

We support your
**Sustainability
Transition**

PCF / LCA / EPD Development

Recycling

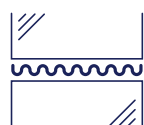
Sustainability Awareness Workshops



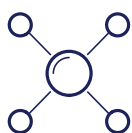
Your high-performance partner for specialty chemicals.

We are a leading independent chemical business providing sales, marketing and distribution services and recognized world-wide for our technical expertise and high-quality product portfolio as well as in-house laboratory support. Everything we do is with passion and commitment and always with an eye on the best possible outcome.

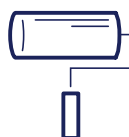
Industries



Adhesives & Sealants



Chemical Intermediates



Coatings



Construction



Heat Transfer Fluids



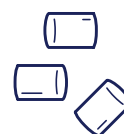
Industrial Cleaning & Home Care



Lubricants & Fuels



Personal Care



Plastics



Rubber

Our locations

Thinking global and acting local

KRAHN Subsidiaries

- Hamburg
- Zaandam
- Milan and Berbenno
- Poznań
- Avon
- Athens
- Gothenburg
- Sandbach
- Aspe
- Vienna

Sales offices

- České Budějovice
- Tiszaújváros
- Sibiu

Laboratories

- Bottrop
- Poznań
- Gothenburg
- Lainate and Berbenno

Warehouses

Many warehouses across Europe, also with possibilities for bulk breaking





Sustainability is a respected stakeholder at the table.

By 2030, we aim to be your inspirational partner, driving sustainable production across frontiers with a positive mindset.



We support your sustainability transition

KRAHN offers its customers services and consulting on the subject of sustainability. We would like to support you in the transition to more sustainable production. Specifically for this purpose, we have designed two Sustainability Services, unique for a distributor of specialty chemicals.



Life Cycle Assessment

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Life Cycle Assessment

Do you want to take a close look at the environmental impact of your portfolio? Using life cycle methodologies, we can find out how much your products impact the environment. The LCA shows you the potential to develop a more eco-efficient product from various aspects (waste generated, energy consumed, raw materials used, packaging), by creating a baseline of the environmental impact of your product as it is today. It can help you to take informed decisions on sustainable product development – an important aspect for many of your customers, too.

What is a Life Cycle Assessment?

Life Cycle Assessment (LCA) is a methodology to calculate the environmental impact of a product. It looks at the whole life cycle: from raw material extraction to disposal. Therein, it quantifies „environmental impact“ across multiple categories, including CO₂ emissions (Product Carbon Footprint), but also the water footprint, or impact on air quality. This holistic approach to environmental impact, makes it the best methodology to see how sustainable your products are.

Types of LCA

As LCA is a broad methodology, there are multiple types of LCA calculations possible. For example, you can calculate impact of your product from cradle-to-grave, cradle-to-gate, or gate-to-gate. Alternatively, you can focus on one impact category, only calculating the CO₂ emissions over the lifecycle of your product (called PCF). Which LCA type you need, and what the rules are, is difficult to determine. KRAHN can help you with this.



Why do a Life Cycle Assessment?

An LCA will give you a holistic overview on the major environmental impacts of your products. Firstly, this enables you to identify the most effective opportunities for minimizing the impact of your products on the environment (eco-design). Additionally, it allows you to communicate transparently the environmental impacts of your products, positioning yourself as a leader in sustainability. For example, the LCA report can be used for the development of an Environmental Product Declaration. This is not only important to your stakeholders, but especially to deal with environmental policy goals and regulations. Under the EU Green Deal, manufacturers are increasingly obliged to communicate about these environmental impacts, meaning LCA can enable you to set the appropriate/required course at an early stage.





How is a Life Cycle Assessment conducted?

The LCA experts at KRAHN will work with you through the entire process of creating a life cycle assessment for your products. Inputs and outputs will be mapped and an LCA report highlighting the major impact categories will be issued and discussed with you. If needed (for external communication or EPD development), a third party validation can be organized.

