

The Electrotech Revolution

The shape of things to come

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The Age of Electrotech

Humanity is graduating from burning fossil commodities to harnessing manufactured technologies—from hunting scarce fossils to farming the inexhaustible sun, from consuming Earth's resources to merely

Chapter 1

A New Perspective: The Electrotech Revolution

01



Two views on energy dominate the conversation. We propose a third



This is a technology revolution in energy

Electrotech is technology

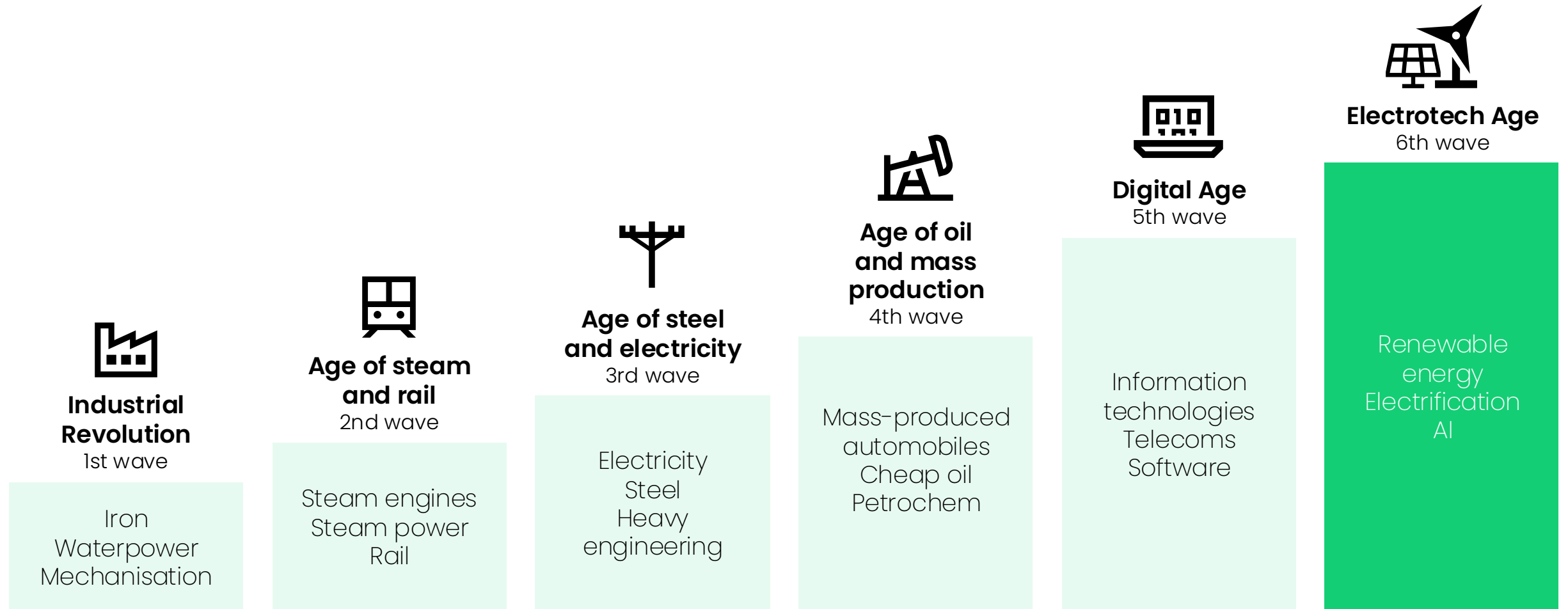
A century of evolution is converging into a decade of revolution

