

Our vision

Zero CO₂ emission during
the life cycle of our products

Our vision

2012

- 3.6 billion tonnes of cement*
- ~4 % of global green house gas emissions**

*www.cembureau.eu ** IEA, 2010


2030

- ~4.5 billion tonnes cement**

** IEA, 2010

Our vision 2030

- Zero CO₂ emission during the life cycle of our products

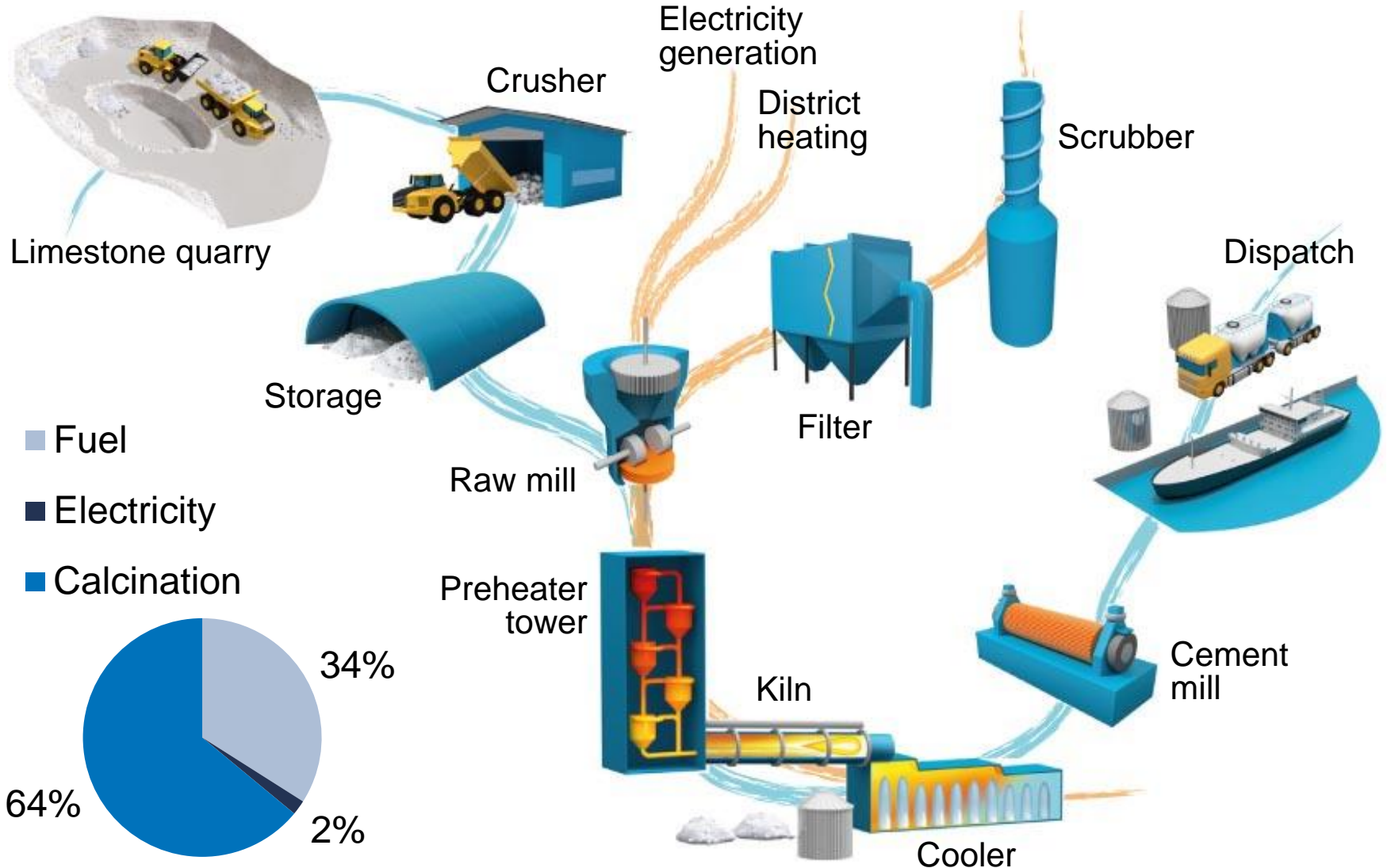


Concrete is an essential construction material to support societal needs

