

Life Cycle Thinking



Globally, there are more than 1.3 million electric cars on roads and many more are to be expected in future. Are electric cars really as environmentally friendly as they claim to be?

Source: IEA

WHY LIFE CYCLE THINKING?

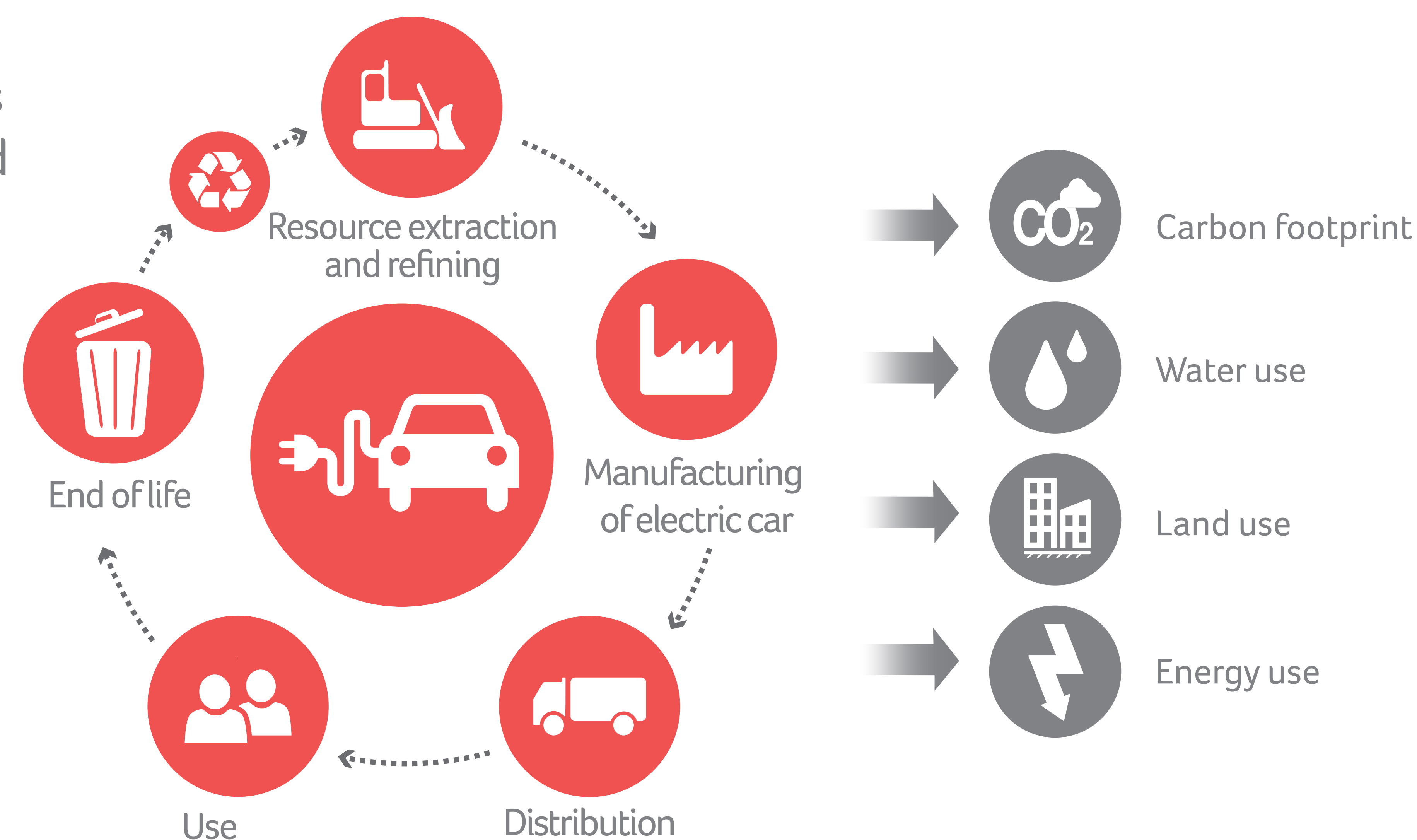


Life Cycle Assessment (LCA) looks at a product's entire life cycle from the extraction of raw materials to the product's disposal.

