CHANGE | Chemistry

EUROPEAN FORUM

13-14 October 2026 | Darmstadt, Germany

Event Report Out

Hosted by

Merck

Merck KGaA, Darmstadt, Germany

Building Market Infrastructure for the Transition to Safer, More Sustainable Chemistry

The market-wide transition to safer chemistry requires robust market infrastructure.

The transition to safe and sustainable chemistry requires more than innovation alone. It requires the broader market infrastructure of standards, data, metrics, and practices that help organizations identify priorities, guide investment, accelerate innovation, and measure progress.

The Forum offered an opportunity to participate in shaping that infrastructure.

Change Chemistry hosted leaders from across the ecosystem for a series of working sessions focused on strengthening transition infrastructure, with an emphasis on four essential aspects: market signals, policy incentives, adoption pathways, and performance measures.

Forum participants helped to evolve the Safer Chemistry Transition Framework.

Change Chemistry shared a proposed Framework for enterprise-level transition to safer chemistry, and discussions will directly inform ongoing development of the Framework as infrastructure to help organizations prioritize action, guide decision-making, and demonstrate progress.

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Core Questions of the Forum

1 What **infrastructure** is needed to support and accelerate a broad market-wide transition to safer, more sustainable chemistry?

2 How can we build a standardized **framework** for the strategic transition of a category or portfolio to safer chemistry?

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Focus Questions by Session

1: What **signals** should the market send?

2: What **policy** conditions support innovation, scale, and adoption?

3: How can we support and accelerate **innovation**?

4: How can we recognize and **measure** meaningful transition?

5: What should a **transition framework** look like?

6: How do we make the **business case** for transition?

7: How can we understand **levels of concern** at the ingredient level?

8: How should we **prioritize** based on product-level context?

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Safer Chemistry Transition Framework Overview

	COMPANY			VALUE CHAIN		COMPANY
ACTIVITY	0 **ASSESS** Why should it matter for us?	1 **UNDERSTAND** What do we know?	2 **PRIORITIZE** Where should we focus?	3 **SIGNAL** How do we communicate?	4 **ACT** What actions are practical?	5 **MEASURE** How are we doing?
COMPONENT	**Business Case** for the strategic relevance of a transition to safer chemistry.	**Hazard Tiers** for understanding chemical hazard across a category or portfolio.	**Prioritization Methodology** for prioritizing chemicals based on relevant context-based factors.	**Disclosure Standard** for sharing safer chemical priorities in a consistent format.	**Action Guidance** for implementing the transition to safer chemistry for priority chemicals.	**Performance Benchmark** for tracking the transition of a chemical portfolio to safer chemistry.

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The Forum at a Glance

2
days in Darmstadt
13–14 October 2026

8
focus sessions plus
opening and recap

45
participants

32
organizations across
the value chain

The Hypothesis

Innovation and individual leadership will not move the market fast enough on their own.
The safer chemistry transition needs **shared market infrastructure**.

Day 1
Ecosystem needs: market signals, policy, innovation and measurement

Day 2
Building infrastructure: testing Change Chemistry's draft Safer Chemistry Transition Framework in hands-on workshops

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Bottom Line: Solutions exist but are not adopted.

Viable safer alternatives often exist and are not taken up. The gap is a missing reason, mechanism or permission to switch, more than a missing molecule. Shared market infrastructure can bridge these gaps.

1 Adoption, not invention, is the bottleneck.

- Speakers in every session described **safer alternatives** at parity for cost and performance that are still **not adopted**.
- **Market factors**, including conservative customers, "not invented here" thinking, information gaps, and permitting delays slow uptake.

2 Regulation and voluntary action are complements.

- Regulation is a **decisive driver** of substitution; most producers act only on listed substances.
- A credible **regulatory horizon** gives voluntary frameworks their pull.
- Voluntary frameworks provide structure for **accelerated action** and **pre-regulatory adoption**.

3 A standardized Framework is welcome.

- **Strong appetite** for a common language and standardized signals.
- **Simplicity** is key. Biggest fear is complexity: "an 80% solution now rather than a perfect one in 20 years."