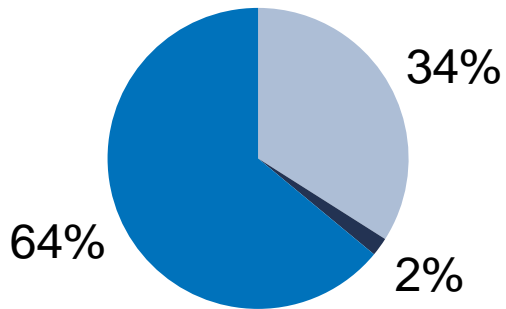


Cement and concrete
lay the foundation for a
sustainable society

Cement production

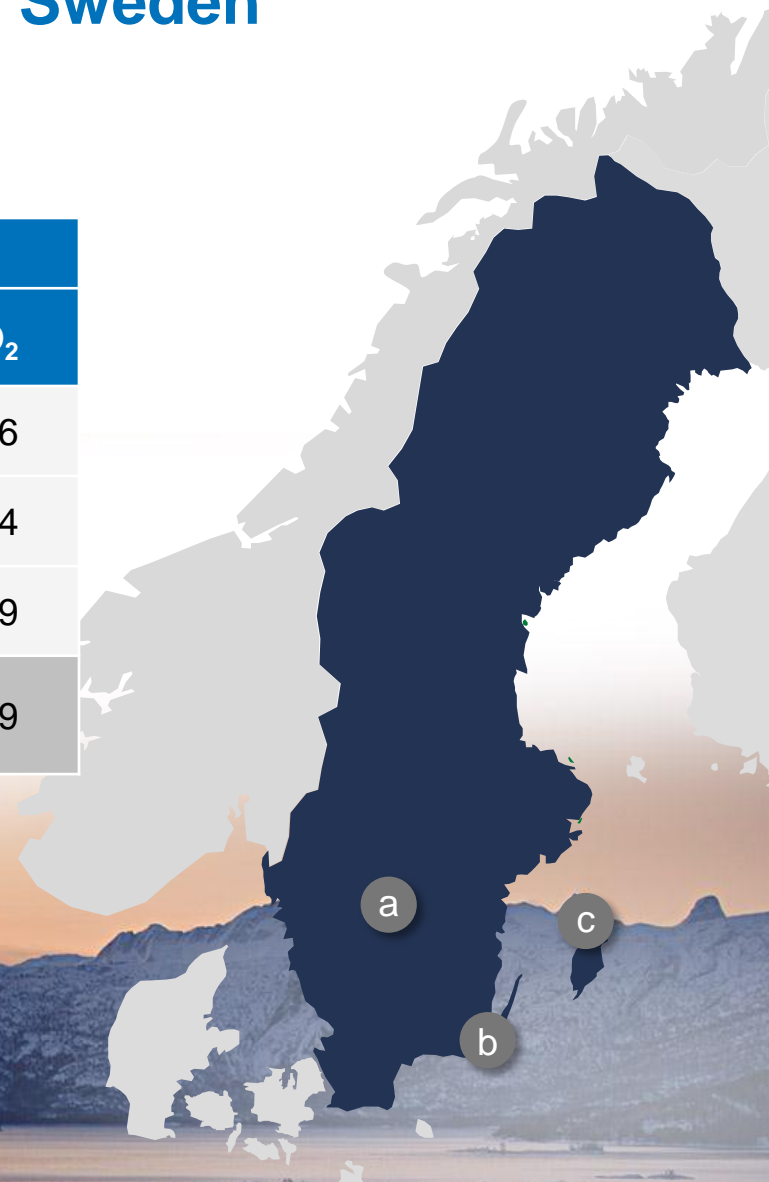


- Fuel
- Electricity
- Calcination



Cement and clinker production in Sweden

2012 (1,000 tonnes)			
Plant	Clinker	Cement	CO ₂
a) Skövde	391	492	336
b) Degerhamn	277	292	254
c) Slite	2,101	1,827	1,729
Total Sweden	2,769	2,611	2,319





