



Sustainability into Pre-Procurement and Procurement: CERN's Recent Journey

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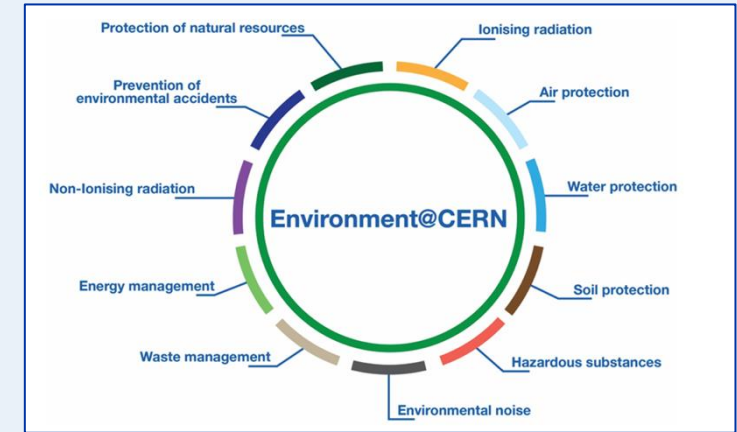
Sustainability in Europe

- United Nations - 2030 Agenda for Sustainable Development.
- « ... *Building a climate-neutral, green, fair and social Europe – Green Deal ...* »
- UN Sustainable Development Goals.
- EU Directives:
 - CSRD (Corporate Sustainability Reporting Directive) - Reporting
 - CS3D (Corporate Sust. Due Diligence Directive) - Supply Chain Due Diligence
- EU Framework : ESPR (Ecodesign for Sustainable Products Regulation).
- 2030 Agendas in EU in favor of Sustainable Development.

« ... *to reconcile the economy with the way we consume our planet ...* »



