

MateriNex cSBO Focus and Next Steps (2026-2028)

Webinar 27/01/2026

Welcome to The MateriNex Focus Group Session

cSBO and Next Steps (2026-2028) Focus Group

Thank you for joining us today!

Practical information:

- 🎥 Microphones are switched off.
- 💬 Questions & answers via the chat.
- ⬆️ Upvote questions using the arrows in the chat.
- 🔴 This session will be recorded for reporting purposes.

Context: Why This Webinar?



MateriNex: Driving Sustainable Materials Innovation in Flanders



- **Commissioned by VLAIO and the Flemish Department of Economy, Science and Innovation** (March 2024)
- **Mission:** Facilitate and manage sustainable materials research through strong industry-academia collaboration
- **Goal:** Strengthen Flanders' innovation ecosystem and ensure research excellence in circularity
- **Support:** Empower Flemish companies and research institutes with guidance and resources for their **high-risk, long-term** materials research

MateriNex: Driving Sustainable Materials Innovation in Flanders

Three thematic priorities / Innovation Roadmaps

 [Materials for Battery Technology](#)

 [Materials for Building and Construction](#)

 [Strategic and Critical Raw Materials](#)



MateriNex: Project Instruments

Question: How to deal within MateriNex with the cSBO limitation for budget years 2026/2027/2028?

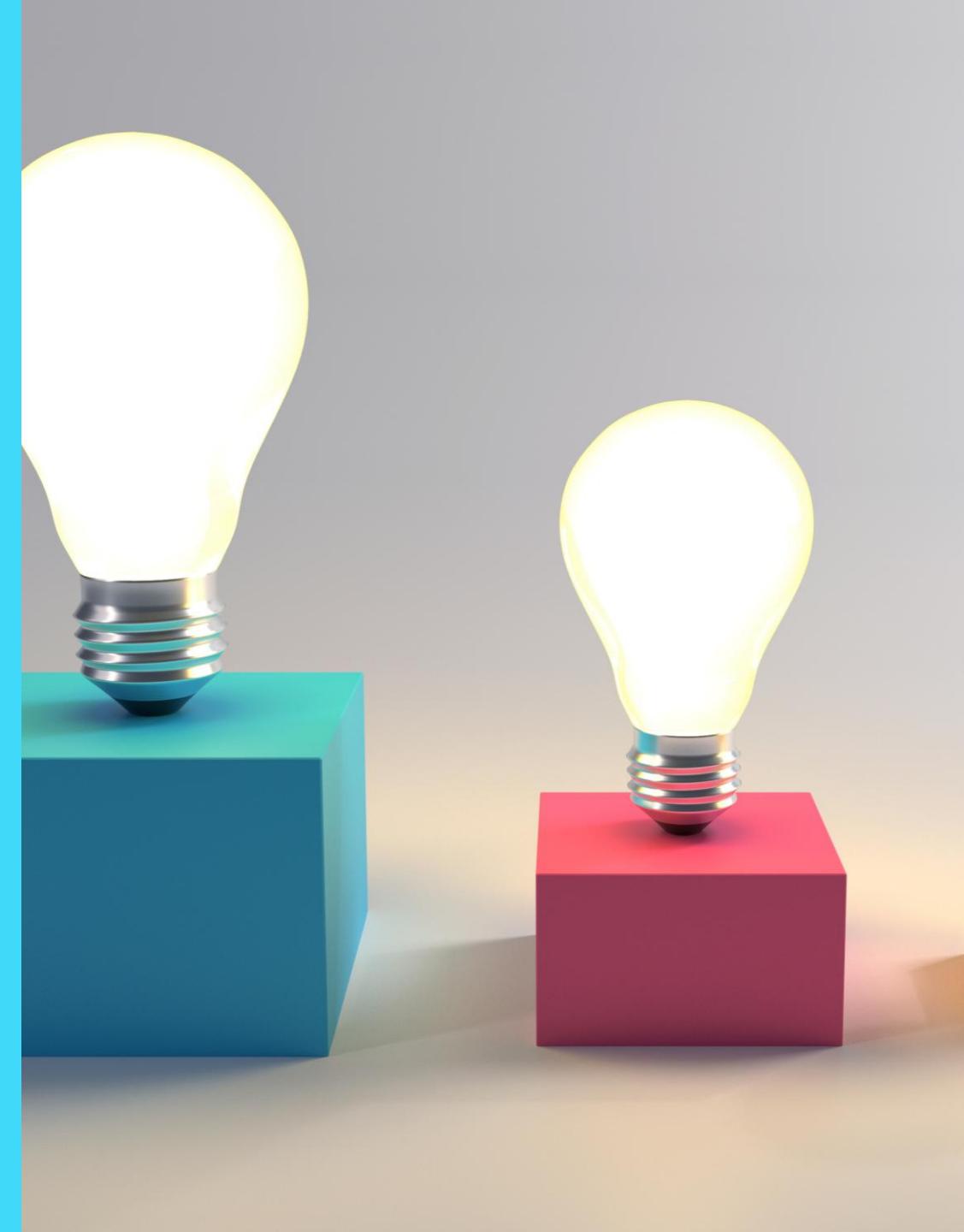
2+1 instruments (@start in 03/2024)