The 2020s mark a great technology convergence

ILLUSTRATIVE</

This is the age of electrotech

It is the latest in a long line of technology shifts

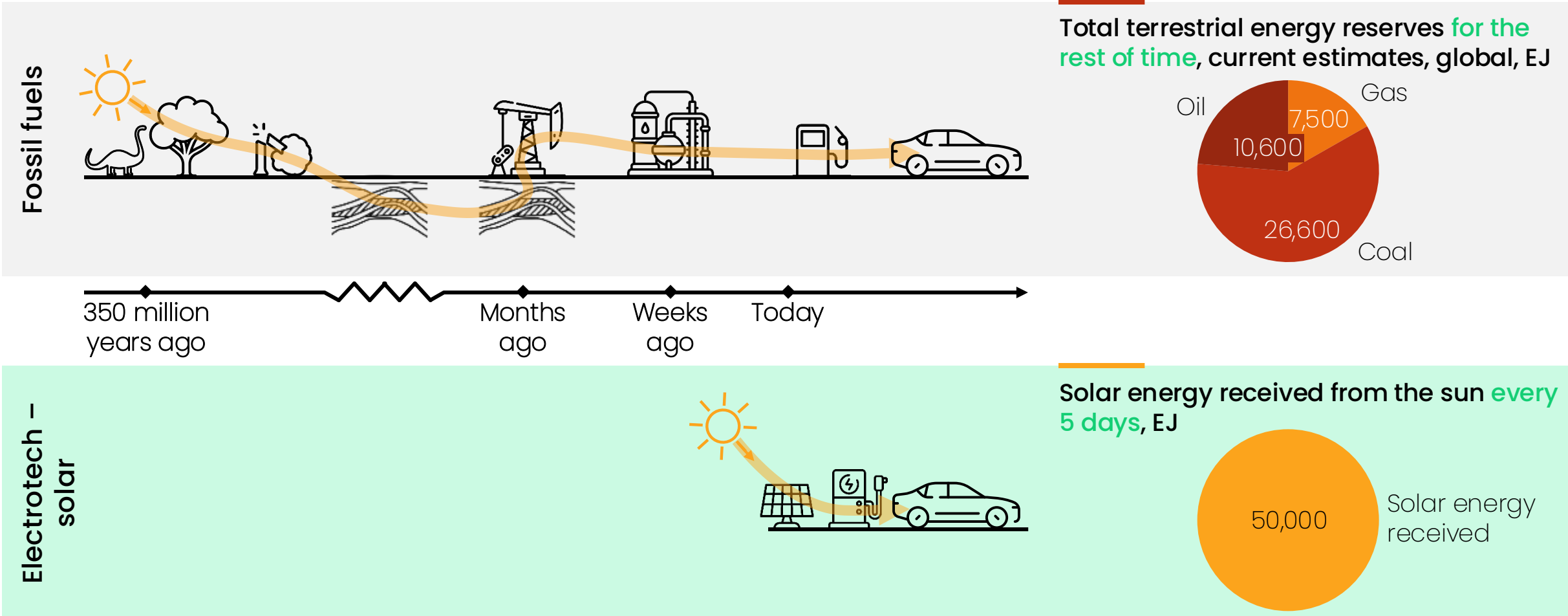


Electrotech is the child of digital tech

Electrotech is made of the same components as digital tech, and inherits its momentum

From burning old sunshine to using it real-time

The sun supplies more energy to Earth every 5 days than all fossil fuel reserves





Foragers, Farmers, Fossils, Photovoltaics

Electrotech enables

Chapter 2

The rise of electrotech

01

The two vectors of the energy transition

Renewables replace fossil electricity; electrification replaces fossil molecules

Global final



Electrotech investment is twice as big as fossils

And we spend more on solar cap

Electrotech keeps getting better

Decade after decade of innovation raises the ceiling of the possible

Solar cell



Costs have been falling for decades on learning curves

Cheap enough to challenge incumbents

After decades of cost innovation electrotech is now cheaper than fossils

The manufacturing capacity is in place

Outpacing projected demand of even net zero scenarios

Solar PV manufacturing capacity

Sunrise

Solar has gone from smallest to largest source of capacity in 15 years

Global installed electricity



Solar and wind deployment is a global story

From mature economies to emerging markets</

The rise of new connections

Flextech and gridtech smartly connect supply and demand

The cheaper it gets, the faster it goes

The virtuous cycle between cost and volume is self-sustaining



The long march of electrification



Electricity is the king of energy



The EV revolution is taking off



EV deployment is growing exponentially

China is moving at lightning speed

Across renewables and electrification



Change is happening faster than it can be recorded



Africa is turning to the sun

Solar imports are



The renewables ceiling is high and rising

The electrification ceiling is high and rising

Over 75% of the global energy system can now be electrified



The majority of the energy system is within reach



EVs are driving a plateau in road transport



After the peak comes the fall

Countries don