Why KRAHN?

We offer:

- PCF report according to ISO14067
- LCA report according to ISO14040/44
- Development of EPD according to ISO14025
- Data transparency
- Exclusive data access
- Post-project support
- Potential production optimization recommendations
- Potential raw material recommendations to improve the LCA results



Recycling Services

In the chemical industry, suppliers and producers deal with complex products. This brings a lot of great opportunities but also challenges. One of them is the recycling of production waste, much of which is still incinerated or landfilled. At KRAHN Chemie, we specialize in transforming your hard-to-recycle production residues into reusable materials.

By combining deep product knowledge and sustainability expertise with technical know-how, we develop tailored solutions that unlock both environmental and economic value for your business. Together we achieve a more sustainable industry and contribute to a circular economy.

What are the benefits of recycling?

Recycling has great environmental advantages, but can also help your business in terms of efficiency and cost savings:

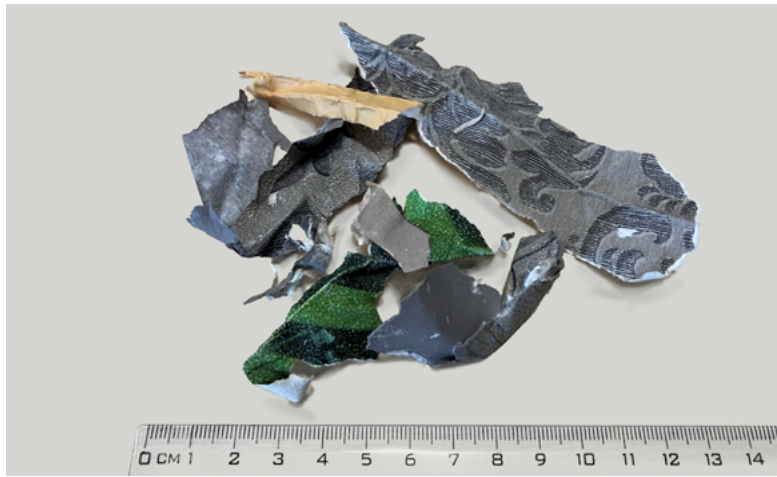
- **Resource Conservation:** Recycling reduces the need for raw materials extraction, conserving natural resources and minimizing environmental impact associated with mining and processing – while also helping businesses mitigate supply chain risks and reduce material costs.
- **Energy Savings:** Recycling typically consumes less energy than producing materials from virgin resources, resulting in lower greenhouse gas emissions, reduced energy use and cost savings.
- **Waste Reduction:** Proper recycling decreases the volume of waste sent to landfills or incinerators, cutting disposal costs, supporting sustainable waste management practices and reducing environmental pollution.



What can we support you with?

For preventing your waste getting incinerated, we find – or even develop – the right recycling technology, tailored to your needs. Depending on your goals, we can offer an open- or closed-loop approach.

In a closed-loop system, your materials are recycled and reintegrated into your production processes. In an open-loop system, recycled materials are processed to be sold to other manufacturers, creating value beyond your operations.



What does the process look like?

Our process is designed to get the most out of your production waste:

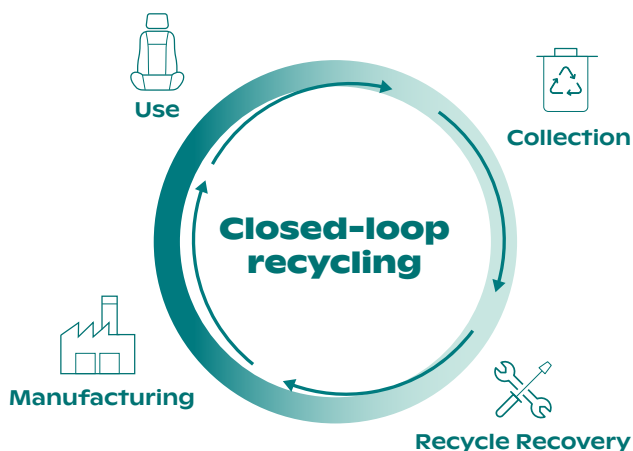
1. We analyze and map your waste streams based on volume, type, composition and other key characteristics to identify the most efficient recycling solutions.
2. We do a proof of concept of recycling in our in-house laboratories to determine the most effective techniques for your specific waste stream.
3. We take care of finding the right partners for you to scale up your recycling process.
4. We conduct an economic and environmental evaluation of the recycled product to ensure it is cost-competitive with virgin materials and offers a lower environmental impact.