- **cSBO** (research organisations + Industrial Advisory Board)
- **ICON** (research organisations and companies + Industrial Advisory Board)
- **Feasibility studies in preparation of ICON**

Constraints: decision by HBC in 02/2025

- Only 1 cSBO per cluster/initiative per year on an earmarked budget!
- Transitional measure for budget year 2025 (→ for MateriNex: max. 4 cSBO)

Selected cSBO Thematic: What & Why



MateriNex: cSBO Focus 2026-2028

Overarching theme for 2026–2028:
“Circular and Resilient Material Value Chains.”

- **One clear theme (2026–2028)** to maximise the impact of MateriNex funding on materials innovation
- **Support for early-stage, high-risk research** in materials and processes, positioning **Flanders as a European hub** for safe, sustainable and circular raw materials
- **Faster industry impact** through more **industry-driven ICON and demonstration projects**, stronger Flemish material value chains, and technologies enabling **recycling, net-zero and circular economy goals**

MateriNex: cSBO Focus 2026-2028

Overarching theme for 2026–2028:
“Circular and Resilient Material Value Chains.”

What connects our three priority themes?



keep materials at **highest value**

(reuse → repair → remanufacture → recycle)

→ Less virgin demand and waste



Ensure **secure material supply**, even during disruptions

(price shocks, geopolitics, climate events)

→ through diversification, transparency and flexibility



Circular material flows reduce dependence on primary imports

→ lower volatility and **stronger resilience**

MateriNex: cSBO Focus 2026-2028

Overarching theme for 2026–2028:

“Circular and Resilient Material Value Chains.”

**Key cross-cutting
priorities across
all value chains**

- **Secondary feedstock first**
 - such as scrap and waste as strategic resources
- **Design for circularity**
 - easy disassembly and high-quality recycling
- **Full traceability**
 - material and product passports
- **Industrial symbiosis**
 - reuse by-products across sectors
- **Circular business models**
 - Leasing, refurbishment and reuse
- **Risk-resilient supply**
 - multi-sourcing and flexible processing

MateriNex: cSBO Focus 2026-2028

Overarching theme for 2026–2028:
“Circular and Resilient Material Value Chains.”

How this applies across our three value chains (VCs)

Metals & Refining (VC1)

- Scale **scrap and secondary metals** into refining
→ Reduced exposure on ores
- **Recover metals from residues**
(*dusts, slags, tailings*)
- **Enable flexible refining processes**
for mixed/contaminated inputs (*impurity control*)
- **Link to low-CO₂ materials demand**
- **Strengthen critical metals**
Through recycling and by-products (*Ni/Co/Li/Mn etc.*)

MateriNex: cSBO Focus 2026-2028

Overarching theme for 2026–2028:
“Circular and Resilient Material Value Chains.”