Source: 2026 European Forum Report-Out (anonymized). Held under the Chatham House Rule; no remarks are attributed.

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Day 1: Ecosystem Needs

1

Creating Clear Market Signals

What signals should the market send?

Signals are weak, inconsistent and shifting (PFAS was the example). Leaders act without waiting for a regulatory push; the open question is how to move the middle of the market without relying on champions.

2

Shaping the Policy Environment

What policy conditions support innovation, scale, and adoption?

Regulation is the decisive driver of substitution. Of 935 bioeconomy policy instruments analyzed, 63% support the supply side, only 2% support market demand and only 14% have outcome evidence.

3

Translating Need into Innovation

How can we support and accelerate innovation?

Innovation stalls at scale-up, not invention. Pilot to commercial scale (TRL 6–9) needs €20–100M per venture, and no dedicated chemistry scale-up fund exists.

4

Measuring Transition Progress

How can we recognize and measure meaningful transition?

No shared yardstick exists, comparable to a net-zero plan. Participants proposed concrete indicators (such as revenue share from hazardous substances) and named misleading ones.

Source: 2026 European Forum Report-Out (anonymized). Held under the Chatham House Rule; no remarks are attributed.

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Day 2: Building Infrastructure

5 Safer Chemistry Transition Framework

What should a transition framework look like?

Standardized signals would replace divergent restricted substance lists and questionnaires. "Hazard first, risk second" drew broad support, with risk as a grey scale rather than a polar choice.

6 Making the Business Case

How do we make the business case for transition?

Tables converged on defensive drivers (regulatory, litigation, reputational, supply risk) and offensive ones (differentiation, value creation, customer demand). Executives respond to quantified P&L exposure.

7 Hazard-Based Levels of Concern

How can we understand levels of concern at the ingredient level?

Debate focused on Hazard Tier 1 (a company's own phase-out decision, not a third party's list) and bucket size. Merging Tiers 1–3 would create buckets too big to for focused action and priorization.

8 Context-Based Prioritization Factors

How should we prioritize based on product-level context?

Draft method: a product takes the tier of its highest-tier substance above 1,000 ppm, lower for sensitive uses. "Safe use" exemptions were flagged as a red flag by civil society. The planned closing session was folded in here.

Source: 2026 European Forum Report-Out (anonymized). Held under the Chatham House Rule; no remarks are attributed.

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Six Themes Across Both Days

1 Adoption, not invention, is the bottleneck

Viable safer alternatives do exist and are not taken up by the market for a variety of reasons: cost, performance, switching costs/risk, demand incentives, market inconsistencies, to name a few.

2 Practicality decides everything

Simple entry-level tools and "digestible buckets" of priority substances; avoid frameworks that collapse under their own complexity.

3 People want a common language

Lists, questionnaires, certifications, disclosures, and ratings multiply without a shared format.

4 Information gaps sit mid-chain

Converters, molders and article makers sit between upstream knowledge and downstream demand.

5 Hazard versus risk is a false choice

"Hazard first, risk second", with risk as a proxy where exposure cannot be known.

6 The climate analogy helps, but differs

Chemistry has plenty of regulatory data; it lacks a portfolio-level lens and board-level urgency.

Source: 2026 European Forum Report-Out (anonymized). Held under the Chatham House Rule; no remarks are attributed.

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Evidence Points That Stood Out

⅓ · ⅓ · ⅓

Across one company's most hazardous substances, a third have viable alternatives today, a third have alternatives not yet competitive, a third have none.

8

safer products developed by one company were all at cost and performance parity, but each were adopted in only one country or not at all.

2%

of 935 bioeconomy policy instruments analyzed create markets; 63% support the supply side and only 14% have any outcome evidence.

€20–100M

is needed per venture to move from pilot to commercial scale (TRL 6–9), yet no dedicated chemistry scale-up fund exists.

36 vs 6 months

for one company's chemical production permits in Europe versus Asia, which has led it to build outside Europe.