Sustainability at CERN



Education is one of CERN's core missions



Diversity is a core value for CERN



CERN is a model for collaboration



Technologies for health care



CERN Knowledge Transfer



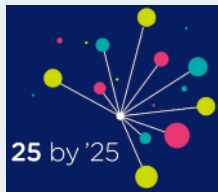
CERN Energy management



CERN Environment Protection



Beam Line for Schools Competition



25BY'25 Diversity and Inclusion Initiative



Synchrotron Light Source (SESAME) in Jordan



Cancer therapy



Magnet in the LHC Tunnel

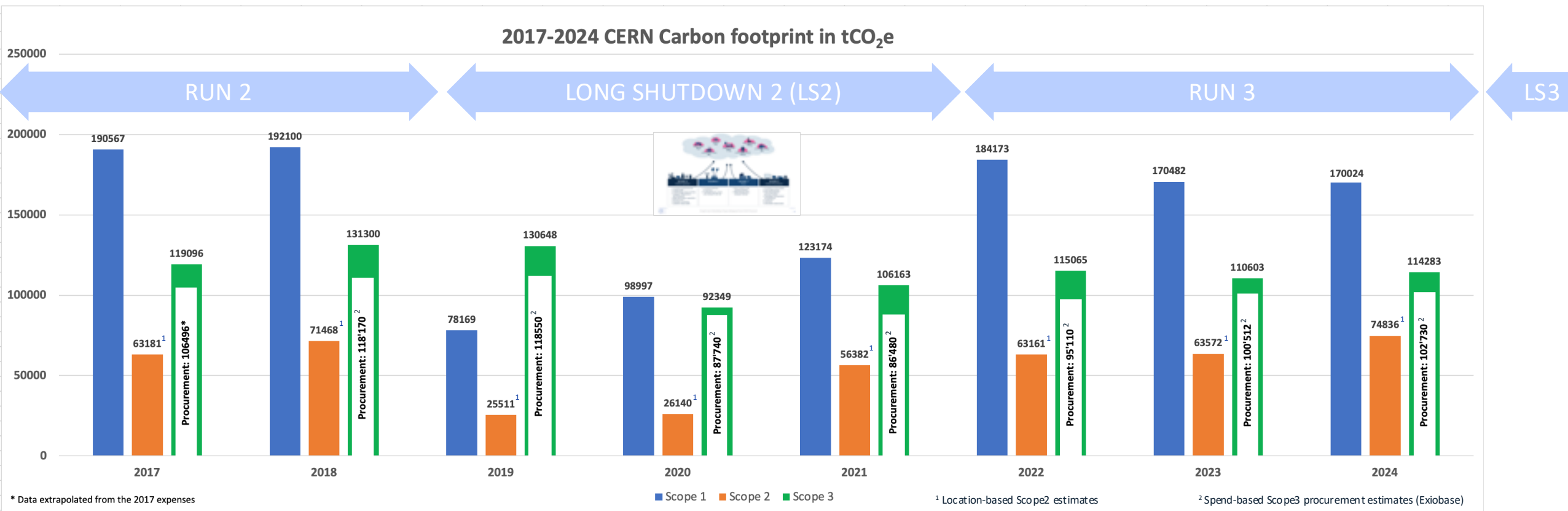


Heating local housing



Reports (GRI Standard)

CERN Procurement impact on Emissions, Compliance, and Risk Management



40% of CERN's annual funding is spent with its suppliers.



> 90% of CERN's indirect (Scope 3) emissions resulted from purchases of goods & services.



35% (RUN) up to 50% (LS) of CERN's annual carbon footprint is driven by procurement.

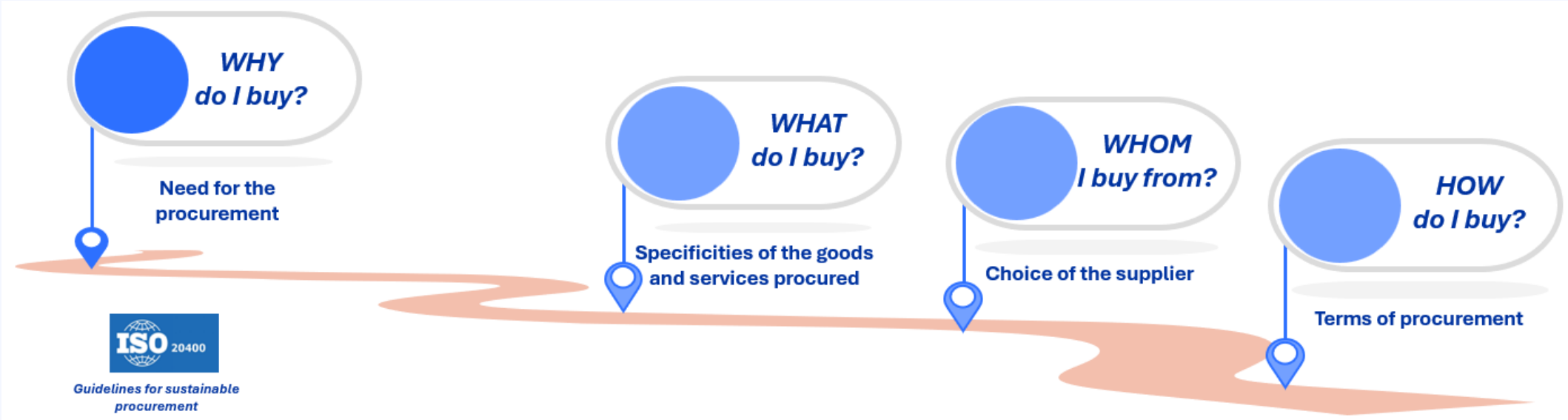


- Increasing Rules/Regulations on Sustainability.
- Alignment with CERN sustainability goals.
- CERN decision to report (GRI standards)



- Mitigate risks of environmental impacts.
- Partnership with strategic suppliers to prevent/mitigate supply chain risks.
- Enhance responsibility across the supply chain.

