Bosch process) enables nitrogen fixation at a low price, which leads to the large-scale manufacturing of chemical fertilisers.
- 1973** The oil crisis. Oil is no longer viewed as an infinite and cheap energy source.
- 1991** The Swedish carbon tax is introduced.
- 2015** The Paris Agreement is signed. This is a global agreement that commits nations to decrease emissions sufficiently quickly to limit warming to 2 degrees Celsius.
- 2018** Over 100 million cars are produced in a given year.
- 2020** Stockholm Exergi closes Värtaverket, Sweden's last coal-fuelled power and heating plant.
- 2027** The carbon bubble burst. It is clear that the future is fossil free, and machines and infrastructure related to fossil fuels become worth less and less. Stockbrokers rush to sell off their assets, plummeting the value and barring these companies from most lenders. Fossil fuel companies are forced to rethink or disappear.
- 2028** Plastics production peaks at 450 million tonnes per year.
- 2036** The Belchatow power plant in Poland is closed, at the time the biggest single emitter of CO<sub>2</sub> in the EU.
- 2037** Bio-based plastic production exceeds fossil plastic. Half of all plastic is made from recycled materials, and there is a drop in the demand for plastic.
- 2042** The last blast furnace in Sweden is closed. Swedish steel is now completely fossil free.
- 2045** Sweden reaches the goal of *net-zero emissions* and completes the goals set out in the Climate Act from 2018.
- 2053** The museum FOSSIL is inaugurated with its first exhibition: *Beyond the Fossil Era*.



## Beyond the Fossil Era



### The three periods of the fossil era

In 2045, Sweden achieved *net-zero emissions* and became the first country in the world to abandon the fossil era. Hurray for Sweden who led the way! This ended the fossil era, which had lasted for roughly 200 years. Our use of fossil fuels goes back even further. From 1849 up until the 2020s, however, it increased exponentially.

The fossil era is usually divided into three periods: *the great expansion*, *the fossil fear years* and *the transition years*.

During *the great expansion*, fossil fuels were deployed on a large scale. This enabled increased steel production, new ways of transporting both people and goods and new technologies. The first automobile was introduced, and the production of plastic exploded. This expansion did bring prosperity to many people, but at a steep cost – an environmental disaster we are still living in, although some aspects have improved.

During *the fossil fear years*, this reliance on fossil fuels for energy started to be questioned. There were two major crises caused by conflict and soaring oil prices, and scientists began sounding the alarm—our use of fossil fuels was changing the climate.

But it was not until *the transition years* that Sweden actually embarked on its journey towards a fossil free society. Signing the Paris Agreement in 2015 became the starting point—global warming was to be kept under two degrees Celsius, but preferably closer to 1.5 degrees. These became important milestones for the events to come during the transition years. Investments in coal and oil became unprofitable as renewable energy became cheaper and pollution more expensive. Rich nations transitioned to plant-based diets. However, this transition did not lack defeats and conflicts. Many species went extinct, and disputes erupted as new mines were opened to supply the materials needed for renewable energy. Many people were also upset when they were forced to break habits they had grown to love—they could no longer take that annual trip to the Bahamas. Most people, however, looked upon the transition as a positive improvement and their lives became richer in the process.