5 months

for one company to figure out where PFAS was used across its business, a sign that chemicals are still treated as a compliance (vs strategy)issue.

Source: 2026 European Forum Report-Out (anonymized). Held under the Chatham House Rule; no remarks are attributed.

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Feedback on the Draft Framework

What participants asked for

- Build on what exists (portfolio assessments, ratings, investor metrics, SSbD) rather than reinvent it
- Global, not Europe-centric
- Simple enough for a company with one chemicals person
- Credible enough that civil society accepts how it sets priorities
- An 80% solution now, with room to improve

Where debate focused

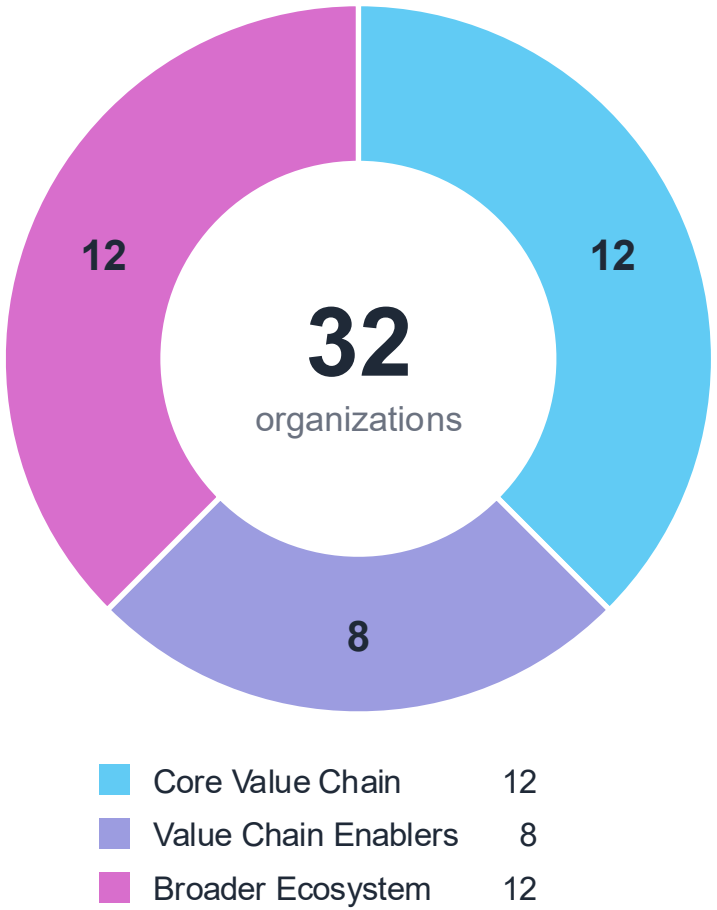
- **Hazard vs risk:** broad support for "hazard first, risk second"
- **Tier 1:** should record a company's own decision, not any third party's restricted substance list
- **Bucket size:** merging Tiers 1–3 would be too big to act on
- **Thresholds:** 1,000 ppm default, lower for sensitive uses
- **"Safe use":** rename to "risk controlled" and limit to closed industrial settings

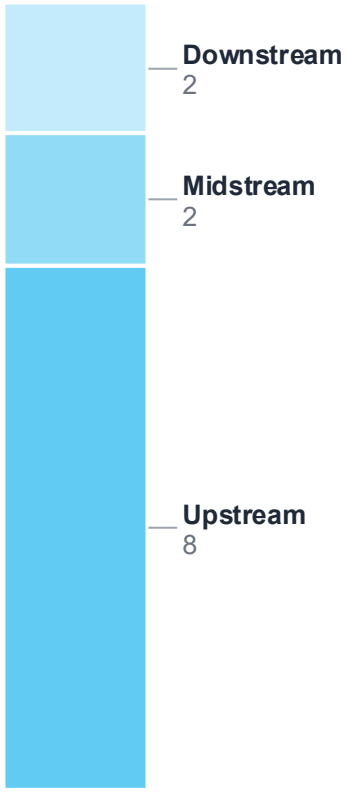
Synthesis heard in the room: Strong support from companies across the chemical value chain for a standardized prioritization method for chemical and product level substitutions, scaling and innovation.