Embedding Sustainability into Pre-Procurement and Procurement Process



Pre-Procurement phase

Procurement Process

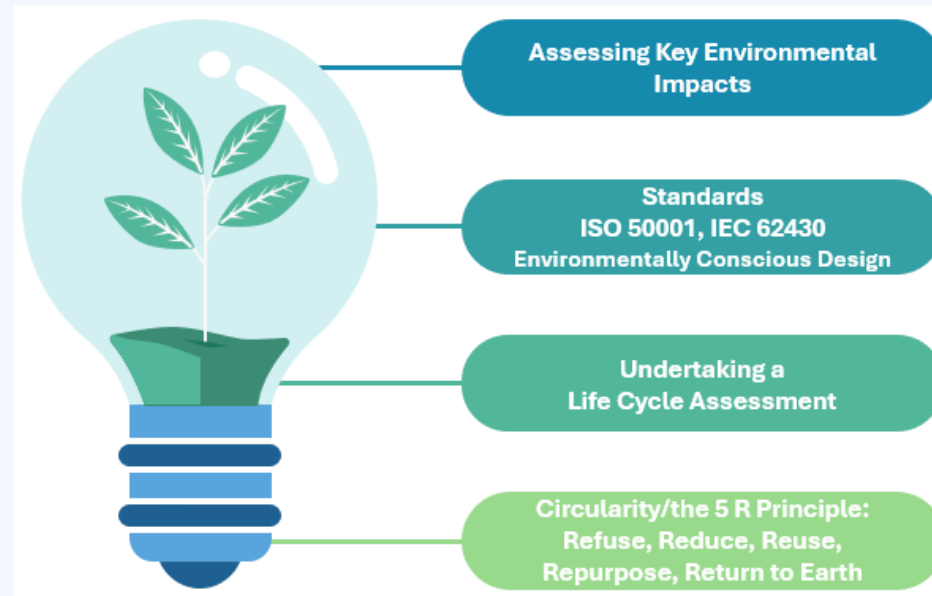


Most impactful time to embed sustainability



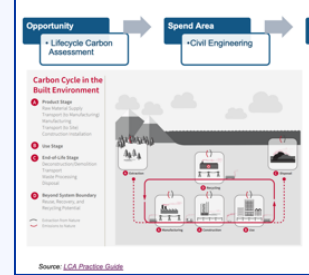
Set mandatory/desirable sustainability criteria (risk mitigation)

- Assessments (Need & Lifecycle) *Challenge, Perform!*
Start with environment!

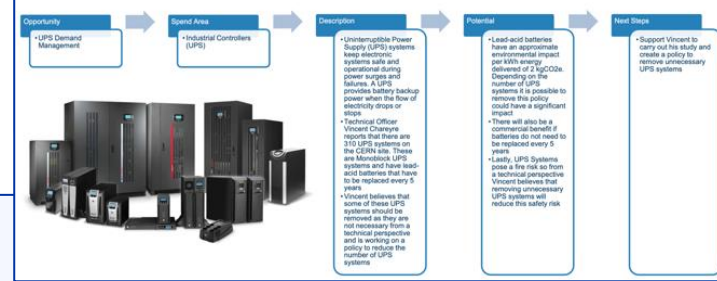


- Guidelines *Check best practices!*

Decarbonization Opportunity – Lifecycle Carbon Assessment
CERN should include requirements related to LCA for Designers in Market Surveys and then, if it does not limit competition, tenders



Decarbonization Opportunity – UPS System Demand Management
CERN should support a study to remove redundant Uninterruptible Power Supply (UPS) systems to reduce both environmental impacts and fire risk

