Towards a sustainable chemical sector
— a discussion agenda for policymakers

Creating a sustainable and resilient chemical sector requires a bold and integrated approach that supports systemic transition. This means working across policy domains and aligning efforts around three key strategies:

→ **Circular Economy (CE)** – designing out waste and keeping materials in use.
→ **Safe and Sustainable by Design (SSbD)** – ensuring chemicals are safe for people and the environment from the outset.
→ **Sustainable Carbon (SC)** – using carbon in ways that reduce environmental impact, such as through renewable or recycled sources.

These strategies share four underlying principles (fig 1), and complement one another in tools, scope and perspective (fig. 2). By integrating these strategies, we can avoid introducing new sustainability challenges or technological lock-ins. At the same time, we can identify opportunities for cooperation and alignment across sectors, disciplines, and EU member states. A first step is to engage policymakers in a shared dialogue about what this integrated approach means in practice.

How to use this agenda
Start with dialogue: Bring together different perspectives – across departments, sectors, and countries.

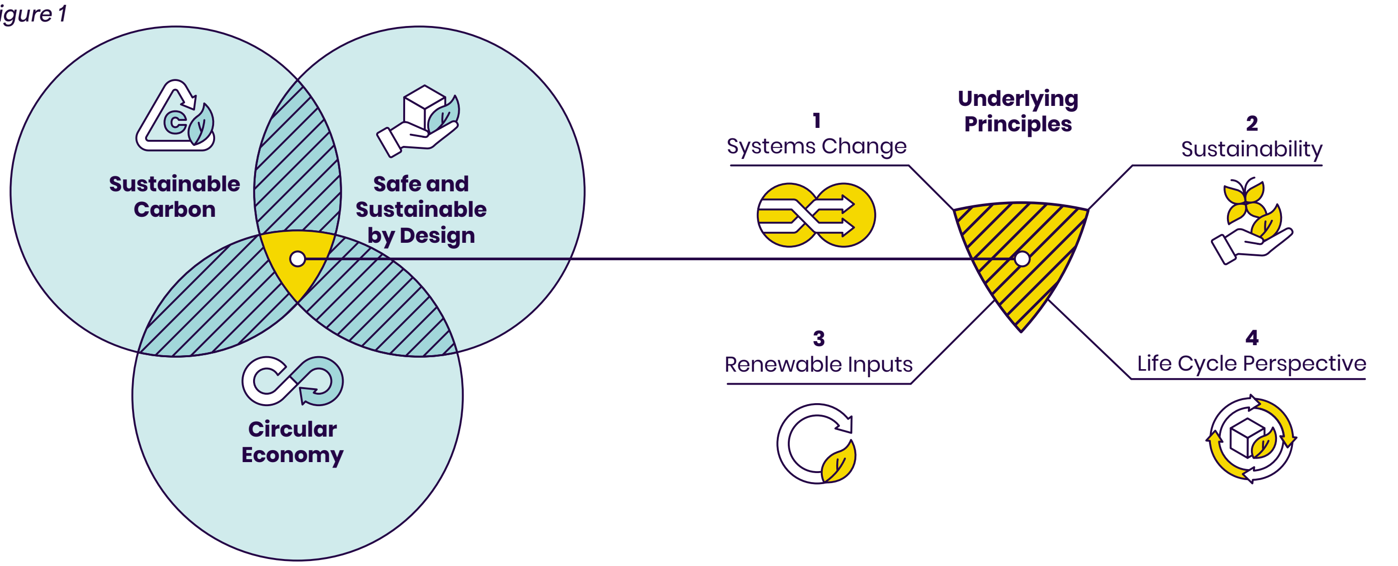
Section A Discuss how your team interprets the key strategies and core principles. What are your priorities?

Section B Explore how these principles can complement each other and be translated into your national or regional context.

This **discussion agenda** is a practical tool to support that dialogue. It helps policymakers develop a shared understanding of what a integrated vision for a sustainable chemical sector entails – beyond short-term targets or sectoral interests.

Section A
Discussing assumptions and priorities for Systems Change

Figure 1



Do we share an understanding of the key strategies?
→ Safe and Sustainable by Design (SSbD), Circular Economy, Sustainable Carbon.