Our vision

How can we reduce CO₂ emissions in concrete

Energy efficiency

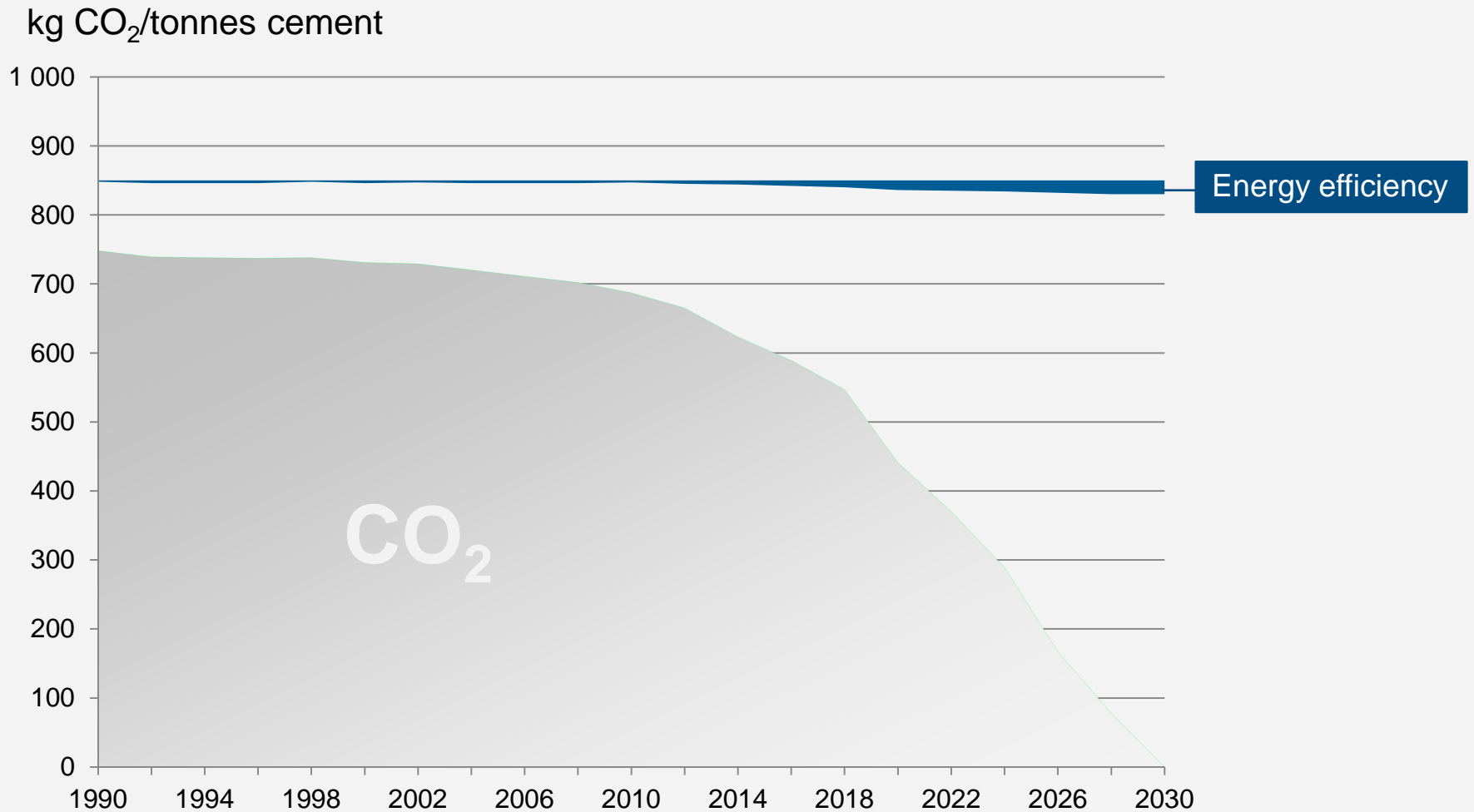
Increased use of biofuels

Reduced clinker content

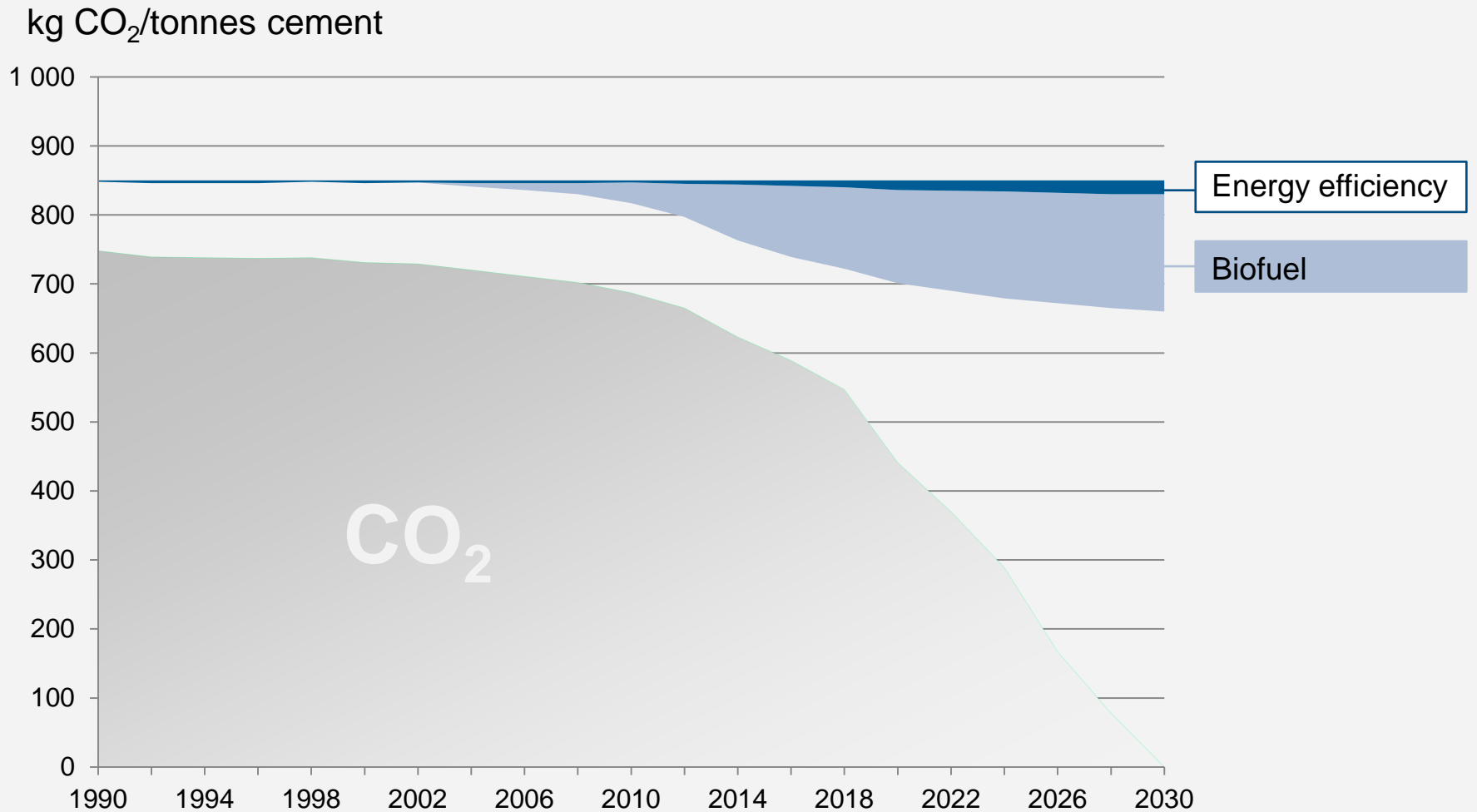
Carbonisation of
concrete