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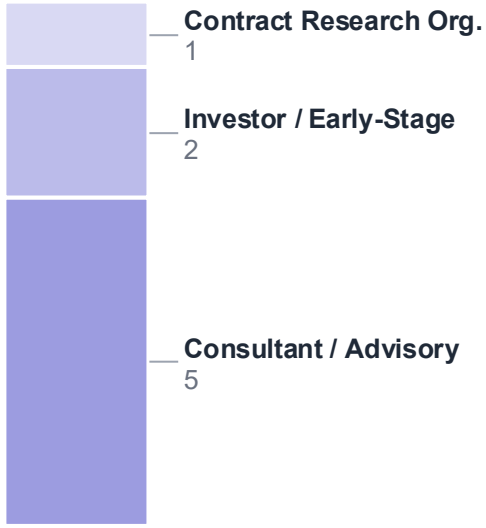
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Forum Participation by Role (Organizations)

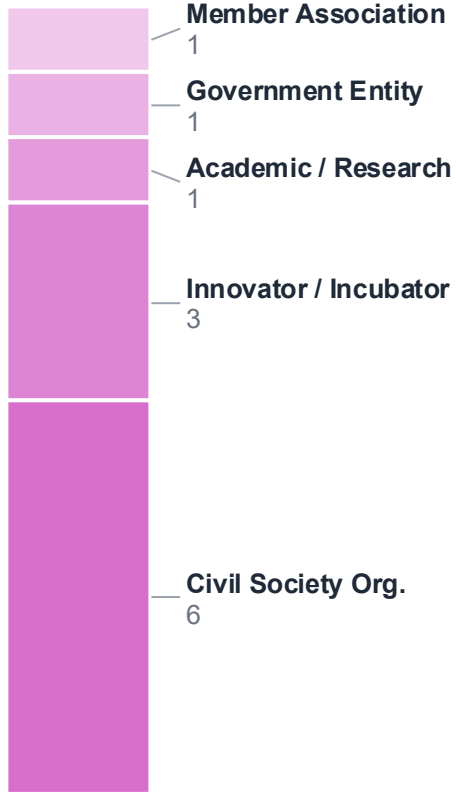




Core Value Chain
12 organizations



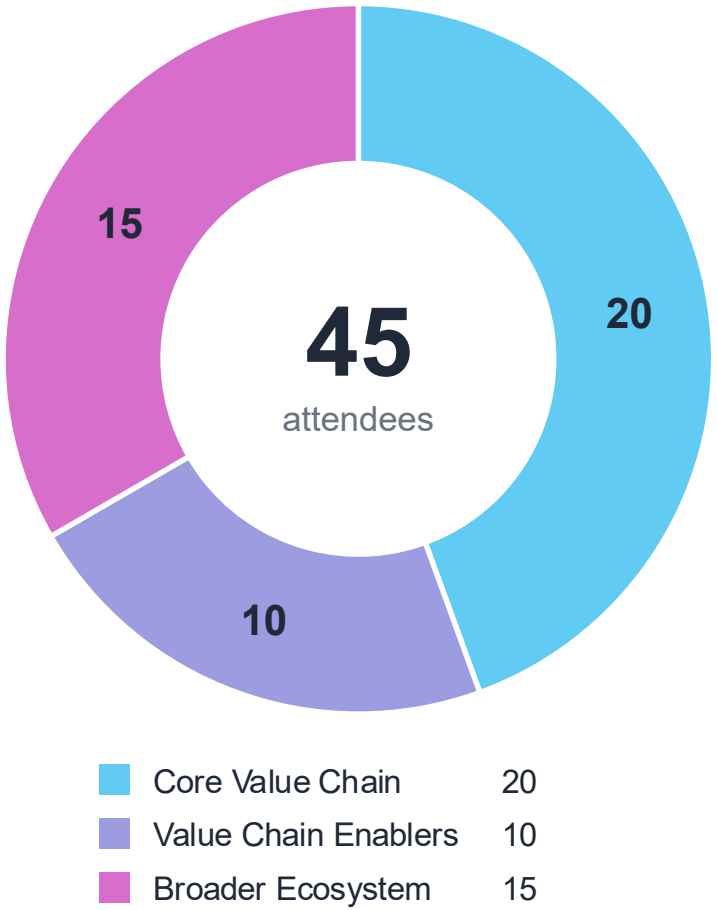
Value Chain Enablers
8 organizations

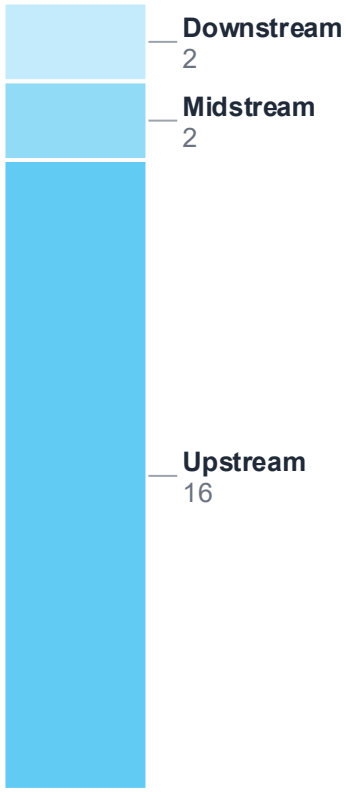


Broader Ecosystem
12 organizations

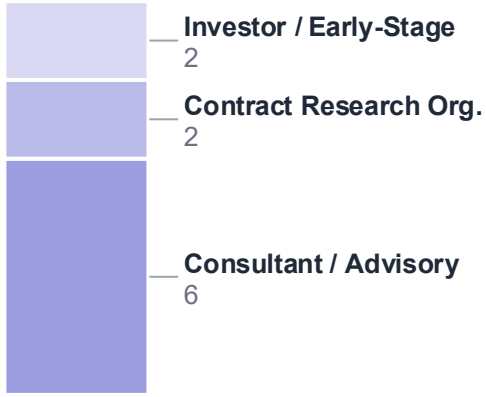
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Forum Participation by Role (Attendees)

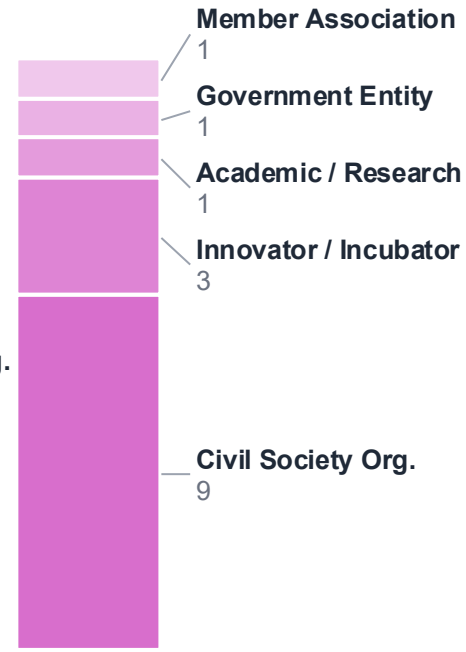




Core Value Chain
20 attendees



Value Chain Enablers
10 attendees



Broader Ecosystem
15 attendees

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Next Steps Announced at the Forum

DEC 2026

1

Framework Pilot

DIY and construction, starting with polyurethane floor coatings.

H1 2027

2

Innovators Roundtable

A dedicated roundtable for innovators in March 2027.

ONGOING

3

Brussels Policy Briefing

Continued policy engagement in Brussels on the conditions the transition needs.

NEXT

4

Participant Report Out

An anonymized report and transcript digest for participants.

Development Path

Change Chemistry is building and piloting a working version of the Framework in 2026 and 2027, focusing first on the entry level of maturity.

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THANK YOU

for joining us at the European Forum in Darmstadt

Want to learn more? Get in touch.

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