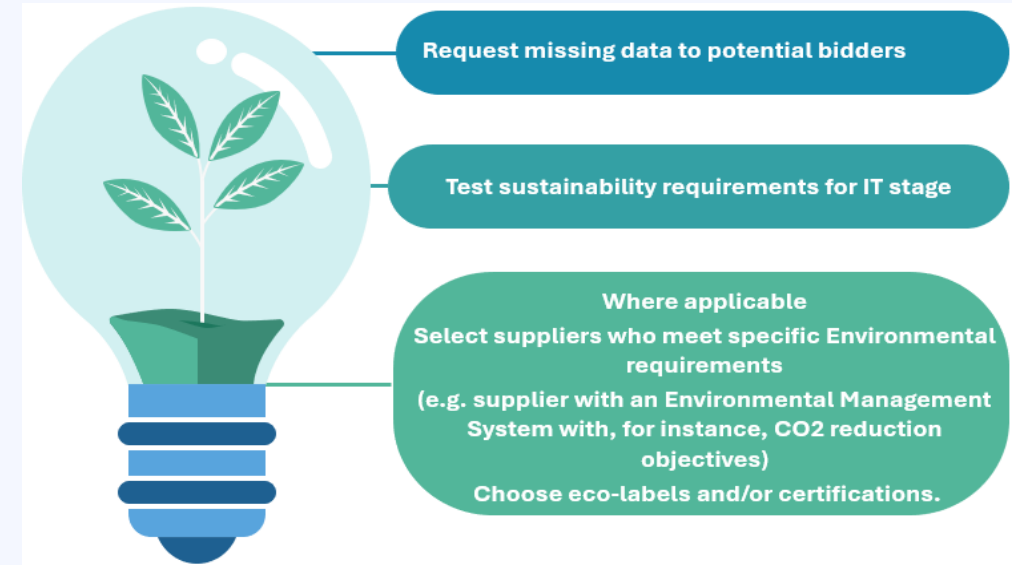


- **Investigate**

- *Collect information, analyse supplier sustainability maturity.*
- *Evaluate suppliers based on their sustainability performance.*

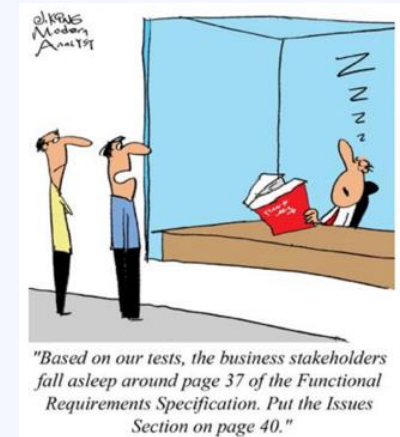
- **Communicate**

- *Communicate Corporate Sustainability mission and goals.*
- *Engage supplier to discuss Sustainability expectations and capabilities.*



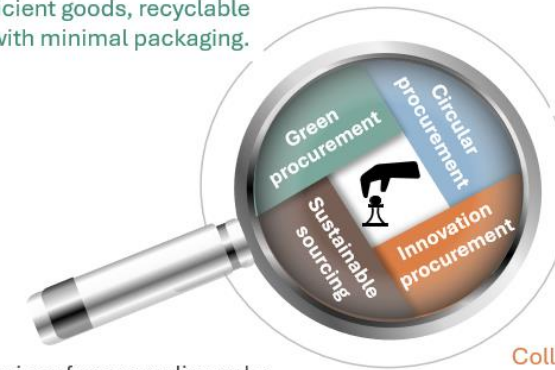
- **Influence specs**

- *Include mandatory or desirable sustainability requirements.*
- *Include measurable sustainability requirements.*
Example: Supplier shall take back all packaging, delivery outside peak hours, delivery in bulk quantities...



- **Set Sustainability Strategy**
Set Targets!

Purchasing products that have a reduced environmental impact throughout their lifecycle such as energy-efficient goods, recyclable materials, or products with minimal packaging.



Selecting suppliers who offer products/services designed for reuse, refurbishment, or recycling thus emphasizing the entire lifecycle of the product and its potential for reuse.

Procuring goods/services from suppliers who demonstrate environmental responsible practices such as reducing carbon emissions, etc.