Carbon Capture and
Storage or Recycling

Our vision – zero CO₂ emissions in 2030



Our vision – zero CO₂ emissions in 2030



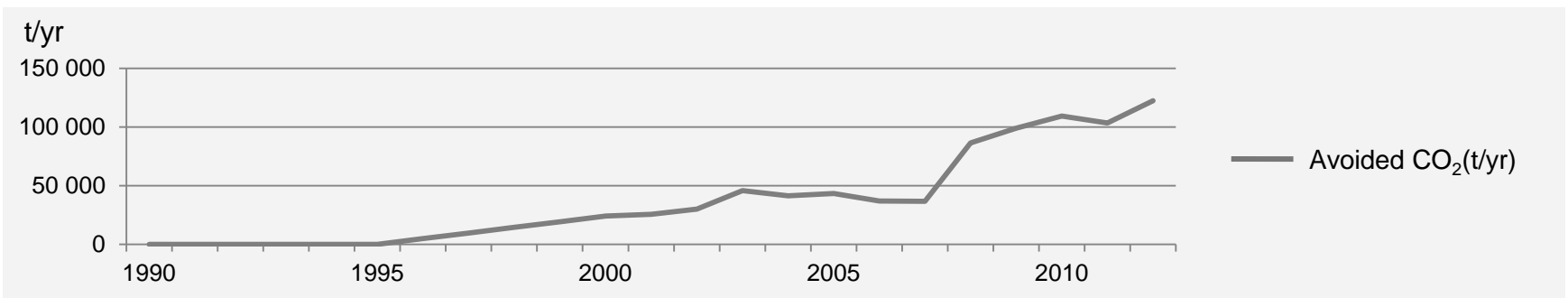
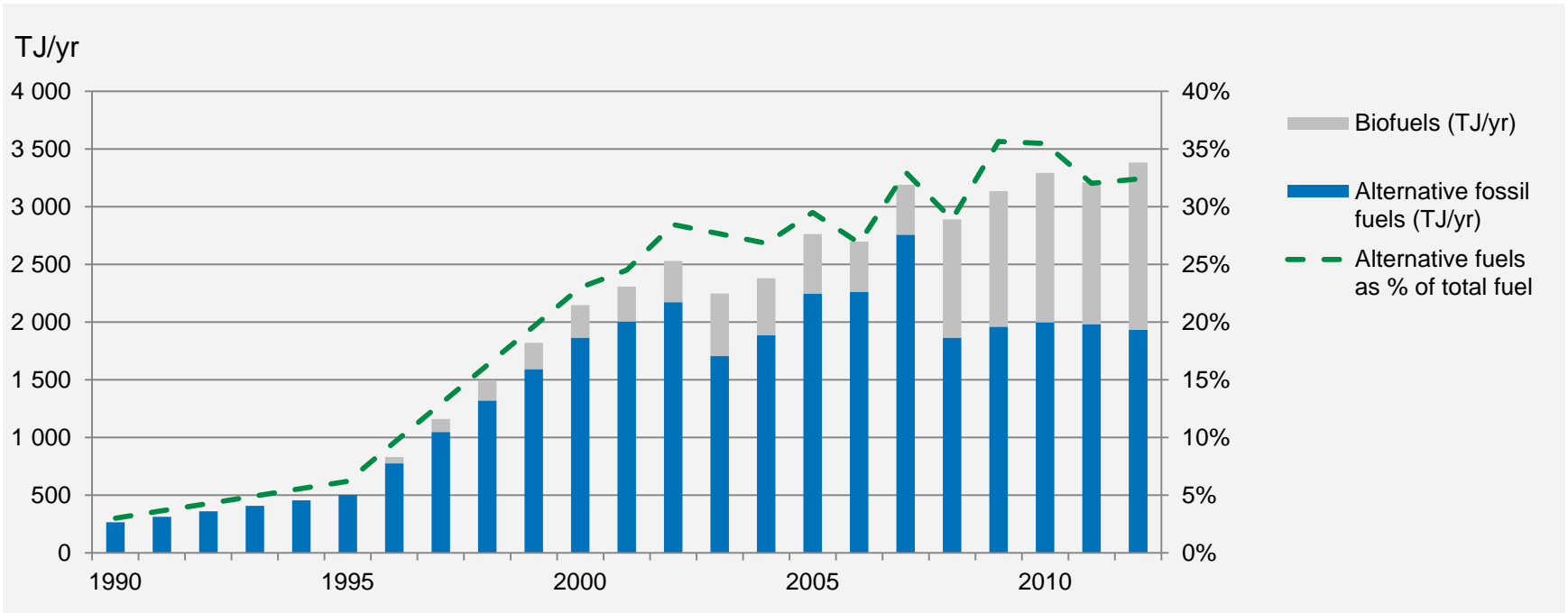
We are using more and more alternative fuels