Do we share the ambition to work from an integrated sustainability perspective?
→ This means embracing the four overlapping principles: *Systems thinking, sustainability, use of renewable inputs, life cycle perspective.*

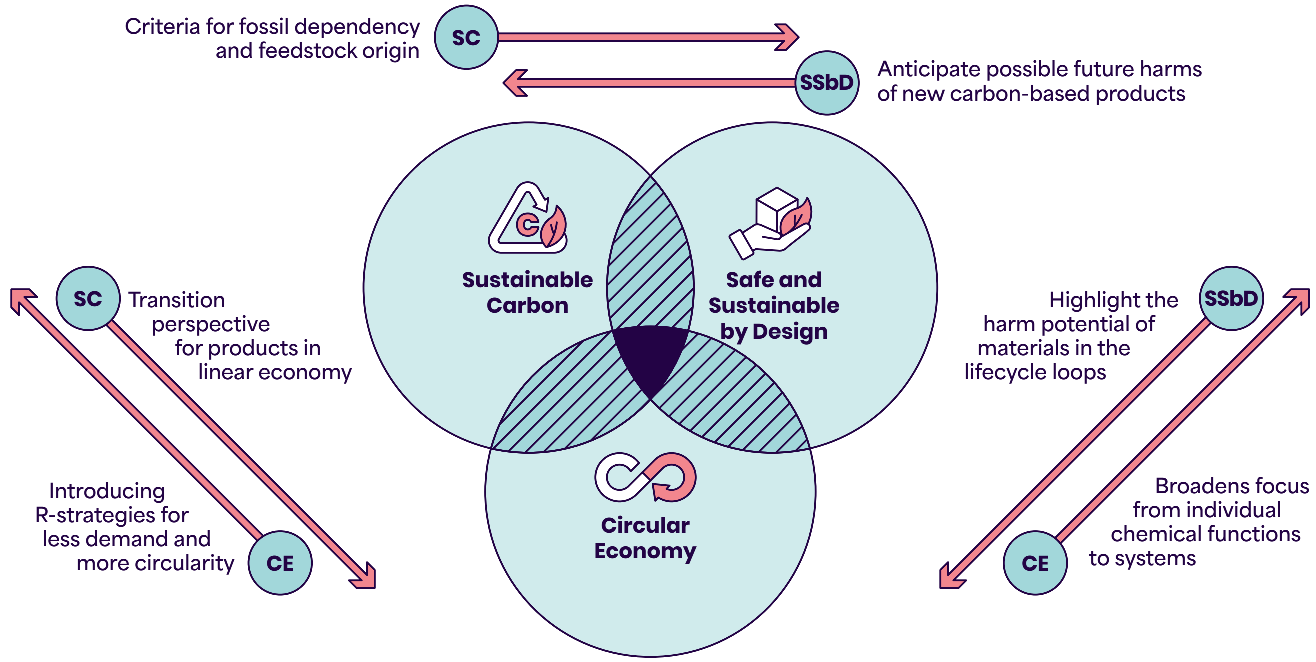
How are these principles linked to our respective goals and mandates?
→ Consider how departmental priorities, stakeholder interests, or political aims intersect with these values.

What other principles should be included or balanced alongside these?
→ For example: economic growth, affordability, strategic autonomy, competitiveness.

Section B

Applying Core Principles in Practice

Figure 2



1 – Systems Change

→ What **future vision** are we collectively working toward?
- What societal challenges are we aiming to address?
- What long-term benefits do we foresee – socially, ecologically, economically?

→ Is our envisioned future **just** and inclusive?
- Who should be involved in shaping our plans? Whose voices are missing?
- Who benefits and who might be disadvantaged by these transitions? *(Think: SMEs, industry, citizens, nature, retailers)*
- Where are current power structures reinforcing the status quo? Can they be challenged?

→ How does our policy work contribute **to systems change**?
- Where do we see potential for upscaling, adaptability or multifunctional solutions?
- How can we avoid locking in unsustainable practices *(e.g. high emissions, inequality)*?
- What short-term trade-offs are acceptable to enable long-term transformation?

2 – Sustainability

→ What **safety risks** arise when loops are closed? *(Examples: accumulation of Substances of Very High Concern, hazardous effluents, process safety)*

→ How do we **assess and monitor** the safety of materials, processes, and final products?

→ What are the anticipated **sustainability impacts** at the broader system level? *(Think: CO_2 emissions, air/water pollution, land use, health and societal risks)*

3 – Renewable Inputs

→ Where can we shift from consumption to **circular use** of materials? *(R-strategies, circular business models, behavioral change)*

→ For materials that aren't circular, how can we tap into **sustainable carbon sources**? *(Biobased, recycled carbon, CCU)*

→ How do we ensure long-term security of supply and material availability?

→ How can we align this with renewable energy access and reliability?

4 – Life Cycle Perspective

→ Which existing waste streams could be tapped as valuable inputs?

→ What supply chain collaborations could drive systemic transformation?

→ What opportunities exist to close the loop post-use? *(Reuse, repair, remanufacture, recycle)*

→ How might we work with regional industries to exchange resources or energy? *(Industrial symbiosis)*

The agenda is based on a recent study by DRIFT and TAUW, commissioned by the Dutch Ministry of Infrastructure and Water Management, which identified four core principles and several supporting elements that connect these strategies in practice. See report.

drift for transition TAUW