How this applies across our three value chains (VCs)

Minerals & Construction (VC2)

- Reuse components and high-quality recycled aggregates
- Selective demolition and design for disassembly
 - cleaner streams
- Substitute with suitable by-products where feasible
- Local material loops
 - reduce transport risk & volatility
- Performance specs and certification
 - to scale secondary materials

MateriNex: cSBO Focus 2026-2028

Overarching theme for 2026–2028:
“Circular and Resilient Material Value Chains.”

How this applies across our three value chains (VCs)

Batteries (VC3)

- **Closed-loop recycling**
Returns Li/Ni/Co/Mn/Cu/Al to refining & battery supply
- **Second life applications**
Extend battery lifetime through stationary energy storage
- **Design for recycling**
(*pack/cell, binders, labeling*)
→ improves yield and lower cost
- **Strong collection and safe logistics**
Reduce supply disruptions and safety risk
- **Chemistry flexibility**
Enabled by circular supply chains
→ lower exposure to material bottlenecks

MateriNex: cSBO Focus 2026 only

Overarching theme for 2026:

“Strategic and Critical Raw Materials for Circular and Resilient Material Value Chains.”

Horizontal leverage for the entire materials community

 **Strategic and critical raw materials underpin multiple sectors**

Batteries, construction materials, hydrogen, digital technologies, defence

 **Focusing on this theme creates system-wide impact:** It strengthens the other two MateriNex value chains and builds a **robust raw-materials base** for Flemish companies

 **Impact on batteries:** Improved recycling of CRMs, development of CRM-lean chemistries, and stronger value-chain models

 **Impact on construction and building materials:** Urban mining, recovery of metals and minerals, and wider use of secondary raw materials

cSBO 2026 Focus on CRM Thematic: Rationale



Flanders' Unique Strengths

Flanders leverages strong research–industry collaboration to build European leadership in metallurgy, recycling and urban mining

Flemish-funded early-stage research strengthens EU competitiveness, with scalable technologies deployed across Europe and beyond

cSBO 2026 Focus on CRM Thematic: Rationale

Strong policy and funding momentum toward 2030

- **Supply chain is a key geopolitical priority**

The EU, US, and China are securing diverse sources of critical minerals such as lithium and cobalt.

- **MateriNex aligns with EU CRMA 2030 objectives**

Focus on recycling, responsible mining and reduces environmental impact.

- **EU funding supports strategic projects**

Enabling Flanders to access European leverage financing through CRM programmes.



cSBO 2026 Focus on CRM Thematic: Rationale

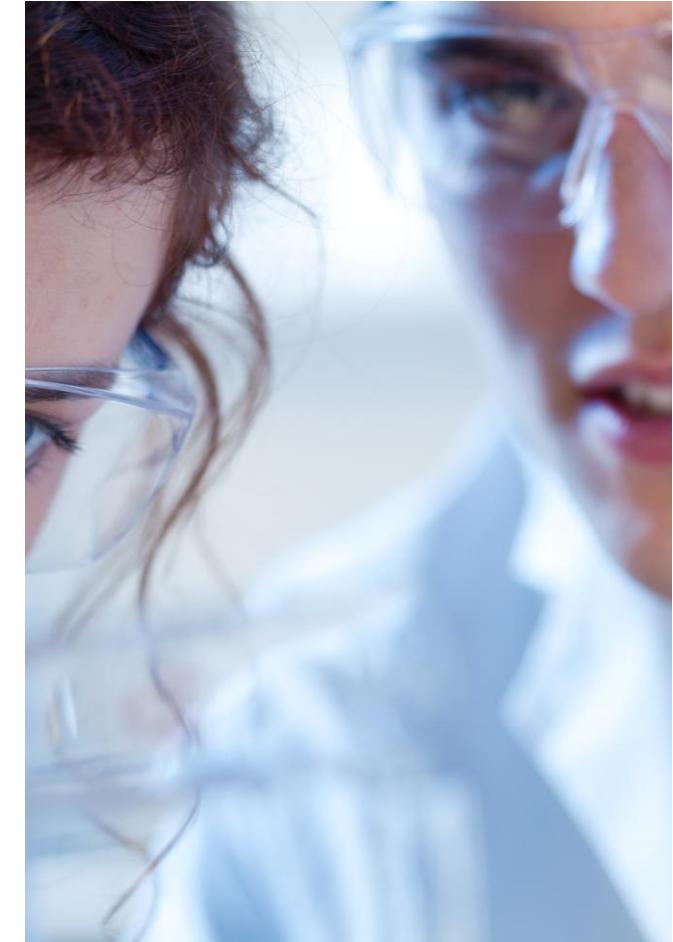
Alignment with low-TRL, high-risk research and industry engagement