The use of waste derived fuels has been the single most important factor to reduce the use of virgin fossil fuels

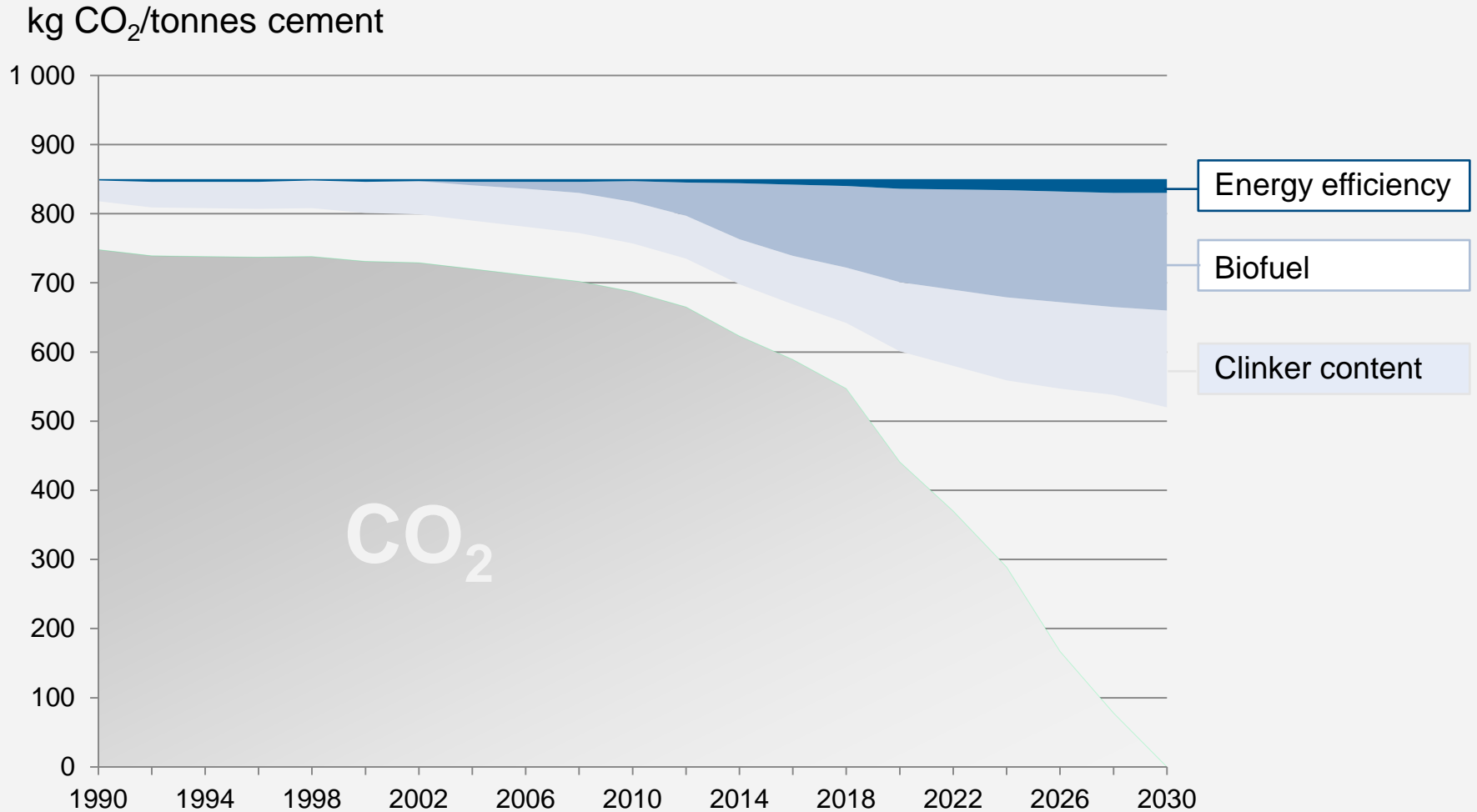
Cement kilns are well suited for waste co-incineration

Using waste derived fuels in cement kilns is part of a responsible waste management in our society