Collaborating with strategic suppliers on innovative solutions such as new technologies, materials, or processes that meet CERN's environmental objectives.

- **Total Cost of Ownership**
Consider!

Example: For energy at CERN, all costs such as maintenance, repairs, and disposal are taken into consideration in the adjudication price (ISO 50001 certification).



• Evaluation of Suppliers and adjudication

- *Lowest Compliant (LC): Environmental aspects are evaluated separately.*
- *Best Value for Money (BVFM): Bidders' proposal assessed, scored, and weighted as part of the quality criteria.*

**Lowest
Compliant**

→ Yes/No assessment and lowest compliant bidder wins.

**Best Value
For Money**

→ Quality Score+Price Score, Weighting.

• Contract Management

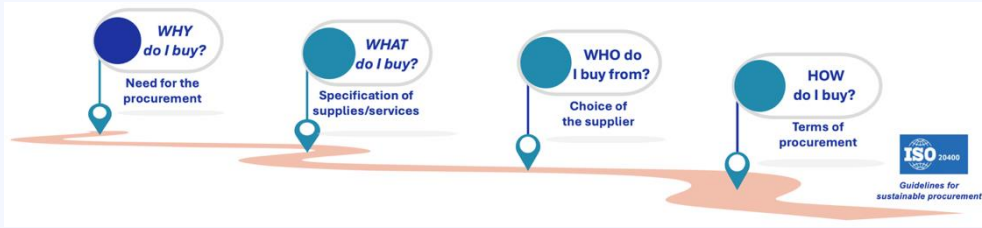
- *Monitor the supplier's adherence to sustainability clauses of the contract.*
- *Collaborate with suppliers for continuous improvement/new opportunities (e.g. innovation).*

Set KPIs and/or SLAs that can be used to measure sustainability performance over the contract

CERN journey from Environmentally Responsible Procurement to Sustainable Procurement

Jan 2024
Policy approval

CERN Environmentally Responsible Procurement (CERP) Policy

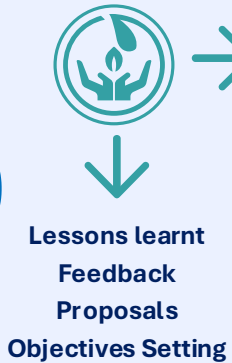


2024 - 2025
Kick off phase

CERP Policy implementation



Dec 2025
CERP Review



Gap Analysis

ISO 20400 alignment

Expert benchmarks

Best practitioners' insights



Implementation Clusters



2026 - 2030
Deploy & Scale

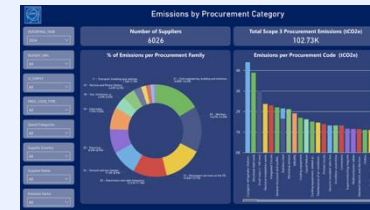


The CERP Policy Project becomes the CERN Sustainable Procurement (CSP) Project!

Deployment and scaling supported by KPIs (draft), roadmaps (draft), a supplier sustainability due diligence tool, and dashboards.

| Proposed CSP KPIs | | Policy Implementation Areas |
|-------------------|---|--|
| 1 | # of Departments/Groups with an approved Sustainable Procurement action plan (1 = minimum 5%) | Governance endorsement |
| 2 | TCO _{2e} /CHF (nominal and constant prices) for the CERN top 8 procurement families by Scope 3 emissions | CERN Scope 3 Procurement decarbonisation performance |
| 3 | % of procurement Scope 3 emissions covered by SBTi-approved (or equivalent) targets | Supplier Scope 3 Procurement decarbonisation performance |
| 4 | # of high-impact procurement families (or contracts) with a completed ESG risk assessment and supplier screening | Deployment of ESG Risk Management |
| 5 | % of high-impact tenders/contracts with ESG requirements embedded and traceable (contracts & tenders) | Sustainable Procurement Integration in tenders/contracts |