Low-TRL, high-risk research fits cSBO well

Topics such as solvometallurgy and process intensification combine scientific ambition with strong industrial relevance

Industry engagement across the value chain

Large companies invest long-term driven by regulatory and market pressures, while SMEs engage through **ICON projects and demonstrations** within a value-chain approach



cSBO 2026 Focus on CRM Thematic: Rationale

Balances economy, strategy, sustainability, and technology

- **Economic:** supports a key sector in Flanders, creating value and jobs
- **Strategic:** enhances European autonomy and lessens reliance on risky suppliers
- **Sustainable:** promotes circularity and emission cuts in impactful value chains
- **Technological:** advances current strengths toward innovative, high-risk research areas

MateriNex CRM

Thematic:

Contentwise Focus



**De rol van metalen en 'kritieke grondstoffen'
in Vlaanderen - Analyse vanuit een
omgevingsperspectief**

Eindrapport

European CRM Context: Imports, Recycling & Future Change

Source: Eurometaux, 2022, 2025; Christis et al., 2024

Strategic import dependencies

- Europe will remain reliant on imports to meet short- and mid-term CRM demand
- Key risks: limited availability, sustainability concerns, concentration of suppliers
- Risk of replacing fossil fuel dependency with **low-sustainability metal dependency**
- **Mitigation pathway:** Diversify partners and source from certified, responsible suppliers

Recycling as Europe's long-term strength

- Recycling is the **largest potential for strategic autonomy after 2040**
- Requires immediate action: improve collection, sorting, retention
- **Mitigation pathway:** invest in recycling for batteries, PV modules, and magnets

European CRM Context: Imports, Recycling & Future Change

Source: Eurometaux, 2022, 2025; Christis et al., 2024

Technological and Behavioural change

- Europe: Frontrunner in R&D to reduce metals intensities in products
- Substitution in focus: cobalt in batteries, non-rare earth magnets
- Transport sector = **60% of metals demand** → major lever for behavioural change
- Shared mobility could reduce metal demand (though not yet quantified)
- Need to: ensure continued R&D leadership and encourage sustainable consumption patterns to achieve longer-term change

MateriNex CRM Context: Supply and Sustainable & Circular Value Chains

MateriNex's roadmap on Strategic and Critical Raw Materials

1. Secure Supply of Critical Raw Materials

- **Unlock new CRM sources**

(low-grade ores, mining and process residues, secondary streams)

- **Efficient and sustainable processing technologies**

Sorting, pre-processing, metallurgical extraction, and recovery that are **cost-efficient, safe, and "green" (low impact)**

2. Sustainable and Circular CRM Value Chains

- **Extend product lifetimes and recover CRMs**

Reuse, repair, remanufacturing, and direct recycling

(batteries, permanent magnets, PV, WEEE, etc.)

- **Defossilization of process chains**

(electrification, hydrogen, green reagents)

- **Enable digital value chains**

material passports, IoT, AI and digital twins to model material flows and sustainability

MateriNex CRM Context: Supply and Sustainable & Circular Value Chains

MateriNex's roadmap on Strategic and Critical Raw Materials

Aligned with EU CRMA and 2030 targets

- 25% of total CRM consumption obtained through own recycling
- 40% of annual demand obtained through own processing into semi-finished products/products
- 10% from responsible sourcing in the EU