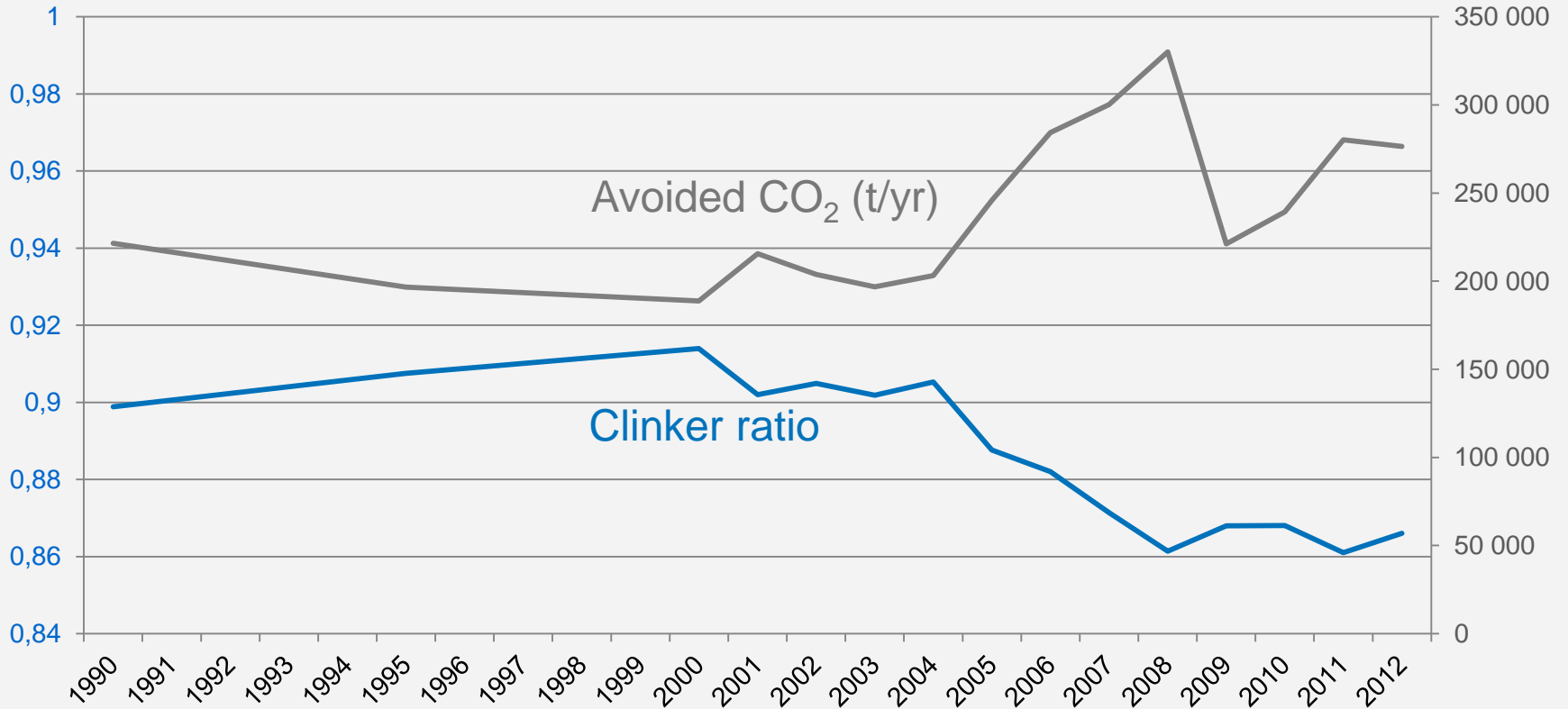
Increased use of alternative fuels



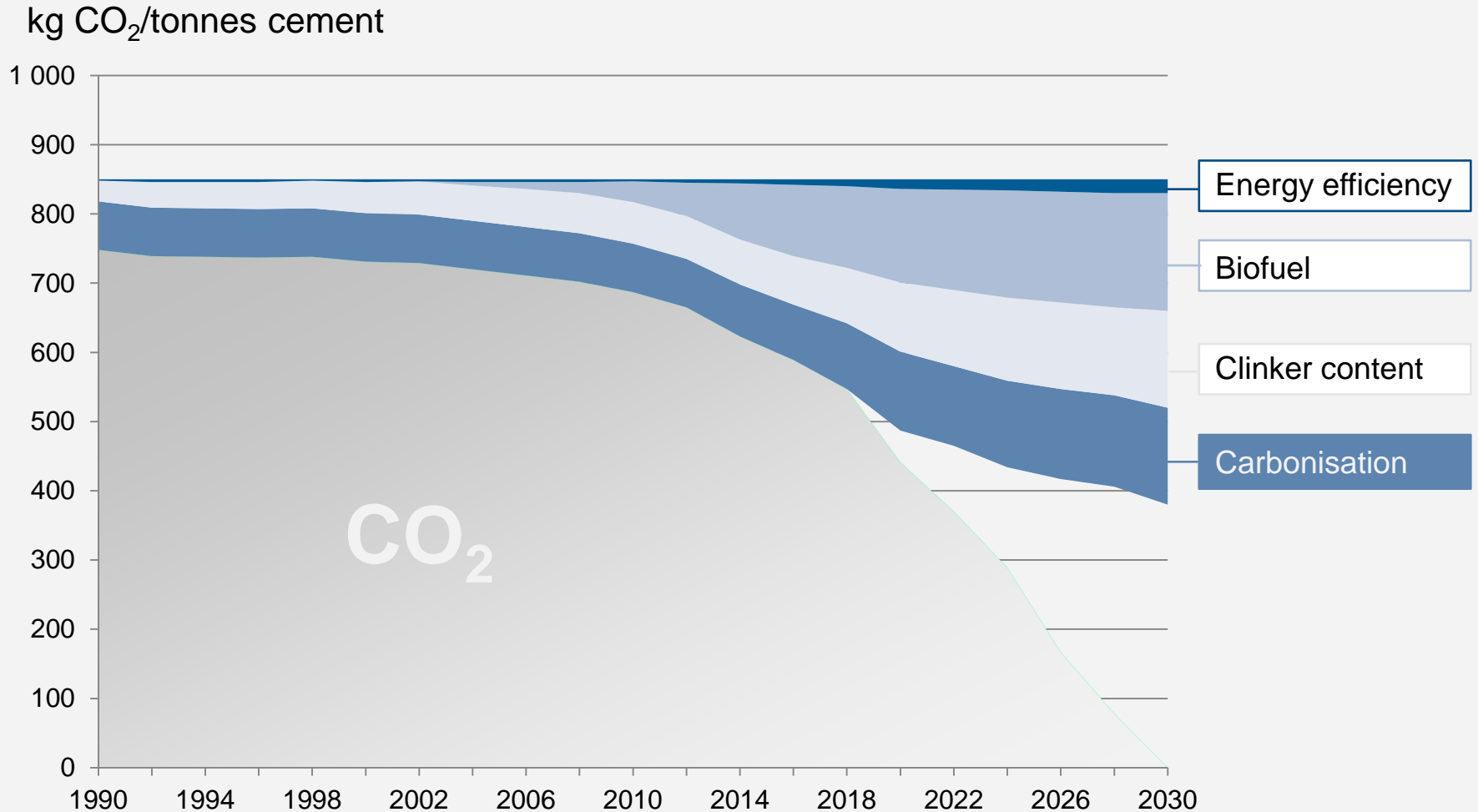
Our vision – zero CO₂ emissions in 2030



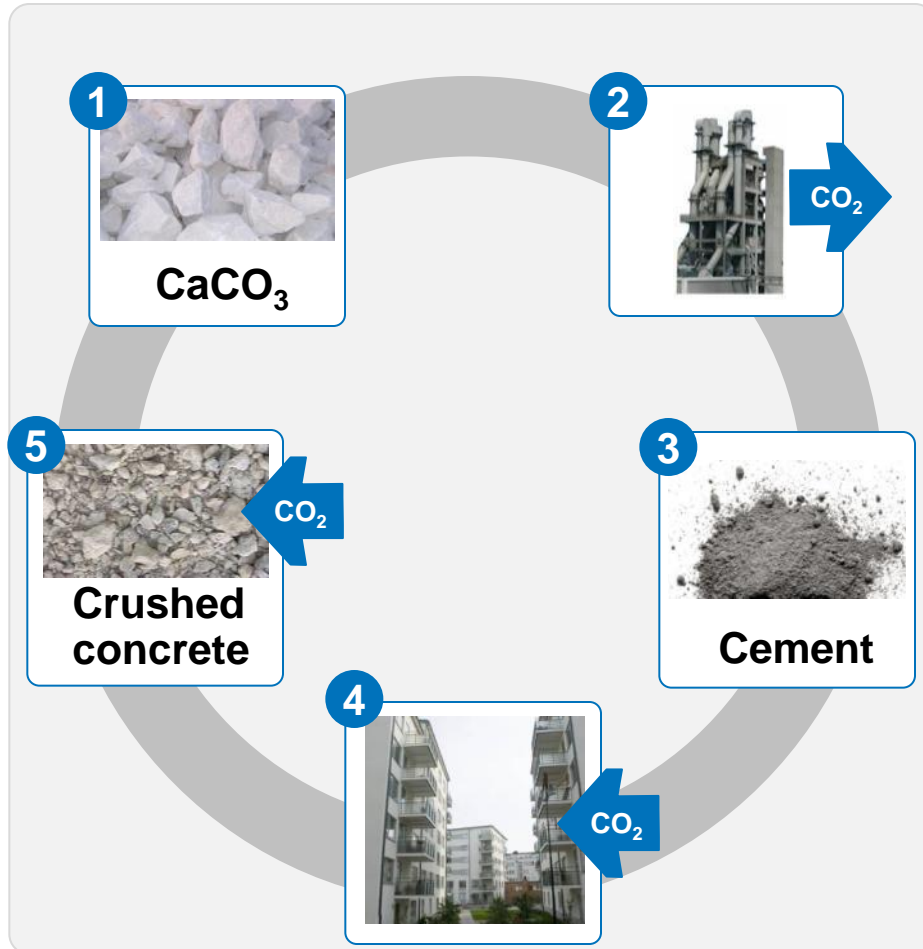
Developing new cement recipes



Our vision – zero CO₂ emissions in 2030

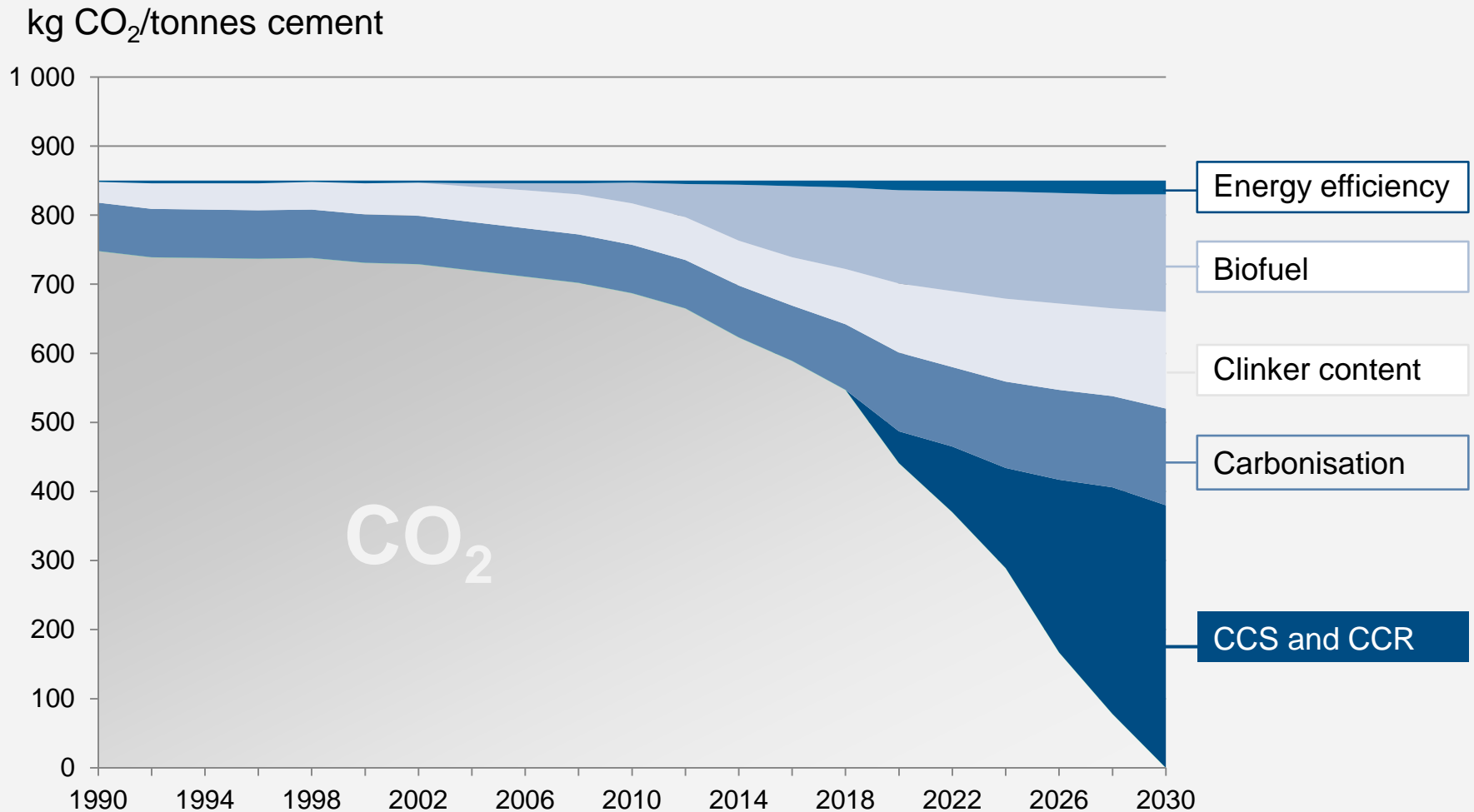


Understanding concrete and the CO₂ cycle



- Emitted from the calcination process and absorbed during the life cycle of concrete.
- 300,000 tonnes CO₂ are absorbed every year in Sweden.

Our vision – zero CO₂ emissions in 2030



Current research: Carbon capture project in Norway

- **The first capture project in the cement sector**
- **Co-funded by Norwegian state (9 million euro) and industry (2,7 million euro)**
- **Cement plants suitable for CO₂ capture**
 - High concentration of CO₂
 - Available heat energy from kilns
- **Project running 2013 – 2016**

Zero CO₂ emissions

during the life cycle of our products

This is possible to achieve through dedicated work accompanied by investments