| Roadmap wrt Vision & Strategy | | | |
|-------------------------------|---|---|---|
| | Short-Term (2026) | Medium-Term (By 2028) | Long-Term (By 2030) |
| Leadership Commitment | • Formalize Sustainable Procurement & Sustainability Framework with Vision, Mission, and the strategic vision and objectives with the Supply Management | • Launch visible leadership actions (e.g. Sustainability Award, ESG Manager in regions, external ambassadors) | • Full implementation of CERN Sustainability Policy |
| Vision & Targets | • Develop strategic objectives linked by 2026-2028 milestones with KPIs, (e.g. % contracts with ESG criteria) | • Develop 2028-2030 milestones and Scope 3 targets | • Apply sustainable procurement targets across suppliers including also sub-Tier |
| Strategic Planning | • Develop an ESG Risk analysis Framework for 1-2 key procurement families | • Assess physical, transitional climate risks and mitigation actions for the other procurement families | • Integrate climate risk scenarios and mitigation actions into CERN's scientific planning including procurement strategies (e.g. green steel, mineral emissions, ...) |
| Supplier Prioritization | • Design and execute, whenever possible, new tenders to disclose GHG footprints and CO ₂ reduction targets | • Requires top 20% suppliers (by emissions) to disclose GHG footprints and reduction targets | • Shift CERN procurement to suppliers with verified net-zero pathways whenever possible |



CERN Supplier Engagement - Survey

Scope and data collected

WHY

Identify **maturity** of suppliers on **sustainability level**
Identify to what degree suppliers are **willing to collaborate**

WHO

Sent to **+300 suppliers** from **all** procurement code families

WHAT

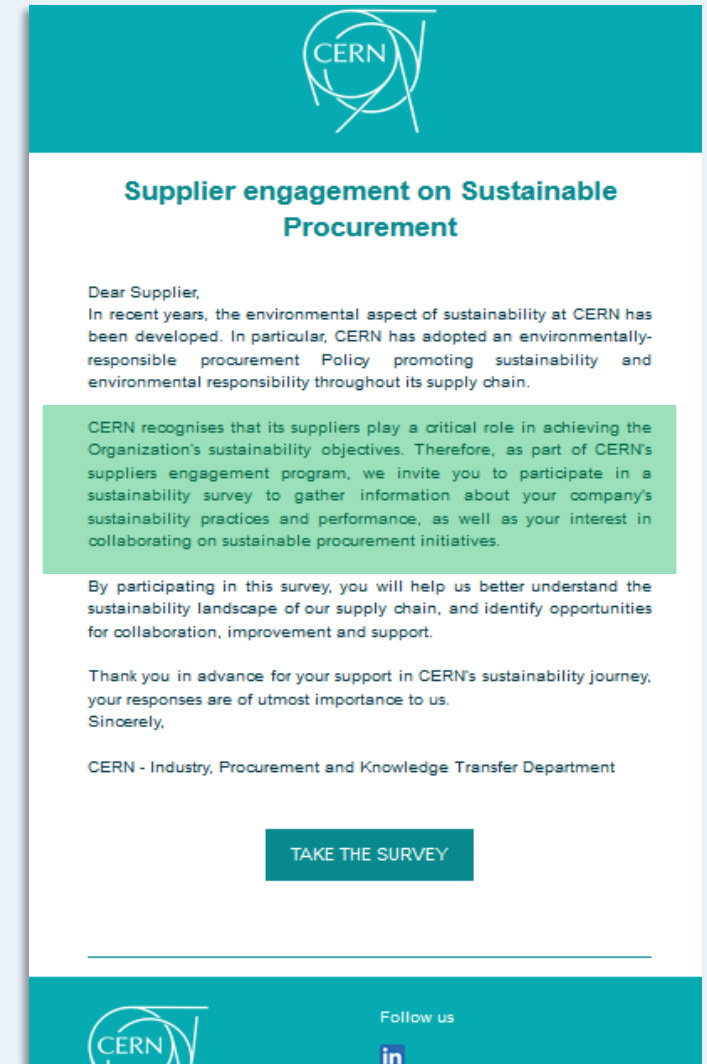
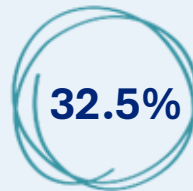
Questionnaire with **targeted** sustainability questions