Opportunities & Risks

Opportunities

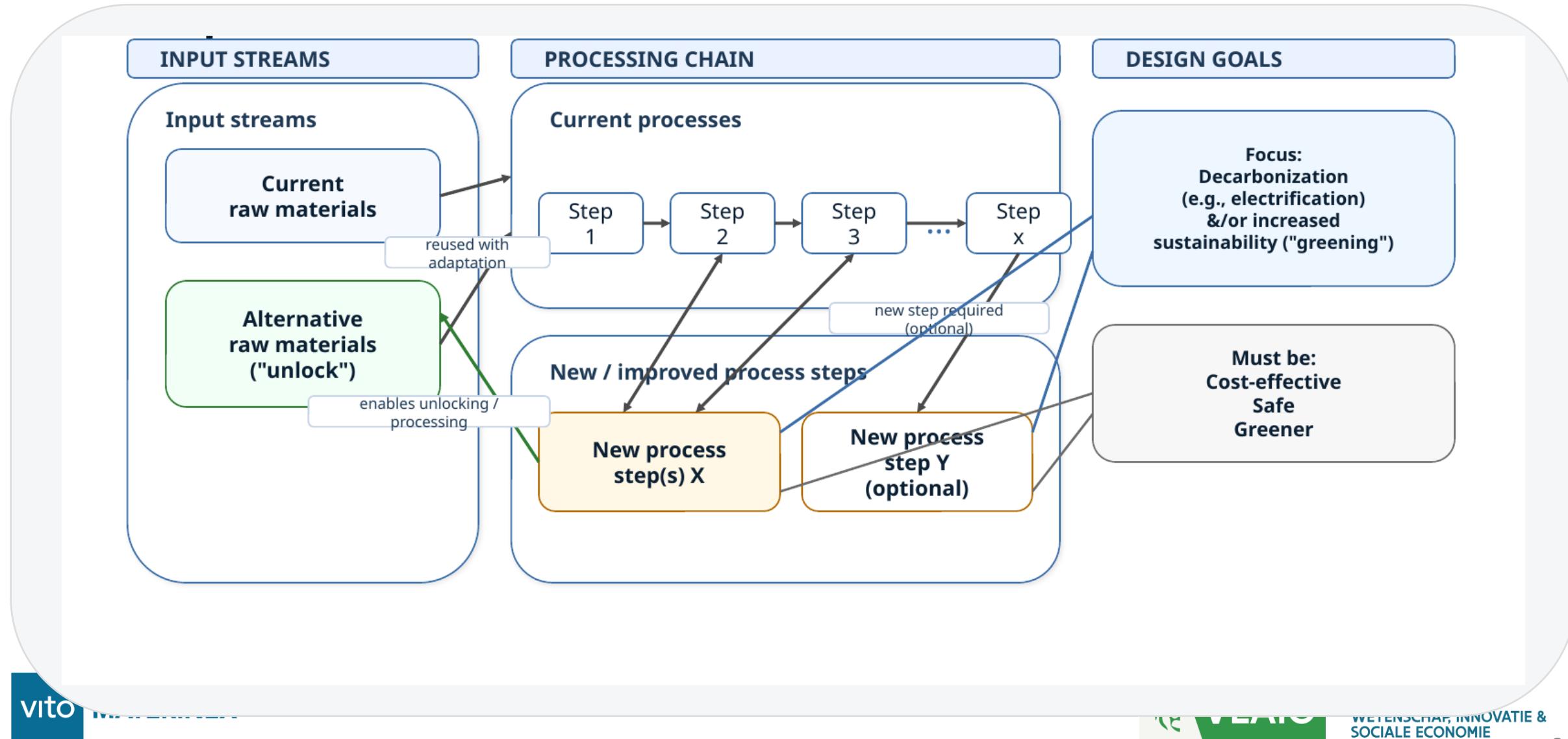
Flanders can position itself as a **technology and knowledge supplier for Europe**, well beyond its domestic market

Risks

Part of the value-creation occurs upstream (*mining and refining*) outside Flanders, but **Flanders is well-positioned to capture value as technology exporter**.