Why KRAHN?

We offer:

- A combination of a comprehensive product portfolio, technical expertise and sustainability know-how to deliver smart solutions.
- The infrastructure and experience across multiple industries with our fully equipped laboratories in Germany, Poland, Italy and Sweden, the strength of the Otto Krahn Group and our various partnerships with suppliers and customers.
- A deep understanding of complex products to turn your recycling challenges into real opportunities.
- Sustainability expertise for assessing whether recycled alternatives truly offer environmental and economic benefits over traditional raw materials.

Closed-loop vs. open-loop recycling systems



Returned back into the same product



Returned to industry as a different product

Sustainability Workshops

Sustainability, circular economy, product responsibility, climate change. Buzzwords like these are on everyone's lips and dominate the media. That is right and important, because they represent the central challenges of our time. But are we really always aware of the concrete requirements – whether technical, legal or organizational – that arise for our companies?

In a one-day KRAHN sustainability workshop, we would like to sensitize you to these requirements: Tailored to your and your customers' needs, we create a podium for you and your colleagues to identify the opportunities and potential threats that various sustainability topics could pose for your company. KRAHN would also be happy to speak at your event!

What exactly is a sustainability workshop?

KRAHN offers you a one-day introductory workshop with the aim of providing basic knowledge about sustainability and raising awareness for the relevance of the topic in your teams – for even more sustainability commitment in your organization. In terms of content, we cover everything from explaining sustainability jargon to brainstorming. The workshop equips your teams with the necessary knowledge and tools to better understand current and future challenges.

What are the benefits of a sustainability workshop?

The sustainability workshop is an ideal opportunity and starting point to put the topic prominently on your company's agenda.

Inspire your colleagues to integrate sustainability into all work processes. Current information, for example on market trends and relevant regulations, will provide your team with the facts that help you assess the opportunities and potential threats for your organization. This enables you to make the best possible use of the changing market environment for your company.

We can even make it very specific by – together with your team – selecting a first product on which we will jointly perform an LCA. This makes the entire process fun and very focused on your specific situation.



What content is on the agenda?

The workshop covers critical sustainability topics, spanning global initiatives such as the UN's SDGs, the EU Green Deal, and industry-specific regulations. It explores their extensive impact, and equips attendees with practical tools to navigate the sustainability transition. The following questions will also be in focus:

- How do new sustainability trends influence future market requirements?
- How does sustainability affect product development and processes?
- How can you benefit from a Life Cycle Assessment?

We would be pleased to customize the content for your individual needs!



Why KRAHN?

We offer:

- A fun, challenging, and creative day for you and your colleagues, serving as the perfect starting point for your sustainability transition.
- Raising awareness and fostering desire within your teams to actively shape and contribute to a sustainable future.
- In-depth knowledge of the topics, accompanied by technical and laboratory support. Being a stakeholder close to both the producer and the customer, KRAHN can gather valuable market and product information and share it with our trusted partners.
- Extensive experience in sustainability and transitions, rooted in our internal mandatory sustainability training program for all our employees, conducted by our dedicated sustainability team.

Sustainability Services

Are you interested in our sustainability services? Our team is looking forward to your call or e-mail.

Contact

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**Bring it
together!**



KRAHN Chemie brings
together all the elements
designed to create strong
added value: markets with
innovations, processors with
producers and questions
with answers.

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