HOW

Weekly automated emailing through **SpotlerMail+**

Response Rate

87 out of 267 suppliers among 9 procurement code families = **32.5%**



CERN

Supplier engagement on Sustainable Procurement

Dear Supplier,
In recent years, the environmental aspect of sustainability at CERN has been developed. In particular, CERN has adopted an environmentally-responsible procurement Policy promoting sustainability and environmental responsibility throughout its supply chain.

CERN recognises that its suppliers play a critical role in achieving the Organization's sustainability objectives. Therefore, as part of CERN's suppliers engagement program, we invite you to participate in a sustainability survey to gather information about your company's sustainability practices and performance, as well as your interest in collaborating on sustainable procurement initiatives.

By participating in this survey, you will help us better understand the sustainability landscape of our supply chain, and identify opportunities for collaboration, improvement and support.

Thank you in advance for your support in CERN's sustainability journey, your responses are of utmost importance to us.
Sincerely,












CERN - Industry, Procurement and Knowledge Transfer Department

[TAKE THE SURVEY](#)

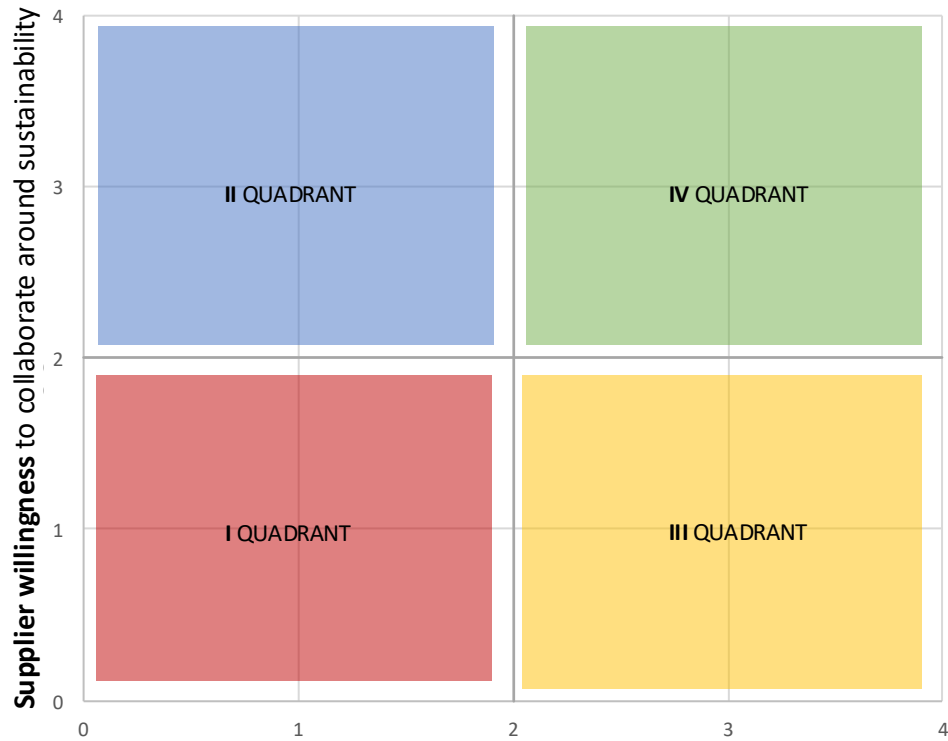
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CERN Supplier Engagement - Methodology