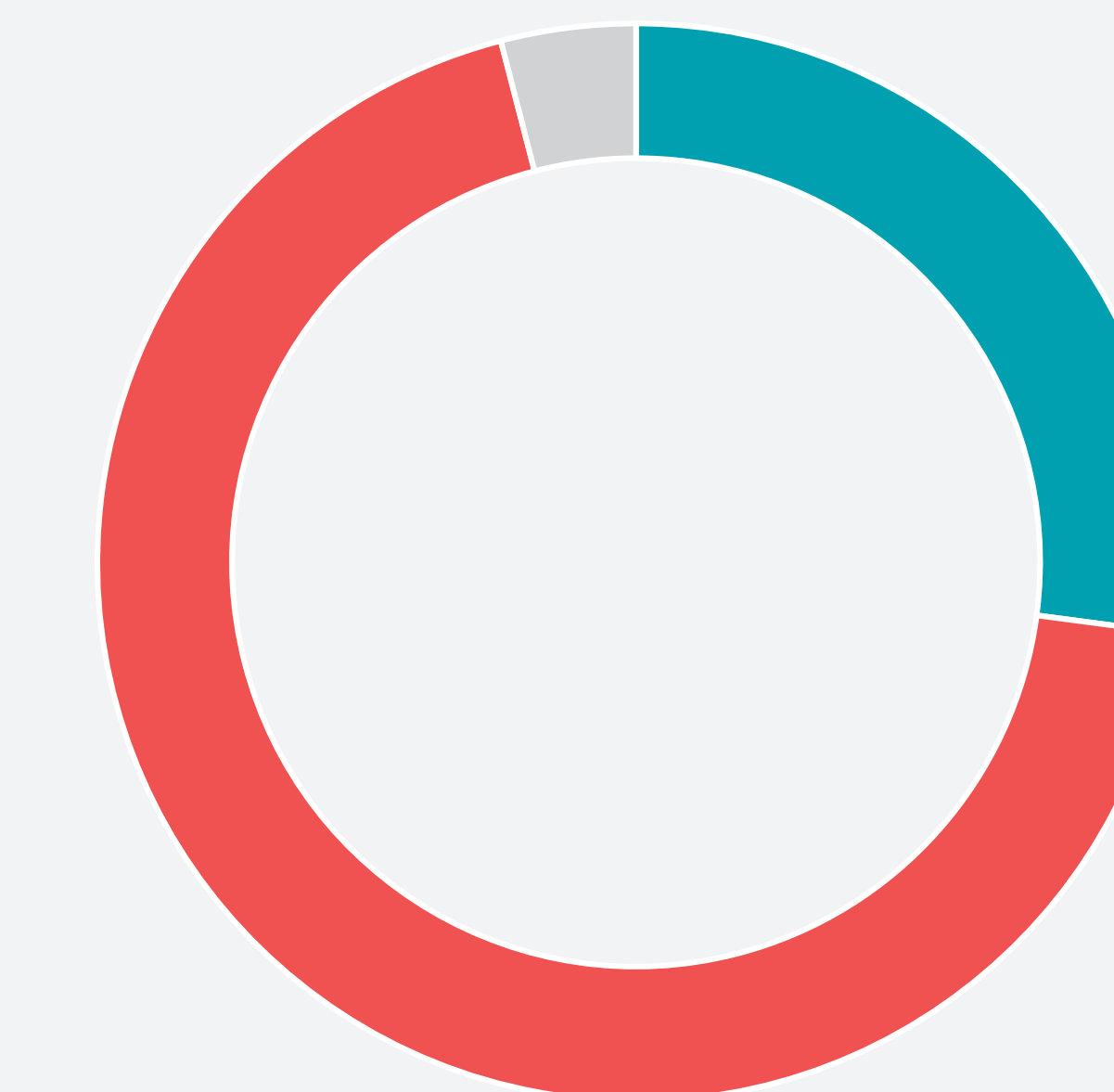
- **Grasp the full picture.** Take into account all energy, materials and emissions related to the production, use and disposal of a product.
- **Make informed decisions based on scientific facts** about the truly preferable products and how to substantially reduce their impacts.

WHAT DOES THE LIFE CYCLE OF AN ELECTRIC CAR LOOK LIKE?

All the life cycle stages produce emissions and require energy and materials.



HOW GREEN IS THE ELECTRIC CAR?