Focus for Call 2026:

‘Greener Process Chains for CRMs: Reuse/Adapt What Works, Innovate What’s Missing’



cSBO Call 2026: Process & Timing



cSBO Call 2026: Process



[§]In the event that the selected pre-application consortium is unable to submit the full project proposal in time

cSBO Call 2026: Timing



cSBO Call 2026: Rules of the Game

Submission of pre-applications

- Via email to MateriNex (projects@materinex.be)
- Four-pager / 7 slides for pitch / LOIs (all according to fixed template)

At least 3 knowledge institutions (at legal entity level) are required per pre-application

- RTOs and research centers in Flanders
- All Flemish universities
- Knowledge institutions need to comply to the European definition

Each research group can participate in maximum 1 pre-application per call

- Research groups are where scientists gather around a specific domain in which they conduct research and collaborate. Research groups are recognized by the university's Research Council or by the research institution's senior management

cSBO Call 2026: Rules of the Game

Industrial Advisory Board (IAB)

- At least 6 companies from the relevant value chain contributing to the valorization of research (of which **at least 3 signed LOIs upon submission** of the pre-application)
- Support from relevant sector organizations (optional)
- Monetary contribution required
 - Min. 250 EUR/year for SMEs
 - Min. 1.000 EUR/year for large enterprises
- MateriNex LOI template (mandatory) available

cSBO project budget

- Duration max. 4 years (MateriNex preference: 3 years)
- 500 k€ per legal entity per year
- Budget max. 3 M€
- According to VLAIO template ('kostenmodel')

cSBO Call 2026: Rules of the Game

Pre-application review procedure

- Pre-applications reviewed by 'CIG LoC companies' (a broader group of stakeholder companies)
 - Composition of 'CIG LoC companies'
 - Chair of the CIG CRM (prof. Dirk Inghels)
 - Companies that have signed the CIG LoC
 - Main focus on companies that are member of the CIG CRM, but members from CIG B&C and CIG BAT are also invited (if deemed relevant)
 - In-person pitch session (02/04/2026 morning): Max. 15 min pitch + 15 min Q&A
 - Only one pre-application (+ one backup pre-application) will be selected and can develop a full project proposal

cSBO Call 2026: Rules of the Game

From selection to submitting full proposal

- Bi-weekly update with selected consortium on the status of the writing process + number of LOIs
- In case not enough progress has been achieved in elaborating the proposal after one month: backup consortium will be asked to elaborate and submit a full proposal instead
 - Submission date of full project proposal will be prolonged accordingly

Success fee

- MateriNex will ask the project partners of the submitted project (if granted) a one-time success fee. This amounts to 3.000 EUR per knowledge institution (legal entity)

cSBO Call 2026: Rules of the Game



Envisioned start date

Effective start selected project foreseen beginning of 2027 (if project granted)



Future prospects

1 cSBO per year (until end of 2028)
Calls launched in 2026/2027/2028
Specific call focus in overarching cSBO theme will be determined by MateriNex for future calls (2027/2028)

MateriNex Team



Johan Vangrunderbeek
Coordinator



Luc Van Ginneken
Innovation Manager
Batteries
Strategic and Critical Raw Materials



Marijke Jacobs
Innovation Manager
Building and Construction



Ria Bruynseels
VLAIO Account Manager MateriNex

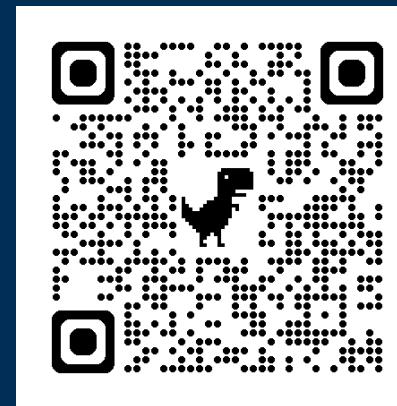


Greta Boonen
Community Manager



DEPARTEMENT
WERK, ECONOMIE
WETENSCHAP, INNOVATIE &
SOCIALE ECONOMIE

Thank you for joining us today!



Visiting address:
Roderveldlaan 5
2600 Berchem, 1st floor
<https://materinex.be>
info@materinex.be