

Measure to Improve

2030 goal: Measure all direct and indirect emissions generated as a result of our economic activity across the three emission scopes in a proven, methodical manner.

Current Focus Area/Theme	2021 ambition to action:
<ul style="list-style-type: none">• Anchor methodology for estimating emissions in the organization.• Develop framework for prioritizing areas for emission reduction initiatives.	Incorporate environmental reporting in our corporate financial reporting system.

We are a “measure to improve” focussed company with strong emphasis on real impact. When setting targets for 2030, it has been important for us to assure that we understand the realities in own operations and in our value chain so that we can focus on the right areas. Considerable time has been spent to define the best possible tool to monitor the development in the years to come.

Since 2010, we have been reporting on our Scope 1 and 2 emissions plus our Scope 3 emissions related to logistics and travel (see box). Our reporting has been based on a simplified version of the principles outlined in the Greenhouse Gas Protocol www.ghgprotocol.org. In 2019, we initiated a project together with external consultants, Klimakost/Asplan Viak and Material Economics, to assess emissions in reporting on scope 1, 2 and 3.

<https://laerdal.com/globalassets/images--blocks/themed-images--blocks/sustainability/klimakost-report-on-laerdal-june-2020.pdf>

Evaluating all three scopes gives the total CO₂ equivalent (CO_{2e}) emissions relevant for the company’s accountabilities. This represents a major shift and stems from a growing realization that a large portion of our CO_{2e} emissions originates in our value chain but is nevertheless impacted by our decisions. If we want to change those decisions, we need to know their impact.

We have in our screening process learned about alternative reporting methodologies that will enable us to estimate our total CO_{2e} emissions. By combining two these, we can see the full picture of the emissions from operations, a quantification of CO_{2e} emissions from materials, and the impact of different decarbonization initiatives. Moving forward, we will use 2019 as our baseline being the first year we implemented the new methodology.

Emission scopes

- Scope 1 – Direct Emissions**, including fuel combustion on site such as gas boilers, fleet vehicles.
- Scope 2 – Indirect Emissions** from electricity purchased and used by the organization.
- Scope 3 – All Other Indirect Emissions** from activities in the value-chain of the organization: including emissions associated with business travel, procurement, waste and water.

Approach 1: Input-output analysis based on financial reporting (Klimakost/Asplan Viak)	Approach 2: Assessment of embedded carbon in products (Material Economics)
<p>Input-output analysis is a method to study the interrelations between sectors in the economy. This method has been extended with environmental information to estimate the direct and indirect emissions from economic activity. By calculating and tracing the interconnected demand between sectors in the economy it is possible to estimate the emissions from the spend in any sector.</p> <p>For our analysis, financial data were processed through the multiregional input-output (MRIO) model EXIOBASE 3 https://www.exiobase.eu/index.php/about-exiobase to estimate the total emissions for the company.</p>	<p>The assessment of embedded CO_{2ev} is a top-down assessment of the materials in finished products based on sales volumes and estimation of the composition of each product.</p> <p>The analysis is based on the estimated materials composition for 70% of our sales volumes (by weight) and includes the four main material types (plastics, electronics, steel, and paper/cardboard). The emission factors consider the embedded emissions from selected materials, i.e. the emissions from extraction and production of the raw materials. Emission factors are based on average European values, e.g. for plastics overall.</p>
<p>Advantages</p> <ul style="list-style-type: none"> • Provides an understanding of total emissions from our operations. • Possible methodology for further monitoring of emissions. <p>Disadvantages</p> <ul style="list-style-type: none"> • Provides a good overview of total emissions but does not provide details on each material. • Pricing and currency fluctuations could impact details and elements in the results. 	<p>Advantage</p> <ul style="list-style-type: none"> • Enables quantification of levers to reduce the CO_{2e} footprint of materials to provide a high-level understanding of how to cut emissions from materials. <p>Disadvantage</p> <ul style="list-style-type: none"> • Based on European data, whereas we are a global company.

We believe there is an advantage by combining the two methods and then cross checking the results with our external partners.

For many emission categories the solutions to reduce emissions are often relatively straightforward - e.g. shifting to renewable electricity in production sites. In this regard, an estimation of the total CO_{2e} footprint based on the input-output analysis gives enough information to make informed decisions. By using this type of methodology, it is also possible to monitor and compare emissions from year to year.

For emissions from a company's materials use the assessment is usually much more complex: the CO_{2e} footprint depends on the material composition of the products and the share of recycled vs virgin materials. The opportunity to reduce emissions is usually also larger, ranging from circulating products to a larger extent, recycling materials internally and externally, and shifting to renewable energy in the supply chain.