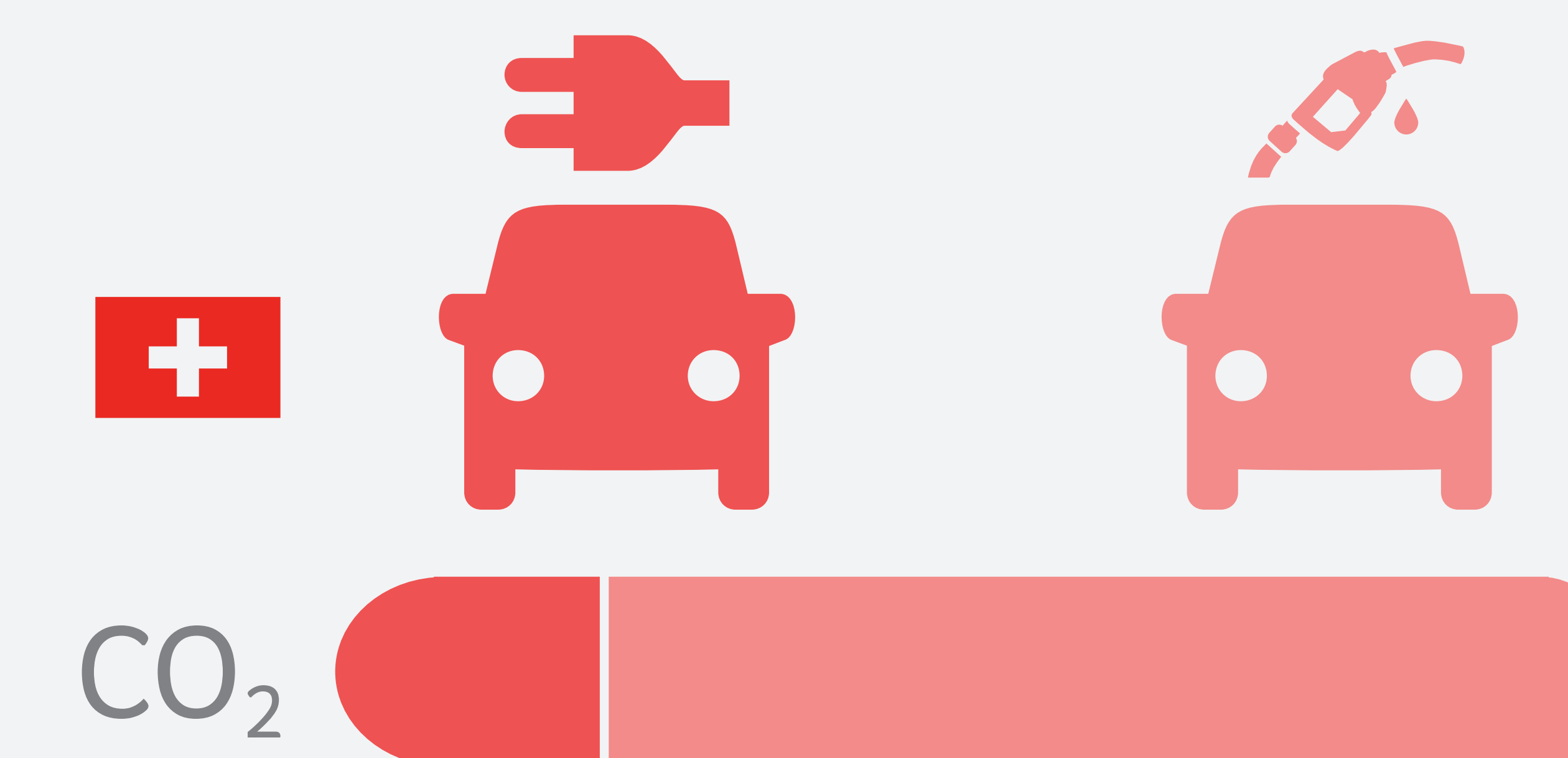
- Production
- Use and maintenance
- Disposal

Where are the environmental hotspots along the electric car's life cycle stages?

The raw material extraction and the manufacturing of the electric car (including the battery) only constitute a share of 21%.

The use phase (driving the car) is by far the most significant contributor to climate change.

How does an electric car compare to a conventional same size petrol car?



Taking the whole life cycle into consideration, electric cars in Switzerland emit 78% less CO₂ than petrol cars. Would it be the same story if the electricity mix of the country were to change?



ecoinvent is home to the world's most consistent and transparent Life Cycle Inventory database. The database provides well documented process data for thousands of products helping you make truly informed decisions about their environmental impact.
info@ecoinvent.org | www.ecoinvent.org



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Switzerland – Germany – France – USA – Colombia
info@equantis-intl.com | www.quantis-intl.com

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