Questions were asked to **suppliers** to **assess** and **score** their level of:

| Sustainability Maturity | | Weight on score | Engagement Willingness | | Weight on score |
|--|---|-----------------|---|---|-----------------|
|  | Does your company currently have a sustainability/environmental policy or program in place ? | 10% |  | Would you be interested in collaborating with CERN to calculate these emissions? | 50% |
|  | Does your company hold any certifications related to environmental or sustainability practices? | 10% | | | |
|  | Does your company have initiatives in place to encourage sustainability/environmental practices across its supply chain ? | 15% |  | Would your company be open to setting targets for reducing the carbon footprint of its supplies or services provided to CERN? | 20% |
|  | Does your company measure its carbon footprint ? | 20% | | | |
|  | Does your company publish a report on its carbon footprint ? | 15% | | | |
|  | Is your firm able to provide data on CO2 emissions specifically related to services or products provided to CERN contracts? | 10% |  | Length of relationship with CERN in years | 15% |
|  | Has your company defined specific sustainability/environmental goals for the next 5 years ? | 20% |  | Yearly average contract amount in the last 3 years | 15% |

CERN Supplier Engagement - Action Plan



Maturity of the suppliers' strategy towards sustainability

- Matrix key**
- I** Supplier **not mature, nor willing** to engage
 - II** Supplier **not mature, but willing** to engage
 - III** Supplier **mature, but not willing** to engage
 - IV** Supplier **mature and willing** to engage



| Notes | Actions |
|---|---|
| <p>Supplier sustainability category: Quadrant IV - mature and willing - BUSINESS CASE MATERIAL</p> <ul style="list-style-type: none"> • Not able to provide CO2e activity-based data. At another level. • Carbon neutral business for Scope 1, 2 and element of Scope 3 → report on their CO2 emissions publicly. Offsetting. • Extremely strong compliance and due diligence processes on both the environmental and social impact. They audit, they go on site and are very selective about their mills across the globes. • Great knowledge and awareness on sustainability governance, policies and stakeholders' expectations and related risks | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> CO2e emissions/contract requested <input type="checkbox"/> Send invitation to the Supplier Workshop. <input type="checkbox"/> Send Data Request through Responsibly to update info |
| <p>Supplier sustainability category: Quadrant II - not mature, but willing</p> <ul style="list-style-type: none"> • 3 persons company. • Comply to many sustainability Norwegian regulations, especially on metal waste and energy. • Renewable energy supplied company (hydropower) • Not able to provide CO2e activity-based data. | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> CO2e emissions/contract requested <input type="checkbox"/> Send invitation to the Supplier Workshop. <input checked="" type="checkbox"/> Send training material and CO2e calculator. <input checked="" type="checkbox"/> 2024 CO2e received on 📅 15 Aug 2025 - link |



To develop **ad hoc engagement action plans** for suppliers per quadrant.

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Key takeaways

01

Why an Environmentally Responsible Procurement Policy?

- ✓ **Procurement impact:** 35% (RUN) up to 50% (LS) of CERN's annual carbon footprint is driven by procurement.
- ✓ **Prevent/mitigate** supply chain risks.
- ✓ **Stakeholder expectations:** CERN wants to align with internal sustainability objectives and global best practices (e.g. ISO 20400, GRI, SDG reporting).

02

Embedding Sustainability

- ✓ **Ideally** at the need definition and design phases.
- ✓ **Set mandatory/desirable sustainability criteria** throughout the procurement process.
- ✓ **Engage suppliers on sustainability** to learn/spread value in the Supply Chain.

03

Supplier Engagement - Who's ready and who needs help?

- ✓ **Tailor** engagement per quadrant.
- ✓ **Use** surveys, audits, training, and pilot collaboration.



04

The CERP Policy Project becomes the CERN Sustainable Procurement (CSP) Project.

- ✓ **Deployment and scaling** in all Departments.
- ✓ **Setting targets and KPIs** supported by **dashboards**.
- ✓ **Launch** new supplier engagement rounds.



Thank you!
Questions?